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Regulations

TITLE 10—ARMY: WAR DEPARTMENT

Chapter V—Military Reservations and National Cemeteries

PART 52—REGULATIONS AFFECTING MILITARY RESERVATIONS

RIGHTS WHICH CANNOT BE GRANTED WITHOUT SPECIFIC AUTHORITY

Section 52.12 (a) is rescinded as follows:

§ 52.12 *Rights which cannot be granted without specific statutory authority.* Except when specifically authorized by Congress, the Secretary of War is without authority to grant an interest in real estate of the United States for any of the following purposes:

(a) [Rescinded]. (R.S. 161, 5 U.S.C. 22 [Par. 8*a*, AR 100–62, 15 September 1942, C 2, 12 July 1943]

[SEAL] J. A. ULIO,
Major General,
The Adjutant General.

[F. R. Doc. 43–11690; Filed, July 20, 1943; 5:10 p. m.]

Chapter VII—Personnel

PART 73—APPOINTMENT OF COMMISSIONED OFFICERS, WARRANT OFFICERS, AND CHAPLAINS

FLIGHT OFFICERS

Section 73.351 (c) is amended as follows:

§ 73.351 *Flight officers.* * * *

(c) *Termination.* The officers authorized to appoint flight officers in the Army of the United States are authorized to terminate such appointments when the best interests of the service make such action desirable. Persons whose appointments as flight officers are thus terminated honorably will, if otherwise eligible and they volunteer for enlistment within 6 months after termination of appointment if 38 years of age or over, or within 15 days after termination of appointment if between the ages of 18 and 38 years, be enlisted in the enlisted grade held by them at the time of their appointment, or enlisted in such other enlisted grade as the appointing authority deems appropriate in the circumstances, regardless of physical disqualification incurred or having its inception in line of duty while on active duty, and regardless of whether a vacancy exists in the appropriate enlisted grade; and such enlistment will be without loss of seniority, and active service as a flight officer will be counted as service for all purposes. (56 Stat. 649; 10 U.S.C. 299a–299e) [Par. 7*a* and *b*, AR 610–50, 5 November 1942, as amended by C2, 12 July 1943]

[SEAL] J. A. ULIO,
Major General,
The Adjutant General.

[F. R. Doc. 43–11689; Filed, July 20, 1943; 5:10 p. m.]

TITLE 16—COMMERCIAL PRACTICES

Chapter I—Federal Trade Commission

[Docket No. 4726]

PART 3—DIGEST OF CEASE AND DESIST ORDERS

AMERICAN BUTTON MOULD MANUFACTURERS ASSOCIATION, INC., ET AL.

§ 3.27 (d) *Combining or conspiring—To enhance, maintain or unify prices.* In connection with offer, etc., in commerce, of button molds and buckle molds, and on the part of respondent American Button Mould Manufacturers Association, four individuals, officers thereof, and six member concerns, and their agents, etc., entering into, continuing, cooperating in, or carrying out any planned common course of action, agreement, understanding, combination, or conspiracy between or among any two or more of said respondents, or between any one or more of them and others not parties hereto, to (1) fix, establish, or maintain prices, discounts, or terms of sale for button and buckle molds, or adhere to or promise to adhere to the prices, discounts, or terms of sale so fixed; (2) hold meetings for the purpose of agreeing upon prices to be charged or discounts to be allowed by the mem-

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FEDERAL REGISTER

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ber respondents in the sale of their products; (3) compile or distribute price lists showing prices or discounts cooperatively fixed or determined; (4) execute or agree to execute indemnifying bonds guaranteeing or purporting to guarantee the observance by the member respondents of any agreement with respect to prices or discounts; (5) cause the books of any member respondent to be examined for the purpose of ascertaining whether such member has adhered to prices or discounts theretofore agreed upon by respondents; or (6) cooperatively reduce prices or allow discounts for the purpose of forcing competitors of the member respondents out of business or compelling such competitors to sell their business to any member respondent; prohibited. (Sec. 5, 38 Stat. 719, as amended by sec. 3, 52 Stat. 112; 15 U. S. C., sec 45b) [Cease and desist order, American Button Mould Manufacturers Association, Inc., et al., Docket 4726, July 10, 1943]

In the Matter of American Button Mould Manufacturers Association, Inc., a Membership Corporation, and Its Officers and Members, as Follows: Isidore A. Weidhorn, President; Sidney Baritz, Vice President; Harry Chalfin, Treasurer; Samuel Luloff, Secretary; Liberty Die & Button Mould Company, Inc., a Corporation; C & C Button & Trimming Company, Inc., a Corporation; Jacob Rabinowitz, Inc., a Corporation; Elias Jaffe and Solomon Jaffe, Copartners, Doing Business as Jaffe & Jaffe; Handy Button Machine Company of New York, Inc., a Corporation; and Defiance Button Machine Company, a Corporation

At a regular session of the Federal Trade Commission, held at its office in the City of Washington, D. C., on the 10th day of July, A. D. 1943.

This proceeding having been heard by the Federal Trade Commission upon the complaint of the Commission, the answer of respondents, testimony and other evidence taken before a trial examiner of the Commission theretofore duly designated by it, report of the trial examiner upon the evidence and the exceptions to such report, and briefs in support of and in opposition to the complaint (oral argument not having been requested); and the Commission having made its findings as to the facts and its conclusion that the respondents have violated the provisions of the Federal Trade Commission Act:

It is ordered, That the respondents, American Button Mould Manufacturers Association, Inc., a corporation, and its officers, Isidore A. Weidhorn, Sidney Baritz, Harry Chalfin, and Samuel Luloff, individually and as officers of said Association; Liberty Die & Button Mould Company, Inc., C & C Button & Trimming Company, Inc., Jacob Rabinowitz, Inc., Handy Button Machine Company of New York, Inc., and Defiance Button Machine Company, corporations, and their respective officers, and Elias Jaffe and Solomon Jaffe, individually and as copartners trading as Jaffe & Jaffe, or trading under any other name (hereinafter referred to as member respondents); and respondents' agents, representatives, and employees, directly or through any corporate or other device, in connection with the offering for sale, sale, and distribution of button moulds and buckle molds in commerce, as "commerce" is defined in the Federal Trade Commission Act, do forthwith cease and desist from entering into, continuing, cooperating in, or carrying out any planned common course of action, agreement, understanding, combination, or conspiracy between or among any two or more of said respondents, or between any one or more of said respondents and others not parties hereto, to do or perform any of the following acts or things:

1. Fixing, establishing, or maintaining prices, discounts, or terms of sale for button and buckle molds, or adhering to or promising to adhere to the prices, discounts, or terms of sale so fixed.

2. Holding meetings for the purpose of agreeing upon prices to be charged or discounts to be allowed by the member respondents in the sale of their products.

3. Compiling or distributing price lists showing prices or discounts cooperatively fixed or determined.

4. Executing or agreeing to execute indemnifying bonds guaranteeing or purporting to guarantee the observance by the member respondents of any agreement with respect to prices or discounts.

5. Causing the books of any member respondent to be examined for the purpose of ascertaining whether such member has adhered to prices or discounts theretofore agreed upon by respondents.

6. Cooperatively reducing prices or allowing discounts for the purpose of forcing competitors of the member respondents out of business or compelling such competitors to sell their business to any member respondent.

It is further ordered, That the respondents shall, within sixty (60) days after service upon them of this order, file with the Commission a report in writing, setting forth in detail the manner and form in which they have complied with this order.

By the Commission.

[SEAL] OTIS B. JOHNSON, *Secretary.*

[F. R. Doc. 43–11706; Filed, July 21, 1943; 11:35 a. m.]

[Docket No. 4863]

PART 3—DIGEST OF CEASE AND DESIST ORDERS

INTERNATIONAL TRUSTEES, ET AL.

§ 3.55 *Furnishing means and instrumentalities of misrepresentation or deception:* § 3.69 (a) *Misrepresenting oneself and goods—Business status, advantages or connections—Nature, in general:* § 3.72 (n 10) *Offering deceptive inducements to purchase or deal—Terms and conditions:* § 3.96 (b) *Using misleading name—Vendor—Nature, in general.* In connection with offer, etc., in commerce, of respondent Beals' envelopes, form letters, and questionnaires, or any other similar printed or written material, and on the part of said respondent Beals, his agents, etc., and among other things, as in order set forth, (1) using the words "International Trustees," or any other word or words of similar import, to designate, describe, or refer to respondent's business; or otherwise representing, directly or by implication, that respondent

acts in the capacity of a trustee; (2) using the words "Fiduciary Agents," or any other word or words of similar import, to designate, describe, or refer to respondent's business; or otherwise representing, directly or by implication, that respondent acts in the capacity of a fiduciary agent; (3) representing, directly or by implication, that the information sought through respondent's letters, questionnaires, or other material is for the purpose of determining whether the person concerning whom such information is sought is entitled to receive trust funds or any other property; or (4) using, or placing in the hands of others for use, form letters, questionnaires, or other material, which represent, directly or by implication, that respondent's business is other than that of obtaining information for use in the collection of debts, or that the information sought through such letters, questionnaires, or other material is for any purpose other than for use in the collection of debts; prohibited. (Sec. 5, 38 Stat. 719, as amended by sec. 3, 52 Stat. 112; 15 U.S.C., sec. 45b) [Cease and desist order, International Trustees, et al., Docket 4863, July 8, 1943]

§ 3.7 *Aiding, assisting and abetting unfair or unlawful act or practice:* § 3.69 (a) *Misrepresenting oneself and goods—Business status, advantages or connections—Nature, in general:* § 3.72 (n 10) *Offering deceptive inducements to purchase or deal—Terms and conditions.* In connection with the sale and distribution, in commerce, of respondent Spiegel, Inc.'s merchandise, including the collection or attempted collection of the purchase price thereof, and among other things, as in order set forth, (1) using any form letters, questionnaires, or any other printed or written material, which contain any hereinbefore prohibited representation on the part of the respondent Beals, his agents, etc., in connection with offer, etc., in commerce, of his envelopes, form letters and questionnaires, to secure my subterfuge information for use in the collection of debts; or (2) using, in connection with the collection or attempted collection of the purchase price of merchandise, any form letters, questionnaires, or any other printed or written material, which represent, directly or by implication, that the information sought through such means is for any purpose other than for use in the collection of debts; prohibited. (Sec. 5, 38 Stat. 719, as amended by sec. 3, 52 Stat. 112; 15 U.S.C., sec. 45b) [Cease and desist order, International Trustees, et al., Docket 4863, July 8, 1943]

In the Matter of Guy C. Beals, an Individual Trading Under the Name International Trustees, and Spiegel, Inc., a Corporation

At a regular session of the Federal Trade Commission, held at its office in the City of Washington, D. C., on the 8th day of July, A. D. 1943.

This proceeding having been heard by the Federal Trade Commission upon the complaint of the Commission, the answers of respondents (that of respondent Spiegel, Inc., admitting all of the material allegations of fact set forth in the complaint and waiving all intervening procedure and further hearing as to the facts), testimony and other evidence taken before a trial examiner of the Commission theretofore duly designated by it, report of the trial examiner upon the evidence, and brief in support of the complaint (no brief having been filed by respondent Beals and oral argument not having been requested); and the Commission having made its findings as to the facts and its conclusion that the respondents have violated the provisions of the Federal Trade Commission Act:

It is ordered, That respondent Guy C. Beals, individually and trading under the name International Trustees, or trading under any other name, and his agents, representatives, and employees, directly or through any corporate or other device, in connection with the offering for sale, sale, and distribution in commerce, as "commerce" is defined in the Federal Trade Commission Act, of his envelopes, form letters, and questionnaires, or any other printed or written material of a substantially similar nature, do forthwith cease and desist from:

(a) Using the words "International Trustees," or any other word or words of similar import, to designate, describe, or refer to respondent's business; or otherwise representing, directly or by implication, that respondent acts in the capacity of a trustee.

(b) Using the words "Fiduciary Agents," or any other word or words of similar import, to designate, describe, or refer to respondent's business; or otherwise representing, directly or by implication, that respondent acts in the capacity of a fiduciary agent.

(c) Representing, directly or by implication, that the information sought through respondent's letters, questionnaires, or other material is for the purpose of determining whether the person concerning whom such information is sought is entitled to receive trust funds or any other property.

(d) Using, or placing in the hands of others for use, form letters, questionnaires, or other material, which represent, directly or by implication, that respondent's business is other than that of obtaining information for use in the collection of debts, or that the information sought through such letters, questionnaires, or other material is for any purpose other than for use in the collection of debts.

2. *It is further ordered,* That respondent Spiegel, Inc., a corporation, and its officers, agents, representatives, and employees, directly or through any corporate or other device, in connection with the sale and distribution of respondent's merchandise in commerce, as "commerce" is defined in the Federal Trade Commission Act, including the collection or attempted collection of the purchase price of such merchandise, do forthwith cease and desist from:

(a) Using any form letters, questionnaires, or any other printed or written material, which contain any representation prohibited in paragraph 1 hereof.

(b) Using, in connection with the collection or attempted collection of the purchase price of merchandise, any form letters, questionnaires, or any other printed or written material, which represent, directly or by implication, that the information sought through such means is for any purpose other than for use in the collection of debts.

It is further ordered, That the respondents shall, within sixty (60) days after service upon them of this order, file with the Commission a report in writing, setting forth in detail the manner and form in which they have complied with this order.

By the Commission.

[SEAL] OTIS B. JOHNSON,
Secretary.

[F. R. Doc. 43-11707; Filed, July 21, 1943; 11:35 a. m.]

TITLE 29—LABOR

Chapter VII—War Manpower Commission

[Regulation 5, Amdt. 1]

PART 906—REGULATION GOVERNING APPEALS

EFFECT OF APPEAL ON ACTION APPEALED FROM

Pursuant to the authority vested in me as Chairman of the War Manpower Commission by Executive Orders Nos. 9139 and 9279, § 906.9 (e), (8 F.R. 6816), is hereby amended to read as follows:

(e) *Effect of appeal on action appealed from.* Whenever the War Manpower Commission issues a statement of availability to any worker or permits or requires an employer to release a worker, the appeal of the employer or worker, respectively, shall in no way stay the action as to the worker or employer satisfied with the action, but the officer to whom the appeal is taken may direct that subsequent cases involving other workers of the employer and raising identical issues be suspended pending final settlement of such issues. In all other cases the taking of an appeal shall stay the action appealed from, unless the Chairman of the Committee to whom the appeal is taken specifically directs otherwise.

(E.O. 9139 and 9279, 7 F.R. 2919, 10177)

PAUL V. MCNUTT,
Chairman,
War Manpower Commission.

JULY 19, 1943.

[F. R. Doc. 43-11692; Filed, July 21, 1943; 9:59 a. m.]

TITLE 32—NATIONAL DEFENSE

Chapter IX—War Production Board

Subchapter B—Executive Vice Chairman

AUTHORITY: Regulations in this subchapter issued under P.D. Reg. 1, as amended, 6 F.R. 6680; W.P.B. Reg. 1, 7 F.R. 561; E.O. 9024, 7 F.R. 329; E.O. 9040, 7 F.R. 527; E.O. 9125, 7 F.R. 2719; sec. 2 (a), 54 Stat. 676, as amended by 55 Stat. 236 and 56 Stat. 176.

PART 1031—MOLASSES

[General Preference Order M-54 as Amended July 21, 1943]

The fulfillment of requirements for the defense of the United States has cre-

ated a shortage in the supply of molasses for defense, for private account and for export; and the following order is deemed necessary and appropriate in the public interest and to promote the national defense:

§ 1031.1 *General Preference Order M-54* — (a) *Definitions.* For the purposes of this order:

(1) "Molasses" means any molasses, sirup, sugar solution, or any form of fermentative sugar (derived from sugar cane or sugar beets) and hydrol (corn sugar molasses). The term does not, however, include sugar as defined in Rationing Order No. 3 or sugar intended for and used for manufacture into sugar as so defined, or edible molasses as defined in Food Distribution Order No. 51. Blackstrap molasses is any final molasses produced in the manufacture of sugar from sugar cane or from the refining of raw sugar and includes all beet molasses produced in the manufacture of sugar from sugar beets. Invert molasses is any molasses made from sugar cane without extraction of sugars. For the purpose of this order one gallon of invert molasses is to be construed as one and a half gallons of blackstrap molasses and one gallon of hydrol is to be construed as one gallon of blackstrap molasses.

(2) "Producer" means any person engaged in the production of molasses and includes any person who has molasses produced for him pursuant to toll agreement.

(3) "Importer" means any person who transports molasses in any manner into the continental United States. Release from the bonded custody of the United States Bureau of Customs shall be deemed a transportation.

(4) "Primary distributor" means any person, other than an importer or a producer, who sells molasses which he has acquired (other than as broker) from an importer or a producer.

(5) "Secondary distributor" means any person, other than an importer, producer or primary distributor, who sells molasses which he has acquired (other than as broker) from some person other than an importer or producer.

(6) A person may, at the same time, be an importer, a producer, a primary distributor and a secondary distributor. His classification, in a particular case, will be determined by the source of the molasses involved; i. e., with respect to molasses imported, he will be an importer, with respect to molasses acquired from a producer, he will be a primary distributor, etc.

(7) "Broker" means any person who buys and sells molasses on a fee basis as agent either for the buyer or the seller or both.

(8) "Class 1 purchaser" means any person who requires molasses in the manufacture of any one or more of the following products:

(i) Insecticides (except as provision is made therefor in paragraphs (a) (14) and (d) (3) hereof).

(ii) Lactic acid.

(iii) Graphite paste.

(iv) Printing rollers.

(v) Dye stuffs.

(vi) Ink.

(vii) Ephedrine.

(viii) Sugar for human consumption (produced from beet molasses).

(ix) Denatured rum for flavoring.

(x) Biological and pharmaceutical products for human and veterinary uses.

and any person who requires molasses for any one or more of the following purposes:

(xi) Dust extraction.

(xii) Leather tanning.

(9) "Class 2 purchaser" means any person who requires molasses in the manufacture (including custom grinding) of mixed feeds (including molasses treated beet pulp).

(10) "Class 3 purchaser" means any person who requires molasses in the manufacture of any one or more of the following products:

(i) Yeast.

(ii) Citric acid.

(11) "Class 4 purchaser" means any person who requires molasses in the manufacture of vinegar and any person who requires molasses for foundry purposes.

(12) "Class 5 purchaser" means any person who requires molasses in the manufacture (including blending and/or packaging) of any one or more of the following products:

(i) Molasses (edible).

(ii) Sirup (edible).

(13) "Class 6 purchaser" means any person who requires molasses in the manufacture of other products for human consumption (not specified above).

(14) "Class 7 purchaser" means any person who requires molasses for sale directly (without the intervention of any other handler) to persons who require the same for ensilage direct feed or insect control.

(15) "Calendar quarter" means the several three month periods of the year commencing January 1, April 1, July 1, and October 1.

(16) "Calendar quarterly supply" means a quantity of molasses not in excess of the quantity used by a purchaser listed above during a corresponding calendar quarter in the twelve month period ended June 30, 1941. Purchasers shall determine a calendar quarterly supply with respect to each use specified in the applicable subparagraph above. Quantity shall in all cases be computed on a blackstrap molasses basis.

(17) "30 day supply" means a quantity of molasses not in excess of one-twelfth of the quantity used by a purchaser listed above during the twelve month period ended June 30, 1941. Purchasers shall determine a 30 day supply with respect to each use specified in the applicable subparagraphs above. Quantity shall in all cases be computed on a blackstrap molasses basis.

(18) "Fiscal year" means the twelve month period commencing October 1 and ending September 30.

(19) "Yearly supply" means a quantity of molasses not in excess of the quantity used by a purchaser listed above during the twelve month period ended June 30, 1941. Purchasers shall determine a yearly supply with respect to each use specified in the applicable subparagraph above. Quantity shall in all cases be computed on a blackstrap molasses basis.

(b) *Applicability of Priorities Regulation 1.* This order and all transactions affected thereby are subject to the provisions of Priorities Regulation No. 1, as amended from time to time, except to the extent that any provisions hereof may be inconsistent therewith, in which case the provisions of this order shall govern.

(c) *Restrictions on deliveries.* Anything in Priorities Regulation 1 to the contrary notwithstanding:

(1) No Class 1, 2, 3, 4, 5, 6 or 7 purchaser shall, during any calendar quarter (fiscal year in the case of a Class 3 or 5 purchaser), accept deliveries of molasses in excess of the quantity set forth below less any quantity in excess of a 30 day supply on hand on the first day of the calendar quarter (fiscal year in the case of a Class 3 or 5 purchaser) in which delivery is to be made:

(i) Class 1 purchaser—during any calendar quarter, 40% of a calendar quarterly supply if molasses is required for the manufacture of sugar for human consumption (produced from beet molasses); 100% of a calendar quarterly supply if molasses is required by such Class 1 purchaser for the manufacture of any other product.

(ii) Class 2 purchaser—during any calendar quarter, 50% of a calendar quarterly supply.

(iii) Class 3 purchaser—during a fiscal year, 120% of a yearly supply if molasses is required for the manufacture of yeast; 130% of a yearly supply if molasses is required for the manufacture of citric acid.

(iv) Class 4 purchaser—during any calendar quarter, 110% of a calendar quarterly supply.

(v) Class 5 purchaser—during a fiscal year, 100% of a yearly supply.

(vi) Class 6 purchaser—during any calendar quarter, 100% of a calendar quarterly supply.

(vii) Class 7 purchaser—during any calendar quarter, 100% of a calendar quarterly supply.

(2) Prior to delivery of molasses, within the limitations of paragraph (c) (1) hereof, the prospective deliveree, if he be a Class 1, 2, 4, 6 or 7 purchaser, shall submit to the deliveror a certificate in substantially the following form, properly filled out and manually signed by a duly authorized official:

The delivery, in the calendar quarter ended , of gallons of molasses (blackstrap molasses basis), in connection with which this certificate is furnished, will not, taking into consideration molasses received and to be received during the same calendar quarter from all sources and inventory on hand on the first day of such calendar quarter, be in excess of per cent of a calendar quarterly supply to which the undersigned, as a Class purchaser, is entitled pursuant to General Preference Order No. M-54.

amended, with the terms of which order the undersigned is familiar.
Dated:

(Name of purchaser)

By ---
(Duly authorized official)

Prior to delivery of molasses, within the limitations of paragraph (c) (1) hereof, the prospective deliveree, if he be a Class 3 or 5 purchaser, shall submit to the deliveror a certificate in substantially the following form, properly filled out and manually signed by a duly authorized official:

The delivery of gallons of molasses (blackstrap molasses basis), in connection with which this certificate is furnished, will not, taking into consideration molasses received and to be received during this fiscal year from all sources and inventory on hand on the first day of this fiscal year, be in excess of percent of a yearly supply to which the undersigned, as a Class purchaser, is entitled pursuant to General Preference Order No. M-54, amended, with the terms of which order the undersigned is familiar.
Dated:

(Name of purchaser)

By ---
(Duly authorized official)

(3) No person shall knowingly deliver molasses to any Class 1, 2, 3, 4, 5, 6 or 7 purchaser in violation of the terms of paragraphs (c) (1) and (2) hereof.

(4) Except as otherwise provided in paragraph (d) hereof, no deliveries of molasses shall be made by any producer, primary distributor, secondary distributor or importer unless the same shall have been specifically authorized by the War Production Board; and no person shall accept delivery of molasses if such delivery would be made in violation of the foregoing clause.

(5) [Revoked January 21, 1943.]

(d) *Permissive deliveries.* Subject to the provisions of Priorities Regulation No. 1, amended, (and more particularly the inventory provisions thereof) and paragraphs (f) and (g) hereof, the following deliveries of molasses shall not be subject to the provisions of paragraph (c) (4) hereof:

(1) Within the limitations of paragraphs (c) (1) and (2) hereof, deliveries to purchasers specified in paragraph (a) hereof.

(2) Deliveries to primary distributors and secondary distributors for purposes of resale. All quantities of molasses, delivery of which primary distributors and secondary distributors accept, shall be subject to allocation, re-distribution or re-delivery in accordance with specific directions which the War Production Board may from time to time hereafter issue.

(3) Deliveries by a Class 7 purchaser (of molasses to which he is entitled pursuant to paragraph (c) (1) (vii) hereof) to persons who require molasses for ensilage, direct feed or insect control.

(4) Deliveries of any one of the products specified in paragraph (a) (12) hereof which after manufacture (including blending and/or packaging) fall within the definition of molasses.

(5) Deliveries originating, completed and for use outside of the continental United States.

(6) Deliveries to an importer originating outside of the continental United States.

(e) *Restrictions on consumption.* Unless otherwise authorized by the War Production Board, no purchaser specified in paragraph (a) hereof shall, during any calendar quarter commencing with the month of January, 1942, use or consume more molasses:

(1) Than he would be permitted to receive during such calendar quarter, in the case of a Class 1, 2, 4, 6 or 7 purchaser (assuming that such purchaser had no molasses on hand on the first day of the calendar quarter).

(2) Than 110% of a calendar quarterly supply, in the case of a Class 3 purchaser.

(3) Than a calendar quarterly supply, in the case of a Class 5 purchaser.

(f) *Restrictions with respect to beverage spirits.* Except as may be otherwise provided by the War Production Board, after January 15, 1942, no person shall deliver, use, or accept delivery of molasses for the manufacture of beverage spirits.

(g) *Restrictions on export.* No molasses shall be exported by any person except upon express authorization of the War Production Board.

(h) *Intra-company transactions.* The prohibitions or restrictions contained in this order with respect to deliveries shall, in the absence of a contrary direction, apply not only to deliveries to other persons, including affiliates and subsidiaries, but also to deliveries from one branch, division or section of the same or any other enterprise owned or controlled by the same person.

(i) *Prior authorizations.* Specific mail or telegraphic authorizations heretofore issued by the War Production Board by way of relief from the provisions of this order as it existed prior to March 27, 1942, shall not be prejudiced or in any manner affected hereby.

(j) *Reports.* Reports shall be made at such times, on such forms and with respect to such matters as shall be prescribed by the Chemicals Division of the War Production Board. Importers shall notify the Chemicals Division of the War Production Board of the importation of molasses into the continental United States at least fifteen (15) days prior to movement of the same from the place of origin. The following persons shall fill out and file with the Chemicals Division of the War Production Board the forms set forth below at the times and in the manner prescribed in said forms:

Manufacturers (using molasses) of yeast, citric acid and edible sirup or molasses—Form PD-456.
Manufacturers (using molasses) of Alcohol—Form PD-457.
Producers, importers and primary distributors of molasses—Form PD-458.

(k) *Notification of customers.* Producers, distributors and importers shall, as soon as practicable, notify each of their regular customers of the requirements of this order, but the failure to give such notice shall not excuse any person from the obligation of complying with the terms of this order.

(l) *Violations or false statements.* Any person who violates this order or who wilfully falsifies any records which he is required to keep by the terms of this order, or by the War Production Board, or otherwise wilfully furnishes false information to the War Production Board may be deprived of priorities assistance or may be prohibited by the War Production Board from obtaining further deliveries of materials subject to allocation. The War Production Board may also take any other action deemed appropriate, including the making of a recommendation for prosecution under section 35 (A) of the Criminal Code (18 U.S.C. 80).

(m) *Appeals.* Any person affected by this order who considers that compliance therewith would work an exceptional and unreasonable hardship upon him, or that it would result in a degree of unemployment which would be unreasonably disproportionate compared with the amount of molasses conserved, or that compliance with this order would disrupt or impair a program of conversion from non-defense to defense work, may appeal to the War Production Board, Reference: M-54, attention Chemicals Division, setting forth the pertinent facts and the reason he considers he is entitled to relief. The War Production Board may thereupon take such action as it deems appropriate.

(n) *Exemptions.* None of the restrictions, prohibitions or requirements contained in this order shall apply to the delivery, acceptance of delivery or use of molasses outside of the continental United States.

Issued this 21st day of July 1943.

WAR PRODUCTION BOARD,
By J. JOSEPH WHELAN,
Recording Secretary.

[F. R. Doc. 43-11696; Filed, July 21, 1943; 10:59 a. m.]

PART 3154—HARDWARE SIMPLIFICATIONS

[Limitation Order L-236, Schedule I, as Amended July 21, 1943]

BUILDERS' FINISHING HARDWARE, CABINET LOCKS, AND PADLOCKS

§ 3154.2 *Schedule I to Limitation Order L-236*—(a) *Definitions.* For the purposes of this schedule:

(1) "Producer" means any person who manufactures, fabricates, assembles, melts, casts, extrudes, rolls, turns, spins, or otherwise processes builders' finishing hardware, cabinet locks and padlocks.

(2) "Builders' finishing hardware" means a device for supporting, guarding, operating, controlling, or securing various parts of any building or structure. Such part of a building or structure shall include, but is not limited to, doors, windows, transoms, scuttles, gates, partitions, and closets.

(3) "Cabinet locks and padlocks" means a lock operated by key or com-

bination (exclusive of communicating door locks) which is designed and constructed for the purpose of

(i) Guarding, controlling, securing or preventing the entrance to a building or structure or any part of a building or structure; or

(ii) Guarding, controlling, securing or preventing the opening or moving of any article, item or container used for the purpose of storage, transportation or safekeeping. Such article, item or container shall include, but is not limited to, furniture, luggage, baggage, chests, bags, lockers, cabinets or boxes.

(4) "Lend Lease government" means the government of any foreign country whose defense the President deems vital to the defense of the United States, as provided in the act of March 11, 1941 entitled "An Act to Promote the Defense of the United States" (Lend-Lease Act).

(b) *Exclusions from provisions of Schedule I to Limitation Order L–236.* (1) Any builders' finishing hardware, cabinet lock or padlock, for any use

(i) On or in any ship or vessel, or

(ii) In the operations of a railroad or street railway, other than the construction of a building, or

(iii) Other than construction, repair or maintenance of a building, when purchased by or for the account of the Army, Navy, Maritime Commission or War Shipping Administration, or

(iv) As a protection to electric power equipment; or

(2) Any prison lock, time lock, safe deposit lock or automotive lock; or

(3) Any parts manufactured for repair and maintenance of any builders' finishing hardware, cabinet locks, or padlocks shall not be subject to the limitations of this Schedule.

(c) *Simplified practices.* Pursuant to Limitation Order L–236, the sizes, types, grades, finishes and weights set forth in tables 1 through 15 of this Schedule I as amended are established for the manufacture of builders' finishing hardware, cabinet locks and padlocks except that a producer may manufacture such hardware, cabinet locks or padlocks which shall not be subject to the limitations established by this Schedule I as amended and tables attached thereto, for export under a license issued by the Board of Economic Warfare, or to fill an order of a Lend-Lease Government for builders' finishing hardware, cabinet locks or padlocks differing in size or design from those manufactured for domestic use in accordance with Table 1 through Table 15 of this Schedule I as amended, when the sizes or designs as manufactured for domestic use will not fulfill the requirements of foreign use.

(d) *Effective date of simplified practices.* On and after the first day of April 1943 no producer shall manufacture, put in process, assemble or otherwise complete any builders' finishing hardware, cabinet lock, or padlock which does not conform to the catalog number, size, grade, and type established by paragraph (c) of this schedule as amended and as set forth in the tables attached hereto, except upon approval by the War Production Board.

(e) *List of builders' finishing hardware, cabinet locks and padlocks to be manufactured subsequent to the first day of April 1943.* On or before the 20th day of March 1943 every producer shall file Form PD–754 with the Building Materials Division of the War Production Board, Washington, D. C., Ref. L–236, listing product, catalog number, size, grade, and type of builders' finishing hardware, cabinet locks and padlocks currently produced by such producer and which such producer proposes to continue in production in accordance with the limitations of this schedule to Limitation Order L–236. On and after the 1st day of April 1943 no producer shall deviate from the catalog numbers, sizes, grades, and types as listed by him, and no producer shall enter into the production of any catalog number, size, grade, and type of builders' finishing hardware, cabinet locks and padlocks not listed by him on such form unless the War Production Board shall otherwise direct.

(f) *Records covering materials, work in progress, etc.* Each producer of builders' finishing hardware, cabinet locks and padlocks shall execute and file with the War Production Board such reports and questionnaires as said Board shall from time to time require.

(g) *Relationship of other orders of the War Production Board.* Notwithstanding the provisions of Conservation Order M–9–c, builders' finishing hardware, cabinet locks and padlocks may be manufactured, assembled or completed pursuant to paragraph (c) of this schedule from fabricated parts which contain copper, copper base alloy and other metals, *Provided:*

(1) The content of metal, other than copper and copper base alloy, is equal to or exceeds 10% of the weight of the fabricated part, and

(2) Such fabricated parts were in the possession of the producer on or before the 31st day of May, 1942.

Issued this 21st day of July 1943.

WAR PRODUCTION BOARD,
By J. JOSEPH WHELAN,
Recording Secretary.

TABLE 1. BUTTS, HINGES, AND RELATED ITEMS

Numbers shown refer to designs of items only, materials and finishes permitted are as follows:

All items shall be steel, cast iron or antimonial lead except that brass may be used where permitted under the terms of Copper Order M–9–c Amended.

Where the use of brass is permitted, such brass may be finished US3 or US4, all other items shall be finished US1b, US18A, US18A unsanded, USP, US2G, US2H, lead and unfinished.

Where tips are indicated by numbers shown, such tips shall be button tips only.

Butts made to template, of designs and sizes listed, may be manufactured.

A tolerance of 1/32 of an inch greater or less than sizes set forth is permitted.

The following type numbers have been taken from Federal Specification FF–H–116b:

Type numbers permitted:		*Sizes permitted*
2212	Steel pin	8", 10", 12".
2209	Steel pin	6", 8", 10", 12".
2203	Steel pin	4", 6", 8", 10", 12".
2140	Hardened washer bearings only permitted.	12", 18", 24", 36".
2138	Hardened washer bearings only permitted.	12", 18", 24", 36".
B2080½		3", 3½", 4", 4½".
2040	Except no non-rising pin	3" x 4", 4" x 5", 4" x 6", 5" x 8", 4½" x 6", 4" x 7", 5" x 7".
2031		2" x 2", 2½" x 2½", 3" x 3", 3½" x 3½", 4" x 4", 4½" x 4½".
2029		2" x 2", 2½" x 2½", 3" x 3", 3½" x 3½", 4" x 4".
2018½		3" x 3", 2½" x 2", 2½" x 2½".
2014½	Plain steel bushing permitted when produced in brass.	2½" x 2½", 3" x 3", 3½" x 3½", 4" x 4", 4½" x 4½", 5" x 5".

The following type numbers have been taken from catalog #28 of P & F Corbin, for use as a guide; similar products of any other manufacturer will be permitted.

Type numbers permitted:	*Sizes permitted*
169	4½", 5".
162	2½" x 2½", 3" x 3", 3½" x 3½".
161½BT	2½" x 2½", 3" x 3", 3½" x 3½", 4" x 4", 4½" x 4½", 5" x 5".
160BT	2½" x 2½", 3" x 3", 3½" x 3½", 4" x 4", 4½" x 4½", 5" x 5".
152	3½" x 3½", 4" x 4", 4½" x 4½", 5" x 5".

The following type numbers have been taken from catalog #61 of Stanley Works, for use as a guide; similar products of any other manufacturer will be permitted.

Type numbers permitted:	*Sizes permitted*
1775	With 10" hinges.
1665	½" x 4", ⅝" x 5", ¾" x 6", ⅞" x 7".
1664	½" x 6", ⅝" x 8", ¾" x 10", ⅞" x 10".
1260	Each manufacturer limited to 3 sizes.
999	1½" x ⅜", 2" x ⅜", 2½" x ⅜", 2½" x ½", 3" x ½", 3" x ⅝", 3½" x ½", 3½" x ⅝", 3½" x ¾", 4" x ⅝", 4" x ¾", 4" x ⅞", 5" x ⅞", 5" x 1", 6" x ⅞", 6" x 1", 8" x 1½".
998	½" x ¾", ½" x 1", ½" x 1½", ½" x 2", ½" x 2½", ¾" x 1", ¾" x 1½", ¾" x 2", ¾" x 2½", ¾" x 3".

Type numbers permitted—Continued.	*Sizes permitted*
997	1" x ½", 1½" x ½", 2" x ⅝", 2½" x ⅝", 3" x ¾", 3½" x ¾", 4" x ⅞", 5" x 1", 6" x 1⅛", 8" x 1⅛".
996	¾" x 4½", ⅞" x 4½", 1" x 4½", 1¼" x 4½", 1½" x 4½".
995½	2½" x 2½", 3" x 3", 4" x 4", 5" x 5", 6" x 6".
995	2" x ⅝", 2½" x ⅝", 3" x ¾", 3½" x ¾", 4" x ⅞", 5" x 1", 6" x 1⅛", 8" x 1¼", 10" x 1¼", 12" x 1¼".
976	1", 1¼", 1½", 4", 5", 2", 2½", 3", 3½".
975	4", 5", 6".
972	4", 5", 6".
952	6", 8", 10", 12", 14", 16", 18", 20", 22", 24", 30", 36".
951	6", 8", 10", 12", 14", 16", 18", 20", 22", 24", 30", 36".
941	7½" through 8" (one size only).
925	3", 4".
915	2½", 3½", 4½", 6".
912	3", 4½", 6", 8".
913	3", 4½", 6", 8".
904	2", 3", 4", 6", 8".
900	2", 3", 4", 6", 8".
840 Tight pin permitted.	1" x 1", 1½" x 1⅜", 2" x 1⅜6", 2½" x 1 11⅛6", 3" x 2".
BB852	5" x 6" x ⅜".

TABLE 2. CHECKING FLOOR HINGES

Type numbers shown refer to designs of items only, materials and finishes permitted are as follows:

Materials permitted for checking floor hinges are ferrous metal and antimonial lead.

Checking floor hinges may be manufactured only for the following uses:

1. Where self-closing function is required by applicable fire regulations.
2. For exterior entrance and exit doors of public and industrial buildings.
3. Where essential in hospitals, except for patients' rooms, wards, etc.

Finishes permitted are USP, US18A, and lead finishes.

The following type numbers have been taken from Federal Specifications FF-H-121a:

Type numbers permitted:	*Sizes permitted*
US Type 3500	Size III.
US Type 3510	Size I.
US Type 3520 and A	Size II.
US Type 3520 and A	Size III.

One Type similar to "Unicheck" as manufactured by the Oscar C. Rixson Co., Catalog No. 5.

TABLE 3. CABINET HARDWARE INCLUDING CABINET HINGES

Materials permitted are ferrous metal, antimonial lead, glass, wood or plastic for all items except drawer pulls and knobs. Drawer pulls and knobs may be non-metallic only.

Finishes permitted are USP, US18a, US2G, enamel, and lead.

A tolerance of 5/32 of an inch greater or less than sizes set forth is permitted.

Cabinet Hinges

Full surface type—(applied on outside of cabinet door) to be made only for flush and ⅜" offset doors—Each manufacturer limited to three (3) designs.

Semisurface type—semi-concealed hinges to be made only for flush doors and doors with ⅜" offset—Each manufacturer limited to three (3) designs.

Half surface type—for flush doors only—Each manufacturer limited to three (3) designs.

Knobs and Pulls

Knobs—Each manufacturer limited to three (3) designs with sizes permitted from ⅞" to 1¼" inclusive.

Pulls—Each manufacturer limited to three (3) designs with sizes permitted from 2½" to 4½" inclusive.

NOTE: Knobs and pulls shall be applied by steel screw or bolt. (No metal bushing or shoulder ferrule permissible.)

Cabinet Catches

Friction catches—Each manufacturer limited to three (3) types.

Elbow catches—Each manufacturer limited to two (2) designs.

Each manufacturer shall be limited to one design of any one size of all items listed in this table 3.

TABLE 4. HYDRAULIC DOOR CLOSERS

Materials permitted for hydraulic door closers are ferrous metals and antimonial lead.

Finishes permitted are USP, or any lacquer finish.

Hydraulic door closers may be manufactured only for the following uses:

1. Where self-closing function is required by applicable fire regulations.
2. For exterior entrance and exit doors of public and industrial buildings.
3. Where essential in hospitals, except for patients' rooms, wards, etc.

Types permitted:	*Sizes permitted*
Standard surface type	C, D.
Underwriters Laboratories approved type with fusible link (one type only)	D.
Brackets; soffit, corner and extension	To fit C, D.

TABLE 5. HANGERS, TRACK AND RELATED ITEMS

Materials permitted are ferrous metals, except that zinc base die castings may be used where permitted by the Zinc Order M-11-b.

Finishes permitted are US1B, US2G, US2H, and lead.

This table shall not affect the manufacture of elevator door hardware.

Each manufacturer will be limited to the designs and quantities shown under the following sub-headings.

Reference to Richards-Wilcox means item numbers in Richards-Wilcox Catalog No. 90.

A tolerance of 5/32 of an inch greater or less than sizes set forth is permitted.

Sliding door bumper—Each manufacturer limited to one design.

Garage door holder—Each manufacturer limited to one design.

Overhead door hardware except rolling steel shutters—Sliding folding door sets using flat steel track for combinations from 2 to 6 doors. Sliding-folding door sets using formed steel track for combinations from 2 to 10 doors.

Overhead Door Hardware

One type of weight counterbalanced hardware, for each standard size of door, for one piece overhead door.

One type of spring counterbalanced hardware for each standard size of door for one piece overhead door.

One type of hardware in two sizes for sectional type overhead doors.

One or Two Section Vertical Lift Doors

Limited to one type of weight counterbalance hardware for each size of door.

Jackknife Doors

Limited to one type of weight counterbalanced hardware for each size of door.

Folding Partition Door Hardware

One type using hangers at top placed in center of door and no guide track at bottom similar to Richards-Wilcox No. 135.

One type using door supporting rollers at bottom or top and guide track at top or bottom.

One type with hangers at top placed in center of doors with special operating device, either manually or electrically controlled, similar to Richards-Wilcox No. 405.

Door Hangers Other Than Above

One type of flat steel track hinged hangers in three sizes.

One type of flat steel track rigid hangers in three sizes.

Flat steel track in three sizes as follows: 1" x 3/16", 1¼" x 3/16", 3½" x ⅜".

Trolley or formed track, rectangular or round, with removable brackets, and hangers in six (6) sizes, suitable for the following door weights:

100 lbs.
to 300 lbs.
to 600 lbs.
to 800 lbs.
to 1,200 lbs.
to 2,000 lbs.

Track for doors over 2,000 lbs.—each manufacturer limited to one design.

A storm-proof track—each manufacturer limited to one design.

Sliding Door Stay Rollers

Lag screw types, straight and bent.

One type for light doors for side attachment, similar to Richards-Wilcox No. 53.

One type for light doors for floor attachment, similar to Richards-Wilcox No. 54.

One type for heavy doors for side attachment, similar to Richards-Wilcox No. 68.

One type for heavy doors for floor attachment, similar to Richards-Wilcox No. 59, 154.

Sliding Door Guides

Single type guide for light doors, similar to Richards-Wilcox No. 372.

Double and triple type guides for parallel doors similar to Richards-Wilcox No. 172, and 173.

One type for light center parting doors similar to Richards-Wilcox No. 271.

One type for heavy center parting doors similar to Richards-Wilcox No 171.

One type used as end stop similar to Richards-Wilcox No. 572.

One type for sliding-folding doors similar to Richards-Wilcox No. 771.

Sliding Door Pulls

Extra heavy casts pulls similar to Richards-Wilcox No. 470.

Cast iron or steel pulls in two sizes, similar to Richards-Wilcox No. 70-1, 70-2.

Surface type pulls in two sizes.

Bumper Shoes

One type, similar to Richards-Wilcox 435 x 72.

Door Latches

Gravity type, reversible in two sizes with two types of keepers.

Bar type, in two sizes with two types of keepers similar to Richards-Wilcox No. 152.

Draw type latch for parallel doors similar to Allith Prouty type 396, Catalog No. 101.

Reversible flush type similar to Richards-Wilcox No. 520.

Swinging door latch similar to Lawrence Bros. type 122, Catalog No. 19.

Reversible type for light doors similar to Richards-Wilcox No. 325.

Fire Door Hardware

Single sliding door sets using Underwriters' standard hardware with flat or round track for tin clad or steel door, incline or level track.

Center parting sliding door sets using Underwriters' standard hardware with flat or round track for tin clad or steel doors incline or level track.

Verticle sliding door sets, with Underwriters' standard hardware, using flat track for tin clad or steel doors.

Single swing door sets, using Underwriters' standard hardware, for tin clad or steel doors.

Double swing door sets, using Underwriters' standard hardware, for tin clad or steel doors.

Single swing shutter sets using Underwriters' standard hardware for tin clad or steel shutters.

Double swing shutter sets, using Underwriters' standard hardware, for tin clad or steel shutter.

Trap doorsets for light trap doors, using hardware for tin clad or steel doors.

Trap door sets for heavy trap doors using hardware for tin clad or steel doors.

Heavy Industrial Hinges

Ten types similar to Richards-Wilcox 434-WA, B, C, CC, D, E, J, K, 1035, 1036. To have either disc or ball bearings.

TABLE 6. LOCKS AND DOOR TRIM

Materials permitted are ferrous metals, antimonial lead, plastic, wood, pottery or glass. Zinc base die castings and brass may be used where permitted by the Copper Order M-9-c and the Zinc Order M-11-b.

Locks furnished keyed alike shall have not more than one key per lock. Other locks shall have not more than two keys per lock. Only three master keys may be furnished with each group of locks when such locks are required to be furnished master-keyed.

Finishes permitted are US1B, US18A, US2G, and lead finishes. Where the use of brass is permitted, such brass may be finishes US3.

A tolerance of 1/32 of an inch greater or less than sizes set forth is permitted.

Each manufacturer shall be limited to the number of designs shown under each subheading.

Federal numbers shown here have been taken from Federal Specifications FF-H-106.

Cylindrical and tubular locks and latches, with comparative functions, may be substituted for mortise locks and latches described hereinafter.

Tubular and cylindrical type locksets—Each manufacturer shall be limited to sets of three roses and three designs of knobs.

Pin tumbler tubular mortise latches and dead locks—Each manufacturer shall be limited to three types; one mortise latch, one dead bolt and one mortise dead latch with auxiliary bolts.

Mortise locksets with pendant or rectangular trim—Each manufacturer shall be limited to three designs of wrought trim, except that cast trim is permitted where specified in the War Housing Manual.

Door knobs general—May be ferrous metal, glass, wood, plastic or pottery. Glass knobs shall be limited to using wrought steel shanks.

Roses general—All roses shall be of plain design approximate sizes 1¾", 2" and 2⅛".

Key plates general—Key plates shall be limited to one type, similar to Government specifications FF-H-106, type 351.

Rim knob locks and latches commercial jobbing types—Each manufacturer shall be limited to three catalogue numbers in japanned finish.

Locks general—Locks and latches shall be limited to the following descriptive numbers:

Mortise Knob Latches

1. Mortise latch.
   Case—Lacquered wrought steel or japanned iron, approximately 1 3/16" x 3¼" x ½".
   Front—Wrought steel or cast iron, approximately 2⅞" x ¾". Steel strike.
   Latch bolt—Wrought steel or cast iron, approximate throw 9/16".
   Backset—Approximately 2½".
2. Mortise latch.
   Case—Japanned iron, approximately 1⅝" x 3¼" x 9/16".
   Front—Approximately 3⅜" x ⅞". Strike ferrous metal.
   Bolt—Approximate throw 13/32".
   Backset—Approximately 2½".

Mortise Bit Key Knob Locks

1. Mortise locks similar to FF-H-106 Type 4 modified.
   Case—Japanned iron, approximately 3⅝" x 3⅛" x ½".
   Bolts—Approximate throw Latch ⅜" bolt 7/16".
   Tumbler—1.
   Backset—Approximately 2½".
   Front—5¼" x ⅞". Steel strike.
2. Mortise locks, similar to FF-H-106, type 4a.
   Case—Japanned iron, approximately 3¾" x 3¼" x ⅝".
   Front—5½" x ⅞", strike ferrous metal.
   Bolts—Minimum throw latch 7/16" bolt 7/16".
   Tumbler—3.
   Backset—Approximately 2½".
   Construction—Double compression easy spring.
3. Mortise lock, similar to FF-H-106, type 7.
   Case—Japanned iron, approximately 4¼" x 3⅜" x ⅝".
   Front—Approximately 6" x 1", strike ferrous metal.
   Bolts—Minimum throw latch ⅜" bolt 7/16".
   Tumblers—3.
   Backset—Approximately 2¾".
   Construction—Double compression easy spring.

Mortise Vestibule Locks

1. Cylinder key type, similar to FF-H-106 type 91.
   Case—Japanned iron approximately 4¾" x 3⅝" x ¾".
   Front—Approximately 7" x 1 1/16". Strike ferrous metal.
   Bolt—Approximate throw latch ½" bolt ½".
   Backset—Approximately 2½".
   Construction—Double compression easy spring.
   Operation—Outside by key. Both sides by knobs. Outside knob is set by stops in face. One cylinder.

Office Door Locks

1. Cylinder type, similar to FF-H-106 Type 97. Case—Japanned iron approximately 5" x 3⅞" x ¾".
   Front—Approximately 7½" x 1 1/16". Strike ferrous metal.
   Bolts—Approximate throw ½".
   Backset—Approximately 2¾".
   Construction—Double compression easy spring. 1 cylinder, auxiliary latch bolt.
1. Cylinder type, similar to FF-H-106 Type 97—Continued.
   Operation—Outside by key-both sides by knobs. Outside knob is set by stops in face.

Mortise Dead Locks

1. Bit key type, similar to FF-H-106 type 38A.
   Case—Japanned iron approximately 2⅛" x 3¼" x 9/16".
   Front—Approximately 3⅞" x 1". Strike ferrous metal.
   Bolt—Approximate throw 7/16".
   Backset—Approximately 2¾".
   Tumblers—3.
   Operation—Bit key both sides.
2. Cylinder type, similar to FF-H-106 type 114 x No turn.
   Case—Japanned iron approximately 2½" x 3½" x 13/16".
   Front—Approximately 4¼" x 1 1/16". Strike ferrous metal.
   Bolt—Approximate throw ½".
   Backset—Approximately 2¾".
   Operation—Cylinder 1 side only. No turn knob.
3. Cylinder type, similar to FF-H-106 type 114.
   Case—Japanned iron approximately 2½" x 3½" x 13/16".
   Front—Approximately 4¼" x 1 1/16". Strike ferrous metal.
   Bolt—Approximate throw ½".
   Backset—Approximately 2¾".
   Operation—Cylinder 1 side, turn knob 1 side.
4. Cylinder type, similar to FF-H-106 type 115.
   Case—Japanned iron, approximately 2½" x 3½" x 13/16".
   Front—Approximately 4¼" x 1 1/16". Strike ferrous metal.
   Bolt—Approximate throw ½".
   Backset—Approximately 2¾".
   Operation—Cylinders both sides.

Mortise Bath Room Locks

1. Bath room lock. 17A modified.
   Case—Japanned iron approximately 3½" x 3⅛" x 9/16".
   Front—Steel, approximately 5¼" x ⅞". Strike steel.
   Bolts—Iron; approximate throw latch 7/16", bolt ½".
   Backset—Approximately 2⅜".
   Construction—Free action latch bolt.
   Operation—Latch bolt by knobs either side. Dead bolt by turn knob from inside only. Emergency key.

Mortise Asylum Locks

1. The limited number of asylum locks may be retained as shown in manufacturers' catalogues with only those restrictions or limitations imposed by other orders.

Mortise Bit Key Front Door Locks

1. Bit key front door locks.
   Case—Japanned iron, approximately 4⅝" x 3⅜" x 1 1/16".
   Front—Wrought steel, approximately 7" x 1". Strike steel.
   Bolts—Cast iron, approximate throw, latch 12/32", bolt 7/16".
   Backset—Approximately 2½".
   Tumbler—1.
   Construction—Easy spring on latch, firm on knob.
   Operation—Latch bolt by key outside all times, by knob from either side, except when outside knob is set by stops in face.

Mortise Locks Fire Door Bearing Underwriters Labels

1. The limited number of locks normally required for fire doors bearing Underwriters labels may be retained in manufacturers' catalogues with only those restrictions or limitations imposed by other orders.

Mortise Cylinder Front Door Locks

1. Cylinder front door locks, similar to FF–H–106 type 88.
   Case—Japanned iron, approximately 5½" x 3⅝" x 3¾".
   Front—Approximately 7½" x 1". Strike ferrous metal.
   Bolt—Approximate throw latch 7/16", bolt ½".
   Backset—Approximately 2½".
   Construction—Double compression easy spring.
   Operation—Latch bolt by key from outside at all times, and by knobs either side, except when outside knob is set by stops in face. Dead bolts by key from outside and turn knob inside.

Mortise Cylinder Front Door Lock—Type 93, Same as Type 88

Operation—Latch bolt by knob either side; dead bolt by key from outside and turn knob from inside.

Mortise School House Locks

1. Bit key type.
   Case—Japanned iron, approximately 5⅜" x 3⅞" x ¾."
   Front—Approximately 7½" x 1 1/16", Strike ferrous metal.
   Bolt—Approximate throw ½".
   Backset—Approximately 2¾".
   Tumbler—3.
   Construction—Easy spring compression type on latch, auxiliary latch to lock to latch bolt to prevent its being forced back when door is closed.
   Operation—Latch bolt by knobs from either side, outside knob is locked or released by key from either side, inside knob operative at all times.
2. Cylinder type school house lock.
   Case—Japanned iron, approximately 5" x 3⅞" x ¾".
   Front—Approximately 7½" x 1 1/16", Strike ferrous metal.
   Bolt—Approximate throw ½".
   Backset—Approximately 2¾".
   Construction—Double compression easy spring, auxiliary latch to lock to latch bolt to prevent its being forced back when door is closed.
   Operation—Latch bolt by knobs from either side, outside knob is locked or released by key from either side, inside knob operative at all times.

Rim Knob Latches

1. Rim knob latch, cast iron case, box strike, similar to FF–H–106, Type 80.
   Case—Japanned iron, approximately 2¾" x 3¾" x 5/8".
   Backset—Approximately 2¾".
   Bolt—Cast iron approximate throw ⅜".
   Operation—By knobs both sides.
2. Rim knob latch with slide bolt.
   Case—Japanned iron, approximately 2¾" x 3½" x 5/8".
   Backset—Approximately 2¾".
   Bolt—Cast iron approximate throw latch ⅜" bolt ⅜".
   Operation—By knob both sides.

TABLE 7. MISC. SASH, SCREEN, AND SHELF HARDWARE

Materials permitted are ferrous metals or antimonial lead only except that zinc base die castings may be used where permitted by the Zinc Order M–11–b.

A tolerance of 5/32 of an inch greater or less than sizes set forth is permitted.

Finishes permitted are US1B, US18A, US2G, US18a unsanded, and lead.

NOTE: Federal numbers shown have been taken from Federal Specificati on FF–H–111.

Item-description	Similar to—		Sizes
	Fed. No.	Mfr.'s No.	
DOUBLE HUNG WINDOW HARDWARE			
Window spring bolt	A1060		3¼".
Friction sliding springs similar in operation to "Jiffy", "Noiseless", etc.			
Sash fasteners, cast, or wrgt	1139A		2½", 2¾".
Hook sash lifts, cast, or wrgt	1201A		
Stop scs. & washers FH scs	1344		1 x 8".
Sash pole hook, cast	1264A		3".
Sash pole, wood			6'.
Sash socket		Ives 1800S	(Catalog #17)
Sashcord saddle—non-metallic			
Sash weights—(only from burnt cast, iron, such as stove plate, grate bars, annealing pots, terne plate, slag iron, city dump scrap except tin can scrap, tin can scrap if permission is granted by the Administrators of M–72A)			
TRANSOM HARDWARE			
Transom catch, cast or wrgt	1097A		1¼ x 2".
Transom chains, steel chain minimum tensil strength 300 lbs	1120A		12"–15".
Rabbeted transom sash centers		Sargent 1¾, J–71, 1¾, 2¼" (Catalog #42)	
Sash centers, cast		Corbin 1303, 1304 (Catalog #18)	
DOOR PULLS			
Push plates-non-metallic	463		14 x 3½ or smaller.
Hospital arm pull		Sargent 1526 (Catalog #42)	
Door pulls, cast or wrgt	1269		
Door pulls, cast or wrgt	1274		
Door pulls, wrgt	1276A		
BOLTS			
Barrel bolts—cast or wrgt	1019'3		2, 2½"–3–4–5".
Chain bolts round or square cast or wrgt	1022B		3–6–8–10".
Foot bolts, round or square cast or wrgt	1049A & B		3–6–8–10".
Extension bolts, wrought or cast	B1044B		
Cane bolts, cast or wrgt	1051A		12", 18", 24".
Mortise bolt	1053A	Champion 1¾" 3710 Backset (Catalog #18).	
Square bolt cast or wrgt	1059		6", 8".
Surface bolts cast or wrgt	1060A		⅜ x 3", 4"–6".
Cane bolts			¾" x 20", 1" x 30".
Bolts cremone (not permitted for residential or private garage use).	A1028		
MISCELLANEOUS			
Hooks and eyes	1601C		1½–2–2–½–3–4".
Door buttons, cast or wrgt	1069		1¾".
Door fasteners with chain, cast or wrgt	1118A		4".
Thumb latch	1189A		
House numbers, non-metallic			3".
Shutter fasteners		Lawrence 5" 138, (Catalog #19)	
Padlock eyes	1430		1 and 2.
Cellar window catch	B–1137A		
Handrail bracket	1064A		
Door stops, non-metallic			
SCREEN DOOR HARDWARE			
Screen latch, cast or wrgt. Limited to one type in one size for each manufacturer.			
Perfection spring, Nos. 2 to 6 inclusive, with double wire loop ends.			
Screen door hinges (full or half surface). Each manufacturer limited to one size of each design permitted.		Bommer 2100, 960 (Catalog #63.)	
Coil springs		Stanley 1751 (Catalog #61.) Bommer 2400 (Catalog #63) 9", 11", 13".	
Pneumatic door checks	3015	(For hospital use only).	
SCREEN WINDOW AND STORM SASH HARDWARE			
Hangers in pairs with screws, wrgt	1825		
Hangers in pairs with screws, wrgt	1825B		
Hangers in pairs with screws, wrgt	1830		
Hangers in pairs with screws, wrgt., set		Stanley 1732 (Catalog #61.)	
Screen lift	A1223A		
Storm and screen adjuster and fastener	1650	Lawrence 1149 (Catalog #19.)	
Storm sash fasteners, set consisting of one pair of fasteners and one pull.		Stanley 1727 (Catalog #61.)	
CASEMENT WINDOW HARDWARE			
Adjuster; rod & thumb nut, cast or wrgt	1002A	10–12".	
Friction stay		Payson 39 (Catalog #39).	
Casement fastener, cast or wrgt		Yale 1067 (Catalog #28).	
Casement fastener, cast or wrgt		Ives 06600 (Catalog #17).	
Casement operator		Ives 17136 (Catalog #17).	
Pivot which consists of sill plate, sash plate, and sliding shoe			
Hardware for industrial type wood sash		Not to exceed 2½ lbs. per vent.	

TABLE 8. NIGHT LATCHES AND DEADLOCKS

Materials permitted are ferrous metal or antimonial lead except that brass may be used where permitted under the Copper Order M–9–c as Amended, and zinc where permitted under Zinc Order M–11–B.

All flat strikes shall be eliminated except when ordered separately.

Locks furnished keyed alike shall have not more than one key per lock. Other locks shall have not more than two keys per lock. Only three master keys may be furnished with each group of locks when such locks are required to be furnished master-keyed.

All metallic finishes shall be eliminated.

The manufacture of the following types shall be permitted.

A tolerance of 5/32 of an inch greater or less than sizes set forth will be permitted.

One catalog number narrow backset, disc tumbler, separate cylinder, rim night latch, in black finish, with rim strike only.

One catalog number narrow backset, pin tumbler cylinder, rim night latch, square and bevel bolt in black finish, similar to Government Type 134, with rim strike only.

Two catalog numbers standard 2⅜" backset, pin tumbler cylinder, rim night latch, with iron bolt, in black finish, with rim stike only.

One catalog number standard 2⅜" backset, square bolt type pin tumbler, cylinder rim deadlock, approximate size 2⅜", 1 3/16", 3⅝", in black finish, with rim strike only.

One catalog number jimmy-resisting deadlocks without chain attachment, with rim strike only.

One catalog number jimmy-resisting deadlocks with double cylinders, with rim strike only.

TABLE 9. SPRING HINGES

Numbers shown refer to designs of items only, materials and finishes permitted are as follows:

All items shall be ferrous metal or antimonial lead except that the use of brass will be permitted in the manufacture of those hinges permitted under the terms of Copper Order M–9–c Amended.

Where the use of brass is permitted, such brass may be finished US3 or US4, all other items shall be finished US1B, US18A unsanded, USP, US2G, and lead.

A tolerance of 5/32 of an inch greater or less than sizes set forth is permitted.

The following type numbers have been taken from Catalog #63 of Bommer Spring Hinge Company for use as a guide, similar products of any other manufacturer will be permitted.

Single and double acting hinges may be manufactured only for the following uses:

1. Army, Navy and Maritime Commission.
2. Industrial and commercial.
3. Multi-family dwellings, where required by local fire regulations.

Spring Hinges

Type numbers permitted		Description
Federal Type No.	Bommer numbers Catalog #63	
2330–A	479 to 498	Double acting spring hinges, hanging strip required, sizes 3" 4" 6" 7" 8" 10".
	3029 to 3045	Double acting spring hinges, no hanging strip required, sizes 3" 4" 6" 7" 8" 10".
2331–A	451—459, 463—467	Single acting spring hinges, hanging strip required, sizes 4" 6" 7" 8".
	3051—3059, 3063—3067	Single acting spring hinges, no hanging strip required, sizes 4" 6" 7" 8".
	10042 to 10048	With one clamp flange, hanging strip required, double action furnished in 8" 10" & 12"
2334	15 (not permitted for residential use)	Floor surface spring hinge horizontal type, furnished in steel only for doors 1½" to 2¾" thick as required.
	24 (not permitted for residential use)	Vertical spring pivot floor hinge—release type.

TABLE 10. LAVATORY DOOR HARDWARE

Numbers shown refer to designs of items only, materials and finishes permitted are as follows:

All items shall be ferrous metal or antimonial lead except that the use of brass will be permitted in the manufacture of those items permitted under the terms of Copper Order M–9–c Amended.

Where the use of brass is permitted, such brass may be finished US3 or US4, all other items shall be finished US1B, US18A unsanded, USP, US2G, and lead.

The following type numbers have been taken from catalog #63 of Bommer Spring Hinge Company for use as a guide, similar products of any other manufacturer will be permitted.

Type numbers permitted		Description
Federal Type No.	Bommer numbers	
4200	1334	Gravity pivot, diameter of housing not less than 1¾".
	1330	Lavatory gravity pivots, diameter of housing not less than 1¾" suitable attachments will be supplied as specified, depending on construction of partition.
	0—1053—1055—1057, 1056–1073	Strikes.
	5000	Throw latch, bar not less than 4" with strike and keeper for hanging stile.
4309	5009	Rim bolt latch.

Lavatory Stall Fittings

1130	1147—1¼" only.	1158	1139	1155	1170
1131	1150	1159	1142	1156	1171
1132	1151	1160	1143	1172	1173
1137	1152	1161	1116		
1138	1153	1163			

TABLE 11. PANIC BOLTS

Materials permitted are ferrous metals or antimonial lead except that the use of brass or zinc base die casting will be permitted for any uses permitted by Copper Order M-9-c or Zinc Order M-11-b.

Locks furnished keyed alike shall have not more than one key per lock. Other locks shall have not more than two keys per lock. Only three master keys may be furnished with each group of locks when such locks are required to be furnished master-keyed.

Finishes permitted are US1B, US18A and lead.

Each manufacturer shall be limited to three designs in trim.

Panic or exit bolts shall be limited to the following descriptive numbers.

Bar Release Type

(A) Rim lock.
(B) Mortise lock.
(C) Automatic exit fixture with top and bottom bolt latch, or gravity type.

Entrance doors may be equipped with knob and escutcheon or grip and thumbpiece.

Auxiliary latch permitted.

Bar lock permitted.

The cross bar shall be of the single bar type.

TABLE 12. SASH BALANCES

Sash balances shall be of single coiled spring (clock spring) type with suspension tape, or twin coiled spring "flat" type with suspension cables, or single helical-spring "vertical" type with or without tubular housing. Springs may be high-carbon steel uniformly tempered. The single coiled-spring type must have pressed steel or cast iron case and front for mounting in mortise in the window frame. The twin coiled-spring type must have pressed steel case for mounting flatwise in the cutout in the window frame.

Materials permitted are ferrous metals only, except that zinc may be used where permitted by Zinc Order M-11-B. Finishes permitted are US2G, US2H, USP lead and lacquer.

Coiled spring type balances may be made in two types:

(a) Using suspension tape.
(b) Using wire cable.

They may be made in adjustable or non-adjustable types.

Coiled spring and vertical type sash balances may be made as stock items in the following weight capacities:

4 to 26 lbs.
26 to 58 lbs.
58 to 80 lbs.
80 to 110 lbs.

TABLE 13. CABINET LOCKS

Materials permitted for cabinet locks are ferrous metal or antimonial lead only, except that zinc base die casting or brass may be used for cylinder assemblies of pin tumbler and disc tumbler locks and for the tubes, centers and levers of secure lever locks. Keys for pin and disc tumbler locks may be of brass.

Locks furnished keyed alike shall have not more than one key per lock. Other locks shall have not more than two keys per lock. Only three master keys may be furnished with each group of locks when such locks are required to be furnished master-keyed.

Finishes permitted are US1B, US18A, US2G and lead. Where the use of brass is permitted, such brass may be finished US3.

Flat keyed, secure lever chest locks—Each manufacturer limited to two (2) designs, approximate sizes 1½" x 2" for ¾" wood; 1¾" x 2½" for ⅞" wood.

Double link, warded, barrel key, chest locks—Each manufacturer limited to one (1) design, approximate size 2½" x 1$^{9}/_{16}$".

Pin tumbler, small cylinder, half mortise drawers and/or cupboard locks—Each manufacturer limited to one design with deadbolt approximately 2" x 1$^{9}/_{16}$".

Disc tumbler, dead bolt, surface type drawer and/or cupboard locks—Each manufacturer limited to one design only.

Disc tumbler, dead bolt, half mortise drawer and/or cupboard locks—Each manufacturer limited to one design only.

Flat key, secure lever, half mortise, dead bolt drawer locks—Each manufacturer limited to one (1) design, approximate size 1¾" x 1$^{7}/_{16}$".

Flat key, secure lever, surface type drawer locks—Each manufacturer limited to two (2) designs, approximate sizes 1¾" x 1⅜"; 1¾" x 1¼".

Half mortise, warded, barrel key drawer locks—Each manufacturer limited to one (1) design, approximate size 2½" x 1¾".

Pin tumbler, surface type, locker and wardrobe locks—Each manufacturer limited to one design, approximate size 1⅝" x 1¼" with a ⅞" or 1⅛" cylinder.

Flat key, secure lever, surface type, locker and wardrobe locks—Each manufacturer limited to four (4) designs, approximate sizes 1⅞" x ⅞"; 2" x 1¾"; 2¾" x 1¼"; 2⅝" x 1¾".

Barrel key, warded, surface type, locker and wardrobe locks—Each manufacturer limited to two (2) designs, approximate sizes 2½" x 1¼"; 3" x 1¾".

The manufacturer shall make only one design of a size.

TABLE 14. PADLOCKS

Materials permitted are steel, cast iron, antimonial lead malleable iron, brass, or zinc. The use of brass will be permitted only for cylinder assemblies and keys (not including cases) and levers for lever tumbler and disc tumbler locks. The use of zinc will be permitted for cylinder assemblies and keys (including cases) and levers for lever tumbler and disc tumbler locks.

Locks for use by the Army, Navy and Maritime Commission may have zinc base die cast cases whether case is part of cylinder assembly or not.

Locks furnished keyed alike shall have not more than one key per lock. Other locks shall have not more than two keys per lock. Only three master keys may be furnished with each group of locks when such locks are required to be furnished master-keyed.

A tolerance of $^{5}/_{32}$ of an inch greater or less than sizes set forth shall be permitted.

Each manufacturer shall make only one design of a size.

Finishes permitted are US18A, US2G, and lacquer finish.

Pin tumbler padlocks—Four sizes, 1⅛" to 2".

Warded or ward lever padlocks—Three sizes, 1" to 1¾".

Spring or bolt spring padlocks—Four sizes, ⅝" to 2".

Disc tumbler padlocks—Three sizes, 1" to 1¾".

Ratchet shackle padlock—Limited to one size for each manufacturer.

Combination padlocks—Limited to one size for each manufacturer.

Secure lever padlocks—Limited to one size for each manufacturer.

Special shackles may be furnished on order.

Chains may be supplied on order.

TABLE 15. DOOR HOLDING DEVICES

Materials permitted are ferrous metals and antimonial lead only except that zinc base die castings and brass may be used where permitted by the Copper Order M-9-c and the Zinc Order M-11-b.

Finishes permitted are USP, US18A, US1D and lead.

The following type numbers have been taken from the catalog of Glynn-Johnson Co., for use as a guide; similar products of any other manufacturer will be permitted.

G-J 320 Friction door holder—not exceeding 1¾ lbs. average weight (in sizes required for various size doors in hospitals only).

The following items may be manufactured only for uses in schools, hospitals and industrial buildings.

G-J 70 Door holder—not exceeding 2¼ lbs. average wgt.

G-J 40 Door holder—not exceeding 22 oz. in weight (with strikes suitable for floor or head installation).

[F. R. Doc. 43-11695; Filed, July 21, 1943; 10:59 a. m.]

PART 3270—CONTAINERS

[Conservation Order M-221, as Amended July 17, 1943]

TEXTILE BAGS

Correction

In the document appearing on page 9965 of the issue for Tuesday, July 20, 1943, the heading of § 3270.23 (m) (1) should read "(1) *Seasonal re-use.*"

The reference to the form in § 3270.23 (w) should be Form WPB-2907 (PD-188-c).

Chapter XI—Office of Price Administration

PART 1301—MACHINE TOOLS

[MPR 1]

SECOND-HAND MACHINE TOOLS

Revised Price Schedule 1[1] is redesignated Maximum Price Regulation 1 and is revised and amended to read as set forth herein:

In the judgment of the Price Administrator the maximum prices established by this regulation are and will be generally fair and equitable and will effectuate the purposes of the Emergency Price Control Act of 1942 as amended. A statement of the considerations involved in the issuance of this regulation has been issued simultaneously herewith and filed with the Division of the Federal Register.

§ 1301.1 *Maximum prices for second-hand machine tools and extras.* Under the authority vested in the Price Administrator by the Emergency Price Control Act of 1942, as amended, and Executive Order No. 9250, Maximum Price Regulation 1 (Second-Hand Machine Tools), which is annexed hereto and made a part hereof, is hereby issued.

AUTHORITY: § 1301.1 issued under Pub. Laws 421 and 729, 77th Cong.; E.O. 9250, 7 F.R. 7871; E.O. 9328, 8 F.R. 4681.

MAXIMUM PRICE REGULATION 1—SECOND-HAND MACHINE TOOLS

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Appendix B.

SECTION 1. *Commodities and transactions covered by this regulation*—(a) *Transactions covered.* This regulation establishes maximum prices for all sales of second-hand machine tools and second-hand extras, and all rentals and leases of second-hand machine tools and extras by all persons. (For maximum prices for sales and rentals of new machine tools and extras, see Revised Price Schedule No. 67[2]—New Machine Tools.)

(b) *Definitions of second-hand machine tools and extras for the purposes of this regulation.* A "second-hand machine tool" is a machine tool which has been used. The term "machine tool" means all machines (except portable machine tools) for the cutting (except heat cutting), abrading, shaping, forming, straightening and forcing of metals. A "second-hand extra" means any used attachment for a machine tool which is standard supplementary equipment normally furnished by the manufacturer at additional cost to his price of the machine tool, any used attachment for a machine tool manufactured by a person other than the manufacturer of the machine tool to which it is to be attached, and all used attachments sold separately as replacements.

SEC. 2. *Prohibitions.* (a) On and after July 26, 1943, regardless of any contract or other obligation:

(1) No person shall sell, offer or agree to sell, negotiate the sale of, transfer, or deliver, and no person shall buy, offer or agree to buy, or accept transfer or delivery of, any second-hand machine tool or extra at a price higher than the maximum price established by this regulation.

(2) No person shall lease or rent or offer or agree to lease or rent any second-hand machine tool or extra at a rental price higher than the maximum rental price established by this regulation, and no person shall pay or receive a rental price for any second-hand machine tool or extra higher than the maximum rental price established by this regulation. However, nothing in this regulation shall require the reduction of the rental price specified in any lease or rental of second-hand machine tools or extras entered into before the effective date of this regulation at or below prices established by Maximum Price Regulation No. 136, as amended.

SEC. 3. *Maximum prices for sales*—(a) *Method of calculation.* Maximum prices for second-hand machine tools and second-hand extras f. o. b. wherever located, shall be the percentages set forth below of the March 1, 1941, price of the nearest equivalent new machine tool or extra having a price in effect on that date; except that prices arrived at by this computation may be adjusted upward to the nearest dollar. Attachments which are standard equipment normally furnished by the manufacturer at no additional cost above the price of the machine tool shall be considered part of the machine tool for the purpose of determining maximum prices and all such attachments must be included in order for the machine tool to be considered as rebuilt and guaranteed. Any attachments sold separately as replacements or in addition to equipment normally furnished at no additional cost, or manufactured by a person other than the manufacturer of the machine tool to which it is to be attached, shall be considered as extras. If an extra is sold separately, its age classification is determined by the date of its manufacture. If an extra is sold with a second-hand machine tool, the age classification of the extra is determined by the date of the manufacture of the machine tool with which it is sold.

CLASSIFICATION: *Age and condition*

Date of manufacture	1 Jan. 1 1936, and after	2 Jan. 1 1930, to Dec. 31, 1935	3 Jan. 1 1920, to Dec. 31, 1929	4 Before Jan. 1, 1920
Rebuilt and guaranteed	*Percent* 95	*Percent* 90	*Percent* 80	*Percent* 70
Other condition	70	65	55	45

(b) *Determination of date of manufacture.* The date of manufacture can be determined from the serial number stamped on the machine by the manufacturer. Where the manufacturer's serial number and year of manufacture are not known to the seller or lessor the machine tool shall, for all purposes under this regulation, be deemed to have been manufactured prior to January 1, 1920. In all cases where the serial number is not known, and the seller or lessor contends that the machine tool was manufactured after January 1, 1920, all of the evidence upon which such contention is based must be submitted with the first report on such machine tool required by this regulation.

(c) *Meaning of the term "rebuilt and guaranteed".* A rebuilt machine tool is one in which worn or missing parts have been replaced or reworked, and which has been tested under power so as to prove that it has a substantially equivalent performance to that of the machine when new. The term "rebuilt and guaranteed" applies only to a machine tool which (1) has been rebuilt or is in equivalent condition to a rebuilt machine tool and is invoiced as such; (2) has been inspected, and tested under power so as to prove that it has a substantially equivalent performance to that of the machine when new; (3) carries a binding written guaranty of satisfactory performance for a period of not less than thirty days from date of shipment; *and* (4) is expressly invoiced as a rebuilt machine tool or its equivalent and as having been guaranteed for satisfactory operation for thirty days. In the event of a sale by a government agency, such agency may substitute for the warranty, the invoicing and the guaranty of satisfactory operation, a written certificate by a qualified person who is not engaged in the business of selling second-hand machine tools and who is approved by the purchaser, to the effect that (1) he has inspected the second-hand machine tool, that (2) all worn or missing parts have been replaced or reworked, and that (3) the second-hand machine tool has been tested under power so as to prove that it has a substantially equivalent performance to that of the machine when new.

(d) *Determination of the nearest equivalent new machine tool and its March 1, 1941, price.* (1) Where for any second-hand machine tool an equivalent machine tool is named in "Prices of New Machine Tools as of March 1, 1941, Revised", set forth in Appendix A, that machine tool shall be considered the nearest equivalent new machine tool for all purposes under this regulation.

(2) Where for any machine tool a specific base price or a method of computing a specific base price is established in "Prices of New Machine Tools as of March 1, 1941, Revised", set forth in Appendix A, such base prices are to be deemed the March 1, 1941, price of the nearest equivalent new machine tool for all purposes under this regulation.

(3) Where a second-hand machine tool was first manufactured after March 1, 1941, and where a machine tool of new design is used as an equivalent and such machine tool was first manufactured after March 1, 1941, and did not have a price in effect on that date, the price of

[1] 7 F.R. 1202, 2132, 8996, 8948, 10618; 8 F.R. 4129.

[2] 7 F.R. 1337, 1836, 2105, 2000, 2472, 2473, 2680, 2996, 3445, 3820, 4176, 5513, 5987, 6385, 7239, 7834, 8928, 9039, 9052, 9053, 11074, 8948.

the first such machine tool manufactured shall be deemed to be the March 1, 1941, price of such machine tool for all purposes under this regulation.

(4) All prices stated in "Prices of New Machine Tools as of March 1, 1941, Revised", set forth in Appendix A are to be deemed prices in effect on March 1, 1941, for the machine tools, attachments, and extras opposite which they are set for all purposes under this regulation. All other data set forth in Appendix A is to be deemed correct for all purposes under this regulation.

(5) Where a geared head machine tool is used as an equivalent to a second-hand machine tool which is not a geared head machine tool, as defined in this regulation, the price of the equivalent new machine tool is determined by deducting 20% from the March 1, 1941, price of the new geared head machine tool.

(e) *Maximum prices for sales of part ownership of second-hand machine tools and extras.* The maximum price for a part ownership in a second-hand machine tool or second-hand extra shall be determined by multiplying the maximum price of the machine tool or extra by the percentage of the seller's ownership.

(f) *Dismantling and loading charges.* Maximum prices established by this regulation are for machine tools and extras f. o. b. wherever located. In the event the buyer elects to dismantle and load such machine tool, then the selling price plus the cost of dismantling and loading, not in excess of any maximum price established for such service, shall not exceed the maximum price established by this regulation.

(g) *Special packing charges.* If the buyer has required packing to his specifications, and such specifications involve an increase in cost over the cost of the packing normally furnished at no increase in price, the difference between the cost of the direct labor and materials used in such packing, and the cost of direct labor and materials used in standard packing may be added to the maximum price if billed or invoiced separately.

(h) *Financing charges.* Maximum prices established by this regulation shall not be increased by any charges for the extension of credit or any financing charge, unless (1) the seller during March 1941 required payment of an additional charge for the extension of credit to purchasers of the same class, and (2) the amount charged for financing the sale is separately stated and billed and is not in excess of the charge the seller had in effect during March 1941 for extension of credit involving the same amount and term.

(i) *Federal and State Taxes.* Any tax levied upon the sale of a second-hand machine tool or extra by any statute of the United States or statute or ordinance of any state or political subdivision thereof which does not prohibit payment of such tax by the purchaser may be collected by the seller in addition to the maximum price if such tax is stated and invoiced separately from the purchase price.

SEC. 4. *Sales by Defense Plant Corporation.* Notwithstanding any other provision of this regulation, the maximum price applicable to the sale by the Defense Plant Corporation of any second-hand machine tool or extra which was acquired by the Defense Plant Corporation for the purposes of rental shall be computed as provided in paragraphs (a) and (b) below:

(a) *Where the purchaser is the first lessee of the machine tool or extra under an agreement with the Defense Plant Corporation.* The maximum price shall be computed by adding the sum of the following:

(1) The cost of the machine tool or extra to the Defense Plant Corporation, f. o. b. the plant of the manufacturer of the machine tool or extra;

(2) The freight paid by the Defense Plant Corporation from the plant of the manufacturer of the machine tool or extra to the plant of the purchaser;

(3) The cost to the Defense Plant Corporation of unloading the machine tool or extra at the plant of the purchaser;

(4) The cost to the Defense Plant Corporation of the installation of the machine tool or extra in the plant of the purchaser;

(5) Interest on items in subparagraphs (1) to (4), inclusive, at the rate actually charged the purchaser under the agreement of lease between the Defense Plant Corporation and the purchaser, or if no interest rate was specified in such agreement the average rate charged by the Defense Plant Corporation to other lessees of comparable machine tools and extras, such interest to be computed from the date that each of such items was paid by the Defense Plant Corporation to the date of sale.

(6) Direct expenses actually incurred by Defense Plant Corporation and normally charged the purchaser under the agreement of lease between Defense Plant Corporation and the purchaser; or, if no provision for direct expense is specified in such agreement, direct expenses actually incurred by Defense Plant Corporation and normally charged by Defense Plant Corporation to other lessees of comparable machine tools and extras.

From the sum of items in subparagraphs (1) and (5), inclusive, *deduct* depreciation of the original total cost of acquisition by Defense Plant Corporation at the rate of eight per cent (8%) per annum from the date of initial use after acquisition by Defense Plant Corporation of such machine tool or extra to the date of sale, except that in the event of sale within ninety (90) days after such initial use no depreciation shall be deducted.

(b) *Where the purchaser is a person other than the first lessee of the machine tool or extra.* The maximum price delivered to the plant of the purchaser shall be computed by adding the sum of the following:

(1) The cost of the machine tool or extra to the Defense Plant Corporation, f. o. b. the plant of the manufacturer of the machine tool or extra;

(2) An allowance equal to the freight charge for the transportation of such machine tool or extra from the location of the machine tool or extra at the time of sale by Defense Plant Corporation to the plant of the purchaser. From the sum of paragraphs (1) and (2), *deduct* depreciation on the original total cost of acquisition by Defense Plant Corporation at the rate of eight per cent (8%) per annum from the date of initial use after acquisition by Defense Plant Corporation of such machine tool or extra to the date of sale, except that in the event of sale within ninety (90) days after such initial use no depreciation shall be deducted.

SEC. 5. *Adjustable pricing in Navy Department Emergency Plant Facilities Contracts.* Nothing in this regulation shall be construed to prevent the inclusion in any Navy Department Emergency Plant Facilities Contract of a provision for the sale of a second-hand machine tool or extra at a price not to exceed the maximum price at the time of delivery.

SEC. 6. *Maximum prices for leases*—(a) *Annual rental.* The maximum annual rental of any lease or rental entered into subsequent to the effective date of this regulation for a second-hand machine tool or extra shall be a sum equal to the maximum sale price multiplied by the applicable percentage rate set forth below:

	8-hour operation	16-hour operation	24-hour operation
	Percent	*Percent*	*Percent*
General use	25	30	35
Outdoor use of tools designed for indoor use	35	45	55

(b) *Less than annual rental.* The maximum daily rental shall be $\frac{1}{200}$ of annual rental; the maximum monthly rental shall be $\frac{1}{10}$ of annual rental.

(c) *Rates most favorable to lessee.* (1) Notwithstanding the provisions of paragraph (b) of this section, whenever a second-hand machine tool or extra rented or leased on a daily basis is used for so many days that the total rental at $\frac{1}{200}$ of the annual rental price per day exceeds $\frac{1}{10}$ of the annual rental, the maximum rental shall be the rental calculated in accordance with the provisions that apply to the monthly rentals. Whenever a second-hand machine tool or extra rented or leased on a monthly basis is used for so many months that the total rental at $\frac{1}{10}$ of the annual rental per month exceeds the annual rental, the maximum rental shall be calculated at the annual rate.

(2) The total amount of rental payments received by a lessor or renter from any one person for the lease or rental of any second-hand machine tool or extra shall not exceed the maximum sale price of such machine tool or extra, calculated as of the date on which said machine tool or extra was first delivered to the person leasing or renting the machine tool. The preceding sentence shall be applicable even though such rental payments are made under distinct or successive leases or rentals of the same machine tool or extra. Rental payments shall be deemed to be between the parties to the original lease or rental of a second-hand machine

tool or extra if they are made with relation to the same machine tool or extra and if said machine tool or extra remains continuously on the same premises on which it was first operated following its delivery to such premises.

(d) *Additional charges.* Charges for dismantling, loading, transportation, maintenance, and power supplied by lessor may be in addition to rental charges, but must be invoiced separately. Such charges must not exceed any maximum price established for the same.

SEC. 7. *Less than maximum prices.* Selling or rental prices less than those set forth herein may be charged, demanded, paid, or offered.

SEC. 8. *Evasion.* The price limitations set forth in this regulation shall not be evaded by additional or extra charges for repairs or reconditioning, commissions, or otherwise, or by a sale, lease, or rental of any second-hand machine tool or extra jointly with an article not subject to price control, or by requiring any purchaser or lessee of second-hand machine tools to permit the seller or lessor to recondition or rebuild the machine tool, or by making any charge to the purchaser for inbound freight to the seller's place of business, or by invoicing or billing, or in any way representing that a machine tool is the equivalent of a rebuilt and guaranteed machine tool without actually having complied with the requirements of section 3, or otherwise. It shall be a violation of this regulation for any person to pay a fee, commission, or other compensation for the finding or locating of, or for the services of anyone acting as a broker or dealer concerning a machine tool or extra if the total of any such charge and the selling or rental price charged that person for the machine tool exceeds the maximum price established by this regulation for the sale, lease, or rental of the machine tool.

SEC. 9. *Records and reports*—(a) *General rules.* (1) All reports on second-hand machine tools and second-hand extras shall be made on Form 100:1, Revised, set forth in Appendix B. Such reports shall be made according to instructions on said form, unless otherwise directed by the Office of Price Administration. Copies of Form 100:1, Revised, may be had upon request to the Regional Office of the Office of Price Administration. Form 100:1, Revised, may be reproduced by the seller, or printed on the reverse side of regular stock sheets if the style and content of the report is not changed and if the report is on 8½ x 11 inch paper.

(2) Each person making a report shall use a separate inventory number for each second-hand machine tool handled by him and shall use this number in making reports hereunder. All reports shall be signed by the owner or the person making the sale for the owner, or by a person authorized to sign for him.

(3) Where a person has acted as purchasing agent, auctioneer, or broker, he shall make a report on the second-hand machine tool as if it had been purchased and immediately sold by him (see paragraph (b) (2) herein) and shall report the amount paid by the purchaser, including any commission paid to him as purchasing agent, auctioneer, or broker. The making of a report as required by this subparagraph (3) relieves the owner of the necessity of filing a report on the same sale of the machine tool.

(4) For the purpose of reporting sales, the receipt of an order shall be reported as a sale. (If the order is later cancelled, the appropriate office of the Office of Price Administration is to be advised forthwith and the machine tool reported as added to inventory.)

(b) *Report of offering price or additions to stock*—(1) *Who shall file.* Any dealer who offers a second-hand machine tool for sale shall file, if he has not already reported such information, a separate report on each floor type second-hand machine tool and on each other type of second-hand machine tool (as defined in section 1 (b)) of any description which has an offering price of $100 or more in his stock or for sale through him as agent. If a second-hand machine tool is held in joint ownership, the inventory report shall be made by the person who has possession of the machine tool, or, if none of the owners has possession of it, by the person in whose name the machine tool was purchased.

(2) *Time of filing.* Reports required by paragraph (b) (1) of this section shall be filed not later than August 3, 1943, for each second-hand machine tool in stock as of July 26, 1943. A report for each second-hand machine tool added to stock after July 25, 1943, shall be filed not more than one week after the machine tool is purchased or otherwise acquired. When a second-hand machine tool is sold or otherwise disposed of within one week after acquisition and before the report of offering price or addition has been filed, such report shall not be required. In such case, however, the report of sale or other disposition (required by paragraph (c) or (d) of this section) shall note that no previous report on the machine tool has been filed. Failure to object to an offering price as disclosed by a report does not constitute approval of the price by this Office.

(3) *Reports of machine tools to be sold at auction.* An auctioneer proposing to sell at auction any second-hand machine tool or extra shall file with the Regional Office or District Office of the Office of Price Administration within whose jurisdiction the sale will be held, a complete inventory of all such items proposed to be offered for sale or sold at such auction sale. The maximum price applicable to such machine tool or extra must be set forth for each item. Such inventory shall be filed at least ten days prior to the date fixed for such sale. Unless such inventory is filed as aforesaid, no second-hand machine tool or extra can be sold or offered for sale at such auction. A second-hand machine tool or extra which is not listed on such inventory cannot be sold or offered for sale at such auction.

(c) *Reports of sale*—(1) *Who shall file.* Any person who sells or negotiates the sale of a second-hand machine tool or second-hand extra, except in the case of a sale by a person other than a dealer to a dealer, shall file a separate report, listing entries in all items from 1 through 22 on Form 100:1, Revised, on each floor type second-hand machine tool, or other type second-hand machine tool (as defined in section 1 (b)) sold for $100 or more, which is sold or otherwise disposed of by him or through him as agent, broker, or auctioneer. The machine tool and each extra must be itemized, described fully, given trade name, etc., and priced, in order as invoiced. When a second-hand machine tool that is held in joint ownership is sold, the person in whose name the sale is made shall report the sale, referring to the inventory number previously assigned to the machine tool.

(2) *Time of filing.* A report for each second-hand machine tool sold or otherwise disposed of shall be filed within one week after the transaction. Every report of sale or other disposition shall state the name and address of the purchaser and state, under Item 21 of Form 100:1, Revised, whether the purchaser is a dealer or the ultimate user. Information on the sale price need be noted only on the report of sale filed with the Office of Price Administration.

(d) *Reports of leases.* Any person who leases or rents out a second-hand machine tool, or disposes of it otherwise than by sale, shall file a separate report on Form 100:1, Revised.

(e) *Records.* (1) Records of each transaction involving the purchase, sale, lease, rental, or other disposition of a second-hand machine tool or extra shall be preserved by all persons subject to this regulation. One copy of each report required to be made by this regulation shall be preserved by the person making the report. Separate records of inventories of attachments and extras not listed in said reports shall be preserved.

(2) Invoices and sales slips. Any person subject to this regulation shall furnish to the person to whom he sells, leases, or rents a machine tool or extra such invoices, sales slips, or receipts as he has regularly furnished and as required by this regulation, and shall, in any event, upon request of the person to whom he sells, leases, or rents made at the time of delivery, give a signed invoice or slip showing the date of the transaction, the date of delivery, identification of the machine sold, leased, or rented, and the price charged therefor. Machine tools and extras sold, and all other allowable charges made, shall be itemized, and separately priced on invoices or sales slips.

(3) Requests may be made at any time by any Office of the Office of Price Administration for copies of invoices, of reports, or of other records, and for any other information relating to transactions involving second-hand machine tools or extras. Such copies and information must be furnished or made available for inspection as requested.

SEC. 10. *Definitions.* When used in this regulation, the term:

"Dealer" means any person engaged in the business of buying and selling second-hand machine tools as a principal or in the business of buying or sell-

ing such tools as agent, auctioneer, or broker.

A "geared head" machine means a machine in which the variations of the spindle speeds are selectively obtained through a series of gears operated by levers integral with the machine. The term "other than geared head" machine includes all machines in which variations of spindle speeds are obtained by the shifting of a belt running between stepped cone pulleys or with a belt running between single pulleys or equipped with any motor drive that is not integral with the machine.

"Government agency" includes the War Department, the Department of the Navy, the United States Maritime Commission, the Lend-Lease Section of the Procurement Division of the Treasury Department, and the following subsidiaries of the Reconstruction Finance Corporation: Rubber Reserve Corporation, Metals Reserve Corporation, Defense Plant Corporation, and Defense Supplies Corporation.

"Person" includes an individual, corporation, partnership, association, or any other organized group of persons, or legal successor or representative of any of the foregoing, and includes the United States or any agency thereof, or any other government, or any of its political subdivisions, or any agency of any of the foregoing.

"Portable machine tool" means a machine tool designed to be taken to the material on which it is to be used and to be moved and applied to such material as the work requires, as distinguished from a stationed tool to which the material is brought for processing.

"Stock" referring to second-hand machine tools, includes tools which are owned by the person in question, or on which he has obtained an option, or for which he has secured a selling agency.

"User" means any purchaser of a second-hand machine tool or extra, other than a dealer, broker, agent, or auctioneer in or for new machine tools.

"Worn part" means a part in such a condition that unless it is replaced or reworked the machine tool will not have a substantially equivalent performance to that of the machine when new.

SEC. 11. *Petitions for amendment.* Any person seeking modification of this regulation may file a petition for amendment in accordance with the provisions of Revised Procedural Regulation No. 1.[3]

SEC. 12. *Licensing provisions,* (a) The provisions of Supplementary Order No. 20,[4] licensing, among others, dealers selling second-hand machine tools or extras, are applicable to every dealer selling second-hand machine tools or extras, for which maximum prices are established by this regulation. When used in this paragraph, the term "dealer" has the definition given to it by Supplementary Order No. 20.

SEC. 13. *Enforcement.* Persons violating any provisions of this regulation are subject to the criminal penalties, civil enforcement actions, license suspension proceedings, and suits for treble damages provided for by the Emergency Price Control Act of 1942, as amended.

[3] 7 F.R. 971, 3663, 6967, 8520, 8961; 8 F.R. 3313, 3533, 6173.

[4] 7 F.R. 7490, 11007.

APPENDIX A.—PRICES OF NEW MACHINE TOOLS AS OF MARCH 1, 1941, REVISED

TRADE NAMES

Trade name	Type of machine	Name of manufacturer	Address
Abrasive	Cut-off	Bridgeport Safety Emery Wheel Co	Stratford, Conn.
Acme	Pipe threading	Hill-Acme Co	Cleveland, Ohio
Adriance	Presses	Callahan Can Mach. Co	Brooklyn, N. Y.
Automatic	Pipe bending	Buffalo Forge Co	Buffalo, N. Y.
Badger	Grinder	Covel-Mfg. Co	Benton Harbor, Mich.
Bath	Grinder	Fitchburg Grind. Mach. Co	Fitchburg, Mass.
Beaudry	Hammers	Barbour Stockwell Co	Cambridge, Mass.
Becker	Milling	Reed-Prentice Co	Worcester, Mass.
Bement	Boring	General Machinery Co	Hamilton, Ohio
Betts	Lathes	Consolidated Mach. Tool Co	Rochester, N. Y.
Betts-Bridgeford	Lathes	Consolidated Mach. Tool Co	Rochester, N. Y.
Bickford	Drills	Cincinnati-Bickford	Cincinnati, Ohio
Bilton	Milling, gear cut	Producto Mach. Co	Bridgeport, Conn.
Bore-Matic	Precision boring	Heald Mach. Co	Worcester, Mass.
Bowgage	Grinders	Fitchburg Grind. Co	Fitchburg, Mass.
Bridgeport	Grinders	Bridgeport Safety Emery Wheel Co	Stratford, Conn.
Briggs (built after Mar. 1, 1941).	Milling	C. C. Bradley & Son, Inc	Syracuse, N. Y.

APPENDIX A—PRICES OF NEW MACHINE TOOLS AS OF MARCH 1, 1941, REVISED—Con.

TRADE NAMES—Continued

Trade name	Type of machine	Name of manufacturer	Address
Bristol	Milling, hand	Producto Mach. Co	Bridgeport, Conn.
Cammatic	Grinders	Fitchburg Grinding Co	Fitchburg, Mass.
Cam-O-Matic	Grinders	Norton Co	Worcester, Mass.
Campbell	Nibbling	American Chain & Cable Co	Bridgeport, Conn.
Canco	Power press	American Can Co	Chicago, Ill.
Canton	Shears	Hill Acme Co., Canton Division	Cleveland, Ohio
Carbomatic	Lathes	W. C. Lipe, Inc	Syracuse, N. Y.
Cataract	Lathes, etc	Hardinge Bros	Elmira, N. Y.
Catlin	Keyseater	Chattanooga Mach. Co	Chattanooga, Tenn.
Ceco Stamp	Press	Chambersburg Eng. Co	Chambersburg, Pa.
Champion	Drills	Champion Blower & Forge Co	Lancaster, Pa.
Chaplin	Hdle. turning lathes	Defiance Mach. Works	Defiance, Ohio
Chard	Lathe	Western Mach. Tool Co	Holland, Mich.
Chicago	Brakes—shears	Dreis Krump Mfg. Co	Chicago, Ill.
Cincinnati	Upright drills	Cincinnati-Bickford Co	Cincinnati, Ohio.
Cleveland	Vertical mills	Sommers & Adams	Cleveland, Ohio
Colburn	Presses, boring	Consolidated Machine Tool, Inc	Rochester, N. Y.
Conomatic	Screw machinery	Cone Automatic Mach. Co	Windsor, Vt.
Consolidated	Power presses	E. W. Bliss Co	Brooklyn, N. Y.
Contin-U-Matic	Chucking and turn	Bullard Co	Bridgeport, Conn.
Contour	Sawing	Continental Mach., Inc	Minneapolis, Minn.
Coulter	Diamond tool boring	Automatic Mchy. Co	Bridgeport, Conn.
Crank-O-Lap	Lapping	Norton Co	Worcester, Mass.
Craftsman	Milling and special	Sommer Adams Mchy. Co	Cleveland, Ohio
Curoloy	Rolls	Birdsboro Steel Fdry. & Mchy. Co	Birdsboro, Pa.
Cyclematic	Broach	Oilgear Co	Milwaukee, Wis.
Demco	Drills	Toledo General Mfg. Co	Toledo, Ohio
De Vleig	Milling	Ohio Mach. Tool Co	Kenton, Ohio.
Diamondite	Rolls	Birdsboro Steel Foundry & Machine Co.	Birdsboro, Pa.
Dill	Slotters	Lobdell Car Co	Wilmington, Del.
Di-Matic	Auto. screw mach	Billings & Spencer	Hartford, Conn.
Doall	Comb. band saw, filing and polish.	Continental Mach. Co	Minneapolis, Minn.
Dreses, M. T	Drills-lathes	Cincinnati Gilbert Machine Tool Co	Cincinnati, Ohio.
Duomatic	Auto. lathe	Lodge & Shipley	Cincinnati, Ohio.
Durite	Rolls	Birdsboro Steel & Foundry Co	Birdsboro, Pa.
Economax	Drills	Fosdick Mach. Tool Co	Cincinnati, Ohio.
Economy	Grinding	Hisey-Wolfe Co	Cincinnati, Ohio.
Economy	Lathe	D & M Machinery Works	Torrance, Calif.
Eda	Turret punch	Wiedeman Mach. Co	Philadelphia, Pa.
Electromil	Milling	Sundstrand Mach. Co	Rockford, Ill.
Erco	Punching and rivet	Engineering & Research Corp	Riverdale, Md.
Eureka	Blowers and forges	Champion Blower & Forge Co	Lancaster, Pa.
Excel	Power hacksaw	Covel Mfg. Co	Benton Harbor, Mich.
Farwell	Gear hobber	Adams Co	Dubuque, Iowa.
Fay	Automatic	Jones & Lanson Co	Springfield, Vt.
Fleximatic	Drill-lapp. and ream	Kingsbury Machine Tool Co	Keene, N. H.
Fox Monitor	Turret lathe	Springfield Machy. Tool Co	Springfield, Ohio.
Gage-Matic	Int. grind	Heald Machinery Co	Worcester, Mass.
Garvin	Tappers	Western Mach. Tool Works	Holland, Mich.
Garvin	Profiler	Frew Machine Co	Philadelphia, Pa.
Garvin	Grind-slotters	John B. Stevens Co	New York, N. Y.
Gemco-Kelly	Shapers	General Engineering & Manufacturing Co.	St. Louis, Mo.
Giant	Keyseaters	Mitts & Merrill Co	Saginaw, Mich.
Giddings & Lewis #45	Boring	The Locomotive Finished Materials Co	Atchison, Kans.
Grand Rapids	Grinders	Gallmeyer & Livingston Co	Grand Rapids, Mich.
Grays	Turret rotary Baldwin shears.	Southwark Foundry & Machine Co	Philadelphia, Pa.
Gridley	Automatic	National Acme Co	Cleveland, Ohio.
Hamilton	Presses	General Machinery Co	Hamilton, Ohio.
Hamilton	Drills	Hamilton Tool Co	Hamilton, Ohio.
Hammond	Drills	Foote-Burte	Cleveland, Ohio.
Harrington	Multo drills	Consolidated Machine Tool Co	Rochester, N. Y.
Hercules	Hammers	Champion Blower & Forge Co	Lancaster, Pa.
Higley	Cold saw and lathes	Porter McCleod Machine Tool Co	Hatfield, Mass.
Hille-Jones	Planers	Consolidated Machine Tool Co	Rochester, N. Y.
Hole-Hog	Drilling	Moline Tool Co	Moline, Ill.
Hole Wizard	Radial	American Tool Works	Cincinnati, Ohio.
Hudorkut	Abrasive cutting	Campbell-American Inc., Chain & Cable.	Bridgeport, Conn.
Hydrolap	Lapping	Norton Co	Worcester, Mass.
Hypoid	Gears	Gleason Works	Rochester, N. Y.
Ideal	Lathes	Springfield Machine Tool	Springfield, Ohio.
Imperial	Grinding	Cedar Rapids Eng. Co	Cedar Rapids, Iowa.
Index	Mills	Blank & Burton Machy Co	Jackson, Mich.
Keller	Cutter-drill grind	Pratt & Whitney Co	West Hartford, Conn.
Kelly	Crank shaper	Gen. Eng. & Mfg. Co	St. Louis, Mo.

APPENDIX A—PRICES OF NEW MACHINE TOOLS AS OF MARCH 1, 1941, REVISED—Con.

TRADE NAMES—Continued

Trade name	Type of machine	Name of manufacturer	Address
Kwik-way	Grinders	Cedar Rapids Eng .Co	Cedar Rapids, Iowa.
Landmaco	Threading	Landis Mach. Tool Co	Waynesboro, Pa.
Lenox	Shears	Marshalltown Mfg. Co	Marshalltown, Iowa.
Libby	Turret lathe	International Machine Tool Company	Indianapolis, Ind.
Lo-Swing	Lathes	Seneca Falls Mach. Co	Seneca Falls, N. Y.
Marquette	Presses	E. W. Bliss Company	Brooklyn, N. Y.
Marschke	Grind. and polish	Vonnegut Moulders Corp	Indianapolis, Ind.
Marvel	Saws	Armstrong Blum Mfg. Co	Chicago, Ill.
Maximiller	Milling	Kempsmith Machine Co	Milwaukee, Wis.
Milband	Metal cutting	Avey Drilling Company	Cincinnati, Ohio.
Milwaukee	Milling	Kearney Trecker Corp	Milwaukee, Wis.
Milwaukee	Shears	Doelger & Kirsten Corp	Milwaukee, Wis.
Monarch	Hyd. press	A. B. Farquhar Co., Ltd	York, Pa.
Monotrol	Eng. lathes	Sidney Mach. Tool Co	Sidney, Ohio.
Mult-Au-Matic	Turning, threading and boring.	Bullard Company	Bridgeport, Conn.
Multi-Cut	Lathes	LeBlond Mach. Tool Co	Cincinnati, Ohio.
Multi-Duty	Radial drill	Cincinnati Gilbert Machine Tool Co	Cincinnati, Ohio.
Nazel	Hammers	Lobdell Car Wheel Co	Wilmington, Del.
Newton	Cold saws	Consolidated Machine Tool Co	Rochester, N. Y.
Niles	Boring	General Machinery Co	Hamilton, Ohio.
Pacemaker	Lathe	American Tool Works	Cincinnati, Ohio.
Peck	Drop press	Farrel Birmingham Co	Ansonia, Conn.
Peerless	Pipe cut. and thread	Bignall & Keeler	Edwardsville, Ill.
Pels	Punching shear	Henry Pels & Co	New York, N. Y.
Pexto	Power press	Peck, Stow & Wilcox Co	Southington, Conn.
Pittsburgh	Lathe	Sommerfield Machine Co	Braddock, Pa.
Plymouth	Grinding	Clizbe Bros. Mfg. Co	Plymouth, Ind.
Pond	Boring	General Machinery Co	Hamilton, Ohio.
Precision	Horiz. bor. mill	Lucas Machine Tool Co	Cleveland, Ohio.
Precision	Lathe and grinding	Rivett Lathe & Grind. Co	Boston, Mass.
Prentice	Drills	Reed-Prentice Corp	Worcester, Mass.
Pryibil	Spinning lathes	S. S. Hepworth Co	Long Island City, N. Y.
Putnam	Planer	General Machinery Co	Hamilton, Ohio.
Queen	Grinding	Clizbe Bros. Mfg. Co	Plymouth, Ind.
Radiac	Cut-off	A. P. DeSanno & Son	Phoenixville, Pa.
Rafter	Press brakes	Ferracute Mach. Co	Bridgeton, N. J.
Rahn-Lahrmon	Lathes	Nebel Mach. Tool Co	Cincinnati, Ohio.
Ransom	Grinders	Lippman Eng. Works	Milwaukee, Wis.
Reed	Lathe	Reed-Prentice Corp	Worcester, Mass.
Regal	Lathes	R. K. LeBlond Mach. Tool Co	Cincinnati, Ohio.
Revacycle	Gear cutting	Gleason Works	Rochester, N. Y.
Rigidmill	Milling	Sundstrand Mach. Tool Co	Rockford, Ill.
Rite-Speed	Polish lathes	Hammond Machinery Co	Kalamazoo, Mich.
Robinson	Presses	New Albany Mach. Mfg. Co	New Albany, Ind.
Robot	Hor. surf. grind	Robaczynski Mach. Co	Brooklyn, N. Y.
Rochester	Gear tooth rounder	Consolidated Mach. Tool Co	Rochester, N. Y.
Rockford	Drill	Moline Tool Co	Moline, Ill.
Rock River	Punches	Hannifin Mfg. Co	Chicago, Ill.
Rodrop	Hammers	Ajax Manufacturing Co	Cleveland, Ohio.
Rogers	Turret lathe	Rogers Machine Works	Alfred, N. Y.
Rotomatic	Boring drill	Davis & Thompson Co	Milwaukee, Wis.
Rotorex	Cutter and tool grind	Douglas Mach. Co	New York, N. Y.
Router	Planer	Hammond Machinery Co	Kalamazoo, Mich.
Royal	Drills	Canedy Otto Mfg. Co	Chicago Heights, Ill.
Sawmore	Metal-cutting	Rasmussin Machine Co	Racine, Wis.
Short-cut	Lathes	Seneca Falls Machine Co	Seneca Falls, N. Y.
Simplex	Boring machine	Stokerunit Corp	Milwaukee, Wis.
Simplex	Milling	Kearney & Trecker	Milwaukee, Wis.
Simplimatic	Lathe	Gisholt Machine Co	Madison, Wis.
Single Stroke	Grinder	O. S. Walker Co	Worcester, Mass.
Size-Matic	Grinders	Heald Mfg. Co	Worcester, Mass.
Skipper	Grinder	U. S. Elec. Tool Co	Cincinnati, Ohio.
Slo-Speed	Drill press	Delta Mfg. Co	Milwaukee, Wis.
Stamco	Shears	Streine Tool & Mfg. Co	New Bremen, Ohio.
Standard Pattern	Grinding	Clizbe Bros. Mfg. Co	Plymouth, Ind.
Star	Eng. lathes	Seneca Falls Mach. Co	Seneca Falls, N. Y.
Steelweld	Presses	Cleveland Crane & Eng. Co	Cleveland, Ohio.
Steptoe	Milling	Frew Machine Co	Philadelphia, Pa.
Steptoe	Shaper	Western Machine Tool Co	Holland, Mich.
Sterling	Grinder	McKonough Mfg. Co	Eau Claire, Wis.
Stiles	Presses	E. W. Bliss Co	Brooklyn, N. Y.
Sturdybender	Presses	Cyril Bath & Co	Cleveland, Ohio.
Super Power	Presses	Fox Machine Co	Jackson, Mich.
Super Service	Drills	Cincinnati Bickford Co	Cincinnati, Ohio.
Sykes	Gear generator	Farrel Brimingham Co	Ansonia, Conn.
Terromatic	Grinder	Heald Mfg. Co	Worcester, Mass.
Thiel	Die filing	Marburg Bros	New York, N. Y.
Time Saver	Lathes and planers	General Machy. Co	Hamilton, Ohio.
Toledo	Hand millers	Kent Owens Machine Co	Toledo, Ohio.
Toledo	Presses	E. W. Bliss Co	Brooklyn, N. Y.
Tritral	Lathes	Sidney Machine Tool Co	Sidney, Ohio.
Utility	Hammers	Barbour Stockwell Co	Cambridge, Mass.
Vari-Speed	Lathe	Hammond Machinery Co	Kalamazoo, Mich.
Vernon	Vert. mill and jig borer and shaper.	Machinery Mfg. Co	Los Angeles, Calif.
Victory	Lathe	Hammond Machinery Co	Kalamazoo, Mich.
Wet-R-Dry	Grinding	Porter Cable Machine Co	Syracuse, N. Y.
Whitcomb	Shapers	Reed Prentice Co	Worcester, Mass.
Williams	Power pipe	Oster Manufacturing Co	Cleveland, Ohio.
Willmarth & Morman.	Grinder	Covel Manufacturing Co	Benton Harbor, Mich.

EQUIVALENTS

In the following pages are listed a number of obsolete machines and the equivalents to be used.

Care should be exercised that the type, size and model number taken as an equivalent corresponds to that of the obsolete machine in question.

In doubtful cases send the serial number, specifications and photograph of machine to Office of Price Administration for decision.

Equivalents on machines no longer manufactured by the companies listed below have been shown immediately following the price data for said companies.

Bardons & Oliver, Inc.
Brown & Sharpe Manufacturing Co.
International Machine Tool Co. "Libby."
Kearney & Trecker.
National Acme Co.
New Britain-Gridley MachineTool Co
Pratt & Whitney.
Van Norman Machine Tool Co.
Warner & Swasey.

AUTOMATICS

OBSOLETE MACHINES	EQUIVALENTS
Chicago	Cleveland
Cincinnati	National Acme
Gridley (single spindle)	Cleveland
Hartford up to 1"	Brown & Sharpe
Hartford over 1"	Cleveland
Pratt & Whitney	Cleveland
Prentice #73	$4,500

BORING MILL (HORIZONTAL) FLOOR TYPE

	Up to 3½" cap.	Over 3½" cap. use prices shown with exceptions noted
Beaman & Smith	Use Cincinnati-Gilbert Machine Tool Co.	4" cap.—$8,000.
Betts		4½" cap.—9,000.
Cuffman (Franklin).		5" cap.—10,500.
Detrick & Harvey		5½" cap.—11,000.
Fosdick		6" cap.—12,000.
Newton		7" cap.—15,000.
Niles		8" cap.—17,500.
Pawling & Harneschfeger.		
Pedrick & Ayers		
Ryerson		
Rochester	Giddings & Lewis Machine Tool Co.	

BORING MILL (HORIZONTAL) TABLE TYPE

Beaman & Smith	Lucas Machine Tool Co.
Betts	Do.
Binse	Do.
Cleveland	Do.
Coffman	Do.
Fosdick	Do.
Lambert	Yoder Machine Tool Co.
Landis	Lucas Machine Tool Co.
Lucas Duplex 2¾"	$10,000.
Lucas three way	$12,000.
Morris	Lucas Machine Tool Co.
Niles	Do.
Rochester	Do.
Rockford Duplex (Bar)	Price—$8,000.
Rockford\Horizontal\drills	Single—$2,000.
Barnes\drills	Double—$3,000.

BORING MILL (VERTICAL)

NOTE: Prices of General Machinery do not include electrical equipment. Up to 36" single head machines compare to Rogers. On all mills over 36" and up to and including 48" use Bickford—48"—$7,000. Over 48" and up to 73" use General. Over 73" and up to 120" use King. Above 120" add $7,500 for each 2" bed, except those listed below.

American	General Machinery Corporation.
Baush and Harris	Do.
Baush	Do.
Bement	Do.
Betts	Consolidated Machine Tool Corporation.
Bickett	General Machinery Corporation.
Bridgeport	Bickford.
Brown & Sharpe	Rogers Machine Works.
Bullard Maximill	Bullard Standard Vertical Turret Lathe.
Bullard—rail type	General Machinery Corporation.
Bullard—rapid production vert. turret Lathe and New Era.	Bullard.
Gisholt	Do.
Niles	Do.
Pond	Do.
Poole	Do.
Rogers-Hemphill	Bickford.
Schuckhardt & Schutte	General Machinery Corporation.
Warner & Swasey	Rogers Machine Works.

BULLDOZERS

Ajax	Williams-White & Co.
Blackeslee	Do.
Long & Alstader	Do.
Lourie, Springfield, Ill.	Do.
National	Do.
Rock River	Do.
Ryerson-Kling	Do.
Walburn-Swenson	Do.

CENTERING

Use equivalents shown for double-end machines. On single-end take 75 percent of amounts shown.

Cadillac	Sundstrand Machine Tool Co.
Garvin	Do.
Hanson-Whitney	Do.
Hendey	Do.
Pratt & Whitney	Do.
Whiton	Do.

DRILLS (RADIAL), GEARED

Baush 7' flat	Western Machine Tool Works (Leader type).
Cisco	Cincinnati-Gilbert Machine Tool Co.
Dresses	Cincinnati-Gilbert Machine Tool Co.
Dresses (Flat Face Col.)	Western Machine Tool Works (Leader type).
Economic	Canedy-Otto Mfg. Co.
Fosdick (Flat Face Col.)	Western Machine Tool Works (Leader type).
Gang	Canedy-Otto Mfg. Co.
Hamilton	American Tool Works.
Harrington	Western Machine Tool Works (Leader type).
Mueller	Cincinnati-Gilbert Machine Tool Co.
Niles	General Machinery Corporation.
Prentice	Western Machine Tool Works (Leader type).
Ryerson-Conradson	American Tool Works.

DRILLS (RADIAL) SENSITIVE

Almond	Foote-Burte (HammondCo.)
American—fixed arm	Canedy-Otto Mfg. Co.
Carlton	Canedy-Otto Mfg. Co.—3' 9" column.
Dauber & Krantsch	Canedy-Otto Mfg. Co.
Taylor & Fenn	Do.

DRILLS (UPRIGHT)

Any drill not listed below is to be compared with Sibley.

American	Cincinnati-Bickford Machine Tool Co.
Aurora	Do.
Barnes, W. F. & J	Sibley Machine & Foundry Corporation.
Cleveland	Do.
Garvin	Do.
Hamilton	Cincinnati-Bickford Machine Tool Co.
Hoefer	Sibley Machine & Foundry Corporation.
Kerns	Do.
Kokomo	Cincinnati-Bickford Machine Tool Co.
Mechanics	Sibley Machine & Foundry Corporation.
Rockford	Do.
Snyder	Cincinnati-Bickford Machine Tool Co.
Superior	Do.
Weigel	Do.

DRILLS (RAIL)

All other rail similar in weight or size to those listed below compare with Foote-Burte.

Harrington (rail)	Foote-Burte Co.
Niles	Do.

DRILLS (MULT.)

Boley (drill press)	Natco D-5 (National Automatic Tool Co.)
Baush (mechanical feed)	Natco (National Automatic Tool Co.)
Buhr	Natco D-5 (National Automatic Tool Co.)
Fox	Natco (National Automatic Tool Co.)
Gardam	Do.
Harrington	Do.
Pratt & Whitney	Do.
Western	Do.

DIE FILERS

Barry & Barry	Oliver Instrument Co.
Bauer	Do.
Rearivin	Do.

GEAR MACHINERY

Bilton	Producto Machine Co.
Brainerd	Adams Co.
Cincinnati (gear cutter)	Newark Gear Cutting Machine Co.
Cincinnati (gear hobber)	Barber-Colman Co.
Pfauter hobber to and incl. 12".	Adams Co. (hobber).
Pfauter hobber over 12"	Gould & Eberhardt.
Pfauter gear cutter	Newark Gear Cutting Machine Co.
Shuckhardt & Schutte	Gould & Eberhardt.
Whiton	Adams Co.

GRINDERS (INSERTED TOOTH)

Cincinnati	Oliver #2—Oliver Instrument Co.
Gisholt	Do.
Gould & Everhardt (tub grind.).	Do.
Ingersoll (tub grind.)	Do.

GRINDERS (CYLINDRICAL)

Diamond	Fitchburg Grinding Machine Co.
Fraser #1:	
18 x 8	Fitchburg 6 x 32 (Fitchburg Grinding Machine Co.).
10 x 18	Do.
6 x 16	Fitchburg 6 x 18 (Fitchburg Grinding Machine Co.).
8 x 30	Fitchburg 6 x 32 (Fitchburg Grinding Machine Co.).
Automatic #142	Arter 4 x 32—$6,100 (Arter Grinding Machine Co.).
Fitchburg 8 x 20	Fitchburg Grinding Machine Co. (6 x 32).
Greenfield #1—5 x 12	Simplicity—7 x 8—$675 (Simplicity Mfg. Co.)[1]
Iroquois 10 x 28	Fitchburg 6 x 32 (Fitchburg Grinding Machine Co.).
Lea #3—14 x 50	Landis 14 x 50 (Landis Tool Co.)
Modern	Landis Tool Co.
Morse #1	Fitchburg Grinding Machine Co.
Morse No. 2	Do.
Ott	Do.
Queen City:	
12 x 48	Landis Tool Co.
14 x 72	Do.
Webster & Parks	Fitchburg 6 x 32 (Fitchburg Grinding Machine Co.)
Taft-Pierce	Fitchburg 6 x 32.

GRINDERS (DISC)

Badger	Gardner Machine Co.
Diamond	Do.
Gorton	Do.
Graham	Do.
Oliver	Do.
Superior	Do.

GRINDERS (INTERNAL)

Capitol	$1,600.
Cincinnati	Heald Machine Co.
Churchill-Morgan	$4,000.
Greenfield Hydroil #51	Heald #70A-Belt Drive—$4,265.
Greenfield Hydroil #52	Heald #72A3 Belt—$5,360.
Greenfield Hydroil #28	Heald #74—$8,690.
Hanson-Whitney	$1,600.
Mayer and Schmidtt / Schmidt	$2,100.
Micro	$2,100.
Taylor and Fenn	$4,000.
Terromatic (G&L)	Heald Machine Co
Tindell Morris	$3,000.
Baxter D. Whitney (cylinder).	$2,100.

GRINDERS (SURFACE)

American	Reid Bros. Co.
Badger	Gardner Machine Co.
Binsee	Reid Bros. Co.
Bristol	Heald Machine Co.
Diamond #1	$1,820.
Diamond #2	$2,320.
Diamond #3	$2,820.
Diamond #4	$3,320.
Diamond #5	$3,820.
Diamond #6	$4,320.
Illinois (power feed)	Reid Bros Co.
LaSalle	Gerity-Adrian $1,185.
Wilmarth & Morman #1 (6 x 18).	$650—hand feed.
Wilmarth & Morman #2 (8 x 20).	$1,500—hand feed. $1,800—power feed.
Wilmarth & Morman #3 (8 x 24).	$2,200—power feed

ROTARY TABLE—HORIZONTAL SPINDLE GRINDER (SURFACE)

Bristol 8" belt driven	$1,500.
Bristol 12" belt driven	$2,000.
O. S. Walker	Heald Machine Co.

GRINDERS (FACE)

Diamond (30" or 36" wheel size).	Bridgeport Safety Emery Wheel Co.—#85.

GRINDERS (PLANER TYPE)

Springfield	$4,000.

GRINDERS (TOOL AND CUTTER)

All-Angle	Gallmeyer & Livingston.
Dauber & Kratch	Do.
Greenfield	Do.
Landis	Do.
Oakley	Do.
Ohio	Do.
Osterlein	Do.
Stoll	Do.
Walker	Do.
Wells	Do.
Wilmarth & Morman	Do.
Woods	Do.

[1] Simplicity Mfg. Co., Port Washington, Wis.

IRON WORKERS

Amplex	Buffalo Forge Co.
Beatty	Do.
Kent Owens	Do.
Long & Alstatter	Do.
Oeking	Do.
Pels	Do.
Schatz	Do.
Smith	Do.

LATHES (ENGINE)

Amtew	South Bend Lathe Works.
Barnes	Nebel Machine Tool Co.
Blaisdell	Do.
Bridgeport	General Machinery Corporation.
Champion (Champion Blower & Forge).	South Bend Lathe Works.
Champion (Champion Tool Works).	Nebel Machine Tool Co
Cisco	Do.
Davenport	Do.
Davis 12"	South Bend Lathe Works.
Davis 14"	Nebel 16" cone—$1,325.
Davis 16"	Nebel 18" cone—$1,385
Davis 18"	Nebel 18"—$2,000.
Davis over 18"	Nebel Machine Tool Co.
Draper	Do.
Fay & Scott	Do.
Fifield	Wickes Stand.
Fitchburg (Eng.)	Nebel to 36"—General above 36".
Fitchburg (Lo Swing)	Seneca Falls (Lo Swing) Machine Co.
Flathers	Nebel Machine Tool Co.
Fulton	Do.
Giddings & Lewis	Do.
Greaves & Klusman	Boye & Emmes to 36"—over 36"—General.
Hamilton	Lehmann Machine Co.
Harrington	General Machinery Corporation.
Houston-Stanwood & Gamble.	LeBlond, R. K., Machine Tool Co.
Illinois	South Bend Lathe Works.
Johnson	Wickes (Stand).
Lodge & Davis	Nebel Machine Tool Co.
Meyers	South Bend Lathe Works.
Miami	Do.
Milwaukee	Nebel Machine Tool Co.
Morris	South Bend Lathe Works.
Mueller	Nebel Machine Tool Co.
Mulliner	Hendey Machine Co. (cone)
National	Nebel Machine Tool Co.
New Haven	Nebel under 27" General for 27" and over.
Niles	General Machinery Corporation.
Niles-Bement-Pond	Do.
Oliver Cone Drive	Nebel Machine Tool Co.
Oliver-Geared	Sebastian.
Pittsburgh	General Machinery Corporation.
Pond	Do.
Porter	Nebel Machine Tool Co.
Prentice 12"	Do.
Prentice 14"	Nebel 16" cone—$1,325.
Prentice 16"	Nebel 18" cone—$1,385.
Prentice 18"	Nebel 18"—$2,000.
Prentice over 18"	Nebel Machine Tool Co.
Prentiss Bros	Do.
Putnam	General Machinery Corporation.
Reed, F. E. 12"	South Bend Lathe Works.
Reed, F. E. 14"	Nebel 16" cone—$1,325.
Reed, F. E. 16"	Nebel 18" cone—$1,385.
Reed, F. E. 18"	Nebel 18"—$2,000.
Reed, F. E. over 18"	Nebel Machine Tool Co.
Reed-Prentice	Reed-Prentice 20" and under—over 20" Nebel.
Reed-Prentice Production	Sundstrand Automatic—Sundstrand Machine Tool Co.
Rockford to and including 16".	D & M—Torrance, Calif.
Rockford over 16"	Lehmann Machine Co.—cone drive.
Ryerson-Conradson	Lehmann Machine Co.
Simplex Cone	South Bend to 16"—over 16" Nebel.
Simplex geared 12"	D. & M.—$1,590.
Sundstrand Rockford Tool Room.	Hendey cone—Hendey Machine Co.
Superior	Nebel Machine Tool Co.
Van Wyck	Do.
Vernon	South Bend Lathe Works.
Walcott 12"	Do.
Walcott 14"	Nebel 16" cone—$1,325.
Walcott 16"	Nebel 18" cone—$1,385.
Walcott 18"	Nebel 18"—$2,000.
Walcott over 18"	Nebel Machine Tool Co.
Whitcomb-Blaisdell	Do.
Willard	South Bend Lathe Works.
Willard geared head	Nebel Machine Tool Co.
Worcester	South Bend Lathe Works.
Wright	Wickes (Stand).

LATHES (TURRET)

Biggs	Foster Div. (Internat'l Mach. Tool Corporation).
Bridgeport	Do.

LATHES (TURRET)—Continued

Bullard—Rapid Production and New Era.	Bullard.
Bullard—Horizontal 22"—2⅝"—S. B. G.	$3,000.
Bullard—Horizontal 22"—2⅝"—D. B. G.	$3,500.
Bullard-Machine "H" 2⅞"—D. B. G.	$4,000.
Conradson	Gisholt Machine Co.
Davis	Foster Div. (I. M. T. Corporation).
Dresses	Foster Div. (Internat'l Mach. Tool Corporation).
Economic	South Bend Lathe Works.
Federal	Bardons & Oliver.
Garvin	Foster Div. (Internat'l Mach. Tool Corporation).
Greenlee	Jones & Lamson Machine Co.
Milholland	Foster Div. (Internat'l Mach. Tool Corporation).
Niles	Gisholt Machine Co.
Pearson	Foster Div. (Internat'l Mach. Tool Corporation).
Pierce	Do.
Smurr & Kamer	Do.
Southworth	Warner & Swasey.
Springfield (not Fox type)	Foster Div. (I. M. T. Corporation).
Steinle	Gisholt Machine Co.
Stecher	Foster Div. (Internat'l Mach. Tool Corporation).
Superior	Do.
Windsor	Do.
Woods	Bardons & Oliver, Inc.

LATHES (FOX)

American	Cone Driven $1,200.
Dresses	Do.
Bardons & Oliver	Do.
Warner & Swasey	Do.
Springfield	Do.

LATHES (SPINNING)

Atlantic	Prybil.[1]
Ballard	Do.
Schultz and any other	Do.

LINCOLN TYPE MILLS

Specify table size and travel for comparison.

American	Gooley & Edlund (Cooper Bros).
Becker	Do.
Becker-Brainerd	Do.
Bilton	Do.
Carter & Hakes	Do.
Cincinnati	Pl. Auto No. 1-12.
Dalton	Gooley & Edlund (Cooper Bros.)
Fox	Do.
Garvin	Do.
Hartford	Do.
Hendey	Do.
Hoefer	Do.
Kempsmith #32	$3,500.
Kempsmith #33	$4,500.
Potter & Johnson	Gooley & Edlund.
Productomatic	Producto Machine Co.
Putnam	Gooley & Edlund (Cooper Bros.).
Reed, F. E	Do.
Rockford	Do.
Sellers	Do.
Warner & Swasey	Do.

MILLERS (CAM)

Bilton	Producto Machine Co.
Garvin	Frew Machine Co.

MILLS—HAND

Armour	U. S. Machine Tool Co.
Auerbach	Do.
Atlas	Do.
Bickford	Standard Engineering Works.
Bickett	U. S. Machine Tool Co.
Brainerd	Standard Engineering Works.
Brown & Sharpe #00	Do.
Carter & Hakes #3	Do.
Chicago	Do.
Cincinnati #0	#3 Frew Machine Co.
Farwell	Standard Engineering Works.
Fox #1 & #2	#1 & #2 Standard Engineering Works.
Fox #3	#3 Frew Machine Co.
Fraser #1	U. S. Machine Tool Co.
Garrigus	Standard Engineering Works.
Garvin #1 & #2	#1 & #2 Standard Engineering Works.
Garvin #3	#3 Frew Machine Co.
Kempsmith #2	Do.
Larce	U. S. Machine Tool Co.
Newton	#3 Frew Machine Co.
Mossberg & Granville	Standard Engineering Works.
New Atlantic	Do.
Niles	Do.

[1] S. S. Hepworth Co., Long Island City, N. Y.

MILLS—HAND—Continued

Pratt & Whitney #1½	#3 Frew Machine Co.
Reed	Do.
Rockford	Do.
Smith	U. S. Machine Tool Co.
Steptoe	#3 Frew Machine Co.
Superior	Do.
Toledo #1	Do.
Van Norman #1	Do.
Vulcan	U. S. Machine Tool Co.
Whitney	Standard.
Wisconsin	Do.

On all other hand mills not manufactured 3/1/41 use U. S. Machine Tool Co.

MILLS (HORIZONTAL)

American	Kempsmith Machine Co. (cone).
Becker	Do.
Cincinnati Duplex mechanical feed.	Cincinnati hydromatic plain: $5,125, $7,320, $9,115, $11,620.
Cleveland	Kempsmith Machine Co. (max.).
Dow, B. G	Kempsmith Machine Co. #1 (cone).
Fox (all sizes)	Do.
Garvin	Kempsmith Machine Co. (cone).
Garvin Duplex #1	$2,250.
Garvin Duplex #2	$2,500 (belt).
Garvin Duplex #3	$2,750.
Grand Rapids	Kempsmith Machine Co. (cone).
Hendy Norton	Kearney & Trecker Type H
Ingersoll #5	$8,140.
LeBlond (cone) over #1	Kempsmith (max.) ded. 20% for cone drive.
LeBlond (geared)	Kempsmith Machine Co. (max.).
LeBlond #1 cone plain	Kempsmith #1, Pl. Type G—$3,675 less 20% for cone.
LeBlond #1 cone universal	Kempsmith #1, Universal Type G—$4,350 less 20% for cone.
National Transit	Kempsmith Machine Co. (max.).

MILLS (HORIZONTAL)—Continued

Oesterlein Ohio geared	Kempsmith Machine Co. (max.)
Oesterlein Ohio cone	Kempsmith Machine Co. (cone).
Oesterlein Ohio #40 titled and offset.	$7,500.
Oesterlein Ohio #48 tilted and offset.	$8,140.
Owen	Kempsmith Machine Co.
Potter & Johson 2M	Cincinnati Hydro (Cinn. Milling & Grinder Co.).
Rockford (cone)	Kempsmith Machine Co. (cone).
Rockford (geared)	Kempsmith Machine Co. (max.).
Ryerson-Conradson	Do.
Steptoe	Kempsmith Machine Co. #1 Pl. cone.
Valley City	Kempsmith Machine Co. (cone).

MILLER (VERTICAL)

Becker	See Reed-Prentice list of Becker Mills.
Becker-Brainerd	Do.
Bickett	Do.
Billings & Spencer Die Sinker.	Do.
Blake & Johnson	Do.
Bristol	Do.
Espen-Lucas	Do.
Garvin	Do.
Gould & Eberhardt	Do.
Jackson Die Sinker #5	Do.
Jackson Die Sinker #8	Do.
Newton	Do.
Niles	Do.
Niles-Bement-Pond	Do.
Potter & Johnson	Do.
Putnam	Do.
Rockford	Do.
Taylor & Fenn	Do.
Toledo	Do.
Warner & Swasey	Do.
#3 Ingersoll Vertical	$8,140.

BECKER VERTICAL MILLS

Model No.	Drive	Price Mar. 1, 1941, new	Weight	Feeds		P—Power	
				Long	Cross	V. knee	V. head
1	Cone	$800	900				
2	....do	950	1,000	12″	11″	16″	2″
2H	....do	1,300	1,345	16″	8″	16″	2″
2A	....do	1,350	1,360	P19″	11″	16″	3″
3	....do	1,750	1,900	P21″	12″	17″	3½″
3H	....do	1,950	1,940	27″	10″	17″	3½″
4B	....do	3,000	2,540	P28″	14″	19″	5″
AB	Gear box	3,500	3,234	P32″	P14″	P14″	P4″
5	Cone	4,000	5,000	39″	14″	Vert. travel	7″
5B	....do	4,450	4,500	P32″	P12″	12″	P4″
5C	....do	4,750	5,000	P54″	P16″	18″	P8¾″
B	Gear box	5,000	5,200	P36″	P14″	12″	P4″
C	....do	6,250	7,700	P43″	P15½″	P15″	P8¼″
C1	....do	6,500	7,800	P55″	P15½″	P15″	P8¼″
C2	....do	7,000	7,800	P68″	P15½″	P15″	P8¼″
6	Cone	8,000	8,400	P62″	P20″	P22″	P12″

Model SD Becker Vertical High-Power Milling Machine with a 40″ rotary table, weight 17800#. No equivalent, Mar. 1, 1941, price $6,875.

Model B-1 with rotary table, weight 6200#. No equivalent, Mar. 1, 1941, price $2,950.

Model C Becker Continuous Rotary Miller, weight 8400#. No equivalent, Mar. 1, 1941, price $5,450.

Model CS Continuous-Operation Circular Machine, weight 8800#. No equivalent, Mar. 1, 1941, price, $4,680.

PLANERS

For double housing type use *Cincinnati*—for open-side type use *Cleveland*.

On planers shown below with an asterisk or any others not built on March 1, 1941—50 percent is to be deducted from prices listed by the companies shown to the right, to get the equivalent price.

The 24″ x 24″ x 6′ Cincinnati double housing standard is to be used as an equivalent on *any* double housing planer of smaller dimensions—50 percent of amount given to be deducted to arrive at the base price.

The 26″ x 26″ x 6′ Cleveland open-side planer is to be used as an equivalent on *any* openside planer of smaller dimensions—50 percent of amount given to be deducted to arrive at the base price.

Ames *	Lynn-Farquhar *
American	New Albany *
Bedford *	New Haven *
Belmar-Eames *	Patch *
Bertram *	Pease *
Bethlehem	Smith Silk
Betts	Pond
Chandler	Powell
Detrick & Harvey	Pratt & Whitney *
Dustin *	Rochester *
Ferris & Miles *	Rockford
Flather *	Whipp *
Gleason *	Whitcomb *
Gorton	Whitcomb-Blaisdell *
Hamilton	Wheeler *
Hendey *	Woodward-Powell
Lodge & Davis *	

Use Cincinnati Planer Co. or Cleveland Planer Co. in accordance with above instructions.

PRESSES (ARCH)

Holden	Use prices as shown below.
Leffler	Do.
R & K	American Can Co.[1]

FLYWHEEL

Weight—lbs.:	*Price*
3,600–4,000	$1,210.00
4,000–4,700	1,370.00
4,700–5,200	1,510.00
5,200–6,000	1,925.00
6,000–8,000	2,195.00
8,000–12,000	2,945.00

GEARED

4,000–5,000	1,550.00
5,000–5,500	1,715.00
5,500–6,000	1,875.00
6,000–7,500	2,335.00
7,500–9,000	2,605.00
9,000–12,000	3,425.00

PRESS BRAKES

A & J	Dreis & Krump Mfg. Co.
Long & Allstatter	Do.
Bertch	Bertch.
Loy & Mawrath	Dreis & Krump Mfg. Co.
Ohl	Do.
Poorman	Do.
Robinson	Do.
Geo. Whiting	Geo. Whiting.

[1] Information on American Can Co. can be obtained from company's Cincinnati office.

PRESSES (DOUBLE CRANK)

Michigan	Zeh & Hahnemann Co.
Stoll	Do.

PRESSES (HORN)

Hartley	Rockford Iron Works.
Leffler	Do.
National	Do.
Stoll	Do.

PRESSES (O. B. I.)

Advance	Walsh Press & Die Co.
Baird	Do.
Crosby	Do.
Dries & Krump	Verson Allsteel Press Co.
Etna	Walsh Press & Die Co.
Henry-Wright	Varson Allsteel Press Co.
Michigan	Walsh Press & Die Co.
R & K [1]	American Can Co.
Verson (cast iron)	Walsh Press & Die Co.
Willard	Do.

PRESSES (OPEN BACK)

Crosby	Niagara Machine & Tool Works.
National	Do.
Torris Wald	Do.
Wald	Do.
Willard	Do.

PRESSES (SPRUE CUTTER)

Milwaukee	Obermayer, S., Co.[2]
Scully	Do.
Tessmer	Do.

PROFILERS

Garvin	Frew Machine Co.
Leland-Gifford	Do.
Newton	Do.
Nube	Pratt and Whitney Keller Type E-6.
Reed-Prentice	Frew Machine Co.

PUNCHES (GANG)

All gang presses not listed and not being manufactured—Williams & White.

Bertsch	Williams & White.
Long & Allstatter	Do.

PUNCHES (SINGLE END)

Buckley	Williams-White & Co.
Camden	Do.
Etna	Do.
Long & Allstatter	Do.
Rock River	Do.
Stiles & Parker	Do.
Whiting	Do.

PUNCHES & SHEARS (DOUBLE END)

Badger	Williams-White & Co.
Camden	Do.
Long & Allstatter	Do.

SEAMERS (DOUBLE)

Holden	Callahan Can Machine Co.
Torris-Wald	Do.

SHAPERS

American, Columbia, Averbeck, Barker, Barker-Chard, Davis, Economic, Flather, Hamilton, Juengst, Mattison, Milwaukee, Niles, Potter & Johnson, Queen City, Sterline, Stockbridge, Springfield, Walcott, Whipp	For American & Columbia single pulley drive use Gould & Eberhardt. For Cone Drive use "Steptoe" manufactured by Western Machine Tool Works. On all other cone driven machines, sizes 14" to 24" inclusive, use Steptoe. For 28" use base price of $2,930. For size 32"+36" use "Kelly" manufactured by General Eng. & Mfg. Co. and deduct $195. For Geared Head 14" to 24" inclusive add $195. to price of Steptoe. For 28" use base price of $3,150. For 32"+36" use Kelly.

SHAPER PLANER—MECHANICAL (OPENSIDE AND DOUBLE HOUSING)

Cincinnati	$3,000.00.
Coulter	$3,000.00.
Lynn Farquhar	$3,000.00.
Rockford	$3,000.00.
Whipp	$3,000.00.

[1] Information on American Can Company can be obtained in company's Cincinnati office.

[2] The S. Obermayer Company, Chicago, Ill.

SHEARS (ALLIGATOR)

Compared to	Hill Acme Co. (Canton Div.).

SHEARS (BAR AND ANGLE)

Carlin	Cleveland Punch & Shear Works Co.
Fisher	Do.
Garrison	Do.
Hilles & Jones	Do.
Long & Alstatter	Do.
Pels	Do.
United Engineering	Do.

SHEARS & PUNCHES (SINGLE AND DOUBLE END)

Badger	Williams-White & Co.
Buckley	Do.
Camden	Do.
Canton	Do.
Carlin	Do.
Etna	Do.
Garrison	Do.
Hilles & Jones	Do.
Long & Alstatter	Do.
Rock River	Do.
Stiles & Parker	Do.
Whiting	Do.

SQUARING SHEARS (FOOT & POWER)

Bliss	Niagara Machine & Tool Works.
Canton	Do.
Edwart & Kutscheid	Do.
Excelsior	Do.
Garrison	Do.
Hilles & Jones	Do.
Long & Alstatter	Do.
Loy & Nawrath	Do.
Ohl	Do.
Robinson	Do.
Stool	Do.
Toledo	Do.
Woodward	Do.

SHEARS (ROTARY)

Hilles & Jones	Quickwork Whiting Division, George Whiting Corporation.
Lennox	Do.
Long & Alstatter	Do.
Marshalltown	Do.
Yoder	Do.

SLOTTERS

Bement	Dill-Lobdell Car Wheel Co.
Bertram	Do.
Betts	Do.
Garvin	Rhodes (see B. C. Ames).
Hanson-Whitney	Pratt & Whitney.
New Haven	Dill-Lobdell Car Wheel Co.
Newton	Do.
Niles	Do.
Sellers	Do.
Putnam	Do.

ABRASIVE MACHINE TOOL CO., EAST PROVIDENCE, R. I.

	No. 3 machine	No. 33 machine
Last serial No. for year:		
1919	273	None
1929	1374	363
1935	1562	403

ACME MACHINE TOOL CO., CINCINNATI, OHIO

Last serial No. for year:	
1919	4545
1929	5697
1935	5907

ACME MACHINERY DIVISION, THE HILL ACME CO., CLEVELAND, OHIO

Last serial No. for year:	
1919	13647
1929	16256
1935	16497

THE ADAMS CO., DUBUQUE, IOWA

	Last serial No. for year—		
	1919	1929	1935
No. 1 Adams Gear Hobber	460	534	535
No. 2 Adams Gear Hobber	115	150	------
No. 3 Adams Gear Hobber	114	141	142
No. 4 Adams Gear Hobber	225	247	249
No. 5 & 6 Adams Gear Hobber & Thread Millers and 5M & 6M Adams Jig Hobbers	------	13	20

AIRCRAFT MACHINERY CORPORATION, BURBANK, CALIF.

Last serial No. for year 1935	10035

ALBANY HARDWARE SPECIALTY MANUFACTURING CO., ALBANY, WIS.

Last serial No. for year:	
1919	1087
1929	1592
1935	1632

CHARLES G. ALLEN CO., BARRE, MASS.

Last serial No. for year:	
1919	10032
1929	13568
1935	14389

AMERICAN BROACH AND MACHINE CO., ANN ARBOR, MICH.

Last serial No. for year:	
1919	106
1929	676
1935	2209

AMERICAN TOOL WORKS CO., CINCINNATI, OHIO

Last serial No. for year:	
1919	50166
1929	58164
1935	59597

NOTE: Serial numbers have run consecutively since 1898.

B. C. AMES CO., WALTHAM, MASS.

Bench lathes		Bench millers		Rhodes shapers and slotters (not made by Ames until 1929)	
1919	1163	1919	500	1929	2499
1929	2242	1929	703	1935	2593
1935	2400	1935	762		

THE MAX AMS MACHINE CO., BRIDGEPORT, CONN.

Serial No. of last machine manufactured during the year:	
No. 168 Double Seamer, 1919	42567
No. 168-B Double Seamer, 1929	61726
No. 751 Lining Machine, 1935	69390

ARMSTRONG-BLUM MANUFACTURING CO., CHICAGO, ILL.

	Last serial No. for year—		
	1919	1929	1935
Nos. 1 & 2 Marvel Hack Sawing Machines. These small models have never been serial numbered.			
Nos. 6 & 6A Marvel Hack Sawing Machines. New model brought out in 1930	------	------	6419
No. 4B Marvel Hack Sawing Machines. New model brought out in 1934	------	------	4540
No. 8 Marvel Metal Band Sawing Machines. Started serials in 1922	------	8676	8898
No. 18 Marvel Hack Sawing Machines. New model brought out in 1936	------	------	------
Nos. 9 & 9A Marvel Hack Sawing Machines. New model brought out in 1931	------	------	9278

ARTER GRINDING MACHINE CO., WORCESTER, MASS.

	Last serial No. for year—		
	1919	1929	1935
Model A-1-8"	231	503	R-2-46
Model A-1-12"	12155	12243	R2-12251
Model A-16"	1625	16100	R-2-16111

THE AVEY DRILLING MACHINE CO., CINCINNATI, OHIO

Last serial No. for year:	
1919	8297
1929	15454
1935	16428

AXELSON MANUFACTURING CO., LOS ANGELES, CALIF.

	Last serial No. for year—		
	1919	1929	1935
16 inch	381	648	664
18 inch	382	647	660
24 inch	376	643	665
30 inch	------	650	------

BAKER BROS., INC., TOLEDO, OHIO

Last serial No. for year:

1919	6022
1929	9334
1935	11141

BARBER-COLMAN CO., ROCKFORD, ILL.

	Last serial No. for year—		
	1919	1929	1935
No. 2 Hobbing Machine	40	198	------
No. 12 Hobbing Machine	1637	3319	3582
No. 16 Hobbing Machine	------	26	------
No. 17 Hobbing Machine	------	13	17
Type "B" Hobbing Machine	------	7	26
No. 3 Hobbing Machine	396	1050	1197
Type "A" Hobbing Machine	------	------	252
Type "T" Hobbing Machine	------	------	12
No. 3 Hob Sharpening Machine	5	51	358
No. 4 Hob Sharpening Machine	------	3	9
Reamer Sharpening Machine	------	35	52

NOTE: At the present time Barber-Colman Co. also manufactures Type "D" Hobbing Machines, Type "S" Hobbing Machines, Type "V" Hobbing Machines and Combination Sharpening Machines but as none of these models were produced prior to 1936, they have not been included in the above list.

BARDONS AND OLIVER, INC., CLEVELAND, OHIO

Last serial No. for year:

1919	9062
1929	10279
1935	10474

BARNES DRILL CO., ROCKFORD, ILL.

	Last serial No. for year 1919
22" Single Spindle Drill	258
22" Gang Drill	21-(259, 260)
26" Single Spindle Drill	442
26" Gang Drill	38-(131-2-3-4)
20" Standard Single Spindle Drill	1582
20" Self-Oiling Single Spindle Drill	0297
20" Standard Gang Drill	246-(875-874)
20" Self-Oiling Gang Drill	043-(139-40-1-2)
24" Standard Single Spindle Drill	723
24" Self-Oiling Single Spindle Drill	0158
24" Gang Drill	52-(161-2-3-4)
20" Self-Oiling Single Spindle Drill	01272
20" Self-Oiling Gang	0233-(722-3)
210 Single Spindle Drill	B-354
210 Gang Drill	B-45-(338-9-40)
22" Self-Oiling Single Spindle Drill	663
22" Gang Drill	94-(664-5)
24" Single Spindle Drill	0641
24" Gang Drill	0105-(228-9-30)
242 Drill	D-305
242 Gang Drill	D-41-(301-2-3-4)
263 Drill	F-975
263 Gang Drill	F-50-(973-4)
211 Cam Driven Honer	B-304
212 Honer	B-348
214 Honer	BH-52
249 Honer	DH-40
Last serial No. for year 1935	285

NOTE: Year of 1935 above company began numbering machines consecutively for entire line.

BARRETT MACHINE TOOL CO., MEADVILLE, PA.

Last serial No. for year:

1919	2101
1929	2241
1935	2258

BEATTY MACHINE & MANUFACTURING CO., HAMMOND, IND.

Last serial No. for year:

1919	650
1929	5912
1935	7800

BAUSCH MACHINE TOOL CO., SPRINGFIELD, MASS.

Last serial No. for year:

1919	4613
1929	5279
1935	5437

BIGNALL & KEELER MACHINE WORES, EDWARDSVILLE, ILL.

Last serial No. for year:

1919	5199
1929	5744
1935	5790

THE BILLINGS & SPENCER CO., HARTFORD, CONN.

	Last serial No. for year—		
	1919	1929	1935
Board Drop Hammers	1853	2301	2315
Die Sinking Machine—Model M-19	------	43	49
Trimmer Miller—Model 21	------	38	47
Trimming Presses	250	335	336

BLANCHARD MACHINE CO., CAMBRIDGE, MASS.

Last serial No. for year:

1919	1097
1929	2066
1935	2445

E. W. BLISS CO., BROOKLYN, N. Y.

	Last serial No. for year—		
	1919	1929	1935
Toledo Presses	13305	25098	27218
Consolidated Presses	3694	7972	9983
Brooklyn Presses	73522	98811	103362

THE BODINE CORPORATION, BRIDGEPORT, CONN.

Model 40—16 Machines Produced in 1935.

THE BOYE & EMMES MACHINE TOOL CO., CINCINNATI, OHIO

	Last serial No. for year—		
	1919	1929	1935
14" Lathes	------	50 #1	50 #25
16" Lathes	------	100 #9	100 #25
18" Lathes	300 #1	300 #243	300 #262
20" Lathes	142 #6	200 #165	200 #181
24" Lathes	406 #2569	400 #100	400 #115
26" Lathes	500 #2	------	------
27" Lathes	------	500 #13	500 #16
28" Lathes	182 #1166	------	------
30" Lathes	108 #644	600 #35	600 #44
32" Lathes	111 #660	600 #36	600 #49
36" Lathes	40 #172	600 #28	600 #50

THE BRADFORD MACHINE TOOL CO., CINCINNATI, OHIO

(Last serial numbers and approx. year Lathes built)

Serial No.:	*Year built*
Series 1800 to 2000 inclusive	1915
Series 2100 to 2600 inclusive	1916
Series 2700 to 3100 inclusive	1917
Series 3200 to 3500 inclusive	1918
Series 3600 to 3800 inclusive	1919
Series 3900 and 4000	1920
Series 4100	1921
Series 4200	1922
Series 4300	1923 to 1926
Series 4400	1927
Series 4500	1928 to 1937

BRIDGEPORT SAFETY EMERY WHEEL CO., STRATFORD, CONN.

No serial numbers used in 1919 and 1929. Following apply to 1935:

17 M Buff Navy	BA-108
194 Buff	BA-109
117 C Single Wheel Grinder	J-101
QB Buff (10-27-33)	BB-102
23 Buff	BB-112
185 Floor Grinder	FA-130
6 AC Floor Grinder	FA-129
7 AC Floor Grinder	FA-128
8 AC Floor Grinder	FA-127
½ AC Floor Grinder	FA-125
184 Floor Grinder	FA-122
186 Floor Grinder	FA-119
2 AC Floor Grinder	FA-113
161 Floor Grinder	FB-111

BRIDGEPORT SAFETY EMERY WHEEL CO., STRATFORD, CONN.—Continued

1 BD Floor Grinder	FB-109
74—170" Hyd. Grinder	H-110
74—50" Hyd. Grinder	H-111
74—156" Hyd. Grinder	H-113
48 Dry Cut-off Machine	A-113
179—60" Knife Grinder	M-113
3 TGM Tool Grinder	T-121
2 TGAM Comb. Twist Drill & Tool Grinder	T-120
2 TGM Tool Grinder	T-118
16 AC Buff	BA-104
15 AC Buff	BA-103
R BD Buff	BB-101
6 U Truing Lathe	FB-104
2 BD Floor Grinder	FB-103
74—100" Hyd. Face Grinder	H-109
84—110" Hyd. Face Grinder	H-108
74—90" Hyd. Face Grinder	H-107
74—70" Hyd. Face Grinder	H-102
74—170" Hydraulic Face Grinder	H-101
82—82" Knife Grinder	M-112
82—102" Knife Grinder	M-111
82—62" Knife Grinder	M-110
32—H Fur Knife Grinder	M-107
179-110" Knife Grinder	M-106
180—50" Knife Grinder	M-105
179—160" Knife Grinder	M-103
1 SFM Swing Grinder	SF-103
2 SFM Swing Grinder	SF-101

All 47W and 48W Abrasaws made after 1935.

BRYANT CHUCKING GRINDER CO., SPRINGFIELD, VT.

Last serial No. for year:

1919	[1]A-1791
1929	E-2835
1935	P-3159

BULLARD CO., BRIDGEPORT, CONN.

Last serial No. for year:

1919	11000
1929	14800
1935	15300

Numbers run consecutively irrespective of type.

CALLAHAN CAN MACHINE CO., BROOKLYN, N. Y.

Last serial No. for year:

1919 [2]	
1929 [2]	
1935	10043

CARLTON MACHINE TOOL CO., CINCINNATI, OHIO

	Last serial No. for year—		
	1919	1929	1935
Model-2A	------	5273	5329
Model-3A	10	556	688

CARROLL-JAMIESON MACHINE TOOL CO., BATAVIA, OHIO

	Last serial No. for year—		
	1919	1929	1935
13" lathes—Old model	429	------	------
14" & 16"—Old model	2523	------	------
13-14-15-16" Lathes, old model	------	3369	3453

CHAMBERSBURG ENGINEERING CO., CHAMBERSBURG, PA.

Last serial No. for year:

1919	4119-S1
1929	1467-S2
1935	1629-S2

CHAMPION BLOWER & FORGE CO., LANCASTER, PA.

Last serial No. for year:

1923	13, 624
1929	15, 527
1935	15, 952

These Serial Numbers apply to 20", 21" and 24" upright power and electric driven drill presses.

CHATTANOOGA MACHINERY CO., CHATTANOOGA, TENN.

Last serial No. for year:

1919	899
1929	857
1935	962

[1] Letter preceding serial number serves to identify model number.

[2] Predecessor Adriance Machine Works did not number machines serially.

CINCINNATI BICKFORD TOOL CO., CINCINNATI, OHIO

	Last serial No. for year—		
	1919	1929	1935
UPRIGHT DRILLS			
21" Direct Drive	----------	N909	N1060
24" Direct Drive	----------	2N302	2N393
20" Sliding Head	J919	J1545	J1605
21" Stationary Head	A4445	A5185	A5247
24" Stationary Head	B3454	B4859	B4998
28" Stationary Head	C1046	C1245	C1283
32" Stationary Head	D595	D676	D679
36" Stationary Head	E316	E359	----------
42" Stationary Head	H121	H134	----------
24" Sliding Head (Shaft Driven)	B371	B521	B531
28" Sliding Head (Shaft Driven)	C90	C125	C128
32" Sliding Head (Shaft Driven)	D56	D80	D82
36" Sliding Head (Shaft Driven)	E34	E43	----------
42" Sliding Head (Shaft Driven)	H30	H38	----------
21" Super Service (U Type)	----------	3U59	----------
21" Super Service (Present Style)	----------	----------	1L69
24" Super Service (Present Style)	----------	----------	2L142
28" Super Service (Present Style)	----------	----------	3L4
RADIAL DRILLS			
3' & 4' Radials (3A)	3A3611	3A4392	----------
3' & 4' Radials (2A)	----------	----------	2A54
3' & 4' Radials (1R)	----------	----------	1R83
4' Full Universal	4A1278	4A1316	----------
4' Plain (D Type)	4D585	4D848	4D849
5' Full Universal	5A840	5A869	----------
5' Plain (D Type)	5D338	5D492	----------
6' Full Universal	6A549	6A579	----------
6' Plain (D Type)	6D252	6D340	6D343
11" Dia. Column Super Service	----------	----------	2E56
13" Dia. Column Super Service	----------	3E236	3E325
15" Dia. Column Super Service	----------	4E136	4E189
17" Dia. Column Super Service	----------	5E93	5E114
19" Dia. Column Super Service	----------	6E74	6E107
22" & 25" Dia. Column Super Service	2C46	2C71	2C73

CINCINNATI ELECTRIC TOOL CO., CINCINNATI, OHIO

Last serial No. for year:

1919	29980
1929	69825
1935	77290

CINCINNATI GILBERT TOOL CO., CINCINNATI, OHIO

	Last serial No. for year—		
	1919	1929	1935
2½' & 3' Arm Simplex Radial Drills	3599	------	------
4' & 4½' Arm Plain Radial Drills	2620	------	------
5' Arm Plain Radial Drill	3559	------	------
6' Plain Radial Drill (Arm)	3575	------	------
5' Arm Full Universal Radial Drill	3493	------	------
6' Arm Full Universal Radial Drill	3701	------	------
3' & 4' Arm 11" column Radial Drill	------	4138	------
4' & 5' Arm 13" column Radial Drill	------	4006	------
5' & 6' Arm 15" column Radial Drill	------	3971	------
6', 7' & 8' Arm 17' & 19" column Radial Drill	------	4129	------
3' & 4' Arm 9" column Radial Drill	------	------	4208
5', 4' & 5' Arm 11" column Radial Drill	------	------	4176
4' & 5' Arm 13" column Radial Drill	------	------	4198
5' & 6' Arm 15" column Radial Drill	------	------	4226
6', 7' & 8' Arm 17" column Radial Drill	------	------	4161

CINCINNATI SHAPER CO., CINCINNATI, OHIO

Last serial No. for year:

1919	7728
1929	9995
1935	10649

CLEVELAND AUTOMATIC MACHINE CO., CLEVELAND, OHIO

Last serial No. for year:

1919	30140
1929	34872
1935	35190

CLEVELAND HOBBING MACHINE CO., CLEVELAND, OHIO

Last serial No. for year:

1929	20–160
1935	258–1253

CLEVELAND PLANER CO., CLEVELAND, OHIO

Last serial No. for year:

1919	[1] 1001
1929	1161
1935	1181

CLEVELAND PUNCH & SHEAR CO., CLEVELAND, OHIO

Last serial No. for year:

1919	4496–4504
1929	6677
1935	7277

COCHRANE-BLY CO., ROCHESTER, N. Y.

	Last serial No. for year—		
	1919	1929	1935
No. 1 Filing Machine	7641	7881	7901
No. 2 Filing Machine	6860	6006	6016
Metal Sawing Machine with Circular Blade:			
No. 1	17863	17960	----------
No. 2-B	18883	18959	18962
No. 4-B	11409	----------	11515
No. 4-C	------	11510	11515
No. 5	15389	15590	15595
No. 6	15394	15592	15594
No. 55 and No. 55-B	------	55–14	55–26
No. 66	------	66–55	66–57
No 7 and No. 77	------	77–12	----------
No. 21 Plain	------	21–36	21–46
No. 21 Automatic	------	21–A–38	21–A–52
No. 31 Hydraulic	------	31–2	31–A–6
No. 14 Universal Vertical Miller-Shaper	5198	5337	5364
No. 11 Saw Blade Sharpening Machine	4394	4540	4552

COLONIAL BROACH MACHINE CO., DETROIT, MICH.

Last serial No. for year 1935—555186 and M-1000 through M-1240 inclusive.

COLUMBIA MACHINE TOOL CO., HAMILTON, OHIO

Last serial No. for year:

1919	199
1929	614
1935	634

CONE AUTOMATIC MACHINE CO., INC., WINDSOR, VT.

Last serial No. for year:

1919	[2] 50
1929	1366
1936	1820

CONSOLIDATED MACHINE TOOL CORPORATION, ROCHESTER, N. Y.

Last serial No. for year:

1929	E–4136
1935	E–4579

CONTINENTAL MACHINES, INC., MINNEAPOLIS, MINN.

Last serial No. for year 1935 ---------- 23518

COVELL MANUFACTURING CO., BENTON HARBOR, MICH.

	Last serial No. for year—		
	1919	1929	1935
No. 99 Universal Cutter and Tool Grinder	------	------	151
No. 1 Universal Cutter and Tool Grinder	686	1094	1113
No. 78 Surface Grinder	102	372	383
Drill Grinders	13740	16100	1033
Nos. 1, 2, 3, Surface Grinders	1680	2130	------
No. 5 Surface Grinder	------	------	109
No. 72 Surface Grinder	------	------	172

COX AND SONS CO., BRIDGETON, N. J.

Last serial No. for year:

1919	1519
1929	1783
1935	1801

[1] Prior to 1921 machines were not given serial numbers
[2] Approximate number of machines manufactured before 1919.

CURTIS AND CURTIS CO., BRIDGEPORT, CONN.

Last serial No. for year:

1919	17698
1929	19026
1935	19116

DAUBER CO., OSHKOSH, WIS.

Last serial No. for year:

1919	167
1929	236
1935	238

DAVENPORT MACHINE TOOL CO., ROCHESTER, N. Y.

Last serial No. for year:

1919	299
1929	778
1935	958

DAVIS KEYSEATER CO., ROCHESTER, N. Y

	Last serial No. for year—		
	1919	1929	1935
No. 1	869	------	------
No. 2	988	------	------
Old Style Fixed Table	------	1462	------
New Style Tilting Table	------	------	1556
No. 3	------	------	7
No. 4	------	------	14
No. 5	------	------	1

DAVIS & THOMPSON CO., MILWAUKEE, WIS.

Last serial No. for year:

1919	8
1929	315
1935	444

DEFIANCE MACHINE WORKS, INC., DEFIANCE, OHIO

Last serial No. for year:

1919	180–19
1929	567–29
1935	716–35

A. P. DESANNO & SON, PHOENIXVILLE, PA.

Last serial No. for year—1935 ---------- Type C—3227

DIAMOND MACHINE CO.

SUPPLIED BY AMERICAN ENGINEERING COMPANY—PHILADELPHIA

Serial Nos. for the year 1919—on Face Grinders:

1021	997	1090	1109	1098	1149
1030	1070	1097	1112	1133	1150
1019	1066	1083	1189	1127	1047
1058	1064	1091	1121	1095	1148
1040	1074	1102	1093	1144	1146
996	1091	1103	1094	1128	1145
1067	1081				

Serial Nos. for the year 1929—on Face Grinders:

1617	1620	1623	1705	1726	1741
1618	1621	1573	1725	1730	1464
1619	1622	1628			

Serial Nos. for the year 1935—On Face Grinders ---------- 182

DREIS & KRUMP MANUFACTURING CO., CHICAGO, ILL.

	Last serial No. for year—		
	1919	1929	1935
Power Brakes	13850	30480	33960
Power Press Brakes	------	5181	5436
Press Brakes, lighter type	------	------	L–329
Power Shears	------	S–2267	S–2464

ECONOMY ENGINEERING CO., WILLOUGHBY, OHIO

Last serial No. for year:

1919	[1] 1000
1929	5598
1935	35028

EASTERN MACHINE SCREW CORPORATION, NEW HAVEN, CONN.

	Threaders	Grinders
Last serial No. for year:		
1929	411	215
1935	487	241

[1] Approximate.

EDLUND MACHINERY COMPANY, INC., CORTLAND, N. Y.

	1-B	2-B	3-B	4-B
Last serial No. for year:				
1919	546-1B	99-B		
1929	857-1B	1518B	253	4B170
1935	99701B	1812B	3B470	4B239

CHARLES F. ELMES ENGINEERING WORKS, CHICAGO, ILL.

Last serial No. for year:

1919	F-793
1929	H-8432
1935	I-9161

ERIE FOUNDRY CO., ERIE, PA.

	Steam or air hammer	Board drop hammer	Presses
Last serial No. for year:			
1919	1720		730
1929	2393	5210	912
1935	2486	5279	952

ESPEN LUCAS MACHINE WORKS, PHILADELPHIA, PA.

Last serial No. for year:

1919	S. O. 8003
1929	S. O. 11727
1935	S. O. 12972

ETNA MACHINE CO., TOLEDO, OHIO

Last serial No. for year:

1919	570
1929	801
1935	862

EX-CELL-O CORPORATION, DETROIT, MICH.

	Serial No. of last machine for year 1935
No. 2112 Ex-Cell-O Precision Boring Machine	1074
No. 1212 Ex-Cell-O Precision Boring Machine	2079
No. 112 Ex-Cell-O Precision Boring Machine	154
No. 215 Ex-Cell-O Precision Boring Machine	2005
No. 13 Ex-Cell-O Precision Thread Grinder	116
No. 35 Ex-Cell-O Precision Thread Grinder	1001
No. 44 Ex-Cell-O Carbide Tool Grinder	1130

FARREL-BIRMINGHAM CO., ANSONIA, CONN.

Last serial No. for year:

1929	801B
1935	845B

FEDERAL PRESS CO., ELKHART, IND.

	Last serial No. for year—		
	1919	1929	1935
No. 0			130
No. 1	179	179	214
No. 2		228	305
No. 3		300	384
No. 33		102	111
No. 4		189	233
No. 5		173	225
No. 6			108
No. 7			108

FELLOWS GEAR SHAPER CO., SPRINGFIELD, VT.

Last serial No. for year:

1919	7272
1929	14414
1935	15868

FERRACUTE MACHINE CO., BRIDGETON, N. J.

Last serial No. for year:

1919	12705
1929	18905
1935	19500

FISCHER MACHINE CO., PHILADELPHIA, PA.

	Fischer Oil Groovers	
	No. 1	No. 2
Last serial No. for year:		
1919	389	13
1929	652	34
1935	683	40

FITCHBURG GRINDING MACHINE CORPORATION, FITCHBURG, MASS.

	Universal and Spline	Plain Cyl.
Last serial No. for year:		
1919	1390	623
1929	1762	839
1935	1835	855

FOOTE-BURT CO., CLEVELAND, OHIO

Last serial No. for year:

1919	398
1929	1012
1935	1104

Serial Nos. on machines indicate year manufactured: i. e. 12938-35 the last two numbers "35" designate the year 1935.

FOSDICK MACHINE TOOL CO., CINCINNATI, OHIO

Last serial No. for year:

1919	4715
1929	6567
1935	6956

FRENCH OIL MILL MACHINERY CO., PIQUA, OHIO

Last serial No. for year:

1919	3995
1929	6631
1935	7882

FREW MACHINERY CO., PHILADELPHIA, PA.

Last serial No. for year:

1929	262
1935	303

GALLMEYER AND LIVINGSTON CO., GRAND RAPIDS, MICH.

	Last serial No. for year—		
	1919	1929	1935
No. 0 Hand Feed Surface Grinder			021
No. 10			SG1097
No. 15 Hand Feed Surface Grinder			S15033
No. 18 Hand Feed Surface Grinder			S18016
No. 25 Hydraulic Feed Surface Grinder			S25073
No. 30			S3054
No. 35 Hydraulic Feed Surface Grinder			S35074
No. 3-V Hydraulic Feed Surface Grinder			VS308
No. 40			S4043
No. 45 Hydraulic Feed Surface Grinder			S45047
No. 50 Hydraulic Feed Surface Grinder			S5053
No. 55 Hydraulic Feed Surface Grinder			S55067
No. 65 Hydraulic Feed Surface Grinder			S65017
No. 1½ Universal Cutter & Tool Grinder		U1569	U1604
No. 3 Universal Cutter & Tool Grinder		U3120	U3145
No. 4 Universal Cutter & Tool Grinder		U4053	U4067
No. 5 Universal Cutter & Tool Grinder		U5020	U5034

GARDNER MACHINE CO., BELOIT, WIS.

	Last serial No. for year—		
	1919	1929	1935
No. 1 Disc Grinder	1431	1637	1654
No. 2 Disc Grinder	2624	21101	21133
No. 3 Disc Grinder			3010G
No. 4 Disc Grinder	4603	4841	4874
No. 6 Disc Grinder	6291	6508	6558
No. 7 & No. 7¼ Disc Grinders	7202	7462	7499
No. 8 Disc Grinder	818	825	826
No. 14 Disc Grinder	14500	14712	14760
No. 24 Disc Grinder	24267	24482	24526
No. 79 Disc Grinder		7910H	7917H
No. 86 Disc Grinder		8678	86107
No. 88 Disc Grinder		8814	8826
No. 215 Disc Grinder			21501
No. 218 Disc Grinder			21801
No. 220 Disc Grinder			22002
No. 0 Polishing Lathe	034P	045P	045P
No. 1 Polishing Lathe	1350P	1619P	1625P
No. 2 Polishing Lathe	2334P	2767P	2787P
No. 3 Polishing Lathe	3928P	32914P	32950P
No. 4 Polishing Lathe	432P	490P	490P
No. 3-D Polishing Lathe		3D526	3D570
No. 123 Disc Grinder			12302

GENERAL ENGINEERING & MANUFACTURING CO., ST. LOUIS, MO.

Last serial No. for year:

1919	3021
1929	3271
1935	3280

GENERAL MACHINERY CORPORATION, HAMILTON, OHIO

Last serial No. for year.

1919	18950
1929	20995
1935	21275

GEOMETRIC TOOL CO., NEW HAVEN, CONN.

	Last serial No. for year—		
	1919	1929	1935
Threading Machines	834	1537	1573
Geometric Chaser Grinders	378	544	550

GIDDINGS & LEWIS MACHINE TOOL CO., FOND DU LAC, WIS.

No. 0	Serial No. 4101-4559, incl. Last Serial No. issued 1919.
No. 32	Serial No. 4560-4790, incl. Last Serial No. issued 1929.
No. 45	Serial No. 8000-8224, incl. Last Serial No. issued 1935.
No. 300	Serial No. P-1000-P-1010, incl. Last Serial No. issued 1929.
No. UR3	Serial No. 300-318, incl. Last Serial No. issued 1933.
No. 25-T	Serial No. 1-41, incl. Last Serial No. issued 1929.
No. 330-T	Serial No. 4801 & up First Serial No. issued 1930.
No. 350-T	Serial No. 8650 & up First Serial No. issued 1940.
No. 700-T	Serial No. 9003 & up First Serial No. issued 1931.
No. 50 & 56-T	Serial No. 8501 & up First Serial No. issued 1928.

GISHOLT MACHINE CO., MADISON, WIS.

	Last serial No. for year—		
	1919	1929	1935
Type:			
"G"	115-144	145	
"H"	200-224		
	300-349		
	501-504	505	
"I"	225-249		
	350-411	412	
"J"	108-113		
	250-271	272-274	
"1L"		601-609	610-612
"2L"		651-660	661-665
"3L"		1104	
		901-910	
		912-914	
		916-918	
"3AL"		906-911	
		913-915	
		917	919-922
"K"	114		
	275-296	297	
No. 2		701-707	
No. 3		751-756	757
			765
			768
No. 4		801-820	821-823
			761-762
			766-767
No. 5			825-826
No. 6		851-861	862
Type:			
"4L"		1131	
		951-961	962-963
"5L"		954-955	962
"3D"		1055-1058	
		18500-18518	
		519-529	530-532
No. 12			3001

GLEASON WORKS, ROCHESTER, N. Y.

Last serial No. for year:

1919	5097
1929	11430
1935	12761

GOOLEY & EDLUND

Last serial No. for year:

1919	3278
1929 (Type A or B)	3595

NOTE: During 1926—5 machines numbered 4000 through 4004 shipped.

GEORGE GORTON MACHINE CO., RACINE, WIS.

	Last serial No. for year—		
	1919	1929	1935
Engravers:			
1-G	8322	9946	
3-G		11415	11446
1-D	8276	10594	
3-D		11509	11527
1-A	8998	9752	
3-A		11608	11619
1-J	6107	10134	10139
3-J		11702	11732
3-F			12909
3-U			13015
1-H	9311	10805	
3-H		10904	10905
1-S		10423	10426
3-S			11812
3-E			12528
3-Q			12442
3-K			11904
3-X		11013	11021
3-Z		11233	11274
3-B			12603
3-L			13100
Millers:			
8-D Hand Feed Vertical		11320	12732
8-D Power Feed Vertical			12107
8-D Universal			12220
8½-D Vertical			12829
9-J Vertical			12313

GOSS & DELEEUW MACHINE CO., NEW BRITAIN, CONN.

Last Serial No. for year ending:

1929	382
1935	508

GOULD & EBERHARDT, NEWARK, N. J.

	Last serial No. for year—		
	1919	1929	1935
Shapers	13080	702A1	1214A1
Gear Cutters	3408	6-7A1	1096A1

G. A. GRAY CO., CINCINNATI, OHIO

Last serial No. for year:

1919	6139
1929	6749
1935	6819

GREENLEE BROS. & CO., ROCKFORD, ILL.

	Last serial No. for year—		
	1919	1929	1935
Automatic Screw Machines		A-108	A-152
Special Multiple Spindle Drilling & Tapping Equipment		1510	1989

GROB BROS., GRAFTON, WIS.

	Last serial No. for year—		
	1919	1929	1935
Type B-3			188
Type A-3			275
Type S			13

HALL PLANETARY CO., PHILADELPHIA, PA.

	Last serial No. for year—		
	1919	1929	1935
"A"	131	555	591
"B"		6	509
"C"	136		
"D"		553	577

HAMMOND MACHINERY BUILDERS, KALAMAZOO, MICH.

	Last serial No. for year—		
	1919	1929	1935
Victory Pol. Lathe		556-B	651
Rite Speed Pol. Lathe		1704	2416
Heavy Duty Pol. Lathe		752	786
Straight Line & Rotary Automatic Burring & Polishing Machine			688
Grinders		5044	5455

HANCHETT MANUFACTURING CO., BIG RAPIDS, MICH.

	Last serial No. for year—		
	1919	1929	1935
Rotary Grinders:			
No. 72			72C-9
Badger Disc Grinders:			
No. 2	204	241	242
No. 4	426	466	474
No. 6	626	680	693
No. 7	704	726	727
No. 8	818	861	870
No. 9		1001	1002
No. 206		1901	1903
No. 220	903	991	9904
No. 221		1542	1576
No. 224		1711	1714
No. 228			
No. 230			3002
Vertical Spindle Surface Grinders:			
No. 400			480-1
Face Grinders—Table Type:			
No. 900			900-10
UK Travelling Type Grinders:			
No. 500		231	234
No. 600		605	

HANNA ENGINEERING WORKS, CHICAGO, ILL.

Last serial No. for year:

1919	2224
1929	4490
1935	5016

HANNIFIN MANUFACTURING CO., CHICAGO, ILL.

Last serial No. for year:

1919	8310
1929	A-3463
1935	A-18022

HANSON-WHITNEY MACHINE CO., HARTFORD, CONN.

	Last serial No. for year—	
	1929	1935
Vertical Die Shaping Machine	93	108
Rapid Precision Centering Machine	59	69
7½" x 11½" Thread Milling Machine	245	317

HARDINGE BROTHERS, INC., ELMIRA, N. Y.

Last serial No. for year:

1929	10200 (approx.)
1935	13400 (approx.)

R. G. HASKINS CO., CHICAGO, ILL.

Type of machine	Serial No.	Year
"M" Tapping Equipment	C-395	Dec. 1931
"M" Tapping Equipment	C-847	Dec. 1932
"TP" Tapping Equipment	C-1402	Dec. 1933
"2-A" Tapping Equipment	T-345	Dec. 1934
"2HA" Tapping Equipment	T-1295	Dec. 1935

HENDEY MACHINE CO., TORRINGTON, CONN.

	Last serial No. for year—		
	1919	1929	1935
Friction Shapers	6575		
20" Crank Shaper	405	1387	1455
16/20" Crank Shaper		1293	1596
24/28" Crank Shaper		1249	1496
32" Crank Shaper		1285	1286
12" Crank Shaper			1615
Lathes	22651	27960	28835

HENDLEY & WHITTEMORE CO., BELOIT, WIS.

Last serial No. for year:

1919	3184
1929	6607
1935	7126

HENRY & WRIGHT MANUFACTURING CO., HARTFORD, CONN.

	Last serial No. for year—		
	1919	1929	1935
All Drilling Machines Except Classes O and R	25519	29152	29240
Class O Drilling Machines (Bench Type)	206	308	312
Class R Drilling Machines (Sensitive Floor Type)		464	501
Dieing Machines and conventional type welded Steel Presses	37	643	35847

HOEFER MANUFACTURING CO., FREEPORT, ILL.

Last serial No. for year:

1919	3084
1929	18902
1935	20750

HUNTER SAW & MACHINE CO., PITTSBURGH, PA.

	Last serial No. for year—		
	1919	1929	1935
No. 1-A		258	288
No. 6			134
No. 0		131	
No. 2-B			112

ILLINOIS MACHINE & MANUFACTURING CO., LASALLE, ILL.

Last serial No. for year:

1929	11-36 and 10-A-45
1935	11-43 and 10-A-52

INGERSOLL MILLING MACHINE CO., ROCKFORD, ILL.

Last serial No. for year:

1919	2802
1929	4514
1935	14980

INTERNATIONAL MACHINE TOOL CORPORATION, ELKHART, IND.

	Last serial No. for year—		
	1919	1929	1935
No. 0 machine	0977	01110	
No. 1 machine	10541	10802	10817
No. 2 machine	22059	23007	
No. 3 machine	31905	32818	32858
No. 4 machine	41265		
No. 5 machine	5435	5687	
No. 6 machine	6287		
No. 7 machine	7046	7216	7225
No. 1-B machine	1B-354	1B-685	1B-736
No. 2-B machine	2B-105	2B-408	2B-473
No. 3-B machine	3B-102	3B-190	3B-216

FOSTERMATICS

	Last machine built in 1929	*Last machine built in 1935*
1-F	#1F-18	#1F-35
2-F	#2F-33	#2F-57
3-F	#3F-31	#3F-67
4-F	#4F-10	#4F-10

INTERNATIONAL MACHINE TOOL CORPORATION, INDIANAPOLIS, IND.

	1919	1929	1935
Type A	A-705	A-1600	
Type C	C-725	C-7512	
Type H			1H-6-1663

JARECKI MANUFACTURING CO., ERIE, PA.

	Last serial No. for year—		
	1919	1929	1935
No. 66 machine	193	359	
No. 44 machine			244

JONES MACHINE TOOL WORKS, INC., PHILADELPHIA, PA.

The following machines were built in 1929:
1—4" horizontal boring mill.
1—5" horizontal boring mill.
2—6" vertical shapers.
2—12" slotters.
1—20" light duty slotter.
1—25" light duty slotter.

JONES & LAMSON MACHINE CO., SPRINGFIELD, VT.

	Last serial No. for year—		
	1919	1929	1935
Thread Grinding Machine			100104
Turret Lathes:			
2¼ x 24"	11085	40539	40545
2½ x 24"		41011	41117
3 x 36"	16475	30408	30421
2½ x 32"			31062
Double spindle	20738	50180	50197
Universal			60141
Fay Automatic Lathes:			
8"			75198
12"			80259
14"	2070	6965	
20"			80241
24"		6998	7374

KANE & ROACH, INC., SYRACUSE, N. Y.

Last serial No. for year:

1919	198757
1929	201707
1935	202388

KEARNEY & TRECKER CORPORATION, MILWAUKEE, WIS.

	Last serial No. for year—		
	1919	1929	1935
No. 1 F	610	1522	1998
No. 1½ F	611	1530	1962
No. 2 F	606	1542	2031
No. 3 F	605	1629	1981
No. 4 F	578	1521	1713
No. 1 K			1785
No. 2 K			1984
No. 3 K			1977
No. 4 K			1977
No. 1200 Series Bedtype			2008
No. 1800 Series Bedtype			1933
No. 1400 Mil-Waukee-Mils		1482	2040
No. 2200 Mil-Waukee-Mils		1517	1931
Face Mill Grinder			2047

KEMPSMITH MACHINE CO., MILWAUKEE, WIS.

Last serial No. for year:

1919	9050
1929	10450
1935	10789

KENT MACHINE CO., CUYAHOGA FALLS, OHIO

	Last serial No. for year—		
	1919	1929	1935
6-d Driller		Z-98	Z-108
2¼ Bar Pointer		W-45	W-52
½" Stud Threader		H-26	HD-36
1" Stud Threader		K-13	
Bolt Threader		V-4	
117 Slotter		N-6	N-12
No. 3 Slotter		S-6	
Nut Countersinker			200-52
Nut Countersinker			201-26
2 Spindle Pointer			237-107

KENT-OWENS MACHINE CO., TOLEDO, OHIO

	Last serial No. for year—		
	1919	1929	1935
No. 1 Hand Mill Machine		973	1112
No. 2 and 3 Mill Machine		357	541

KING MACHINE TOOL CO., CINCINNATI, OHIO

Last serial No. for year:

1919	887
1929	1252
1935	1347

KINGSBURY MACHINE TOOL CORPORATION, KEENE, N. H.

Last serial No. for year:

1929	B-1289
1935	B-1951

KLING BROS. ENGINEERING WORKS, CHICAGO, ILL.

Last serial No. for year:

1919	615
1929	1550
1935	1823

W. B. KNIGHT MACHINERY CO., ST. LOUIS, MO.

	Last serial No. for year—		
	1919	1929	1935
No. 1 Knight Miller	800	880	898
No. 1½ Knight Miller (Hand Feed)	328	373	
No. 1½ Knight Miller (Power Feed)	382-A	1467-A	1476-A
No. 2 Knight Miller	243	419	454
No. 3 Knight Miller	60		
No. 3B Knight Miller		E-116	E-127
No. 4 Knight Miller		F-536	F-556

L & J PRESS CORPORATION, ELKHART, IND.

	Last serial No. for year—		
	1919	1929	1935
No. 0 Bench or Stand		618	690
No. 1 or Special	154	563	638
No. 2 or Special	196	917	1008
No. 3 or Special	556	1432	1539
No. 4	217	722	801
No. 4½			108
No. 5	155	457	492
No. 4 geared	217	722	801
No. 4½ geared			108
No. 5 geared or special	155	457	492
No. 4 comb. geared	217	722	801
No. 4½ comb. geared			108
No. 5 comb. geared or special	155	457	492

WILLIAM LAIDLAW, INC., BELMONT, N. Y.

Last serial No. for year:

1919	505
1929	934
1935	1083

LANDIS MACHINERY CO., WAYNESBORO, PA.

	Last Serial No. for year 1919
½" Single Bolt Cutter	18975
½" Double Bolt Cutter	19258 and 19259
1" Single Bolt Cutter	19236
1" Double Bolt Cutter	19200 and 19201
1" Triple Bolt Cutter	18905—18906—18907
1⅛" Single Bolt Cutter	19341
1⅛" Double Bolt Cutter	19316 and 19317
1⅛" Triple Bolt Cutter	18392—18393—18394
2" Single Bolt Cutter	19067
2" Double Bolt Cutter	19186 and 19187
2" Triple Bolt Cutter	18553—18554—18555
2½" Single Bolt Cutter	19169
2½" Double Bolt Cutter	19263 and 19264
3" Single Bolt Cutter	18690
4" Single Bolt Cutter	18977
4" Double Bolt Cutter	18822 and 15723
1¼" Single Bolt Cutter	19332
1¼" Double Bolt Cutter	19119 and 19120
⅜" Single Pipe and Nipple	18817
⅜" Double Pipe and Nipple	18856 and 18857
1¼" Single Pipe and Nipple	19135
1¼" Double Pipe and Nipple	18856 and 18857
1" Double Pipe and Nipple	19171 and 19172
2" Single Pipe and Nipple	19145
2" Double Pipe and Nipple	19322 and 19333
4" Single Pipe and Nipple	18699
4" Double Pipe and Nipple	18899 and 18900
2" Pipe Threading & Cutting Machine.	19354
4" Pipe Threading & Cutting Machine.	19397 and 19398
6" Pipe Threading & Cutting Machine.	19146
8" Pipe Threading & Cutting Machine.	19273 and 19274

	Last serial No. for year 1929
½" Single Bolt Cutter	½" S #88-1 37256
½" Double Bolt Cutter	½" D #142-2 37679 and 37680
9/16" Single Bolt Cutter	9/16" S #138-2X 9R614 and 9R615
¾" Single Bolt Cutter	¾" #19-2 6R1198
¾" Double Bolt Cutter	¾" D #88-2 6R1306 and 6R1307
1" Single Bolt Cutter	36501 and 8R552
1" Double Bolt Cutter	36523, 36524, 8R556 and 8R557
1" Triple Bolt Cutter	12R148—12R149—12R150
1⅛" Single Bolt Cutter	38195 and 12R229
1⅛" Double Bolt Cutter	38255, 38256, 12R226 & 12R227
1⅛" Triple Bolt Cutter	37739—37740—37741
2" Single Bolt Cutter	38345 and 16R45
2" Double Bolt Cutter	38257, 38258, 16R37 & 16R38
2" Triple Bolt Cutter	37908—37909—37910—16R30—16R31—16R32
2½" Single Bolt Cutter	37967 & 20R10 & 37860
2½" Double Bolt Cutter	37295, 37296, 20R03, 20R0
3" Single Bolt Cutter	38180
4" Single Bolt Cutter	37179
4" Double Bolt Cutter	36378 & 36379
1" Triple Bolt Factory Threader.	1" T16X 8R528, 8R529 8R530.
1½" Triple Bolt Factory Threader.	1½" T-5 12R190-12R191, 12R192.
¾" Automatic Forming & Threading.	Aft. 6—#99
⅛" Single Pipe Nipple	1" S #90-2 4T55
⅛" Single Pipe & Nipple	38343 (B. C. Hd. Burton)
⅛" Double Pipe & Nipple	⅛" D 142-2 37679—37680
⅛" Double Pipe & Nipple	⅛" D 144-2 4T59 & 4T60
1¼" Single Pipe & Nipple	37858 & 10T61
1¼" Double Pipe & Nipple	38212, 38213, 10T56, 10T57
2" Single Pipe & Nipple	38262 & 16T29
2" Double Pipe & Nipple	38196, 38197, 16T26, 16T25
4" Single Pipe & Nipple	38202
4" Double Pipe & Nipple	38278 & 38279
2" Pipe Threading & Cutting.	Type 2-#161-2 R4-38356-C
3" Pipe Threading & Cutting.	38247
4" Pipe Threading & Cutting.	Type 4-#120-3 38359 & 38360
6" Pipe Threading & Cutting.	Type 6-#292-4 38329 & 38330
8" Pipe Threading & Cutting.	Type 8-#154-4 38310 & 38026
12" Pipe Threading & Cutting	Type 12-#163-5 38373 & 38374
16" Pipe Threading & Cutting	Type 16-#22 816-3
18" Pipe Threading & Cutting	Type 18-#17-2 818-09
20" Pipe Threading & Cutting	Type 20-#3-2 820-02
#2 Chaser Grinder	Model 2 No. 9-2

	Last serial No. for year 1935
⅜" Double Bolt Cutter	⅜" D No. 176-2 3R252/3
½" Single Bolt Cutter	40087
½" Double Bolt Cutter	½" D No. 168-2 39948/9
½" Double Bolt Cutter	½" D No. 172-2 4T123/4
9/16" Single Bolt Cutter	9/16" S No. 170-2 9R821-1
9/16" Double Bolt Cutter	9/16" D No. 175-2 9R843/4
¾" Single Bolt Cutter	¾" S No. 34-2 6R 1612
¾" Double Bolt Cutter	¾" D No. 115-2 6R1609/10
1" Single Bolt Cutter	39903
1" Single Bolt Cutter	8R845

LANDIS MACHINERY CO., WAYNESBORO, PA.—Con.

	Last serial No. for year 1935
1" Double Bolt Cutter	40214/15
1" Double Bolt Cutter	8R897/8
1½" Single Bolt Cutter	12R574
1½" Single Bolt Cutter	39926
1½" Double Bolt Cutter	38895/6
1½" Double Bolt Cutter	12R381/2
2" Single Bolt Cutter	40249
2" Single Bolt Cutter	16R196
2" Double Bolt Cutter	38926 & 28927
2" Double Bolt Cutter	16R200/1
2½" Single Bolt Cutter	39850
2½" Single Bolt Cutter	20R36
2½" Double Bolt Cutter	38693/4
2½" Double Bolt Cutter	20R25/6
3" Single Bolt Cutter	39875
4" Single Bolt Cutter	39925
4" Double Bolt Cutter No. M/C's sold 1929 to 1935	39223/4/5 Hds. Burton 2/19/31
1" Triple Bolt Cutter	Nothing from 36498/500 6/29/28 & 40494/6 8/2/36
1" Triple Bolt Factory Threader	Nothing 1929 to 1936
1" Triple Bolt Factory Threader	1"T17 8R542/3/4
1½" Triple Bolt Factory Threader	38401/2/3
1½" Triple Bolt Factory Threader	1½" T No. 14-1 12R-433/4/5.
1½" Triple Bolt Cutter	Nothing from 1929 to 1936
2" Triple Bolt Cutter	38860/1/2
⅞" Single Bolt Cutter	⅞" S #35-2 7V93
⅞" Double Bolt Cutter	⅞" DX #110-2 7V65/6
1" Single LANDMACO Bolt Cutter	1L22 8R896
1" Double LANDMACO Bolt Cutter	1L23 8R899/900
1½" Single LANDMACO Bolt Cutter	1-1/2L57 12R380
1½" Double LANDMACO Bolt Cutter	1½L59 12R602/3
2" Single LANDMACO Bolt Bolt Cutter	2L10 16R203
2" Double LANDMACO Bolt Cutter	2L03X 16R174/5
2½" Single LANDMACO Cutter	2½L02 20R41
½" Single Pipe & Nipple	½"S 192-2 39943
½" Single Pipe & Nipple	½" S 1166-2 4R108
½" Double Pipe & Nipple	39605/6 ½" Double Bolt Cutter Drury 12/18/33
½" Double Pipe & Nipple	½" D 171 4T117/18
1¼" Single Pipe & Nipple	10R74
1¼" Double Pipe & Nipple	10T156/7
2" Single Pipe & Nipple	39610-2"
2" Single Pipe & Nipple	16R143-16T118
2" Double Pipe & Nipple	39229 and 39230
2" Double Pipe & Nipple	16T127/8-16R198/9
3" Single Pipe & Nipple	Size 3" P. M. No. 7 39350
4" Single Pipe & Nipple	39337
4" Double Pipe & Nipple	40255/6
1¼" Single LANDMACO Pipe & Nipple.	1¼"L09 10T141
1¼" Double LANDMACO Pipe & Nipple.	1¼" L03-0 10T81/2
2" Single LANDMACO Pipe & Nipple.	2" L08 16T119
2" Double LANDMACO Pipe & Nipple.	2L11 16T129/30
2" Little Landis Pipe Threading & Cutting.	200#61 ¾"-79 2"-77
2" Pipe Threading & Cutting.	Type 2 #244-2 40207
4" Pipe Threading & Cutting.	Type 4 #158-3 40183-40105
6" Pipe Threading & Cutting.	Type 6 #365-4 40089
	Type 6 #388-4 39834-39835
	Type 6 #390-4X 40027-40029
8" Pipe Threading & Cutting.	Type 8 #223-4 40198-39336
12" Pipe Threading & Cutting.	Type 12 #195-5 40106
16" Pipe Threading & Cutting.	Type 16 #25 816-35-1X
18" Pipe Threading & Cutting.	Type 18 #18-2 812-12
20" Pipe Threading & Cutting.	Type 20 #4-2 820-08
8⅝" Pipe Threading & Cutting.	8" Rec. 29-1 Type 8LRX 236-5
13⅜" Pipe Threading & Cutting.	13⅜" 12-1 Type 13⅜" LRX 12/1
¾" Automatic Forming & Threading.	Aft. 6 No. R171-4
1" Automatic Forming & Threading.	Aft. 8 No. R170-4

LANDIS TOOL CO., WAYNESBORO, PA.

Last serial No. for year:	
1919	13500
1929	160000
1935	170000

LAPOINTE MACHINE TOOL CO., HUDSON, MASS.

Last serial No. for year:	
1919	1966
1929	29038
1935	35058

R. K. LEBLOND MACHINE TOOL CO., CINCINNATI, OHIO

	Last serial No. for year—		
	1919	1929	1935
12" Heavy Duty Engine Lathe			NB-153
15" Heavy Duty Engine Lathe			NC-279
16" Heavy Duty Engine Lathe	D-4533		
17" Heavy Duty Engine Lathe	ND-6239		ND-7589
18" Heavy Duty Engine Lathe	E-2798		NE-4261
19" Heavy Duty Engine Lathe	NE-3751	NE-4220	
20" Heavy Duty Engine Lathe	F-1840		
21" Heavy Duty Engine Lathe	NF-4048	NF-4422	NF-4439
22" Heavy Duty Engine Lathe			NG-244
23" Heavy Duty Engine Lathe		NG-216	
24" Heavy Duty Engine Lathe	H-1168		NH-1665
25" Heavy Duty Engine Lathe	NH-1410	NH-1643	
27" Heavy Duty Engine Lathe		NI-488	NI-496
30" Heavy Duty Engine Lathe	NJ-265	NJ-307	NJ-312
33" Heavy Duty Engine Lathe			NK-287
36" Heavy Duty Engine Lathe	NK-200	NK-276	
14" Tool Room Lathe			NO-278
10" Regal Lathe			A-287
12" Regal Lathe			B-2211
14" Regal Lathe			C-5832
16" Regal Lathe			D-4857
18" Regal Lathe			E-2920
#6 Automatic Crankshaft			6AC-18
26" Universal Crankshaft			NF-4437
#6 Multi-Cut Lathe	6MC-3	6MC-326	6MC-398
#9 Multi-Cut Lathe	9MC-73	9MC-589	9MC-691
#12 Multi-Cut Lathe		12MC-290	12MC-336
#1 Universal Cutter Grinder	2745	3636	
#12 Automatic Lathe		12AL-63	12ML-91
#16 Automatic Lathe		16AL-146	16AL-161
11" Rapid Production Lathe		NA-791	NA-1016
14" Rapid Production Lathe	C-5182	C-3624	
15" Rapid Production Lathe		ND-266	
16" Rapid Production Lathe		D-4732	5D-95
17" Rapid Production Lathe		ND-7423	
19" Rapid Production Lathe			NE-4260
#0-B Plain Cone Miller	597		
#1 Plain Cone Miller		631	
#1-B Plain Cone Miller	542		
#2 Plain Cone Miller		1697	
#2¼ Plain Cone Miller	1393		
#3-H Plain Cone Miller	1395		
#4 Plain Cone Miller	1361		
#1-B Universal Cone Miller	567	638	
#2 Universal Cone Miller	1435		
#4-H Universal Cone Miller	239	283	
#4-GH Pl. Single Pulley Gear Miller	243		
#2-G Univ. Sing. Pull. Gear Miller		1715	
#3-GH Univ. Sing. Pull. Gear Miller	1394	1571	

LEES-BRADNER CO., CLEVELAND, OHIO

	Last serial No. for year—		
	1919	1929	1935
Standard Thread Miller	336	491	541
Special Thread Miller	874	920	928
5-A Hobbing Machine	509		
5-AC Hobbing Machine		953	982
No. 1 Hobbing Machine		166	194
No. 10-B Gear Grinder		341	345
2-HS Gear Grinder			115

LEHMANN MACHINE CO., ST. LOUIS, MO.

	First No.	
	1	5000
Last serial No. for year:		
1919	662	
1929	1251	5129
1935	1296	5154

LELAND-GIFFORD CO., WORCESTER, MASS.

	Last serial No. for year—		
	1919	1929	1935
#1 Machine	S1-9550	SL-11290	SL-11425
#2 Machine	25200	B-29800	B-30000
#3 Machine		3-24-260	3-24-310

LIBERT MACHINE CO., GREEN BAY, WIS.

	Last Serial No. for year 1935
Model 1036	124
Model 1344	057
Model 1354	065
Model 1336	066
Model 1430	160

LIBERTY PLANER & MANUFACTURING CO., HAMILTON, OHIO

Last serial No. for year:	
1919	88
1929	449
1935	471

LINLEY BROTHERS CO., BRIDGEPORT, CONN.

Last serial No. for year:		
1919	10-D	168
1929	10-A	315

W. C. LIPE INC., SYRACUSE, N. Y.

	Last serial No. for year—		
	1919	1929	1935
9" Production Lathe, 20" bed.	1238-L	1576-H	1-1592-B
9" Production Lathe, 12" bed.	1694-H	2298-H	2347-H
Carbo Lathe			297-C
Carbo Hydraulic			501-CH

LITTLE GIANT, INC., MANKATO, MINN.

	Last serial No. for year—		
	1919	1929	1935
25# Hammer	2720	4496	4723
50# Hammer	3990	5467	5656
100# Hammer	515	871	899
250# Hammer	191	332	341
500# Hammer	513	526	527

LOBDELL CAR WHEEL CO., WILMINGTON, DEL.

	Last serial No. for year—		
	1919	1929	1935
Nazel Hammers:			
1-B	608	1234	1238
2-B	930	1353	1365
3-B	902	1333	1372
4-B	687	1305	1315
5-B	708	1145	1149
6-B	731	1375	1376
4-N	750	765	765
5-N	520	791	792
6-N	801	809	809
4-1	513	828	834
5-1	505	850	851
6-1	274	875	875
10-S	------	------	1501
13-S	------	------	1502
Dill Slotters:			
10"	284	284	284
12"	288	498	498
15"	367	517	517
18"	374	549	549
20"	227	565	565
24"	388	596	596

LODGE & SHIPLEY MACHINE TOOL CO., CINCINNATI, OHIO

Last serial No. for year:

1919	25800
1929	30000
1935	30400

LUCAS MACHINE TOOL CO., CLEVELAND, OHIO

	Last serial No. for year—		
	1919	1929	1935
No. 31 Model with 3" dia. spindle.	31-20-24	------	------
No. 32 Model with 3¾" dia. spindle.	32-14-24	------	------
No. 33 Model with 4½" dia. spindle.	33-8-12	------	------
No. 41 Model with 3" dia. spindle.	------	41-2-12	41-6-7
No. 42 Model with 4" dia. spindle.	------	42-6-7	42-11-1
No. 43 Model with 5" dia. spindle.	------	43-5-12	43-7-12

E. J. MANVILLE MACHINE CO., WATERBURY, CONN.

Last serial No. for year:

1919	3957
1929	4436
1935	4575

MARBURG BROS., INC., NEW YORK

Last serial No. for year 1935 109

MARSHALLTOWN MANUFACTURING CO., MARSHALLTOWN, IOWA

Last serial No. for year:

1919	1130
1929	3265
1935	3536

MATTISON MACHINE WORKS, ROCKFORD, ILL.

Last serial No. for year 1935 11262

METALWOOD MANUFACTURING CO., DETROIT, MICH.

Last serial No. for year:

1919	1269
1929	1624
1935	1687

MICHIGAN TOOL CO., DETROIT, MICH.

	Last serial No. for year 1935
No. 854 Gear Finishing Machine (Rock Type)	241
No. 858 Internal Gear Finishing Machine	203
No. 991 Gear Lapping Machine	197
No. 1124 Universal Involute Checking Machine	122
No. 1224-A Universal Involute Checking Machine	123
No. 1125 Universal Involute Checking Machine	132
No. 1126 Universal Involute Checking Machine	139
No. 1128 Gear Finishing Machine (Rock Type)	140
No. 1204 Spiral Gear Lead Checking Machine	149

MINSTER MACHINE CO., MINSTER, OHIO

Last serial No. for year:

1929	1039
1935	1579

MITTS & MERRIL, SAGINAW, MICH.

Last serial No. for year:

1919	92253
1929	A-112277
1935	B-121712

MOLINE TOOL CO., MOLINE, ILL.

Last serial No. for year:

1919	1931
1929	2912
1935	3058

MONARCH MACHINE TOOL CO., SIDNEY, OHIO

	Last serial No. for year—		
	1919	1929	1935
Series:			
E	E-124 #12	------	------
A	A-617 #1	------	FA-105 #12
FA	------	------	FA-105 #12
B	B-207 #12	------	------
FB	------	------	FB-103 #9
H	------	------	H-104 #9
L	------	------	L-103 #21
D	D-105 #3	------	D-121 #6

Serial No. A-2163 to D-3031—1929.
Serial No. N-4208 to CU-4574—1935.

MOORE SPECIAL TOOL CO., BRIDGEPORT, CONN.

Last serial No. for year 1935 (Jig Borer) 10

MORGAN ENGINEERING CO., ALLIANCE, OHIO

Last serial No. for year:

1919	1339
1929	1388
1935	1408

MORRIS MACHINE TOOL CO., CINCINNATI, OHIO

	Last serial No. for year—		
	1919	1929	1935
12" column, 4½' arm Radial Drill	T-150	------	------
9½" column, 3½' arm Radial Drill	R-564	------	------
16" x 8' Lathe	C-193	------	------
18" x 8' Lathe	D-563	------	------
Horizontal Boring Mill	S-117	------	------
9½" column, 4' arm Radial Drill	------	H-108	------
11" column, 4' arm Radial Drill	------	J-260	------
13" column, 5' arm Radial Drill	------	K-362	K-279
12" column, 4' arm Radial Drill	------	T-256	------
High Speed Radial, 3' arm	------	L-47	------
9" column, 4' arm Radial Drill	------	------	G-135
11" column, 3' arm Radial Drill	------	------	J-280

MORTON MANUFACTURING CO., MUSKEGON, MICH.

	Last serial No. for year—		
	1919	1929	1935
Shapers	1341	1632	------
60" T. H. P.	1312	1646	------
72" T. H. P.	1314	------	------
84" T. H. P.	1326	------	1727
18" Keyseaters	1356	------	------
24" Keyseaters	1362	1568	------
36" P. Keyseaters	------	1452	1743
Journal Miller	------	1641	------
Flash Trimmers	------	------	1741

MURCHEY MACHINE AND TOOL CO., DETROIT, MICH.

Last serial No. for year:

1919	L-5002
1929	D-3897
1935	G-3700

NATIONAL BROACH & MACHINE CO., DETROIT, MICH.

	Last serial No. for year 1935
Gear Shaving Machine	154
Gear Sound Testing Machine	170
Gear Lapping Machine	210
Gear Measuring Machine	129

NATIONAL MACHINERY CO., TIFFIN, OHIO

Last serial No. for year:

1919	10115
1929	13018
1935	14850

NEBEL MACHINE TOOL CO., CINCINNATI, OHIO

	Last serial No. for year—		
	1919	1929	1935
LN 16"-18"	------	Lot 11 Mch 13	32-027
AA 18"-20"	Lot 29 Mch 25	Lot 77 Mch 5	35-5325
B 20"-22"	Lot 24 Mch 12	Lot 35 Mch 3	35007
D 24"-26"	Lot 19 Mch 6	Lot 32 Mch 4	35034
N 25"-27"	------	------	35-5305
F 30"-32"	Lot 11 Mch 2	Lot 19 Mch 3	------
AG Gap 15⅝8"-29⅛0"	Lot 2 Mch 1	Lot 25 Mch 8	35-5327
G Gap 2¼8"-28⅝0"	Lot 15 Mch 7	Lot 30 Mch 4	35-5298

N. O. NELSON CO., EDWARDSVILLE, ILL.

Last serial No. for year:

1919	5200
1929	5744
1935	5790

NEWARK GEAR CUTTING MACHINE CO., NEWARK, N. J.

Last serial No. for year:

1919	468
1929	697
1935	737

NIAGARA MACHINE AND TOOL WORKS, BUFFALO, N. Y.

	Last serial No. for year—		
	1919	1929	1935
Power Presses	7156	12560	14170
Power Squaring Shears	24837	32734	33883
Power Rotary Shears	8062	8062	33883

NORTON CO., WORCESTER, MASS.

	Last serial No. for year—		
	1919	1929	1935
Plain Grinders Type A and C	8170	11391	12267
Plain Grinders Type BA	------	BA550	------
Surface Grinders, 6" x 10"	------	H-120	------
Surface Grinders, 6" x 18"	------	------	H-401
Surface Grinders, 10"	------	------	M-166
Universal Grinders	------	L-69	L-101
Tool & Cutter Grinders	2675	3283	3437

OESTERLEIN MILLING MACHINE

	Last serial No. for year—		
	1919	1929	1935
No. 1 and 2 Plain Milling Machine	A-636	A-739	------
No. 1 and 2 Universal Milling Machine	B-321	B-483	------
No. 2 and 3 Plain Milling Machine	C-515	C-611	------
No. 2 and 3 Universal Milling Machine	D-409	D-500	------
No. 3 and 4 Plain Milling Machine	E-162	E-200	------
No. 3 and 4 Universal Milling Machine	F-97	F-126	------
No. 2 Tool and Cutter Grinder	S-705	S-972	------
No. 3 Tool and Cutter Grinder	T-357	T-490	------
40" Ohio Tilted Rotary	G-22	G-110	------
48" Ohio Tilted Offset Milling Machine	------	H-47	------
28" Ohio Tilted Offset Milling Machine	------	J-6	------
Aurora Drilling Machine	------	4392	------

OHIO MACHINE TOOL CO., KENTON, OHIO

	Last serial No. for year—		
	1919	1929	1935
Ohio Shapers	95B-352	1B-10178	3M-1055
Ohio Painers	B-1981		
Ohio Production Milling Machines			4/115
Ohio Horizontal Boring, Drilling & Milling		B-10000	M-172

OIL GEAR CO., MILWAUKEE, WIS.

Last serial No. for year:
1919 — about 50
1929 — about 9550
1935 — about 15000

OLIVER INSTRUMENT CO., ADRIAN, MICH.

	Last serial No. for year—	
	1929	1935
No. 4 Drill Grinder	D-463	
No. 5 Drill Grinder	D-475	
No. 31, No. 41, No. 51 Drill Grinders	E-01111	
Point Thinner	T-221	PT-319
No. 1 ARC Face Mill Grinder	C-153	
No. 2 ARC Face Mill Grinder	2-C-104	2-C-219
Tap Grinder	TG-101	TG-205
No. 510 Drill Grinder		F-2164
Universal Tool & Cutter Grinder		UCG-152

OSTER MANUFACTURING CO., CLEVELAND, OHIO

	1919	*1929*	*1935*
Last serial No. for year	?	291031	35834

OLSEN TESTING MACHINE CO., PHILADELPHIA, PA.

Last serial No. for year:
1919 — 8747
1929 — 19770
1935 — 25690

PAWTUCKET MANUFACTURING CO., PAWTUCKET, R. I.

	Last serial No. for year—		
	1919	1929	1935
Forging Machines:			
½"	451	486	
¾"	456	496	
⅞"	454	500	
1¼"	455	501	
1½"	439		
Shears:			
No. 1	184	217	221
No. 2	182		
No. 3		216	

PEDRICK MACHINE & TOOL CO., PHILADELPHIA, PA.

Last serial No. for year:
1919 — 258—Horiz. Bor. Mill
1929 — 516—Bending Machine
1935 — 1556—Bending Machine

PEERLESS MACHINE CO., RACINE, WIS.

	Last serial No. for year—		
	1919	1929	1935
Standard:			
6" x 6"	7591	8238	8509
9" x 9"	9-1750	9-2541	9-2648
13" x 13"	13-203	13-460	13-474
Universal:			
6" x 6"		3160	3365
9" x 9"		U9-355	U9-520
13" x 13"		U13-2007	U13-2082
High Duty:			
16" Vertical			C-1616
4½" x 4½" Dry Cut		392	503
13" x 16" Cap Saw		405	409

HENRY PELS & CO., NEW YORK, N. Y.

Last serial No. for year:
1919 — 4059
1929 — 10210
1935 — 12610

PERKINS MACHINE CO., PERKINS, MASS.

Last serial No. for year:
1919 — 11850
1929 — 12838
1935 — 13252

POPE MACHINERY CORPORATION, HAVERHILL, MASS.

Pope Vertical Milling Machine, Motor Driven, High Speed—1939 — 64059

PORTER-McLEOD MACHINE TOOL CO., INC., HATFIELD, MASS.

Last serial No. for year:
1919 — 2733
1929 — 3084
1935 — 3100

POTTER & JOHNSTON MACHINE CO., PAWTUCKET, R. I

	Last serial No. for year—		
	1919	1929	1935
Model:			
5-A	20897	21325	
6-A	18314	19318	19418
4-D		335	620
5-D		51029	51232
6-D		704113	70704
6-C		70310	

POTTSTOWN MACHINE CO., POTTSTOWN, PA.

Last serial No. for year:
1919 — A3372
1929 — 0229
1935 — 0304

PRODUCTION MACHINE CO., GREENFIELD, MASS.

	Last serial No. for year—		
	1919	1929	1935
Type "A" Production Centerless Belt Feed Machine	2132	253	2588
Type "S" Production Centerless Belt Feed Machine		5077	5157
Type "R" Multi-Purpose Machine		4039	4054
Type No. 101 Production Centerless Machine			7040
Peerless Surfacing Machine—9", 14", 20" vertical & horizontal			9012

THE PRODUCTO MACHINE CO., BRIDGEPORT, CONN.

	Last serial No. for year—		
	1919	1929	1935
No. 1 Producto Gear Cutter	1GM-C-246	1GM-5-303	1GM-1602
No. 2 Producto Gear Cutter	2G-2153	2G-2409	2G-M8-366
No. 3 Producto Gear Cutter	3½GA-393	3½GN-3516	3½G-3526
No. 0 Bristol Hand Miller	AM-100	MAM-119	MAM-124
No. 6 Automatic Miller	6½G-624	6½G-77	6½G-80
No. 7½ Automatic Miller	7G-68		7½G-104

PROVIDENCE ENGINEERING WORKS, INC., PROVIDENCE, R. I.

Last serial No. for year:
1919 — 229
1929 — 921
1935 — 1575

QUICKWORK-WHITING, HARVEY, ILL.

	Last serial No. for year—		
	1919	1929	1935
8A	Xx8x48	8Ax26x112	8Ax32x124
10A	1Sx1x9	1Sx11x117	1Sx12x134
20A	2Sx1x21	2Sx15x193	2Sx18x210
23A			23Sx2x2
25A		25Sx13x58	25Sx17x68
30A	3Sx2x3	3Sx14x66	3Sx15x69
40A	4Sx1x1	4Sx8x42	4Sx14x52
50A	5Sx1x6	5Sx6x26	5Sx7x29
60A	10Kx5x48	6Sx8x61	6Sx10x63

RACINE TOOL & MACHINE CO., RACINE, WIS.

Last serial No. for year:
1919 — 10852, A3653
1929 — B3197, X578, J1020, E659
1935 — B3632, X739, J1242, E886, W104, M166

REED-PRENTICE CORPORATION, WORCESTER, MASS.

	Last serial No. for year—		
	1919	1929	1935
Reed-Prentice Sl. Gear Hd. Lathes		13995	15139
Reed-Prentice Fric. Geared Hd. Lathe	10899		
Reed Cone Head Engine Lathes	6958		
Becker No. 2 Vertical Miller	16064		
Becker No. 3 Vertical Miller	16030		
Becker 4B Vertical Miller	16067		
Becker 5C Vertical Miller	16069		
Becker No. 6 Vertical Miller	16061		

REED-PRENTICE CORPORATION, WORCESTER, MASS.—Continued

	Last serial No. for year—		
	1919	1929	1935
No. 2 Type Reed-Prentice Vertical Miller		13799	
2V Model			15071
No. 3 Reed-Prentice Vertical Miller		13568	
3VG Miller			14346
No. 5 Reed-Prentice Vertical Miller		13191	15087
No. 6 Reed-Prentice Vertical Miller		13128	15054
3' Reed-Prentice Radial Drill	5252		
4' Reed-Prentice Radial Drill	5293		
5' Reed-Prentice Radial Drill	5219		

RICKERT-SHAFER CO., ERIE, PA.

Last serial No. for year:
1919 — 4150
1929 — 44370
1935 — 57120

RIVETT LATHE & GRINDER, INC., BOSTON, MASS.

	Last serial No. for year—		
	1919	1929	1935
Lathe:			
No. 505	44	427	577
No. 608	26	241	358
Grinder:			
No. 103	64		
No. 104		146	199
No. 106	15	58	59
No. 112			162

W. ROBERTSON MACHINERY & FOUNDRY CO., BUFFALO, N. Y.

Last serial No. for year:
1929 — 3DM-1405
1935 — 40-D-1962

ROCKFORD DRILLING MACHINE DIV., ROCKFORD, ILL.

Last serial No. for year:

1919	OS-5814
1929	OS-10127
1935	OS-11091

ROCKFORD IRON WORKS, ROCKFORD, ILL.

Last serial No. for year:

1919	1943
1929	3322
1935	3585

ROCKFORD MACHINE TOOL CO., ROCKFORD, ILL.

Last serial No. for year:

1919	1750
1929	2917
1936	3363

ROWBOTTOM MACHINE CO., WATERBURY, CONN.

Last serial No. for year:

1919	135-24
1929	135-73
1935	300-4-1

ROGERS MACHINE WORKS, ALFRED, N. Y., FORMERLY GANEY MACHINERY CO.

24" Vertical Turret Lathe With Side Head:

	Last serial No.
1919	440
1929	1007
1935	1007

W. J. SAVAGE CO., KNOXVILLE, TENN.

Last serial No. for year:

1919	614
1929	1015
1935	2084

WILLIAM SEELERS & CO., INC., PHILADELPHIA, PA.

	Last serial No. for year—		
	1919	1929	1935
Vertical Boring & Turning Mills	635	733	742
Planers	1418	1448	1465
Horizontals—Floor Borers	1223	1302-1303	1329

SENECA FALLS MACHINE CO., SENECA FALLS, N. Y.

	Last serial No. for year—		
	1919	1929	1935
Star Engine Lathe:			
10"	918818	920544	920654
12"	118889	120316	120655
14"	318620	320570	320609
Star Tool Room Lathe—			
14"	218878	220520	220649
Short-cut Lathe—13"	1092	1522	1574
Lo-swing Lathe:			
3½"	4803	4954	------
4"	------	5535	5580
8"	4370	4568	4582
Model R	------	6061	6077
Model U	------	25-U-5122	25-U-5187

SIBLEY MACHINE & FOUNDRY CORPORATION, SOUTH BEND, IND.

Last serial No. for year:

1919	3098
1929	4483
1935	4547

THE SIDNEY MACHINE TOOL CO., SIDNEY, OHIO

Last serial No. for year:

1919	2637—Lot 220
1929	5532—Lot 160
1935	5974—Lot 160

SMALLEY-GENERAL CO., BAY CITY, MICH.

Last serial No. for year:

1919	30
1929	342
1935	355

THE SMITH & MILLS CO., CINCINNATI, OHIO

Last serial No. for year:

1919	9800
1929	11101
1935	11229

SOUTH BEND LATHE WORKS, SOUTH BEND, IND.

Last serial No. for year:

1919	22156
1929	46492
1935	63838

THE SPRINGFIELD MACHINE TOOL CO., SPRINGFIELD, OHIO

	Last serial No. for year—		
	1919	1929	1935
14"	511	709	810
16"	823	993	1054
18" and 20"	691	901	969
24" and 27"	------	290	------

STANDARD ENGINEERING WORKS, PAWTUCKET, R. I.

Last serial No. for year:

1919	1345
1929	1918
1935	1984

STANDARD MACHINERY CO., PROVIDENCE, R. I.

	Last serial No. for year—		
	1919	1929	1935
Automatic Drop Hammer:			
½	182	215	------
1	416	580	592
2	237	387	392
3	135	225	233
4	66	102	------
5	94	154	161
8	28	53	------
Plain Drop Hammers:			
½	123	141	------
1	349	394	------
1½	125	------	------
2	66	------	------
3	21	------	------
3½	30	------	------
5	143	156	------
8	24	------	------
Turks Heads (Friction Drive) Universal Type:			
2-U	------	127	150
3-U	------	330	345
4-U	------	20	32
5-U	------	51	57
Turks Heads (Friction Drive) Plain Type:			
2-P	------	128	152
3-P	------	329	333
4-P	------	21	------
Power Presses:			
2-B	122	------	189
3-B	209	232	------
4-B	122	133	------
5-B	83	103	------
6-B	16	------	------
2-J	60	123	127
3-J	74	96	------
4-J	61	68	------
5-J	------	------	53
5-S	------	644	743
7-S	189	346	417
5-S Double Plunger	------	------	881
7-S Double Plunger	------	------	104

JOHN B. STEVENS, INC., NEW YORK CITY

	Last serial No. for year—		
	1919	1929	1935
No. 11 Plain Milling Machine	614	------	------
No. 12 Plain Milling Machine	1081	------	------
No. 13 Plain Milling Machine	2720	5002	------
No. 13 Back Geared Machine	2753	------	------
No. 14 Plain Milling Machine	574	------	------
No. 15 Plain Milling Machine	569	------	------
No. 2-A Plain Milling Machine	611	------	------
No. 21 Plain Milling Machine	1941	------	------
No. 21 Geared Milling Machine	1929	------	------
No. 20 Vertical Milling Machine	225	------	------
No. 22 Vertical Milling Machine	603	------	------
No. 14 Vertical Spindle Miller	51	------	------
No. 15 Vertical Spindle Miller	79	------	------
No. 1 Duplex Milling Machine	76	------	------
No. 1½ Duplex Milling Machine	106	------	------
No. 2 Duplex Milling Machine	172	------	------
No. 3 Duplex Milling Machine	190	------	------
No. 00 Screw Machine	262	505	------
No. 1 Screw Machine	1729	2002	------
No. 2 Screw Machine	2103	3002	------
No. 2½ Screw Machine	1782	5005	------
No. 12½ Screw Machine	1780	------	------
No. 1½ Universal Miller	2139	------	------
No. 2 Universal Miller	1093	------	------
No. 2-A Universal Miller	1045	------	------
No. 3-A Universal Miller	112	------	------
No. 00 Duple Drill	------	103	------
No. 0 Duple Drill	------	202	------
No. 1 Duple Drill	------	402	------
No. 2 Duple Drill	------	502	------
No. 11 Saving Machine	------	2005	------
12" Hand Lathe	------	1071	------

STORM MANUFACTURING CO., INC.

Model P—Manufactured from 1929 to 1932
Model D—Manufactured from 1931 to 1935.
Model DE—Manufactured from 1935 to 1942.

THE STREINE TOOL & MANUFACTURING CO., NEW BREMEN, OHIO

Last serial No. for year:

1919	107
1929	785
1935	1009

SUNDSTRAND MACHINE TOOL CO., ROCKFORD, ILL.

	Last serial No. for year—		
	1919	1929	1935
"Rockford" Knee Type Millers (All Types)	3678	5047	------
No. 1 Rockford Hand Millers	3201	5297	------
No. 2 Rockford Hand Millers	3306	5283	5353
No. 3 Rockford Hand Millers	E-3161	E-5089	E-550
Rockford Tool Room & Engine Lathes	A-1108	A-1244	------
No. 3 Rockford Miller	------	4547	------
Sundstrand 9" Mfg. Lathes	D-443	D-940	D-983
Double End Lathes	------	165	61-2
8" Sundstrand Stub Lathes	------	H-1218	H-1529
12" Sundstrand Stub Lathes	------	J-126	12-314
6" Automatic Stub Lathe	------	------	13-81
15" Sundstrand Automatic Lathes	------	N-163	N-182
Model 8 Automatic Lathes	------	------	------
Model 10 Automatic Lathes	------	------	10-37
No. 3 Sundstrand Rigidmil	------	5302	03-681
No. 5 Sundstrand Rigidmil	------	5105	05-18
No. 3A Rigidmils	------	------	3A-8
Radius and Link Grinders	------	1041	80-46
Three-Wheel Tool Grinders	------	------	65-60
No. 53 Centering Machines	------	CM-750	53-137
No. 56 Centering Machine	------	------	56-44
Special Machines	------	------	96-13

SUPERIOR MACHINE & ENGINEERING CO., DETROIT, MICH.

	Last serial No. for year—		
	1919	1929	1935
Milling	77	240	279
Slot Miller	36	76	102

TABOR MANUFACTURING CO., PHILADELPHIA, PA.

Last serial No. for year:

1919	13941
1929	19730
1935	20251

TAYLOR & FENN CO., HARTFORD, CONN.

	Last serial No. for year—		
	1919	1929	1935
20" Wet Tool Grinder	1700	2072	2084
Vertical Milling Machine	100	289	334
6" Duplex Spline Mill. Machine, Internal Bore Grinder	15	76	96
M6 Pl. Bearing Drill. Machine, Column Not Numbered	------	1714	1732
M6 Pl. Bearing Drill. Machine, Head Not Numbered	------	3900	4036
M66 Production Drill. Machine, Column	------	73	195
M66 Production Drill. Machine, Head	------	328	490
M60 High Speed Drill. Machine, Column	------	------	198
M60 High Speed Drill. Machine, Head	------	------	129

THOMAS MACHINE MANUFACTURING CO., PITTSBURGH, PA.

Last serial No. for year:

1919	702
1929	4216
1935	5731

THOMPSON GRINDER CO., SPRINGFIELD, OHIO

Last serial No. for year:

1919	229
1929	380
1935	A-3581

TOLEDO PIPE THREAD MACHINE CO., TOLEDO, OHIO

	Last serial No. for year—	
	1929	1935
No. 999	625	2174
No. 1-2-4		42
2 H. S		25
No. 1000-M. R. D. Rad		21

TORRINGTON CO., TORRINGTON, CONN.

Last serial No. for year:

1919	1477
1929	2209
1935	S-2382

UNITED STATES ELECTRICAL TOOL CO., CINCINNATI, OHIO

Last serial No. for year:

1919	45280
1929	112981
1935	145246

VAN NORMAN MACHINE TOOL CO., SPRINGFIELD, MASS.

Last serial No. for year:

1919	7479
1929	12566
1935	13221

VERSON ALLSTEEL PRESS CO., CHICAGO, ILL.

Last serial No. for year 1935 1691

V. & O. PRESS CO., INC., HUDSON, N.Y.

	Last serial No. for year—		
	1919	1929	1935
020	7710	770-13	770-17
00	7468	730-28 001-128	001-157 002-6
015		750-44	750-78
0	8081	670-1 to 11 0-76	0-125
01	8023	610-A to L 610-1 to 21 010-117	010-184
01W			010-W-2
1	7967	550-A to Q 100-174 660-B to Y 660-1 to 20	100-289
1W			1-W-1
1½	7558	590-A-to J 650-A to P 650-1 to 35 150-178	150-264
2	8112	500-A to Y 200-114 630-1 to 79	200-236
2W	5721	2-W-5	2-W-17
2½	8176	530-A to I 530-1 to 34 250-292	250-377
2½W	7291	25-W-4	25-W-18
3	8170	560-A to O 560-1 to 37 300-115	300-180
3W		3-W-1	3-W-3
3¼		27812	32974
3½		350-1 to 43 351-1 to 112	351-113 to 351-125 352-1 to 26
3½		510-1 to 34	
4	7907	400-110 520-A to J 520-1 to 28	400-157
4W		4-W-2	4-W-4
5	7753	640-10 501-85	502-1 to 12 501-98
5W		5-W-9	5-W-11
5½		551-30	551-44
6	5941	620-20	620-23
6½			601-3
10½	6488		
11	5945		32548

V. & O. PRESS CO., INC., HUDSON, N. Y.—Con.

	Last serial No. for year—		
	1919	1929	1935
12	7990		
12½		27661	32549
13	7532		33387
14	7346	25740	28932
15		23632	32547
20	8082	26809	28223
21	6626	210-8	210-8
22	7647	220-7	220-7
22½	7284	225-1 22709	225-1
23	8026	230-4 23409	230-4
23½		B-23½-S-42	B-23½-S-50
24	7295	240-1	240-1
31	7989	27379	
31½		27742	
41		720-13	720-67
42	7179	540-12	540-24
43			430-3
44			440-3
45			450-4
70	7411	701-1	701-6
71	7899	710-84	710-100
72	7431	740-14	740-24
73	6355	731-12	731-14
101	7337	760-8	760-8
102	7988	26981	31171
103	7561	25131	
104	7335	24863	
201	8051	570-3 970-23	970-34
201W		971	
202			
201½		980-3 580-10	980-33
201½W			981-1
202½			982-4
41N		41N-31	41N53
410			410-17

O. S. WALKER CO., WORCESTER, MASS.

	Last serial No. for year—		
	1919	1929	1935
Model DA Machine		58	68
Model DB Machine			9

WALSH PRESS AND DIE CO., CHICAGO, ILL.

Last serial No. for year:

1919	1549
1929	2552
1935	2638

WARNER AND SWASEY CO., CLEVELAND, OHIO

Last serial No. for year:

1919	149,999
1929	354,999
1935	415,000

WATERBURY FARREL FOUNDRY & MACHINERY CO., WATERBURY, CONN.

	Ser. No.
No. 40 Thread Roller, manufactured 1928	122
No. 41½A Pillar Type Press, manufactured 1916	46569
No. 33 W-F Double Stroke Solid Die Cold Bolt Header	83766-28
No. 10 Automatic Inclined Thread Roller, 1936	11598-881
No. 50 WOF Hand Thread Roller, Machine No. 76	86148
No. 3½ Solid Die Double Stroke Header, 1918	59798
No. 2 5/16 capacity Crank Type Solid Die Single Stroke Header, 1912	30776-29
No. 2 Back geared Double Action Drawing Press—1927	85021

WATSON-STILLMAN CO., ROSELLE, N. J.

Last serial No. for year:

1919	30,022
1929	45,527
1935	51,506

WESTERN MACHINE TOOL WORKS, HOLLAND, MICH.

	Last serial No. for year—		
	1919	1929	1935
Western Radial Drills	5065	E-11340-TB	E-11971-TB-D
Chard Lathes	1054, lot 25	1554, lot 30	4449, lot 102
Garvin Auto. Tappers:			
No. 2-X	1941	5371	5440
No. 1	1263	4307	4384
No. 2-BG	1740	6037	6052
No. 3-B			6501
Western High Speed Radials			HS-1011-D
Steptoe Shaper		BB-40158-TB	A-40284-TB

WHITNEY METAL TOOL CO., ROCKFORD, ILL.

Last serial No. for year 1935 396

WICACO MACHINE CORPORATION, PHILADELPHIA, PA.

Last serial No. for year:

1929	500-E-1
1935	500-H-11

WICKES BROS., SAGINAW, MICH.

	Last serial No. for year—		
	1919	1929	1935
36" Engine Lathe	37646	3234	
42" Engine Lathe	43153		
48" Engine Lathe		4024	
60" Engine Lathe		4384	
20" Engine Lathe	41034		
24" Engine Lathe	39639	31013	
26" Engine Lathe	38892	4033	
30" Engine Lathe	42044	3659	6516
32" Engine Lathe	39803	4072	

WILLIAMS TOOL CORPORATION, ERIE, PA.

Last serial No. for year:

1919	3598
1929	6364
1935	35520

WILLIAMS, WHITE & CO., MOLINE, ILL.

Last serial No. for year:

1919	8989
1929	C-522
1935	C-855

ZEH AND HAHNEMANN CO., NEWARK, N. J.

Last serial No. for year:

1919	7723
1929	14220
1935	15971

ABRASIVE MACHINE TOOL CO., EAST PROVIDENCE, R. I.

GRINDERS

Type	Size	Price
No. 1½	10" x 15" x 12"	$975
No. 3B	8" x 24" x 12"	1,820
No. 34	Vertical spindle (8 x 24 x 12")	1,990
No. 5	14" x 48" x 14"	4,800
No. 6	14" x 60" x 14"	5,350

ACME MACHINE TOOL CO., CINCINNATI, OHIO

RAM TYPE TURRET LATHES (UNIVERSAL)

Model No.	Bar capacity	Length turret travel	Swing over vees	Weight bare machine (pounds)	Price arr. for motor drive	Extra 2" cap. auto. chuck, master collet, and power screw bar feed	Extra 2½" cap. auto. chuck, master collet, power screw bar feed
5R	2"	14"	20"	4,400	$4,040	$390	
6R	2¼"	14"	20"	4,550	4,440		$450

WAY TYPE TURRET LATHE (UNIVERSAL)

Model No.	Bar capacity	Swing over vees	Weight bare machine (pounds)	Price arranged for motor drive	Extra 2" cap. auto. chuck, master collet power screw bar feed	Extra 2½" cap. auto. chuck, master collet power screw bar feed
5W	2"	20"	4,450	$4,180	$385	
6W	2½"	20"	4,650	4,675		$440

SADDLE TYPE TURRET LATHES (UNIVERSAL)

Model No.	Bar capacity round	Swing over vees	Swing over cross slide	Weight	Price arranged for motor drive	Extra for cross sliding hollow hexagon turret	Extra 2' bed	Extra 3' bed
Fixed center hollow hexagon turret:	*Inches*	*Inches*		*Pounds*				
1	2½	20		6,750	$5,785		$500	$630
1-S-25"	2½	20		7,160	6,635	$595	500	630
2	3½	20		6,750	6,125		500	630
3-S	4½	26½		9,600	8,525	800	625	875
3-S-28"	4½	30		10,000	9,215	800	625	875
Cross sliding hollow hexagon turret:								
1	2½	20	14	6,750	6,290		500	630
2	3½	20	14	6,750	6,720		500	630

Models discontinued Jan. 27, 1940

RAM TYPE UNIVERSAL TURRET LATHE

	Weight	Price
Model 4R—18" swing, arranged for motor drive	*Pounds* 4,210	$3,300

$350 extra for 1½" capacity automatic chuck, master collet, and power screw bar feed.

SADDLE TYPE TURRET LATHES

Model	Weight	Price
Fixed center hollow hexagon turret:	*Pounds*	
3	8,600	$6,725
17 and 4½"	8,600	7,525
Cross sliding hollow hexagon turret:		
3	8,600	7,380
17 and 4½"	8,600	8,250

UNIVERSAL BRASS LATHE

	Weight	Price
21" full universal geared head monitor turret lathe with setover turret. Taper attachment and bed-type chasing attachment; arranged for motor drive	*Pounds* 5,000	$3,960

$405 extra for 1½" capacity automatic chuck, master collet, bar feed, stock support, and operating mechanism.

ACME MACHINERY DIVISION (THE HILL-ACME CO.), CLEVELAND, OHIO

ACME SINGLE BOLT CUTTERS—CLASS A

[Fitted with special adjustment hobbed type dieheads]

Size	Price of machine only	Add for cap dies (carbon steel)		Add for nut taps (carbon steel)		Add for tap chuck	Price of machine complete	Extra for—			
		Number sets	Price	Number	Price			Power feed attachment	Lead screw	Motor drive arrangement without motor	
										Constant speed	Variable speed
½"	$620	5	$47.50				$667.50				
1"	770	7	66.50	7	$10.00	$23.00	869.50	$127	$36.50	$350	$225
1¼"	795	8	76.00	8	16.90	24.25	912.15	127	36.50	350	225
1½"	820	9	85.50	9	27.25	24.25	957.00	127	36.50	350	225
2"	1,075	11	126.50	11	48.75	33.00	1,283.25	145	46.00	425	275
2½"	1,600	13	175.50	13	137.40	42.50	1,955.40	165	57.00	425	275
3"	1,920	13	201.50	13	241.00	55.00	2,417.50	230	60.00	475	360
3½"	2,035	15	232.50	15	380.00	55.00	2,702.50	230	60.00	475	360
4"	2,460	13	247.00	(1)	(1)	69.50	2,776.50	265	72.00	625	360
5"	2,530	15	315.00	(1)	(1)	75.00	2,920.00	265	72.00	625	360
6"	2,875	17	391.00	(1)	(1)	82.50	3,348.50	265	72.00	625	360

[1] No taps included.

SPECIFICATIONS

Size	Detail sizes of cap dies furnished in regular equipment		Weights		Motor Req.	
	Number sets	Sizes (inches)	Gross pounds	Net pounds	Size	Approximate speed
½"	5	¼ to ½ by 16ths	1,250	950	1 hp.	1,200
1"	7	¼ to 1 by 8ths	1,800	1,400	2 hp.	1,200
1¼"	8	¾ to 1¼ by 8ths	2,100	1,750	3 hp.	1,200
1½"	9	½ to 1½ by 8ths	2,300	1,850	3 hp.	1,200
2"	11	½ to 1½ by 8ths, 1¾, 2	3,200	2,600	5 hp.	1,200
2½"	13	¾ to 2 by 8ths, 2¼, 2½	4,000	3,400	7½ hp.	1,200
3"	13	1 to 2 by 8ths, 2¼, 2½, 2¾, 3	4,700	4,100	7½ hp.	1,200
3½"	15	1 to 2 by 8ths, 2¼ to 3½ by 4ths	4,900	4,200	7½ hp.	1,200
4"	13	1½ to 2 by 8ths, 2¼ to 4 by 4ths	7,200	6,000	10 hp.	1,200
5"	15	1½ to 2 by 8ths, 2¼ to 4 by 4ths, 4½, 5	7,200	6,200	10 hp.	1,200
6"	17	2 to 6 by 4ths	8,300	7,300	10 hp.	1,200

ACME DOUBLE BOLT CUTTERS—CLASS A

[Fitted with special adjustment hobbed dieheads]

Size	Price machine only	Add for cap dies carbon steel		Add for nut taps carbon steel		Add for tap chuck	Price of machine complete	Extra for—			
		Number sets	Price	Number	Price			Power feed attach	Lead screw	Motor drive arrangement without motor	
										Constant speed	Variable speed
½"	$940	10	$95.00				$1,035.00				
1"	1,380	12	114.00	7	$10.00	$23.00	1,527.00	$254	$73	$350	$225
1¼"	1,435	13	123.50	8	16.90	24.25	1,599.65	254	73	350	225
1½"	1,570	14	133.00	9	27.25	24.25	1,754.50	254	73	350	225
2"	1,975	20	230.00	11	48.75	33.00	2,286.75	290	92	425	275
2½"	2,425	24	324.00	13	137.40	42.50	2,928.90	330	114	535	275
3"	3,325	No Dies or Taps Included in Reg. Equip.					3,325.00	460	120	535	360

SPECIFICATIONS

Size	Detail sizes of cap dies furnished in regular equipment		Weight		Motor requirements	
	Number sets	Sizes (inches)	Gross pounds	Net pounds	Size	Approximate speed
½"	10	2 each ¼ to ½ by 16ths	1,800	1,550	2 hp.	1,200
1"	12	2 each ¼ to ¾ by 8ths 1 each ⅞, 1	2,750	2,300	3 hp.	1,200
1¼"	13	2 each, ⅜ to ⅞ by 8ths. 1 each 1 to 1¼ by 4ths	3,600	2,800	5 hp.	1,200
1½"	14	2 each ½ to 1 by 8ths	3,800	3,200	5 hp.	1,200
2"	20	1 each 1⅛ to 1½ by 8ths. 2 each ⅛ to 1½ by 8ths 1 each 1¾, 2.	4,900	4,300	7½ hp.	1,200
2½"	24	2 each ¾ to 2 by 8ths 1 each 2¼, 2½.	6,500	5,700	10 hp.	1,200
3"	No dies incl. in reg. equip't		8,500	7,200	10 hp.	1,200

ACME TRIPLE BOLT CUTTERS—CLASS A

[Fitted with special adjustment hobbed die heads]

Taps and Tap Chuck not furnished with these machines unless ordered

Size	Price machine only	Add for cap dies carbon steel		Price of machine complete	Extra for—			
					Power feed attachment	Lead screw	Motor drive arrangement without motor	
							Constant speed	Variable speed
1"	$2,000.00	6	$57.00	$2,057.00	$381.00	$109.50	$425.00	$275.00
1¼"	2,350.00	9	85.50	2,435.50	381.00	109.50	425.00	275.00
2"	2,975.00	11	126.50	3,101.50	435.00	138.00	550.00	275.00

SPECIFICATIONS

Size	Detail sizes of cap dies furnished in regular equipment		Weights		Motor requirement	
	Number sets	size (inches)	Gross pounds	Net pounds	Size	Approximate speed
1"	6	1 each ¾ to 1 by 8ths	3,250	2,850	5 hp	1,200
1¼"	9	1 each ¼ to 1¼ by 8ths	4,400	3,900	7½ hp	1,200
2"	11	1 each ½ to 1½ by 8ths, 1¾, 2	6,500	5,800	10 hp	1,200

ACME QUADRUPLE BOLT CUTTERS—CLASS A

[Fitted with special adjustment hobbed type die heads]

Of any standard pitches within range of machine

Size	Price machine only	Add for cap dies carbon steel		Price of machine complete	Extra for—			
					Power feed attachment	Lead screw	Motor drive arrangement without motor	
							Constant speed	Variable speed
1"	$2,625	8	$76.00	$2,701	$508	$146	$425	$275
1½"	3,000	8	76.00	3,076	508	146	500	275

Regular equipment consists of the machine fitted with diehead, pump, countershaft and automatic attachment and necessary wrenches.

Regular equipment of dies consist of carbon steel cap dies for cutting U. S. S. sharp V, Whitworth or metric threads of sizes listed on reverse side of page.

Above machines can be equipped with tangent dieheads at a slight additional cost.

Dies for cutting special threads—Advance 50 percent over prices listed for standard dies.

For price of high speed steel dies—see sheet 21–D.

For price of extra dies and caps—see sheet 21–D.

SPECIFICATIONS

Size	Detail sizes of cap dies furnished in regular equipment		Weights		Motor requirement	
	Number sets	Size (inches)	Gross pounds	Net pounds	Size	Approximate speed
1"	8	Of any standard pitches within range of machine.	5,200	4,400	7½ hp	1,200
1½"	8	Of any standard pitches within range of machine.	6,700	5,800	10 hp	1,200

ACME SINGLE STAYBOLT CUTTER—CLASS A

[Fitted with acme hobbed type die heads]

Size	Price of machine only	Add for cap dies, carbon steel		Add for nut taps		Add for tap chuck	Price of machine complete	Extra for—			
		Number sets	Price	Number	Price			Power feed attachment	Lead screw	Motor drive arrangement without motor	
										Constant speed	Variable speed
1½"—4 spindle	$1,085	9	$85.50	9	$27.25	$24.25	$1,222.00	$127	$48	$350	$225

ACME DOUBLE STAYBOLT CUTTER—CLASS A

[Fitted with acme hobbed type die heads]

1½"—4 spindle	$1,762	14	$133.00	9	$27.25	$24.25	$1,946.50	$254	$96	$350	$225

Taper threading attachment applied to staybolt cutters, net $250 per spindle.

ACME SINGLE BOLT CUTTERS—CLASS B

[Fitted with acme hobbed type die heads]

1"—4 spindle	$550	6	$57.00	6	$9.54	$23.00	$639.54	Class "B" machines are not equipped with power feed attachment or arranged for motor drive.
1¼"—4 spindle	575	8	76.00	8	16.90	24.25	692.15	
1½"—4 spindle	625	9	85.50	9	27.25	24.25	762.00	

ACME LONG BED BOLT CUTTERS

[Fitted with acme hobbed type die heads]

Size	Price of machine with—			Add for carbon cap dies per set	Add for H. S. cap dies per set	Add for lead screws			Extra for motor drive arrangement without motor	
	8' bed	10' bed	12' bed			8' bed	10' bed	12' bed	Constant speed	Variable speed
2"	$1,600	$1,675		$11.50	$19.25	$71.50	$93.50		$425	$275
2½"		2,100	$2,175	13.50	25.00		110.00	$137.50	425	275
3"		2,425	2,600	15.50	34.00		110.00	137.50	485	350
3½"		2,523	2,660	15.50	34.00		110.00	137.50	485	350
4"		2,860	3,000	19.00	48.00		110.00	137.50	625	350
5"		3,050	3,160	21.00	49.00		110.00	137.50	625	350
6"		3,300	3,450	23.00	50.00		110.00	137.50	625	350

Regular equipment consists of the machine fitted with die head, pump, countershaft, and automatic attachment and necessary wrenches.

Class B machines are equipped with oil reservoir in place of oil pump.

Long-bed machines are equipped with power feed attachment.

Regular equipment of dies consist of carbon steel cap dies for cutting U. S. S. sharp V, Whitworth or metric threads of sizes listed on reverse side of page.

Above machines can be equipped with tangent die heads at a slight additional cost.

ACME HAND NUT TAPPERS

Size machine	Price machine only	Add for tapper taps U. S. S., sharp V, Whitworth or metric			Add for ring sockets		Price machine complete	Add for motor drive without motor	Deduct for pump if not required
		Number	Sizes (inches)	Length	Price	Number	Price		
½"—4 spindle	$630	4	1 ea. ¼, 5/16, ⅜, ½	12"	$3.70	4	$55.00	$688.70	$230	$16
½"—6 spindle	1,075	6	2 ea. ¼ to ½ by 8ths	12"	5.70	6	82.50	1,163.20	230	16
1"—4 spindle	1,060	6	1 ea. ⅜ to 1 by 8ths	12"	11.35	6	99.00	1,170.35	230	16
1"—6 spindle	1,350	6	1 ea. ⅜ to 1 by 8ths	12"	11.35	6	99.00	1,460.35	300	16
1¼"—4 spindle	1,280	9	1 ea. ½ to 1¼ by 8ths	15"	34.00	9	180.00	1,494.00	300	20
1¼"—6 spindle	1,730	9	1 ea. ½ to 1¼ by 8ths	15"	34.00	9	180.00	1,944.00	300	20
2"—4 spindle	1,675	11	1 ea. ½ to 1¼ by 8ths, 1¾, 2	15"	56.00	11	242.00	1,973.00	385	20
2"—6 spindle	1,900	11	1 ea. ½ to 1¼ by 8ths, 1¾, 2	15"	56.00	11	242.00	2,198.00	385	20

ACME SEMIAUTOMATIC NUT TAPPERS

½"—6 spindle	$1,760	6	½"	12"	$6.90	6	[1] $210.00	$1,976.90	$230	$16
¾"—6 spindle	1,950	6	¾"	15"	12.60	6	99.00	2,061.60	230	16
1"—6 spindle	2,400	6	1"	15"	21.90	6	99.00	2,520.90	440	16
1¼"—6 spindle	3,250	6	1"	15"	21.90	6	120.00	3,391.90	440	20
1¼"—8 spindle	4,250	8	1"	15"	29.20	8	160.00	4,439.20	440	20
1½"—10 spindle	5,300	10	1"	15"	36.50	10	200.00	5,536.50	760	20
2"—6 spindle	4,785	6	1"	15"	21.90	6	132.00	4,938.90	550	20

[1] One-half inch semiautomatic tappers are equipped with special adjustable quick acting chucks to accommodate straight shank taps ½" and smaller, 12" long over-all. ¾" semiautomatic tappers may also be equipped in this manner at a slight additional cost, but ring sockets are provided for the larger sizes of taps.

ACME DOUBLE-REVERSING NUT TAPPERS

Size	Capacity hex and square nuts	Price of machine with regular equipment	Add for motor drive attachment without motor	Size motor required (variable speed)	Specifications, regular equipment
½"	½" nuts and smaller	$1,900	$230	2 hp.	Machine complete with pump, countershaft, wrenches, and automatic attachment.
1"	1" nuts and smaller	2,000	230	3 hp.	
1½"	1½" nuts and smaller	2,400	230	5 hp.	
2"	2" nuts and smaller	2,950	300	7½ hp.	

ACME HAND NUT BURRING MACHINES

1"	1" nuts and smaller	$420	$145	3 hp.	Machine complete with countershaft, wrenches, 3 cutter blades, 9 pilots and adjustable nut holder.
1½"	1½" nuts and smaller	475	145	5 hp.	

ACME SINGLE SPINDLE SEMI-AUTOMATIC NUT BURRING MACHINES

1"	1" nuts and smaller	$2,050	$215	3 hp.	Machine complete with countershaft, wrenches, 1 set cutter blades, 5 sets of adjusting strips, 5 nut pilots.
1½"	1½" nuts and smaller	2,175	215	3 hp.	
2"	2" nuts and smaller	2,275	230	5 hp.	

ACME DOUBLE SPINDLE SEMI-AUTOMATIC NUT BURRING MACHINES

5/8"	5/8" nuts and smaller	$2,250	$215	3 hp.	Machine complete with countershaft, wrenches, 2 sets cutter blades, 10 sets of adjusting strips, 10 nut pilots.
1"	1" nuts and smaller	2,900	215	3 hp.	
1½"	1½" nuts and smaller	3,400	215	3 hp.	
2"	2" nuts and smaller	3,650	230	5 hp.	

ACME BOLT POINTERS

Size	Equipment			Price machine complete	Specifications
½".....	5 sets cutting tools....	Carbon steel..	1 each ¼" to ½" by 16ths.	$420	Each machine is complete with pump, countershaft and necessary wrenches.
1".....	6 sets cutting tools....	Carbon steel..	1 each ¾" to 1" by 8ths....	560	
1½".....	9 sets cutting tools...	Carbon steel..	1 each ¾" to 1½" by 8ths.	645	
2".....	11 sets cutting tools..	Carbon steel..	1 each ½" to 1½" by 8ths, 1¾," 2".	765	

ACME MODEL XN HEADING, UPSETTING, AND FORGING MACHINES

[Fitted with silent clutch]

Size machine	Price	Motor required		Allowance for—			Add for—	
		Size (hp.)	Speed (r. p. m.)	Lubricating system	Motor drive attachment	Sample dies	Jib crane without hoist	Rivet attachment
1".....	$8,950	10	1,200	$200	$125	$150.00	.....	$275
1¼".....	10,800	10	1,200	200	160	187.50	.....	275
1½".....	12,680	15	1,200	250	210	225.00	.....	300
2".....	16,485	20	1,200	275	220	300.00	.....	325
2½".....	19,890	25	1,200	300	235	375.00	$300	.....
3".....	25,870	30	1,200	350	250	450.00	350	.....
4".....	38,150	50	1,200	350	.....	600.00	400	.....
5".....	50,250	60	1,200	400	.....	750.00	425	.....
6".....	72,500	75	1,200	400	.....	(1)	430	(2)
	76,125	75	1,200	400	.....	(1)	430	(3)

[1] Not included.
[2] 18" stroke standard.
[3] 20" stroke special.

Motor specifications: High torque, high slip, continuous rating, constant speed motors required for all sizes model XN machines.
Note: 1½" machines and smaller are equipped with side shear. 2" machines and smaller can be equipped with rivet attachment if desired.
Specifications: Regular equipment—centralized pressure feed lubrication system, motor-driven with adjustable time cycle operating with main motor. Vertical automatic relief device, cushion drive, one set sample dies (see note). Machine arranged for motor drive through multiple "V" belt, without motor.

Specifications

Size machine	Capacity	Net weight	Strokes of machine (per minute)	Floor space
1".....	1" and smaller.....	14,000	90	4'8" x 8'9".
1¼".....	1¼" and smaller.....	19,150	85	
1½".....	1½" and smaller.....	27,150	75	5'4" x 10'3".
2".....	2" and smaller.....	40,600	65	6'0" x 11'6".
2½".....	2½" and smaller.....	57,000	55	6'5" x 13'2".
3".....	3" and smaller.....	89,500	45	6'6" x 15'0".
4".....	4" and smaller.....	160,000	35	7'8" x 18'0".
5".....	5" and smaller.....	190,000	30	8'8" x 19'3".
6".....	6" and smaller.....	255,000	27	

ACME "ALL STEEL" HAMMER BOLT MACHINES

Size	Capacity	Price of machine with regular equipment	Add for motor-drive attachment without motor	Motor required		Specifications for machine with regular equipment
				Size (hp.)	Approximate speed	
½".....	½" diameter and smaller.....	$3,300	$580	5	1,200	Complete with countershaft, necessary wrenches, and one set of sample tools.
¾".....	¾" diameter and smaller.....	4,350	660	7½	1,200	
1".....	1" diameter and smaller.....	5,675	725	10	1,200	

SPECIFICATIONS

Size	Gross weight	Net weight	Floor space	Speed machine (r. p. m.)	Width of belt
½".....	4,200	3,500	5'2" x 3'3½".....	120	4"
¾".....	6,100	5,300	5'11" x 3'9".....	110	4"
1".....	8,500	7,600	7'0" x 4'7".....	100	5"

ACME "ALL STEEL" HOT PRESSED NUT MACHINES

Size	Capacity	Price of machine with regular equipment	Add for motor-drive attachment without motor	Motor required		Specifications for machine with regular equipment
				Size (hp.)	Approximate speed	
⅜".....	⅜" to ⅝".....	$5,150	$660	7½	1,200	Complete with necessary wrenches and set of sample tools. (No countershaft is necessary on this machine.) For making square or hexagon nuts.
1".....	½" to 1".....	7,600	695	10	1,200	
1½".....	¾" to 1½".....	10,560	880	15	900	
2".....	1" to 2".....	14,450	910	20	800	

SPECIFICATIONS

Size	Gross weight	Net weight	Floor space	Speed machine (r. p. m.)	Width of belt
⅝".....	10,000	9,000	7'6" x 5'0".....	90	5"
1".....	17,000	15,600	9'6" x 6'0".....	75	6"
1½".....	25,000	23,300	11'6" x 6'7½".....	60	6"
2".....	32,500	30,400	13'10" x 7'1".....	45	7"

ACME "ALL STEEL" HOT FORGED NUT MACHINES

Size	Capacity	Price machine complete	Regular equipment
⅜".....	¼" to ⅜".....	$2,650	Complete with countershaft wrenches and one set of sample tools. This machine is used for making square nuts only.
⅝".....	5/16" to ⅝".....	3,760	
¾".....	⅜" to ¾".....	4,750	
1".....	⅝" to 1".....	6,200	

SPECIFICATIONS

Size	Gross weight	Net weight	Floor space	Speed machine (r. p. m.)	Width of belt
¾"	2,600	2,070	3'8" x 3'6"	120	4"
5/8"	5,200	4,350	4'8" x 6'4"	85	4"
¾"	6,000	5,000	5'1" x 5'4"	75	5"
1"	8,000	7,500	5'10" x 6'2"	60	6"

ADAMS CO., DUBUQUE, IOWA

GEAR HOBBERS AND THREAD MILLERS

Machine size	For gear diameter up to—	Maximum distance between centers	Net weight current (pounds)	Current price
Gear hobber and thread miller:				
5	10"	48"	6,125	$5,550
6	10"	24"	5,325	5,075
Manufacturing hobber:				
5M	8"	48"	6,125	5,550
6M	8"	24"	5,325	5,075

GEAR HOBBERS—DISCONTINUED MODELS

Model No.	Net weight when discontinued (pounds)	Price when discontinued
#1	1,250	$1,200
#2	2,500	2,200
#3	4,000	2,500
#4	4,100	2,800

AIRCRAFT MACHINERY CORPORATION, BURBANK, CALIF.

Armor Universal Turret Milling Machine, $1,800, weight 1,485 pounds.

AJAX MANUFACTURING CO., EUCLID BRANCH POST OFFICE, CLEVELAND, OHIO

UPSETTING FORGING MACHINE

Size	Weight	Price	Extra		
	Pounds				
1"	17,000	$9,650	With side shear	Add	$135
			With back stop	Add	150
			With rivet attached	Add	500
			Without dies	Allow	150
			Without toolholder	Allow	100
1½"	26,000	12,600	With side shear	Add	185
			With back stop	Add	200
			With rivet attached	Add	500
			Without dies	Allow	225
			Without toolholder	Allow	150
2"	37,000	16,750	With side shear	Add	225
			With back stop	Add	250
			With rivet attached	Add	600
			With shell dies and tools	Add	850
			Without dies	Allow	300
			Without toolholder	Allow	200
2½"	47,000	20,000	With side shear	Add	250
			With back stop	Add	300
			With rivet attached	Add	600
			With compressor on header slide	Add	700
			With shell dies and tools	Add	975
			Without dies	Allow	375
			Without toolholder	Allow	250
3"	85,000	26,400	With side shear	Add	300
			With back stop	Add	375
			With compressor on header slide	Add	725
			With shell dies and tools	Add	1,100
			Without dies	Allow	450
			Without toolholder	Allow	300

AJAX MANUFACTURING CO., EUCLID BRANCH POST OFFICE, CLEVELAND, OHIO—Continued

UPSETTING FORGING MACHINE—continued

Size	Weight	Price	Extra		
	Pounds				
4"	134,000	$38,000	With side shear	Add	$350
			With back stop	Add	450
			With compressor on header slide	Add	750
			With shell dies and tools	Add	1,600
			Without dies	Allow	600
			Without toolholder	Allow	400
5"	190,000	51,000	With side shear	Add	400
			With back stop	Add	600
			With compressor on header slide	Add	800
			With shell dies and tools	Add	2,100
			Without dies	Allow	750
			Without toolholder	Allow	500
6"	260,000	73,500	With side shear	Add	450
			With back stop	Add	750
			With compressor on header slide	Add	800
			With shell dies and tools	Add	3,100
			Without dies	Allow	900
			Without toolholder	Allow	600
7"	375,000	99,200	With side shear	Add	500
			With back stop	Add	900
			With compressor on header slide	Add	1,000
			With shell dies and tools	Add	4,150
			Without dies	Allow	1,050
			Without toolholder	Allow	700
8"		123,600	With compressor on header slide	Add	1,000
			With shell dies and tools	Add	5,200
			Without dies	Allow	1,600
			Without toolholder	Allow	800

SOLID DIE FORGING MACHINE

Size: 3" $29,800

Motors not included. Extra, long stroke plus 2½%. Extra long stroke and bed plus 10% f. o. b. Cleveland, Ohio. Extra charge for cross tie clamp and extra die height is (inches of extra die height plus 2) x $100 x size of machine.

FORGING PRESSES

Size	
5-C standard speed	$13,800
5-C high speed	14,600
7-C standard speed	18,600
7-C high speed	19,500
10-C standard speed	24,400
10-C high speed	25,600
13-C standard speed	32,700
13-C high speed	34,300
16-C standard speed	45,400
16-C high speed	47,800
20-C standard speed	68,000
20-C high speed	70,800
25-C high speed	80,600

Motors, bolsters, and dies not included, f. o. b., Cleveland, Ohio.

FORGING ROLLS

Size		
No. 0—Spring leaf		$5,150
With air clutch and brake	Add	$1,500
With side shear	Add	150
With horizontal front press	Add	1,500
With vertical side press	Add	900
No. 0—Standard		5,265
With air clutch and brake	Add	$1,500
With side shear	Add	150
With horizontal front press	Add	1,500
With vertical side press	Add	900

Motors not included, f. o. b., Cleveland, Ohio.

FORGING ROLLS—continued

Size		
No. 1		$7,400
With air clutch and brakes	Add	$2,000
With side shear	Add	250
No. 2		8,900
With air clutch and brake	Add	2,500
With side shear	Add	350
No. 3		13,100
With air clutch and brake	Add	3,000
With side shear	Add	500
No. 5		39,200

Air clutch and brake and side shear included.

No. 6		62,650

Air clutch and side shear included.
Motors not included, f. o. b., Cleveland, Ohio.

CRANKSHAFT TWISTERS

Size	
No. 1	$9,500
No. 2	19,250
No. 3	26,000

Motors not included, f. o. b., Cleveland, Ohio.

HOT SAWING BURRING MACHINES

Size	
No. 2	$3,220
No. 3	3,850

f. o. b., Cleveland, Ohio.

ALBANY HARDWARE SPECIALT MFG. CO., ALBANY, WIS.

12" high speed friction tool room drill plain belt drive	$175
Motor drive, without motor or electrical equipment	190

CHAS. G. ALLEN CO., BARRE, MASS.

NO. 2 BELTED SPINDLE

[Type B—hand feed. 8"-12" and 15" overhand—tight and loose pulley drive]

Number of spindles	1	2	3	4	5	6	2 on 3	3 on 5
Price:								
8" overhang	$410	$680	$990	$1,280	$1,570	$1,860	$740	$1,110
12" overhang	440	725	1,050	1,355	1,660	1,965	800	1,200
15" overhang	470	790	1,150	1,490	1,830	2,170	900	1,370

NOS. 2 AND 2½ MOTOR SPINDLE—DIRECT OR BACK GEARED

[Type MS—hand feed. Type MSPF—power feed. Type MSCF—cam feed. Type MST—Reversing motor tapper—hand controlled—Semiautomatic—automatic one to six spindles—8", 12", and 15" overhang. No. 2 has ⅝" capacity sliding head and spindle assembly. No. 2½ has 1⅛" capacity sliding head and spindle assembly]

Number of spindles	1	2	3	4	5	6	2 on 3	3 on 5
Price:								
8" overhang—No. 2 MS	$600	$1,070	$1,545	$2,015	$2,485	$2,960	$1,220	$1,835
12" overhang—No. 2 MS	640	1,140	1,640	2,135	2,635	3,135	1,305	1,965
15" overhang—No. 2 MS	675	1,210	1,750	2,285	2,825	3,365	1,405	2,135
Motor driven coolant system including pump, tank, piping, and nozzles	125	135	145	155	165	175	145	165

NO. 3 BELTED SPINDLE DIRECT OR BACK GEARED

[Type C—hand feed. Type CPF—power feed. Type CCF—cam feed. 1 to 6 spindles—12" overhang only—1¾" capacity]

	Type C hand feed							
Number of spindles	1	2	3	4	5	6	2 on 3	3 on 5
Price—clutch pulley belt drive	$800	$1,415	$2,035	$2,705	$3,325	$3,945	$1,660	$2,575
Coolant system including pump, tank, piping and nozzles	65	80	95	110	125	140	95	125
V-Belt motor drive to back shaft including belts, sheaves and guards; exclusive of motor and starter but includes attaching and wiring same	80	80	100	100	120	120	100	120

NO. 2 KH V-BELT VERTICAL MOTOR DRIVE

[Fractional horsepower. 9 speeds. Hand feed only. 1 to 6 Spindles—7" and 12" overhang—⅝" capacity]

	Type KH—Hand feed only							
Number of spindles	1	2	3	4	5	6	2 on 3	3 on 5
Price:								
7" overhang	$420	$760	$1,100	$1,440	$1,780	$2,120	$820	$1,220
12" overhang	450	815	1,180	1,545	1,910	2,275	890	1,330
Motor-driven coolant system including pump, tank, piping and nozzles	125	135	145	155	165	175	145	165
Each standard T-slot in table	15	18	21	24	27	30	21	27

Prices as given above cover ½ h. p. standard ball bearing motor, and switch, mounted and wired on each top column, and include "A" section V-belts, sheaves and guard to provide 9 spindle speeds in 1 of 4 ranges. (1) 170—260—390—545—735—1120—1600—2360—3500; (2) 330—440—580—750—1050—1375—1820—2350—3350; (3) 500—660—870—1150—1500—1950—2580—3510—4800; (4) 770—1000—1270—1575—1840—2380—3020—3760—4360

CHAS. G. ALLEN CO., BARRE, MASS.—Continued

SUPER SPEED MACHINES—V-BELT VERTICAL MOTOR DRIVE TO SPINDLE

[Hand feed, power feed, cam feed, reversing spindle tapper. Each spindle equipped with ½ hp. ball bearing motor and switch attached and wired 1 to 6 spindles—8" and 12" overhang—$\frac{3}{16}$" capacity]

	Type HMD drill—hand feed only—4 spindle speeds 1250—1895—3125—4960							
Number of spindles	1	2	3	4	5	6	2 on 3	3 on 5
Bench type—price:								
8" overhang	$310	$610	$910	$1,210	$1,510	$1,810	$670	$1,030
12" overhang	340	655	970	1,285	1,600	1,915	720	1,100
Floor type—price:								
8" overhang	400	720	1,040	1,360	1,680	2,000	800	1,200
12" overhang	430	775	1,120	1,465	1,810	2,155	870	1,310
Each standard T slot in table	15	18	21	24	27	30	21	27
Motor driven coolant system including pump, tank, piping and nozzles (floor type only)	125	135	145	155	165	175	145	165

NO. 2 V-BELT VERTICAL MOTOR DRIVE

[Type VB—hand feed. Type VPF—power feed. Type VCF—cam feed. Type VT—tapper—mechanical reverse—semiautomatic. Type VTH—tapper—mechanical reverse—hand controlled. Type VMT—reversing motor tapper—hand controlled—semiautomatic—automatic 1 to 6 spindles—8", 12", and 15" overhang—⅞" capacity]

	Type VB—hand feed							
Number of spindles	1	2	3	4	5	6	2 on 3	3 on 5
Price:								
8" overhang	$410	$680	$990	$1,280	$1,570	$1,860	$760	$1,110
12" overhang	440	725	1,050	1,355	1,660	1,965	810	1,180
15" overhang	470	790	1,150	1,490	1,830	2,170	900	1,330
Motor-driven coolant system including pump, tank, piping and nozzles	125	135	145	155	165	175	145	165
Each standard T-slot in table	15	18	21	24	27	30	21	27

NO. 2 AND NO. 2½ HEAVY DUTY V-BELT VERTICAL—MOTOR DRIVE—DIRECT OR BACK GEARED

[Type MSV—hand feed. Type MSVP—power feed. Type MSVC—cam feed. Type MSVT—reversing motor tapper—hand controlled—semiautomatic—automatic 1 to 6 spindles—8", 12", and 15" overhang. No. 2 has ⅝" capacity sliding head and spindle assembly. No. 2½ has 1⅛" capacity sliding head and spindle assembly]

Number of spindles	1	2	3	4	5	6	2 on 3	3 on 5
Price:								
8" overhang—No. 2 MSV	$500	$870	$1,245	$1,615	$1,985	$2,360	$1,020	$1,535
12" overhang—No. 2 MSV	540	940	1,340	1,735	2,135	2,535	1,105	1,665
15" overhang—No. 2 MSV	575	1,010	1,450	1,885	2,325	2,965	1,205	1,835
Motor-driven coolant system including pump, tank, piping and nozzles	125	135	145	155	165	175	145	165
Standard T-slot in table	15	18	21	24	27	30	21	27

NO. 3 B-BELT VERTICAL MOTOR DRIVE—DIRECT OR BACK GEARED

[Type VC—hand feed. Type VCPF—power feed. Type VCCF—cam feed. Type VCT—reversing motor tapper—semiautomatic—automatic 1 to 6 spindles—12" overhang only—1¼" capacity]

	Type VC—hand feed							
Number of spindles	1	2	3	4	5	6	2 on 3	3 on 5
Price	$800	$1,415	$2,035	$2,705	$3,325	$3,945	$1,635	$2,525
Motor driven coolant system including pump, tank, piping and nozzles	125	135	145	155	165	175	145	165

AMERICAN BROACH & MACHINE CO., ANN ARBOR, MICH.

SEMIAUTOMATIC VP (VERTICAL PULL) BROACHING MACHINES

Machine No.	Net weight	List price
	Pounds	
VP-3 10-30	9,660	$6,580
VP-4 15-36	14,440	7,850
VP-4 20-36	15,620	9,275
VP-5 15-48	16,720	8,175
VP-5 20-48	17,610	9,675
Ring Gear Broaching Machine	8,500	5,685

THREE-WAY UNIVERSAL PULL PUSH AND SURFACE BROACHING MACHINES

T-4-24 3-way Broaching Machine	4,100	$2,485
T-6-24 3-way Broaching Machine	4,300	2,940
T-8-24 3-way Broaching Machine	4,600	3,270
T-6-36 3-way Broaching Machine	6,900	4,820
T-10-36 3-way Broaching Machine	7,750	5,440
1-10-36 3-way Broaching Machine	9,150	6,580

STRAIGHTENING PRESSES

15-ton Straightening Press	3,500	$1,860
25-ton Straightening Press	5,500	2,365
35-ton Straightening Press	6,500	2,580
50-ton Straightening Press	11,000	2,955

HYDRAULIC PRESSES

V-0 (1-ton) bench type with pedestal	605	$575
V-1 (2-ton)	1,400	700
V-1½ (4-ton)	1,800	925
V-2 (6-ton)	3,350	1,290
V-2 (12-ton)	3,550	1,545
V-2 (8-ton) built with adjustable guide ways	3,475	1,795

HORNING TYPE PRESSES

2-ton with table	2,300	$1,025
4-ton with table	2,500	1,105
6-ton with table	3,750	1,675
12-ton with table	4,350	1,980

SINGLE SURFACE BROACHING MACHINES

Machine No.	Net weight	List price
	Pounds	
SB-30-3-ton capacity	4,800	$4,840
SB-48-3-ton capacity	5,800	5,335
SB-42-5-ton capacity	8,400	5,850
SB-54-5-ton capacity	10,800	6,275
SB-42-10-ton capacity	10,900	6,545
SB-54-10-ton capacity	11,300	6,940
SB-48-15-ton capacity	11,200	8,180
SB-66-15-ton capacity	14,800	9,175
SB-48-25-ton capacity	13,200	10,795
SB-66-25-ton capacity	17,300	12,200

SINGLE-DUAL SURFACE BROACHING MACHINES

SB-30-3-2	6,300	$5,520
SB-48-3-2	9,300	6,135
SB-42-5-2	9,400	6,765
SB-54-5-2	11,800	7,250
SB-42-10-2	12,400	7,580
SB-54-10-2	13,300	8,140
SB-48-15-2	16,800	9,400
SB-66-15-2	18,800	10,650
SB-48-25-2	19,300	12,375
SB-66-25-2	22,800	14,150

DUPLEX HYDRAULIC SURFACE BROACHING MACHINES

SBD-30-3-ton capacity	7,400	$7,220
SBD-48-3-ton capacity	8,800	7,995
SBD-42-5-ton capacity	12,710	8,815
SBD-54-5-tonecapacity	16,300	9,425
SBD-42-10-ton capacity	14,200	9,810
SBD-54-10-ton capacity	17,200	10,400
SBD-48-15-ton capacity	26,900	12,260
SBD-66-15-ton capacity	31,400	13,750
SBD-48-25-ton capacity	29,800	16,180
SBD-66-25-ton capacity	38,400	18,285

AMERICAN BROACH & MACHINE CO., ANN ARBOR, MICH.—Continued

H-TYPE HORIZONTAL HYDRAULIC BROACHING MACHINES

Machine No.	Net weight	List price
	Pounds	
H-2-30	2,500	$1,540
H-6-36 and outer support table with carriage	4,050	2,935
H-6-48 and outer support table with rear broach carriage	5,100	3,455
H-10-48 and outer support table with broach carriage	5,400	3,775
H-15-60 and outer support table with rear broach carriage	8,500	4,585
H-20-60 and outer support table with rear broach carriage	9,000	5,725
H-30-66 outer support table with rear broach carriage and automatic front support	13,500	7,320
36-inch rotary surface broaching machine	15,400	7,680
16-inch rotary surface broaching machine with pedestal	5,500	3,490

AMERICAN CHAIN & CABLE CO., BRIDGEPORT, CONN.

Prices and specifications—Campbell nibbling machines

[All prices are net f. o. b. Bridgeport, Conn.]

NO. 0 NIBBLING MACHINE

3/32" capacity ..... 8" throat

SPECIFICATIONS

[Furnished only with direct motor drive. Be sure to specify current. Standard motor is single phase A. C.]

Equipment includes circle cutting attachment, 1 doz. punches (double end), 3 dies, wrenches, ¼ H. P. G. E. motor, starting switch, and ten-foot extension cord with plug.

PRICES

Bench type	$175.00
Legs, extra	20.00
3 phase motor, extra	20.00
25 cycle on D. C.	10.00
Punches, patented (doz.)	3.50
Dies (doz.)	2.50

NO. 1 NIBBLING MACHINE

3/16" capacity ..... 6" throat

SPECIFICATIONS

Equipment includes circle cutting attachment, 1 doz. punches (double end), 1 each sizes "A", "B", and "C" dies, wrenches.

PRICES

Belt drive type	$275
Motor drive type add additional as follows:	
3 phase, 60 cycle, 110, 220, or 440 volts, A. C.	95
115 or 230 volts, D. C.	105
Single phase, 60 cycle, 110 or 220 volts, A. C. (Motor drive includes 1 hp. G. E. motor, motor bracket, starting switch or rheostat, belt and motor pulley.)	120

All prices subject to change without notice.

NO. 1-A NIBBLING MACHINE

3/16" capacity ..... 10" throat

PRICES

Belt drive type	$350
Motor drive, add additional as follows:	
3 phase, 60 cycle, 110, 220, or 440 volts, A. C.	95
115 or 230 volts, D. C.	105
Single phase, 60 cycle, 110 or 220 volts, A. C. (Motor drive includes 1 hp. G. E. motor, motor bracket, starting switch or rheostat, belt and motor pulley. Completely wired and mounted.)	120
Motor bracket only (quickly assembled on belt drive type. No machining required)	20

NO. 1-B NIBBLING MACHINE

3/16" capacity ..... 24" throat

AMERICAN CHAIN & CABLE CO., BRIDGEPORT, CONN.—Continued

PRICES

Belt drive type	$550
Motor drive, add additional as follows:	
3 phase, 60 cycle, 110, 220, or 440 volts, A. C.	100
115 or 230 volts, D. C.	110
Single phase, 60 cycle, 110 or 220 volts, A. C. (Motor drive includes 1 hp. G. E. motor, motor bracket, starting switch or rheostat, belt and motor pulley. Completely wired and mounted.)	125
Motor bracket only (quickly assembled on belt drive type. No machining required)	25

All prices subject to change without notice.

All prices are Net F. O. B. Bridgeport, Conn.

NO. 2 NIBBLING MACHINE

3/8" capacity ..... 12" throat

SPECIFICATIONS

Equipment includes circle cutting attachment, 1 doz. punches (double end), 3 dies, wrenches.

PRICES

Belt drive type	$675
Motor drive, add additional as follows:	
3 phase, 60 cycle, 110, 220, or 440 volts, A. C.	150
115 or 230 volts, D. C.	170
Single phase, 60 cycle, 110 or 220 volts, A. C. (Motor drive includes 1½ hp. G. E. motor, motor bracket, starting switch or rheostat, belt and motor pulley. Completely wired and mounted.)	180
Motor bracket only (quickly assembled on belt drive. No machining required)	30

NO. 2-B NIBBLING MACHINE

3/8" capacity ..... 30" throat

SPECIFICATIONS

Equipment includes circle cutting attachment, 1 doz. punches (double end 2), dies, wrenches.

PRICES

Belt drive type	$1,200
Motor drive,[1] add additional as follows:	
3 phase, 60 cycle, 110 or 220 volts, A. C.	150
115 or 230 volts, D. C.	240
Single phase, 60 cycle, 110 or 220 volts, A. C. (Motor drive [1] includes 3 hp. G. E. motor, motor bracket, starting switch or rheostat, belt and motor pulley. Completely wired and mounted.)	210
Motor bracket [1] only (quickly assembled on belt drive. No machining required)	30

NO. 3-B NIBBLING MACHINE

½" capacity ..... 30" throat

PRICE

Belt drive type $1,500

SPECIFICATIONS

Equipment included circle cutting attachment. 1 dozen 7/16" punches, double end. 1 dozen 3/8" punches, double end. Three 7/16" dies. Three, 3/8" dies. One 3/8" collet. One 7/16" collet. French curve and wrenches

All prices subject to change without notice.

NO. 250 NIBBLING MACHINE

Capacity ¼"—Mild Steel ..... 36" throat

3/16"—Corrosion-resisting steel.

Equipment includes: circle cutting attachment—1 dozen ¼" punches—1 each A. B. & C. plain dies—1 each ¼" A. B. & C. line-cutting dies—1 dozen 9/32" punches for ¼" stock—1 only 9/32" plain die.

Price of #250 Campbell nibbling machine without electrical equipment $1,200

PRICES OF ELECTRICAL EQUIPMENT

Electrical characteristics	Hp.	Motor data: Bearings	Motor data: Type	R. p. m.	Frame	Switch	Push button station	Total price electrical equipment
110 volt-220 volt, 1 ph., 60 cyl., A. C.	½	Ball	SCR	1,200	254	CR7006	CR2940	-------
Price			$126			$30	$2	$158
110-volt-220 volt, 1 ph., 50 cyl., A. C.	2	Ball	SCR	1,000	254	CR7006	CR2940	-------
Price			$126			$30	$2	158
110 volt-220 volt, 440 volt-550 volt, 60 cyl., 3 ph.	2	Ball	K	1,200	225	CR7006	CR2940	-------
Price			$59			$16	$2	77
110 volt-220 volt, 440 volt-550 volt, 50 cyl., 3 ph.	2	Ball	K	1,000	225	CR7006	CR2940	-------
Price			$59			$16	$2	77
110 volt-220 volt, 440 volt-550 volt, 25 cyl., 3 ph., A. C.	2	Ball	K	1,500	225	CR7006	CR2940	-------
Price			$93			$16	$2	111
15 volt-230 volt, D. C. 1	2	Ball with drip covers.	B	1,200	225	CR1003	-------	-------
Price			$138			$20	-------	158

Mounting charge if customer supplies his own motor $20

All prices subject to change without notice.

[1] Identical in 2-B and 3-B Campbell nibbling machines.

AMERICAN CHAIN & CABLE CO., BRIDGEPORT, CONN.—Continued

NO. 20 CAMPBELL DRY ABRASIVE CUTTING MACHINE

Electrical characteristics	Price of machine without electrical equipment	Electrical equipment										Price with electrical equipment
		Motor data						Main switch	Push button station	Pump switch	Thrustor switch	
		Hp.	Bearings	Type	R. p. m.	Frame						
220 volt 3 ph. 60 cyl. A. C.		7½	Ball	KF	3,600	254		CR7006	CR2940			
Price	$595			$97				$30	$2			$724.00

Mounting charge for customer's electrical equipment—$20.

NO. 202 CAMPBELL WET ABRASIVE CUTTING MACHINE

220 volt 3 ph. 60 cyl. A. C.		7½	Ball	KF	3,600	254	CR7006	CR2940	CR1062			
Price	$932			$97			$30	$2	$7.50			$1,068.50

Mounting charge for customer's electrical equipment—$20.

NO. 203 CAMPBELL WET ABRASIVE CUTTING MACHINE

220 volt 3 ph. 60 cyl. A. C.		7½	Ball	KF	3,600	254	CR7006	CR2940	CR1062	CR1062		
Price	$1,179			$97			$30	$2	$7.50	$6.50		$1,322.00

Mounting charge for customer's electrical equipment—$20.

NO 212 CAMPBELL WET ABRASIVE CUTTING MACHINE

220 volt 3 ph. 60 cyl. A. C.		7½	Ball	KF	3,600	254	CR7006	CR2940	CR1062			
Price	$1,179			$97			$30	$2	$7.50			$1,315.50

Mounting charge for customer's electrical equipment—$20.

NO 213 CAMPBELL WET ABRASIVE CUTTING MACHINE

Electrical characteristics	Price of machine without electrical equipment	Electrical equipment										Price with electrical equipment
		Motor data					Main switch	Push button station	Pump switch	Thrustor switch	Hyd. motor switch	
		Hp.	Bearings	Type	R. p. m.	Frame						
220 volt 3 ph. 60 cyl. A. C.		7½	Ball	KF	3,600	254	CR7006	CR2940	CR1062	CR1062		
Price	$1,351			$97			$30	$2	$6.50	$7.50		$1,494.00

Mounting charge for customer's electrical equipment—$20.

NO. 302 CAMPBELL HORIZONTAL WET ABRASIVE CUTTING MACHINE

220 volt, 3 ph. 60 cyl. A. C.		7½	Ball	KF	1,800	284	CR7006	CR2940		CR1062	CR1062	
Price	$2,254			$92			$30	$2		$7.50	$6.50	$2,392.00

Mounting charge for customer's electrical equipment—$25.

NO. 401 CAMPBELL CUTAMATIC WET ABRASIVE CUTTING MACHINE

220 volt, 3 ph. 60 cyl. A. C.		15	Ball	KF	1,800	326	CR7006	CR2940		CR1062	CR1062	
Price	$3,163			$141			$30	$2		$7.50	$7.50	$3,351.00

Mounting charge for customer's electrical equipment—$35.

AMERICAN CHAIN & CABLE CO., BRIDGEPORT, CONN.—Continued

NO. 0 CAMPBELL TOOL CRIB CUTTER

All items such as special drive or special mounting, where required, are included in machine price.

Prices quoted stand firm for a period of 30 days only after which orders will be accepted at prices prevailing at the time order is placed.

When customer desires to furnish own electrical equipment, same must agree in all general dimensions with equipment specified on electrical equipment list and must be sent, freight paid, to our factory at Bridgeport, Conn., for mounting.

Electrical characteristics	Price of machine without electrical equipment	Electrical equipment							Price with electrical equipment
		Motor data						Switch	
		Hp.	Bearings	Type	R. p. m.	Frame	Base		
110 or 220 volt, single ph. 60 cyl. A. C., 1,800 r. p. m., 1 hp.		1	Ball	SCR	1,800	204	204	CR1062	
Price	$325			$41			$6	$6.50	$378.50
220 or 440 volt, 3 ph. 60 cyl. A. C., 1,800 r. p. m. 1½ hp.		1½	Ball	K	1,800	224	224	CR1062	
Price	$325			$46			$6	$7.50	$384.50

Mounting charge for customer's electrical equipment—$15.

THE AMERICAN TOOL WORKS CO., CINCINNATI, OHIO

Condensed "American" lathe price list

PACEMAKER

Size	Center distance	Weight	Price
		Pounds	
14 inches	30 inches	5,200	$3,350
Add for 2 feet of bed		450	120
16 inches	30 inches	5,400	3,500
Add for 2 feet of bed		470	126
18 inches	30 inches	8,200	4,100
Add for 2 feet of bed		600	145
20 inches	48 inches	8,900	5,200
Add for 2 feet of bed		600	180
22 inches	48 inches	9,200	5,510
Add for 2 feet of bed		600	194

HIGH DUTY

24 inches	48 inches	11,500	$7,150
Add for 2 feet of bed		688	250
27 inches	48 inches	11,700	7,525
Add for 2 feet of bed		688	270
30 inches	60 inches	17,500	9,560
Add for 2 feet of bed		1,092	340
36 inches	60 inches	18,000	10,100
Add for 2 feet of bed		1,092	360

SUPER-PRODUCTIVE

38 inches	60 inches	28,600	$12,250
Add for 2 feet of bed		1,950	450
42 inches	60 inches	29,800	13,000
Add for 2 feet of bed		1,950	470
48 inches	60 inches	30,000	14,000
Add for 2 feet of bed		1,950	500

THE AMERICAN TOOL WORKS CO., CINCINNATI, OHIO—Continued

Condensed "American" radial prices

Size	Weight	Price
9 SPEEDS [1]		
9-inch column:	*Pounds*	
3 foot	5,500	$3,240
4 foot	5,750	3,430
12 SPEEDS [1]		
9-inch column:		
3 foot	5,860	3,500
4 foot	5,850	3,780
12 SPEEDS [1]		
11-inch column:		
3 foot	8,000	4,800
4 foot	8,600	5,100
5 foot	9,400	5,400
6 foot	10,000	5,700
32 SPEEDS		
13-inch column:		
4 foot	13,300	6,998
5 foot	13,900	7,300
15-inch column:		
4 foot	14,900	8,025
5 foot	15,700	8,353
6 foot	16,500	8,675
17-inch column:		
5 foot	18,700	9,550
6 foot	19,635	9,956
7 foot	20,670	10,300

[1] These prices include electrical equipment.

B. C. Ames Co. Waltham, Mass.—Continued

Ames bench lathes and attachments

	Lathe No. 3	Lathe No. 3	Lathe No. EH3
Collet capacity	5/8"	1"	1"
Swing over bed	8 3/8"	8 3/8"	8 3/8"
Length of bed	36"	36"	36"
Distance between centers, maximum	17 1/4"	16 1/4"	17 1/2"
All Ames lathe beds have back-V slots.			
Ames ball bearing open head bench lathe No. 3, including slotted bed for thread chasing attachment, hold-down bolt, nut and washer, open headstock with preloaded ball bearings; drawback spindle and hand wheel; center chuck, drive plate and center, tailstock and center	$325	$340	-------
Ames ball bearing enclosed head bench lathe No. EH3, including slotted bed for thread chasing attachment, holddown bolt, nut and washer, enclosed headstock with preloaded ball bearings, double V belts; drawback spindle and hand wheel; center chuck, drive plate and center, tailstock and center	-------	-------	$425
Attachments			
Slide rest, compound, complete with tool post	140	140	140
Slide rest, double for forming and cutting off	175	175	175
Slide rest, rack and pinion	(1)	(1)	(1)
Driving equipment			
Bench, ABJ-1000, 60" long, 30" wide, 36" high, with wood top, steel drawer, jackshaft underneath drive; cone pulley driving flat belt to open headstock; 220 or 440 volt, 60 cycle, 3 phase, two-speed reversing motor and drum switch,[2] wired and assembled	200	200	-------
Bench, ABJ-2000, 60" long, 30" wide, 36" high, with wood top, steel drawer, 6-speed ball bearing jackshaft with clutch and brake, 220 or 440 volt, 3 phase, 60 cycle reversing motor with drum switch,[2] wired and assembled	300	300	-------
Bench, AB-1000, 60" long, 30" wide, 33 1/2" high, with wood top, steel drawer, 6-speed gear transmission; 220 or 440 volt, 60 cycle, 3 phase reversing motor and drum switch,[2] wired and assembled	425	425	-------
Bench, AEH-1000, 60" long, 30" wide, 36" high, 2 1/4" thick, with wood top, collet and chuck board, light; variable drive with manual speed control and 220 or 440 volt, 3 phase, 60 cycle, 1/2 hp. reversing motor and drum switch,[2] push button control and magnetic line starter, wired and assembled	-------	-------	465
Bench, AEH-2000, 60" long, 30" wide, 36 1/2" high, 2 1/4" thick, with wood top, collet and chuck board, steel drawer, light; 8-speed ball bearing jackshaft with clutch and brake; 220 or 440 volt, 60 cycle, 3 phase, reversing motor with drum switch,[2] wired and assembled	-------	-------	440
Countershaft, two-speed, ball bearing with treadles	45	45	-------
Countershaft, three-speed, ball bearing with treadles	50	50	-------

[1] Price on application.
[2] Motors and controls of different specifications. Prices on application.

Ames bench milling machines and attachments

Ames bench milling machine, with regular equipment including overarm cutter head of 5/8" collet capacity and draw-in spindle; indexing head of 5/8" collet capacity and tailstock; swivel vise with graduated base; 1/2" cutter arbor; necessary wrenches	$1,315
Ames bench milling machine, as above, with overarm cutter head of 1" collet capacity and indexing head of 1" collet capacity	1,370
Weight of bench milling machine, approximately 325 pounds.	

Attachments

Cutter head, with overarm, 5/8" capacity	260
Cutter head, with overarm 1" collet capacity	295
Cutter head, vertical spindle, 5/8" collet capacity	300
Cutter head, vertical spindle, 1" collet capacity	335
Indexing head, with draw-in spindle, drive plate and center, 5/8" collet capacity	280
Indexing head, as above, 1" collet capacity	300
Vise, swivel with graduated base	95

Driving equipment

Bench, CB-1000, 32" long, 30" wide, 26 3/4" high, wood top, steel legs; six-speed gear transmission; 1/2 hp. reversible motor of 220, 440, or 550 bolts, 60 cycle, 3-phase, with switch, endless belts; completely wired and assembled	$375
Cast iron floor stand, CB-2000, 30" long, 25" wide, 28 1/2" high, six-speed gear transmission, 1/2 hp. motor of 220, 440, or 550 volts, 60 cycle, 3-phase, with switch, endless belts; completely wired and assembled	550
Gear transmission, six speeds	265

Rhodes shapers, slotters, and attachments

Rhodes 7" horizontal shaper, motor driven, with swivel knee, swivel vise, wrenches, belts, and wiring; complete	565
Rhodes 3 1/2" vertical slotter, motor driven, with swivel knee, plain rotary table, in and out table, wrenches, belts, and wiring complete	700

B. C. Ames Co., Waltham, Mass.—Continued

Rhodes shapers, slotters, and attachments—continued

Rhodes combination shaper and slotter, motor driven, with swivel knee, swivel vise, plain rotary table, in and out table, wrenches, belts, and wiring; complete	$845
Above prices include 1/2 hp., 3-phase motors of either 220, 440, or 550 volts, and switches. Prices of machines with motors and switches of different specifications quoted on request.	
Additional charge for export boxing $10 net.	

Separate attachment prices

Plain rotary table	96
Indexing rotary table with 3 index plates	145
In and out table	45
Horizontal shaper ram assembly, complete	95
Vertical slotter attachment, complete	175
Swivel vise with wrench	50

Max Ams Machine Co., Bridgeport, Conn.

Double seamers

Model No.	Price
No. 131-B	$50
No. 172	169
No. 168-C	358
No. 98-C	630
No. 8-R	790
No. 248	2,575
No. 835-A	3,975
Model description:	
No. 751 mould liner	180
No. 5-B thread roller	583
No. 92 thread roller	1,099
No. 126-B press	656
No. 321 h. press	973
No. 134 inclinable press	864
No. 6-S power former	165
No. 5-C flanger	353

Armstrong-Blum Mfg. Co., 5700 Bloomingdale Avenue, Chicago, Ill.

Marvel hack sawing machines Nos. 1 and 2

[Prices and weights: Resale prices net list f. o. b. Chicago, cash terms, 2 percent 10th prox., net thereafter. Capacity: No. 1 saw, 4" x 4"; No. 2 saw, 6" x 6" on long stroke, 8" x 8" on short stroke]

	No. 1 saw 4" x 4"		No. 2 saw 8" x 8"	
	Shipping wt. crated	Price f. o. b. Chicago	Shipping wt. crated	Price f. o. b. Chicago
	Pounds		*Pounds*	
Belt driven	140	$46	300	$79
Motor driven complete including motor:				
A. C. 110- or 220-volt, 60- or 50-cycle, single phase	225	90	450	185
A. C. 110- or 220-volt, 25- or 30-cycle, single-phase	235	97	450	192
D. C. 115- or 230-volt, direct current	225	94	450	187
A. C. 220- or 440-volt, 60- or 50-cycle, 3-phase	225	93	450	187
A. C. 220- or 440-volt, 25- or 30-cycle, 3-phase	235	98	450	192
Portable truck, extra	50	15	50	15

ARMSTRONG-BLUM MFG. CO., 5700 BLOOMINGDALE AVENUE, CHICAGO, ILL.—Continued

MARVEL METAL BAND SAW NO. 8

[Prices and weights: Cash terms, 1 percent 10 days, net 30 days, resale prices net list f. o. b. Chicago]

	No. 8 band saw 18" x 18"	
	Shipping wt. crated	Price f. o. b. Chicago
STANDARD 3-SPEED MACHINES		
(Unless otherwise specified, standard 3-speed machines will always be quoted and furnished, providing 3-blade speeds of 80, 115, 200 blade-feet per minute by means of 3-step cone pulleys on all machines.)		
Belt driven	*Pounds* 2,125	$1,025
Motor driven, complete including motor:		
A. C. 110, 220, 440, 550 volt; 1, 2, or 3 phase, 60 or 50 cycle	2,280	1,165
A. C. 110, 220, 440, 550 volt; 1, 2, or 3 phase, 25 or 30 cycle	2,280	1,193
D. C. 115 or 230 volt, direct current	2,280	1,228
Arranged for motor drive without motor:		
For A. C. motors only, any voltage, any frequency	2,140	1,120
For D. C. 115 or 230 volt motors only	2,140	1,142
SPECIAL 6-SPEED MOTOR DRIVEN MACHINES		
(Special 6-speed motor-driven machines are available, equipped with special 2-speed double-winding "Louis Allis" motor, providing 6 blade speeds (through 3-step cone pulleys on all machines) of 40, 58, 80, 100, 115, 200 blade-feet per minute at following prices:)		
Motor driven, complete including special 2-speed motor:		
A. C. 220 volt, 3 phase, 60 cycle	2,310	1,227
A. C. 440 or 550 volt, 3 phase, 60 cycle	2,310	1,227
(Special 6-speed machines are very desirable for installations in tool rooms and tool-steel stock rooms, as they provide slower-than-standard blade speeds often desired when cutting exceptionally hard materials such as high-carbon high-chrome die steel, treated die steels, stainless steels, etc., without sacrifice of the regular standard high speeds desired for softer alloy and mild steel work.)		
SPECIAL ACCESSORIES		
Special guide roller holders and special rollers to guide the blade at right angles to its normal position or crosswise to the table, for making long cuts through sheets or plates, etc., by hand feeding the stock	40	55
Marvel cutting oil, for use on all Marvel sawing machines, furnished in 5-gallon pails only	40 Per 5-gal. pail	5
Marvel band saw blades, 14'8" x ¾" x 0.032" x 6, 8, 10, 12, 14, 18, 24 teeth per inch (12 teeth per inch is standard)	2 each	2.90
(Resale price, band-saw blades only, following quantity discounts from list price of $2.90 each. Quantities 1 to 11 blades, 15 percent; 12 to 47 blades, 20 percent; 48 or more blades, 25 percent.)		

ARMSTRONG-BLUM MFG. CO., 5700 BLOOMINGDALE AVENUE, CHICAGO, Ill.—Continued

MARVEL HIGH-SPEED LIGHT-DUTY HACK SAWING MACHINE NO. 4B

[Prices and weights: Resale prices net list f. o. b. Chicago, cash terms, 1 percent 10 days, 30 days net.]

	No. 4B saw 6" x 6"	
	Shipping wt. crated	Price f. o. b. Chicago
BELT DRIVEN		
Single speed (without transmission), belt driven, open-leg base	*Pounds* 590	$242
With 4-speed transmission, belt driven cabinet base	1,090	395
MOTOR DRIVEN, COMPLETE INCLUDING STANDARD SINGLE-SPEED SLEEVE BEARING MOTOR		
Single speed (without transmission), with motor, open-leg base:		
60 or 50 cycle, 220, 440, 550 volt, 3 or 2 phase	850	361
25 or 30 cycle, 220, 440, 550 volt, 3 phase	870	381
Direct current, 115 or 230 volt	870	435
With 4-speed transmission, with motor, cabinet base:		
60 or 50 cycle, 220, 440, 550 volt, 3 or 2 phase	1,350	514
25 or 30 cycle, 220, 440 volt, 3 phase	1,370	534
Direct current, 115 or 230 volt	1,370	588
SPECIAL 2-SPEED MOTOR DRIVEN MACHINE		
2-speed, 60 cycle, 220 volt, 3 phase, with motor, open-leg base	900	401
2-speed, 60 cycle, 440 or 550 volt, 3 phase, with motor, open-leg base	900	401

ARMSTRONG-BLUM MFG. CO., 5700 BLOOMINGDALE AVENUE, CHICAGO, ILL.—Continued

MARVEL HIGH-SPEED LIGHT-DUTY HACK SAWING MACHINE NO. 4B—continued

[Prices and weights: Resale prices net list f. o. b. Chicago, cash terms, 1 percent 10 days, 30 days net.]

	No. 4B saw 6" x 6"	
	Shipping wt. crated	Price f. o. b. Chicago
BASIC AND ACCESSORY PRICES		
(When customer does not specify accessories desired, such as transmission, motor, etc., quote following basic and accessory prices which agree exactly with above complete price.)		
Belt driven, single speed, open-leg base, without transmission (basic price)	*Pounds* 590	$242
4-speed ball bearing transmission, including cabinet base, extra	500	153
Motor drive arrangement, without motor, but including automatic motor starter, push button, and limit switch for automatic stop; including mounting and wiring if we furnish the motor; but if customer furnishes his own motor and sends to us, an additional charge of $15 will be made for mounting and wiring:		
For A. C. motors only, extra	165	75
For D. C. 115- or 230-volt motors, only, extra	165	97
Standard motor only, 1 hp. sleeve bearing, 1,200 r. p. m., 220, 440, 550 volt, 60 or 50 cycle, 2 or 3 phase, extra	95	44
(Motors for any other circuit will be furnished at General Electric Co.'s current list price.)		
Special 2-speed motor only, sleeve bearing, 1 hp. at 1,200 r. p. m. ½ hp. at 600 r. p. m., including 2-speed switch to provide 2-blade speeds of 149, 75 strokes per minute:		
220 volt, 60 cycle, 3 phase, extra	145	84
440 or 550 volt, 60 cycle, 3 phase extra	145	84
Cabinet base (instead of open-leg base) extra	300	25

ARMSTRONG-BLUM MFG. CO., 5700 BLOOMINGDALE AVENUE, CHICAGO, ILL.—Continued

MARVEL HIGH SPEED HEAVY DUTY HACK SAWING MACHINES

[Prices and weights: Resale prices net list f. o. b. Chicago, cash terms, 1 percent 10 days, net 30 days]

	No. 6 saw 6" x 6"		No. 6A saw 6" x 6"	
	Shipping weight crated	Price f. o. b. Chicago	Shipping weight crated	Price f. o. b. Chicago
BELT DRIVEN				
	Pounds		*Pounds*	
Single speed (without transmission), belt driven	1,260	$533	1,600	$783
With 4-speed transmission, belt driven	1,500	661	1,850	911
MOTOR DRIVEN, COMPLETE INCLUDING MOTOR				
Single speed (without transmission), with motor:				
60 or 50 cycle, 220, 440, 550 volt, 3 or 2 phase	1,550	664	1,850	914
25 or 30 cycle, 220, 440, 550, volt, 3 phase	1,550	690	1,850	940
Direct current, 115 or 230 volt	1,550	746	1,850	996
With 4-speed transmission, with motor:				
60 or 50 cycle, 220, 440, 550 volt, 3 or 2 phase	1,750	792	2,050	1,042
25 or 30 cycle, 220, 440, 550 volt, 3 phase	1,750	818	2,050	1,068
Direct current, 115 or 230 volt	1,750	874	2,050	1,124
BASIC AND ACCESSORY PRICES				
(When customer does not specify accessories desired, such as transmission, motor, etc., quote following basic and accessory prices which agree exactly with above complete prices.)				
Belt driven, single speed, without transmission (basic price)	1,260	533	1,600	783
4-speed ball bearing transmission, extra	200	128	200	128
Motor drive arrangement, without motor, but including automatic starter, push button station, and limit switch for automatic stop. $15 additional charge for mounting and wiring motor if customer furnishes motor:				
For A. C. motors only, extra	200	75	200	75
For D. C. 115 or 230 volt motors only, extra	200	97	200	97
Motor only, 1½ h. p. for Nos. 6 and 6A, ball bearing, 1,200 r. p. m., 220, 440, 550 volt, 60 or 50 cycle, 2 or 3 phase, extra	100	56	100	56
SPECIAL EQUIPMENT				
New style heavy duty bar push-up 12 ft. long	----------	----------	435	135
Additional 8 ft. track	----------	----------	255	17
Stock stands and track equipment, including 4 stands, 2 rollers, 2 traveling vises, and 2 track bars 12 ft. long (extra for No. 6, included with No. 6A and No. 9A)	300	90	inc.	inc.
One pair special nest clamps and quick action toggle gauge, for holding and end-gauging a nest of small bars, extra	20	20	20	20
Special blade holder for 12" blades, extra	5	5	2	5

ARMSTRONG-BLUM MFG. CO., 5700 BLOOMINGDALE AVENUE, CHICAGO, ILL.—Continued

MARVEL HIGH SPEED HEAVY DUTY HACK SAWING MACHINES—continued

	No. 9 saw 10" x 10"		No. 9A saw 10" x 10"	
	Shipping weight	Price f. o. b. Chicago	Shipping weight	Price f. o. b. Chicago
BELT DRIVEN				
	Pounds		*Pounds*	
Single speed (without transmission), belt driven	1,470	$853	2,150	$1,153
With 4-speed transmission, belt driven	1,720	981	2,380	1,281
MOTOR DRIVEN, COMPLETE INCLUDING MOTOR				
Single speed (without transmission), with motor:				
60 or 50 cycle, 220, 440, 550 volt, 3 or 2 phase	1,750	$990	2,400	1,290
25 or 30 cycle, 220, 440, 550 volt, 3 phase	1,750	1,023	2,400	1,323
Direct current, 115 or 230 volt	1,750	1,085	2,400	1,385
With 4-speed transmission, with motor:				
60 or 50 cycle, 220, 440, 550 volt, 3 or 2 phase	1,950	1,118	2,600	1,418
25 or 30 cycle, 220, 440, 550 volt, 3 phase	1,950	1,151	2,600	1,451
Direct current, 115 or 230 volt	1,950	1,213	2,600	1,513
BASIC AND ACCESSORY PRICES				
(When customer does not specify accessories desired, such as transmission, motor, etc., quote following basic and accessory prices which agree exactly with above complete prices.)				
Belt driven, single speed, without transmission (basic price)	1,470	853	2,150	1,153
4-speed ball-bearing transmission, extra	200	128	200	128
Motor-drive arrangement, without motor, but including automatic starter, push-button station, and limit switch for automatic stop. $15 additional charge for mounting and wiring motor if customer furnishes motor:				
For A. C. motors only, extra	200	75	200	75
For D. C. 115- or 230-volt motors only, extra	200	97	200	97
Motor only, 2 h. p. for Nos. 9 and 9A; ball bearing, 1,200 r. p. m., 220, 440, 550 volt, 60 or 50 cycle, 2 or 3 phase, extra	100	62	100	62
SPECIAL EQUIPMENT				
New style heavy-duty bar push-up, 12 ft. long	----------	----------	435	150
Additional 8 ft. track	----------	----------	255	17
Stock stands and track equipment, including 4 stands, 2 rollers, 2 traveling vises, and 2 track bars 12 ft. long (extra for No. 9, included with 1 No. 9A)	630	125	inc.	inc.
1 pair special nest clamps and quick action toggle gauge, for holding and end-gauging a nest of small bars, extra	20	20	20	20
Special blade holder for 14" blades, extra	3	6	3	6

ARTER GRINDING MACHINE CO, WORCESTER, MASS.

		Weight pounds	Price
A-1-8"	Rotary surface grinder	2,950	$2,925
A-1-12"	do	3,050	3,265
A-3-12"	do	4,100	3,840
A-3-16"	do	4,350	4,150
B-20"	do	7,600	7,670
B-30"	do	8,400	8,260
B-40"	do	9,700	9,760
C-12"	do	5,800	6,180
C-16"	do	6,000	6,350
D-12"	do	5,000	4,500
2-B	Automatic piston ring grinder.	2,800	3,275

Above prices are for machines arranged for motor drive but without motor or starting equipment.

AUTOMATIC MACHINERY MFG. CORP., BRIDGEPORT, CONN.

Description	Price
Coulter diamond tool boring machine:	
"B-B"	$2,800
A-121	4,250
Coulter open side shaper planer:	
Crank type P-10	3,610
Crank type P-12	3,860
Hydraulic type PH-10	3,610
Hydraulic type PH-12	3,875
Hydraulic type PH-14	4,160

AUTOMATIC MACHINERY MFG. CORP., BRIDGEPORT, CONN.—Continued

Description	Price
13" LE enclosed head automatic threading lathe, size:	
6'	$3,995
8'	4,340
10'	4,595
12'	5,050
14'	5,500
16'	5,975
18'	6,450
20'	6,950
U6 HOB thread milling:	
14" x 16"	4,725
14" x 20"	5,175
14" x 40"	5,400
14" x 60"	5,575
A-140 horizontal variable speed profile and cam milling	8,250
12E is single spindle hand profile milling	
H. P. hand profiling and vertical milling	
SL-2 scroll cutting lathe	5,675

AUTOMETRIC MACHINE TOOL COMPANY, BERKELEY, CALIF.

	Weight (pounds)	Base price
Autometric Universal Jig Boring, Lay-out, and Inspection Machine	2,700	$4,325
Automatic Horizontal Universal Precision Boring Machine	2,600	4,090

THE AVEY DRILLING MACHINE CO., CINCINNATI, OHIO

BELTED-AVEY—COLUMN TYPE

Size	Overhang	1-spindle	2-spindle	3-spindle	4-spindle	6-spindle
	Inches					
No. ½	6¼	$350	$615	$880	$1,145	$1,675
No. ½ heavy	6¼	375	660	945	1,230	1,800
No. 1½	7½	475	820	1,165	1,510	2,195
No. 1	7½	435	710	1,015	1,320	1,930
No. 2	7½	465	765	1,095	1,430	2,100
No. 2	12	495	835	1,175	1,540	2,240
No. 2	15	540	915	1,300	1,695	2,465
No. 3	12	780	1,400	2,020	2,650	3,900

Size	Overhang	1-spindle	Size	Overhang	1-spindle
TOOL ROOM	Inches			Inches	
No. 1	7½	$500	No. 2 round table tool room drill	12	$670
No. 2	7½	590	No. 3 round table	12	950

MOTOR-AVEY—8 SPEEDS—TYPE MA 8

Size	Overhang	1-spindle	2-spindle	2-spindle	4-spindle	6-spindle
No. 1 bench	6¼	$440	$825	$1,210	$1,595	$2,365
No. 1 column	6¼	505	920	1,330	1,745	2,575

MOTOR-AVEY—6 SPEEDS—TYPE MA 6

No. 1	7½	$605	$1,080	$1,555	$2,030	$2,980
No. 2	7½	665	1,195	1,725	2,255	3,325
No. 2	12	725	1,300	1,875	2,450	3,600
No. 2	15	760	1,375	1,990	2,610	3,840
No. 3	12	1,070	1,990	2,910	3,830	5,670

MOTOR-AVEY—1 SPEED—TYPE MA 1

No. 2	7½	$565	$995	$1,425	$1,855	$2,725
No. 2	12	625	1,100	1,575	2,050	3,000
No. 2	15	660	1,175	1,690	2,210	3,240
No. 3	12	960	1,770	2,580	3,390	5,010

MOTOR-AVEY—2 SPEEDS—TYPE MA 2

No. 2	7½	$615	$1,095	$1,575	$2,055	$3,025
No. 2	12	675	1,200	1,725	2,250	3,300
No. 2	15	710	1,275	1,840	2,410	3,540
No. 3	12	1,010	1,870	2,730	3,590	5,310

	No. 1	No. 2	No. 3
Aveymatic feed per spindle	$180	$200	$275
Plain power feed per spindle	----------	180	190
Friction type tapping attachment	120	120	----------
Back gear tapping attachment	130	130	----------
No 2 tapping unit on column	----------	270	300
No. 3 tapping and drilling head	----------	----------	400

AXELSON MANUFACTURING CO., LOS ANGELES, CALIF.

AXELSON 24-SPEED SELECTIVE TYPE GEARED HEAD HEAVY DUTY ENGINE LATHES WITH DIRECT MOUNTED 220 V, 3 PH. 60-CYCLE MOTORS INCLUDED

Size	Weight of base length	Price	Extra per 2' of bed
	Pounds		
14" x 6'	4,150	$3,235	$110
16" x 6'	5,100	3,588	121
18" x 8'	8,000	4,159	140
20" x 8'	9,000	5,103	170
24" x 10'	14,650	6,989	245
30" x 10' [1]	15,250	7,607	245
32" x 10'	17,300	10,338	345

[1] The 30" lathe no longer made as the 32" has taken its place.

THE BAIRD MACHINE COMPANY, STRATFORD, CONN.

SINGLE ACTION OPEN BACK BENCH POWER PRESSES

	Plain machine
Size 1	$220
Motor-drive arrangement	35
Mounting motor and starter	10
Iron table and legs	25
Back roll feed attachment	110
Side roll feed attachment	110
Size 2	345
Motor-drive arrangement	42
Mounting motor and starter	16.50
Iron table and legs	31
Back roll feed attachment	160
Side roll feed attachment	180

HEAVY PATTERN SINGLE ACTION OPEN BACK PRESSES

	Plain machine
Size 2	$625
Motor drive arrangement	130
Mounting motor and starter	13.50
Back roll feed attachment	260
Side roll feed attachment	300
Size 3	770
Motor-drive arrangement	150
Mounting motor and starter	15
Back roll feed attachment	285
Side roll feed attachment	320
Size 4	1,120
Motor-drive arrangement	175
Mounting motor and starter	16
Back roll feed attachment	325
Side roll feed attachment	340
Size 5	1,530
Motor-drive arrangement	220
Mounting motor and starter	16
Back roll feed attachment	400
Side roll feed attachment	410
Standard 7" six-spindle Horizontal Automatic Lathe, Price	10,600
Automatic four-spindle continuous Vertical. Price	9,900

BAKER BROTHERS INC., TOLEDO, OHIO

MECHANICAL FEED

Type	Capacity	Length of feed	Approximate weight	Price
	In.	In.	Lb.	
No. 121 single purpose	1½	11	2,400	$1,370
No. 121 single purpose	1½	15	2,600	1,525
No. 121 quick change	1½	11	2,500	1,695
No. 121 quick change	1½	15	2,700	1,855
217 single purpose	2	12	2,950	1,875
321 single purpose	3	16	4,100	2,600
321 single purpose	3	20	4,400	2,900
422 single purpose	4	16	4,900	3,195
314 quick change*	3	16	4,900	3,550

* See note on following page.

HYDRAULIC FEED (PICK OFF GEAR TYPE) (SINGLE SPINDLE TYPE)

16-HO	2	16	7,000	$3,190
26-HO	3	16	7,800	3,645
36-HO	5	16	12,400	4,085

HYDRAULIC FEED (SIMPLIFIED TYPE FOR MULTIPLE HEAD APPLICATION)

	Horsepower			
20-HO	Up to 15	16	6,500	$2,795
30-HO	Up to 25	16	10,000	4,025
60-HO	Up to 20	16	12,000	5,565
75-HO	Up to 40	16	14,500	7,335

BAKER BROTHERS INC., TOLEDO, OHIO—Continued

HYDRAULIC FEED (UNIVERSAL QUICK CHANGE TYPE) (SINGLE SPINDLE TYPE)

Type	Capacity	Length of feed	Approximate weight	Price
	Inches			
10-HO	1¾	16	7,400	$3,390
20-HO	2½	16	8,200	4,190

HYDRAULIC FEED (EXTRA HEAVY DUTY WORM AND WORM GEAR TYPE DRIVE)

	Horsepower	*Inches*	*Lbs.*	
30-HO-4	Up to 30	16	14,500	$6,525
60-HO-4	Up to 40	26	16,000	8,065

HYDRAULIC FEED UNITS

5A12*	Up to 5	12	1,000	$1,355
7½A14	Up to 7½	14	1,150	1,530

CAM FEED UNIT

No. 2C*	Up to 5	6	1,100	$1,090

CONTOUR GRINDER

	Inches			
No. 3	½ to 4 dia.		950	$900

KEYSEATERS

No. 0	Up to 1	Up to 9	1,975	$1,343
No. 1	Up to 1½	Up to 12	2,700	2,160
No. 2 arr. for motor drive without bars and cutters				2,931
No. 2 arr. for motor drive with bars and cutters				3,273

*Denotes price correction advised by manufacturer. Prices differ from those shown in 1st edition of New Machine Tools.

THE BAKEWELL MANUFACTURING COMPANY, LOS ANGELES, CALIF.

PRECISION TAPPING MACHINE

No. 1	$1,350
No. 2	3,250

EXTRA FOR LEAD SCREW

No. 1—Right hand	22.50
No. 1—Left hand	27.50
No. 2—Right hand	27.50
No. 2—Left hand	35.00

BARBER-COLMAN CO., ROCKFORD, ILL.

HOBBING MACHINES

[Prices and specifications]

Model No.	Capacity, face	Capacity, diameter	Net wt.	Base price[1]
	Inches	*Inches*	*Lbs.*	
"A"—standard length	12	12	5,725	$4,400
"D"	14	14	9,500	8,000
"S"	½	1	350	2,200
"T"	10	13	8,500	7,150
"V"	9	8	9,000	8,250
#3 standard	7	5	1,700	2,300
#3 precision	7	5	1,700	2,850

Model	Wt.	Price
	Lbs.	
No. 3 hob sharpening machine	2,800	$3,100
No. 4 hob sharpening machine	4,400	6,050
Combination sharpening machine	2,550	3,200
Reamer sharpening machine	3,500	4,500

[1] Price corrections advised by manufacturer. Prices differ from those shown in first edition of "prices of new machine tools."

BARBOUR STOCKWELL COMPANY, 205 BROADWAY, CAMBRIDGE, MASS.

BEAUDRY CHAMPION

Size of hammer	100-pound	150-pound	300-pound	500-pound
Weight of ram, lbs	100	150	300	500.
Estimated force of blow, lbs	600	900	1,800	3,000.
Lift of ram, inches [1]	8	9	11½	13.
Will work stock, inches	2¼	3	4½	6.
Size of dies, inches	3½ x 7	3½ x 7	4½ x 10½	5½ x 12.
Height to center of shaft	5'6"	6'0"	7'0"	7'7".
Floor space, inches	2'3" x 3'5"	2'5" x 4'	2'11" x 4'6"	4' x 4'10".
Speed of hammer	275	250	200	175.
Size of pulley, belt-drive	16 x 5	17 x 5½	19 x 6	22 x 7.
Size of pulley, motor-drive	16 x 4½	19 x 5	22 x 5½	22 x 7.
Approx. diam. motor pulley, inches	5	5¼	5½	5¼.
Approx. hp. motor	5	5	7½	10.
Approx. speed of motor, r. p. m	850	850	800	750.
Approx. wgt., belt-driven	3,000	3,700	5,400	9,000.
Approx. wgt., motor-driven	3,600	4,200	6,000	9,700.
Price, belt-driven	$650	$950	$1,250	$1,850.
Price, arranged for motor	$875	$1,125	$1,500	$2,100.

BEAUDRY UTILITY

Size of hammer	25-pound	50-pound	100-pound
Weight of ram, lbs	25	50	100.
Lift of ram [1]	6"	8"	10".
Will work stock	1½" sq.	2" sq.	3" sq.
Number of blows per minute	400	350	300.
Size of dies	2 x 3"	2 x 3½"	2½ x 5".
Size of pulley	3½ x 10"	4 x 12"	5 x 16".
Height over all	60"	68"	76".
Floor space	16 x 21"	20 x 24"	24 x 28".
Horse power	1 hp	2 hp	3 hp.
Speed of motor, r. p. m	1,200	1,200	1,200.
Approx. shipping weight	850 lbs.	1,500 lbs.	2,500 lbs.
Price, belt-driven	$150	$235	$450.
Price, arranged for motor	$170	$255	$470.

[1] At full speed.

BARDONS & OLIVER, INCORPORATED, CLEVELAND, OHIO

[Prices include motor and controls]

Model No.	Maximum capacity (diameter)	Swing	Prices	
			Without automatic chuck and bar feed	With automatic chuck and bar feed
1 [1]			$1,665	
2	1"	13½"	2,263	$2,585
3	1½"	15⅝"	2,860	3,324
5	2"	18"	3,366	3,801
7	2½"	21½"	3,949	4,461

[1] Model No. 1 discontinued about September 1, 1939. Price shown was in effect at that time.

Compare old style machines as shown below

Old		*New*
No. 2	to	2
No. 4	to	3
No. 7	to	5
No. 9	to	7

BARNES DRILL CO., ROCKFORD, ILL.

DRILLING MACHINES

Machine	Net weight	Base price
	Pounds	
20" box column single spindle drill [1] ..... each	1,800	$1,190
20" box column gang drill [1] ..... per spindle	2,000	1,255
20 1¼ box column single spindle drill ..... each	1,800	1,435
20 1¼ box column gang drill ..... per spindle	2,000	1,535
22 1½ box column gang drill ..... do	2,800	2,080
242 box column single spindle drill ..... each	3,050	2,405
242 box column gang drill ..... per spindle	3,350	2,560
262 box column single spindle drill ..... each	3,200	2,645
262 box column gang drill ..... per spindle	3,400	2,825
S-201 box column single spindle drill [1] ..... each	1,050	1,060
S-201 box column gang drill [1] ..... per spindle	1,200	1,165
210 box column single spindle drill ..... each	1,750	1,615
210 box column gang drill ..... per spindle	2,000	1,735
H-2 Hydram drilling machine (one speed) ..... each	5,000	3,485
H-3 Hydram drilling machine (one speed) ..... do	7,000	4,890
H-4 Hydram drilling machine (one speed) ..... do	11,000	7,140

[1] These machines temporarily withdrawn from market.

BARNES DRILL CO., ROCKFORD, ILL.—Continued

HONING MACHINES

Machine		Net weight	Base price
		Pounds	
152 mechanically reciprocated vertical honing machine[1]	each	1,250	$1,295
172 hydraulically reciprocated vertical honing machine	do	1,400	1,825
224 hydraulically reciprocated vertical honing machine	do	4,100	3,060
249 hydraulically reciprocated vertical honing machine	do	4,700	4,530
306–H hydraulically reciprocated vertical honing machine	do	4,400	3,345
366–H hydraulically reciprocated vertical honing machine[1]	do	4,700	3,595
306–C hydraulic combined fine boring and honing machine	do	5,100	3,895
366–C hydraulic combined fine boring and honing machine[1]	do	5,400	4,130
2610 hydraulically reciprocated vertical honing machine[1]	do	10,100	7,965
2420 hydraulically reciprocated vertical honing machine[1]	do	8,000	7,790
3620 hydraulically reciprocated vertical honing machine[1]	do	12,000	11,700
4020 hydraulically reciprocated vertical honing machine	do	27,600	17,545
4030 hydraulically reciprocated vertical honing machine	do	32,000	21,175
214 hydraulically reciprocated vertical multiple spindle honing machine, not including auxiliary head	each	10,000	8,760
No. 2 x 6′ travel hydraulically reciprocated horizontal internal honing machine	do	10,000	8,885
Extra cost for additional travel per each additional 2 feet or fraction thereof	do		365
No. 6 x 8′ travel hydraulically reciprocated horizontal internal honing machine	do	13,000	12,165
Extra cost for additional travel per each additional 2 feet or fraction thereof	do		425
No. 12 x 10′ travel hydraulically reciprocated horizontal internal honing machine	do	34,000	20,600
Extra cost for additional travel per each additional 2 feet or fraction thereof	do		605
No. 20 x 12′ travel hydraulically reciprocated horizontal internal honing machine	do	38,000	32,670
Extra cost for additional travel per each additional 2 feet or fraction thereof	do		910
No. 30 x 16′ travel hydraulically reciprocated horizontal internal honing machine	do	46,000	48,400
Extra cost for additional travel per each additional 2 feet or fraction thereof	do		1,210
No. 5 x 10′ travel hydraulically reciprocated horizontal external honing machine	co	12,000	11,900

[1] These machines temporarily withdrawn from market.

BARRETT MACHINE TOOL CO., MEADVILLE, PA.

HORIZONTAL BORING MILL

	Arranged with D. C. drive	Arranged with A. C. drive		Arranged with D. C. drive	Arranged with A. C. drive
Type "O"—3" bar	$8,850	$10,350	Type #5—7" bar	$16,450	$18,450
Type #1—3¾" bar	9,750	11,250	Type #6—8" bar	20,050	22,050
Type #2—5" bar	11,250	13,050	Type #7—8" bar	25,000	27,000
Type #3—6" bar	14,850	16,650			
Type #2—pipe facing machine					[1] 14,850
Type #3—3-way facing machine					[1] 19,341

[1] Without motor equipment, but arranged with A. C. motor drive.

CYRIL BATH & COMPANY, CLEVELAND, OHIO

PRICES ON STURDYBENDER BENDING PRESSES

Size	Capacity	Price	Extra per ft. extension of bed and ram	Extra for add'l inch stroke, or fraction	Horsepower and price main drive elec. equipt.
AA–4	3′ x 10 ga	$2,075	$45		$70, 1½ hp.
AA–5	4′ x 12 ga	2,175			
A3–4	4′ x 3/16″	3,100			
A3–5	5′ x 9 ga	3,220	55	$200	70, 1½ hp.
A3–6	6′ x 10 ga	3,350			
A3–8	8′ x 12 ga	3,600			
B3–4	4′ x ¼″	3,620	65		
B3–6	6′ x 3/16″	3,755	65	200	114, 5 hp.
B3–8	8′ x 10 ga	3,930	65		
B3–10	10′ x 11 ga	4,150	75		
C3–6	6′ x ¼″	4,330	65		
C3–8	8′ x 3/16″	4,480	70	200	114, 5 hp.
C3–10	10′ x 10 ga	4,675	80		
C3–12	12′ x 11 ga	5,165	90		

All prices are f. o. b. cars at factory, Cleveland, Ohio.

Standard equipment (models A, B, C): Ram adjustment motor and control, for 220/440 volt, 60-cycle, 3-phase, micrometer dial gauge, ram adjustment limit gauges, dual Madison-Kipp automatic pressure lubricating system, plain filler block, necessary wrenches, ram arranged for taper work, main drive arranged for Vee Belt motor drive with pulley and belts furnished, but without main drive motor or control. Model AA is arranged for grease lubrication, but otherwise has same standard equipment.

Extra for geared 2-speed attachment (for models B and C only), with safety overload clutch, to give speeds of 10 and 30 strokes per minute, or any other reasonable ratio, $500.

Motor prices are for an 1800 r. p. m., flywheel type, high slip, ball bearing, punch press motor with drum type "Forward-Reverse" control.

Extra for wiring and mounting main motor and control, if not purchased from us, but sent to us for mounting, $25.

Extra for full length, single hand control backgauge, $225.

Extra for full length, motor operated backgauge, for operation on 220 or 440 volt, 60-cycle, 3-phase, $330.

Prices on special machines, additional shut height, dies, punching attachments, etc., may be had on application.

BAUSH MACHINE TOOL COMPANY, SPRINGFIELD, MASS.

NEW "W" TYPE HYDRAULIC MACHINES

	W-8 type	W-7 type	W-6 type
Capacity	20 to 30 hp.	15 to 20 hp.	5 to 10 hp.
Weight, approx	29,000 pounds	17,000 pounds	12,000 pounds
Base price, with low C. I. bed	$8,349	$5,816	$4 546
Base price, with high welded steel bed	8,652	6,216	5,312
2-speed change gear yoke	506	466	365
Electric control panel	413	413	333
Arranged for tapping	366	366	366

BAUSH MACHINE TOOL COMPANY, SPRINGFIELD MASS.—Continued

NEW "W" TYPE HYDRAULIC MACHINES—con.

Add to above prices: heads, adjustable.

	Checkerboard ball bearing heads	Plain bearing heads
20″ x 52″ rectangular	$1,650	$1,430
20″ x 37″ rectangular	1,362	1,180
20″ x 30″ rectangular	1,298	1,117
18″ x 36″ rectangular	1,298	1,117
16″ x 30″ rectangular	1,041	894
16″ x 24″ rectangular		745
32″ round		1,165
24″ round		938
20″ round		911
16″ round		902

To above prices add the undernoted prices for size and number of adjustable spindles required.

Size (diameter)	¾″	⅞″	1″	1¼″	1½″	1¾″	2″	2½″	3″
Price each	$49	$51	$55	$69	$74	$99	$114	$173	$266

Price for Double deck skeleton fixed center support plate:

For 16 x 24 Head bored for slip sleeve spindles	$160
For 20 Head bored for slip sleeve spindles	180
For 20 x 37 Head bored for slip sleeve spindles	250

Add to above plate prices $14 per hole bored according to number of spindles required; when 6 bored holes or under special price.

Extras

Box tables

16 x 30 x 18	$106
24 x 24 x 20	120
20 x 30 x 18	139
30 x 30 x 20	180
24 x 42 x 20	202
30 x 36 x 20	278
30 x 46 x 20	332
30 x 48 x 20	360
30 x 72 x 20	519

Rotating tables

18 diameters with 3 stations	$388
24 diameters with 3 stations	473
34 diameters with 3 stations	775
44 diameters with 3 stations	862
50 diameters with 3 stations	1,020
Additional stations	$18 each
Adjustable knee table for W–6	580
Adjustable knee table for W–7	825

BEATTY MACHINE & MFG. CO., HAMMOND, IND.

NO. 2 QUICK-ACTING SINGLE-END PUNCH

Punches ½" x ½"
Shears bars 3" x ½" flats—1" rounds
Shears angles 1¾" x 1¾" x ¼"
Splits plates ⅜"

Throat	Weight	Price
	Pounds	
12"	2,800	$893
15"	3,200	987
18"	3,550	1,030
24"	4,100	1,138
30"	4,500	1,260
36"	5,000	1,376
42"	5,500	1,491
48"	6,000	1,600

Extra for motor connections $81
Extra for motor and starter 83

NO. 5 SINGLE- AND DOUBLE-END PUNCHES AND SHEARS

Punches ¾" x ¾"
Shears bars 5" x ¾" flats—1½ h. p.
Angles 4" x 4" x ¼"
Splitting plate ¾"

SINGLE END

Throat	Weight	Price
	Pounds	
12"	5,500	$1,760
15"	6,000	1,859
20"	7,800	2,017
25"	8,400	2,212
30"	9,600	2,412
36"	10,200	2,557
42"	13,000	3,039
48"	14,500	3,320
54"	16,500	3,724
60"	18,300	4,000

DOUBLE END

12"	8,800	$3,257
15"	9,500	3,472
20"	14,200	3,765
25"	15,200	4,130

NO. 5 SINGLE AND DOUBLE-END PUNCHES AND SHEARS

30"	17,900	$4,470
36"	19,700	4,810
42"	24,700	5,700
48"	26,800	6,240
54"	31,300	7,050
60"	34,700	7,520

NO. [illegible] SINGLE- AND DOUBLE-END PUNCHES AND SHEARS

Punches 1" x 1"
Shears flats 6" x 1"
Shears rounds 1¾"
Shears angles 6" x 6" x ¼"
Splitting plates ⅞"

SINGLE END

Throat	Weight	Price
	Pounds	
15"	9,500	$2,008
20"	10,500	2,160
25"	11,600	2,400
30"	13,200	2,700
36"	14,000	2,900
42"	17,500	3,530
48"	19,000	3,830
54"	20,900	4,220
60"	22,500	4,500
72"	24,000	4,900

DOUBLE END

15"	16,500	$3,600
20"	19,100	3,990
25"	21,500	4,475
30"	24,500	5,060
36"	26,100	5,480
42"	33,100	6,700
48"	36,100	7,275
54"	39,500	8,135
60"	43,100	8,740

BEATTY MACHINE & MFG. CO., HAMMOND, IND.—Continued

NO. 6-A SPECIAL SINGLE-END PUNCH

Weight, 12,500. Arranged for direct-connected motor drive requiring a 5 h. p. 1,200 r. p. m. motor. No electrical equipment included in this quotation. 14" to 15" throat from center of ram; ram—40" x 11" — *Price* $2,800

Capacity: Punching 1" holes in 1" plate, or equivalent in multiple punching.

NO. 6-B SINGLE-END PUNCH

Weight 11,000 pounds, motor required is 5 h. p., 1,200 r. p. m. Motor and starter for 220/440 volt, 3 phase, 60 cycle current. No electrical equipment included in above price. Depth of throat—15", 1½" stroke — $2,570
Extra for motor and starter — 106

Table fitted with cast iron bolster with tee slots to match face of ram.
Capacity: Punching 1" through 1".

NO. 7 SINGLE- AND DOUBLE-END PUNCHES AND SHEARS

Punches 1¼ x 1". Shears round bars 2". Splits plates 1". Shears flats 7 x 1". Shears angles 6 x 6 x ⅝.

SINGLE ENDS

Throat	Weight	Price
	Pounds	
15"	12,000	$2,440
20"	13,200	2,680
25"	16,300	3,310
30"	17,500	3,570
36"	20,600	4,180
42"	23,000	4,680
48"	24,800	5,050
54"	25,900	5,300
60"	27,500	5,600
72"	30,600	6,200

DOUBLE END

15"	20,900	$4,270
20"	24,500	5,000
25"	30,500	6,240
30"	32,900	6,700
36"	39,200	8,000
42"	42,000	8,560
48"	47,500	9,700
54"	49,700	9,650
60"	52,900	10,790
72"	59,100	12,065

Extra for motor and starter — $142

Motor required: 7½ hp., 1,200 r. p. m., motor and starter for 220/440 volt, 3 phase, 60 cycle current.
NOTE.—Prices based on standard equipment with plain table, one set of single stem punching tools and fitted with tight and loose pulley for belt drive.

NO. 7-72" SINGLE END PUNCH

Weight 33,425 pounds, 72" throat, 2" stroke, requires a 7½ hp. 1,200 r. p. m. motor and starter for 220/400 volt, 3 phase, 60 cycle current — *Price* $6,815
Extra for motor connections — 117
Extra for complete set dishing tools — 219
Extra for motor and starter — 142

Capacity of 100 tons ram pressure, or 1¼" through 1" plate.

NO. 7 QUICK ACTING SINGLE END PUNCH

Weight 12,200 pounds; capacity—1¼" through 1", or four (4) 1 3/16" holes through ⅜" angles — $2,510

NO. 7 QUICK ACTING SINGLE END PUNCH AND SPACING TABLE

Weight 23,000 pounds, 15" throat; 1¾" stroke. Punching 1¼" through 1", or four (4) 1 3/16" holes through ⅜" angles, or two (2) 1 5/16" holes through ⅝" — $8,515

NO. 8-B BEAM PUNCH

(Die space arranged for single row punching tools)

Weight 27,800 pounds, requires 10 hp., 1,200 r. p. m., motor and starter for 220/440 volt, 3 phase, 60 cycle current. 22" depth of throat, 34" x 40" table, with 2" stroke — $4,186
Extra for motor and starter — 164

Capacity: 137 tons ram pressure, or two 1" holes through ⅞" plate.

NO. 8 DOUBLE END PUNCH PRESS

(Extra large die space. ½" vertical adjustment build in 2" x 4" stroke)

Weight—30,700 pounds; motor—10 hp., 1,200 r. p. m., motor and starter for 220/440 volt, 3 phase, 60 cycle current. No electrical equipment is included with the above price — $5,530

BEATTY MACHINE & MFG. CO., HAMMOND, IND.—Continued

NO. 8 DOUBLE END PUNCH PRESS—continued

Capacity:
Punching — 1¾" x 1"
Shearing flats — 8" x 1⅛"
Shearing rounds — 2¼"
Shearing angles — 6 x 6 x ½"
Shearing plates — 1⅛"

Extra for motor and starter — $164

NO. 8 SINGLE END PUNCH

(With Special Ram and Table)

Weight—17,725 pounds, 10 hp., 1,200 r. p. m. motor and starter for 220/220 volt, 3 phase, 60 cycle current. No electrical equipment included in price. 26" x 24" table, stroke of slide, 2½" — *Price* $3,386

Capacity: Punching 1¾" holes through 1" material. Ram pressure 137 tons.

Extra for motor and starter — 164

NO. 8 SINGLE AND DOUBLE END PUNCHES AND SHEARS

Punches 1¾" x 1". Shears rounds 2¼". Splits plates 1⅛". Shears flats 8 x 1⅛". Shears angle 6 x 6 x ½".

SINGLE END

Throat	Weight	Price
	Pounds	
15"	15,000	$3,240
20"	17,300	3,670
25"	21,000	4,280
30"	24,000	4,800
36"	27,500	5,600
42"	28,600	5,820
48"	32,500	6,625
54"	36,700	7,480
60"	38,000	8,335

DOUBLE END

	Pounds	
15"	24,000	$4,890
20"	29,000	5,912
25"	37,500	7,645
30"	45,000	9,175
36"	49,700	10,120
42"	51,500	10,560
48"	62,000	12,635
54"	65,500	13,625
60"	69,000	14,540

NO. 8 SINGLE END PUNCH AND SHEAR

Weight 17,700 pounds, machine arranged for direct connected motor drive — *Price* $3,640

Capacity: Ram pressure 137 tons. Punching 1; ¾" through 1" material. Shearing 1½" x 8" mild steel, or 2¼ rounds.
Stroke of ram — 3"
Depth of throat — 13"
Table — 14" x 28"

NO. 8-B-1 BEAM PUNCH

(Die space arranged for double row punching tools)

Weight—28,500 pounds, required—10 hp., 1,200 r. p. m. motor and starter for 220/440 volt, 3 phase, 60 cycle current — $4,330
Depth of throat — 22"
Table — 28" x 40"

NO. 9 SINGLE END PUNCH

(Enlarged Die Space)

Weight—21,500 pounds; depth of throat—15"; 18" x 30" table; 2" stroke; requires 15 hp., 1,200 r. p. m — $5,044
Extra for motor and starter — 206

NO. 9 SINGLE AND DOUBLE END PUNCHES AND SHEARS

Punches: 2½" x 1½". Flats: 2½" Rds. Angles: 6 x 6 x ¾". Shears Bars: 9" x 1¼". Splitting Plates: 1¼".

SINGLE END

Throat	Weight	Price
	Pounds	
15"	20,500	$4,180
25"	24,000	4,890
30"	26,500	5,400
36"	31,000	6,420
42"	34,000	6,930
60"	37,000	7,600

DOUBLE END

	Pounds	
15"	32,500	$6,625

BEATTY MACHINE & MFG. CO., HAMMOND, IND.—Con.

NO. 9-B HEAVY DUTY SINGLE END PUNCH

	Price
Weight 34,000 pounds; 24" throat; 46½" x 32" table; 2½" stroke; 15 hp., 1,200 r. p. m. (no electrical equipment included)	$5,420

NO. 9-B-1 HEAVY DUTY SINGLE END PUNCH

Weight 36,000 pounds, requires motor 15 hp., 1,200 r. p. m. Punching two (2) holes 1⅜" x 1". Punching four (4) holes 13/16 x ¾"	5,640
Extra for motor and starter	206

NO. 9-B-2 HEAVY DUTY SINGLE END PUNCH

Punching one (1) 2¾" hole through 1½" material or equivalent in multiple punching or slotting	5,225
Extra for motor and starter	206

NO. 9-B-3 HEAVY DUTY SINGLE END PUNCH

Weight 25,700 pounds; 15 hp., 1,200 r. p. m. motor and starter for 220/440 volt, 3 phase, 60 cycle current. Punching one (1) 2¼" hole through 1⅛" material or equivalent in multiple punching or slotting	5,235

NO. 10 SINGLE END PUNCH

(Equipped with blanking and forming dies for 12 and16" heads for tanks)	
Weight 36,700 pounds; 20 hp., 1,200 r. p. m. motor and starter for 220/440 volt, 3 phase, 60 cycle current	5,969
Capacity: 200 tons ram pressure or punching 2¼" hole through 1⅝" material or equivalent in multiple punching, blanking or pressing.	
Extra for motor and starter	265

NO. 10-C DOUBLE END PUNCH

Weight 45,850 pounds; 250 tons ram pressure or 2½" through 1½" material	9,973
Extra for motor and starter	265

NO. 10 BEAM PUNCH—STANDARD

Weight 46,000 pounds; capacity—2¼" through 1⅝" mild steel	9,376
Extra: Motor and starter	265

NO. 10 SINGLE END PUNCHES AND SHEARS

15"—22,000 pounds approximate	4,480
25"—27,000 pounds approximate	5,630
Extra for motor and starter	265
Capacity: Punches 2¼" x 1⅜". Angles 6 x 6 x ⅞". Shears bars 10" x 1¼". Flats—2¾" Rds. Splitting plates 1⅜".	

BEATTY MACHINE & MFG. CO., HAMMOND, IND.

OPEN FRONT BAR SHEARS

	Price
No. 4—4,500 pounds. Requires 3 hp., 1,200 r. p. m.	$1,425
Extra for motor connection	65
Extra for motor and starter	82
No. 5—6,500 pounds. Requires 3 hp., 1,200 r. p. m.	1,630
Extra for motor connection	65
Extra for motor and starter	82
No. 6—9,000 pounds. Requires 5 hp., 1,200 r. p. m.	1,950
Extra for motor connection	72
Extra for motor and starter	105
No. 7—12,000 pounds. Requires 7½ hp., 1,200 r. p. m.	2,240
Extra for motor connection	72
Extra for motor and starter	140
No. 8—16,300 pounds. Requires 10 hp., 1,200 r. p. m.	2,900
Extra for motor connection	80
Extra for motor and starter	160
No. 9—20,500 pounds. Requires 15 hp., 1,200 r. p. m.	4,412
Extra for motor connection	80
Extra for motor and starter	205
No. 10—23,500 pounds. Requires 20 hp., 1,200 r. p. m.	4,520
Extra for motor connection	100
Extra for motor and starter	265
No. 11—33,000 pounds. Requires 25 hp., 1,200 r. p. m.	5,625
Extra for motor connection	105
Extra for motor and starter	300

CHARLES H. BESLY AND COMPANY, 118-124 NORTH CLINTON ST., CHICAGO, ILL.

SINGLE SPINDLE BELT-DRIVEN BESLY GRINDERS

	No. 110-10, 18"	No. 108, 20"	No. 108, 23"	No. 114-14, 26"	No. 114-14, 30"	No. 17, 30"	No. 21, 36"
Base: Ball bearing	$255	$325	$325	$350	$390	-------	-------
Base: Ring oiling	170	-------	-------	250	250	$350	$450
Countershaft:							
Ring oiling	50	70	70	70	70	70	70
Timken roller bearing	85	95	95	110	110	110	110
Disc wheels, plain, each	18	21	28	37	49	49	97
Disc wheels, drilled for bolted-on discs, each	21	24	31	40	53	53	102
Geared lever feed table, standard type, each	126	139	139	153	153	153	165
Combination table, each	52	65	65	80	80	80	80
Plain table	34	40	40	46	46	46	58
Truing device (lever table)	5	5	5	5	5	5	5
Truing device (plain table)	15	15	15	15	15	15	15
Welded steel exhaust hoods.[1]							

[1] On application.

SINGLE SPINDLE MOTOR-DRIVEN BESLY GRINDERS

	No. 5, 18"	No. 131, 18"	No. 141, 20"	No. 141, 23"	No. 151, 26"	No. 151, 30"	No. 161, 30"
Base: Ball bearing	$295	$685	$890	$890	$1,125	$1,250	$1,800
Disc wheels, plain, each	18	18	21	28	37	49	57
Disc wheels, drilled for bolted-on discs, each	21	21	24	31	40	53	61
Geared lever feed table, standard type, each	100	126	139	139	153	153	220
Combination table, each	52	52	65	65	80	80	-------
Plain table	34	34	40	40	46	46	80
Truing device (lever table)	5	5	5	5	5	5	5
Truing device (plain table)	15	15	15	15	15	15	15
Welded steel exhaust hoods, each	25	On application.					

For the No. 5 "F" type or "R" type grinder:	
Solid emery wheel rest and 12" wheel guard	$30
12" x 1" x 1" grinding wheel	6

SINGLE SPINDLE BESLY GRINDERS ARRANGED FOR MOTOR DRIVE

	No. 205, 15"	No. 205, 18"	No. 210, 18"	No. 208, 20"	No. 208, 23"	No. 214, 26"	No. 214, 30"
Base, arranged for motor drive, including V-belts, motor sheave, belt guard, right-hand and left-hand welded steel exhaust hoods. (No motor or starter)	$290	$295	$670	$850	$860	$1,030	$1,270
Disc wheels, plain, each	16	18	18	21	28	37	49
Disc wheels, drilled for bolted-on discs, each	18	21	21	24	31	40	53
Geared lever feed table, standard type, each	126	126	139	153	153	220	220
Combination table	48	48	65	80	80	-------	-------
Plain tilting table	34	34	40	46	46	80	80
Truing device (lever table)	5	5	5	5	5	5	5
Truing device (plain table)	15	15	15	15	15	15	15

VERTICAL SPINDLE (HORIZONTAL) BESLY GRINDERS ARRANGED FOR MOTOR DRIVE

	No. 326, 23"	No. 326, 26"	No. 342, 30"	No. 342, 36"	No. 342, 42"	No. 372, 53"	No. 372, 72"	No. 189, 18" M. D.	No. 29, 53"
Dry base, arranged for motor drive, with multiple Vee-belt transmission including Vee belts, motor sheave and belt guard, radial arm compensating truing device. No motor or starter	$850	$880	$1,120	$1,330	$1,630	$1,870	$2,860	-------	-------
Wet base, arranged for motor drive, with multiple Vee-belt transmission including Vee belts, motor sheave and belt guard, radial arm compensating truing device, motor driven circulating pump, piping and settling tank. No spindle driving motor or starter	1,035	1,065	1,345	1,555	1,855	2,135	3,180	-------	-------
Disc wheels, drilled for bolted-on discs	31	40	53	102	(Included in price of base).			-------	-------
Dry base, ball bearing, complete with 5 h. p., 1,200 r. p. m., 220/440 volt, 3-phase, 60-cycle motor push button control and radial arm compensating truing device								$685	-------
Wet base, ball bearing, complete with 5 h. p., 1,200 r. p. m., 220/440 volt, 3-phase, 60-cycle motor, push button control and radial arm compensating truing device, also motor driven pump and piping								875	-------
Base with spindle, exhauster drive pulley (no exhauster), arranged for motor drive by means of flexible coupling connecting motor shaft to horizontal shaft of machine including coupling. No motor or starter (also furnished belt driven at same price)								-------	$1,230
Disc wheel, drilled for bolted-on discs								20	181
Bar type truing device								-------	75

Charles H. Besly and Company, 118-124 North Clinton St., Chicago, Ill.—Continued

BESLY GRINDER PARTS AND ACCESSORIES

	10″	12″	15″ or 16″	18″	20″	23″	26″	30″	30″ E. H.	36″	42″	53″	72″
Steel disc wheels, plain	$13	$11	$16	$18	$21	$28	$37	$49	$57	$97	$132[1]	$172	$517
Steel disc wheels, drilled for bolted-on discs	14	13	18	21	24	31	40	53	61	102	138	181	530
	No. 1	No. 10	No. 108	No. 12		No. 14	No. 21						
Plain tilting tables:													
Standard	$32	$34	$40	$40	-----	$46	$58	-----	-----	-----	-----	-----	-----
Extra large	-----	46	54	54	-----	69	75	-----	-----	-----	-----	-----	-----
Combination tables	48	52	65	80	-----	80	-----	-----	-----	-----	-----	-----	-----
	No. 1	No. 10	No. 108	No. 14		No. 21	No. 16-30						
Geared lever feed tables:													
Standard	$97	$126	$139	$153	-----	$165	$220	-----	-----	-----	-----	-----	-----
Commercial	-----	95	100	110	-----	120	-----	-----	-----	-----	-----	-----	-----

H. Bickford & Company, Lakeport, N. H.

BORING MILL

Machine:	Price	Machine—Continued.	Price
48″ mill, belt driven	$7,000	84″ mill, belt driven	$8,300
60″ mill, belt driven	7,350	84″, spread to 96″, belt driven	9,000
72″ mill, belt driven	7,750		

Bignall & Keeler Machine Works of the N. O. Nelson Co., Edwardsville, Ill.

PIPE THREADING AND CUTTING-OFF MACHINES

Size machine	Capacity	Weight	Belt drive	Motor drive
		Pounds		
No. 2 B&K	⅛ to 2 inches	1,450	$475	$655
No. 2 Peerless	⅛ to 2 inches	2,600	800	1,025
No. 2 PDQC	⅛ to 2 inches	2,900	900	1,125
No. 3 Peerless	¼ to 3 inches	3,000	1,000	1,220
No. 3 PDQC	¼ to 3 inches	3,200	1,130	1,350
No. 4 Peerless	1 to 4 inches	3,800	1,260	1,480
No. 4 PDQC	1 to 4 inches	4,200	1,560	1,780
No. 6 Duplex	1½ to 6 inches	6,000	1,810	2,050
No. 8 Duplex	2½ to 8 inches	7,500	2,220	2,485
No. 10 Duplex	3½ to 10 inches	11,100	2,980	3,340
No. 12 Duplex	4 to 12 inches	12,000	3,430	3,790
No. 18 Duplex	8 to 18 inches	13,400	4,150	4,535

Bilgram Gear and Machine Works, Inc., Philadelphia, Pa.

PRICES ON MACHINES FOR CUTTING STRAIGHT AND SPIRAL TEETH

	Price
6″ machine	$5,200 without motor. $5,400 with motor.
8″ machine	$5,800 without motor. $6,000 with motor.
12″ pinion machine	$12,500 with motor and P. I. V. drive.
16″ machine	$9,500 with motor and P. I. V. drive, straight. $10,000 with motor and P. I. V. drive, spiraloidal.
30″ machine	$15,000 with motor and P. I. V. drive.

NOTE.—The above prices of 6″, 8″, 12″, and 30″ machines are suitable for cutting spiral tooth bevel gears as well as straight tooth. All the above machines are equipped with a complete line of necessary accessories.

The Billings & Spencer Co., Hartford, Conn.

BOARD DROP HAMMERS

[Approximate present prices]

Size (pounds)	Model D pulley drive	Model F pulley drive	Model G motor drive
400	$2,377	-----	-----
500	2,377	-----	-----
600	3,083	-----	-----
800	3,362	-----	-----
1,000	3,902	$5,208	$8,583
1,200	4,167	5,450	8,833
1,400	4,667	5,667	9,535
1,600	5,103	6,000	9,667
1,800	6,167	7,500	11,167
2,000	6,360	7,833	11,500
2,500	8,250	10,750	14,750
3,000	8,833	11,333	15,333

DIE SINKING MACHINE

[Approximate present prices]

Pulley Drive	$5,633
Motor Drive	5,833

TRIMMER MILLER NO. 21

[Approximate present prices]

Pully Drive	$2,720
Motor Drive	3,153

"DI-MATIC" 2 SPINDLE BAR, STOCK AUTOMATIC

Model B-1	$4,300
Model B-2	5,200

TRIMMING PRESSES

[Approximate present prices]

Size	Pulley	Motor drive
No. 1	$2,463	These sizes not built with motor drive.
No. 2	2,820	Do.
No. 2½	3,447	$3,822.
No. 3	4,873	$5,137.

The Blanchard Machine Co., 64 State St., Cambridge, Mass.

SURFACE GRINDERS

No.	Wheel	Diameter of chuck	Shipping weight	Price [1] f. o. b. cars, Cambridge, Mass.
			Pounds	
10 [2]	10″ x 4″ x 8″	16″	6,600	$3,150
11	11″ x 5″ x 9″	16″	6,100	3,250
16	18″ x 5″ x 15″	26″	10,200	5,160
16	18″ x 5″ x 15″	30″	10,450	5,424
16	18″ x 5″ x 15″	36″	10,700	5,792
18	18″ x 5″ x 15″	30″	12,100	6,824
18	18″ x 5″ x 15″	36″	12,350	7,088
27	27″	48″ short base	36,000	20,480
27	32″	60″ short base	39,000	22,790
27	32″	60″ long base	46,000	23,840
27	36″	60″ long base and extension ring, 84″ diameter on chuck.	47,800	25,460
27	42″	60″ long base and extension ring, 96″ diameter on chuck.	49,400	26,670
16-A	18″ x 5″ x 10″	30″ plain table	11,750	6,700
16-A [3]	18″ x 5″ x 10″	30″ magnetic chuck	11,750	7,100
16-A2 (2)	18″ x 5″ x 10″	43″ plain table	21,000	10,500
16-A2 (2) [3]	18″ x 5″ x 10″	40″ magnetic chuck	21,000	12,850

[1] All prices now subject to increase not exceeding 10 percent 90 days before scheduled shipping date.
[2] The No. 10 is obsolete, being superseded by No. 11. Price given was in effect in 1940. A belted type, same size, sold for $3,000.
[3] Extra-dial leader, $400.

Blank and Buxton Machinery Co., Jackson, Mich.

INDEX HIGH-SPEED VERTICAL MILLS

No. 40H	$960.00
No. 39H—Same as 40H—less verniers	895.00
No. 38H—Same as 40H—less verniers and spindle feed	795.00
Power feed on any machine	154.00

SPECIFICATIONS

Capacity, 1/16″ to 5/8″.
Table, work, surf., 8″ x 22″.
Drive, heavy duty silent V velt.
Height, overall, 69½″.
Weight, 950 lbs. net.

J. G. Blount Company, Everett, Mass.

WET TOOL GRINDERS

	Sizes			
	14″ Comb.	14″	20″	30″
BELT DRIVEN				
Machine with countershaft and 1 wheel	$202	$158	$247	$441
MOTOR DRIVEN—FLAT OR V-BELT DRIVE				
Machine with belt tightener, 1 wheel, no motor	213	169	156	458

J. G. BLOUNT COMPANY, EVERETT, MASS.—Continued

BUFFERS, BELT DRIVEN, BABBITT BEARINGS, SELF-OILING

	Sizes					
	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7
Complete machine	$53	$64	$75	$83	$97	$130
Head on column	42	50	59	67	78	102
Head only	30	33	43	48	56	75
Column only	12	16	16	19	23	27
Countershaft only	11	14	15	16	19	29
Head only, with T & L Pulleys on spindle	37	40	50	56	66	87
Complete, without countershaft, with T & L pulleys on spindle	49	56	67	74	89	113

BALL BEARING BUFFERS—BELT DRIVEN

	Sizes		
	No. 3	No. 5	No. 7
Complete, with roller bearing countershaft	$114	$154	$200
Complete, with plain self-oiling countershaft	87	121	155
Head on column	73	102	128
Head only	57	80	101
Hyatt roller-bearing countershaft	41	52	81
Plain self-oiling countershaft	14	19	27
Head only, with T & L pulleys on spindle	63	87	110
Complete, without countershaft, with T & L pulleys on spindle	80	109	137
Column only	16	22	27

OVERHANG BUFFERS, BELT DRIVEN, BABBITT BEARING SELF-OILING

	Sizes	
	No. 6	No. 7
Complete machine	$100	$137
Head on column	80	108
Head only	57	81
Column only	23	27
Countershaft only	19	29
Complete, w/o countershaft, with T & L pulleys on spindle	90	120
Head only, with T & L pulleys on spindle	66	93

MODEL H. S.—10" HIGH SPEED QUILL TYPE GRINDER

Machine complete with motor and starter..... $428.00

SPEED LATHES—BELT DRIVEN—COMPLETE WITH COUNTERSHAFT

	Sizes											
	11" x 3'	11" x 4'	11" x 5'	11" x 6'	13" x 5'	13" x 6'	13" x 8'	13" x 10	16" x 6'	16" x 8'	16" x 10'	16" x 12'
Floo rlegs	$130	$137	$144	$151	$191	$200	$231	$277	$260	$300	$355	$400

Speed lathe with self-oiling head, $9 extra.

SETOVER SWIVEL TAILSTOCK LATHES—BELT DRIVEN

With countershaft	$194	$202	$210	$216	$275	$283	$319	$360	$352	$393	$439	$490

LEVER DRAW-IN SPEED LATHES—BELT DRIVEN

	Sizes			
	11" x 3'	11" x 4'	11" x 5'	11" x 6'
Complete with countershaft, floor type	$270	$276	$283	$291

HAND WHEEL DRAW-IN SPEED LATHES—BELT DRIVEN

	Sizes			
	11" x 3'	11" x 4'	11" x 5'	11" x 6'
Complete with countershaft, floor type	$270	$278	$200	$206

Lathes with ring-oiling bearings, $11.50 extra.

J. G. BLOUNT COMPANY, EVERETT, MASS.—Continued

LATHES WITH RING-OILING BEARINGS, BELT DRIVEN

	Sizes			
	11" x 3'	11" x 4'	11" x 5'	11" x 6'
Complete with countershaft, 3 - step cone, floor type	$152	$159	$167	$174
Complete with countershaft, 4- step cone, floor type	158	165	173	180

½ H. P., A. C. MOTOR HEADSTOCK LATHE, WITH HAND-FEED CARRIAGE AND SET-OVER SWIVEL TAILSTOCK

	Sizes				
	12" x 4'	12" x 5'	12" x 6'	12" x 7'	12" x 8'
Complete, floor type	$510	$519	$529	$540	$554

Plain tailstock, deduct $9.

J. C. BLOUNT COMPANY, EVERETT, MASS.—Continued

2 H. P., A. C. MOTOR HEADSTOCK PATTERN MAKERS' LATHE WITH SETOVER SWIVEL TAILSTOCK, HAND FEED CARRIAGE, 8 SPEED HEADSTOCK, FOR A. C. 220, 440, OR 550 VOLTS, 3 PHASE, 60 CYCLES

	Sizes			
	16" x 6'	16" x 8'	16" x 10'	16" x 12'
Complete, floor type	$979	$1,030	$1,069	$1,130

Extra for fully enclosed magnetic starter with overload- and low-voltage release, and including push button automatically operated from controller handle.

LATHE ATTACHMENTS

	Sizes		
	11" lathe	13" lathe	16" lathe
Friction countershaft, Bulletin D-8	$39	$44	$49
Regular slide rest	57	69	84
Improved slide rest	79	88	------
Cut-off rests	67	68	73
Turrets	82	92	------

THE BODINE CORPORATION, BRIDGEPORT, CONN.

	Base price list					
	40-10	41-20	42-20	42-30	48-20	48-30
Machine complete (tapping) with 220-volt, 3-phase, 60-cycle motor, starter, coolant pump, 1 adjustable ball-bearing tapping spindle, no tools	$1,900	$2,400	$3,200	$3,750	$4,000	$4,500
Machine complete (drilling) with 220-volt, 3-phase, 60-cycle motor, starter, coolant pump, 1 adjustable ball-bearing standard drilling spindle, no tools	1,900	2,400	3,200	3,750	4,000	4,500
Each additional standard ball-bearing tapping spindle on vertical slide	150	150	200	200	200	200
Each additional standard ball-bearing drilling spindle on vertical slide	150	150	200	200	200	200
Threading spindle for self-opening die head or collapsible tap, with bracket, drive, trip mechanism, etc., but less motor, or starter, or die head, or tap	------	------	400	400	400	400
Threading spindle, heavy duty, for self-opening die head or collapsible tap, with bracket, drive, trip mechanism, etc., but less motor, or starter, or die head, or tap	------	------	550	550	550	550
Milling spindles, special, depending on work to be done, approximate price per spindle	------	------	600	600	600	600
Screw-inserting mechanism including hopper, chutes, transfer fingers, screw-driver spindle, spinning spindle, backing-up spindle, drive, starter and wiring, less motor, per set, approximate	975	975	1,050	1,050	1,050	1,050
Jack shaft assemblies with drive pulley and gear	100	100	125	125	140	140
Cam shaft clamping device for two stations, add to machine price	75	100	------	------	------	------
Drill jigs, dependent on type, etc., approximate, each	75	75	90	90	90	90
Pressure pads or strippers, dependent on type, approximate	40	40	50	50	50	50
Dials and rings depend upon work to be done. Prices can only be quoted after engineering layout. Simple type tools start at, per set	50	110	125	200	125	200

Automatic screw-inserting machine 61A, less tools, $950.
Automatic screw-inserting machine 61AA, less tools, $950.
All prices f. o. b. our factory at Bridgeport, Conn., packed for domestic shipment.

BOYAR-SCHULTZ CORPORATION, CHICAGO, ILL.

Boyar-Schultz Profile Grinder No. 1, weight 85 pounds; retail selling price..... $260
Boyar-Schultz Profile Grinder No. 2, single spindle model, weight 750 pounds; retail selling price..... 1,040
Boyar-Schultz Profile Grinder No. 2, dual spindle model, weight 1,000 pounds; retail selling price..... 1,690

BOYE & EMMES MACHINE TOOL CO., CINCINNATI, OHIO

Model No.	Rated size and distance between centers	Base weight	Price, base machine	Weight 2', bed extra	Price per 2' bed extra
		Pounds		*Pounds*	
AA	14" x 30"	3,660	$3,066	260	$111
A	16" x 30"	4,400	3,381	300	126
B	18" x 30"	5,850	3,938	380	147
C	20" x 48"	8,100	4,914	500	179
D	22" x 48"	8,400	5,250	500	189
E	24" x 48"	11,800	7,004	700	252
F	27" x 48"	12,200	7,424	700	263
H	30" x 60"	15,500	9,398	900	347
J	36" x 60"	16,100	9,975	900	357

THE BRADFORD MACHINE TOOL CO., CINCINNATI, OHIO

LATHES

Size	Base weight	Base price	Extra 2' bed	Taper attachment
12" x 6'	2,800	$2,800	$105	$250
14" x 6'	3,100	2,950	110	260
16" x 6'	3,500	3,290	120	285

C. C. BRADLEY & SON, INC., SYRACUSE, N. Y.

BRADLEY CUSHIONED UPRIGHT HELVE HAMMER

(DOMESTIC NET PRICES)

Size (pounds)	Belt-driven	Motor-driven
30	$635	$660
50	825	850
75	885	915
100	1,080	1,105
125	1,140	1,170
150	1,300	1,355
200	1,455	1,510
300	2,185	2,240
500	2,440	2,495

BRADLEY CUSHIONED HELVE HAMMER

15	$550	$580
25	635	660
40	825	850
60	1,175	1,200
80	1,335	1,360
100	1,425	1,455
200	2,090	2,145

The motor-driven hammer prices cover the hammer arranged for motor drive including motor stand but do not cover motor, motor pulley, or belting.

Export prices include hammer boxes for ocean transportation, delivered f. o. b. New York City. Domestic prices include hammer skidded for rail or truck transportation delivered f. o. b. Syracuse.

C. C. BRADLEY & SON, INC., SYRACUSE, N. Y.—Con.

BRADLEY COMPACT HAMMERS

Size (pounds)	Belt drive	Motor drive
15	$485	$515
30	575	600
50	675	700
75	735	760
100	870	890
125	925	955
150	1,080	1,105
200	1,205	1,235
300	1,840	1,895

BRADLEY UPRIGHT STRAP HAMMERS

15	$460	$485
30	635	660
50	825	850
75	885	915
100	1,080	1,105
125	1,140	1,170
150	1,300	1,355
200	1,455	1,510

BRIDGEPORT MACHINES, INC., BRIDGEPORT, CONN.

TURRET MILLING MACHINE

Turret milling machine complete with master attachment and 1 collet	$995.00
Less attachment	720.00

(Machine put on market 1938, no change in price.)

"MASTER ATTACHMENT"

No. 2 Morse or No. 7 Brown & Sharpe, spindle taper optional, price complete with ½ h. p. motor, wrench, 1 collet	295.00
Extra collets, sizes ⅛", 3/16", ¼", 5/16", ⅜", 7/16", ½" ..... each	4.25

Weight: Machine 63 lbs.; motor 54 lbs.; total 117 lbs.

(Machine put on market 1934, no change in price.)

BRIDGEPORT MACHINES, INC., BRIDGEPORT CONN.—Continued

½ H. P. ATTACHMENT

Price complete with single or 3-phase motor, wrench, 1 collet or adapter	$245.00
Extra collets, sizes ⅛", 3/16", ¼", 5/16", ⅜", 7/16", ½", 9/16", ⅝" ..... each	5.00
Adapters for No. 2 Morse or No. 7 B. & S. tapers ..... each	5.00

Weight: Machine 46 lbs.; motor 54 lbs.; total 100 lbs.

(Machine put on market 1932, no change in price.)

THE BRIDGEPORT SAFETY EMERY WHEEL CO., BRIDGEPORT, CONN.

BRIDGEPORT FLOOR GRINDERS, HEAVY-DUTY SERIES, BALL BEARING, ALTERNATING CURRENT, GENERAL ELECTRIC MOTORS, 3 PHASE

Type	H. p.	R. p. m. speed, no load	Size of wheels	Weight crated	Price
				Pounds	
2 A. C	3	1,200	16" x 2½"	1,210	$492
2 A. C	5	1,200	16" x 2½"	1,250	540
2 A. C., 25 cy	3	1,500	16" x 2½"	1,210	492
6 A. C	5	1,200	18" x 3"	1,640	603
6 A. C., 25 cy	5	1,500	18" x 3"	1,640	606
7 A. C	7½	900	24" x 4"	2,300	750
7 A. C., 25 cy	7½	750	24" x 4"	2,300	750
8 A. C	10	900	24" x 4"	2,970	930
8 A. C., 25 cy	10	750	24" x 4"	2,970	930
9 A. C	15	720	30" x 4"	3,300	1,110
9 A. C., 25 cy	15	750	30" x 4"	3,300	1,110

BRIDGEPORT HIGH-SPEED FLOOR GRINDERS, ALTERNATING CURRENT, 60 CYCLE, 2 OR 3 PHASE, 3 SPEEDS, TIMKEN BEARINGS

Type	H. P.	Size of wheels	Weight crated	Price
			Pounds	
161	10	24" x 3"	4,450	$1,140
161	15	24" x 3"	4,600	1,200
162	15	30" x 3"	4,600	1,320

Above prices are with magnetic full voltage (across-the-line) starters and push-button station, without wheels or adaptors.

For reduced voltage starters (auto-transformer type) add $66.

BRIDGEPORT FLOOR GRINDERS, HEAVY-DUTY SERIES, BALL BEARING, MOTOR DRIVE, DIRECT CURRENT, CROCKER-WHEELER MOTORS

Type	H. P.	Speed r.p.m., no load	Size of wheels	Weight crated	Price
				Pounds	
2 D. C	2½	1,350	14" x 2"	1,530	$516
6 D. C	3	1,100	18" x 3"	2,285	642
7 D. C	3½	800	24" x 4"	2,750	792
8 D. C	5	800	24" x 4"	3,300	984
9 D. C	10	800	24" x 4"	3,300	1,176

DIRECT CURRENT—WESTINGHOUSE MOTOR

			Inches	*Pounds*	
35 D. C	3	1,200	18 x 3	1,720	$642
36 D. C	5	850	24 x 4	2,250	792
37 D. C	7½	850	24 x 4	2,600	984
38 D. C	10	850	24 x 4	3,100	1,176

BRIDGEPORT FLOOR GRINDERS

[Ball Bearings. Alternating current. General Electric Motor. 3 phase]

			Inches	*Pounds*	
184 A. C	2	1,800	12 x 2	590	$264
184 A. C. 25 cy	2	1,500	12 x 2	590	290
185 A. C	3	1,200	16 x 2½	915	360
185 A. C. 25 cy	3	1,500	16 x 2½	905	396
186 A. C	5	1,200	18 x 3	1,170	450
186 A. C. 25 cy	5	1,500	16 x 3	1,190	494

Prices cover machine with regular equipment of steel plate hinged-door guards, automatic starter, overload and undervoltage protection push button control, ball bearing spindle.

THE BRIDGEPORT SAFETY EMERY WHEEL CO., BRIDGEPORT, CONN.—Continued

BRIDGEPORT BELT-DRIVEN FLOOR GRINDERS

Type	C/S speed r. p. m. new wheels 5,500 r.p.m. slow speed	Size of plain wheel	Size of taper safety wheel	Weight crated	Price with countershaft	Price without countershaft
		Inches	*Inches*	*Pounds*		
1 BD	563	12 x 2	12 x 2	470	$120	$108
2 BD	410	16 x 2½	16 x 2	795	156	138
6 BD	511	18 x 3	18 x 2¾	1,020	192	174
7 BD	526	20 x 3	20 x 2¾	1,475	246	222
8 BD	438	24 x 4	24 x 3½	1,760	324	306
9 BD	438	30 x 4	30 x 3½	2,235	444	414

BRIDGEPORT FLOOR-BUFFING LATHES

[Heavy-duty series—Ball bearing 60 cycles—3 phase]

Type	HP	Speed r. p. m. no load	Weight crated	Price
			Pounds	
15 A. C	1¾	3,600	715	$210
16 A. C	3	1,800	810	390
18 A. C	15	1,800	1,475	582
19 A. C	20	1,800	1,675	750

BRIDGEPORT FLOOR-BUFFING LATHES

[Heavy-duty series—Ball bearing, alternating current—60 cycle—3 phase]

			Pounds	
16 A. C	5	1,800	800	$402
16 A. C	7½	1,800	860	428
16 A. C	7½	3,600	800	440
16 A. C	10	3,600	860	465
17 A. C	7½	1,800	950	480
17 A. C	10	3,600	950	516
17 A. C	10	1,800	1,000	503
17 A. C	15	1,800	1,060	540
17 A. C	15	3,600	1,000	558

BRIDGEPORT FLOOR-BUFFING LATHES—continued

[Direct current]

Type	HP	Speed r. p. m. no load	Weight crated	Price
			Pounds	
16 D. C	3	2,500	710	$444
17 D. C	5	2,450	1,080	552
18 D. C	5	2,350	1,475	630
19 D. C	15	2,380	1,675	810

BRIDGEPORT BELT DRIVEN FLOOR-BUFFING LATHES

Type	Diameter of spindle in bearings	Distance between wheels	Weight crated	Price with countershaft	Price without countershaft
	Inches	*Inches*	*Pounds*		
22	1⅜	48	600	$126	$108
23	1¾	54	745	162	138
24	2	64	970	198	174
QB	2	48	1,000	228	210
R	2	54	1,100	336	318

BRIDGEPORT FLOOR-BUFFING LATHES—BALL BEARING

[Alternating current—60 cycles—2 or 3 phase]

Type	Hp.	Speed r. p. m. no load	Weight crated	Price
			Pounds	
194	2	1,800	530	$246
194	3	3,600	530	240
195	5	1,800	790	342
195-A	3	1,800	775	314
195	7½	3,600	810	350
196	10	1,800	980	426
196-A	7½	1,800	960	414
196	10	3,600	960	422

BRIDGEPORT FLOOR BUFFING LATHES—BALL BEARING

[Alternating current—60 cycles—2 or 3 phase]

Type	Hp.	Weight crated	Price
		Pounds	
16 M A. C	5	1,050	$630
16 MA A. C	3	1,020	612
17 A A. C	10	1,300	750
17 MA A. C	7½	1,260	732

THE BRIDGEPORT SAFETY EMERY WHEEL CO., BRIDGEPORT, CONN.—Continued

BRIDGEPORT COMBINATION WET AND DRY GRINDERS, HEAVY-DUTY SERIES, BALL BEARING, MOTOR DRIVE, DIRECT CURRENT—CROCKER-WHEELER MOTORS

[Belt drive]

Type	Countershaft speed r. p. m. new dry wheel 5,500 r. p. m. slow speed	Size of dry wheel in inches	Size of wet wheel in inches	Weight crated	Price with countershaft	Price without countershaft
				Pounds		
2 BDW	656	14 x 2	12 x 2	810	$354	$330
6 BDW	460	20 x 3	18 x 2½	1,490	486	450
7 BDW	403	26 x 4	24 x 3	2,500	618	582

BRIDGEPORT WET TOOL GRINDERS, HIGH OR DROP BOWL

[Motor drive]

Type	Hp.	Wheel speed r. p. m.	Size of wheel	Weight crated	Price, D. C. motor	Price, A. C. motor
			Inches	*Pounds*		
2 TGM [1]	1½	1,090	14 x 2 –6	780	$318	$234
3 TGM	3	765	20 x 2½–7	1,150	420	306
4 TGM	3	585	26 x 3 –10	1,375	540	426
4½ TGM	3	510	30 x 4 –12	1,575	600	486
5 TGM	5	425	36 x 4– 22	2,575	780	612
6 TGM	5	365	42 x 4 –24	2,800	870	702

[Belt drive]

Type	Wheel speed r. p. m.	Countershaft speed r. p. m.	Size of wheel	Weight crated	Price with countershaft	Price without countershaft
			Inches	*Pounds*		
2 TGB [1]	1,090	341	14 x 2 – 6	625	$168	$156
3 TGB	765	287	20 x 2½– 7	1,025	210	192
4 TGB	585	292	26 x 3 –10	1,100	330	312
4½ TGB	510	255	30 x 4 –12	1,325	390	372
5 TGB	425	239	36 x 4 –22	2,000	480	462
6 TGB	365	205	42 x 4 –24	2,200	570	552

[1] Not made in drop bowl.

BRIDGEPORT MEDIUM-WEIGHT KNIFE AND FACE GRINDERS

Size	Knife grinders					Face grinder, type 82A sectional wheel 16", A. C. motor drive
	Straight wheel 26 x 1½"		Cup wheel 20 x 8 x 2"		Type 82A sectional wheel 16", A. C. motor drive	
	Belt drive	A. C. motor drive	Belt drive	A. C. motor drive		
32"	$630	$840	$708	$978	$1,434	$1,374
42"	708	918	798	1,068	1,530	1,458
52"	798	1,008	912	1,182	1,650	1,590
62"	912	1,122	1,014	1,284	1,740	1,644
72"	1,008	1,218	1,116	1,386	1,842	1,734
82"	1,110	1,320	1,218	1,488	1,944	1,824

For 20" sectional wheel on type 82A machine, add $20.

Alternating current motor drive: 3 hp. motor is furnished on straight wheel machines, 7½ hp. motor on cup wheel or type 82A machine. Prices are based on squirrel-cage motors, 220/440 or 550 volt, 60 cycle, 2 or 3 phase, with full voltage magnetic starters and push button station.

THE BRIDGEPORT SAFETY EMERY WHEEL CO., BRIDGEPORT, CONN.—Continued

NO. 94 BRIDGEPORT HEAVY DUTY FACE GRINDER, 42" SECTIONAL WHEEL, HYDRAULIC DRIVE, TIMKEN-EQUIPPED SPINDLE

Size of machine	Maximum capacity		Approximate weight	Price with A. C. motors as specified below
	Length	Height		
	Inches	*Inches*	*Pounds*	
86"	86	33	30, 270	$12, 120
110"	110	33	33, 270	13, 440

Prices given above are on No. 94 Bridgeport face grinder with hydraulic carriage drive and hydraulic automatic feed of grinding wheel head using Oilgear pump and oil motor, with speed range of 5 to 90 feet per minute; 42" sectional grinding wheel mounted in cast steel chuck; 6-T-slot carriage 32" wide; Timken-equipped spindle; motor drive for 220 volts, 60 cycles, 3 phase current, using:

60 hp. A. C. motor, 900 r. p. m. with hand compensator.
7½ hp. A. C. motor, 1,200 r. p. m., with automatic starter (full voltage) and 2 push button stations.
1 hp. A. C. motor 1,200 r. p. m., with automatic starter and push button station.

NO. 85 BRIDGEPORT HEAVY DUTY FACE GRINDER, 32" SECTIONAL WHEEL, HYDRAULIC DRIVE, TIMKEN-EQUIPPED SPINDLE

Size of machine	Maximum capacity		Approximate weight	Price with A. C. motors as specified below
	Length	Height		
	Inches	*Inches*	*Pounds*	
86"	86	23	22, 200	$8, 395
100"	100	(1)	23, 620	8, 980
110"	110	(1)	24, 760	9, 380
120"	120	(1)	25, 800	9, 790
136"	136	(1)	27, 400	10, 440
154"	154	(1)	29, 400	11, 195
168"	168	(1)	30, 700	11, 785
180"	180	(1)	32, 100	12, 360
216"	216	(1)	35, 700	15, 840

Prices given above are on No. 85 Bridgeport face grinder with hydraulic carriage drive and hydraulic automatic feed of grinding wheel head using Oilgear pump and oil motor; with speed range of 5 to 90 feet per minute; 32" sectional grinding wheel mounted in cast steel chuck; 5-T-slot carriage, 27" wide; Timken-equipped spindle; motor drive for 220 volt, 60 cycle, 3 phase current using:

40 hp. A. C. motor, 1,200 r. p. m., with hand compensator.
5 hp. A. C. motor, 1,200 r. p. m. (on 86" machine) (7½ hp. on longer), with magnetic starter and push button station.

[1] NOTE.—32" x 42" chucks, when specially ordered, may be fitted to carry blocks 3" face instead of 4" increasing capacity of No. 85 face grinder from 23" to 25" and the 94 from 33" to 35" in height.

NO. 75 BRIDGEPORT HEAVY DUTY KNIFE AND FACE GRINDER 26" SECTIONAL WHEEL, HYDRAULIC DRIVE, TIMKEN-EQUIPPED SPINDLE

Size	Price with A. C. motors as specified below			Approximate weight without knife or angle bars	Maximum capacity length (height 19½")	
	Without knife bar	With angle bar	With reg. revolving bar		As face grinder or with angle bar	With revolving bar
				Pounds	*Inches*	*Inches*
60"	$6, 310	$6, 395	$6, 455	13, 620	60	52
70"	6, 480	6, 580	6, 635	14, 330	70	62
80"	6, 650	6, 760	6, 810	15, 100	80	72
90"	6, 815	6, 950	6, 985	15, 830	90	82
100"	6, 985	7, 135	7, 210	16, 550	100	92
110"	7, 150	7, 315	7, 390	17, 320	110	102
120"	7, 320	7, 495	7, 565	18, 050	120	112
136"	7, 600	7, 800	7, 865	19, 350	136	128
154"	7, 930	8, 160	8, 255	20, 660	154	146
166"	8, 135	8, 380	8, 470	21, 530	166	158
180"	8, 615	8, 880	8, 965	22, 520	180	172
190"	8, 975	9, 260	9, 335	23, 200	190	182
210"	9, 680	9, 990	10, 085	23, 900	210	202
216"	9, 875	10, 200	10, 290	24, 370	216	208

Prices given above are on No. 75 Bridgeport heavy-duty knife and face grinder with hydraulic carriage drive and hydraulic automatic feed of grinding wheel head, using Oilgear pump and oil motor, with speed range of 5 to 90 feet per minute; 26" sectional grinding wheel mounted in cast steel chuck; 3-T-slot carriage 22" wide; Timken-equipped spindle motor drive for 220/440 or 550 volt, 60 cycle, 3 phase current using:

20 hp. A. C. motor, 1, 200 r. p. m.
5 hp. A. C. motor, 1,200 r. p. m. (on 60" to 136" sizes).
7½ hp. A. C. motor, 1, 200 r. p. m. (on 154" to 216" sizes).

THE BRIDGEPORT SAFETY EMERY WHEEL CO., BRIDGEPORT, CONN.—Continued

NO. 179 BRIDGEPORT HEAVY DUTY KNIFE AND FACE GRINDER, 26" SECTIONAL WHEEL, ON LEG BED

Size	Without knife bar	With angle bar	With revolving bar	Approximate weight revolving bar or angle bar	As face grinder or with angle bar	With revolving bar
				Pounds	*Inches*	*Inches*
50"	$2, 725	$2, 810	$2, 870	8, 000	60	52
60"	2, 830	2, 935	2, 990	8, 325	70	62
70"	2, 940	3, 055	3, 100	8, 750	80	72
80"	3, 050	3, 180	3, 215	9, 050	90	82
90"	3, 155	3, 305	3, 385	9, 475	100	92
100"	3, 265	3, 425	3, 505	9, 750	110	102
110"	3, 565	3, 740	3, 810	10, 100	120	112
126"	3, 820	4, 020	4, 085	10, 725	136	128
144"	4, 100	4, 325	4, 420	11, 290	154	146
156"	4, 290	4, 535	4, 625	11, 650	166	158
170"	4, 625	4, 890	4, 975	12, 125	180	172
180"	4, 865	5, 150	5, 225	12, 400	190	182

Prices given above are on No. 179 Bridgeport heavy-duty knife and face grinder; 26" sectional grinding wheel mounted in cast steel chuck; 3-T-slot carriage; motor drive for 220, 440 or 550 volt, 60 cycle, 3 phase current using 15 hp. A. C. motor, 1,200 r. p. m. with automatic starter and push-button station.

All A. C. motors are normal torque, normal starting current, constant speed, with squirrel cage motor, with starters having overload and under-voltage protection. All D. C. motors are shunt wound, constant speed.

NO. 180 BRIDGEPORT HEAVY-DUTY KNIFE AND FACE GRINDER, 26" SECTIONAL WHEEL

Size	Price with 20 hp. A. C. motor			Approximate weight revolving bar or angle bar	Maximum capacity length—height 15"	
	Without knife bar	With angle bar	With revolving bar		As face grinder or with angle bar	With revolving bar
				Pounds	*Inches*	*Inches*
50"	$3, 920	$4, 030	$4, 090	8, 630	60	52
60"	4, 040	4, 140	4, 195	9, 160	70	62
70"	4, 160	4, 270	4, 320	9, 700	80	72
80"	4, 280	4, 410	4, 445	10, 200	90	82
90"	4, 400	4, 550	4, 625	10, 750	100	92
100"	4, 520	4, 680	4, 760	11, 280	110	102
110"	4, 880	5, 050	5, 125	11, 800	120	112
126"	5, 135	5, 335	5, 400	12, 370	136	128
144"	5, 430	5, 660	5, 755	12, 970	154	146
156"	5, 620	5, 870	5, 960	13, 300	166	158
170"	6, 110	6, 370	6, 455	15, 000	180	172
180"	6, 455	6, 740	6, 815	15, 620	190	182
200"	7, 150	7, 465	7, 560	16, 300	210	202
206"	7, 290	7, 615	7, 704	17, 800	216	208

Prices given above are on No. 180 Bridgeport heavy-duty knife and face grinder, cabinet base; 26" sectional grinding wheel mounted in cast steel chuck; 3-T-slot carriage; motor drive for 220 volt, 60 cycle, 3 phase current using: 20 hp. A. C. motor, 1,200 r. p. m. with magnetic starter and push-button station.

BROWN & SHARPE MANUFACTURING CO., PROVIDENCE, R. I.[1]

MILLING MACHINES (FITTED WITH MOTORS)

Type	Capacity: Length	Capacity: Trans.	Capacity: Vert.	Working surface of table	Weight	Price
Plain:	*Inches*	*Inches*	*Inches*	*Inches*	*Pounds*	
2 light	28	10	15	45 x 10	2,700	$3,410
2 light—with power fast travel	28	10	15	45 x 10	2,700	3,375
2-B standard	28	10	18½	51¾ x 11 1⅛6	4,525	4,575
2-B dual control	28	10	18½	51¾ x 11 1⅛6	4,575	5,070
3-B standard	34	12	19½	60¼ x 14	5,825	5,745
3-B dual control	34	12	19½	60¼ x 14	5,875	6,350
000	5½	2	5½	25¾ x 7⅞	1,050	1,600
10	12	2	11½		2,920	3,366
12	18	3¼	10½	48⅝ x 12	4,375	4,175
Universal:						
2-A (std.)	28	10	17½	51¾ x 11 1⅛6	4,825	5,400
2-A (dual cont.)	28	10	17½	51¾ x 11 1⅛6	4,875	5,895
3-A (std.)	34	12	18½	60¼ x 14	6,200	6,680
3-A (dual cont.)	34	12	18½	60¼ x 14	6,250	7,285
2 light	28	10	15	45 x 10	2,950	4,070
2 light with power fast travel	28	10	15	45 x 10	2,950	4,028
Vertical:						
2 light	28	10	14	45 x 10	2,900	4,180
2 light—with high speed spindle	28	10	14	45 x 10	2,900	4,430
2 light—with power fast travel	28	10	14	45 x 10	2,900	4,140
2 light—with power fast travel & H. S. S.[2]	28	10	14	45 x 10	2,900	4,388
2 standard	28	12	20	54¼ x 14	6,100	6,540
Omniversal	17	5¾	15	34½ x 9	3,300	6,310

GRINDERS

Type	Center diameter	Swing length	Weight	Price
Plain, fitted with motors, complete:	*Inches*	*Inches*	*Pounds*	
5	3	12	2,610	$3,265
10	6	18	5,100	4,455
12	6	30	5,400	4,730
20	10	18	8,500	7,180
20-A	10	18	8,500	6,642
22	10	36	9,100	7,510
22-A	10	36	9,100	6,970
Universal:				
1 fitted with motors	10	20	2,650	3,580
1 complete with countershaft	10	24	2,750	2,574
2 fitted with motors	14	30	4,825	5,090
3 fitted with motors	14	40	5,470	5,495
4 fitted with motors	14	60	6,825	6,390
Univ. and tool:				
13 fitted with motors	8	24	2,450	2,735
13 overhead drive, complete with countershaft	8	24	2,540	2,290
Cutter and tool	10	20	1,045	1,165

	Work capacity: Length	Work capacity: Width	Weight	Price
Surface grinders:	*Inches*	*Inches*	*Pounds*	
2 fitted to receive motor	18	6	1,330	$1,165
2-B (with hand feeds) fitted with motors	18	6	1,230	1,000
2 overhead drive complete with countershaft	18	6	1,375	1,008
2-B (with hand feeds) overhead drive complete with countershaft	18	6	1,325	846
5 fitted with motors	24	8	2,500	2,035

[1] See notation at end.
[2] With power fast travel and high speed spindle arrangement.

BROWN & SHARPE MANUFACTURING CO., PROVIDENCE, R. I.—Continued

AUTOMATIC SCREW MACHINES—HIGH SPEED

Model No.	Capacity work diameter	Geared for motor drive, fitted to receive motor: Weight	Geared for motor drive, fitted to receive motor: Price	Complete with countershaft: Weight	Complete with countershaft: Price
		Pounds		*Pounds*	
00	⅜"	1,725	$3,060	975	$2,420
0	⅝"	2,350	3,375	1,530	3,145
2	1"	2,875	4,275	2,075	3,695

AUTOMATIC SCREW THREADING MACHINES—HIGH SPEED

	Weight	Price
	Pounds	
No. 00G—For motor drive only. Fitted to receive motor. Takes work to ⅜" diameter	1,575	$3,080
No. 00—Complete with countershaft. Takes work to ⅜" diameter	1,290	2,600

AUTOMATIC TURRET FORMING MACHINES—HIGH SPEED

Model No.	Capacity work diameter	Geared for motor drive, fitted to receive motor: Weight	Geared for motor drive, fitted to receive motor: Price	Complete with countershaft: Weight	Complete with countershaft: Price
		Pounds		*Pounds*	
00	⅜"	1,450	$2,817	950	$2,178
0	⅝"	1,925	3,465	1,410	2,853
2	1"	2,500	3,920	1,935	3,352

AUTOMATIC CUTTING OFF MACHINES—HIGH SPEED

00	⅜"	1,450	$2,860	950	$2,220
0	⅝"	1,925	3,540	1,390	2,920
2	1"	2,500	4,025	1,935	3,44[illegible]

WIRE FEED SCREW MACHINES

0	⅜"	1,030	$1,955	760	$1,660
1	⅝"	1,300	2,140	1,025	1,815
2	1"	1,450	2,685	1,525	2,300

NOTE.—Price corrections advised by manufacturer differ from those shown in first edition of "Prices of New Machine Tools."

OBSOLETE MACHINES

[Use equivalent as shown]

BROWN & SHARPE

AUTOMATIC SCREW MACHINES

No. 1. Compared to Brown & Sharpe No. 2	$4,065
No. 4. No. 6. Compared to Cleveland A-2"	5,450
No. 19. Compared to Brown & Sharpe OOG Auto. Screw cap ⅝"	3,390

BORING MILLS—VERTICAL

Compared to Rogers Machine Works.

GEAR CUTTERS

No. 13. Compared to Gould & Eberhardt 36-B.
No. 13H. Compared to Gould & Eberhardt 36-B.
Others compared to Newark Gear Cutting Machine Company.

GEAR HOBBERS

No. 34. Compared to Gould & Eberhardt 24 H. S.
No. 44. Compared to Gould & Eberhardt 24H.

GRINDERS (CYLINDRICAL)

No. 14. Plain compared to Brown & Sharpe No. 22	$8,260
No. 16. 11 x 72 cyl. compared to Landis 12 x 72 Type C	7,925
No. 21. Universal compared to Landis Type C Univ. 14 x 36	6,805
No. 30A. Plain compared to Brown & Sharpe 20A	7,380

GRINDERS (INTERNAL)

No. 22. No. 23.	2,100

GRINDERS (PLANER TYPE)

No. 3. 3' table	1,500
No. 5. 5' table	2,000

GRINDERS (TOOL AND CUTTER)

Compared to Gallmeyer & Livingstone.

HAND SCREW MACHINES

No. 0. No. 1. No. 2. Use prices in book.	
No. 6. Compared to Warner & Swasey No. 5 Univ. (Plain cross slide)	4,715
No. 4. Compared to Warner & Swasey No. 3 Univ. (Plain cross slide)	3,500

MILLS—PLAIN

Size	Comparison	Price
No. 00 (hand mill)	U. S. Machine Tool	$350
No. 0		1,650
No. 1 (without back gears)		1,750
No. 1 (with back gears)	No. 1 Kempsmith Cone, Plain.	1,950
No. 1½	No. 1 Kempsmith Cone, Plain.	1,950
No. 0Y		1,650
No. 1Y		1,750
No. 1B	Cincinnati (L) Type, No. 2 Pl.	3,805
No. 2Y	No. 2 Kempsmith Plain, cone.	2,250
No. 4 Plain, No. 4B	Cincinnati Dial Type, Pl.	7,970
No. 4B Heavy	Cincinnati No. 4 high power, pl.	8,125
No. 5, No. 5B	Cincinnati No. 5 high power pl.	8,930
No. 24	Cincinnati No. 4, Plain	7,970
No. 21		4,500
No. 22		6,000
No. 33	Kempsmith No. 33	4,500

MILLS—UNIVERSAL

No. 4A	Cincinnati No. 4 Dial Type, medium speed.	$9,680
No. 4A heavy	Cincinnati No. 4 Dial Type, high speed.	10,500
No. 1	Kempsmith No. 1 Universal.	2,625
No. 1A	Brown & Sharpe No. 2 Univ. light type.	4,290
No. 1D	Kempsmith No. 1 Univ.	2,625
No. 13B	Production Mill comp. to No. 12.	
No. 1½	Brown & Sharpe No. 2 Univ. light type.	4,290

MILLS—VERTICAL

No. 1 Standard compared to Brown & Sharpe No. 2	$4,415
No. 2. Standard compared to Brown & Sharpe No. 2 (light type)	4,415
No. 3. Standard compared to Brown & Sharpe No. 2 (stan. type)	7,020

MILLS—LINCOLN TYPE

No. 11	$4,000
No. 12, No. 13, No. 13-B	4,595
Others	Gooley & Edlund

BRYANT CHUCKING GRINDER CO., SPRINGFIELD, VT.

INTERNAL GRINDERS

Machine	Net weight	Present selling price
	Pounds	
No. 4	2,450	$5,600
No. 4-B	2,875	7,000
No. 5	2,250	4,200
No. 5-A	2,500	5,925
No. 5-B	2,650	5,550
No. 16, 16"	7,000	6,500
No. 16, 22"	8,200	7,950
No. 16, 28"	7,750	7,500
No. 16, 38"	8,100	8,100
No. 16-A, 16"	7,815	7,795
No. 16-A, 22"	9,175	9,450
No. 16-A, 28"	8,450	8,845
No. 16-A, 38"	8,700	9,450
No. 16-C, 16"	7,050	7,350
No. 24, 26"	12,000	9,650
No. 24, 36"	13,800	11,500
No. 24-L, 26"	12,750	12,300
No. 24-L, 36"	14,650	14,200
No. 112	5,500	7,240

BUFFALO FORGE COMPANY, BUFFALO, N. Y.

DRILLING MACHINES

No.
13. Simplex. Capacity—½". Speeds—855, 1,210, 2,380, 3,400 r. p. m. Type—medium and high speed. ball bearing, bench, ½" geared chuck:
Motor drive—less motor $24

EXTRAS

14. Hi-Speed. Capacity—½", ⅜", or ¼". maximum according to speed range selected. Speeds—600 to 9,600 r. p. m. Type—high speed, precision, all ball bearing, with individual motor drive. ⅜" or ½" balanced chuck or No. 1 Morse Taper optional:
Round column, floor type $225
Spindles—Pedestal
One 345
Two 650
Three 975
Four 1,225
Six 1,850
Motors—each spindle not less than ¼ hp.

EXTRAS

Morse taper No. 2 spindle 10
Morse taper No. 1 spindle ..... Optional
15. Universal. Capacity—½". Type—All ball bearing metal and wood working—medium and high speed. ¼" geared chuck
15P. Pedestal type—single spindle $215
15P. Pedestal type—two spindle 310
15P. Pedestal type—three spindle 385
15P. Pedestal type—four spindle 510
15P. Pedestal type—six spindle 800
15F. Floor type 48
15M. Manufacturing, single 65
15M. Manufacturing, two spindle 135
15M. Manufacturing, three spindle 205
15M. Manufacturing, four spindle 280
15T. Tapper, ¼" capacity 145
½" capacity 160
15. Head, column, adapter only 36
15M. Head, column, adapter only 45
15. Head only 33
15M. Head only 40

BUFFALO FORGE COMPANY, BUFFALO, N. Y.—Con.

16. Sensitive. Capacity—7/8" in steel. Speeds—400, 670, 1,100, 1,800, 3,000 r. p. m. Type—sliding head, sensitive, direct-belted motor:
Round-column, floor type $160
Spindles—Pedestal
One 300
Two 535
Three 800
Four 1,050
Six 1,500
Motors—⅓ to ¾ hp. at 1,750 r. p. m.—select power and speed to suit application.

EXTRAS

Power feed $185
12" Overhang, per spindle 45
15" Overhang, per spindle 60
For other extras see price sheet No. 3002.
18. Stationary head, Sensitive. Capacity—1" in cast iron or brass. Type—All ball bearing. Five speeds, 400 to 3,000 r. p. m.:
18A. Floor type $170
18B. Floor type 155
18C. Floor type 150
18D. Floor type 135
18E. Floor type 160
18F. Floor type 150
18G. Floor type 145
18H. Floor type 120
18I. Floor type 140
18J. Floor type 125
18K. Floor type 120
18L. Floor type 110
18. Single spindle, pedestal 320
18. Two spindle, pedestal 530
18. Three spindle, pedestal 725
18. Four spindle pedestal 985
18. Six spindle, pedestal 1,350
Tapping attachment, 5/8" cap 110
Head column and adapter with head raising device 115
Standard head, column and adapter 95
Motors recommended—½ or ¾ hp.—1,750 r. p. m.
21. Stationary head. Capacity—1½" in cast iron. Type—stationary head, flat belt, back-geared.
Tight and loose pulley drive $300
Motor—1 hp. at 1,750 r. p. m.
Tapping—use reversing motor control.

EXTRAS

1. Motor drive—top mounting—V-belted 50
3. Deduct for omission of power feed 20
4. Deduct for omission of back gears 15
22. Drill. Capacity—1¼" in steel. Speed—65, 96, 150, 230, 400, 575, 900, 1,350 r. p. m. Type—sliding head, power feed. back-geared single or multiple spindles:
Round column type—single spindle 560
Pedestal type—square table—single spindle 685
Pedestal type—two spindles 1,400
Pedestal type—three spindles 2,200
Pedestal type—four spindles 2,900
Pedestal type—six spindles 4,500
Motor—1 to 3 hp. at 1,200 r. p. m. Select power and speed to fit application.
25. Stationary head. Capacity—1¾" in cast iron. Type—stationary head, back-geared, flat belt.
Tight and loose pulley drive 525
Motors—2 hp. at 1,750 r. p. m. (See Sheet No. 2969-J. Tapping—use reversing motor control.

EXTRAS

4. Deduct for omission of power feed 25
5. Deduct for omission of back gear 20

NO. 2 MOTOR SPINDLE DRILLS

[1 to 6 spindles—8" and 13" overhang—1" capacity]

Number of spindles	Type S [1] 8" overhang		Type S [1] 13" overhang		Coolant system	T-slot in table or wear plate, price, each	Wear plate
	Price	Code	Price	Code	Price		Price
One	$700	ALIZN	$765	ALKAR	$100	$15	$25
Two	1,200	ALJAP	1,380	ALKES	110	18	40
Three	1,700	ALJER	1,995	ALKIT	120	21	60
Four	2,225	ALJIS	2,635	ALKOV	130	24	85
Five	2,775	ALJOT	3,300	ALKUW	140	27	110
Six	3,350	ALJUV	3,995	ALLAS	150	30	140

[1] Sensitive machine, without back gears or power feed. Above prices include motors and magnetic controls.

EXTRAS

Ball-bearing back-gears (per spindle)	$150
Power feed (per spindle)	195
Motor reverse tapping (per spindle)	110
Compound table	325

	8" overhang	13" overhang
1 Spindle	$275	$300
2 Spindles	350	450
3 Spindles	425	600

EXTRAS—continued

Head only (above pedestal) including motor and magnetic control:	
8" overhang	$425
13" overhang	465

	8" overhang	13" overhang
Pedestal and table assembly:		
4 Spindles	$525	$775
5 Spindles	650	975
6 Spindles	800	1,200

BUFFALO FORGE CO., BUFFALO, N. Y.—Continued

NO. 3 MOTOR SPINDLE DRILLS

[1 to 6 spindles—13" overhang—1½" capacity]

Number of spindles	Type S [1] 13" overhang		Coolant system	T-slots in table or wear plate, price, each	Wear plate
	Price	Code	Price		Price
One	$1,150	ALIPD	$100	$15	$25
Two	2,150	ALIRF	110	18	40
Three	3,150	ALISG	120	21	60
Four	4,175	ALITH	130	24	85
Five	5,225	ALIVJ	140	27	110
Six	6,300	ALIXL	150	30	140

[1] Sensitive machine, without back gears or power feed. Above prices include motors and magnetic controls.

EXTRAS

Ball-bearing back gear (per spindle)	$150	Pedestal and table assembly:	
Power feed (per spindle)	250	1. Spindle	$300
Motor reverse tapping (per spindle)	110	2. Spindle	450
Compound table	325	3. Spindle	600
Head only (above pedestal including motor and magnetic control)	850	4. Spindle	775
		5. Spindle	975
		6. Spindle	1,200

NO. 2 "RPMSTER"

[1 to 6 spindles—13" overhang—1" capacity]

Number of spindles	Type S [1] 13" overhang		Coolant system	T-slots in table or wear plate, price, each	Wear plate
	Price	Code	Price		Price
One	$850	ALMOX	$100	$15	$25
Two	1,550	ALMUY	110	18	40
Three	2,250	ALNAV	120	21	60
Four	2,975	ALNEW	130	24	85
Five	3,725	ALNIX	140	27	110
Six	4,500	ALNOY	150	30	140

[1] Sensitive machine, without back gears or power feed. Above prices include motors and magnetic controls.

EXTRAS

Ball-bearing back gear (per spindle)	$150
Power feed (per spindle)	195
Compound table (single spindle units only)	325
Pedestal and table assembly:	
1. Spindle	300
2. Spindle	450
3. Spindle	600
4. Spindle	775
5. Spindle	975
6. Spindle	1,200

NO. 7 "RPMSTER"

[1 to 6 spindles—13" overhang—1½" capacity]

Number of spindles	Type S [1] 13" overhang, price	Coolant system, price	T-slots in table or wear plate, price, each	Wear plate, price
One	$1,050	$100	$15	$25
Two	1,950	110	18	40
Three	2,850	120	21	60
Four	3,775	130	24	85
Five	4,725	140	27	110
Six	5,700	150	30	140

[1] Sensitive machine, without back gears or power feed. Above prices include motors and magnetic controls.

EXTRAS

Ball bearing back gear (per spindle)	$150
Power feed (per spindle)	250
Compound table (single spindle units only)	325
Pedestal and table assembly:	
1. Spindle	300
2. Spindle	450
3. Spindle	600
4. Spindle	775
5. Spindle	975
6. Spindle	1,200

Item No.		Drill No. 14	Drill No. 16	Drill No. 22
26	Coolant system, Buffalo motor pump, control, valves, and tank complete:			
	1 spindle	$100	$100	$100
	Per spindle added	15	15	15
29	Deduct for omission of one drilling head from any multiple spindle machine	145	110	400
	Pedestal, base, and table unit only, without heads:			
30	1 valve	180	180	250
31	2 valves	280	280	480
32	3 valves	415	415	880
33	4 valves	525	525	1,140
34	6 valves	700	700	-----

BUFFALO FORGE COMPANY, BUFFALO, N. Y.—Continued

2-PLUNGER MACHINES

Universal Iron Workers Type: U. I. W.

Machine numbers	0	½	1½	2½	2¾	1	2
Bar cutter, capacity std. knives:							
Rounds	1¼	1⅝	1⅞	2¼	2¼	1⅝	1⅞
Squares	1⅛	1½	1¾	2	2	1½	1¾
Angles, squares	3 x ⅜	4 x ½	4 x 9/16	6 x ½	6 x ½	4 x ⅝	4 x ⅝
Angles, mitre	2 x 5/16	3 x 5/16	3 x ⅜	4 x ½	4 x ½	3 x 5/16	3 x ⅜
Tees, square	2½ x 4	3 x ⅜	4 x ⅜	4 x 5 x ½	4 x 5 x ½	3 x ⅜	4 x ⅜
Bar cutter, capacity special knives:							
Beams	4"–7½#	5"–12¼#	6"–14¾#	9"–21.8#	9"–21.8#	5"–9¾#	8"–12¼#
Channels	5"–6½#	7"–12¼#	8"–13¾#	10"–20#	10"–20#	7"–9⅝#	8"–11½#
Angles, square	4 x 4 x ¼	3½ x 6 x 5/16	5 x 5 x ⅜	3½ x 7 x ½	3½ x 7 x ½	3½ x 6 x 5/16	5 x 5 x ⅜
Angles, square	3 x 4 x 5/16	3½ x 5 x ⅜	4 x 6 x ⅜			3½ x 5 x ⅜	4 x 6 x ⅜
Angles, flare	4 x 5 x 5/16	5 x 5 x ⅜	6 x 6 x 7/16	6 x 6 x ⅝	6 x 6 x ⅝	5 x 5 x ⅜	6 x 6 x 7/16
H-Columns			4"–13⅝"	6"–20#	6"–20#		4"–13.8#
B-Beams				9"–20.5#	9"–20.5#		
Tees	3 x 3 x ⅜	4 x 4 x 7/16	4 x 4 x 9/16	4 x 4 x ⅝	4 x 4 x ⅝		
Specifications:							
H. P. motor	2	3	5	10	10	3	5
R. P. M. motor			1,500 or 1,800				
Weight, pounds	1,900	3,650	5,300	7,000	9,000	5,860	9,200
Ram pressure—tons	30	50	65	85	85	50	65
Built-in square coper on shear end:							
Capacity:							
Angles	3 x ¼	3 x ⅜	3 x ½	4 x ½	4 x ½	3 x ⅜	3 x ½
Tees	2 x 5/16	3 x ⅜	3 x ½	4 x ½	4 x ½	3 x ⅜	3 x ½
Flanges of beams	3 to 4	3 to 6	3 to 7	4 to 10	4 to 10	3 to 6	3 to 7
Flanges of channels	3	3 to 6	3 to 7	4 to 9	4 to 9	3 to 6	3 to 7
Plates	¼	⅜	½	½	½	⅜	½
Width of cut	2	2	2	2¼	2¼	2	2
Depth of cut	2¾	3	3	3½	3½	3	3
Punch capacity	13/16 x 7/16	1 x ⅝	1⅛ x ¾	1⅜ x ⅞	1⅝ x 1	1 x ½	1⅛ x ⅝
	1¾ x ½	1⅜ x ¾	⅞ x ⅞	1 x 1	1 7/16 x ⅞	⅞ x ⅝	⅞ x ¾
Shear capacity: Plates (through center)	⅜	½	⅝	¾	¾	½	⅝
Plates—Trim only	½	⅝	¾	⅞	⅞	⅝	¾
Flats—With standard knives	4 x ½	6 x ⅝	6 x ¾	8 x ⅞	8 x ⅞	6 x ⅝	6 x ¾
Trim 1 leg of angles	2½ x ⅜	3 x ½	4 x ⅝	6	6	3 x ½	4 x ⅝
Length of knives—inches	8	10	12	14	14	10	12

NOTE.—For holes larger in diameter than the rated capacity, special oversize punches, dies, couplings, sockets, strippers, and die blocks are required. Prices depend on the largest holes and are given on application.

2-PLUNGER MACHINES—TYPE: U. I. W.

Machine numbers	0*	½	1½	2½	2¾	1	2
Prices, pulley drive:							
Machine equipped as per note No. 1	$1,050	$1,500	$2,300	$3,000	$3,500	$1,975	$2,750
Machine including built-in notcher-punch	1,240	1,720	2,550	3,300	3,800	2,195	3,000
Machine including built-in notcher-shear	1,290	1,800	2,650	3,400	3,900	2,275	3,100
Machine including built-in coper-shear	1,290	1,800	2,650	3,400	3,900	2,275	3,100
Machine including built-in notcher and coper	1,480	2,020	2,900	3,700	4,200	2,495	3,350
Prices, arranged for motor drive:							
Machine equipped as per Note 1	1,125	1,600	2,425	3,135	3,635	2,075	2,875
Machine including built-in notcher-punch	1,315	1,820	2,675	3,435	3,935	2,298	3,125
Machine including built-in notcher-shear	1,365	1,900	2,775	3,535	4,035	2,375	3,225
Machine including built-in coper-shear	1,365	1,900	2,775	3,535	4,035	2,375	3,225
Machine including built-in notcher and coper	1,555	2,120	3,025	3,835	4,335	2,595	3,475

BUFFALO FORGE COMPANY, BUFFALO, N. Y.—Continued

PUNCHES, SLITTING SHEARS AND BAR-CUTTERS—TYPE U. D. 3-PLUNGER TYPE—FIXED THROAT DEPTH

Machine numbers	2½	3½	4½
Punch capacity	1 3/16 x ¾, 1 x ⅞.	1¼ x ⅞, 1⅛ x 1.	1 9/16 x 1¼, 1⅜ x 1⅜.
Shear capacity:			
Plates—(through center)	¾	⅞	1¼.
Trim only	⅞	1	1⅜.
Flats:			
With standard knives	6 x ⅞	7 x 1	7½ x 1¾.
With special upper knives	3 x ⅞	3½ x 1	4 x 1½.
With special upper knives	10¼ x ½	12 x ½	14 x ¾.
Trim one leg of angles	6 x ¾	6 x ⅞	6 x 1.
Length of knives, inches	12	13¾	16½
Bar cutter, capacity std. knives:			
Rounds	2¼	2½	3.
Squares	2	2⅛	2⅝.
Angles, square	6 x ½	6 x ⅝	6 x ⅞.
Angles, mitre	4 x ½	4 x 9/16	6 x ⅝.
Tees, square	4 x 5 x ½	4 x 5 x 9/16	6½ x 6½ x ½
Bar cutter—capacity special knives:			
Beams	9"—21/8 #.	10"—30 #.	12"—35 #.
Channels	10"—20 #.	10"—30 #.	12"—35 #.
Angles, square	3½ x 7 x ½	6 x 8 x ½	8 x 8 x ⅝.
Angles, flare	6 x 6 x ⅝	6 x 6 x ¾	8 x 8 x ¾.
H columns	6"—20 #.	6"—23 #.	8"—35 #.
B beams	9"—20½ #.	9"—22 #.	12"—36 #.
Tees	4 x 4 x ⅝	6½ x 6½ x ½	
Specifications:			
Hp motor	10	15	20.
R. p. m. motor	1,500 or 1,800	1, 500 or 1,800	1,500 or 1800.
Weight, including expert packing, pounds	9,800	14,000	33,000.
Ram pressure, tons	85	110	190.
Prices, pulley drive:			
Machine equipped as per Note No. 1	$3,550	$4,800	$8,850.
Machine, including built-in notcher-punch	3,850	5,150	9,300.
Prices, arranged for motor drive:			
Machine equipped as per note No. 1	3, 685	4, 950	9, 040.
Machine including built-in notcher-punch	3, 985	5,300	9,490.

SAME AS ABOVE, BUT WITH VARIOUS THROAT DEPTHS

	25—U. D.	26—U. D.	27—U. D.	28—U. D.	29—U. D.
Capacity	1 3/16 x ¾	1¼ x ⅞	1⅜ x 1	1½ x 1¼	1¾ x 1½.

SAME AS FOREGOING, BUT WITH VARIOUS THROAT DEPTHS

	25—U. D.	26—U. D.	27—U. D.	28—U. D.	29—U. D.
Capacity	1 x ⅞	1⅛ x 1	1¼ x 1⅛	1⅜ x 1¾	1⅝ x 1⅝
Plates	¾	⅞	1	1¼	1½
Flats, standard knives	3½ x 1	4 x 1⅛	4¾ x 1⅜	5 x 1⅝	6 x 2
Rounds	2	2¼	2½	3	3¾
Squares	1¾	2	2⅛	2⅝	3¼
Angles-square	6 x ½	6 x ⅝	6 x ¾	7 x ¾	8 x ⅞
Size motor, h. p	7½	10	15	25	35
25" Throat—Weight	9, 500	14, 000			
Price	$4, 250	$5, 800			
30" Throat—Weight	10, 500	15, 000	21, 000		
Price	$4, 650	$6, 300	$8, 000		
36" Throat—Weight	11, 500	16, 500	22, 000	35, 000	42, 000
Price	$5, 100	$6, 750	$8, 500	$9, 500	$12, 800
48" Throat—Weight	13, 600	19, 500	25, 500	43, 000	55, 000
Price	$6, 100	$8, 100	$9, 500	$12, 100	$15, 900
60" Throat—Weight	16, 500	25, 000	30, 000	55, 000	70, 000
Price	$7, 500	$10, 575	$11, 800	$15, 150	$19, 500
72" Throat—Weight	18, 500	28, 500	35, 000	61, 000	80, 000
Price	$8, 300	$12, 100	$12, 800	$17, 050	$22, 575
Ram pressure (tons)	85	110	130	180	250
Thickness of frames	2⅝-1 3/16	3-1	3¼-1¾	3¾-1½	4¼-1⅝

BUFFALO FORGE COMPANY, BUFFALO, N. Y.—Continued

UNIVERSAL SHEARS AND BAR CUTTERS—TYPE: U. S.

	Single Plunger Machine				Double Plunger Machine		
	0	½	1½	2½	2½	3½	4½
Plates	⅜	½	⅝	¾	¾	⅞	1¼.
Plates, trim	½	⅝	¾	⅞	⅞	1	1¼.
Flats, Standard knives	4 x ½	6 x ⅝	6 x ⅞	8 x ⅞	6 x ⅞	7 x 1	7½ x 1⅜.
Length knives (inches)	8	10	12	14	12	13¾	16½.
Rounds	1¼	1⅝	1⅞	2¼	2¼	2½	3.
Squares	1⅛	1½	1¾	2	2	2¼	2⅝.
Angles, square	3 x ⅜	4 x ⅝	4 x ½	6 x ½	6 x ½	6 x ⅝	6 x ⅞.
Size motor, h. p	2	3	5	10	10	15	20
Weight	1, 650	2, 750	4, 300	6, 000	6, 300	9, 000	15, 000
Price-pulley dr.:							
Note No. 1	$875	$1, 250	$1, 875	$2, 250	$2, 650	$3, 600	$6, 200
Including built-in notcher	1, 115	1, 550	2, 225	2, 650			
Including built-in coper	1, 115	1, 550	2, 225	2, 650			
Price Arr'd for Motor Drive	950	1, 350	2, 000	2, 385	2, 785	3, 750	6, 390
Including built-in notcher	1, 190	1, 650	2, 350	2, 785			
Including built-in coper	1, 190	1, 650	2, 350	2, 785			
Ram pressure-tons	27	48	62	83	83	107	185

SINGLE END PUNCHES—TYPE: P.

Numbers	44	45	46	47	48	49
12" Throat—Weight	1, 500	2, 000	3, 600	5, 100	8, 400	
Price	$570	$725	$1, 275	$1, 725	$2, 475	
16" Throat—Weight	1, 600	2, 300	3, 800	5, 400	8, 800	10, 500
Price	$600	$825	$1, 350	$1, 800	$2, 600	$3, 200
20" Throat—Weight	1, 725	2, 700	4, 000	5, 700	9, 200	11, 500
Price	$650	$975	$1, 450	$1, 875	$2, 725	$3, 350
24" Throat—Weight	1, 850	3, 200	4, 600	6, 100	9, 700	12, 500
Price	$710	$1, 160	$1, 625	$2, 025	$2, 850	$3, 700
30" Throat—Weight	2, 100	3, 600	5, 100	6, 700	10, 700	13, 600
Price	$820	$1, 300	$1, 800	$2, 500	$3, 150	$4, 150
36" Throat—Weight	2, 400	4, 100	5, 900	7, 400	12, 000	15, 200
Price	$900	$1, 500	$2, 100	$2, 500	$3, 550	$4, 600
48 inch—Weight	3, 400	5, 300	7, 800	9, 500	15, 000	18, 600
Price	$1, 300	$1, 920	$2, 650	$3, 200	$4, 325	$5, 600
60 inch—Weight	5, 100	7, 100	8, 900	12, 300	18, 400	22, 500
Price	$1, 950	$2, 600	$3, 150	$4, 100	$5, 425	$6, 700
72 inch—Weight	6, 200	8, 300	10, 500	14, 200	20, 800	25, 000
Price	$2, 375	$3, 000	$3, 750	$14, 750	$6, 150	$7, 450
Hp. motor	1½	2	3	5	5	7. 5
Ram pressure—tons	18	35	60	80	130	160

SINGLE END PUNCHES—TYPE: P

Throat numbers	50	51	52	53	54	55
16 inch—Weight	13, 500					
Price	$3, 800					
20 inch—Weight	14, 300	18, 000	22, 500			
Price	$4, 050	$4, 650	$5, 400			
24 inch—Weight	15, 000	19, 000	23, 800	28, 500	32, 500	39, 000
Price	$4, 250	$4, 900	$5, 700	$7, 150	$7, 600	$9, 100
30 inch—Weight	16, 000	20, 500	26, 000	11, 500	36, 000	42, 500
Price	$4, 550	$5, 300	$6, 200	$7, 850	$8, 650	$10, 250
36 inch—Weight	18, 000	23, 500	29, 000	34, 000	40, 000	48, 000
Price	$5, 000	$6, 100	$6, 900	$8, 500	$9, 600	$11, 800
48 inch—Weight	23, 000	30, 000	39, 000	44, 000	49, 000	60, 000
Price	$6, 600	$7, 800	$9, 300	$11, 600	$12, 100	$14, 350
60 inch—Weight	29, 000	38, 000	50, 000	55, 000	61, 000	74, 000
Price	$8, 250	$9, 850	$12, 300	$14, 350	$15, 150	$17, 700
72 inch—Weight	34, 000	44, 000	58, 000	63, 000	70, 000	84, 000
Price	$9, 700	$11, 450	$14, 350	$16, 600	$17, 290	$20, 000
Hp. motor	10	10	15	15	20	20
Ram pressure—tons	190	250	305	370	420	500

BUFFALO FORGE COMPANY, BUFFALO, N. Y.—Continued

HORIZONTAL PUNCHES—TYPE: H. P.

Numbers	46	47	48	50
Capacity	1 x 5/8	1 1/8 x 3/4	1 3/8 x 1	2 x 1
Capacity	7/8 x 3/4	1 x 7/8	1 1/4 x 1 1/8	1 1/2 x 1 1/4
Throat	12	16	16	16
Punches:				
Beams in flanges	6"-12"	7"-18"	7"-24"	7"-24"
Beams in web	5"-15"	7"-18"	7"-18"	7"-18"
Channels in flange	6"-12"	7"-18"	7"-18"	7"-18"
Channels in web	5"-15"	7"-18"	7"-18"	7"-18"
Length	6'-3"	7'-4"	8'-6"	10'-0"
Width	2'-3"	2'-10"	3'-4"	4'-0"
Height	3'-8"	4'-4"	5'-0"	6'-3"
Weight	3,350	5,800	9,500	14,000
Price	$1,600	$2,530	$3,750	$4,825
Hp. motor	3	5	5	10
R. p. m	280	275	235	250
Ram pressure, tons	59	80	130	190

ACCESSORIES

Machine Numbers		0	½-1	1½-2	2½	3½	4½		
Machine	23-U	24-U		25-U	25-UD, 26-U	26-UD	27-UD, 27-U	28-UD, 28-U	29-UD, 29-U
Numbers	44		45	46	47		48	49	50
Motor drive arrangements	$65	$75	$100	$125	$135	$150	$175	$190	$225
Gear guard #44, to #55 only	35		55	60	75		90	120	150
Gear and flywheel guard, U, UD, UIW	55	60	80	110	150	180	225	250	290
Built-in notcher-punch end	175	190	220	250	300	350	400	450	525
Built-in notcher-shear end		240	300	350	400				
Built-in coper-shear end		240	300	350	400				
Triple punching attachments	165	175	200	290	375	410	475	525	575
Stake punch attachments	55	65	70	100	125	140	165	175	200
Slitting shear knife holder	90		100	120	140		160	200	250
Cut-off knife holder	85		90	105	120		145	180	225

Machine numbers	51	52	53	54	55
Motor drive arrangement	$255	$280	$300	$325	$375
Gear guard No. 44 to 55 only	175	200	235	260	350
Gear and flywheel guard, U, UD, UIW					
Triple punching attachments	625	675	750	825	900
Slitting shear knife holder	300	375	450	525	600
Cut-off knife holder	275	350	425	500	575

Above refers to punches, dies, shear blades, bar cutter knives, special die blocks, triple attachments, stake punch attachments, built-in 90° notchers, built-in square copers, interchangeable 90° notchers and square copers, 90° notching tools, square coping tools, motor drive, arrangements, gear guards, flywheel guards, sub-bases, trucks.

BUFFALO FORGE COMPANY, BUFFALO, N. Y.—Continued

RAPID ACTING PUNCHES—TYPE, R. A. P.

Throat		43	44	45	46	47	48
12"	Capacity	3/8 x 1/4	1/2 x 3/8	3/4 x 1/2	7/8 x 5/8	1 x 3/4	1 x 1
	Length	3' 2"	3' 8"	4' 5"	5' 0"	5' 11"	
	Width	2' 3"	3' 8"	5' 0"	5' 6"	6' 0"	
	Height	5' 2"	6' 6"	6' 3"	6' 8"	7' 9"	
	Weight, pounds	1,500	2,600	3,200	4,300	6,000	
	Price	$560	$835	$1,025	$1,500	$1,965	
18"	Weight, pounds	1,600	2,725	3,400	4,500	6,400	9,000
	Price	$500	$900	$1,200	$1,610	$2,240	$3,320
24"	Weight, pounds	1,750	3,000	3,750	5,100	7,000	11,000
	Price	$650	$960	$1,350	$1,850	$2,450	$3,800
36"	Weight, pounds	1,950	3,700	4,800	6,600	8,500	12,600
	Price	$750	$1,200	$1,800	$2,400	$3,100	$4,200
48"	Weight, pounds	2,200	5,100	6,000	8,300	10,500	14,500
	Price	$830	$1,700	$2,200	$3,000	$3,750	$4,850
60"	Weight, pounds	2,500	6,500	7,500	10,000	12,500	16,500
	Price	$970	$2,150	$2,700	$3,800	$4,500	$5,500
72"	Weight, pounds	2,900	8,000	9,000	12,000	15,000	18,500
	Price	$1,100	$2,600	$3,300	$4,500	$5,200	$6,200
	Ram pressure, tons	9	18	35	90	80	130
	Frames	5/8	5/8	3/4	7/8	1	1 1/4
	H. p	1 1/2	2	3	5	7 1/2	10
	R. p. m. motor	900	900	900	1,200	1,200	1,200
	Capacity rivets, cold	1/4	3/8	1/2			

SINGLE END SHEARS—TYPE S

Throat		Numbers 44	45	46	47	48	49
12"	Weight, pounds	1,600	2,125	3,750	5,350	8,800	10,300
	Price	$800	$770	$1,325	$1,875	$2,875	$3,100
16"	Weight, pounds	1,700	2,425	3,950	5,700	9,200	11,000
	Price	$640	$880	$1,400	$1,925	$2,975	$3,300
20"	Weight, pounds	1,825	2,825	4,150	6,150	9,600	11,800
	Price	$690	$1,075	$1,475	$2,100	$3,100	$3,600
24"	Weight, pounds	1,950	3,325	4,750	6,500	10,100	13,000
	Price	$750	$1,225	$1,675	$2,200	$3,275	$3,900
	Hp. motors	2	3	5	7.5	10	15
	Ram pressure, tons	18	35	60	80	130	160
		50	51	52	53	54	55
12"	Weight, pounds	13,400	16,800	21,000	25,000	30,000	35,000
	Price	$3,775	$4,450	$5,100	$5,700	$6,500	$7,600
16"	Weight, pounds	14,200	18,000	23,000	28,000	32,500	37,500
	Price	$4,000	$4,750	$5,600	$6,400	$7,000	$8,100
20"	Weight, pounds	15,000	19,000	24,500	30,000	35,000	40,000
	Price	$4,250	$5,000	$5,900	$6,850	$7,550	$8,700
24"	Weight, pounds	16,000	20,000	26,000	32,000	37,000	42,000
	Price	$4,400	$5,300	$6,250	$7,300	$8,000	$9,100
	Hp. motors	15	20	20	25	30	40
	Ram pressure, tons	190	250	305	370	420	500

BUFFALO FORGE COMPANY, BUFFALO, N. Y.—Continued

SINGLE END PUNCHES WITH SHEARS—TYPE, F. W. S.

Type		44	45	46	47	48
Cut-off sh.	P. capacity	½ x 3/8	¾ x ½	1 x 5/8	1⅛ x ¾	1⅜ x 1
	P. capacity	7/16 x 7/16	5/8 x 5/8	⅞ x ¾	1 x ⅞	1¼ x 1⅛
	Plates (sl. sh.)	⅜	½	⅝	¾	1
	Flats (sl. sh.)	3 x ½	3 x ⅜	3½ x ¾	5 x ⅞	5½ x 1⅛
	Flats	3½ x 5/16	4 x ¼	6½ x ¼	8 x ¼	10 x ⅜
	Rounds	13/16	1⅛	1 5/16	1½	2
	Squares	¾	1	1 3/16	1⅝	1¾
	Angles	1½ x 5/16	2½ x 5/16	3 x ⅜	4 x ⅜	4 x ½
	Tees	1⅜ x ¼	2 x ¼	2½ x 5/16	3 x ⅜	4 x ⅜
Throat 12"	Weight, pounds	1,650	2,200	3,850	5,500	9,100
	Price	$680	$860	$1,430	$1,925	$3,025
16"	Weight, pounds	1,750	2,500	4,050	5,850	9,600
	Price	$715	$970	$1,500	$2,050	$3,200
20"	Weight, pounds	1,875	2,900	5,240	6,200	10,100
	Price	$760	$1,100	$1,600	$2,125	$3,300
24"	Weight, pounds	2,000	3,400	4,850	6,650	10,700
	Price	$825	$1,300	$1,775	$2,250	$3,450
	Hp. motor	2	3	5	7½	10
	Ram pressure, tons	18	35	59	80	130

DOUBLE END PUNCHES AND SHEARS—TYPE, P. & S.

Throat		Numbers 45	46	47	48	49
12"	Weight, pounds	4,300	5,500	8,400	12,500	
	Price	$1,575	$1,925	$2,850	$4,140	
16"	Weight, pounds	4,700	6,000	9,000	13,600	18,000
	Price	$1,700	$2,125	$3,050	$4,400	$4,650
20"	Weight, pounds	5,000	6,500	9,700	14,700	17,700
	Price	$1,825	$2,300	$3,275	$4,775	$5,325
24"	Weight, pounds	5,350	7,000	10,600	15,800	19,000
	Price	$1,950	$2,475	$3,575	$5,125	$5,725
30"	Weight, pounds	6,000	7,900	12,000	17,700	21,000
	Price	$2,175	$2,775	$4,075	$5,775	$6,350
36"	Weight, pounds	6,800	9,000	13,500	19,800	23,500
	Price	$2,475	$3,200	$4,550	$6,500	$7,050
48"	Weight, pounds	8,500	11,500	17,500	24,500	30,000
	Price	$3,100	$4,100	$5,800	$8,000	$9,000
60"	Weight, pounds	10,300	14,200	22,600	30,500	39,000
	Price	$3,750	$5,000	$7,600	$10,250	$11,900
72"	Weight, pounds	11,300	15,600	25,200	36,000	45,000
	Price	$4,100	$5,500	$8,500	$12,100	$13,850
	H. p. motor	3	5	7½	10	15
	Ram pressure, tons	35	60	80	130	160

		50	51	52	53	54	55
16"	Weight, pounds	18,000					
	Price	$5,500					
20"	Weight, pounds	19,200	26,000	38,000			
	Price	$6,000	$6,875	$9,150			
24"	Weight, pounds	20,600	29,000	40,500	47,000	63,000	75,000
	Price	$6,500	$7,650	$9,800	$11,300	$12,300	$15,900
30"	Weight, pounds	22,800	32,500	44,500	52,000	68,000	83,000
	Price	$7,300	$8,575	$10,775	$12,500	$13,850	$17,500
36"	Weight, pounds	25,700	36,500	50,000	60,000	74,000	90,000
	Price	$8,200	$9,700	$12,300	$13,550	$15,400	$19,500
48"	Weight, pounds	33,000	48,500	60,000	75,000	88,000	105,000
	Price	$10,800	$12,800	$15,400	$16,400	$18,500	$22,050
60"	Weight, pounds	42,000	62,000	75,000	85,000	105,000	125,000
	Price	$14,000	$16,850	$18,500	$19,750	$21,600	$26,700
72"	Weight, pounds	48,000	70,000	85,000	95,000	115,000	140,000
	Price	$16,000	$18,750	$20,600	$21,600	$24,100	$29,900
	H. p. motor	15	20	20	25	30	40
	Ram pressure, tons	190	250	305	370	420	500

BUFFALO FORGE COMPANY, BUFFALO, N. Y.—Continued

SPRUE CUTTERS—TYPE, S. C.

	Number 45	46	47	48	48
Capacity	Single end.	Single end.	Single end.	Single end.	Double end.
Steel castings	1 sq. in.	1.75 sq. in.	2.5 sq. in.	4 sq. in.	4 sq. in.
Malleable iron	1 sq. in.	1.75 sq. in.	2.5 sq. in.	4 sq. in.	4 sq. in.
Depth throat	12"	16"	24"	20"	20".
Size motor, h. p.	3	3	5	7½	7½.
Weight, pounds	2,750	4,100	6,500	12,000	16,000.
Price	$1,000	$1,650	$2,225	$3,200	$5,000.
Motor drive arrange.	$100	$125	$135	$175	$175.
Gear guard	$55	$60	$75	$90	$90.
Flywheel guard	$50	$55	$65	$75	$75.

SINGLE END ANGLE SHEARS—TYPE, S. A. S.

	Capacity 3"	4"	6"	8"	8" HVY
Angles, square	3 x 3/8	4 x ½	6 x ¾	8 x 1¼	8 x 1½.
Angles, 45°	2½ x 3/8	4 x 3/8	6 x ¾	8 x 1	8 x 1¼.
Size Motor-h. p.	5	7½	15	20	25.
Weight, Lbd	1,700	3,350	9,000	25,000	30,000.
Price	$1,025	$1,700	$4,075	$6,950	$8,800.
Motor drive arrange.	$80	$100	$130	$170	$225.
Gear guards only	90	125	180	230	300.
Gear-flywheel and V-belt guards	175	250	350	450	600.
Ram pressure, tons	45	70	200	390	460.

DOUBLE-END ANGLE SHEARS—TYPE D. A. S.

	Capacity 3"	4"	6"	8"	8" HVY.
Angles, square	3 x 3/8	4 x ½	6 x ¾	8 x 1¼	8 x 1½
Angles, 45°	2½ x 3/8	4 x 3/8	6 x ¾	8 x 1	8 x 1¼
Size motor, h. p.	5	7½	15	20	25
Weight, pounds	2,500	5,000	12,000	33,000	40,000
Price	$1,275	$2,275	$4,850	$8,250	$10,250
Turntable	$900	$1,400	$2,000	$2,800	$3,500
Motor drive arrange.	$80	$100	$130	$170	$225
Gear guards only	$90	$125	$180	$230	$300
Gear-flywheel and V-belt guards	$175	$250	$350	$450	$600
Ram pressure, tons	45	70	200	390	460

DOUBLE END ANGLE AND BAR SHEARS—TYPE D. A. B. S.

	Capacity 3"	4"	6"	8"	8" HVY.
Angles, square	3 x 3/8	4 x ½	6 x ¾	8 x 1¼	8 x 1½
Angles, 45°	2½ x 3/8	4 x 3/8	6 x ¾	8 x 1	8 x 1¼
Rounds	1½	1¾	3¼	4⅜	4¾
Squares	1¼	1⅜	2¾	4	4¾
Flats	2 x ¾	2½ x 1	4 x 1¾	6 x 2½	6 x 3
Weight, pounds	3,500	7,500	20,000	42,000	50,000
Price	$1,550	$2,725	$6,650	$9,800	$12,100
Turntable	$1,000	$1,600	$2,300	$3,200	$4,000
Motor drive arrange.	$80	$100	$130	$170	$225
Gear guards only	$90	$125	$180	$230	$300
Gear-flywheel, and V-belt guards	$175	$250	$350	$450	$600
Ram pressure, tons	45	70	200	390	460

Prices cover pully driven machines and include one set of knives.

BUFFALO FORGE COMPANY, BUFFALO, N. Y.—Continued

SLITTING SHEARS—TYPE S. S.

	Capacity No.							
	22	23	24	25	26	27	28	29
Plates—thru center	¼	⅜	½	⅝	¾	1	1¼	1½
Plates—trim	9/32	7/16	9/16	13/16	⅞	1⅛	1⅜	1¾
Rounds	½	⅝	¾	1	1¼	1½	2¼	3
Squares	7/16	9/16	13/16	⅞	1⅛	1½	2	2¾
Flats, std. knives	2 x 5/16	2 x ½	2½ x ⅝	3 x ¾	3½ x 1	4½ x 1⅜	5 x 1⅝	6 x 1¾
Angles	----------	2½ x ¼	3 x ⅜	3½ x ⅜	4 x ½	5 x ⅝	6 x ¾	6 x 1
Size motor, h. p.	1	2	3	5	7½	15	25	35
Weight—pounds	550	900	2,200	2,300	4,400	8,400	14,000	22,000
Price	$260	$425	$700	$925	$1,600	$2,725	$3,925	$6,200
Motor drive arrange	$80	$80	$100	$110	$135	$150	$175	$190
Gear guards only	$35	$45	$55	$70	$90	$125	$150	$180
Gear-flywheel, and V-belt guard	$70	$90	$110	$140	$175	$250	$300	$350
Ram pressure—tons	5	12	24	42	70	143	250	400

BAR CUTTERS—TYPE B. C.

	Number						
	5	6	7	8	9	10	11
Rounds	1¼	1⅝	2¼	2¾	3⅜	3⅞	4½
Squares	1⅛	1½	2	2½	3	3½	4
Angles	2½ x ¼	3½ x ⅜	4 x ½	5 x ⅝	6 x ¾	8 x ¾	8 x 1
Tees	2¼ x ¼	3½ x ⅜	4 x ⅜	4½ x ⅝	5 x ⅝	6 x ¾	6 x ⅞
Size motor, h. p.	2	3	5	7.5	10	15	25
Weight—pounds	1,050	2,575	4,250	7,500	10,000	16,000	23,000
Price	$700	$1,300	$2,100	$2,800	$3,700	$5,600	$8,100
Motor drive arrange	$90	$110	$150	$230	$260	$280	$300
Gear, flywheel, and V-belt guards	$125	$175	$225	$285	$375	$475	$575
Ram press—tons	30	55	110	170	240	325	430

SPECIAL BAR CUTTERS—TYPE, S. P. B. C.

	Number						
	5	6	7	8	9	10	11
Rounds	1¼	1⅝	2¼	2¾	3⅜	3⅞	4½
Squares	1⅛	1½	2	2½	3	3½	4
Angles	2½ x ¼	3½ x ⅜	4 x ½	5 x ⅝	6 x ¾	8 x ¾	8 x 1
Flats	2½ x ½	4 x ⅝	5 x ¾	6 x ⅞	7 x 1	8 x 1¼	10 x 1½
Size motor, h. p.	2	3	5	7½	10	15	25
Weight—pounds	1,300	2,700	4,500	8,200	11,500	16,500	25,000
Price	$825	$1,475	$2,425	$3,350	$4,400	$6,150	$9,600
Motor drive arrange.[1]	$90	$110	$150	$230	$260	$280	$300
Gear, flywheel and V-belt gds	$125	$175	$225	$285	$375	$475	$575
Ram pressure—tons	30	55	110	170	240	325	430

[1] Not including motor nor control, but V-belts.

BUFFALO FORGE COMPANY, BUFFALO, N. Y.—Continued

DIAGONAL BAR CUTTERS—TYPE, D. B. C.

	Number						
	5	6	7	8	9	10	11
Round bars	1¼	1⅝	2¼	2 13/16	3⅜	3 15/16	[1] 4½
Square bars	1⅛	1½	2	2½	3	3½	[1] 4
Angles, sq	3 x 3 x ⅜	4 x 4 x ½	6 x 6 x ½	6 x 6 x ¾	6 x 6 x ⅞	8 x 8 x ¾	[1] 8 x 8 x 1
Angles, 45°	2 x 2 x 5/16	3 x 3 x 5/16	4 x 4 x ½	4 x 4 x ⅝	6 x 6 x ⅝	6 x 6 x ¾	[1] 6 x 6 x 1
Flat bars	3 x ½	4 x ⅝	5 x ¾	6 x ⅞	7 x 1	10 x 1¼	[1] 12 x 1½
H. P., motor	3	5	5	7½	10	15	25
Weight—pounds	1,800	3,500	6,000	10,000	14,000	20,000	30,000
Price	$1,175	$1,850	$3,300	$4,125	$5,725	$7,375	$11,550
Motor drive arrange.[2]	$90	$110	$150	$230	$260	$280	$300
Gear, flywhl. and V-belt gds	$125	$175	$225	$285	$375	$475	$575
Ram pressure—tons	30	55	110	170	240	325	430

[1] Standard knives.
[2] Prices include the belts but not the motor nor controls.

BILLET SHEARS—TYPE, B. S.

	Number					
	7	8	9	10	11	12[1]
Round billets	2¼	2 3/16	3⅜	3 15/16	4½	[1] 5
Square billets	2	2½	3	3½	4	4½
Flat bars	8 x ¾	9 x ⅞	10 x 1	12 x 1¼	14 x 1½	16 x 1¾
Flat bars	6 x 1	6 x 1¼	6 x 1½	8 x 1¾	10 x 1⅞	14 x 2
H. P., motor	5	7½	10	15	25	35
Weight—pounds	4,300	7,500	10,000	15,000	20,000	30,000
Price	$2,100	$2,900	$3,775	$5,975	$8,550	$10,600
Motor dr. arrange.[1]	$150	$230	$255	$280	$300	$320
Extra for herringbone grs	$300	$325	$375	$450	$600	$800
Ram pressure—tons	110	170	240	325	430	540
Automatic stripper	----------	----------	----------	$350	$625	$650
Gear guards only	$110	$135	$180	225	275	300
Gear, flywheel and V-belt gds	$225	285	375	475	575	625

	13	14	15	16	17	
Round billets	5⅝	6¾	7⅞	9	10	
Square billets	5	6	7	8	9	
Flat bars	18 x 2¼	20 x 2½	22 x 3	26 x 3½	28 x 4	
Flat bars	15 x 2½	16 x 3	16 x 3¾	20 x 4	20 x 4½	
H. P., motor	50	60	75	100	125	
Weight—pounds	45,000	60,000	80,000	125,000	165,000	
Price	$15,000	$19,750	$27,500	$38,500	$50,000	
Motor drive arrange.[1]	$370	$460	$520	$600	$675	
Extra for herringbone gears	$950	$1,200	$1,500	$1,200	$1,500	
Ram pressure—tons	675	1,000	1,300	1,750	2,200	
Automatic stripper	$700	$750	$875	$950	$1,075	
Gear guards only	$350	$400	$475	$675	$825	
Gear, flywheel and V-belt guards	$725	$850	$1,000	$1,400	$1,750	

BUFFALO FORGE COMPANY, BUFFALO, N. Y.—Continued

WRAPPING ROLLS—TYPE, W. R.

	Number				
	½	1	2	3	4
Standard capacities	6 x 1/8 x 6	8 x ¼ x 8	10 x 3/8 x 12	12 x 5/8 x 16	16 x ¾ x 20
Horsepower	1½	3	5	7½	10
Weight, pounds	1,900	3,100	6,000	10,000	15,000
Price [1] incl. motor, 3 ph., 60 cycle	$1,600	$2,200	$3,450	$5,350	$7,250

[1] In addition to the motor, a reversing switch equipped with two thermal overload relays, and a 3-way lever switch are included in the price. Gear motors are G. E. controls A. B.

ANGLE BENDING ROLLS—TYPE: V. B. R. & H. B. R.

Vertical

	Number				
	00	0	½	1	2
Angles-leg out	7/8 x 7/8 x 1/8	1½ x 1½ x 3/16	2 x 2 x ¼	[1] 3 x 3 x 3/8	[1] 4 x 4 x 5/8
Minimum diameter	20	24	20	24	40
Angles-leg in	¾ x ¾ x 1/8	1¼ x 1¼ x 3/16	1½ x 1½ x ¼	[1] 2½ x 2½ x 3/8	[1] 3½ x 3½ x 5/8
Size motor, h. p.	1	2	5	10	20
Speed motor	1,800	1,200	1,200	1,200	1,200
Weight, pounds	575	875	2,600	4,500	13,000
Price, less motor [1]	$600	$875	$1,250	$2,250	$4,750
Wiring motor and controls	$35	$50	$75	$100	$120
	00	0	1	2	½
With std. rolls, leg out			3½ x 3½ x 5/16	5 x 5 x 3/8	
With std. rolls, leg in			3 x 3 x 5/16	4 x 4 x 3/8	
Minimum diameter			36	60	

Horizontal

	Number				
	½	1	2	3	4
Angles-leg out	2 x 2 x ¼	[1] 3 x 3 x 3/8	[1] 4 x 4 x 5/8	6 x 6 x 7/8	8 x 8 x 1
Minimum diameter	20	24	40	60	84
Angles-leg in	1½ x 1½ x ¼	[1] 2½ x 2½ x 3/8	[1] 3½ x 3½ x 5/8	5 x 5 x 7/8	8 x 8 x 1
Size motors, h. p.	5	10	20	30	40
Speed motor	1,200	1,200	1,200	1,200	1,200
Weight, pounds	3,250	5,600	14,000	33,000	70,000
Price, less motor [1]	$1,550	$2,750	[2] $5,750	[2] $10,775	[2] $23,100
Wiring motor and controls	$75	$100	$120	$150	$350
With drive below floor line			$6,250	$11,625	$24,600
For drive above floor					

BUFFALO FORGE COMPANY, BUFFALO, N. Y.—Continued

BUFFALO "ARMOR-PLATE" SIMPLEX BENDING ROLLS—TYPE: S. B. R.

	Capacity and Specification				
	No. ½	No. 1	No. 2	No. 3	No. 4
Flats on flat		2½ x 1¾ x 20D	3 x 2½ x 20D	5 x 3¼ x 30D	6 x 4¼ x 36D
Sq. bars (soft steel)	1¾ x 24D	2 x 20D	2¾ x 30D	4 x 40D	5 x 60D
Round bars	2 x 24D	2¾ x 24D	3 x 30D	4½ x 36D	6 x 48D
Standard pipe	2¼ x 24D	2½ x 20D	3½ x 24D	5 x 36D	8 x 72D
Size motor, h. p.	5	10	20	30	40
Speed of motor	1,200	1,200	1,200	900	900
Diam. upper shaft	3½	4½	6	7¾	12
Weight, pounds	1,825	4,000	8,000	10,325	37,500
Price includes 1 set of standard rolls standard speed reducer, arr. motor drive, less motor.	$950 Incl. rolls for corrugated bars, truck, and V-belts	$2,100 Nos. 1, 2, 3, and 4 prices including rolls for flats on flat. For benders with other rolls, deduct price of flat rolls from the price of machine and add price of rolls wanted.	$3,950	$7,200	$15,400

STRAIGHTENING MACHINES—TYPE, S. M.

	Number of machine		
	47	48	50
Distance between blocks	6" to 14"	8" to 16"	8" to 18"
Straightens beams up to	6"—17.25 lb.	9"—30 lb.	10"—35 lb.
Ram pressure, tons	80	100	190
Size of motor, hp	5	7.5	10
Weight, pounds	6,850	11,000	16,500
Price	$3,000	$4,350	$6,050
Motor drive arrangement	$130	$150	$190
Gear guard	$50	$65	$125
Flywheel guard	$55	$75	$140

NO. 2¼ STRUCTURAL IRON WORKER—TYPE, S. I. W.

PRICES

Pulley drive—no countershaft included:	
Machine equipped as per note No. 1	$3,350
Machine incl. built-in notcher in punch-head	3,650
Machine incl. built-in notcher on shear end	3,750
Machine incl. built-in coper on shear end	3,750
Machine incl. built-in notcher and coper	4,050
Arranged for motor drive—no motor:	
Machine equipped as per note No. 1	$3,485
Machine incl. built-in notcher in punch-head	3,785
Machine incl. built-in notcher on shear end	3,885
Machine incl. built-in coper on shear end	3,885
Machine incl. built-in notcher and coper	4,185
Gooseneck dieblock (refer note No. 2)	200
Turntable	650
Attachment for cutting flats in bar-cutter section	135
3-foot bar-cutter gauge	65
Light-socket, switch, 50-foot cable and receptacle	50

BULLARD CO., BRIDGEPORT, CONN.

SPIRAL DRIVE VERTICAL TURRET LATHES

Size	Weight (pounds)	Prices		Extra height
		Standard type [1]	High-speed type [2]	
24"	10,000	$7,575	$8,545	$550
36"	17,750	10,040	11,130	550
42"	20,200	11,360	12,460	550
54"	24,400	12,850	19,930	550

[1] Includes V-belt motor drive.
[2] With 2 heads.

BULLARD CO., BRIDGEPORT, CONN.—Continued

CUT MASTER VERTICAL TURRET LATHES

Size	Weight (pounds)	Price
30"	26,000	[1] $10,590
36"	29,000	[1] 12,900
42"	39,000	[2] 17,740
54"	46,600	[1] 19,555
64"	54,000	[2] 21,535

[1] With two heads.
[2] With three heads.

TYPE "D" MULT-AU-MATIC LATHES

Size	Six spindle with five heads		Eight spindle with seven heads		Extra height
	Weight (pounds)	Price	Weight (pounds)	Price	
8"	26,600	$20,080	34,700	$26,970	660
12"	27,600	22,435	35,500	29,450	660
16"	34,000	27,210	42,000	32,290	660

THE BURKE MACHINE TOOL COMPANY, CONNEAUT, OHIO

MILLING MACHINES

#0 Bench cone type milling machine, complete with counter shaft	$170
#1 Bench cone type milling machine, complete with counter shaft	180
#2 Bench cone type milling machine, complete with counter shaft	265
#3 Bench cone type milling machine, complete with counter shaft	195
#4 Bench cone type milling machine, complete with counter shaft	275

THE BURKE MACHINE TOOL COMPANY, CONNEAUT, OHIO—Continued

MOTOR DRIVEN MILLING MACHINES

(When ordering, advise voltage, cycle, and phase of motor required)

#1 Motor driven milling machine (including belting, wrenches, reversible drum type switch), spindle, Timken roller bearing	$300
#2 Motor driven milling machine (including belting, wrenches, reversible drum type switch), spindle, Timken roller bearing	385
#3 Motor driven milling machine (including belting, wrenches, reversible drum type switch), spindle, Timken roller bearing	320
#4 Motor driven milling machine (including belting, wrenches, reversible drum type switch), spindle, Timken roller bearing	410
Universal table for No. 4 miller, extra	40

ATTACHMENTS

Arbors, for Nos. 1, 2, 3 and 4 millers, No. 9 B & S taper (when ordering state diameter) ¾" and 1"	7
Column for No. 0 miller	15
23-inch column for Nos. 1, 2, 3 and 4 millers	18
28-inch column for Nos. 1, 2, 3 and 4 millers	22
28-inch cabinet column for Nos. 1, 2, 3 and 4 millers	37
The following attachments include necessary wrenches:	
Index centers, tilting head, including one plate	52
Index centers, stationary head, including one plate	35
Extra index plates, each	2.50
Draw-in collet attachment for miller with one round collet	18
Draw-in collet attachment for index centers with one round collet	10
Extra collets, each	4
Vertical milling attachment, ball bearing spindle, including one collet	7
Quick opening vise	15
Miller and drill press vise, plain	14
Graduated swivel base vise	14
	8

JOHN T. BURR & SON, BROOKLYN, N. Y.

KEYSEAT MILLING MACHINES

Prices—weights

Mach. No.	Length	36 inches	48 inches	60 inches	72 inches	84 inches	96 inches
3	Price	$760	$820	$895			
	Weight, pounds	1,600	1,800	2,000			
5	Price		$925	$990	$1,075		
	Weight, pounds		2,800	3,000	3,200		
6	Price		$1,050	$1,125	$1,200		
	Weight, pounds		3,300	3,500	3,700		
7	Price				$1,600	$1,750	$1,850
	Weight, pounds				4,500	5,000	5,500
8	Price				$1,925	$2,050	$2,175
	Weight, pounds				4,900	5,300	5,800

Routing attachment, extra.—No. 5, $225; No. 6, $250; No. 7, $350; No. 8, $390.
Arranging for motor drive, extra.—No. 3, $175; No. 5, $175; No. 6. $185; No. 7, $220; No. 8, $240.

Specifications

Machine No	3	5	6	7	8
Standard lengths (inches)	36-48-60	48-60-72	48-60-72	72-84-96	72-84-96
Width of platen (inches)	6¾	9	11	12	12
Automatic feed (inches)	36-48-60	48-60-72	48-60-72	72-84-96	72-84-96
Takes through housing, width (inches)	9	10½	13½	14	17
Takes through housing, height (inches)	7⅝	9½	9½	11	14
Shaft capacity on V-blocks (inches)	4	6	8	10	12
Motor required (horsepower)	3	3	3	5	5
Motor speed, plain machine	1,200	1,200	1,200	1,200	1,200
Motor speed, router machine	750/1,500	750/1,500	750/1,500	750/1,500	750/1,500

BURR KEYSEAT MILLING MACHINES

(Carriage type—for straight shafting only)

Machine No	4	4½
Shafting capacity (inches)	4½	4½
Carriage travel (inches)	24	48
Price	$525	$625
Weight (pounds)	1,600	2,000

BURR PORTABLE SHAFT KEYSEATERS

Horizontal spindles, hand operated

Machine number	1	1-A	2	3
Largest shaft capacity (inches)	5	6	8	12
Longest keyway in one setting (inches)	12	12	12	12
Number of hand cranks	1	2	2	2
Will mill all widths (inches)	¼-1-⅛	¼-1¼	⅛-2	¼-2½
Net weight (pounds)	85	95	200	325
Price (regular equipment)	$95	$105	$145	$225
Price (arranged for drill drive)	$130	$140	$185	$260

JOHN T. BURR & SON, BROOKLYN, N. Y.—Continued

Horizontal spindles, motor driven

Machine number	11	11-A	12	13
Largest shaft capacity (inches)	5	6	8	12
Will mill at each setting (inches)	12	12	12	12
Size of motor (horsepower)	⅓	½	¾	1
Net weight (pounds)	225	300	425	525
Price (regular equipment)	$225	$275	$375	$475

Vertical spindles, motor and arranged for drill drive

Machine number	20	21	25
Largest shaft capacity (inches)	6	12	10
Longest keyseat at one setting (inches)	7	12	8
Capacity for widths (inches)	¼-1¼	¼-1¼	¼-1¼
Net weight (motor driven) (pounds)	185	250	250
Net weight (arranged air motor) (pounds)	150	200	200
Price (motor driven A. C.)	$250	$375	$390
Price (motor driven D. C.)	$260	$390	$410
Price (arranged drill drive)	*	*	$390

BURR COLD SAWS

Machine number	I	II	2	3
Capacity rounds (inches)	3½	3¾	5	6
Capacity squares (inches)	3	3	4	5
Saw diameter (inches)	10	10	14	16
Weight belt driven (pounds)	500	600	1,100	1,800
Weight arranged, motor drive (pounds)	575	675	1,450	2,150
Size motor required (horsepower)	1	1½	2	3
Price (belt driven)	$225	$275	$475	
Price (arranged motor drive)	$265	$325	$525	$665

BURR PORTABLE BORE KEYSEATER, HAND OPERATED

Capacity for keyways to 1½" wide.
Capacity for keyways to 12" long.
Price, with base but without tools, $200.
Weight, with base but without tools, 500 pounds.
Price, without base, and without tools, $185.
Price of any required tool equipment on application.

CALLAHAN CAN MACHINE COMPANY, INC., BROOKLYN, N. Y.

DOUBLE ACTION PRESSES

Description	Price	Extras	
		V-belt drive, no motor	Flat belt drive, no motor
No. 44 Flywheel press	$1,010	$110	$90
No. 44 Geared press	1,240	110	90
No. 45 Flywheel press	1,170	125	100
No. 45 Geared press	1,500	125	100
No. 46 Flywheel press	1,810	125	100
No. 46 Geared press	2,140	125	100
No. 49 Flywheel press	9,500	150	100
		Non-skip stock feed	Non-skip dexter feed
		11,000	13,000

DOUBLE CRANK PRESSES

Description	Price	Extras	
		V-belt drive, no motor	Flat belt drive, no motor
No. 56 Flywheel press	$1,610	110	90
No. 56 Geared press	1,840		
No. 57 Flywheel press	2,280	125	100
No. 57 Geared press	2,410		
No. 58 Flywheel press	2,925	140	110
No. 58 Geared press	3,275		
No. 58½ Flywheel press	3,025	140	110
No. 58½ Geared press	3,275		
No. 59 Flywheel press	3,240	170	120
No. 59 Geared press	3,750		
No. 59½ Flywheel press	5,420	170	120
No. 59½ Geared press	5,750		

CALLAHAN CAN MACHINE COMPANY, INC., BROOKLYN, N. Y.—Continued

ARCH PRESSES

Description	Price	Extras: V-belt drive, no motor	Extras: Flat belt drive, no motor
No. 404 Flywheel press	$1,065	$110	$90
No. 404 Geared press	1,365		
No. 405–O Flywheel press	1,480	125	100
No. 405–O Geared press	1,850		
No. 406–A Flywheel press	1,210	125	100
No. 406–A Geared press	1,500		
No. 375 Strip feed press	2,650	110	90

O. B. I. PRESSES

No. 2 Flywheel press	$290	$90	$65
No. 3 Flywheel press	440	95	75
No. 4 Flywheel press	615	105	80
No. 4 Geared press	840	105	80
No. 5 Flywheel press	800	110	90
No. 5 Geared press	1,030	110	90
No. 6 Flywheel press	1,010	130	110
No. 6 Geared press	1,345	130	110

Horning presses	Price	Swinging table	Sliding bolster	V-belt drive, no motor	Flat belt drive, no motor
No. 23 Flywheel press	$500	$120	$70	$95	$75
No. 24 Flywheel press	800	130	100	100	80
No. 25 Flywheel press	865	195	100	100	80
No. 23 Geared press	765				
No. 24 Geared press	1,060				
No. 25 Geared press	1,125				

DUPLEX HORNS

9"	$540
12"	660
15"	990
19"	1,200

STANDARD HORNS

9"	190
12"	220
15"	265
19"	340
5-gal. Dble	430

ROLL FEEDS

No. 603 single, for No. 3 press	410
No. 604 single, for No. 4 press	495
No. 605 single, for No. 5 press	550
No. 606 single, for No. 6 press	675
No. 6044 single, for No. 44 double action horning press	495
No. 6057 single, for No. 57 double crank press	590

DIAL FEEDS

No. 502, for No. 2 press	355
No. 503, for No. 3 press	420
No. 504, for No. 4 press	520
No. 505, for No. 5 press	560
No. 506, for No. 6 press	655

PUNCHING AND DRAW PRESSES

No. 225 Geared punch press	1,405
No. 225 Flywheel punch press	1,170
No. 14–S Drawing press	5,000

CANEDY-OTTO MANUFACTURING CO., CHICAGO HEIGHTS, ILL.

21" STATIONARY HEAD FLOOR DRILLS

Capacity—0" to 1½" in cast iron. Eight spindle speeds. 3 power feeds.

Back geared, power feed, belt driven	$275
Geared motor drive, less motor only	330
Geared motor drive, complete with 1 hp. ball bearing motor, 1,725 r. p. m.:	
110/220v—50cy—two or three phase, or 110/220v—60cy—two or three phase	382
220/440v—50cy—two or three phase, or 220/440v—60cy—two or three phase or 550v—50cy—two or three phase, or 550v—60cy—two or three phase	382
208v—50cy—two or three phase, or 208v—60cy—two or three phase	382
110/220v—50cy—single phase, or 110/220v—60cy—single phase	385
Geared motor drive—Continued.	
115v direct current or 230v direct current	$445
110v, 220v, 440v, or 550v—25cy—two or three phase	420
110/220v—25cy—single phase	422
V-belted motor drive:	
Less motor only	315
110/220v—50cy—two or three phase, or 110/220v—60 cy—two or three phase	367
220/440v—50cy—two or three phase, or 220/440v—60cy—two or three phase	367
550v—50cy—two or three phase, or 550v—60cy—two or three phase	367
208v—50cy—two or three phase, or 208v—60cy—two or three phase	367
110/220v—60cy—single phase, or 110/220v—50cy—single phase	370
110/220v—25cy—single phase	405
110v, 220v, 440v, or 550v—25cy—two or three phase	407
115v direct current or 230v direct current	430

21" SLIDING HEAD MOTOR-DRIVEN FLOOR DRILL

Timken and ball bearing equipped throughout. Back geared—Geared power feed. Four power feeds with neutral. Eight spindle speeds—260—540—960—1,280 open belt. 73—150—270—425 r. p. m. with back gear engaged. Spindle—Timken bearing equipped with No. 4 Morse taper hold. Drive—Vertical motor with flat belt. Belt—Endless fabric type furnished. Motor—1 hp. ball bearing 1,125 r. p. m. Control—Magnetic switch with overload and undervoltage protection, including push-button starter station, all wiring enclosed in conduit per NEMA code. Capacity—0" to 1½" in mild steel.

21" sliding head, flat drive, back gear and power feed with square oil grooved or round Tee-slotted table, less motor and switch only	$515
With 1 hp., 1,200 r. p. m. ball bearing motor and magnetic switch and push-button:	
220v—50cy—two or three phase, or 220v—60cy—two or three phase	605
208v—50cy—two or three phase, or 208v—60cy—two or three phase	605
550v—50cy—two or three phase, or 550v—60cy—two or three phase	605
440v—50cy—two or three phase, or 440v—60cy—two or three phase	605
110/220v—50cy—single phase, or 110/220v—60cy—single phase	630
115v direct current or 230v direct current	675
110v, 220v, 440v, 550v—25cy—two or three phase	625
Extras:	
To equip with 2 hp. motor in 50cy or 60cy—2 or 3 phase A. C. or D. C., add	40
Reversing magnetic switch with 3 button starter, for tapping	60

21" SLIDING HEAD MOTOR-DRIVEN FLOOR DRILL V-BELT DRIVE

Timken and ball bearing equipped throughout. Back geared, geared power feed. Four power feeds with neutral. Sixteen spindle speeds: eight in open belt 300—456—619—824—1,025—1,305—1,648—2,100 r. p. m.; eight with back gear engaged 82—124—160—225—281—358—452—576. Spindle—Timken bearing equipped with No. 4 Morse taper hold. Drive—vertical motor with Vee belt. Belt—endless Vulco type furnished. Motor—2 hp. ball bearing 1,140 r. p. m. Control—magnetic switch with overload and undervoltage protection including separate push-button starter station, all wiring enclosed in conduit per NEMA code. Capacity—0" to 1½" in mild steel.

Drill complete less motor and control only	$560
Drill complete with 2 hp. motor, magnetic switch and push button starter:	
220v—50cy—two or three phase, or 220v—60cy—two or three phase	675
208v—50cy—two or three phase, or 208v—60cy—two or three phase	675
440v—50cy—two or three phase, or 440v—60cy—two or three phase	675
550v—50cy—two or three phase, or 550v—60cy—two or three phase	675
110/220v—50cy—single phase, or 110/220v—60cy—single phase	745
110v, 220v, 440v, 550v—25cy—two or three phase	780
115v direct current or 230v direct current	810

Extras—Refer to extra listing under 21" Sliding Head Drill.

21" SLIDING HEAD FLOOR DRILL, BOX TYPE COLUMN, FLAT DRIVE

Timken and ball bearing equipped throughout. Back geared, power feed. Capacity—0" to 1½" mild steel. Eight spindle speeds with four power feeds. Spindle—Timken bearing equipped, No. 4 Morse taper hold in spindle. No. 2 or No. 3 Morse taper optional, if specified. Drive—vertical motor with flat belt. Motor—1 hp. ball bearing 1,125 r. p. m. Belt—endless fabric type furnished. Control—magnetic switch with overload and undervoltage protection, including push-button starter station. All wiring enclosed in conduit, per NEMA code. Note—Multiple spindle models have individual motor and control on each head.

CANEDY-OTTO MANUFACTURING CO., CHICAGO HEIGHTS, ILL.—Continued

21" SLIDING HEAD FLOOR DRILL, BOX TYPE COLUMN, FLAT DRIVE

	Number of spindles: 1	2	3	4	6
Less motor and control	$600	$1,250	$1,900	$2,700	$3,900
With 1 hp., 1,200 r. p. m. motor and controls:					
220v—50cy or 60cy—two or three ph., or 208v—50cy or 60cy—two or three phase, or 440v—50cy or 60cy—two or three phase, or 550v—50cy or 60cy—two or three phase	690	1,430	2,170	3,060	4,440
110/220v—50cy or 60cy—single phase	715	1,480	2,245	3,160	4,590
115v Direct Current or 230v D. C.	760	1,570	2,380	3,340	4,860
110v, 220v, 440v, 550v—25cy two or three phase	710	1,470	2,130	3,140	4,560

Drilling head only, less motor and control, $368.

EXTRAS

To equip with 8-step V pulleys, giving 16 spindle speeds, with back gears and tilting motor bracket to permit changes, including 2 hp. motor add to above prices per spindle in 50cy or 60cy—2 or 3 phase A. C. or D. C.	$90
To equip with 2 hp. motor in 50cy or 60cy—2 or 3 phase A. C. or D. C., per spindle	40
Reversing magnetic switch with 3 button starter station, for tapping, per spindle	60
Full enclosed belt guard, per spindle	34
Full enclosed telescopic spindle guard, per spindle	55
Tapping attachments for spindle insertion or with casting head for mounting on spindle quill. Specify type:	
3/16" capacity in steel—No. 1E	45
5/16" capacity in steel—No. 2E	60
½" capacity in steel—No. 3E	85
Motor driven coolant pump, piping, valve for one spindle	100
Extra piping, per spindle, with valve	8
Special Gear Box	175
Raising Block 8" high to increase distance from spindle to table	35
Foot operated electrical reversing switch with BX cable, wired ready to operate	23

17" SLIDING HEAD FLOOR DRILL WITH POWER FEED

Timken and ball bearing throughout. Capacity—0 to ⅞" in mild steel. Four geared power feeds. Four spindle speeds—260–540–960–1580 r. p. m. Spindle—Timken bearing equipped with No. 3 Morse taper hole. No. 2 Morse taper optional, if specified. Motor—¾ h. p. ball bearing, 1,125 r. p. m. Drive—Vertical motor with flat belt. Control—NEMA snap switch, with wiring between motor and switch in conduit. Belt—Endless fabric type supplied. Tables—Square angling or round oil grooved optional. Specify type wanted.

220v—50cy—two or three phase or 220v—60cy—two or three phase	$355
208v—50cy—two or three phase or 208v—60cy—two or three phase	360
440v—50cy—two or three phase or 440v—60cy—two or three phase	355
110/220v—60cy—single phase	385
110/220v—50cy—single phase	385
115v direct current or 230v direct current	421

EXTRAS

Magnetic switch with overload and undervoltage protection, including push-button starter station. All wiring enclosed in conduit, per NEMA code.	
For alternating current	$30
For direct current	62
To equip with 8-step V belt pulley drive with tilting motor bracket to permit belt changes, add	60
Reversing switch for tapping	60
Motor driven coolant pump, piping, valve and tank	100
Foot operated electrical reversing switch with BX cable wired ready to operate	23

17" SLIDING HEAD FLOOR DRILL, WITH LEVER FEED

Timken and ball bearing throughout. Capacity—0" to ⅞" mild steel. Spindle—Timken bearing equipped. Four spindle speeds—260–540–960–1,580 r. p. m. Motor—¾ hp. ball bearing, 1,125 r. p. m. Drive—Vertical motor with flat belt. Control—NEMA snap switch, with wiring between motor and switch in conduit. Belt—Endless fabric type supplied. Tables—Square angling or round oil grooved optional. Specify type wanted.

220v—50cy—two or three phase or 220v—60cy—two or three phase	$300
208v—50cy—two or three phase or 208v—60cy—two or three phase	305
440v—50cy—two or three phase or 440v—60cy—two or three phase	300
110/220v—60cy—single phase	330
110/220v—50cy—single phase	330
115v Direct Current or 230v Direct Current	365

EXTRAS: See extras listed under 17" floor drill, power feed, above.

CANEDY-OTTO MANUFACTURING CO., CHICAGO, HEIGHTS, ILL—Continued.

14" NO. 3000 FV SLIDING HEAD FLOOR DRILL

Capacity—¾" cast iron, ½" mild steel. Drive—Vertical motor with V belt. Six spindle speeds—345, 715, 1,010, 1,515, 2,200, 3,205 r. p. m. Belt—Endless V belt furnished. Motor—½ hp. ball bearing, 1,750 r. p. m. Switch—NEMA toggle type furnished, wiring between motor and switch in conduit. Spindle—Full ball bearing design. No. 2 Morse taper hole standard. No. 1 Morse taper only if specified.

110/220v—60cy—single phase or 110/220v—50cy—single phase	$186.00
220v—60cy—two or three phase or 220v—50cy—two or three phase	196.00
208v—60cy—single phase	191.00
208v—60cy—three phase or 440v—60cy—three phase	201.00
115 volt Direct Current	210.00
230 volt Direct Curreht	210.00
Drill complete, less motor and switch only	161.00

EXTRAS

Magnetic switch with push button starter station, mounted on drill with wiring between motor and switch enclosed in conduit—for alternating current	$30.00
Magnetic switch and station, same as above except for direct current	62.00
Full enclosed belt guard for spindle and motor cone pulleys	25.00
Full enclosed spindle guard	30.00
Foot pedal feed	28.00
0" to ½" geared Jacobs chuck—No. 6-A	7.50
0" to ¾" geared Jacobs chuck—No. 2-A	5.50
No. 1 Morse taper, or No. 2 Morse taper arbor	1.50
Foot operated electrical reversing switch with BX cable wired ready to operate	23.00

14" NO. 5000 FV SLIDING HEAD FLOOR DRILLS

Capacity—0" to ⅜" chuck. Drive—Vertical motor with V Belt. Six spindle speeds—900, 1,350, 2,000, 3,100, 4,800, 5,400 r. p. m. Belt—Endless V type furnished. Motor—½ hp. ball bearing 1,750 r. p. m. Switch—NEMA toggle type furnished, wiring between motor and switch in conduit. Spindle—Full ball bearing design. 0" to ⅜" Jacobs chuck, mounted on taper plug spindle, is standard. No. 1 Morse taper hold, less chuck, optional is specified. Telescopic spindle guard is regular equipment.

110/220v—60cy—single phase or 110/220v—50cy—single phase	$237
208v—60cy—single phase	242
220v—60cy—two or three phase or 220v—50cy—two or three phase	247
208v—60cy—two or three phase or 440v—60cy—two or three phase	252
115 volt direct current	265
230 volt direct current	265
Drill complete, less motor and switch only	217

Extras: Same as for 14" No. 3000FV sliding head floor drill.

16" NO. 3000 FV BOX TYPE COLUMN SLIDING HEAD FLOOR DRILL, SINGLE AND MULTIPLE SPINDLES.

Capacity ⅝" in cast iron, ½" in mild steel. Spindle speeds—345, 715, 1,010, 1,515, 2,200, 3,205 r. p. m. Drive—Vertical motor with V type Vulco Belt. Spindle—Full ball bearing design. No. 2 Morse taper only if specified. Motor—½ hp. ball bearing, 1,750 r. p. m. Switch—NEMA toggle type furnished, with wiring between motor and switch enclosed in conduit. 6-inch vertical spindle travel is standard.

	Number of spindles				
	1	2	3	4	6
Drill complete, less motor and switch only	$285	$550	$805	$1,070	$1,595
100/220v—50cy or 60cy—single phase	315	610	895	1,190	1,775
220v—50cy or 60cy—two or three phase; 208v—50cy or 60cy—two or three phase; 440v—50cy or 60cy—two or three phase	318	610	904	1,202	1,793
115v direct current	325	330	925	1,248	1,835
230v direct current	325	330	925	1,248	1,835

Drilling head only, less motor and switch and less lower column, $130.

16" NO. 5000 FV BOX TYPE COLUMN SLIDING HEAD FLOOR DRILL, SINGLE AND MULTIPLE SPINDLE

Capacity—0" to ⅜" in steel. Spindle speeds—900 1,350, 2,000, 3,100, 4,800, 5,400 r. p. m. Drive—Vertical, motor with endless Vulco type V belt. Spindle—Full ball bearing design 0" to ⅜" Jacobs chuck mounted on taper plug spindle is standard. No. 1 Morse taper hole less chuck optional if specified. Telescopic spindle guard regular equipment. Motor—½ hp. ball bearing, 1,750 r. p. m. Switch—NEMA toggle type furnished, with wiring between motor and switch enclosed in conduit.

CANEDY-OTTO MANUFACTURING CO., CHICAGO, HEIGHTS, ILL.—Continued

	Number of spindles				
	1	2	3	4	6
Drill complete, less motor and switch only	$278	$552	$818	$1,094	$1,641
110/220v—50cy or 60cy—single phase	303	602	893	1,194	1,791
208v—60cy—single phase	308	612	908	1,214	1,821
220v—60cy or 50cy—two or three phase	315	626	929	1,242	1,863
208v—60cy—two or three phase or 440v—60cy—two or three phase	320	636	944	1,262	1,893
115v direct current	328	652	968	1,294	1,941
230v direct current	328	652	968	1,294	1,941

16" NO. 10000 FV BOX TYPE COLUMN SLIDING HEAD FLOOR DRILL SINGLE AND MULTIPLE SPINDLES

Capacity 0" to 5/16" in steel. Spindle speeds 1,800, 2,700, 4,000, 6,200, 9,600, 10,800 r. p. m. Drive—Vertical motor with endless Vulco Vee belt. Spindle—Full ball bearing design. 0" to 5/16" Jacobs chuck mounted on taper plug spindle is standard. No. 1 Morse taper hole less chuck optional if specified. Telescopic spindle guard regular equipment. Motor—½ hp. ball bearing, 3,450 r. p. m. Switch—NEMA toggle type furnished, with all wiring between motor and switch enclosed in conduit.

	Number of spindles				
	1	2	3	4	6
Drill complete, less motor and switch only	$298	$592	$878	$1,174	$1,761
110/220v—50cy or 60cy—Single phase	323	642	903	1,274	1,911
208v—60cy single phase	328	652	968	1,294	1,941
220v—60cy or 50cy—Two or three phase	335	666	989	1,322	2,013
208v—60cy—Two or three ph or 440v—60cy—Two or three ph	340	676	1,004	1,342	2,043
115v Direct Current	348	692	1,028	1,374	2,091
230v Direct Current	348	692	1,028	1,374	2,091

Drill head only, less base, motor, switch and lower column, $190.

16" NO. 16 ROYAL SENSITIVE MOTOR-DRIVEN FLOOR DRILL HIGH SPEED MODEL, FULL BALL BEARING EQUIPPED

Capacity—0" to ½". All motors ball bearing. Five spindle speeds—460, 917, 1,700, 2,835, 5,200 r. p. m. Spindle—Ball bearing design having 0" to ½" Jacobs chuck mounted on taper plug end, as standard equipment. No. 1 or No. 2 Morse taper hole in spindle, less chuck, optional if specified.

110v—50cy or 60cy single phase, ⅓ hp. split phase motor, built-in switch	$61.50
110/220v—50cy or 60cy single phase ½ hp. capacitor type motor, built-in switch	67.75
220v—50cy or 60cy three phase, ½ hp. motor, including separate switch	67.75
440v—60cy—three phase ½ hp. motor, including separate switch	70.75
110v—50cy—single phase or 220v—60cy single phase, ½ hp. split phase motor, built-in switch	$67.75
110/220v—50cy or 60cy single phase, ½ hp. capacitor-type motor, built-in switch	71.25
220v—50cy or 60cy three phase, ½ hp. motor, including separate switch	73.50
440v—60cy three phase ½ hp. motor, including separate switch	76.75
115v Direct Current ½ hp. motor, built-in switch	84.25
230v Direct Current ½ hp. motor, built-in switch	85.75
115v Direct Current ½ hp. motor, built in switch	93.75
230v Direct Current ½ hp. motor, built in switch	96.25
Drill complete, less motor only	51.00
Complete drilling head only, less motor only	36.00
Complete drilling head only, with ⅓ hp. 110v—60cy single, split phase motor	46.75
Ground tubular column, 3" diameter, 61' length	6.75
Column adapter, 3" bore	3.00

16" NO. 16 ROYAL SENSITIVE MOTOR-DRIVEN FLOOR DRILL, SLOW SPEED MODEL

Identical in design and specifications to high-speed model except for larger spindle cone pulley with five spindle speeds of 385, 732, 1,240, 1,950, 3,110 r. p. m., add to any size motor or voltage as given for high-speed floor drill $3.00

16" NO. 16 ROYAL SENSITIVE PRODUCTION BOX COLUMN TYPE FLOOR DRILLS, HIGH SPEED MODELS, SINGLE AND MULTIPLE SPINDLES

[Full ball bearing equipped. Ball bearing motors] Five spindle speeds—460, 917, 1,700, 2,835, 5,200 r. p. m. Spindle—Ball bearing design having 0" to ½"), Jacobs chuck mounted on taper plug end as standard equipment No. 1 or No. 2 Morse taper hole in spindle less chuck, optional if specified.

CANEDY-OTTO MANUFACTURING CO., CHICAGO, HEIGHTS, ILL.—Continued

	Number of spindles				
	1	2	3	4	6
Complete drill, less motor and switch	$169	$326	$389	$552	$698
All motors below are ⅓ hp. specify cycle					
110v—50 cy or 60cy—single, split phase, built-in switches	180	346	419	592	738
110/220v—50 cy or 60cy—single phase, capacitor type, built-in switches	187	360	440	600	780
220v—50cy or 60cy—three phase, including separate switches	188	362	443	604	786
440v—50cy or 60cy—three phase, including separate switches	192	370	457	620	810
115v D. C., built-in switches	194	374	463	628	822
230v D. C., built-in switches	196	378	469	636	834
All motors below are ½ hp, specify cycle					
110v—50cy or 60cy—single, split phase, built-in switches	187	360	440	600	780
110/220v—50cy or 60cy—single phase, capacitor type, built-in switches	191	368	454	616	804
220v—50cy or 60cy—three phase, including separate switches	193	372	460	624	816
440v—50cy or 60cy—three phase, including separate switches	197	380	472	640	840
115v D. C., built-in switches	213	412	520	704	936
230v D. C., built-in switches	215	416	526	712	948

Complete drilling head, including column and adapter, less motor and switch only, $41.

16" NO. 16 ROYAL SENSITIVE SINGLE AND MULTIPLE PRODUCTION TYPE FLOOR DRILLS, SLOW SPEED MODELS

Identical in design and specifications to high speed models, except for larger spindle cone pulley with five spindle speeds of 385, 732, 1,240, 1,950, 3,110 r. p. m.

Add to any size motor or voltage given above, per single spindle $3

Extra list identical to No. 16 Royal single spindle drill.

18" NO. 18 ROYAL SENSITIVE MOTOR DRIVEN FLOOR DRILL

Capacity—¾" to 1" in cast iron, depending on HP rating of motor. Full ball bearing design having six spindle speeds: 3,205, 2,200, 1,515, 1,010, 715, 345 with the use of an 1,800 RPM motor; 2,185, 1,470, 1,020, 700, 450, 240 RPM with 1,200 RPM motor; and 1,600, 1,100, 755, 505, 355, 175 RPM with the use of a 900 RPM motor. Standard spindle bore—No. 2 Morse taper. Drive—vertical motor with Vee belt. Belt—endless sturdy Vee type Vulco belt. ½ HP motor standard equipment, switches furnished. Standard Equipment—square angling 14" x 14" table, raise and lower mechanism in table.

Complete unit less motor and control only	$118.00
½ hp., 110/220v—60cy—single phase, 1,725 r. p. m.	152.00
½ hp., 110/220v—60cy—single phase, 1,200 r. p. m.	170.00
½ hp., 110/220v—60cy—single phase, 900 r. p. m.	182.00
½ hp., 220v—50cy or 60cy—three phase, 1,725 r. p. m	165.00
½ hp., 220v—50cy or 60cy—three phase, 1,200 r. p. m	170.00
½ hp., 220v—50cy or 60cy—three phase, 900 r. p. m	182.00
½ hp., 110/220v—50cy—single phase, 1,425 r. p. m.	153.50
½ hp., 110/220v—25cy—single phase, 1,425 r. p. m.	167.00
½ hp., 110/220v—25cy—single phase, 715 r. p. m.	178.00
½ hp., 220v—60cy—three phase, 1,725 r. p. m.	153.00
½ hp., 220v—25cy—three phase, 1,425 r. p. m.	178.00
½ hp., 115 volt D. C., 1,725 r. p. m.	163.50
½ hp., 115 volt D. C., 1,200 r. p. m.	166.50
¾ hp., 110/220v—60cy—single phase, 1,800 r. p. m.	162.80
¾ hp., 220v—50cy or 60cy—three phase, 1,800 r. p. m	162.80
¾ hp., 110/220v—50cy—single phase, 1,425 r. p. m.	164.50
¾ hp., 110/220v—25cy—single phase, 1,525 r. p. m.	182.50
¾ hp., 110v, 208v, 220v, 440v, or 550v—50cy or 60cy—2 or 3 phase 1,200 r. p. m	176.00
¾ hp., 110v, 208v, 220v, 440v, or 550v—50cy or 60cy—2 or 3 phase, 900 r. p. m	191.50
¾ hp., 110/220v—50cy or 60cy—single phase, 1,200 r. p. m	190.00
¾ hp., 110/220v—50cy or 60cy—single phase, 900 r. p. m	242.00
¾ hp., 115 volt D. C. or 230 volt D. C., 1,725 r. p. m	173.00
¾ hp., 115 volt D. C. or 230 volt D. C., 1,200 r. p. m	237.00
¾ hp., 115 volt D. C. or 230 volt D. C., 900 r. p. m.	258.00
¾ hp., 110v, 220v, 440v, or 550v—25cy—2 or 3 phase, 750 r. p. m	206.00
1 hp, 110v, 208v, 220v, 440v, or 550v—60cy or 50cy—2 or 3 phase, 1,725 r. p. m	170.00
1 hp., 110v, 208v, 220v, 440v, or 550v—60cy or 50cy—2 or 3 phase, 1,200 r. p. m	179.50
1 hp., 110v, 208v, 220v, 440v, or 550v—60cy or 50cy—2 or 3 phase, 900 r. p. m	201.00
1 hp., 110/220v—50cy or 60cy—single phase, 1,800 r. p. m	173.50
1 hp., 110/220v—50cy or 60cy—single phase, 1,200 r. p. m	209.00

CANEDY-OTTO MANUFACTURING CO., CHICAGO HEIGHTS, ILL.—Continued

18" NO 18 SENSITIVE MOTOR DRIVEN FLOOR DRILL—con.

1 hp., 110/220v—50cy or 60cy—single phase, 900 r. p. m.	$264.50
1 hp., 110v, 220v, 440v, or 550v—25cy—2 or 3 phase, 1,500 r. p. m.	207.50
1 hp., 110v, 220v, 440v, or 550v—25cy—2 or 3 phase, 750 r. p. m.	207.50
1 hp., 115 volt or 230 volt D. C., 1,725 r. p. m.	233.00
1 hp., 115 volt or 230 volt D. C., 1,200 r. p. m.	272.00
1 hp., 115 volt or 230 volt D. C., 850 r. p. m.	292.00

EXTRAS

Raise and lower mechanism for head	8.00
No. 3 Morse taper in spindle	10.00
Oil Groove rectangular production table, figure 4	20.00
Oil Groove Tee slotted base, figure 2	15.00
Foot lever feed attachment, figure 7	18.00
Fully enclosed belt guard	12.00
Column, 3¼" O. D. by 60" long	7.00
Foot operated electrical reversing switch with BX cable, wired ready to operate	23.00

Radial Drills—Direct Motor Spindle Type

FULL ANTI-FRICTION BEARING DESIGN

Eight spindle speeds by means of a 4-speed motor and back gear train. Motor—2 HP constant horsepower-type in either 1,800 or 1,200 r. p. m. having instantaneous forward and reverse rotation. Power raise and lower movement of arm on column. Complete electrical control is furnished as standard equipment. All wiring enclosed in conduit per NEMA code. Capacity—0" to 1¾" in mild steel.

Three-foot arm, 9" column, 220v—60cy—three-phase or 440v—60cy—three-phase, 1,800 r. p. m. motor	$2,300
Three-foot arm, 9" column, 220v—60cy—three-phase or 440v—60cy—three-phase, 1,200 r. p. m. motor	2,490
Three-foot arm, 11" column, 220v—60cy—three-phase or 440v—60cy—three-phase, 1,800 r. p. m. motor	2,500
Three foot arm, 11" column, 220v—60cy—three-phase or 440v—60cy—three-phase, 1,200 r. p. m. motor	2,690
Four foot arm, 11" column, 220v—60cy—three-phase or 440v—60cy—three-phase, 1,800 r. p. m. motor	2,750
Four foot arm, 11" column, 220v—60cy—three-phase or 440v—60cy—three-phase, 1,200 r. p. m. motor	2,940
Five foot arm, 11" column, 220v—60cy—three-phase or 440v—60cy—three-phase, 1,800 r. p. m. motor	3,300
Five foot arm, 11" column, 220v—60cy—three-phase or 440v—60cy—three-phase, 1,200 r. p. m. motor	3,490

We are in a position to furnish these units in 25 cycle also, excepting the unit will have six speeds instead of eight (60, 115, 250, 375, 750, 1,500 r. p. m.). This 25-cycle application can be furnished in 1,425 r. p. m. only. Add to above price with 1,800 r. p. m. motors, $325.

EXTRAS

Box-type table 16" high by 22" by 20"	$115
Motor driven coolant pump with piping and valves	100
Universal Box Table 22" x 20" x 24"	475

THE CARLTON MACHINE TOOL CO., CINCINNATI, OHIO

RADIAL DRILLS

Length of arm (feet)	Diameter of col.	Speeds in head	Cost D. C. motor	Cost A. C. 220-3-60
	Inches			
3	11	12	$5,530	$5,280
4	11	12	5,860	5,610
5	11	12	6,190	5,940
6	11	12	6,520	6,270
4	13	48	7,450	7,700
5	13	48	7,810	8,060
4	15	48	8,550	8,800
5	15	48	8,935	9,185
6	15	48	9,320	9,570
5	17	48	10,285	10,535
6	17	48	10,695	10,945
7	17	48	11,105	11,355
6	19	36	12,180	12,430
7	19	36	12,620	12,870
8	19	36	13,060	13,310
7	22	36	20,625	21,035
8	22	36	21,215	21,625
9	22	36	21,805	22,215
10	22	36	22,395	22,805
8	26	36	23,260	23,670
9	26	36	23,850	24,260
10	26	36	24,440	24,850
11	26	36	25,030	25,440
12	26	36	25,600	26,030

THE CARROLL-JAMIESON MACHINE TOOL CO., BATAVIA, OHIO

List shows only geared head lathes—they discontinued manufacture of cone head lathes more than a year ago.

THE CARROLL-JAMIESON MACHINE TOOL CO., BATAVIA, OHIO—Continued

C. & J. 12-SPEED GEARED HEAD QUICK CHANGE GEAR LATHES

Arranged for motor drive in cabinet leg, triple Vee belt drive from motor to drive shaft. Timken roller bearings on main spindle. Price does not include motor.

Complete with large and small face plates, steady and follow rests, chuck plate, centers, wrenches and thread indicator. Crated for shipment f. o. b., Batavia, Ohio.

Size (inches)	Actual swing	Length bed					
		5 feet	6 feet	8 feet	10 feet	12 feet	14 feet
	Inches						
15	15¼	$1,090	$1,115	$1,170	$1,225	$1,285	$1,350
16	16¼	1,170	1,195	1,250	1,305	1,365	1,430

NOTE.—C. & J. 16" lathe can be furnished raised in sand to swing 18¼".

Prices of attachments and extras:	*15" and 16" lathes*
Arbor for milling cutters (with collars)	$15.00
Arbor for Woodruff type cutters	8.00
Apron control for clutch pulley (geared head lathes only)	70.00
Boxing for export lathes 8-foot bed and under	30.00
Boxing for export lathes over 8-foot bed	40.00
Centers round, for head or tailstock, each	3.50
Centers, crotch or spur	4.00
Centers, pipe ½ inch to 2½ inches capacity	12.00
Centers, pipe 1½ inches to 3½ inches capacity	15.00
Centers, pipe 2 inches to 8 inches capacity	23.00
Centers, pipe 2½ inches to 12 inches capacity	25.00
Chuck plate, fitted to chuck and lathe spindle	8.00
Chuck plate, semifinished, fitted to spindle	6.00
Collets up to ⅞-inch capacity, round, each	6.50
Draw-in attachment (includes one round collet)	45.00
Drill pad	8.00
Fitting drill chuck with taper shank	3.50
Metric gear box and screw, instead of regular	35.00
Micrometer carriage stop	30.00
Milling and keyway cutting attachment (without arbor)	70.00
Oil pan, built into lathe, price for 6-foot bed	40.00
Oil pan, extra per foot over 6-foot lathe bed	4.00
Oil pump and piping	60.00
Plain rest	30.00
Raising 16" lathe in sand to swing 18¼"	165.00
Raising blocks, 2-inch or 4-inch	70.00
Steady rest extra size capacity 3 inches to 7½ inches	35.00
Single pulley drive for geared head lathes instead of motor drive—deduct	45.00
Taper attachment, standard type	110.00
Taper attachment, telescopic screw type	145.00
Turret: Style "C"	150.00
Thread cutting stop, adjustable	5.00

CEDAR RAPIDS ENGINEERING COMPANY, CEDAR RAPIDS, IOWA

Standard valve facing machine (Model "C")	$155.00
Wet grinding attachment	28.50
Surface grinding attachment	27.50
Cabinet and wet grinding attachment	72.50
Super-speed valve facing machine	197.50
Wet grinding attachment	29.00
Surface grinding attachment	27.50
Cabinet and wet grinding attachment	72.50
Seat grinder with ball bearing grinder unit (without arbors, wheels or eccentrimeter)	117.00
Seat grinder with plain bearing grinder unit (without arbors, wheels or eccentrimeter)	79.50
(Wheels and arbors for both seat grinders price according to size eccentrimeter)	16.00
Model "F" cylinder boring machine	375.00
Model "FS" cylinder boring machine	322.50
Vortex	150.00
Model "H" piston turning and grinding machine with cam mechanism and power worktable feed, with Cam "A" and six piston cones	950.00
Extra cams (B, C, D, and E) each	9.00
Extra piston cones priced according to size	
Valve attachment	60.00

CEDAR RAPIDS ENGINEERING COMPANY, CEDAR RAPIDS, IOWA—Continued

Main bearing line boring machine with standard equipment and 50" bar longer length boring bars, $10 per added foot of length $310.00

Babbitting fixtures for Ford A, B, and V-8 ..... 68.50

Prices quoted are f. o. b. Cedar Rapids, Iowa, in domestic crating and are subject to change without notice. Machine prices are based upon equipping them with standard alternating current, 110-volt, single-phase, 50- or 60-cycle motors or 220-volt, single-phase, 50- or 60-cycle motors.

CHAMBERSBURG ENGINEERING CO., CHAMBERSBURG, PA.

NOTE: Prices corrected upon advice of manufacturer, differ from those shown in first edition of "New Machine Tools."

BELT-DRIVEN MODEL "J-2" BOARD DROP HAMMERS, CECOLLOY

Falling weight (pounds)	Shipping weight	Price, inserted guides	Price, integral guides
	Pounds		
1,000	36,300	$5,677	$5,491
1,500	50,000	7,118	6,909
2,000	63,500	8,486	8,250
2,500	80,600	9,782	9,527
3,000	99,500	11,991	11,714
4,000	131,500	15,364	15,059
5,000	175,100	19,450	19,118

20 to 1 cecolloy anvils, cecolloy frames, forged steel rams.

For additional weight: anvil, 0.057¢ per lb.

For additional weight: ram, 0.159¢ per lb.

Prices include wood pulleys.

MOTOR-DRIVEN MODEL "J-2" BOARD DROP HAMMERS CECOLLOY

1,000	38,000	$6,395	$6,209
1,500	51,700	7,927	7,723
2,000	66,300	9,582	9,345
2,500	83,500	10,995	16,736
3,000	103,400	13,609	13,332
4,000	136,800	17,150	16,850
5,000	182,300	21,586	21,277

20 to 1 cecolloy anvils, cecolloy frames, forged steel rams.

Prices include 220/440-volt, 3-phase, 60-cycle A. C. motor and starter.

BELT-DRIVEN MODEL "J-2" BOARD DROP HAMMERS

1,000	35,600	$6,886	$6,700
1,500	48,200	8,636	8,414
2,000	61,000	10,314	10,068
2,500	76,500	11,891	11,627
3,000	98,000	15,091	14,800
4,000	129,200	19,141	18,832
5,000	173,000	24,127	23,800

20 to 1 steel anvils, steel frames, forged steel rams.

For additional weight: anvils, 0.088¢ per lb.; rams, 0.159¢ per lb.

Prices include wood pulleys.

MOTOR-DRIVEN MODEL "J-2" BOARD DROP HAMMERS

1,000	37,300	$7,618	$7,432
1,500	50,000	9,459	9,245
2,000	63,700	11,441	11,195
2,500	79,300	13,132	12,864
3,000	101,800	16,741	16,455
4,000	134,500	20,900	20,600
5,000	180,000	26,327	26,000

20 to 1 steel anvils, steel frames, forged steel rams.

Prices include 220/440-volt, 3-phase, 60-cycle A. C. motor and starter.

TYPE "B" HYDRO-PNEUMATIC PRESSES

Size, tons	Stroke	Between column	Horsepower required	Bed end width	Bed length	Weight	Price	Weight with pedestals	Price with pedestals	Weight with "U" base	Price with "U" base
	Inches	*Inches*		*Inches*	*Inches*	*Pounds*		*Pounds*		*Pounds*	
50	18	27	5	22	60	7,500	$1,777	7,900	$1,827	7,200	$1,777
	18	36	5	30	60	7,750	1,805	8,350	1,868	7,450	1,805
75	18	27	5	22	60	8,300	1,914	8,700	1,977	7,700	1,914
	18	30	5	24	60	8,500	1,959	9,100	2,005	7,900	1,959
	18	36	5	30	60	9,750	2,065	10,250	2,127	8,850	2,064
100	24	30	7½	24	60	10,000	2,091	10,500	2,145	9,100	
	24	36	7½	30	60	11,000	2,186	11,600	2,236	10,100	2,186
125	24	30	7½	24	60	12,000	2,259	12,500	2,318	10,800	2,259
	24	36	7½	30	60	13,200	2,405	13,800	2,468	12,000	2,405
150	24	36	10	30	72	14,500	2,586	15,100	2,645	13,100	2,586
250	24	36	10	36	120	28,700	3,832				

CHAMBERSBURG ENGINEERING CO., CHAMBERSBURG, PA.—Continued

TYPE "B" HYDRO-PNEUMATIC PRESSES—continued

Size, tons	Stroke	Between columns	Horsepower required	Base to table	Surface of base	Surface of table	Weight	Price	Extra for stripping cylinder
	Inches	*Inches*		*Inches*	*Inches*	*Inches*	*Pounds*		
300	24	42	15	42	42 x 72	42 x 60	32, 500	$5, 727	$300

50- to 250-ton size inclusive, two columns. 300-ton size, four columns, fig. No. 811. Pneumatic pullbacks. Return of all presses approximately 36 inches P. M. Shop air or water pressure used for rapid travel of ram.

VERTICAL WHEEL PRESSES

Size, tons	Inches between bars	Weight	Price	Size, tons	Inches between bars	Weight	Price
		Pounds				*Pounds*	
100	42	9, 200	$2, 814	400	[1] 66		
150	[1] 42			400	90	25, 000	$4, 832
150	[1] 65			400	[1] 96		
200	42	10, 400	2, 959	500	54	25, 000	4, 832
200	48	10, 800	3, 018	500	60	27, 600	5, 077
200	66	12, 700	3, 200	600	66	33, 200	5, 432
300	42	14, 500	3, 582	600	84	37, 500	5, 809
300	54	15, 800	3, 782	600	100	42, 000	6, 191
300	66	17, 600	4, 000	750	[1] 84		
300	78	19, 300	4, 168	750	[1] 108		
400	[1] 42			800	[1] 84		
400	54	18, 500	4, 209	800	[1] 108		

[1] Price upon request.

STEEL SIDE TRIMMING PRESSES

	Size hammer	Size press number	Weight	Price	Motor horsepower required	Reduce for sprue
	Pounds		*Pounds*			
Geared	1, 200	60 GT	8, 700	$2, 732	7½	800#—159
Do	2, 500	80 GT	10, 500	3, 236	7½	1, 000#—186
Do	4, 000	100 GT	14, 500	3, 868	10	1, 200#—209
Do	6, 000	[1] 150 GT	25, 100	4, 650	15	1, 450#—250
Do	10, 000	200 GT	41, 500	8, 109	15	1, 700#—295
Double geared	16, 000	300 DGT	62, 000	11, 391	20	2, 000#—355
Do	22, 000	500 DGT				
Flywheel	1, 200	60 FT	7, 600	2, 450	7½	No sprue.
Do	2, 500	80 FT	8, 400	2, 891	10	
Do	4, 000	100 FT	12, 000	3, 509	15	
Do	6, 000	150 FT	22, 500	4, 391	20	

[1] 150-ton size, extra for air clutch $1,700; 4,400 pounds.

The sizes recommended with respect to hammer sizes are for general use only. For specific recommendations blueprints should be sent to Chambersburg. Prices do not include motors. Flywheel presses (FT) to be driven from line shaft or individual motor mounted independent from press. Air clutch is standard on all geared presses (GT and DGT) 200 size and up.

EXTRAS

Size press number	For first inch increase L to R	For each additional inch increase L to R
60-ton	95	14
80-ton	105	18
100-ton	123	23
150-ton	136	27
200-ton	145	32
300-ton		
500-ton		

CECOSTAMP

Ram inches between guides	Ram inches front to back	Stroke	Approximate shipping weight	Price
		Inches	*Pounds*	
15	12	30	8, 500	$2, 291
30	24	36	13, 850	3, 341
48	36	42	43, 850	5, 159
48	48	42	53, 300	6, 109
66	36	48	52, 800	6, 145
66	48	48	93, 200	9, 164
66	60	48	101, 800	9, 691
96	48	48	104, 400	9, 759
96	60	48	130, 000	11, 550
96	96	48	193, 200	15, 132
120	48	48	135, 500	12, 027
120	60	48	168, 000	14, 509
120	96	48	225, 000	18, 136
120	120	48	283, 000	20, 045

HIGH-SPEED DUPLEX CAR WHEEL PRESSES

Size, tons	Inches	Weight	Price	Extra pneumatic pullback
		Pounds		
200–400	48	43, 500	$10, 541	423
250–500	48	52, 500	11, 777	423
300–600	48	60, 000	13, 068	423

SELF-CONTAINED SINGLE FRAME TOOL DRESSING HAMMERS

Falling weight, pounds	Shipping weight	Price
	Pounds	
100	2, 650	$1, 000
200	4, 600	1, 218
250	4, 650	1, 250
400	8, 300	1, 555

SINGLE FRAME FORGING HAMMERS

Falling weight, pounds	15:1 semisteel anvils semisteel frames		Deduction for 7½:1 semisteel anvil	
	Shipping weight	Price	Weight	Price
	Pounds		*Pounds*	
400	10, 500	$1, 714	3, 000	$109
750	19, 425	2, 159	5, 625	205
1,100	29, 950	3, 232	7, 500	277
1,500	39, 250	3, 877	11, 250	409
2,000	51, 000	4, 641	15, 000	550
2,500	61, 750	5, 445	18, 750	686
3,300	82, 750	7, 182	21, 750	800
4,000	104, 000	8, 536	30, 000	1, 100

CHAMBERSBURG ENGINEERING CO., CHAMBERSBURG, PA.—Continued

DOUBLE FRAME GUIDED RAM STEAM HAMMERS

Falling weight, pounds	Shipping weight	Price	Deduct for 7½:1 anvil	
			Weight	Price
	Pounds		*Pounds*	
1, 500	38, 450	$4, 291	11, 250	$409
2,000	49, 200	5, 005	15, 000	550
2,500	61, 250	5, 836	18, 750	691
3,000	73, 200	6, 614	22, 500	827
3,500	81, 200	7, 182	26, 250	959
4,000	98, 400	8, 432	30, 000	1, 100
5,000	123, 000	9, 885	37, 500	1, 377
6,000	147, 600	11, 391	45, 000	1, 655
8,000	177, 400	13, 205	60, 000	2, 200
10,000	248, 000	18, 086	75, 000	2, 755
12,000	298, 800	21, 836	90, 000	3, 309
14,000	348, 600	25, 259	105, 000	3, 859
16,000	398, 500	28, 668	120, 000	4, 409

CHAMBERSBURG PNEUMATIC FORGING HAMMERS—MOTOR DRIVEN

Falling weight, pounds	Net shipping weight	Price
	Pounds	
200	8, 150	$2, 718
300	11, 900	3, 341
500	20, 500	4, 509
750	29, 800	5, 241
1,000	38, 600	6, 286
1,500	64, 100	9, 086
2,000	74, 900	10, 432
2,500	95, 000	13, 127
3,000	106, 500	14, 491
200 [1]	7, 800	2, 627
300 [1]	9, 500	3, 200

[1] Frame and anvil cast integral, one piece.

MODEL "E" STEAM DROP HAMMERS

Falling weight, pounds	Shipping weight	Price	Deduct "B" type piston valve
	Pounds		
1,000	36, 500	$7, 777	377
1,500	49, 500	9, 418	400
2,000	64, 500	11, 236	436
2,500	79, 000	12, 827	445
3,000	93, 000	14, 700	477
4,000	120, 000	18, 332	509
5,000	148, 000	21, 818	545
6,000	172, 000	24, 641	582
8,000	227, 500	30, 414	645
10,000	334, 000	39, 386	700
12,000	398, 600	44, 559	727
14,000	450, 600	48, 341	805
16,000	525, 200	59, 709	859

PRODUCTION MOUNTERS FOR CAR WHEELS

Size, tons	Inches between bars	Weight	Price
		Pounds	
200	[1] 42		
300	[1] 42		
330	54	17, 100	$4, 064
400	[1] 42		
400	54	19, 300	4, 500
500	54	26, 300	5, 200

[1] Price upon request.

CONVERTIBLE WHEEL PRESSES

Size, tons	Inches between bars	Weight	Price
		Pounds	
200	[1] 66		
200	[1] 108		
300	[1] 66		
300	[1] 72		$4, 800
400	66	25, 600	5, 005
400	[1] 90		
400	96	32, 900	6, 118
500	84	35, 800	6, 359
600	66	35, 900	6, 382
600	84	39, 000	6, 745
600	106	45, 300	7, 082
600	120	49, 700	7, 509
750	[1] 84		
750	[1] 108		
800	[1] 84		
800	108	62, 000	864

[1] Price upon request.

CHAMBERSBURG ENGINEERING CO., CHAMBERSBURG, PA.—Continued

INCLINE WHEEL PRESSES

Size, tons	Inches between bars	Weight	Price
		Pounds	
200	[1] 66		
200	108	21,000	$5,200
300	[1] 66		
300	72	19,400	4,064
400	66	24,800	4,700
400	[1] 90		6,380
400	96	32,100	5,800
500	84	34,900	6,032
600	66	34,900	6,032
600 [2]	84	38,000	6,377
600 [2]	100	44,300	6,714
600	120	48,700	7,130
750 [2]	[1] 84		
800	[1] 108		
800 [2]	[1] 84		
800 [2]	108	61,000	8,277

THREE-CYLINDER LOCOMOTIVE TYPE

600	100	53,000	$9,505
800	108	76,600	10,482

[1] Price upon request.
[2] Arranged for booster gear.

MODEL "F" BOARD DROP HAMMERS

Falling weight, pounds	Shipping weight	Price with bronze bearing head	Price with roller bearing head
	Pounds		
100	3,600	$1,186	
200	5,200	1,364	
400	11,500	1,786	
600	18,100	2,609	
800	21,300	2,695	
1,000	28,000	3,236	$3,568
1,200	32,600	3,641	3,977
1,500	39,300	4,359	4,727
2,000	51,000	5,200	5,627
2,500	60,000	5,877	6,405
3,000	78,000	7,436	8,509
4,000	105,000	9,836	11,105
5,000	135,000	12,150	13,936

CHAMPION BLOWER & FORGE CO., LANCASTER, PA.

ENGINE LATHES

Size No.	Length	Prices: Electric: Bench	Prices: Electric: Floor	Prices: Engine
9 inches	3′	$240	$250	
	4′	250	260	
	4′		400	$300
10 inches	5′		410	310
	5′		530	400
	6′		550	420
13 inches	8′		590	460
	10′		630	500
	6′		680	550
16 inches	8′		710	580
	10′		740	610

CHAMPION BLOWER & FORGE CO., LANCASTER, PA.—Continued

HACK SAWS

Model No.	Prices: Power	Prices: Electric driven	Prices: Electric driven, less motor
0	$13.50		
1	45.00	$80.00	$56.00
2	80.00	144.00	96.00

HAMMERS

Model No.	Prices: Power	Prices: Electric driven
0	$155	$240
1	230	350
2	600	750

No. 4 Arbor press	$200

UPRIGHT DRILLS

	Price
No. 203½	$124.00
No. 203½ P	130.00
No. 203½ C. P	154.00
No. 203½ E electric driven upright drill	250.00
No. 397	110.00
No. 397 P	116.00
No. 397 C. P	140.00

POWER DRILL

14″	120.00
24″ Back geared	360.00
24″ Positive gear feed back geared	400.00
21″ Back geared	240.00
21″ Positive gear feed back geared	280.00
20″ Back geared	202.00
20″ Less back gears	196.00
20″ With wheel and lever feed	186.00
20″ With lever feed	176.00
Extra for electric drive, less motor	46.00
Mounting and wiring customer's motor and switch	12.50
Extra for flat belts	8.00

CHAMPION BLOWER & FORGE CO., LANCASTER, PA.—Continued

ELECTRIC DRIVEN DRILL

Size	Prices: 110 or 220 volt, 60 cycle, single phase	Prices: 110 or 220 volt, 60 cycle, 2 or 3 phase	Prices: 115 or 230 volt, D. C.	Extra for positive gear feed
20″	$350	$310	$380	$40
21″	383	342	418	
24″	508	472	538	

ELECTRIC DRIVEN FLOOR DRIVEN DRILL

Size	Prices: 60 cycle, s. p. or 3-phase, A. C.	Prices: 110/220 volt, 25-cycle, A. C.	Prices: 115/230 volt, D. C.
15 A	$169	$190	$190
15 B	200	215	215
15 C	260	275	275

	Price
14″ Electric driven drill	$220

NO. 2000 HIGH SPEED DRILL

1 hp. motor	200
½ hp. motor	180
Less motor	134

FLOOR DRILLS

Model No.	Prices: 110 volt, 60 cycle single phase motor	Prices: Less motor
1500 A. C	$58.50	$48
1600 A. C	61.50	51

CHATTANOOGA MACHINERY CO., CHATTANOOGA, TENN.

KEYSEATERS

Machine	Maximum capacity width by length	Belt driven with countershaft: Weight	Belt driven with countershaft: Price	Motor driven, not including motor, switch, or wiring: Weight	Motor driven, not including motor, switch, or wiring: Price
		Pounds		*Pounds*	
No. 0, Catlin Keyseater	7/16 x 6	400	$368	590	$450
No. 1, Catlin Keyseater	1½ x 12	1,000	618	1,400	720
No. 2, Catlin Keyseater	2 x 19	1,400	740	2,000	930
No. 3, Catlin Keyseater	2 x 23	2,000	930	2,700	1,120
No. 3½, Catlin Keyseater	2½ x 23	2,200	990	2,900	1,180
No. 4, Catlin Keyseater	4 x 28	4,800	1,670	5,500	1,910
No. 5, Catlin Keyseater	4 x 37	5,100	1,850	5,900	2,090
No. 6, Catlin Keyseater	5 x 40	6,600	2,050	7,425	2,290
No. 7, Catlin Keyseater	2 x 38	2,700	1,150	3,300	1,340
No. 8, Catlin Keyseater	1½ x 13	800	538	875	538
No. 15, Catlin Keyseater	2 x 90	4,500	3,050		3,240
No. 20, Catlin Keyseater					
60″ stroke	5 x 60			9,000	3,800
90″ stroke	5 x 90			9,800	4,750

CHISHOLM-RYDER COMPANY, INCORPORATED, NIAGARA FALLS, N. Y.

8" Bar horizontal boring and milling machine... $15,000
(This price is for the base machine only.)

THE CINCINNATI BICKFORD TOOL CO., OAKLEY, CINCINNATI, OHIO

	Net weight (approximate)	Price (less motor)
UPRIGHT DRILLS		
	Lb.	
21" Rd. col. Super Service Upright Drill	1,900	$1,650
21" Box col. Super Service Upright Drill	2,100	1,705
24" Rd. col. Super Service Upright Drill	2,350	1,980
24" Box col. Super Service Upright Drill	2,700	2,035
28" Rd. col. Super Service Upright Drill	2,650	2,530
28" Box col. Super Service Upright Drill	3,100	2,585
RADIAL DRILLS		
	Lb.	
3'9" dia. col. High Speed Radial Drill	4,100	[1] $3,125
4'9" dia. col. High Speed Radial Drill	4,500	[1] 3,335
3'11" dia. col. Super Service Radial Drill	9,000	[2] 6,050
4'11" dia. col. Super Service Radial Drill	9,500	[2] 6,380
4'13" dia. col. Super Service Radial Drill	10,600	7,700
5'13" dia. col. Super Service Radial Drill	11,300	8,060
4'15" dia. col. Super Service Radial Drill	12,500	8,800
5'15" dia. col. Super Service Radial Drill	13,400	9,185
6'15" dia. col. Super Service Radial Drill	14,500	9,570
5'17" dia. col. Super Service Radial Drill	17,000	10,535
6'17" dia. col. Super Service Radial Drill	18,000	10,945
7'17" dia. col. Super Service Radial Drill	19,200	11,355
6'19" dia. col. Super Service Radial Drill	22,000	12,430
7'19" dia. col. Super Service Radial Drill	23,100	12,870
8'19" dia. col. Super Service Radial Drill	24,400	13,310

[1] Includes driving motor and starter (all others not).
[2] Does not include power traverse or electric column clamping. On all others 13" to 19" column sizes this is standard equipment.

THE CINCINNATI ELECTRICAL TOOL CO., CINCINNATI, OHIO

HEAVY DUTY PEDESTAL GRINDERS

Type HTA—12"	$300 C
Type HCA—14"	345 C
Type HEA—14"	380 C
Type FFA—18"	490 C

For other than 50 or 60 cycles, increase price 10%.

Type HT—12"	405 C
Type HC—14"	475 C
Type HE—14"	590 C
Type FF—18"	726 C

For 12 and 14 inch bench grinders, deduct $10 from above prices.
For boiler plate guards, increase prices, the equivalent of 15% of A. C. pedestal grinder prices.

COMBINATION WET AND DRY GRINDERS

Type WTA—2 H. P.	$440 C
Type WGA—3 H. P.	450 C

For other than 50 or 60 cycles, increase price 10%.

Type WT—2 H. P.	$540 C
Type WG—3 H. P.	555 C
Surface grinding attachment	45 C

WIDE TYPE PEDESTAL GRINDERS

Type WAA—8"	$160 A
Type WBA—10"	235 B
Type WSA—12"	330 C
Type WCA—14"	380 C
Type WFA—14"	425 C

For other than 50 or 60 cycles, increase price 10%.

Type WA—8"	$175 A
Type WB—10"	270 B
Type WS—12"	435 C
Type WC—14"	510 C
Type WF—14"	635 C

For ½ hp. bench type, deduct $20; for 1 hp., $30.
For boiler plate guards, increase prices, the equivalent of 15% of A. C. pedestal grinder prices.

COMBINATION PEDESTAL GRINDERS AND BUFFERS

Type KHA—8"	$130 A
Type KRA—10"	210 B
Type KTA—12"	315 C
Type KVA—14"	370 C

For other than 50 or 60 cycles, increase price 10%.

Type KH—8"	$135 A
Type KR—10"	230 B
Type KT—12"	420 C
Type KV—14"	500 C

For ½ hp. bench type, deduct $20; for 1 hp., $30.

THE CINCINNATI ELECTRICAL TOOL CO., CINCINNATI, OHIO—Continued

HEAVY DUTY PEDESTAL GRINDERS

Type CFA—18"	$650 C
Type HGA—20"	795 C
Type JSA—24"	880 C
Type JTA—24"	935 C

For other than 50 or 60 cycles, increase price 10%.

Type CF—18"	900 C
Type HG—20"	975 C
Type JS—24"	1,190 C
Type JT—24"	1,290 C
Wheel Dresser	30 C
10 or 12 inch bore flanges (set 4)	50 C

For boiler plate guards, increase prices, the equivalent of 15% of A. C. pedestal grinder prices.

THREE SPEED SNAGGING GRINDERS

Type BAA—18"	$1,100 C
Type BCA—20"	1,210 C
Type BGA—24"	1,290 C
10 or 12 inch bore flanges (set 4)	50 C

Direct current and odd cycles alternating current, prices on application.

VARIABLE SPEED SNAGGING GRINDERS

Type VCFA—18"	$1,440 D
Type VBKA—24"	1,695 D
Type VBMA—30"	1,725 D

COMBINATION SINGLE END DISC GRINDERS

Type FHAC—½ hp	$255 B
Type FOAC—1 hp	315 B
Type HTAC—2 hp	415 C
Type HCAC—3 hp	460 C
Type HEAC—5 hp	575 C
Type FSAC—7½ hp	715 C

For other than 50 or 60 cycles, increase price 10%.

Type FHC—½ hp	$260 B
Type FOC—1 hp	295 B
Type HTC—2 hp	520 C
Type HCC—3 hp	590 C
Type HEC—5 hp	785 C
Type FSC—7½ hp	985 C

DOUBLE END DISC GRINDERS

Type HTAD—2 hp	$460 C
Type HCAD—3 hp	505 C
Type HEAD—5 hp	610 C
Type FSAD—7½ hp	835 C

For other than 50 or 60 cycles, increase price 10%.

Type HTD—2 hp	$565 C
Type HCD—3 hp	615 C
Type HED—5 hp	860 C
Type FSD—7½ hp	1125 C

PEDESTAL BUFFERS

Type DHA—½ hp	$130 A
Type DRA—1 hp	200 B

For other than 50 or 60 cycles, increase price 10%.

Type DH—½ hp	$145 A

For ½ hp bench type, deduct $20.00; for 1 hp., $30.

Type DTA—2 hp	$300 C
Type DVA—3 hp	345 C
Type DFA—5 hp	380 C
Type DSA—7½ hp	465 C

For other than 50 or 60 cycles, increase price 10%.

Type DT—2 hp	$405 C
Type DV—3 hp	475 C
Type DF—5 hp	590 C
Type DS—7½ hp	675 C

For bench type, deduct $10 from above prices.

Type DKA—2 hp	$275 C
Type DLA—3 hp	315 C
Type DMA—5 hp	330 C

For other than 50 or 60 cycles, increase price 10%.

Type DK-2 hp	$380 C
Type DL—3 hp	445 C
Type DM—5 hp	540 C

For bench type, deduct $10 from above prices.

VEE BELT BUFFERS

Type COA—3 hp Single Motor	$450 C
Type EOA—5 hp Single Motor	470 C
Type GOA—7½ hp Single Motor	530 C
Type HOA—10 hp Single Motor	585 C
Type LOA—15 hp Single Motor	710 C

For bench type, deduct $10 from above prices.

Type DOA—3 hp Double Motor	685 C
Type MOA—5 hp Double Motor	730 C
Type NOA—7½ hp Double Motor	790 C
Type SOA—10 hp Double Motor	900 C

For "A" dimension 17", add $50 to above prices. For other than 50 or 60 cycles and direct current, prices on application.

THE CINCINNATI ELECTRICAL TOOL CO., CINCINNATI, OHIO—Continued

HIGH SPEED CUT-OFF MACHINE

Type JCA—7½ hp	$800 D
Type JC—7½ hp	1025 D
Angle Cutting Vise (if furnished with machine)	50 D

1 H. P. GRINDER, 10" X 1¼" WHEELS

Type GPOA—pedestal grinder	$110 B

2, 3, AND 5 HP PEDESTAL GRINDERS

Type GPTA—2 hp 12" x 2" Wheels	$180 C
Type GPCA—3 hp 14" x 2½" Wheels	205 C
Type GPEA—5 hp 14" x 3" Wheels	260 C

1, 2, 3, AND 5, HP WIDE SPREAD FOUR BEARING BUFFING AND POLISHING LATHES

Type GPAA—1 hp	$125 B
Type GPBA—2 hp	185 C
Type GPFA—3 hp	240 C
Type GPGA—5 hp	295 C

1, 2, 3 AND 5 HP EXTENDED SPINDLE BUFFERS

Type GPDA—1 hp	$105 B
Type GPKA—2 hp	155 C
Type GPLA—3 hp	175 C
Type GPMA—5 hp	200 C

1, 2, 3 AND 5 HP COMBINATION GRINDERS AND BUFFERS

Type GPRA—1 hp	$125 B
Type GPSA—2 hp	185 C
Type GPVA—3 hp	210 C
Type GPWA—5 hp	265 C

CINCINNATI-GILBERT MACHINE TOOL CO., CINCINNATI, OHIO

RADIAL DRILLS—PRICES AND SPECIFICATIONS

Length of arm (feet)	Diameter of column	Number of spindle speeds	Weight (pounds)	Price [1]
	Inches			
3	9	12	5,400	$3,315
4	9	12	5,700	3,525
3	11	12	6,600	4,890
4	11	12	7,100	5,100
5	11	12	8,000	5,335
4	13	32	11,000	7,150
5	13	32	11,800	7,480
4	15	32	13,300	8,170
5	15	32	14,000	8,515
6	15	32	15,000	8,860
5	17	32	17,200	9,760
6	17	32	18,200	10,120
7	17	32	19,200	10,485
6	19	32	21,000	11,540
7	19	32	22,000	11,940
8	19	32	24,000	12,340

BORING MILLS

	Weight	Price
FLOOR TYPE (3½" SPINDLE)	*Lb.*	
36" vertical travel x 36" horizontal travel	14,000	$7,300
Extra each additional foot of vertical travel	500	275
Extra each additional foot of horizontal travel	400	200
Above price does not include bed plate. Bed plates: Less than 60 square feet $35 per square foot. More than 60 square feet $90 per square foot.		
TABLE TYPE (3½" SPINDLE)		
38" x 60" table, 36" vertical travel, 60" face plate to bar support	25,000	13,500
Extra per foot of vertical travel	650	350
Extra per 24" of bed length (face plate to bar support)	1,400	400

[1] Prices corrected upon advice of manufacturer, differ from those shown in first edition of "Prices of New Machine Tools."

THE CINCINNATI LATHE & TOOL CO., OAKLEY, CINCINNATI, OHIO

QUICK CHANGE GEARED HEAD—MOTOR DRIVEN LATHES
GEARED HEAD MOTOR DRIVING ENGINE LATHES

Size	Price of lathe	2 foot extra bed	Taper attachment
14" x 6'	$3,170	$115	$256
16" x 8'	3,526	121	276
18" x 8'	3,918	130	280
20" x 10'	5,031	160	340
24" x 10'	7,081	232	400

CINCINNATI MILLING AND GRINDING MACHINES, INC., CINCINNATI, OHIO

MILLING MACHINES

	Weight in pounds	Price
M-type vertical milling machines (model EA) No. 2M	3,900	$4,760
L-type milling machines (model EL):		
No. 2 plain	2,950	3,805
No. 2 universal	3,300	4,435
MH milling machines (model ED):		
No. 2 plain	4,100	4,465
No. 2 universal	4,400	5,270
Dial types, medium speed milling machines (ER):		
No. 2 plain	6,250	5,565
No. 3 plain	8,380	6,810
No. 4 plain	9,050	7,970
No. 2 universal	6,600	6,470
No. 3 universal	9,000	7,970
No. 4 universal	10,000	9,680
No. 2 vertical	7,050	6,455
No. 3 vertical	9,200	8,140
No. 4 vertical	9,850	9,180
Dial types, high speed milling machines (model ER):		
No. 2 plain	6,350	6,105
No. 3 plain	8,480	7,440
No. 4 plain	9,150	8,760
No. 2 universal	6,700	7,070
No. 3 universal	9,100	8,595
No. 4 universal	10,100	10,500
No. 2 vertical	7,100	6,990
No. 3 vertical	9,300	8,760
No. 4 vertical	9,950	9,980
High power milling machines (model HO):		
No. 4 plain	10,250	8,125
No. 5 plain	11,500	8,930
No. 4 universal	10,525	9,515
No. 5 universal	11,850	10,590
No. 4 vertical	10,500	8,910
18" plain manufacturing milling machine (OK)	2,350	2,390
No. 0-8 vertical milling machine (model EA) for 50 or 60 cycle, A. C. current	1,700	2,120
No. 0-8 plain automatic milling machine (EA) for 50 or 60 cycle, A. C. current:		
Without rise and fall spindle carrier	1,450	1,980
With rise and fall spindle carrier	1,500	2,380
Plain automatic milling machines:		
1-12 (model EA)	3,100	3,190
1-18 (model EA)	3,250	3,450
2-18 (model ER)	4,500	4,330
2-24 (model ER)	4,600	4,610
Automatic rise and fall milling machines (ER):		
2-18	4,650	5,640
2-24	4,850	5,920
Hydromatic milling machines (model EA) plain 3-24	8,200	5,125
3-36	8,400	5,520
34-36	10,500	6,370
4-36	12,300	7,320
34-48	10,800	6,860
4-48	12,600	7,810
35-48	12,200	7,935
45-48	14,500	8,890
5-48	15,000	9,115
35-60	12,700	8,520
45-60	15,000	9,465
5-60	15,500	9,690
36-72	15,500	9,735
46-72	16,500	10,685
56-72	17,500	10,905
36-90	17,500	10,450
46-90	17,800	11,395
56-90	18,000	11,620
Duplex 3-24	10,800	7,175
3-36	11,000	7,590
34-36	12,500	8,420
4-36	13,800	10,210
34-48	13,000	8,910
4-48	15,500	10,695
35-48	15,000	9,990
45-48	17,500	11,770
5-48	18,500	12,420
35-60	15,500	10,575
45-60	18,000	12,355
5-60	19,500	13,000
36-72	19,900	11,785
46-72	20,000	13,570
56-72	21,700	14,220
36-90	19,500	12,500
46-90	20,500	14,285
56-90	23,400	14,935
Hydro-tel vertical milling machines (model EM):		
28-60	25,000	18,320
28-96	31,000	21,375
28-120	34,500	22,825
Hydro-tel horizontal milling machines (model OK):		
36-72	50,000	26,300
36-120	54,500	29,950
Four-spindle 360 degree automatic profiler (model OT)	10,300	14,850

CINCINNATI MILLING AND GRINDING MACHINES, INC., CINCINNATI, OHIO—Continued

CUTTER SHARPENING MACHINES

	Weight in pounds	Price
No. 2 cutter and tool grinder (model EM):		
Plain machine	2,190	$1,545
Universal machine	2,325	1,975
Monoset cutter and tool grinder (model ER)	1,350	2,915

BROACHING MACHINES

Vertical Hydro-Broach Machines:		
1-30, single ram machines—fixed table (model ER)	3,400	$3,165
3-30	8,050	3,785
3-48	8,700	4,210
5-42	9,700	4,440
5-54	10,500	4,890
10-54	13,600	6,690
10-66	14,600	7,260
15-48	18,500	8,050
15-66	20,200	9,140
25-48	25,300	10,930
25-66	27,600	12,465
Single ram machines—receding table (model ER):		
1-30	3,400	3,780
3-30	8,050	4,400
3-48	8,700	4,825
5-42	9,700	5,055
5-54	10,500	5,505
10-54	13,600	7,420
10-66	14,600	7,990
15-48	18,500	8,785
15-66	20,200	9,875
25-48	25,300	11,660
25-66	27,600	13,200
Duplex machines—fixed table (model ER):		
1-30	5,100	4,740
3-30	8,500	5,755
3-48	9,500	6,385
5-42	12,000	6,730
5-54	13,200	7,410
10-54	21,000	10,125
10-66	23,000	10,985
15-48	29,500	12,170
15-66	32,000	13,805
25-48	38,000	16,490
25-66	42,500	18,790
Duplex machines—swivel table (model ER):		
1-30	5,100	5,665
3-30	8,500	6,675
3-48	9,500	7,310
5-42	12,000	7,655
5-54	13,200	8,335
10-54	21,000	11,220
10-66	23,000	12,080
15-48	29,500	13,265
15-66	32,000	14,900
25-48	38,000	17,585
25-66	42,500	19,885

GRINDING MACHINES

Plain Hydraulic Grinding Machines (model EA):		
6" x 18"	7,200	$5,145
6" x 30"	7,300	5,595
10" x 18"	7,400	6,435
10" x 36"	7,550	6,940
Plain hydraulic grinding machines (model ER):		
6" x 18"	6,100	4,600
6" x 30"	6,600	4,905
10" x 18"	8,600	7,835
10" x 36"	9,930	8,240
10" x 48"	10,800	8,635
10" x 72"	12,600	9,045
10" x 96"	14,400	9,455
Universal hydraulic grinding machines (model ER):		
12" x 24"	5,700	5,420
12" x 36"	6,100	5,940
12" x 48"	6,700	6,535
12" x 72"	7,900	7,755
14" x 36"	7,600	6,840
14" x 48"	8,400	7,510
14" x 72"	9,800	8,175
16" x 36"	7,700	7,085
16" x 48"	8,500	7,720
16" x 72"	9,900	8,390
18" x 36"	7,800	7,285
18" x 48"	8,600	7,920
18" x 72"	10,000	8,590
Plain self-contained grinding machines (model EM):		
14" x 36"	13,300	11,800
14" x 48"	14,500	12,355
14" x 72"	16,900	13,080
14" x 96"	19,300	14,075
14" x 120"	21,700	15,415
14" x 144"	24,100	16,535
14" x 168"	26,500	17,645

CINCINNATI MILLING AND GRINDING MACHINES, INC., CINCINNATI, OHIO—Continued

GRINDING MACHINES—continued

	Weight in pounds	Prices
Plain self-contained grinding machines (model EM)—Continued.		
16" x 36"	14,300	$12,715
16" x 48"	15,500	13,165
16" x 72"	17,900	14,190
16" x 96"	20,300	15,240
16" x 120"	22,700	16,780
16" x 144"	25,100	18,365
16" x 168"	27,500	20,255
Plain self-contained grinding machines (model OK):		
20" x 96"	42,000	27,235
20" x 120"	46,000	29,300
20" x 144"	51,000	31,360
20" x 168"	56,000	33,425
20" x 192"	61,000	35,490
24" x 96"	44,500	29,090
24" x 120"	48,500	31,150
24" x 144"	53,500	33,215
24" x 168"	58,500	35,280
24" x 192"	63,500	37,345
Plain self-contained grinding machines (model OK):		
28" x 96"	47,000	30,940
28" x 120"	51,000	33,005
28" x 144"	56,000	35,070
28" x 168"	61,000	37,135
28" x 192"	66,000	39,200
Centerless grinding machines:		
No. 2 Model EA	6,800	5,485
No. 3 Model EA	11,000	6,775
No. 4 Model ER	12,500	7,365

LAPPING MACHINES

Centerless lapping machine (model ED)	10,000	$7,020

THE CINCINNATI PLANER CO., CINCINNATI, OHIO

DOUBLE HOUSING PLANER

	Weight	List price	Extra per foot of bed	Extra rail-head	Extra for side head
24" x 24" x 6', standard	*Lb.* 8,000	$3,770	$170	$675	[1]
30" x 30" x 6', standard	11,500	4,905	240	710	[1]
30" x 30" x 8', heavy	15,900	7,065	265	780	$1,105
36" x 30" x 8'	16,500	7,465	265	780	1,105
36" x 36" x 8', standard	17,000	7,540	280	780	1,105
30" x 30" x 8', hypro	23,000	9,810	280	935	1,310
36" x 36" x 8', hypro	31,200	11,125	315	970	1,450
42" x 42" x 10', hypro	39,000	13,180	350	1,100	1,815
48" x 48" x 10', hypro	44,000	14,415	400	1,100	1,980
56" x 56" x 10', hypro	50,000	15,445	425	1,160	2,045
62" x 62" x 12', hypro	76,000	19,910	505	1,445	2,860
72" x 72" x 12', hypro	84,000	24,755	570	1,445	2,860

OPEN SIDE PLANERS

36" x 36" x 8'	40,000	$13,178	$340	$970	$1,980
48" x 48" x 10'	58,000	17,500	435	1,100	2,200
60" x 60" x 12'	90,000	23,825	545	1,445	2,970

[1] Not furnished.

BORING MILLS—ALL BASED WITH TWO RAILHEADS

Size	Weight	List price	Side head
	Pounds		
54"	36,000	$15,245	$3,850
64"	40,000	16,940	3,850
6'	60,000	19,965	4,290
7'	69,000	22,265	4,510
8'	104,000	31,790	4,950
10'	123,000	34,375	4,950
12'	150,000	41,140	4,950

THE CINCINNATI SHAPER CO., CINCINNATI, OHIO

CINCINNATI ALL-STEEL SHEARS

Series number of shear	Capacity mild steel	Length between housings	Horsepower of motor	Approximate shipping weight	Price with standard throat
	Gage	′ ″		Pounds	
1014	12	14 3	7½	16,000	$3,985
1006R	10	6 3	5	9,000	2,800
1008	10	8 3	5	10,700	2,970
1010	10	10 3	5	11,900	3,290
1012	10	12 3	7½	14,500	3,675
1413	10	13 3	7½	21,000	4,790
1414	10	14 3	7½	24,000	4,940
	Inches				
1006	3/16	6 3	5	9,000	2,800
1008R	3/16	8 3	5	10,700	2,970
1408	3/16	8 3	5	14,000	3,590
1410	3/16	10 3	5	16,300	3,920
1412	3/16	12 3	7½	19,500	4,395
1813	3/16	13 3	10	23,000	5,410
1814	3/16	14 3	10	25,000	5,695
2516	3/16	16 3	15	39,000	7,870
2518	3/16	18 3	15	48,500	9,210
1406	¼	6 3	5	12,000	3,445
1808	¼	8 3	7½	15,000	4,050
1810	¼	10 3	7½	17,000	4,395
1812	¼	12 3	10	22,000	5,075
2513	¼	13 3	15	32,000	6,435
2514	¼	14 3	15	34,000	6,720
1806	5/16	6 3	10	12,500	3,895
2508	5/16	8 3	10	21,000	5,075
2510	5/16	10 3	10	24,500	5,435
2512	5/16	12 3	15	30,000	6,180
4314	5/16	14 3	20	50,000	9,405
4316	5/16	16 3	20	56,500	10,890
2606	⅜	6 3	15	20,000	4,830
4308	⅜	8 3	15	30,000	7,365
4310	⅜	10 3	15	37,000	8,110
4312	⅜	12 3	20	43,500	8,850
6214R	⅜	14 3	25	74,000	
4306	7/16	6 3	15	26,000	6,810
4308R	7/16	8 3	20	30,000	7,365
6206R	7/16	6 3	20	44,000	11,130
6208	7/16	8 3	25	52,000	11,955
6210	7/16	10 3	25	60,000	12,945
6212	7/16	12 3	30	68,000	14,155
10014	½	14 3	40	95,000	
6206	1	6 3	25	44,000	11,130
10008	1	8 3	30	66,000	14,280
10010	1	10 3	40	74,000	15,365
10012	1	12 3	40	86,000	17,305
10006	1¼	6 3	30	60,000	13,310
10008R	1¼	8 3	40	66,000	14,280

THE CINCINNATI SHAPER CO., CINCINNATI, OHIO—Continued

PRESS BREAKS

Series	Length	Total over-all die face surface	Forming capacity	Approximate shipping weight	Price
	′	′ ″		Pounds	
40	4	6 0	¼″ x 4′	11,000	$2,910
40	6	8 0	10 ga. x 6′	13,000	3,030
40	8	10 0	11 ga. x 8′	14,000	3,155
40	10	12 0	12 ga. x 10′	16,500	3,290
50	6	8 0	¼″ x 6′	14,200	3,245
50	8	10 0	5/16″ x 8′	15,600	3,390
50	10	12 0	10 ga. x 10′	18,200	3,540
50	12	14 0	12 ga. x 12′	20,300	3,880
70	4	6 0	3/8″ x 4′	17,000	3,975
70	6	8 0	5/16″ x 6′	20,000	4,100
70	8	10 0	¼″ x 8′	23,000	4,220
70	10	12 0	5/16″ x 10′	25,000	4,350
70	12	14 0	10 ga. x 12′	30,000	4,590
90	6	8 0	3/8″ x 6′	23,000	4,285
90	8	10 0	5/16″ x 8′	26,000	4,470
90	10	12 0	¼″ x 10′	29,000	4,655
90	12	14 0	5/16″ x 12′	33,500	5,080
120	6	8 0	½″ x 6′	32,000	6,145
120	8	10 0	3/8″ x 8′	37,000	6,330
120	10	12 0	5/16″ x 10′	42,000	6,545
120	12	14 0	¼″ x 12′	45,000	6,865
130	8	10 8	½″ x 8′	40,000	6,955
130	10	12 8	3/8″ x 10′	48,000	7,170
130	12	14 8	5/16″ x 12′	52,000	7,540
130	14	16 8	¼″ x 14′	58,000	8,105
190	6	8 8	3/8″ x 6′	58,000	9,185
190	8	10 8	½″ x 10′	63,000	9,370
190	10	12 8	½″ x 10′	70,000	9,620
190	12	14 8	3/8″ x 12′	76,000	9,995
210	8	12 0	½″ x 12′	70,000	9,870
210	10	14 0	½″ x 12′	80,000	10,245
210	12	16 0	½″ x 12′	88,000	10,740
210	14	18 0	½″ 12′	93,000	11,485
340	8	12 0	5/8″ x 12′	86,000	12,350
340	10	14 0	5/8″ x 12′	93,000	12,910
340	12	16 0	5/8″ x 12′	100,000	13,535
340	14	18 0	½″ x 14′	110,000	14,510
340	16	20 0	5/8″ x 16′	120,000	15,575
400	8	12 0	¾″ x 12′	114,000	
400	10	14 0	¾″ x 12′	121,000	
400	12	16 0	¾″ x 12′	128,000	
500	8	12 0	1″ x 12′	124,000	
500	10	14 0	1″ x 12′	132,000	
500	12	16 0	1″ x 12′	140,000	

Two-speed mechanism $550 additional all sizes up to 400 series. Longer stroke, greater shut height, larger throat than standard available at an additional charge. Load indicator, $100.

Standard equipment includes ram elevating motor; narrow, universal, or flat top filler block; and arranging machine for motor drive including motor sheave, V belts and wiring, but not including drive motor.

Drive motors should be 1,800 r. p. m., high torque, approximately 10 percent slip for a. c.; compound wound for d. c.

The 40, 50, 70, 90, 120, 130 series are shipped assembled on skids. Additional charge for dismantling for shipment.

The 190, 210, 340, 400, and 500 series are ship ed dismantled.

THE CINCINNATI SHAPER CO., CINCINNATI, OHIO—Continued

CINCINNATI SHAPERS

[Prices f. o. b. cars Cincinnati]

Machine—Stroke / Service	Utility		Cincinnati Rapid Traverse								Railroad	
	16″	20″	16″ Hvy.	20″ Std.	20″ Hvy.	24″ Std.	24″ Hvy.	28″ Hvy.	32″ Hvy.	36″ Hvy.	32″	36″
Single pulley belt drive, including vise	$2,150	$2,205	$2,445	$2,505	$2,670	$2,760	$3,135	$3,220	$3,490	$3,595	$4,360	$4,465
Motor drive, flat belt, no motor	$125	$125	$125	$125	$130	$130	$135	$135	$160	$160	$160	$160
Motor drive, V belt, no motor	$125	$125	$125	$125	$130	$130	$135	$135	$160	$160	$160	$160
Motor drive, silent chain, no motor	$125	$125	$125	$125	$130	$130	$135	$135	$160	$160	$160	$160
Universal Table making Universal Shaper	$310	$310	$310	$310	$325	$325	$390	$390	$500	$540		
Table support for Universal Table			$60	$60	$70	$70	$80	$80	Incl.	Incl.		
Power Rapid Traverse to table	$55	$55	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.	Incl.
Credit for omitting Power Rapid Traverse			$55	$55	$60	$60	$70	$70	$80	$80	$80	$85
Vise regularly furnished, single or double screw—inches	13	13	13	13	13	13	15	15	15	15	15	15
Motor recommended, r. p. m. 1,800—horsepower	3–5	3–5	5	5	5	7½	10	10	10	10–15	10	10–15

Standard equipment.—Includes single or double screw vise, automatic visible oiling system, internal transmission, clutch and brake, belt and ram guards, and all necessary wrenches.

Motor drive specifications.—Constant speed motor for either a. c. or d. c., belt driven, having idler pulley on slack side furnished with shaper, all completely guarded. Motor must be arranged for wall mounting with pulley on right when facing wall with terminals on bottom. Motor and control delivered to our factory will be mounted and wired.

32′ and 36″ Railroad Shapers.—Are 32″ and 36″ Heavy Duty shapers equipped with special railroad table, circular feeding head, and boom crane for machining locomotive driving boxes and cross heads.

ATTACHMENTS

[Additional price for machine equipped with the following attachments]

Machine—Stroke / Service	16″ and 20″ U. 16″ Hvy.	20″ Std.	20″ Hvy.	24″ Std.	24″ Hvy.	28″ Hvy.	32″ Hvy.	36″ Hvy.
Power feed to head with automatic stop	$160	$160	$160	$160	$180	$180	$195	$195
Concave attachment	90	90	90	90	115	115	125	125
Auxiliary front cross feed	180	180	180	180	225	225	270	270
Tilting top to table	170	170	170	170	195	195	195	195
Supplementary table top								
Power vertical movement to table								
Mould makers tilting table	285	285	320	320	340	350	450	450
Circular feeding table, convex attachment								
Cone arbor								
Index centers, 8″ swing, 18″ opening	150	150	150	150	175	175	175	175
Circular feeding head and special table for locomotive driving boxes							[1] 590	[1] 590
Circular feeding head if purchased without driving box table							[1] 280	[1] 280
Driving box table if purchased without circular feeding head							[1] 365	[1] 365
Driving rod brass attachment					310	310	310	310
Shoe and wedge chuck					150	150	150	150
Boom Crane fitted to machine					280	280	[1] 280	[1] 280
13″ Double Screw Vise, jaws 2½″ x 12″, open 13′	165	165	165	165				
15″ Double Screw Vise, jaws 3″ x 15″, open 15″					195	195	195	195
13″ Single Screw Vise, jaws 2½″ x 12″ open 13″	175	175	175	175				
15″ Single Screw Vise, jaws 3″ x 15″, open 15″					195	195	195	195
13″ Mould Makers Vise, jaws 4½″ x 12″, open 13″	225	225	225	225				
15″ Mould Makers Vise, jaws 5″ x 15″, open 15″					280	280	280	280
15″ Double Screw Steel Vise	280	280	280	280				
15″ Double Screw Steel Vise					335	335	335	335

[1] Included with Railroad Shapers.

The Cincinnati Shaper Co., Cincinnati, Ohio—Continued

WEIGHTS

Machine—Stroke / Service	16" Util.	20" Util.	16" Hvy.	20" Std.	20" Hvy.	24" Std.	24" Hvy.	28" Hvy.	32" Hvy.	36" Hvy.	32" R. R.	36" R. R.
Single pulley—Belt drive:												
Net weight—pounds	3,450	3,600	3,750	3,850	4,400	4,500	6,000	6,250	7,150	7,400	8,800	9,100
Domestic shipping	3,700	3,900	4,000	4,050	4,600	4,700	6,300	6,600	7,400	7,700	9,200	9,500
Export shipping	4,500	4,600	4,800	4,900	5,600	5,800	7,400	7,700	8,800	9,000	10,700	11,000
Cubic feet export packing	120	125	128	134	150	160	190	200	220	230	300	330
Motor drive—Without motor:												
Net weight	3,650	3,800	4,000	4,100	4,650	4,750	6,300	6,500	7,350	7,600	9,100	9,400
Domestic shipping	4,000	4,050	4,200	4,300	4,900	5,000	6,600	6,800	7,600	7,800	9,500	9,800
Export shipping	4,700	4,800	5,100	5,200	5,800	6,100	7,700	8,000	9,000	9,200	11,000	11,400
Cubic feet export packing	120	125	128	134	150	160	190	200	220	230	300	330
Motor drive—Including motor:												
Net weight	3,850	4,000	4,200	4,350	4,850	5,000	6,800	7,000	7,650	7,900	9,400	9,700
Domestic shipping	4,150	4,300	4,400	4,550	5,200	5,300	7,100	7,200	8,000	8,200	9,800	10,100
Export shipping	4,900	5,000	5,300	5,400	6,100	6,300	8,100	8,300	9,350	9,600	11,500	12,000
Cubic feet export packing	140	145	140	148	165	175	210	220	240	250	300	330
Universal Shapers:												
Add to weight of any equipment above, for Shapers equipped with Universal Table:												
Pounds	350	350	350	350	300	300	425	425	800	800	------	------
Cubic feet	0	0	0	0	0	0	0	0	0	0	------	------

Cleereman Machine Tool Co., Green Bay, Wis.

JIG BORERS

[Base prices of machines arranged for motor drive but without motor included]

Model No.	With end measuring equipment		With precision lead screws		With both end measures and precision lead screws	
	Weight	Price	Weight	Price	Weight	Price
	Pounds		*Pounds*		*Pounds*	
1824	5,600	$5,900	5,500	$5,900	5,700	$6,450
1830	6,400	6,600	6,300	6,650	6,500	7,250
1836	7,200	7,700	7,100	7,800	7,300	8,400

DRILLING MACHINES

Size (feet)	Round column		Box column	
	Weight	Price	Weight	Price
	Pounds		*Pounds*	
25	2,500	$2,000	2,700	$2,050
30	3,300	2,550	3,650	2,600

The Cleveland Automatic Machine Co., Cleveland, Ohio

SINGLE SPINDLE MACHINES

Size and model	Weight	Price
	Pounds	
9/16" A	1,915	$3,520
1 1/16" A	3,340	4,150
1 3/4" A	4,390	4,650
2" A	6,725	5,450
2 1/2" A	6,775	5,650
3 3/4" A	10,350	9,100

The Cleveland Automatic Machine Co., Cleveland, Ohio—Continued

Size and model	Weight	Price
	Pounds	
5 3/4" A	19,000	$13,500
8"	24,500	16,900
9/16" B	1,380	2,810
1 1/16" B	2,475	3,465
1 1/2" B	4,950	4,375
2 1/2" B	5,500	4,595
1 1/2-18" B	7,160	5,225
2 1/2-18" B	7,160	5,800

MULTIPLE SPINDLE MACHINES

	Pounds	
1 1/16" K-4	7,450	$8,085
1 3/16" K-4	9,425	8,785
1 1/2" K-4	11,100	9,160
2" K-4	16,200	10,500
2 1/2" K-4	16,750	11,375
3" K-4	26,500	13,190
3 1/2" K-4	26,800	13,970
1 3/16" K-6	11,750	10,645
2" K-6	21,000	14,700

The Cleveland Crane & Engineering Co., Wickliffe, Ohio

Cyril Bath & Co., General Sales Agents, Cleveland, Ohio

STEELWELD BENDING PRESSES

Model	Normal capacity	Price of standard machine	Extension of bed and ram per foot	2-speed attachment	Additional stroke per inch or fraction	Main drive motor and control
	Tons					
F-3-6	112	$4,600	$70	$475	$250	5 hp., $144
F-3-8	112	4,800	70	475	250	
F-3-10	112	5,050	70	475	250	
F-3-12	112	5,450	70	475	------	
H-3 1/2-6	150	5,300	80	475	250	7 1/2 hp., $204
H-3 1/2-8	150	5,450	80	475	250	
H-3 1/2-10	150	5,700	80	475	250	
H-3 1/2-12	150	6,050	80	475	250	
I-4-8	187	6,650	95	550	300	10 hp., $229
I-4-10	187	7,000	95	550	300	
I-4-12	187	7,450	95	550	300	
J-4 1/2-10	225	8,100	105	550	300	15 hp., $325
J-4 1/2-12	225	8,700	105	550	300	
J-4 1/2-14	225	9,350	105	550	300	
K-5-10	300	10,350	120	650	400	20 hp., $420
K-5-12	300	11,150	120	650	400	
K-5-14	300	12,000	120	650	400	
L-5 1/2-10	375	12,450	150	750	500	25 hp., $466
L-5 1/2-12	375	13,350	150	750	500	
L-5 1/2-14	375	14,450	150	750	500	
M-6	450	[1]	[1]	[1]	[1]	[1]

[1] Prices on request.

Standard equipment includes ram adjustment motor and control, micrometer dial gage, automatic pressure lubricating system, necessary wrenches, plain filler block, ram arranged for taper work, main drive arranged for V belt motor drive with pulley and belts furnished, but without main drive motor or control.

Extra for load indicator	$135
Extra for set of (2) universal gages with screw adjustment	75
Extra for wiring and mounting motor and control if bought elsewhere	30

Motor recommended is a 40° continuous-duty, high-slip, high-torque punch-press type, with magnetic, reversing, full voltage starter and heavy-duty start-stop-reverse push-button control. Speed 1,800 r. p. m. on all sizes up to Model J. Models J, K, and L require 1,200 r. p. m. motor.

The Cleveland Hobbing Machine Co., Cleveland, Ohio

Model No. 130, single spindle universal	$3,300
Model No. 130, special single spindle differential type	4,000
Model No. 135, single spindle axle shaft	3,300
Model No. 140, single spindle—16" travel	3,800
Model No. 140, single spindle—differential type	4,500
Model No. 145, single spindle—flywheel gear machine	5,000
Model No. 150, single spindle—thread miller	3,500
Model No. 155, single spindle—infeed machine	4,200
Model No. 160, single spindle rigidhobber—combination infeed and vertical feed (same as Model No. 130, but including infeed attachment)	4,500

The Cleveland Hobbing Machine Co., Cleveland, Ohio—Continued

Model No. 165, single spindle rigidhobber—combination infeed and vertical feed (same as Model No. 135, but including infeed attachment)	$4,500
Model No. 310, single spindle—spiral bevel ring gear machine	7,500
Model No. 410, single spindle—spiral bevel pinion machine	7,500
Model No. 220, eight spindle rotary machine	21,500
Model No. 225, eight spindle rotary—axle shaft machine	21,500
Model No. 616, single spindle rigidturner	5,000
Model No. 8618, eight spindle rigidturner	27,000

The Cleveland Planer Co., Cleveland, Ohio

OPENSIDE PLANERS

Standard size	1 rail head	Extra 2'	Extra rail head	Extra side head
26" x 26" x 6'	$4,628	$409	$608	$717
30" x 30" x 8'	6,782	563	658	804
36" x 36" x 8'	8,201	717	732	878
42" x 42" x 10"	9,503	799	799	932
48" x 48" x 12'	11,633	1,024	915	1,098
60" x 60" x 14'	18,821	1,186	1,062	1,244
72" x 72" x 16'	23,250	1,318	1,172	1,355

Widening, types of drive, and electrics are extra.

CLEVELAND PUNCH & SHEAR WORKS COMPANY, CLEVELAND, OHIO

VERTICAL OPEN GAP PUNCH AND SHEAR WITH SINGLE PUNCHING ATTACHMENT

Description of machine tool

		Angle shear	Bar shear	Plate shear	Gear guards
Type "C":					
12" throat	$1,810.00	$180.00	$120.00	$120.00	$150.00
24" throat	1,980.00	180.00	120.00	120.00	150.00
36" throat	2,270.00	180.00	120.00	120.00	150.00
Type "EF":					
12" throat	2,670.00	200.00	200.00	200.00	200.00
15" throat	2,730.00	200.00	200.00	200.00	200.00
24" throat	2,950.00	200.00	200.00	200.00	200.00
36" throat	3,400.00	200.00	200.00	200.00	200.00
48" throat	3,760.00	200.00	200.00	200.00	200.00
60" throat	4,100.00	200.00	200.00	200.00	200.00
Type "G":					
12" throat	3,930.00	450.00	270.00	270.00	200.00
24" throat	4,330.00	450.00	270.00	270.00	200.00
36" throat	4,660.00	450.00	270.00	270.00	200.00
48" throat	5,180.00	450.00	270.00	270.00	200.00
Type "V": 15" throat	6,500.00	640.00	335.00	335.00	300.00
Type "W": 18" throat	7,660.00	640.00	320.00	320.00	300.00
Type "X": 18" throat	10,983.00	690.00	450.00	450.00	300.00
Type "IG": 24" throat	5,625.00				200.00
Type "I": 24" throat	7,085.00				200.00
Horizontal punching machine:					
"AI" type: 12" throat	3,000.00				200.00
Type "T":					
10" throat	2,641.00				175.00
15" throat	2,691.00				175.00
Horizontal bending machines:					
No. 1, 9" dia. top roll, 7" dia. lower roll	3,219.00				175.00
No. 1½ light duty	3,500.00				175.00
No. 1½ heavy duty	3,912.00				175.00
No. 2, 11" dia. top roll 8" dia. lower roll	9,668.00				200.00

SPECIFICATIONS—VERTICAL, OPEN GAP PUNCHING, SHEARING, COPING, NOTCHING MACHINES

CAPACITY TABLE

Style	Punching: Punching pressure in tons	Punching: Diameter of hole (in.)	Punching: Thickness of plate (in.)	Shearing: Plate (in.)	Shearing: Bars (in.)	Shearing: Round bars (in.)	Shearing: Square bars (in.)	Shearing: Angles: Square off (in.)	Shearing: Angles: With shear to blades (in.)	Throat depths (in.)
C	50	13/16	¾	½	5 x ½	1½	1¼	3 x 3 x ¾	4 x 4 x 3/8	12, 24, 36, 48.
EF	97½	1¼	1	⅞	6 x 1	2	1½	4 x 4 x ½	6 x 6 x 3/8	12, 15, 24, 36, 48, 54, 60, 72.
G	156	2	1	1⅛	8 x 1	2½	2	6 x 6 x ½		12, 24, 36, 48, 60, 72.
V	225	2¼	1¼	1¼	8 x 1½	3	2¾	6 x 6 x ¾	8 x 8 x ½	12, 24, 36.
W	312½	2½	1½	1½	10 x 1½	3½	3	8 x 8 x ¾		18, 36, 48, 60, 72.
X	500	4	1½	2	10 x 2½	5	3½	8 x 8 x 1¼		18, 30, 48, 60, 72.

Style	Punching: Punching pressure in tons	Punching: Diameter of hole (in.)	Punching: Thickness of plate (in.)	Coping	Standard punching range	Length of plunger	Throat depths (in.)
IG	156	Two 1	1	15" standard beams.	6" to 24" standard sections in flange and web.		24.
I	156½	Two 1⅛	1	6" to 24" standard I beams.	6" to 24" standard sections in flange and web.		24, 36.

CLEVELAND PUNCH & SHEAR WORKS COMPANY, CLEVELAND, OHIO—Continued

SPECIFICATIONS—HORIZONTAL PUNCHING MACHINES

Style	Capacity	Punching pressure in tons	Stroke	Throat depths
T	1" x 1"	78½	1½"	{10" arch jaw, 15" plain flat.
AI	1¼" x 1"	97½	1¾"	{12", 15" arch jaw, 12" plain flat.

DESCRIPTION OF MACHINE TOOL

Angle shearing machine:	
No. 3	$6,090
No. 4	6,500
Bar shearing machine:	
No. 4	4,980
No. 2	3,213
No. 6	14,823
Plate shear:	
No. 1, 6" gap:	
4-foot	6,526
5-foot	6,614
6-foot	6,750
7-foot	6,886
8-foot	7,036
24" Gap	Add $145
No. 2:	
15" gap:	
4-foot	8,740
5-foot	8,830
6-foot	8,920
7-foot	9,010
8-foot	9,100
10-foot	9,300
24" gap	Add $190

DESCRIPTION OF MACHINE TOOL—continued

Plate shear—Continued	
No. 3:	
15" gap:	
4-foot	$9,950
5-foot	10,200
6-foot	10,430
7-foot	10,700
8-foot	10,900
10-foot	11,250
24" gap	Add $203
No. 4:	
24" gap:	
4-foot	11,700
5-foot	11,931
6-foot	12,170
7-foot	12,600
8-foot	12,700
10-foot	14,353
36" gap	Add $190
Plate bending roll:	
No. 1:	
6-foot	6,214
8-foot	6,315
10-foot	6,309
No. 2:	
8-foot	4,682
10-foot	4,980
12-foot	5,222
14-foot	5,466
No. 2-A:	
8-foot	9,517
10-foot	9,773
12-foot	10,080
14-foot	10,331
15-foot	10,557
No. 3, with 13" and 9" rolls:	
8-foot	9,790
10-foot	10,312
12-foot	10,840
Air-flanging clamp:	
10-foot	2,621

SPECIFICATION—ANGLE SHEARS

Style	Capacity	Stroke	Base	Base diameter
3	6" x 6" x ¾"	2¾"	Stationary or circular	7'
4	6" x 6" x 1"	2¾"	Stationary or circular	7'

SPECIFICATIONS—BAR SHEARS

Style	Capacity	Stroke	Length of blades
2	2" round, 1½" square	2¼"	13" standard and maximum.
4	3" round, 2½" square	3½"	12" standard and maximum.
6	5" round, 4½" square	6"	36" sectional or one piece maximum.

CLEVELAND PUNCH & SHEAR WORKS COMPANY, CLEVELAND, OHIO—Continued

CLEVELAND INCLINABLE PRESSES

Size of press	4-1	4½-1	[1] 5-1	[1] 6-1	[1] 7-1	[1] 8-1	8-1-Sp	8-1-A	[1] 9-1	[1] 10-1	[1] 11-1
Shaft:											
Main bearings	2	2¼	2½	3	3½	4	4	4	4½	5	5½
Crank pin	2¼	2½	3¾	4½	5½	6	6	6	6½	7	7½
Price: Not grd., std. stroke. K. O. in slide and plain bol	$505	$605	$675	$830	$1,025	$1,400	$1,540	$1,915	$1,925	$2,500	$2,815
Weight: Plain machine (pounds)	1,100	1,500	2,300	3,600	5,400	8,000	8,500	11,800	13,000	17,000	22,500
Price: Geared, std. stroke. K. O. in slide and plain bolster				$1,135	$1,350	$1,735	$1,870	$2,235	$2,355	$2,960	$3,325
Weight: Geared machine (pounds)				4,100	6,300	9,200	9,700	13,000	14,500	19,000	25,000
Extra: Bolster (plain)	25	30	35	40	50	65	65	105	85	110	125
Spec. str.: (Not over max.)	25	30	30	35	40	45	45	45	50	55	65
Flanged slide				65	80	95	Incl.	Incl.	110	115	120
Tie rods, nuts and washers			20	25	30	34	35	35	37	40	45
Geared motor drive, exclusive of motor	75	75	80	85	97	110	110	110	120	125	130
V-belt drive (motor) including V-belts and sheave, exclusive of motor					115	130	130	130	140	145	150
Increased die space if frame patt. is cut	80	85	85	92	97	105	105	115	115	125	140
Boxing for export	80	80	80	85	92	97	110	120	120	145	175

[1] Carried in stock with standard specifications. Other sizes built on order.

WALL-TYPE RADIAL DRILLING AND COUNTERSINKING MACHINE

	Lever feed	Hand wheel feed	Automatic feed
Type No. 1: 6-foot arm	$1,465	$1,640	$1,770
Type No. 3: 6-foot arm	1,897	2,072	2,202

Extra per foot for any additional arm length required $23.

COCHRANE-BLY CO., ROCHESTER, N. Y.

	Weight	Price
	Pounds	
No. 1 bench filing machine, belt drive	45	$75
No. 2 floor type filing machine, belt drive	500	335
No. 11 saw sharpening machine, belt drive	850	700
No. 11-A saw sharpening machine, belt drive	900	775
No. 11-B saw sharpening machine, belt drive	1,000	880
No. 55-H hydraulic metal sawing machine with V-belt drive, but without saw blades or electrical equipment	7,000	4,150
No. 66-H hydraulic metal sawing machine with V-belt drive, but without saw blades or electrical equipment	9,000	6,150
No. 31 (4" capacity) automatic hydraulic high speed nonferrous metal sawing machine, including V-belt drive for blade driving motor, but without blades or electrical equipment	7,200	5,875
No. 31 enlarged (7" maximum capacity) automatic hydraulic high speed nonferrous metal sawing machine including V-belt drive for blade driving motor, but without blades or electrical equipment	8,500	6,575
No. 14 universal vertical Miller shaper arranged for belt drive and complete with standard equipment	2,600	3,700

COLONIAL BROACH COMPANY, DETROIT, MICH.

COLONIAL JUNIOR PRESSES

[Prices f. o. b. Detroit]

Size of machine	Net weight	Shipping weight	Price
	Pounds	*Pounds*	
VJ1-1000-12	300	375	$455
VJ1-1-12	350	425	495

NOTE: Above prices do not include electrical equipment.

	Price
Coolant tank and pump	$125
Dual safety control	40

COLONIAL BROACH COMPANY, DETROIT, MICH.—Continued

COLONIAL SENIOR PRESS—VBS MODEL

[Prices f. o. b. Detroit]

Size of machine	Extra price for wiring of electrical equipment	Price
1-18	$15	$725
3-18	15	915
3-24	15	960
6-24	20	1,360
6-36	20	1,450
10-30	20	1,820
10-42	20	1,935

NOTE: Above prices do not include electrical equipment.

	Price
Coolant pump and piping	$45

COLONIAL OPENSIDE PRESS—VP1 MODEL

Size of machine	Extra price for wiring of electrical equipment	Price
VP1-2-18	$15	$1,400
VP1-4-18	15	1,540

NOTE: Above prices do not include electrical equipment.

COLONIAL OPENSIDE PRESS—VP1 MODEL

[Prices f. o. b. Detroit]

Size of machine	Price	Extra price for wiring of electrical equipment
VP1-4-24	$1,705	$15
VP1-6-24	1,980	15
VP1-6-36	2,035	15
VP1-10-24	2,200	20
VP1-10-36	2,365	20
VP1-12-36	2,585	20
VP1-15-36	2,805	20

Coolant pump and piping, $45.

NOTE: Above prices do not include electrical equipment.

COLONIAL HORIZONTAL BROACHING MACHINE

[Prices f. o. b. Detroit]

HAS-3-36	$2,135	$15
HAS-6-48	3,080	20
HAS-6-60	3,450	20
HAS-10-48	3,450	20
HAS-10-60	3,810	20
HAS-10-90	4,980	20
HAS-15-60	4,200	25
HAS-15-72	4,565	25
HAS-15-90	5,735	25
HAS-20-60	5,180	25
HAS-20-72	5,545	25
HAS-20-90	7,185	25
HAS-25-60	6,120	25
HAS-25-72	6,550	25
HAS-30-72	8,190	25
HAS-30-72	10,850	25

COLONIAL BROACH COMPANY, DETROIT, MICH.—Continued

ADDITIONAL EQUIPMENT

Follow Rest

	Price	
	Slide type	Roller type
36" stroke	$325	$425
48" stroke	355	455
60" stroke	385	485
72" stroke	425	525

Chip trough

60" stroke	$140	
72" stroke	175	
90" stroke	250	

NOTE.—Above prices do not include electrical equipment.

COLONIAL PULLDOWN BROACHING MACHINE WITH AUTOMATIC BROACH HANDLING

[Prices f. o. b. Detroit]

Size of machine	Price	Extra price for wiring of electrical equipment
VMS-3-24	$3,225	$15
VMS-6-36	4,825	20
VMS-6-48	5,140	20
VMS-10-36	6,390	20
VMS-10-48	6,655	20
VMS-15-48	8,160	25
VMS-15-60	8,815	25
VMS-20-48	9,645	25
VMS-20-60	10,450	25

NOTE.—Above prices do not include electrical equipment.

COLONIAL PULLUP BROACHING MACHINES WITH AUTOMATIC BROACH HANDLING

[Prices f. o. b. Detroit]

VDS-6-36	$4,825	$20
VDS-6-48	5,140	20
VDS-10-36	6,390	20
VDS-10-48	6,655	20
VDS-15-48	8,160	25
VDS-15-60	8,815	25
VDS-20-48	9,645	25
VDS-20-60	10,450	25

NOTE.—Above prices do not include electrical equipment.

COLONIAL SINGLE RAM BROACHING MACHINE WITH RECEDING TABLE

[Prices f. o. b. Detroit]

VAS-3-30	$4,150	$15
VAS-3-48	4,535	15
VAS-5-42	4,730	20
VAS-5-54	5,140	20
VAS-10-42	6,530	20
VAS-10-54	6,920	20
VAS-10-66	7,445	20
VAS-15-48	8,160	25
VAS-15-66	9,150	25
VAS-25-48	10,770	25
VAS-25-66	12,175	25

For prices of machines with stationary table deduct as follows:

Machines up to and including 5-ton	$560
Machines 10-ton and over	665

Above prices do not include electrical equipment.

COLONIAL BROACH COMPANY, DETROIT, MICH.—Continued

COLONIAL DUAL RAM BROACHING MACHINE WITH RECEDING TABLE

[Prices f. o. b. Detroit]

Size of machine	Price	Extra price for wiring of electrical equipment
VAD-3-30	$6,225	$15
VAD-3-48	6,790	15
VAD-5-42	7,100	20
VAD-5-54	7,720	20
VAD-10-42	9,785	20
VAD-10-54	10,375	20
VAD-10-66	11,170	20
VAD-15-48	12,240	25
VAD-15-66	13,720	25
VAD-25-48	16,160	25
VAD-25-66	18,255	25

For prices of machines with stationary table deduct as follows:

For Machines up to and including 5 ton...each... $840
For Machines 10 ton and over.....do.... 995
Above prices do not include electrical equipment.

CONE AUTOMATIC MACHINE COMPANY, INC., WINDSOR, VT.

Machine	Weight	Price
	Pounds	
⅞" 4-spindle Conomatic	8,000	$7,250
1¼" 4-spindle Conomatic	11,500	7,835
1½" 4-spindle Conomatic	11,500	8,365
2" 4-spindle Conomatic	16,000	9,650
2¼" 4-spindle Conomatic	18,000	11,200
2⅝" 4-spindle Conomatic	18,000	11,500
3½" 4-spindle Conomatic	18,000	12,000
4⅜" 4-spindle Cone Automatic	26,000	13,600
4¾" 4-spindle Cone Automatic	26,000	14,300
6" 4-spindle Cone Automatic	39,000	20,000
7" 4-spindle Cone Automatic	39,000	22,500
1¼" 6-spindle Conomatic	20,000	10,175
1½" 6-spindle Conomatic	20,000	11,750
1⅞" 6-spindle Conomatic	24,000	13,200
2¼" 6-spindle Conomatic	28,000	14,400
2⅝" 6-spindle Conomatic	28,000	15,000
3½" 6-spindle Conomatic	36,000	18,650
1¼" 8-spindle Conomatic	16,000	10,900
1½" 8-spindle Conomatic	16,000	11,200
1⅞" 8-spindle Conomatic	16,000	11,300
2¼" 8-spindle Conomatic	40,000	17,100
2⅝" 8-spindle Conomatic	40,000	18,450
1" 4-spindle Cone Vertical	10,000	7,000
1¼" 4-spindle Cone Vertical	10,000	7,500
2⅝" 4-spindle Cone Vertical	18,000	10,000

CONSOLIDATED MACHINE TOOL CORPORATION, ROCHESTER, N. Y.

BETTS-BRIDGEFORD GEARED HEAD LATHES

Base sizes	Base price	Extra price 2' of bed
26" x 10'	$7,040	$250
30" x 10'	7,505	265
32" x 12'	10,915	385
36" x 12'	11,475	395
38" x 13'	12,625	450
42" x 13'	13,390	460
42" extra heavy x 14'	14,570	510
48" x 14'	15,135	530
54" x 14'	16,200	540

COLBURN HEAVY DUTY BORING MILLS

[2 swivel heads, constant speed, motor drive]

Base sizes	Base price
42"	$11,385
48"	12,375
54"	13,035
62"	15,345
72"	17,765
84"	22,825

CONSOLIDATED MACHINE TOOL CORPORATION, ROCHESTER, N. Y.—Continued

COLBURN DRILL PRESSES

Base sizes	Base price
D-4 24" swing 3½" capacity	$3,035
D-6 36" swing 3½" capacity	3,445
D-7 48" swing 3½" capacity	3,850
D-8 36" swing 5" capacity	4,425
No. 2 20" swing 1½" capacity	1,065
No. 4 24" swing 2" capacity	1,755
No. 6 28" swing 3" capacity	2,640
No. 14 24" swing 2" capacity	2,010

CONSOLIDATED MACHINE TOOL CORPORATION, ROCHESTER N. Y.—Continued

NEWTON COLD SAWS

Base sizes	Base price
32"	$6,140
36"	6,430
42"	7,035
48"	9,075

CONTINENTAL MACHINES, MINNEAPOLIS, MINN.

	Model V16	Model ML	Model V36	Model V26	Model FM	Model FC
Standard machine	$865	$1,250	$1,850	$1,925	$270	$380
Super butt welder extra	85	85	85	85	.....	.....
Hydraulic power feed	140	225	225	140	.....	.....
Cutting off	30	30	35	35	.....	.....
Disc cutting	25	25	35	35	.....	.....
Band polishing	15	15	20	20	.....	.....
Power feed attachment	75	(1)	(1)	(1)	.....	.....

[1] Standards

THE JAMES COULTER MACHINE COMPANY, BRIDGEPORT, CONN.

Type "H" Coulter Hob thread milling machine [1]	$4,000
Type "C" Coulter cartridge case trimmer	4,500
Model T-3" Coulter cartridge case finishing machine	8,575
Model T-5" Coulter cartridge case finishing machine	8,975
Model T-6" Coulter cartridge case finishing machine	10,350

[1] Price for this machine does not include complete tooling; it represents standard base price of the machine. The other prices are for machines completely tooled.

COVEL MANUFACTURING COMPANY, BENTON HARBOR, MICH.

UNIVERSAL CUTTER AND TOOL GRINDERS—NO. 91-A MACHINE, MOTOR DRIVE

No. 91-A—Universal cutter and tool grinder. Plain, hand feed with roller bearing type table with motor drive to wheel head, including ¾ hp., 1,750 r. p. m. motor with standard electric current specifications as listed below, with switch and wiring, with equipment as listed in attachment list "A"	$1,440
Extra for power feed, including ¼ hp., 1,750 r. p. m. motor	250
Extra for equipment as listed in attachment list "B" (for details see next page)	342

MOTOR EQUIPMENT FOR NO. 91-A MACHINE

The following motors will be furnished as standard equipment:

Single phase 50 or 60 cycle, 110 volt. Three phase 50 or 60 cycle, 220 volt and 440 volt. An extra charge of $20 for a ¾ hp., 1,750 r. p. m., or $12.50 for a ¼ hp., 1,750 r. p. m. motor will be made for another electric current.

ATTACHMENT LIST "A"

(Attachments for No. 91-A Universal cutter and tool grinder)

No. 1—L. H. tailstock with center	24
No. 2—R. H. tailstock with center	18
No. 4—Universal face mill attachment for grinding cutter with either a B & S taper or National No. 50 taper (3½" per foot) with reducing collets from No. 12 to No. 10, No. 9 and No. 7 B & S taper hole	90

(Can be furnished with a ¼ hp. motor to convert into a motor drive headstock, including bracket to mount motor, large pulley to fasten to to spindle with belt and guard, including motor. Not included in price of complete machines with attachment list "A".)

ATTACHMENT LIST "B"

(Attachments for 91-A Universal cutter and tool grinder)

Attachments to convert the Universal face mill attachment into a motor drive headstock, including ¼ hp. motor, 1,750 r. p. m., switch bracket, and pulley (for motor drive only)	70
Spindle extension for surface grinding, 2 furnished and $11 each with 1 single end wrench with 1 13/16" opening	22
4" 3-jaw Universal chuck with mounting, including inside and outside jaws or 4-jaw independent	70
Gear cutter grinding attachment, complete	50
Tilting swivel vise for surface grinding	65
Internal grinding attachment, complete with pulley, belt, extension spindle and 2 grinding wheels	65

COVEL MANUFACTURING COMPANY, BENTON HARBOR, MICH.—Continued

SPECIAL ATTACHMENTS

[Not included in machine prices]

(For No. 91-A Universal cutter and tool grinder)

Steady rest, complete, capacity 2"	$30
Face grinding attachment, including face plate and a 1" dia. expansion collet (other sizes from ⅜" to 1½" can be furnished at $5 each) mounted on No. 9 B & S taper shank	25
Radius dresser for grinding wheel, including diamond	42
Standard radius grinding attachment (without diamond)	225
Small end mill grinding attachment	40
Three-speed motor drive headstock with ¼ hp. motor	250
Draw-in collet attachment (for 3-speed headstock or universal face mill grinding attachment) with 1 collet (capacity ⅜") not illustrated	75
Extra collets, each	7
Large face mill grinding attachment (without lip rest)	190
Surface grinding attachment	110
Set of 6 index centers 10⅜" dia. capacity with 1 index plate	90
Rotary table without motor	180
Arranged to take large dia. grinding wheel (10" dia. x ½" face)	30
Standard universal attachment	100
No. 2 tap grinding attachment (with chuck for small taps)	185
Large radius grinding attachment:	
Lower main part (net wgt. 125 lbs.)	240
Upper part (same as No. 4 Uni. Face Mill Attachment).	
Net weight 26 lbs	90
Universal Angle Vise, Style A	25
Horizontal Universal Vise, Style D	95
Net grinding attachment including splash guard for table tank with pump and vertical ⅛ hp., 1,750 r. p. m. motor complete. Net weight 200 pounds	230
Cabinet to take all standard attachments	35

YANKEE TWIST DRILL GRINDERS

Style WPL. Wet and dry double end combination drill grinder, one end wet with holder for holding drills ¼" to 2½", and one end dry for holding drills No. 30 to 5/8".	
Motor drive, including motor, AC	565
Motor drive, including motor, DC	640
Style WFJ. Wet and dry double end combination drill grinder, one end wet with holder for holding drills ½" to 4", and one end dry for holding drills 3/32" to 1½".	
Motor drive, including motor, AC	640
Motor drive, including motor, DC	715
Style WFL. Wet and dry double end combination drill grinder, one end wet with holder for drills ½" to 4", and one end dry for drills No. 30 to 5/8".	
Motor drive, including motor, AC	625
Motor drive, including motor, DC	700
Style PO. PT. Single end, wet, drill grinder with point thinning grinding wheel. Drill capacity ¼" to 2½".	
Motor drive, including motor, AC	525
Motor drive, including motor, DC	600
Style PO. PT. Single end, wet, drill grinder with point thinning grinding wheel. Drill capacity ½" to 4".	
Motor drive, including motor, AC	575
Motor drive, including motor, DC	650
Style JPO. PT. Single end, wet, drill grinder with point thinning grinding wheel. Drill capacity 3/32" to 1½".	
Motor drive, including motor, AC	520
Motor drive, including motor, DC	595

COVEL MANUFACTURING COMPANY, BENTON HARBOR, MICH.—Continued

YANKEE TWIST DRILL GRINDERS—continued

Style JB. PT. Single end, dry, drill grinder, with point thinning grinding wheel. Drill capacity 3/32" to 1½".
Motor drive, including motor, AC $445
Motor drive, including motor, DC 620

Style B. PT. Single e d, dry, drill grinder, with point thinning grinding wheel (both grinding wheels 9½ " diameter). Drill capacity ¼" to 2½".
Motor drive, including motor, AC 470
Motor drive, including motor, DC 545

Style F. PT. A. Single end, dry, drill grinder with point thinning grinding wheel, both grinding wheels 12" diameter. Drill capacity ¼" to 2½".
Motor drive, including motor, AC 480
Motor drive, including motor, DC 555

Style F. PT. Single end, dry, drill grinder with point thinning grinding wheel. Drill capacity ½" to 4".
Motor drive, including motor, AC 540
Motor drive, including motor, DC 615

Style No. 44 Bench type, single end, dry drill grinder with point thinning grinding wheel. Capacity of drills when furnished with "J" holder 3/32" to 1½". Capacity of drills when furnished with "L" holder No. 30 to ¼".
Price including ½ hp. motor and "V" belt drive 225
Pedestal for mounting machine, extra 25

Dual drill grinding attachment, arranged for two lip drills, including one drill holder, net wgt 80 lbs 250

SURFACE GRINDERS

No. 5—8 x 24 Hydraulic feed surface grinder. Hydraulic feed to table. (Capacity 8 x 24 x 11 under a 12" grinding wheel. Dust guards on vertical slide may be removed to increase vertical capacity 2"). Pump for hydraulic mechanism direct driven thru flexible coupling with a 2 hp., 1150 r. p. m. motor mounted on a bedplate in base of machine. Dry. Furnished with wrenches and one grinding wheel 12" diameter x ¾" face. Price includes electric motors and controls. Furnished with a 2 hp. direct built-in motor (60 cycle AC electric current only) to drive spindle at 1750 r. p. m. 2,245

No. 20—6 x 18 Hydraulic feed surface grinder, without electrical equipment, dry with necessary belt, wrenches and one grinding wheel 1,445
Electrical equipment recommended:
One 1½ hp., 1,750 or 1,425 r. p. m. B. B. motor for spindle.
One 1 hp., 1,150 or 1,425 r. p. m., totally enclosed B. B. motor for hydraulic pump.
Two magnetic starters with push button stations.

No. 20V—6 x 18 Vertical spindle hydraulic feed surface grinder with a 3 hp., 3,500 r. p. m. direct connected vertical motor and control without automatic cross feed (hand cross feed only), without motor to drive hydraulic pump, dry with necessary wrenches and one grinding wheel. Furnished for 60 cycle AC electric current only 1,795

COVEL MANUFACTURING COMPANY, BENTON HARBOR, MICH.—Continued

SURFACE GRINDERS—continued

No. 20V—Continued.
Electric equipment recommended:
One 1 hp., 1,150 r. p. m. totally enclosed B. B. motor for hydraulic pump.
One magnetic starter with push button station.

No. 20H—6 x 18 Hand feed surface grinder without electrical equipment; with necessary belt, wrenches, and one grinding wheel $1,175
Electrical equipment recommended:
One 1½ hp., 1,750 or 1,425 r. p. m. B. B. motor for spindle.
One magnetic starter with push button station.

Mounting Charges For No. 5 and 20

If customer furnishes motor and control for mounting and wiring by us, there will be a charge of 20
Mounting charge for magnetic chuck 15
No charge for mounting and wiring if we furnish magnetic chuck.
Attachments for No. 5 and 20 Surface Grinders:
Built-in wheel truing device, including diamond 175
Wet attachment, including ⅛ hp., 1,750 or 1,425 r. p. m. vertical motor, pump, coolant tank, splash guards, etc 150
High speed attachment 183
Dust exhaust attachment, furnished motor drive only including 1 hp., 1,750 or 1,425 r. p. m. motor 565
Magnetic chuck—Price on application.
DC generator—Price on application.
DC rectifier—Price on application.

No. 15—6 x 18 Hand feed surface grinder. Dry, motor drive to spindle by V-belt, 3 speeds. Includes belt, and a 10 x ¾" face grinding wheel, but without motor or switch (1½ hp., 1,750 r. p. m. motor recommended) 12
Special flush type electric switch mounted in column 535
No. 72 Hand feed surface grinder. Dry, capacity 6" x 18", motor drive arranged to drive spindle at two different speeds (1,900 and 2,600 r. p. m.) including belt, and a 10x¾" face grinding wheel, but without motor or switch. A 1½ hp., 1,750 r. p. m. motor is recommended 695
No. 72A Hand feed surface grinder with head that swivels 30 degrees to right or left. Capacity 6" x 18" x 12½" high under a 10" diameter wheel, arranged for motor drive to spindle by V-belt, 3 speeds—1,900, 2,400 and 2,900 r. p. m. Includes belt, and a 10 x ¾" face grinding wheel, but without motor or switch (a 1½ hp. 1,750 r. p. m. motor is recommended) 65

ATTACHMENTS FOR NO. 15, NO. 72 AND 72A SURFACE GRINDERS

Built-in wheel truing device, including diamond 150
Wet attachment, including ⅛ hp., 1,750 or 1,425 r. p. m. vertical motor, pump, coolant tank, splash guards and pipe. Net weight 200 lbs 90
Swivel table complete (not furnished with wet attachment) 181
Dust Exhaust Attachment, furnished complete with collector fan, 1 hp., 1,750 or 1,425 r. p. m. motor and piping. Net weight 310 pounds ....

THE COX AND SONS COMPANY, BRIDGETON, N. J.

PIPE MACHINES

Type machine	2E	4E	4F	6F	8F	12D	12F	18D
Capacity pipe size ..... inches	¼ to 2	¼ to 4	¼ to 4	1 to 6	2½ to 8	4 to 12	4 to 12	8 to 18
Machine with "full range" die belt drive, including countershaft or motor drive (w/o motor)		$2,350	$2,500	$2,950	$3,400	$4,875	$5,700	
Ditto with "standard" exp. dies	$1,175	$2,075	$2,190	$2,520	$2,900	$4,475	$5,125	$6,270
Ditto with "interchangeable" exp. dies	$1,085	$2,115	$2,230	$2,590	$3,080	$4,450	$5,100	$6,185
Size motor—hp	2	5	5	5	7½	10	10	15
Speed motor—r. p. m	1,750	1,750	1,750	1,750	1,750	1,200	1,750	1,200
Approx. net weight belt drive with "standard" exp. dies ..... pounds	2,850	5,435	5,485	6,000	8,025	12,250	12,887	14,500
Approx. net weight motor drive with motor and "standard" exp. dies ..... pounds	2,715	5,335	5,385	5,900	7,925	11,780	12,509	14,262
Net price packing for export	$35	$55	$55	$60	$70	$115	$115	$150

NOTE: Prices include oil pump, reaming attachment, die equipment, countershaft or installation of motor equipment (motor and starter not included). Machines 2" to 8" inclusive are equipped with universal front gripping chuck, 12" x 18" with independent 3-jaw. Back steady chucks: 2" universal, 4" 3-jaw independent, 6", 8", 12", 18" 3-jaw independent gripping for pipe and flanges. Die heads are equipped for United States or British (Whitworth) standard threads. A. P. I. casing or drill pipe threads can be furnished for extra price.

THREADING DIES

	2"	4"	6"	8"	12"
"Full range" die pipe sizes	½ to 2"	½ to 4"	1 to 6"	2½ to 8"	3½ to 12"
Price with chasers	$445	$740	$825	$1,014	$1,440
Price per set extra chasers	$14	$57	$77	$96	$134

	1"	2"	4"	6"	8"	10"	12"
"Standard" exp. die pipe sizes	¼ x ⅜ (in.) ½–¾–1.	1¼ x 1½ 2".	2½–3 3½–4	4½–5–6	7–8	9–10	12
Price without chasers	$45	$60	$99	$105	$111	$136	$175
"Interchangeable" exp. die pipe sizes	No. 1, ¼ to 2"	No. 2, 2½ to 4"		No. 3, 2½ to 6".	No. 4, 2½ to 8".	No. 5, 7 to 12".	
Price without chasers	$120		$210	$310	$445		$510

NOTE: For delivery f. o. b. New York add 60¢ per cwt. For delivery f. a. s. New York add 3¾¢ per cwt. (minimum charge $8.32) plus 55¢ per ton, pieces 6,000 pounds and over. Prices for motors and control are net installed and subject to change without notice in accordance with manufacturer's current prices.

TUBE CUTTING OFF MACHINES

	2"	4"	6"
Type machine:			
Tube sizes	⅜" to 2"	1½" to 4"	2" to 6".
Bore spindle	3"	5"	6½".
Belt drive with countershaft, or constant speed motor drive (motor not included).	$2,400	$3,025	$3,350.
Variable speed motor drive (motor not included)	$2,000	$2,350	$2,675.
Size motor—h. p	7½	10	15.
Speed motor—r. p. m	1,200	1,750	1,750.
Variable speed D. C. motor—r. p. m	450/1,800	400/1,600	400/1,600.
Approx. net weight including variable speed motor (pounds)	3,583	5,085	7,225.
Net price packing for export	$35	$55	$60.

NOTE: Machines equipped with two cutter knives, tube bushings and length gauge. Cutting head: 2" machine (double tool mill type). 4" and 6" machines (Universal Double Tool). Variable speed motor drive, motor mounted on extended leg at rear of machine.

THE COX AND SONS COMPANY, BRIDGETON, N. J.—Continued

CHASER GRINDERS

Approximate net weight	pounds	475
Approximate shipping weight	do	770
Approximate contents (motor drive)	cubic feet	21
Approximate contents (belt drive)	do	33
Prices:		
Belt drive with countershaft		$255
Motor drive without motor		$280

NOTE: For delivery f. o. b. New York add $0.60 per cwt. For delivery f. a. s. New York add $0.03¾ per cwt. (minimum charge $8.32) plus $0.55 per ton, pieces 6,000 pounds and over.

THE CURTIS & CURTIS COMPANY, BRIDGEPORT, CONN.

PIPE CUTTING AND THREADING

MOTOR DRIVEN

Machine number	430	437	442	258	265	269	269–B
Capacity (inches) R. H	¼–2 in.	½–3 in.	1–4 in.	1–6 in.	1–8 in.	2½–12 in.	8–16 in.
Prices for motor specifications:							
60 cycle—2- or 3-phase	$725	$880	$975	$1,585	$2,420	$4,000	$5,200
60-cycles—single-phase	$760	$930	$1,025	$1,685	$2,520	$4,200	$5,500
Direct current	$800	$980	$1,075	$1,720	$2,705	$4,300	$5,570
No motor or electrical equipment	$640	$780	$875	$1,470	$2,305	$3,870	$5,070
Specifications: Net weight (pounds)	425	487	680	1,435	2,400	4,025	6,000
Motor:							
Horse power (hp.)	1	2	2	3	3	5	7½
Speed (r. p. m.)	1,800	1,800	1,800	1,800	1,800	1,800	1,800

Regular equipment for direct connected electric machines, includes commercial motor and switch, complete set of dies for range of machine, cut-off attachment and high-speed steel cutting-off tools, automatic die release, automatic oiling system, pipe rest, wrenches and cutting oil. Specifications on machines for left-hand operation, and machines equipped with motors of special types and voltages and reversing electric controls quoted on application

BELT-DRIVEN MACHINES

Machine number	70	77	84	96	98–A	108	120
Capacity (inches) R. H	¼–2 in.	½–3 in.	1–4 in.	1–6 in.	1–8 in.	2½–12 in.	8–16 in.
Price complete with C. S	$370	$440	$535	$835	$1,785	$3,000	$4,500
Floor base and high pipe rest	$100	$100	$100	$100	(1)	(1)	(1)
Weight (pounds)	392	428	694	1,295	2,350	3,750	5,150

[1] Standard equipment.

D. & M. MACHINE WORKS, TORRANCE, CALIF.

PRICES AND SPECIFICATIONS

Size of swing (inches)	Distance between centers	Length of bed	Net weight	Price arranged for motor drive
	Inches	*Feet*	*Pounds*	
12	27	5	1,650	$1,589.50
14	37	6	1,750	2,046.00
16	51	8	3,000	2,612.50

THE DAUBER COMPANY, OSHKOSH, WIS.

3', high speed sensitive radial drill press	$1,340
4', high speed sensitive radial drill press	1,402

CROSS GEAR & MACHINE CO., DETROIT, MICH

No. 12 Cross MilLathe	$15,300
No. 20 Cross universal precision milling machine[1]	1,500
No. 36 Cross gear tooth rounder	3,750
No. 40 Cross gear tooth pointing machine	3,250
No. 41 Cross gear tooth pointing machine	5,250
No. 50 Cross gear tooth chamfering machine	3,850
No. 60 Cross gear tooth pointing machine	3,700
No. 62 Cross gear tooth pointing machine	5,800
No. 70 Cross gear tooth burring machine	2,750
No. 71 Cross gear tooth burring machine	2,800
No. 73 Cross gear tooth burring machine	3,350
No. 74 Cross gear tooth burring machine	3,850

[1] Price correction advised by manufacturer. Price differs from that shown in 1st edition of "New Machine Tools."

DAVENPORT MACHINE TOOL CO., ROCHESTER, N. Y.

BASE PRICES ON DAVENPORT MACHINES

Model B, five spindle, Automatic Screw Machine, plain type; capacity—9/16" round, ½" hexagon, ⅜" square	$5,275
Model B, five spindle, Automatic Screw Machine, oversize, plain type; capacity, ¾" round, ⅝" hexagon, ½" square	5,475
(In the above cases, motor drive and all attachments are extra)	
Automatic Clock Pinion Turning Machine, belt drive; capacity, from 0.075" to ⅜"	3,250

DAVIS & THOMPSON CO., MILWAUKEE, WIS.

MILLING MACHINES

	Price[1]
No. 1–A:	
Miller arranged for motor drive without fixtures or clamping	$6,410
Chain clamping (2 chains)	610
Chain clamping (3 chains)	910
Fixture approximately (plain V-block)	610

DAVIS & THOMPSON CO., MILWAUKEE, WIS.—Continued

MILLING MACHINES—continued

	Price[1]
No. 1–A—Continued.	
Toggle lever fixtures—for chain clamping	$850–2,450
Motors: 7 to 10 H. P., 1,200 R. P. M.	
Weight: Approximately 8,000 lb.	
No. 1–A	
Miller with heavy heads, arranged for motor drive	7,620
Chain clamping	610
Chain clamping	910
Fixture, approximately (plain V-block)	850–2,450
Motors: 10 to 15 H. P., 1,200 R. P. M.	
Weight: Approximately 10,000 lb.	
No. 1–B: Miller, streamliner	8,250
No. 2:	
Miller without fixtures	10,175
Chain clamping	715
Fixture, approximately	715–960
Motors: 12 to 20 H. P., 1,200 R. P. M.	
Weight: Approximately 20,000 lb.	
No. 2–A:	
Miller without fixtures, 2 heads	13,200
Miller without fixtures, 3 heads, 2 spindles in center head	15,800
Miller without fixtures, 3 heads, 4 spindles in center head	17,100
No. 2–B:	
Miller without fixtures and clamping	12,100
Chain clamping (2 chains)	715
Fixture, approximately	960–1,820
Motors: 25 H. P., 1,200 R. P. M.	
Weight: Approximately 22,000 lb.	
No. 3:	
Miller, single end, including fixture	10,800
Miller, double end, including fixture	13,000
Motors: 25 to 30 H. P., 1,200 R. P. M.	

DAVIS & THOMPSON CO., MILWAUKEE, WIS.—Continued

MILLING MACHINES—continued

	Price[1]
No. 3–A—Continued.	
Weight:	
Single end: Approximately 20,000 lb.	
Double end: Approximately 28,000 lb.	
No. 4: Miller without fixtures	$17,600
4 spindle rise and fall milling machines, without fixtures	10,825
Davis axle miller with fly wheels	10,650

DRILLING MACHINES

12 spindle continuous vertical rotary, without fixture, and pump, arranged for motor drive	$13,420
Motors: 20 to 30 H. P., 1,200 R. P. M. (without pump).	
Weight: Approximately 21,000 lb.	
8 spindle continuous vertical rotary, without fixture, and pump, arranged for motor drive	9,750
Motor: 10 H. P., 1,200 R. P. M.	
Weight: Approximately 12,000 lb.	
SV–8: 8 spindle continuous vertical rotary, without fixture, and arranged for motor drive	5,880
Motor: 7½ H. P., 1,800 R. P. M.	
Weight: Approximately 6,500 lb.	
Piston driller, double end drive, without fixtures	10,200
Fixtures per station	215
12 spindle horizontal driller, with compound tank in base without fixtures or automatic clamping	14,200

[1] Prices corrected upon advice of manufacturer, differ from those shown in first edition "Prices of New Machine Tools."

DAVIS KEYSEATER COMPANY, ROCHESTER, N. Y.

NEW STYLE MACHINES WITH TILTING TABLE

	Code	Price
No. 3 machine belt drive, capacity keyways 1/16" to ½" in width, with regular table equipment.	Actor	$430
Arranged for motor drive including motor base plate but without motor or electrical equipment.	Acresss	496
No. 4 machine belt drive, capacity keyways 1/16" to 1" wide, with regular table equipment	Accurate	520
Arranged for motor drive including motor base plate but without motor or electrical equipment.	Accost	576
No. 5 machine belt drive, capacity keyways 1/16" to 1¼" in width, with regular table equipment.	Adapt	738
Arranged for motor drive including motor base plate but without motor or electrical equipment.	Addict	810

OLD STYLE MACHINES WITH FIXED TABLE

No. 1 machine belt drive, capacity keyways 1/16" to 1" in width, with regular table equipment.	Acquaint	$396
Arranged for motor drive including motor base plate but without motor or electrical equipment.	Macquaint	462
No. 2 machine belt drive, capacity keyways 1/16" to 5/8" wide, with regular table equipment	Acquit	300
Arranged for motor drive including motor base plate but without motor or electrical equipment.	Macquit	366
We can furnish motor if desired, in which case we will make no charge for mounting.		
Belt-driven machines do not require countershaft.		

DAVIS KEYSEATER COMPANY, ROCHESTER, N. Y.—Continued

CUTTERS

Size (width of keyway) (inches)	Standard— Length (inches)	Standard— Width (inches)	Carbon steel	High speed steel	Code
1/16 [1]	16	3/8	$10.00	$11.00	Tab.
3/32 [1]	16	3/8	9.50	10.75	Table.
1/8 [1]	16	7/16	8.00	10.00	Tablet.
5/32	16	7/16	6.00	9.50	Tack.
3/16	16	5/8	5.25	9.00	Tag.
7/32	16	5/8	5.40	9.25	Tail.
1/4	16	3/4	5.50	9.00	Taint.
5/16	16	7/8	5.75	9.50	Take.
3/8	16	7/8	6.00	10.00	Talk.
7/16	16	1	6.15	10.50	Tame.
1/2	20	1	7.00	12.10	Tamp.
9/16	20	1	7.50	12.60	Tan.
5/8	20	1	7.95	13.20	Tank.
11/16	20	1	8.50	13.70	Tap.
3/4	20	1	8.75	14.30	Tar.
13/16	20	1	9.50	14.85	Tare.
7/8	20	1	9.75	15.40	Tart.
15/16	20	1	10.50	15.90	Task.
1	20	1	10.75	16.50	Taste.

[1] Reinforced back 3/16" thick. Can furnish special cutters to order. Cutters in intermediate sizes not listed, and cutters for more than 1" width of keyway will be quoted upon request.

BUSHINGS

Size	Diameter	Height	Code	Price
No. 1	1/2 to 2 in. as ordered	2 in		$7.80
No. 2	2 1/16 to 3 in. as ordered	3 1/2 in		10.20
No. 3	3 1/16 to 4 in. as ordered	4 1/2 in		14.40
No. 4	4 1/16 to 5 in. as ordered	5 1/2 in		18.60

BUSHINGS HOLDERS

Size	Takes Bushings	Code	Price
No. 1	1/2 in. to 2 in. diam		$8.40
No. 2	2 1/16 in. to 3 in. diam		9.60
No. 3	3 1/16 in. to 4 in. diam		10.80
No. 4	4 1/16 in. to 5 in. diam		12.00

Only one holder required for each group of bushings.
Prices of swinging clamp bars when ordered as extras with machines. For No. 3, $18.00. For No. 4, $24.00. For No. 5, $30.00. Long clamp bar for No. 1 machine $36.00.

DEFIANCE MACHINE WORK, INC., DEFIANCE, OHIO

HORIZONTAL BORING MACHINES

Older Model No. 5 with 3" bar	$9,130
Older Model No. 5A with 3 3/4" bar	12,000
Older Model No. 6 with 4 1/2" bar	15,000

NEW MODELS

No. 25–A with 3 3/4" bar and 5' bed, 30" x 60" table, 30" vertical movement; weight, 25,350 pounds	13,395
No. 26 with 4 1/2" bar and 7' bed, 36" x 64" table, 36" vertical movement; weight 40,300 pounds	18,775

DEFIANCE MACHINE WORK, INC., DEFIANCE, OHIO—Continued

EXTRAS FOR ABOVE NEW MODELS

	No. 25–A	No. 26
Bed, 6'	$200	
Bed, 8'	600	$300
Bed, 10'		900
Vertical movement of head, 36"	240	
Vertical movement of head, 42"	480	
Vertical movement of head, 48"		720
Verticla movement of head, 60"	1,000	
Vertical movement of head, 60"		1,440
Table with suitable saddle, 36" x 64"	225	
Table with suitable saddle, 42" x 64"	285	
Table with suitable saddle, 36" x 75"	300	300
Table with suitable saddle, 42" x 75"	330	330
Table with suitable saddle, 48" x 84"		1,000

DEFIANCE MACHINE WORK, INC., DEFIANCE, OHIO—Continued

DRILLING MACHINES

Defiance No. 112-21" Production Drilling Machine	$1,524

[Standard equipment consists of, T slot table with jack screw underneath, hardened steel wear strips for head slide and 12" head travel, change gears for 16 speeds, and feeds single pulley drive.]

DEFIANCE MACHINE WORK, INC., DEFIANCE, OHIO—Continued

DRILLING MACHINES—continued

Defiance No. 200-26" Heavy Duty Production Drilling Machine	$1,994

[Standard equipment consists of T slot table with jack screw underneath, hardened steel wear strips for head slide and 12" head travel, change gears for 12 speeds and 16 feeds, single pulley drive.]

DELDE MACHINE WORKS, MELROSE PARK, ILL.

O. B. I. PRESSES, BENCH-TYPE

Model No.	Cap.	Standard stroke of slide	Depth of throat from centre of slide	Weight of flywheel	Weight complete	Price
	Tons	Inches	Inches			
00	1 1/4	3/8	2 1/2	25	125	$100
0 steel	2 1/2	1	2 3/4	50	190	130
0 case iron	2 1/2	1	2 3/4	50	190	125
1	5	1 1/4	4	100	400	175
1B	7 1/2	1 1/4	6 1/2	150	650	190
1A						255

Tables and legs for mounting above presses can be furnished if desired.
Specifications of floor type presses furnished on request.

A. P. DE SANNO & SON, INC., PHOENIXVILLE, PA.

RADIAC CUT-OFF MACHINE

Type K—Both Wet and Dry Cutting

Cut-off discs: For wet cutting, Rubber Bond, 16 inches in diameter and 1/16" to 1/8" thick. For dry cutting, Resinoid Bond, 14 inches in diameter, 3/32" and 1/8" thick.	
The price of the machine complete is as follows:	
For 60 cycles, 2 or 3 phase, 220, 440, 550 volts	$1,153
For 50 cycles, 2 or 3 phase, 220, 440, 550 volts	1,168
For direct current, 115 or 230 volts	1,437
The price of the machine without the 7 1/2 h. p. motor, magnetic switch, push-button station and drum speed changer, but with motor pulley and 7 V belt and also with the 1/4 h. p. pump motor is as follows:	
For 60 cycles, 2 or 3 phase, 220, 440, 550 volts	940
For 50 cycles, 2 or 3 phase, 220, 440, 550 volts	947
For direct current, 115 or 230 volts	945
Price of standard straight or swivel vise when purchased as extra equipment	90
Charge for installing electrical equipment furnished by customer	20

Type J—Wet Cutting

Cut-off discs, 16 inches in diameter and 1/16 to 1/8 inch thick. Selected for customer's particular requirements.	
The price of the machine complete is as follows:	
For 60 cycles, 2 or 3 phase, 220, 440, 550 volts	1,070
For 50 cycles, 2 or 3 phase, 220, 440, 550 volts	1,082
For 25 cycles, 2 or 3 phase, 220, 440, 550 volts	1,182
For direct current 115 or 230 volts	1,280
The price of the machine without the 7 1/2 h. p. motor, magnetic switch and push-button station, but with motor pulley and 7 V-belts and also with the 1/4 h. p. pump motor is as follows:	
For 60 cycles, 2 or 3 phase, 220, 440, 550 volts	934
For 50 cycles, 2 or 3 phase, 220, 440, 550 volts	941
For 25 cycles, 2 or 3 phase, 220, 440, 550 volts	949
For direct current 115 or 230 volts	939
Price of standard straight or swivel vise when purchased as extra equipment	90
Charge for installing electrical equipment furnished by customer	20

A. P. DE SANNO & SON, INC., PHOENIXVILLE, PA.—Continued

RADIAC CUT-OFF MACHINE—continued

Type G—Wet Cutting

The price of the machine complete is as follows:	
For 60 cycles, 2 or 3 phase, 220, 440, 550 volts	$499
For 50 cycles, 2 or 3 phase, 220, 440, 550 volts	508
For 25 cycles, 2 or 3 phase, 220, 440, 550 volts	546
For direct current 115 or 230 volts	573
The price of the machine without the 1 1/2-h. p. motor and switch, but with motor pulley and 2 V-belts and also with the 1/4-h. p. pump motor is as follows:	
For 60 cycles, 2 or 3 phase, 220, 440, 550 volts	440
For 50 cycles, 2 or 3 phase, 220, 440, 550 volts	446
For 25 cycles, 2 or 3 phase, 220, 440, 550 volts	453
For direct current 115 or 230 volts	443
Charge for installing electrical equipment furnished by customer	15

Type H

Machine complete, with motor for 2 or 3 phase, 60 cycle, 220-440-550 volt current	368
Machine without electrical equipment	300
Extra for D. C., 25 or 50 cycle current—See reverse side for motor prices.	
Charge for installing electrical equipment furnished by customer	10

Type C

The price of the machine complete is as follows:	
For 60 cycles 2 or 3 phase, 220, 440, 550 volts, totally inclosed motor	821
For 50 cycles 2 or 3 phase, 220, 440, 550 volts, totally inclosed motor	867
For 25 cycles 2 or 3 phase, 220, 440, 550 volts, price on application.	
For D. C. 115 or 230 volts totally inclosed motor	1,127
For D. C. 115 or 230 volts splash proof motor	1,052
The price of the machine without the 7 1/2 h. p. motor magnetic switch and push-button station but with motor pulley and 7 V-belts is as follows:	
For 60 cycles, 2 or 3 phase, 220, 440, 550 volts	652
For 50 cycles, 2 or 3 phase, 220, 440, 550 volts	658
For 25 cycles, 2 or 3 phase, 220, 440, 550 volts, Price on application.	
For D. C. 115 or 230 volts	652
Charge for installing electrical equipment furnished by customer	20
Swivel vise, each	75

DOELGER & KIRSTEN, INC., MILWAUKEE, WIS.

ALL STEEL ALLIGATOR SHEARS F. O. B. MILWAUKEE

No. 1 High and Low Knife With 10-Inch Blades

Belt driven, shear only (without motor, belt or timbers)	$845
Belt driven, shear only on timbers (without motor and belt)	875
Belt driven, shear on timbers (with 3 hp., 3 ph., 60 cy., 220 v. motor and belt	965
Gear driven, shear only (without motor and timbers)	875
Gear driven, shear only on timbers (without motor)	910
Gear driven, shear on timbers (with 3 hp., 3 ph., 60 cy., 220 v. motor)	980
Gear driven, shear on wheels (with 3 hp., 3 ph., 60 cy., 220 v. motor)	1,030
For 12" blades, add $25; for 14" blades, add $50 to above lists.	
For Automatic No. 1 add to above lists	225

No. 1½ High and Low Knife With 12- or 24-Inch Blades

Belt driven, shear only (without belt, motor or timbers)	1,420
Belt driven, shear only on timbers (without belt and motor)	1,465
Belt driven, shear on timbers (with 5 hp., 3 ph., 60 cy., 220 v. motor and belt)	1,580
Gear driven, shear only (without motor or timbers)	1,475
Gear driven, shear only on timbers (without motor)	1,520
Gear driven, shear on timbers (with 5 hp., 3 ph., 60 cy., 220 v. motor)	1,610
Gear driven, shear on wheels (with 5 hp., 3 ph., 60 cy., 220 v. motor)	1,690
For automatic No. 1½ add to above lists	325

No. 2 Low Knife With 21- or 24-Inch Blades

Belt driven, shear only (without belt, motor, starter or timbers)	1,995
Belt driven, shear only on timbers (without belt, motor or starter)	2,045
Belt driven, shear on timbers (with 7½ hp., 3 ph., 60cy., 220 v. motor, starter and belt)	2,220
Gear driven, shear only (without motor, starter or timbers)	2,095
Gear driven, shear only on timbers (without motor or starter)	2,145
Gear driven, shear on timbers (with 7½ hp., 3 ph., 60 cy., 220 v. motor and starter)	2,290
For automatic No. 2 add to above lists	425

No. 2 High Knife With 21- or 24-Inch Blades

Belt driven, shear only (without belt, motor, starter or timbers)	2,045
Belt driven, shear only on timbers (without motor, starter or belt)	2,095
Belt driven, shear on timbers (with 7½ hp., 3 ph., 60 cy., 220 v. motor, starter and belt)	2,270
Gear driven, shear only (without motor, starter or timbers)	2,145
Gear driven, shear only on timbers (without motor or starter)	2,195
Gear driven, shear on timbers (with 7½ hp., 3 ph., 60 cy., 220 v. motor and starter)	2,340
For automatic No. 2 add to above lists	425
3-5-7½ hp. motors are 1,750 r. p. m.	

No. 3 Low Knife

24" blades, belt driven shear only (without motor, starter, or belt)	3,410
30" blades, belt driven shear only (without motor, starter, or belt)	3,520
24" blades, belt driven shear (with 15 hp., 3 ph., 60 cy., 220 v. motor, starter and belt)	3,715
30" blades, belt driven shear (with 15 hp., 3 ph., 60 cy., 220 v. motor, starter and belt)	3,825
24" blades, gear driven (without motor or starter)	3,685
30" blades, gear driven shear (without motor or starter)	3,795
24" blades, gear driven shear (with 15 hp., 3 ph., 60 cy., 220 v. motor and starter)	3,920
30" blades, gear driven shear (with 15 hp., 3 ph., 60 cy., 220 v. motor and starter)	4,030
For automatic No. 3 add to above lists	800

DOELGER & KIRSTEN, INC., MILWAUKEE, WIS.—Continued

ALL STEEL ALLIGATOR SHEARS F. O. B. MILWAUKEE—con.

No. 3 High Knife

24" blades, belt driven shear only (without motor, starter or belt)	$3,520
30" blades, belt driven shear only (without motor, starter or belt)	3,630
36" blades, belt driven shear only (without motor, starter or belt)	3,795
24" blades, belt driven shear (with 15 hp., 3 ph., 60 cy., 220 v. motor, starter and belt)	3,825
30" blades, belt driven shear (with 15 hp., 3 ph., 60 cy., 220 v. motor, starter and belt)	3,935
36" blades, belt driven shear (with 15 hp., 3 ph., 60 cy., 220 v. motor, starter and belt)	4,100
24" blades, gear driven shear (without motor and starter)	3,795
30" blades, gear driven shear (without motor and starter)	3,910
36" blades, gear driven shear (without motor and starter)	4,075
24" blades, gear driven shear (with 15 hp., 3 ph., 60 cy., 220 v. motor and starter)	4,030
30" blades, gear driven shear (with 15 hp., 3 ph., 60 cy., 220 v. motor and starter)	4,140
36" blades, gear driven shear (with 15 hp., 3 ph., 60 cy., 220 v. motor and starter)	4,310
For Automatic No. 3 add to above lists	800

No. 3½ Low Knife

24" blades, belt driven shear only (without motor, starter or belt)	4,835
30" blades, belt driven shear only (without motor, starter or belt)	5,000
24" blades, belt driven shear (with 25 hp., 3 ph., 60 cy., 220 v. motor, starter and belt)	5,445
30" blades, belt driven shear (with 25 hp., 3 ph., 60 cy., 220 v. motor, starter and belt)	5,610
24" blades, gear driven shear only (without motor or starter)	5,165
30" blades, gear driven shear only (without motor or starter)	5,335
24" blades, gear driven shear (with 25 hp., 3 ph., 60 cy., 220 v. motor and starter)	5,720
30" blades, gear driven shear (with 25 hp., 3 ph., 60 cy., 220 v. motor and starter)	5,890

No. 3½ High Knife

30" blades, belt driven shear only (without motor, starter or belt)	5,010
36" blades, belt driven shear only (without motor, starter or belt)	5,305
42" blades, belt driven shear only (without motor, starter or belt)	5,555
30" blades, belt driven shear (with 25 hp., 3 ph., 60 cy., 220 v. motor, starter and belt)	5,665
36" blades, belt driven shear (with 25 hp., 3 ph., 60 cy., 220 v. motor, starter and belt)	5,915
42" blades, belt driven shear (with 25 hp., 3 ph., 60 cy., 220 v. motor, starter and belt)	6,165
30" blades, gear driven shear only (without motor or starter)	5,390
36" blades, gear driven shear only (without motor or starter)	5,640
42" blades, gear driven shear only (without motor or starter)	5,890
30" blades, gear driven shear (with 25 hp., 3 ph., 60 cy., 220 v. motor and starter)	5,945

DOELGER & KIRSTEN, INC., MILWAUKEE, WIS.—Continued

ALL STEEL ALLIGATOR SHEARS F. O. B. MILWAUKEE—con.

No. 3½ High Knife—Continued

36" blades, gear driven shear (with 25 hp., 3 ph., 60 cy., 220 v. motor and starter)	$6,195
42" blades, gear driven shear (with 25 hp., 3 ph., 60 cy., 220 v. motor and starter)	6,500

No. 4 Low Knife

24" blades, belt driven shear only (without motor, belt or starter)	6,355
30" blades, belt driven shear only (without motor, belt or starter)	6,470
36" blades, belt driven shear only (without motor, belt or starter)	6,665
24" blades, belt driven shear (with 40 hp., 3 ph., 60 cy., 220 v. motor, starter and belt)	7,035
30" blades, belt driven shear (with 40 hp., 3 ph., 60 cy., 220 v. motor, starter and belt)	7,145
36" blades, belt driven shear (with 40 hp., 3 ph., 60 cy., 220 v. motor, starter and belt)	7,340
24" blades, gear driven shear only (without motor and starter)	6,745
30" blades, gear driven shear only (without motor and starter)	6,855
36" blades, gear driven shear only (without motor and starter)	7,055
24" blades, gear driven shear (with 40 hp., 3 ph., 60 cy., 220 v. motor and starter)	7,310
30" blades, gear driven shear (with 40 hp., 3 ph., 60 cy., 220 v. motor and starter)	7,420
36" blades, gear driven shear (with 40 hp., 3 ph., 60 cy., 220 v. motor and starter)	7,615
For Automatic No. 4 add to above lists	1,000

No. 4 High Knife

24" blades, belt driven shear only (without motor and starter)	6,625
30" blades, belt driven shear only (without motor and starter)	6,735
36" blades, belt driven shear only (without motor and starter)	6,935
24" blades, belt driven shear (with 40 hp., 3 ph., 60 cy., 220 v. motor, starter and belt)	7,300
30" blades, belt driven shear (with 40 hp., 3 ph., 60 cy., 220 v. motor, starter and belt)	7,415
36" blades, belt driven shear (with 40 hp., 3 ph., 60 cy., 220 v. motor, starter and belt)	7,610
24" blades, gear driven shear only (without motor or starter)	7,015
30" blades, gear driven shear only (without motor or starter)	7,125
36" blades, gear driven shear only (without motor or starter)	7,325
24" blades, gear driven shear (with 40 hp., 3 ph., 60 cy., 220 v. motor and starter)	7,575
30" blades, gear driven shear (with 40 hp., 3 ph., 60 cy., 220 v. motor and starter)	7,690
36" blades, gear driven shear (with 40 hp., 3 ph., 60 cy., 220 v. motor and starter)	7,885
For automatic No. 4 add to above lists	1,000
3, 5, 7½ hp. motors are 1,750 4. r. p. m. 15, 25, 40 hp. motors are 1,150 r. p. m.	

DOUGLAS MACHINERY CO., INC., NEW YORK, N. Y.

No. 0 Douglas Plain Miller without motor, $1,650, weight 1,635 pounds.

No. 7 Douglas Universal Slotting Machine without motor, $2,155, weight 1,825 pounds.

DREIS & KRUMP MFG. CO., CHICAGO, ILL.

NOTE: Price corrections on L. & D. presses and steel press brakes. Changes made upon advice of manufacturer. Prices differ from those shown in "Prices of New Machine Tools," first edition.

"L" SERIES PRESSES

Size	Capacity, mild steel		Distance between housings	Over-all bending length	Weight	Price, one-speed	Price, vari-speed
	Length	Capacity					
	Inches	*Gage*	*Inches*	*Inches*	*Pounds*		
4L6	72	10	54	72	8,000	----------	$1,710
6L8	96	12	78	96	9,225	----------	1,850
8L10	120	15	102	120	11,035	----------	1,990

Prices on these sizes include drive motor with reversing control, also power adjustment of ram with motor and control, for 2- or 3-phase A. C. current. Extra for direct current on application. Single phase A. C. not furnished. Variable speed drive, die holder, and standard back gage furnished as regular equipment. All dies are extra. Extra for front-operated micrometer back gage, $90.

DREIS & KRUMP MFG. CO., CHICAGO, ILL.—Continued

"D" SERIES PRESSES

Size	Capacity, mild steel plate	Distance between housings	Overall bending length	Approximate shipping weight	Price	Air counterbalance	18-inch throat	Longer stroke per inch	2-speed	Motor required[1]
	Ft. In.	*Ft. In.*	*Ft. In.*	*Pounds*						
404D	4 5/16	4 6	6 0	12,800	$2,875	$210				
406D	6 7/32	6 6	8 0	15,200	2,975	210				
408D	8 5/16	8 6	10 0	19,300	3,090	210	$150	$125	$350	(4)
410D	10 [2]	10 6	12 0	22,900	3,300	220				
412D	12 [3]	12 6	14 0	26,200	3,670	220				
454D	4 7/16	4 6	6 0	16,500	3,400	235				
456D	6 5/16	6 6	8 0	20,000	3,525	235				
458D	8 1/4	8 6	10 0	23,500	3,740	235	180	150	375	(5)
4510D	10 5/16	10 6	12 0	28,600	3,950	250				
4512D	12 5/32	12 6	14 0	33,100	4,200	250				
4514D	14 1/8	14 6	16 0	38,900	4,830	250				
504D	4 9/16	4 6	6 2	23,400	3,850	265				
506D	6 3/8	6 6	8 2	26,600	4,075	265				
508D	8 5/16	8 6	10 2	30,400	4,275	265				
510D	10 1/4	10 6	12 2	35,200	4,510	280	220	200	400	(6)
512D	12 5/32	12 6	14 2	41,000	4,790	280				
514D	14 5/16	14 6	16 2	49,100	5,230	280				
516D	16 5/32	16 6	18 2	56,300	6,140	No extra				
606D	6 9/16	6 6	8 6	34,500	6,175	320				
608D	8 7/16	8 6	10 6	40,600	6,380	320				
610D	10 3/8	10 6	12 6	48,000	6,500	345	270	235	500	(7)
612D	12 5/16	12 6	14 6	56,200	7,120	No extra				
614D	14 1/4	14 6	16 6	64,000	7,530	No extra				
616D	16 7/32	16 6	18 6	74,000	8,575	No extra				
708D	8 5/8	8 6	12 0	57,400	8,600					
710D	10 1/2	10 6	14 0	65,800	8,940					
712D	12 1/2	12 6	16 0	73,600	9,360	No extra	320	260	No extra	(8)
714D	14 7/16	14 6	18 0	82,000	10,200					
716D	16 3/8	16 6	20 0	94,700	11,000					
808D	8 3/8	8 6	12 0	73,000	11,460					
810D	10 3/4	10 6	14 0	82,000	11,880					
812D	12 9/16	12 6	16 0	92,000	12,480	No extra	390	275	No extra	(9)
814D	14 1/2	14 6	18 0	113,600	13,550					
816D	16 7/16	16 6	20 0	125,000	15,120					

Prices on these sizes include ram adjustment motor, standard die holder, one pair adjustable gages, and arrangement for V-belt motor drive, including sheaves and belts, but not including drive motor and control.

[1] Motor recommended: High-slip continuous-duty type. All dies are extra. Air-operated clutch can be furnished at additional cost.

[2] 10-gage. [4] 5 hp., 1,800 r. p. m. [6] 10 hp., 1,800 r. p. m. [8] 20 hp., 1,800 r. p. m.

[3] 12-gage. [5] 7½ hp., 1,800 r. p. m. [7] 15 hp., 1,800 r. p. m. [9] 30 hp., 1,800 r. p. m.

HAND BOX AND PAN BRAKES

No.	Length	Capacity	Finger extension	Price
	Feet	*Gage*	*Inches*	
30	3	14	6	$185
31	4	14	6	225
32	5	14	6	290
33	3	14	8	210
34	4	14	8	265
35	5	14	8	335
36	6	14	6	305
37	8	14	6	385
38	10	16	6	465
39	6	14	8	375
40	8	16	8	450

Full set of fingers in 3-inch, 4-inch and 5-inch widths furnished as standard equipment.

PORTABLE BRAKES

No.	Length	Capacity	Price
	Inches	*Gage*	
420	49	20	$105
520	61	20	110

FOLDER BRAKES

25	36	20	$115
26	42	20	125
27	48	20	135

UNIVERSAL HAND BRAKES

	Feet inches	*Gage*	
L-3	3 ½	12	$280
W-3	3 ½	14	230
L-4	4 ½	12	300
W-4	4 ½	14	260

UNIVERSAL HAND BRAKES—continued

No.	Length	Capacity	Price
	Feet inches	*Gage*	
L-5	5 1	12	$380
W-5	5 1	14	345
R-5	5 1	16	290
L-6	6 1	12	430
W-6	6 1	14	370
R-6	6 1	16	320
L-8	8 1	12	545
W-8	8 1	14	460
R-8	8 1	16	380
W-10	10 1	14	610
R-10	10 1	16	540
U-10	10 1	18	480

Standard equipment includes regular bending bars U1, U2, U5, U6, angle bar U7, filler bar U22, swinging quadrant gage, and wrenches.

Moulding forms and clamps can be furnished as on standard brakes at same prices.

STANDARD HAND BENDING BRAKES

	Feet inches	*Gage*	
312	3 ½	12	$180
314	3 ½	14	130
316	3 ½	16	105
412	4 ½	12	190
414	4 ½	14	150
416	4 ½	16	115
512	5 1	12	260
514	5 1	14	225
516	5 1	16	170
518	5 1	18	130
612	6 1	12	300
614	6 1	14	240
616	6 1	16	190
618	6 1	18	150
812	8 1	12	405
814	8 1	14	310
816	8 1	16	230
818	8 1	18	170
1014	10 1	14	440

DREIS & KRUMP MFG. CO., CHICAGO, ILL.—Con.

STANDARD HAND BENDIND BRAKES—continued

No.	Lenghth	Capacity	Price
	Feet inches	*Gage*	
1016	10 1	16	$370
1018	10 1	18	310
1218	12 1	18	550
1222	12 1	22	450

Standard equipment includes wrenches and stop gage. Moulding forms not included in above prices. Extra for set of five moulding forms and clamps.

3-foot brakes, $5; 4-foot brakes, $6; 5-foot brakes, $7; 6-foot brakes, $8; 8-foot brakes, $10; 10-foot brakes, $12; 12-foot brakes, $14.

CHICAGO STEEL POWER BRAKES WITH HAND CLAMP

[All prices cover machines on skids f. o. b. Chicago, Ill.—prices net]

No.	Length	Capacity	Price
	Ft. in.		
133	3 ½	12 gage	$550
134	3 ½	10 gage	575
135	3 ½	3/16 inch	650
136	3 ½	¼ inch	905
137	3 ½	5/16 inch	1,160
138	3 ½	½ inch	1,465
143	4 ½	12 gage	625
144	4 ½	10 gage	705
145	4 ½	3/16 inch	905
146	4 ½	¼ inch	1,160
147	4 ½	5/16 inch	1,510
148	4 ½	½ inch	1,775
162	6 1	14 gage	655
163	6 1	12 gage	795
164	6 1	10 gage	1,025
165	6 1	3/16 inch	1,230
166	6 1	¼ inch	1,710
167	6 1	5/16 inch	1,990
168	6 1	½ inch	2,825
181	8 1	16 gage	680
182	8 1	14 gage	800
183	8 1	12 gage	975
184	8 1	10 gage	1,260
185	8 1	3/16 inch	1,480
186	8 1	¼ inch	2,320
201	10 1	16 gage	825
202	10 1	14 gage	980
203	10 1	12 gage	1,395
204	10 1	10 gage	1,660
205	10 1	3/16 inch	2,500
221	12 1	16 gage	1,520
222	12 1	14 gage	1,690
223	12 1	12 gage	2,130
224	12 1	10 gage	3,000
241	14 1	16 gage	1,875
242	14 1	14 gage	2,320
243	14 1	12 gage	3,400
261	16 1	16 gage	2,575
262	16 1	14 gage	3,265
263	16 1	12 gage	3,815

POWER BOX AND PAN BRAKES WITH HAND CLAMP

No.	Length	Capacity	Finger extension	Price
	Feet		*Inches*	
60	4	10 gage	6	$900
61	5	10 gage	6	1,030
62	6	10 gage	6	1,250
63	8	10 gage	6	1,600
65	4	10 gage	8	950
66	5	10 gage	8	1,150
67	6	10 gage	8	1,430
68	8	10 gage	8	1,725
70	4	10 gage	12	1,155
71	5	10 gage	12	1,475
72	6	10 gage	12	1,700
73	8	10 gage	12	1,995

POWER BRAKES WITH POWER CLAMP

	Ft. In.		
187	8 1	3/16 inch	$3,750
188	8 1	¼ inch	4,400
189	8 1	3/16 inch	6,250
206	10 1	¼ inch	3,880
207	10 1	5/16 inch	4,940
208	10 1	½ inch	5,600
209	10 1	3/16 inch	8,100
225	12 1	3/16 inch	4,430
226	12 1	¼ inch	5,475
227	12 1	5/16 inch	6,200
228	12 1	½ inch	7,450
229	12 1	3/16 inch	10,500
244	14 1	10 gage	3,800
245	14 1	3/16 inch	5,820
246	14 1	¼ inch	6,675
247	14 1	5/16 inch	8,400
248	14 1	½ inch	11,850
264	16 1	10 gage	5,890
265	16 1	3/16 inch	7,250
266	16 1	¼ inch	11,000
267	16 1	5/16 inch	12,350
268	16 1	½ inch	14,400

DREIS & KRUMP MFG. CO., CHICAGO, ILL.—Continued

CHICAGO STEEL PRESS BRAKES

	Size	Capacity, mild steel		Distance between housings	Over-all bending length	Weight	Price-one-speed	Price, vari-speed
		Length	Capacity					
		Inches	*Gage*	*Inches*	*Inches*	*Pounds*		
253		50	14	37	50	2,500	$760	$805
254		60	16	49	60	3,300	855	900
255		72	18	61	72	4,100	950	995
333		48	10	37	50	3,750	1,020	1,075
334		60	12	49	60	4,550	1,110	1,165
335		72	14	61	72	5,400	1,185	1,240

Prices include motor with reversing control, for 2- or 3-phase A. C. current. Extra for direct current quoted on application. Single phase A. C. not furnished. Die holder and standard back gage are furnished. All dies are extra. Extra for front-operated micrometer back gages $90.

CHICAGO STEEL POWER SQUARING SHEARS

[All prices cover machines on skids f. o. b. Chicago, Ill. Add 20 percent to list prices]

No.	Capacity, continuous duty		Cutting length	Without gap	Add for 18" gap	Add for 24" gap	Motor required	
	Mild steel	Stainless steel					Horse-power	Speed
236	14 gage	16 gage	36	$840	$70	$120	3	1,200
242	do	do	42	900	70	120	3	1,200
248	do	do	48	940	70	120	3	1,200
260	do	do	60	985	70	120	3	1,200
272	do	do	72	1,080	70	120	3	1,200
296	do	do	96	1,650	70	120	5	1,200
2120	do	do	120	1,795	70	120	5	1,200
2144	do	do	144	2,130	70	120	5	1,200
336	10 gage	12 gage	36	1,030	120	210	5	1,800
342	do	do	42	1,060	120	210	5	1,800
348	do	do	48	1,120	120	210	5	1,800
360	do	do	60	1,180	120	210	5	1,800
372	do	do	72	1,270	120	210	5	1,800
396	do	do	96	1,870	120	210	5	1,800
3120	do	do	120	2,080	120	210	7½	1,800
3144	do	do	144	2,500	120	210	7½	1,800
3168	do	do	168	3,100	120	210	7½	1,800
436	3/16 inch	10 gauge	36	1,320	150	250	7½	1,800
442	do	do	42	1,375	150	250	7½	1,800
448	do	do	48	1,410	150	250	7½	1,800
460	do	do	60	1,465	150	250	7½	1,800
472	do	do	72	1,560	150	250	7½	1,800
496	do	do	96	2,400	150	250	7½	1,800
4120	do	do	120	2,760	150	250	10	1,800
4144	do	do	144	3,170	150	250	10	1,800
4168	do	do	168	3,900	150	250	10	1,800
536	¼ inch	3/16 inch	36	1,680	180	300	7½	1,800
542	do	do	42	1,750	180	300	7½	1,800
548	do	do	48	1,825	180	300	7½	1,800
560	do	do	60	1,920	180	300	7½	1,800
572	do	do	72	2,040	180	300	7½	1,800
596	do	do	96	2,760	180	300	7½	1,800
5120	do	do	120	3,210	180	300	10	1,800
5144	do	do	144	3,900	180	300	10	1,800
5168	do	do	168	4,680	180	300	10	1,800
642	5/16 inch	¼ inch	42	2,380	240	390	10	1,800
648	do	do	48	2,450	240	390	10	1,800
660	do	do	60	2,640	240	390	10	1,800
672	do	do	72	2,880	240	390	10	1,800
696	do	do	96	3,600	240	390	10	1,800
6120	do	do	120	3,970	240	390	15	1,800
6144	do	do	144	4,530	240	390	15	1,800
6168	do	do	168	6,030	240	390	15	1,800
748	½ inch	5/16 inch	48	3,420	300	480	15	1,800
760	do	do	60	3,690	300	480	15	1,800
772	do	do	72	4,380	300	480	15	1,800
796	do	do	96	5,220	300	480	15	1,800
7120	do	do	120	6,240	300	480	20	1,800
7144	do	do	144	7,560	300	480	20	1,800
7168	do	do	168	8,820	300	480	20	1,800
860	¾ inch		60	4,750	420	650	25	1,800
872	do		72	5,510	420	650	25	1,800

DREIS & KRUMP MFG. CO., CHICAGO, ILL.—Continued

CHICAGO STEEL POWER SQUARING SHEARS—continued

No.	Capacity, continuous duty		Cutting length	Without gap	Add for 18" gap	Add for 24" gap	Motor required	
	Mild steel	Stainless steel					Horse-power	Speed
896	¾ inch		96	$6,750	$420	$650	25	1,800
8120	do		120	7,890	420	650	35	1,800
8144	do		144	9,030	420	650	35	1,800
8168	do		168	11,065	420	650	35	1,800
960	1 inch		60	5,880	540	780	40	1,800
972	do		72	6,690	540	780	40	1,800
996	do		96	8,185	540	780	40	1,800
9120	do		120	9,230	540	780	60	1,800
9144	do		144	10,800	540	780	60	1,800
9168	do		168	12,660	540	780	60	1,800

THE ECONOMY ENGINEERING COMPANY, WILLOUGHBY, OHIO

Type P—1 inch semiautomatic pointing machine without motor	$1,975
Type 3300—⅜ inch automatic pointing machine with motors	1,975
Type 3400—¾ inch automatic pointing machine with motors	2,850
Type K pointing and shaving machine for short work, without motor	2,075
Type LS—¾ inch standard automatic shaving machine without motor	2,950
Type S—1 inch standard automatic shaving machine without motor	$3,850
Type D—¾ inch 4-spindle semiautomatic threading machine, without motor or die heads	4,200
Type PT—1 inch automatic combined pointing and threading machine, without die head or motor	3,250
Type PS automatic combined pointing and threading machine, without die head or motor	3,150

EDLUND MACHINERY COMPANY, INC., CORTLAND, N. Y.

DRILLS

Type of machine	Model No.	Number of spins	Weight	Price
			Pounds	
Edlund No. 0	O-1	1	460	$175
Do	O-2	2	760	320
Do	O-3	3	1,100	450
Do	O-4	4	1,410	605
Do	O-5	5	1,800	765
Do	O-6	6	2,180	895
Edlund No. 1B-7"	1-B-1	1	570	320
Do	1-B-2	2	950	585
Do	1-B-3	3	1,375	850
Do	1-B-4	4	1,775	1,090
Do	1-B-5	5	2,175	1,330
Do	1-B-6	6	2,580	1,575
Edlund No. 1B-12"	1-B-1	1	670	360
Do	1-B-2	2	1,090	635
Do	1-B-3	3	1,610	910
Do	1-B-4	4	2,225	1,160
Do	1-B-5	5	2,725	1,415
Do	1-B-6	6	3,325	1,665
Edlund No. 2B-8"	2-B-1	1	900	425
Do	2-B-2	2	1,690	730
Do	2-B-3	3	2,500	1,060
Do	2-B-4	4	2,850	1,385
Do	2-B-5	5	3,475	1,695
Do	2-B-6	6	4,100	2,035
Do	2-B-8	8	5,400	2,705
Edlund No. 3B-12"	3-B-1	1	1,050	470
Do	3-B-2	2	2,000	805
Do	3-B-3	3	2,800	1,115
Do	3-B-4	4	3,200	1,465
Do	3-B-5	5	3,987	1,795
Do	3-B-6	6	4,775	2,130
Do	3-B-8	8	5,900	2,815
Edlund No. 3B-15"	3-B-1	1	1,300	525
Do	3-B-2	2	2,150	895
Do	3-B-3	3	3,050	1,280
Do	3-B-4	4	3,570	1,675
Do	3-B-5	5	4,485	2,085
Do	3-B-6	6	5,400	2,430
Do	3-B-8	8	6,800	2,945

EDLUND MACHINERY COMPANY, INC., CORTLAND, N. Y.—Continued

DRILLS—continued

Type of machine	Model No.	Number of spins	Weight	Price
			Pounds	
Edlund No. 4B-12"	4-B-1	1	2,000	$730
Do	4-B-2	2	3,525	1,320
Do	4-B-3	3	5,035	1,920
Do	4-B-4	4	6,500	2,540
Edlund No. 2MS-12"	1-MS	1	1,025	715
Do	2-MS	2	2,200	1,265
Do	3-MS	3	3,150	1,815
Do	4-MS	4	3,900	2,365
Do	5-MS	5	4,725	2,915
Do	6-MS	6	5,550	3,465
Do	8-MS	8	7,200	4,710
Edlund No. 2MS-15"	1-MS	1	1,550	745
Do	2-MS	2	2,625	1,345
Do	3-MS	3	3,650	1,945
Do	4-MS	4	4,800	2,535
Do	5-MS	5	5,800	3,135
Do	6-MS	6	6,800	3,740
Do	8-MS	8	8,800	5,015

ENGINEERING AND RESEARCH CORPORATION, RIVERDALE, MD.

"ERCO" SHEET METAL FORMERS—MOTOR DRIVEN

Model "HD." Complete with two-speed (900-1,800 r. p. m.) motor, magnetic switch, cam switch, push button station, and one set [1] flanging tools	$1,350
Model "HD." Without motor and control but including motor base, grooved motor pulley, "V" belts and one set [1] flanging tools	1,265
Extra tools for different height of flange, style, or edge, or thickness of material (except some special tools) per set [1]	20

[1] One set flanging tools consists of 1 hold-down tool, 1 brakehead tool, and 2 filler blocks.

ENGINEERING AND RESEARCH CORPORATION, RIVERDALE, MD.—Continued

"ERCO" SHEET METAL SHRINKER—MOTOR DRIVEN

No. 476. Complete with motor, magnetic starter, push button station and one set of shrinking jaws	$2,000
Extra shrinking jaws (4 to set with springs)	60

"ERCO" AUTOMATIC PUNCHING AND RIVETING MACHINES—PNEUMATIC

No. 244-96". Beam type	3,500
No. 1002-48". Throat C frame type with foot operated pneumatic remote control unit and drop anvil support that can be lowered and raised 3½" by the same remote control to obtain 4½" maximum opening in riveting head (standard equipment on this number)	4,500
No. 279-36". Throat C frame type with stationary foot pedal control	3,400
No. 262-18". Throat C frame type on floor pedestal with stationary foot pedal control and balancer with hand operated control	3,400
No. 262-18". Throat C frame type on floor pedestal with stationary foot pedal control	3,200
No. 262-18". Throat C frame type with balancer and hand operated control but without floor pedestal and foot control	3,000
Above riveter prices include tooling for one diameter and head style rivet. Extra parts to change for different diameter rivet including hopper, feed, punch, stripper, anvil post, anvil, rivet shoe, rivet set, and die button (per set)	200
Extra parts to change for different style rivet head without diameter change (per set)	75

"ERCO" STRETCHING PRESSES—HYDRAULIC

HYSP-1-75. One cylinder, 75-ton capacity, complete with pumps, motors, and control	[2] 7,000
HYSP-2-150. Two cylinder, 150-ton capacity, complete with pumps, motors, and control	12,000
HYSP-2-300. Two cylinder, 300-ton capacity, complete with pumps, motors and control	19,000

Motor prices included in machine quotations are for the more common 220-440 or 550-volt, 2- or 3-phase 60-cycle current. When the available electrical current requires higher-priced motors and control an additional charge will be made covering the extra cost of such motors and control.

All prices are f. o. b. Riverdale and include boxing for domestic shipping.

All prices are subject to change without notice.

Erco propeller profiling machine, less cams and cam grinding attachment	$10,000

[2] Denotes price correction advised by manufacturer. Differs from that shown in first edition of "Prices of New Machine Tools."

ERIE FOUNDRY CO., ERIE, PA.

DOUBLE FRAME FORGING HAMMERS

[Semisteel anvils, frames and bedplates; forged steel rams; steel anvil caps; high carbon steel dies; anvils approximately 7½-1 ratio]

Rated size (pounds)	Total net weight	Price
	Pounds	
1,500	32,000	$5,410
2,000	42,000	6,850
2,500	50,000	7,370
3,000	58,000	8,410
3,500	65,000	9,160
4,000	78,000	10,590
5,000	84,000	11,030
6,000	106,000	13,670
8,000	125,000	15,460
10,000—2-piece bedplate	171,000	18,930
12,000—2-piece bedplate	195,000	21,540

SELF-CONTAINED TOOL DRESSING HAMMERS

[Semisteel anvils and frames (anvil and frame cast integral); forged steel rams; high carbon steel dies]

Rated size (pounds)	Total net weight	Price
	Pounds	
50	2,000	$1,080
100	3,000	1,290
150	3,200	1,320
200	4,200	1,490
300	5,300	1,680

All sizes regularly equipped for foot treadle and hand ever operation.

ENGINEERING AND RESEARCH CORPORATION, RIVERDALE, MD.—Continued

SINGLE FRAME FORGING HAMMERS

[Semisteel anvils and frames; forged steel rams; forged steel anvil caps; high carbon steel dies; anvils approximately 7½ to 1 ratio]

Rated size (pounds)	Total net weight	Price
	Pounds	
250	5,700	$1,700
400	8,200	2,060
600	12,300	2,650
800	15,000	3,020
1,100	24,000	3,980
1,500	33,000	4,930
2,000	40,000	5,920
2,500	48,500	6,770
3,000 separate bedplate and frame	59,000	8,220
3,500 separate bedplate and frame	63,000	8,670
4,000 separate bedplate and frame	64,500	8,910

Larger sizes on application.

STEAM DROP HAMMERS

Rated size (pounds)	Type of anvil	Approximate shipping weight	Price
		Pounds	
400		14,000	$5,290
600		21,000	6,550
800		26,000	7,040
1,000		35,000	7,980
1,500		50,000	10,170
2,000		64,000	12,490
2,500		76,000	13,920
3,000		94,000	16,730
4,000		115,000	18,890
5,000		151,000	23,540
6,000		172,000	27,740
8,000		234,000	35,070
10,000		276,000	41,600
12,000	80-ton C. S. top—40 - ton S. S. bottom.	320,000	43,620
12,000	100-ton C. S. top—20 ton R. S. bottom.	320,000	45,090

20-1 ratio cast steel anvils (unless otherwise stated).
Cast steel cylinders with semisteel liner.
Forged carbon steel rams.
Cast semisteel, cast steel, or forged steel guides.
Plain for antifriction bearings in operating connections.

STANDARD TYPE A BOARD DROP HAMMERS

[20-1 ratio semisteel anvils; semisteel ribbed box section frames—extended type; forged alloy steel sow blocks; forged carbon steel rams; plain bearings]

Rated size (pounds)	Approximate shipping weight	Price
	Pounds	
600	22,800	$4,790
800	27,000	5,120
1,000	34,500	6,170
1,200	39,000	6,600
1,400	43,000	7,330
1,500	45,200	7,610
1,600	47,300	7,860
2,000	60,000	9,160
2,500	70,500	10,220
3,000	94,000	12,620
3,500	104,500	13,570
4,000	115,000	15,190

TYPE AV BOARD DROP HAMMERS

[20-1 ratio semisteel anvils; semisteel ribbed box section frames—extended type; forged alloy steel sow blocks; forged carbon steel rams; plain bearings: prices include motor, brackets, plates, and mountings; V-belt drives, motor sheaves, motors, and control]

Rated size (pounds)	Approximate shipping weight	Price
	Pounds	
600	23,300	$5,290
800	27,500	5,640
1,000	36,000	6,760
1,200	40,200	7,180
1,400	44,200	8,310
1,500	46,500	8,510
1,600	48,600	8,760
2,000	62,000	10,590
2,500	72,500	11,770
3,000	96,500	14,100
3,500	107,000	15,040
4,000	118,000	16,880

ENGINEERING AND RESEARCH CORPORATION, RIVERDALE, MD.—Continued

TYPE F BOARD DROP HAMMERS

[20-1 ratio cast steel anvils; cast steel box section frames—extended type; forged alloy steel sow blocks; forged carbon steel rams; rolled steel tie plates; cast steel roll housings; antifriction bearings on roll shafts]

Rated size (pounds)	Approximate shipping weight	Price
	Pounds	
600	24,400	$6,420
800	28,600	6,810
1,000	37,600	7,980
1,200	41,800	8,620
1,400	45,500	9,550
1,500	47,600	9,890
1,600	49,700	10,100
2,000	61,100	11,840
2,500	71,500	13,150
3,000	95,300	16,860
3,500	105,800	18,090
4,000	117,200	20,320

TYPE FV BOARD DROP HAMMERS

[20-1 ratio cast steel anvils; cast steel box-section frames—extended type; forged alloy steel sow blocks; forged carbon steel rams; cast steel roll housings; antifriction bearings on roll shafts; prices include motor brackets, plates, and mountings, V-belt drives, motors, and control]

Rated size (pounds)	Approximate shipping weight	Price
	Pounds	
600	25,000	$7,070
800	29,200	7,370
1,000	38,500	8,640
1,200	42,200	9,110
1,400	46,900	10,110
1,500	49,000	10,590
1,600	51,100	10,870
2,000	63,500	12,440
2,500	74,000	13,970
3,000	98,000	18,220
3,500	108,500	19,480
4,000	120,000	21,810

TYPE M DIRECT MOTOR-DRIVEN BOARD DROP HAMMERS

[20-1 ratio cast steel anvils; cast steel ribbed box-section frames—extended type; all steel geared lifting heads; antifriction bearings except on roll shafts; steel tie plates; forged alloy steel sow blocks; forged carbon steel rams; prices include motor plate, mountings, motor, and control]

Rated size (pounds)	Approximate shipping weight	Price
	Pounds	
600	25,600	$7,510
800	29,800	7,890
1,000	40,800	9,740
1,200	45,000	10,150
1,400	49,200	10,800
1,500	51,300	11,270
1,600	53,400	11,480
2,000	65,000	13,270
2,500	75,500	14,980
3,000	101,000	19,150
3,500	112,500	21,280
4,000	123,000	23,140

FOUR ROLL BELT-DRIVEN BOARD DROP HAMMERS—COMPLETE

[20-1 ratio cast steel anvils; cast steel ribbed box section frames—extended type; forged carbon steel rams; antifriction bearings]

Rated size (pounds)	Approximate shipping weight	Price
	Pounds	
4,000	124,000	$22,450
5,000	161,000	29,060
6,000	182,000	32,320
7,500	213,500	35,640
10,000	266,500	41,230

ENGINEERING AND RESEARCH CORPORATION, RIVERDALE, MD.—Continued.

FOUR ROLL MOTOR-DRIVEN BOARD DROP HAMMERS—COMPLETE

[20-1 ratio cast steel anvils; cast steel ribbed box section frames—extended type; forged carbon steel rams; antifriction bearings; prices include motor brackets, plates, and mountings, V-belt drives, pulleys, motor sheaves, motors, and control]

Rated size (pounds)	Approximate shipping weight	Price
	Pounds	
4,000	127, 500	$25, 270
5,000	167, 000	32, 190
6,000	188, 000	35, 780
7,500	219, 500	39, 450
10,000	272, 500	46, 080

PLAIN FLYWHEEL DRIVE—SOLID FRAME—WITH SIDE SHEAR

Size	Total net weight	Price
	Pounds	
8 Plain	7, 700	$2, 030
10 Plain	9, 700	2, 450

GEARED—SOLID FRAME—WITH SIDE SHEAR

10 S. G	10, 500	$2, 780
12 S. G	17, 000	3, 400
14 S. G	22, 000	4, 440
16 S. G	30, 000	5, 960
18 D. G	42, 000	10, 450

GEARED—TIE ROD FRAME—WITH SIDE SHEAR

18 D. G	48, 000	$12, 100
20 D. G	65, 000	15, 020
22 D. G		
24 D. G	100, 000	22, 180

GEARED—SOLID FRAME—DOUBLE CRANK—WITHOUT SIDE SHEAR

14 S. G	31, 000	$6, 320

PLAIN FLYWHEEL DRIVE—SOLID FRAME—WITHOUT SIDE SHEAR

8 Plain	7, 100	$1, 940
10 Plain	9, 000	2, 270

PUNCHING OR COLD TRIM PRESSES

EP-35 [1]	10, 700	$2, 900
EG-35 [2]	11, 000	3, 040

[1] Plain.
[2] Geared.

AXLE PADDING PRESS—TIE ROD TYPE—C. S. FRAMES, BASE, AND CROWN

20A	65, 000	$18, 510
20A	65, 000	18, 510

Without motor or motor bracket.

THE ESPEN LUCAS MACHINE WORKS, PHILADELPHIA, PA.

Cold sawing machines:	
No. 440	$4, 325
No. 629	9, 886
No. 633	7, 650
No. 637	7, 850
No. 661	11, 860
No. 667	7, 850
No. 670	10, 360
No. 673	8, 367
No. 680	6, 750
No. 693	14, 300

ETNA MACHINE CO., TOLEDO, OHIO

SWAGING MACHINES (2-DIE)

Series No.	Std. mach. No.	Max. cap. on tubing	Length of die std. mach.	Max. length of die	Flywheel	R.P.M. of swager	H. P. of motor	Wgt. std. mach. skidded	Price std. mach.	Dies per set
								Pounds		
30	31	3/16"	1"	2"	10½" x 2¼"	600	1	[1] 400	$461	$22. 50
70	72	¾"	2"	4"	24" x 4"	400	2	[1] 1, 400	928	25. 00
100	103	1"	3"	6"	28½" x 4½"	375	3	2, 300	1, 406	31. 00
150	156	1½"	6"	18"	31½" x 5"	200	7½	4, 300	1, 969	45. 00
200	S204	2"	8"	18"	41" x 6½"	175	10	10, 250	3, 488	73. 00
200	208	2"	8"	18"	41" x 6½"	175	10	10, 250	3, 488	73. 00
300	312	3"	12"	18"	47¾" x 9"	165	25	18, 700	6, 075	141. 00
400	412	4"	12"	18"	53¾" x 10¾"	144	40	21, 250	7, 622	169. 00

[1] Weight without motor.

SWAGING MACHINES (4-DIE)

Series No.	Std. mach. No.	Max. cap. on tubing	Length of die (std.)	R. P. M. of swager	H. P. of motor	Weight std. mach. skidded	Price	Dies per set
						Pounds		
150	154	1½"	4"	200	7½	4, 000	$2, 025. 00	$84. 38
200	208	2"	8"	175	15	9, 500	3, 937. 50	140. 63
300	312	3"	12"	190	25	16, 000	6, 187. 50	253. 13
400	412	4"	12"	142	40	30, 000	9, 000. 00	365. 63

EX-CELL-O CORPORATION, DETROIT, MICH.

Description	Weight	Price
	Pounds	
Precision boring machines:		
2112-A	4, 000	$2, 260
1212-A	4, 400	3, 650
112-C	5, 200	3, 575
215-A	5, 900	4, 350
218	6, 500	4, 850
54—2 way	5, 000	5, 500
56—3 way	7, 000	6, 975
61—single end, angular type	14, 000	7, 850
61—extra heavy duty, single end angular type	20, 000	12, 000
62—single end angular type	10, 000	6, 850
Thread grinders—precision:		
31	4, 530	5, 750
31-L	4, 830	7, 050
33	5, 075	9, 500
33-L	6, 500	10, 750
35	8, 500	11, 500
35-L	9, 500	12, 950
39 internal	8, 000	11, 650
50	15, 000	19, 500
Carbide tool grinders:		
41-A	135	150
44	1, 370	745
46	360	255
47	360	345
48	650	375
Lapping machines:		
71 internal	1, 300	1, 250
74 center	380	585
No. 12 facing machine	4, 000	3, 550

EXCELSIOR TOOL & MACHINE CO., EAST ST. LOUIS, ILL.

No. 6 lever shear	$90
No. 10 combined punch and reversible shear, carbon steel blades	255
No. 11 double cutting machine, carbon steel blades	275
No. 15 lever shear	90
No. 14 angle bending machine, belt driven, 5 h. p. capacity	795
For a motor driven unit, add $185 making the total cost	980
No. 14 angle shearing attachment, extra	95
Up to last May we made a 3 h. p. unit which sold for $750, belt driven. Same has been discontinued.	
No. 20 punch press, 20" throat, belt driven	385
No. 20 punch press, 26" throat, belt driven	440
For motor-driven unit, add $135 to either size machine.	
No. 50 squaring shear, 50" cutting capacity, belt driven	1, 475
For motor-driven shear, add $175. 50" capacity shear is the only type we have made for the past 5 years, other sizes are obsolete.	

FAMCO MACHINE COMPANY, RACINE, WIS.

FAMCO ARBOR PRESSES

	Price
No. 2 plain lever type	$21. 50
No. 2 with 14" pilot wheel	25. 50
No. S platen—plain lever type	21. 50
No. S with pilot wheel	25. 50
No. 3 plain lever type	30. 00
No. 3 with 14" pilot wheel	34. 00
No. 3 with 24" pilot wheel	38. 00
No. 3-R simple ratchet type	35. 00
No. W platen—plain lever type	30. 00
No. W with 14" pilot wheel	34. 00
No. W with 24" pilot wheel	38. 00
No. W-R platen—simple ratchet type	35. 00
No. 3½ plain lever type	48. 00
No. 3½ with 24" pilot wheel	56. 00
No. 3½-R simple ratchet type	58. 00
No. 3½-R with 24" pilot wheel	66. 00
No. 3½-C combination compound type	80. 00
No. 3½-C with 24" pilot wheel	88. 00
No. 4 plain lever type	70. 00
No. 4 with 24" pilot wheel	78. 00
No. 4-R simple ratchet type	82. 50
No. 4-R with 24" pilot wheel	90. 50
No. 4-C combination compound type	110. 00
No. 4-C with 24" pilot wheel	118. 00
No. 13 armature—plain lever type	33. 00
No. 13 with 14" pilot wheel	37. 00
No. 13 with 24" pilot wheel	41. 00
No. 13-R armature—simple ratchet type	38. 00
No. 21 plain lever type	45. 00
No. 21 with 14" pilot wheel	49. 00
No. 21 with 24" pilot wheel	53. 00
No. 21-R simple ratchet type	52. 50
No. 25 plain lever type	50. 00
No. 25 with 24" pilot wheel	58. 00
No. 25-R simple ratchet type	60. 00
No. 25-R with 24" pilot wheel	68. 00
No. 25-C combination compound type	85. 00
No. 25-C with 24" pilot wheel	93. 00
No. 31 plain lever type	50. 00
No. 31 with 24" pilot wheel	58. 00
No. 31-R simple ratchet type	57. 50
No. 31-R with 24" pilot wheel	65. 50
No. 5-R simple ratchet type	160. 00
No. 5-R with 24" pilot wheel	168. 00
No. 5-C combination compound type	195. 00
No. 5-C with 24" pilot wheel	203. 00
No. 6-R simple ratchet type	215. 00
No. 6-R with 24" pilot wheel	223. 00
No. 6-C combination compound type	245. 00
No. 6-C with 24" pilot wheel	253. 00

FLOOR STANDS

Nos. 2, S, 3, W, 13 (all models)	22. 00
Nos. 3½, 21, 31 (all models)	28. 00
Nos. 4, 25 (all models)	36. 00

FAMCO FOOT PRESSES

Floor type:	
No. 6	37
No. 8	45
No. 10	56
No. 12	68
No. 15	80
No. 18	92

FARREL-BIRMINGHAM CO., ANSONIA, CONN.

SYKES GEAR GENERATING MACHINES AND EQUIPMENT

Size of machine	Domestic weight	Price machine proper	Price supplying and mounting motors		Price full set change gears	Price full set change gears, face plates, etc.
			AC	DC		
	Pounds					
No. 1-A	7,875	$11,750	$320	$520	$360	$1,525
No. 2-C	13,650	18,850	585	765	510	2,190
No. 3-C	16,250	21,500	680	860	510	2,200
No. 4-B	36,275	27,000	850	1,310	900	4,200
No. 5-B	37,375	29,500	850	1,310	900	4,625

All quotations subject to escalator clauses on labor and material until further notice.
Prices on No. 1-A and No. 2-C machines *do not* include rim stays.
Prices on No. 3-C, 4-B, and 5-B machines include rim stays.
All prices subject to change without notice.
NOTE.—We also build in addition to the above standard machines a No. 10-B and a No. 12, which are made up on special orders, the price being in accordance with the particular specifications and the circumstances and conditions at the time the quotation is made.
The approximate selling price on the No. 10-B is $85,000, and on the No. 12 is approximately $150,000.

THE FEDERAL PRESS CO., ELKHART, IND.

FLYWHEEL TYPE

	0	1	2	3	33	4	5	6	7
Standard floor type presses (f. o. b. Elkhart)	$198.00	$280.00	$350.00	$540.00	$665.00	$720.00	$965.00	$1,550.00	$1,975.00
Standard bench type	168.00								
Standard horizontal type	300.00	395.00	490.00	660.00					
EXTRAS									
Special stroke, 1" to standard	12.00	12.00	12.00	18.00	18.00	24.00	30.00	36.00	40.00
Special stroke, from standard to maximum ram to clear gibs on up stroke	23.00	27.50	27.50	30.00	30.00	35.00	38.50	45.00	50.00
Bronze bushings, main bearings and pitman	22.00	35.00	45.00	60.00	60.00	80.00	100.00	135.00	165.00
Belt motor, drive. Motor bracket, without belt, motor pulley or motor, and not installed	45.00	55.00	55.00	60.00	60.00	75.00	98.00	105.00	110.00
Geared motor, drive. Motor bracket including pinion, gear guard, but not motor installation	48.00	60.00	60.00	65.00	65.00	75.00	110.00	115.00	125.00
V-Belt drive, including bracket, V-belts and motor sheaves, but not motor or installation	33.00	40.00	40.00	46.50	50.00	55.00	80.00	90.00	95.00
Motor-horsepower and speed	½-1, 200	1-1, 200	1½-1, 200	2-1, 200	2-1, 200	3-1, 200	3-1, 200	5-1, 200	7½-1, 200
Mounting and wiring	$6.00	$7.50	$7.50	$8.50	$8.50	$8.50	$8.50	$12.00	$12.00
Flywheel guards	30.00	35.00	37.50	40.00	40.00	42.50	45.00	47.50	47.50
Brake release	15.00	20.00	20.00	25.00	25.00	25.00	30.00	35.00	45.00
Bolster plates, each	5.50	8.50	13.50	21.00	42.00	35.00	51.50	95.00	128.00
Tie rods complete with nuts and self-aligning washers				17.50	17.50	25.00	30.00	35.00	40.00
Extra for special die space with bed ext.	25.00	35.00	45.00	55.00		80.00	100.00		
Multiple disk clutch	85.00	95.00	100.00	110.00					
Safety slip wheel	40.00	45.00	50.00	60.00	60.00	70.00	80.00		

FEDERAL GEARED PRESSES

	2 geared	3 geared	33 geared	4 geared	5 geared	6 geared	7 geared
Standard geared presses (f. o. b. Elkhart, Ind.)	$425.00	$625.00	$750.00	$865.00	$1,208.00	$1,840.00	$2,310.00
Motor-horsepower—speed	1½-1, 800	2-1, 800	2-1, 800	3-1, 800	3-1, 800	5-1, 800	7½-1, 800
Use extras listed above.							

FELLOW GEAR SHAPER CO., SPRINGFIELD, VT.

6 TYPE GEAR SHAPERS

	Price
No. 61	$4,795
No. 64	5,510
No. 612	4,940
No. 624	5,650
No. 615 [1]	4,920
No. 645 [1]	5,635
6-A TYPE GEAR SHAPERS	
No. 61A	6,580
No. 612A	6,710
No. 64A	7,575
No. 624A	7,700
No. 615A	6,750
No. 645A	7,745
No. 62A3	6,710
No. 624A3	7,700
No. 65A3	6,750
No. 645A3	7,745
GEAR SHAPER	
No. 30	25,000
7 TYPE GEAR SHAPERS	
No. 7	3,750
No. 71	3,750
No. 72	3,860
No. 712	3,860
No. 75 [1]	3,835
No. 715 [1]	3,835
No. 725 [1]	3,950

FELLOW GEAR SHAPER CO., SPRINGFIELD, VT.—Continued

7 TYPE GEAR SHAPERS—continued

	Price
No. 7125 [1]	$3,950
No. 77	4,350
No. 775	4,375
7-A TYPE GEAR SHAPERS	
No. 7A	4,090
No. 71A	4,090
No. 75A [1]	4,180
No. 715 A [1]	4,180
No. 725A [1]	4,330
No. 7125A [1]	4,330
No. 77A	4,695
No. 775A	4,720
RACK SHAPER	
No. 3-48	9,875
No. 3-60	10,645
HORIZONTAL GEAR SHAPER	
No. Z-model	12,875
PITCH GEAR SHAPER	
No. 3 fine	2,700

[1] Price correction advised by manufacturer. Prices differ from those shown in first edition of Prices of New Machine Tools.

FELLOW GEAR SHAPER CO., SPRINGFIELD, VT.—Continued

	Price
STRAIGHT LINE GEAR GENERATOR	
	$3,000
THREAD GENERATOR	
No. 4-T	7,275
HOURGLASS THREAD GENERATOR	
No. 5-T	5,485
No. 6-T	6,600
NOTE.—No. 6-T Discontinued in 1938.	
ENVELOPING GEAR GENERATOR	
No. 4	3,600
No. 8	5,300
GEAR FINISHING	
No. 18	7,800
LS-TYPE GEAR LAPPING	
No. 7LS	3,995
No. 8LS	4,885
No. 10LS	4,495
No. 13LS	5,490
For work support	545
GEAR BURNISHING	
No. 4B	2,315
No. 8B—see note	1,700
NOTE.—Spec. 3-inch gear attachment, $205.	
HELICAL CUTTER SHARPENING	
No. 4S—without automatic feed	3,865
No. 4S—with automatic feed	4,300
RED LINER	
No. 8M	1,800
No. 20M	3,000
INVOLUTE MEASURING	
Without recording device:	
No. 6M	2,300
No. 12M	2,750
No. 18M	5,000
With recording device:	
No. 6M	2,500
No. 12M	3,950
No. 18M	6,200

FERRACUTE MACHINE COMPANY, BRIDGETON, N. J.

	Price
Capacity, 20 tons	$6,150
Horizontal toggle and crank, 100-ton capacity	9,525
P5 special punching, 75-ton capacity, streamline special design with steel casting frame, etc	3,750
Special press C12, open back, 20-ton capacity, press with extra automatic dial feed attachment	7,512
Special page punch, 150-ton capacity, special press with steel casting frame	5,775
Double action drawing DDG4 press, 55-ton capacity, special press with long strokes and accessories	3,300
Double action DD4 press, 55-ton capacity, standard press with roll feed, scrap cutter, motor drive	5,096

RAFTER STEEL PRESS BRAKES

Series	Length	Weight	Price
	Feet	*Pounds*	
25	4	12,000	$3,025
25	5	12,650	3,080
25	6	13,300	3,155
25	7	14,400	3,215
25	8	15,500	3,275
25	10	16,500	3,420
50	5	13,750	3,300
50	6	14,500	3,380
50	8	17,000	3,540
50	10	19,000	3,700
50	12	24,000	4,200
100	8	25,000	4,345
100	10	27,500	4,510
100	12	30,000	4,995
150	8	40,000	6,525
150	10	46,000	6,730
150	12	52,000	6,990

STANDARD THROAT PUNCHING PRESSES

Not geared only	Price
P1—20-ton pressure—weight 1,820 pounds with bolster	$485
Bolster	17
Ram knock-out bar type	55
P2—30-ton pressure—weight 2,775 pounds with bolster	555
Bolster	22
Ram knock-out bar type	66
P3—40-ton pressure—weight with bolster 4,020 pounds	710
Bolster	28
Ram knock-out bar type	77
P4—55-ton pressure—weight with bolster 6,130 pounds	945
Bolster	39
Ram knock-out bar type	94
P5—75-ton pressure—weight with bolster 9,625 pounds	1,305
Bolster	55
Ram knock-out bar type	115
P6—105-ton pressure—weight with bolster, 14,465 pounds	1,875
Bolster	72
Ram knock-out bar type	145

FERRACUTE MACHINE COMPANY, BRIDGETON, N. J.—Continued

STANDARD THROAT PUNCHING PRESSES—continued

Geared only	*Price*
PG1—20-ton pressure—weight with bolster 1,980 pounds	$605
Bolster	17
Ram knock-out bar type	55
PG2—30-ton pressure—weight with bolster 3,000 pounds	695
Bolster	22
Ram knock-out bar type	66
PG3—40-ton pressure—weight with bolster 4,250 pounds	845
Bolster	28
Ram knock-out bar type	77
PG4—55-ton pressure—weight with bolster 6,450 pounds	1,185
Bolster	39
Ram knock-out bar type	94
PG5—75-ton pressure—weight with bolster 10,050 pounds	1,655
Bolster	55
Ram knock-out bar type	115
PG6—105-ton pressure—weight with bolster 15,125 pounds	2,310
Bolster	72
Ram knock-out bar type	145

INCLINABLE POWER CUTTING PRESSES, OPEN BACK

Standard Machine—Flywheel Type

C11—8-ton pressure—weight with bolster and elevator 1,325 pounds	515
Bolster	10
Ram knock-out	25
C12—15-ton pressure—weight with bolster and elevator 2,300 pounds	565
Bolster	15
Ram knock-out	30
C13—25-ton pressure—weight with bolster and elevator 3,000 pounds	650
Bolster	25
Ram knock-out	35
C14—35-ton pressure—weight with bolster and elevator 4,900 pounds	820
Bolster	35
Ram knock-out	40
C15—50-ton pressure—weight with bolster and elevator 8,000 pounds	1,055
Bolster	55
Ram knock-out	44
C16—70-ton pressure—weight with bolster and elevator, 11,000 pounds	1,400
Bolster	74
Ram knock-out	55
C17—100-ton pressure—weight with bolster and elevator 16,000 pounds	2,005
Bolster	120
Ram knock-out	64

Geared Type

CG11—8-ton pressure—weight with bolster and elevator, 1,425 pounds	595
Bolster	10
Ram knock-out	25
CG12—15-ton pressure—weight with bolster and elevator, 2,450 pounds	655
Bolster	15
Ram knock-out	30
CG13—25-ton pressure—weight with bolster and elevator, 3,200 pounds	765
Bolster	25
Ram knock-out	35
CG14—35-ton pressure—weight with bolster and elevator, 5,200 pounds	975
Bolster	35
Ram knock-out	40
CG15—50-ton pressure—weight with bolster and elevator, 8,350 pounds	1,255
Bolster	55
Ram knock-out	44
CG16—70-ton pressure—weight with bolster and elevator, 11,500 pounds	1,690
Bolster	74
Ram knock-out	55
C22A—15-ton pressure—approximate weight, 1,600 pounds	550
Bolster	16
Ram knock-out	30
C23—25-ton pressure—approximate weight, 2,400 pounds	605
Bolster	25
Ram knock-out	35
C23A—25-ton pressure—approximate weight, 2,900 pounds	765
Bolster	25
Ram knock-out	35
C24—35-ton pressure—approximate weight, 4,300 pounds	875
Bolster	35
Ram knock-out	40
CG17—100-ton pressure—weight with bolster and elevator, 16,600 pounds	2,360
Bolster	120
Ram knock-out	64

Flywheel Type

C21—8-ton pressure—approximate weight, 750 pounds	365
Bolster	10
Ram knock-out	25
C21A—8-ton pressure—approximate weight, 1,000 pounds	430
Bolster	10

FERRACUTE MACHINE COMPANY, BRIDGETON, N. J.—Continued

INCLINABLE POWER CUTTING PRESSES, OPEN BACK—con.

Flywheel Type—Continued

	Price
Ram knockout	$25
C22—15-ton pressure—approximate weight, 1,300 pounds	490
Bolster	16
Ram knockout	30
C25—50-ton pressure—approximate weight, 5,300 pounds	1,295
Bolster	55
Ram knockout	45
C25A—50-ton pressure—approximate weight, 10,000 pounds	2,010
Bolster	55
Ram knockout	45

Geared Type

CG21—8-ton pressure—approximate weight, 850 pounds	475
Bolster	10
Ram knockout	25
CG21A—8-ton pressure—approximate weight, 1,100 pounds	545
Bolster	10
Ram knockout	25
CG22—15-ton pressure—approximate weight, 1,450 pounds	600
Bolster	16
Ram knockout	30
CG22A—15-ton pressure—1,750 pounds	670
Bolster	16
Ram knockout	30
CG23—25-ton pressure—approximate weight, 2,600 pounds	815
Bolster	25
Ram knockout	35
CG23A—25-ton pressure—approximate weight, 3,100 pounds	895
Bolster	25
Ram knockout	35
CG24—35-ton pressure—weight, 4,550 pounds	1,020
Bolster	35
Ram knockout	40
CG25—50-ton pressure—approximate weight, 5,650 pounds	1,510
Bolster	55
Ram knockout	45
CG25A—50-ton pressure—approximate weight, 10,350 pounds	2,250
Bolster	55
Ram knockout	45

STANDARD THROAT ADJUSTABLE BED PUNCH PRESSES

Standard Machine Nongeared Only

PA1—20-ton pressure—approximate weight, 4,000 pounds	$590
Adjustable bed	85
Bolster	17
Ram knockout bar type	55
PA2—30-ton pressure—approximate weight, 5,800 pounds	735
Adjustable bed	105
Bolster	22
Ram knockout bar type	66
PA3—40-ton pressure—approximate weight, 7,200 pounds	920
Adjustable bed	140
Bolster	28
Ram knockout bar type	77
PA4—55-ton pressure—approximate weight, 8,600 pounds	1,215
Adjustable bed	175
Bolster	39
Ram knockout bar type	94
PA5—75-ton pressure—approximate weight, 11,200 pounds	1,620
Adjustable bed	215
Bolster	55
Ram knockout bar type	115
PA6—105-ton pressure—approximate weight 18,300 pounds	2,375
Adjustable bed	275
Bolster	72
Ram knockout bar type	145

Geared Only

PAG1—20-ton pressure—approximate weight 4,000 pounds	690
Adjustable bed	85
Bolster	17
Ram knockout bar type	55
PAG2—30-ton pressure—approximate weight 5,800 pounds	845
Adjustable bed	105
Bolster	22
Ram knockout bar type	66
PAG3—40-ton pressure—approximate weight 7,200 pounds	1,035
Adjustable bed	140
Bolster	28
Ram knockout bar type	77
PAG4—55-ton pressure—approximate weight 8,600 pounds	1,415
Adjustable bed	175
Bolster	39
Ram knockout bar type	94
PAG5—75-ton pressure—approximate weight 11,200 pounds	1,905
Adjustable bed	215

FERRACUTE MACHINE COMPANY, BRIDGETON, N. J.—Continued

STANDARD THROAT ADJUSTABLE BED PUNCH PRESSES—continued

Geared Only—Continued

	Price
Bolster	$55
Ram knockout bar type	115
PAG6—105-ton pressure—approximate weight 18,300 pounds	2,735
Adjustable bed	275
Bolster	72
Ram knockout bar type	145
PA2 Special, with motor drive, without bed	1,505

DEEP THROAT PUNCH PRESSES 12" TO 20" THROAT

Nongeared

P21—20-ton pressure—approximate weight 2,750 pounds	$580
Bolster	17
Ram knockout bar type	55
P22—30-ton pressure—approximate weight 4,430 pounds	730
Bolster	22
Ram knockout bar type	66
P23—40-ton pressure—approximate weight 6,420 pounds	910
Bolster	28
Ram knockout bar type	77
P24—55-ton pressure—approximate weight 9,570 pounds	1,260
Bolster	39
Ram knockout bar type	94
P25—75-ton pressure—approximate weight 13,420 pounds	1,795
Bolster	55
Ram knockout bar type	115
P26—105-ton pressure—approximate weight 20,130 pounds	2,600
Bolster	72
Ram knockout bar type	145

Geared

PG21—20-ton pressure—approximate weight 2,900 pounds	700
Bolster	17
Ram knockout bar type	55
PG22—30-ton pressure—approximate weight 4,650 pounds	860
Bolster	22
Ram knockout bar type	66
PG23—40-ton pressure—approximate weight 6,450 pounds	1,055
Bolster	28
Ram knockout bar type	77
PG24—55-ton pressure—approximate weight 9,900 pounds	1,510
Bolster	39
Ram knockout bar type	94
PG25—75-ton pressure—approximate weight 13,860 pounds	2,150
Bolster	55
Ram knockout bar type	115
PG26—105-ton pressure—approximate weight 20,790 pounds	3,035
Bolster	72
Ram knockout bar type	145

TOP TOGGLE, TIE-ROD CONSTRUCTION, GEARED TYPE EMBOSSING PRESSES

EG151—150-ton pressure—approximate weight 11,500 pounds	$3,180
These prices without bolster, bar knockout, motor drive, guards or automatic force feed oiling system.	
Bolster	40
Bar knockout in ram	40
EG251—250-ton pressure—approximate weight 19,600 pounds	4,635
Bolster	65
Bar knockout in ram	45
E401—400-ton pressure—approximate weight 2,400 pounds	5,855
Bolster	80
Bar knockout in ram	65
E601—600-ton pressure—37,500 pounds	8,055
Bolster	105
Bar knockout in ram	80
E801—800-ton pressure—approximate weight 51,000 pounds	10,770
Bolster	120
Bar knockout in ram	105
E1001—1,000-ton pressure—approximate weight 81,000 pounds	14,605
Bolster	150
Bar knockout in ram	135

NOTCHING PRESSES FOR LARGE DISCS—15-TON PRESSURE DISC DIAMETERS WITH STANDARD GEARS

C92—approximate weight 2,350 pounds	$2,200
Reeves variable speed drive without motor	155
C93—approximate weight 2,750 pounds	2,500
Reeves variable speed drive without motor	155
C94—approximate weight 3,150 pounds	2,650
Reeves variable speed drive without motor	155

EXTERNAL OR INTERNAL NOTCHING PRESSES—7-TON PRESSURE

#C82—approximate weight 1,400 pounds	$1,275
External attachment	850
Internal attachment	1,000
#C83—approximate weight 1,500 pounds	1,400

FERRACUTE MACHINE COMPANY, BRIDGETON, N. J.—Continued

EXTERNAL OR INTERNAL NOTCHING PRESSES—7-TON PRESSURE—continued

	Price
External attachment	$850
Internal attachment	1,000
#C83—Special—approximate weight 1,400 pounds.	1,530
External attachment	1,020
Internal attachment	1,200

INCLINABLE POWER CUTTING PRESSES OPEN BACK

Dual C22-C22—20-ton capacity—weight 1,300 pounds	
With friction dial, hopper, motor drive and motor	$6,039
Dual C23-C23—30-ton capacity—weight 2,400 pounds	
With friction dial, hopper, motor drive and motor	6,452
C21—10-ton capacity—weight 750 pounds	
With feed attachment, motor drive and motor	3,735
C22—20-ton capacity—weight 1,300 pounds	
With feed attachment, motor drive and motor	4,020

DEEP THROAT PUNCHING PRESSES 12" TO 20" THROAT

P12—30-ton pressure—weight 3,550 pounds	$735
Bolster	22
Ram knockout bar type	66
P31—20-ton pressure—weight 3,990 pounds	790
Bolster	17
Ram knockout bar type	55
P33—40-ton pressure—weight 7,125 pounds	1,635
Bolster	28
Ram knockout bar type	77
P34—55-ton pressure—weight 10,050 pounds	2,325
Bolster	39
Ram knockout bar type	
PG33—40-ton pressure—weight 7,350 pounds	1,960
Bolster	28
Ram knockout bar type	77
PG34—55-ton pressure—weight 10,370 pounds	2,520
Bolster	39
Ram knockout bar type	94
P43—40-ton pressure—weight 10,000 pounds	1,780
Bolster	28
Ram knockout bar type	77

STANDARD THROAT SPRUE-CUTTING PRESSES

PSG2—30-ton pressure—weight 2,970 pounds	$1,070
Cutters	95
PSG5—75-ton pressure—weight 9,900 pounds	2,715
Cutters	110
PSG6—105-ton pressure—weight 14,850 pounds	3,250
Cutters	120

DEEP THROAT SPRUE CUTTING PRESSES 12" TO 20" THROATS

PS12—30-ton pressure—weight 3,520 pounds	$1,035
Cutters	95
PS13—40-ton—weight 4,840 pounds	1,255
Cutters	95

BENCH AND LEG TYPE NCLINABLE POWER PRESSES

CBO1—2-ton—weight 325 pounds	$295
CO1—2-ton—weight 425 pounds	310
CBO2—4-ton—weight 425 pounds	325
CO2—4-ton—weight 550 pounds	355

BENCH AND PEDESTAL TYPE THROATED PUNCHING PRESSES

PBO1—2-ton—weight 520 pounds	$295
Bolster	9
PO1—2-ton—weight 710 pounds	315
Bolster	9
PBO2—4-ton—710 pounds	345
Bolster	12
PO2—4-ton—910 pounds	360
Bolster	12
PBO3—8-ton—weight 1,040 pounds	410
Bolster	14
PO3—8-ton—weight 1,260 pounds	435
Bolster	14

STRAIGHT SIDE EMBOSSING PRESSES

E2—30-ton—weight 2,100 pounds	$1,034
Bolster	35
Ram knockout bar type	66
E3—40-ton—weight 3,100 pounds	1,165
Bolster	45
Ram knockout bar type	77
E4—50-ton—weight 4,500 pounds	1,310
Bolster	55
Ram knockout bar type	94

ARCH POWER PRESSES

E26—105-ton—12,000 pounds	$1,865
Bolster	100
Ram knockout bar type	145
EG21—20-ton—2,100 pounds	900
Bolster	40
Ram knockout bar type	55
EG24—55-ton—6,300 pounds	1,750
Bolster	70
Ram knockout bar type	94

BOTTOM TOGGLE EMBOSSING PRESSES

E52—150-ton—weight 5,900 pounds	$2,235
Bolster	45

FERRACUTE MACHINE COMPANY, BRIDGETON, N. J.—Continued

BOTTOM TOGGLE EMBOSSING PRESSES—continued

	Price
Bar knockout for the ram	
E53—250-ton—9,700 pounds	$2,535
Bolster	60
Bar knockout for the ram	
EG51—75-ton—4,100 pounds	1,830
Bolster	35
EG52—150-ton—6,200 pounds	2,475
Bolster	45
EG53—250-ton—10,000 pounds	2,885
Bolster	60

ADJUSTABLE BED CUTTING PRESSES

CA11—8-ton—1,800 pounds	$950
Adjustable bed	75
Bolster	10
Ram knockout bar type	25
CA13—25-ton—4,150 pounds	1,270
Adjustable bed	145
Bolster	25
Ram knockout bar type	35
CA14—35-ton—weight 6,650 pounds	1,340
Adjustable bed	225
Bolster	25
Ram knockout bar type	40
CA15—50-ton—10,200 pounds	1,635
Adjustable bed	300
Bolster	55
Ram knockout bar type	44
CA16—70-ton—17,300 pounds	2,665
Adjustable bed	450
Bolster	74
Ram knockout bar type	55

STANDARD THROAT DRAWING PRESSES—SOLID FRAME

DG6—105-Ton—weight 19,800 pounds	$4,300
DG7—150-ton—weight 29,700 pounds. Including bolster, motor drive, and guards.	9,880
DG7½—175-ton—weight 38,500 pounds. Including bolster motor drive, and guards.	11,625

STANDARD THROAT, DOUBLE ACTION DRAWING PRESSES—SOLID FRAME

DD5—75-ton pressure—weight 9,735 pounds. Including bolster and elevator.	$5,215
DDG5—75-ton pressure—weight 10,175 pounds. Including bolster and elevator.	5,505

STANDARD, STRAIGHT SIDE, DRAWING PRESSES—TIE ROD CONSTRUCTION

DG54—55-ton—weight 8,360 pounds	$2,410
Bolster	60
Ram knockout bar type	50
DG56—105-ton—18,700 pounds	3,810
Bolster	100
Ram knockout bar type	70

STANDARD, SINGLE CRANK DRAWING PRESSES, TIE ROD CONSTRUCTION—SINGLE GEARED

DG56½—125-ton—weight 23,100 pounds	$6,800
Bolster	120
Ram knockout bar type	90
DG57—150-ton—weight 25,300 pounds	9,420
Bolster	140
Ram knockout bar type	110
DG58—200-ton—35,200 pounds	13,070
Bolster	175
Ram knockout bar type	140
DPG55 solid—75-ton—weight 13,000 pounds	2,579
Bolster	70

STANDARD, SINGLE CRANK, DOUBLE ACTION, TOGGLE DRAWING PRESSES—TIE ROD CONSTRUCTION

DD121—125-ton capacity press with bolster, motor drive, and guards—Weight 33,000 pounds	$14,070
D251—250-ton capacity press with bolster, motor drive, and guards—Weight 68,200 pounds	22,150

BLANKING AND CUPPING DOUBLE ACTION PRESSES—SINGLE CRANK—TIE ROD CONSTRUCTION

DD55—75-ton capacity—with roll feed, scrap cutter, V-belt motor drive, etc	$10,600
DDG56—105-ton capacity—with roll feed, scrap cutter, V-belt motor drive, etc	12,300
DDG55—75-ton capacity—(solid frame) with sliding feed attachment, motor drive, etc	3,871
DD1—15-ton capacity—with roll feed, scrap cutter, motor drive, etc	4,285

STANDARD STAMPING PRESSES—SOLID COLUMN

S35—40-ton—weight 4,950 pounds	$1,975
Bolster	65
SG15—20-ton—3,400 pounds	1,990

STANDARD THROAT STAMPING PRESSES

55-Ton Capacity

S51 Tie Rod—Weight 9,900 pounds—Incl. Air Ram Balance	$2,800
STG51—Weight 10,340 pounds. Price includes Bolster and Air Ram Balance	3,255

FERRACUTE MACHINE COMPANY, BRIDGETON, N. J.—Continued

STANDARD THROAT STAMPING PRESSES—continued

55-Ton Capacity—Continued

	Price
S52 Tie Rod—Weight 11,000 pounds. Price includes Bolster and Spring Ram Balance	$2,865
S53—Weight 12,100 pounds. Price includes Bolster and Spring Ram Balance	3,240

75-Ton Capacity

SG73 Tie Rod—Weight 18,700 pounds. Price includes Bolster and Spring Ram Balance	$7,550
SG77 Tie Rod—Weight 28,600 pounds. Price includes Bolster, Knockout, and Air Ram Balance	11,520

SINGLE ACTION DRAWING PRESSES

E4—55-ton capacity—with 2-tract feeding attachment, hopper and V-belt motor drive	$6,900
DG55—75-ton capacity—with automatic feeding attachment and V-belt motor drive	10,945
DG56—105-ton capacity—(12" stroke) with automatic feeding attachment and V-belt motor drive	11,875
DG56—105-ton capacity—(16" stroke) with automatic feeding attachment and V-belt motor drive	11,925
DG56—105-ton capacity—(20" stroke) with automatic feeding attachment and V-belt motor drive	12,075
DG56—105-ton capacity—(24" stroke) with automatic feeding attachment and V-belt motor drive	12,410
DG56½—125-ton capacity—(14" stroke) with automatic feeding attachment and V-belt motor drive	12,675
DG57—150-ton capacity—(14" stroke) with automatic feeding attachment and V-belt motor drive	13,750
DG56½—125-ton capacity—(24" stroke) with automatic feeding attachment and V-belt motor drive	13,000
D251—250-ton capacity—(28" stroke) with V-belt motor drive, without attachments	13,375
D251—250-ton capacity—(40" stroke) with V-belt motor drive, without attachments	14,245
D301—300-ton capacity—(16" stroke) with V-belt motor drive, without attachments	14,465
D301—300-ton capacity—(20" stroke) with V-belt motor drive, without attachments	14,535
D301—300-ton capacity—(40" stroke) with V-belt motor drive, without attachments	15,880
D301—300-ton capacity—(50" stroke) with V-belt motor drive, without attachments	16,050
D401—400-ton capacity—(18" stroke) with V-belt motor drive, without attachments	18,600
D401—400-ton capacity—(24" stroke) with V-belt motor drive, without attachments	18,750

DOUBLE CRANK STAMPING PRESSES

SRG 103—105-ton capacity—with bolster, motor drive and guards	$3,390
SNG 104—105-ton capacity—with bolster, motor drive and guards	4,775
SG 111—105-ton capacity—with bolster, motor drive and guards	6,070
SG 113—105-ton capacity—with bolster, motor drive and guards	6,180
SG 114—105-ton capacity—with bolster, motor drive and guards	6,290
SG 116—105-ton capacity—with bolster, motor drive and guards	9,432
SG 121—125-ton capacity—with bolster, motor drive and guards	8,860
SGF 121—125-ton capacity—with bolster, motor drive and guards	9,970
SGF 151—150-ton capacity—with bolster, motor drive and guards	10,856
SG 153—150-ton capacity—with bolster, motor drive and guards	9,458
S 153—150-ton capacity—with bolster, motor drive and guards	9,700
S 173—175-ton capacity—with bolster, motor drive and guards	11,675
S 201—200-ton capacity—with bolster, motor drive and guards	13,720
SG 203—200-ton capacity—with bolster, motor drive and guards	13,205
S 251—250-ton capacity—with bolster, motor drive and guards	15,585
S 252—250-ton capacity—with bolster, motor drive and guards	15,835
S 253—250-ton capacity—with bolster, motor drive and guards	17,215
S 254—250-ton capacity—with bolster, motor drive and guards	18,460
S 406—400-ton capacity—with bolster, motor drive and guards	26,900

SINGLE ACTION DRAWING OR TAPERING PRESSES

DGGF 56—105-ton capacity double geared—(30" stroke), without attachments	$13,745
DGGF 56—105-ton capacity double geared—(40" stroke), without attachments	14,490
DGGF 55—75 ton capacity double geared—(30" stroke), without attachments	11,700
DGF 55—75-ton capacity single geared—(22" stroke), with air clutch, etc	7,847

FERRACUTE MACHINE COMPANY, BRIDGETON, N. J.—Continued

TOP TOGGLE, TIE ROD CONSTRUCTION, INDENTING AND HEADING PRESSES

EG 251—250-top capacity—with dial feeding attachment, motor drive and guards	$11,950
E 401—400-ton capacity—with dial feeding attachment, motor drive and guards	12,500
E 601—600-ton capacity—with dial feeding attachment, motor drive and guards	17,750
E 1001—1,000-ton capacity—with dial feeding attachment, motor drive and guards	30,000
E 1201—1,200-ton capacity—with dial feeding attachment, motor drive and guards	35,400
E 1501—1,500-ton capacity—with dial feeding attachment, motor drive and guards	36,875

PRESSES AND MACHINES FOR MUNITION WORK, ETC.

C 12—20-ton capacity, .30 and .45 Cal. Canneluring and Finishing Press with hopper, motor, etc	$6,706
SG 53—55-ton capacity, .30 Cal. Automatic Bullet Assembling Press with hoppers, motor, etc	14,550
SG 73—75-ton capacity, .50 Cal. automatic bullet assembling press with hoppers, motor, etc	16,600
Pocketing and heading machine—50-ton capacity, .30 cal. with hopper, motor, etc	5,450
Pocketing and heading machine—100-ton capacity, .50 cal. with hopper, motor, etc	10,307
Automatic straight line loading machine—.50 cal. —with hoppers, etc., but without motor	15,750
Automatic straight line priming machine with motor—.50 cal	16,250
Tapering press with dial and attachments but without motor 30-ton capacity—.30 caliber	9,100
Tapering press with dial and attachments but without motor 75-ton capacity—.50 caliber	14,140
Dual presses C24-C24—40-ton capacity—with friction dials, hopper, motor, etc	9,000
Dual presses CG24-CG24—40-ton capacity—with friction dials, hoppers, motor, etc	9,500
Dual presses CG25-CG25—55-ton capacity—with friction dials, hoppers, motor, etc	11,065
Dual presses CG16-CG16—75-ton capacity—with friction dials, hopper, motor, etc	12,815
CG-24—40-ton capacity—with dial feeding attachment, etc., but without motor	8,250
DG-5—75-ton capacity—with dial feeding attachment, etc., but without motor	10,250
CG-25—55-ton capacity—with dial feeding attachment, etc., but without motor	8,550
.50 caliber trimming lathe without motor but with hopper	4,400
SG 71—75-ton capacity—automatic, 5-Station drawing press with hopper, etc., but without motor	14,850
.50 caliber jacket, trimming lathe with hopper	3,600

MULTICOLUMN PRESSES

CMG 63—150-ton capacity—with bolster, motor drive and guards	15,970

FISCHER MACHINE COMPANY, PHILADELPHIA, PA.

Fischer oil groover No. 1 (motor not included, 2 hp./600–1,200 r. p. m.)	$875
Relieving and taper attachment No. 1—extra	200
Relieving and taper attachment No. 1 when ordered with machine	175
Relieving attachment only, No. 1, extra	175
Relieving attachment only, No. 1, when ordered with machine	150
Air chuck for O. G. No. 1, attached, extra	198
Three-jaw universal chuck (6 inches) for O. G. No. 1, extra	42
High speed chucking equipment (relieving attachment), extra as above	250
High speed chucking equipment, collets in sixteenths up to 2 inches each	4
Tail stock No. 1	85
Arrange for motor drive, including belts, geared, motor bracket and wiring if motor is supplied	40
Boxed for export	50
Fischer oil groover No. 2 arranged for motor drive, including belts, guard, etc (Motor not included. 3 hp./600 to 900 r. p. m., variable speed.)	2,600
Relieving and taper attachment No. 2	400
Three-jaws (13¼ inches), combination chuck	168
Tail stock	170
8-inch steady rest	60
18-inch face plate	25
Boxed for export	50

Prices are f. o. b. Philadelphia, Pa.

FITCHBURG GRINDING MACHINE CORPORATION, FITCHBURG, MASS.

PRESENT PRICES

12″ x 36″ bath universal grinder	$4,850
6″ x 18″ plain cylindrical grinder	3,840
6″ x 32″ plain cylindrical grinder	4,170
14″ x 20″ spline and gear grinder (base price only)	5,820
14″ x 36″ spline and gear grinder (base price only)	6,860
14″ x 60″ spline and gear grinder (base price only)	7,920

OBSOLETE MACHINES (LAST PRICE)

10″ x25″ bath Universal (overhead-drive)	3,440
12″ x 36″ bath Universal (overhead-drive)	3,610
6″ x 20″ plain grinder	2,920
8″ x 20″ plain grinder	3,260
8″ x 36″ plain grinder	3,420

THE FOOTE-BURT CO., CLEVELAND, OHIO

SENSITIVE DRILLING MACHINE

	Weight	Belt drive	Motor drive
DE type—Floor type:	*Pounds*		
1 spindle	410	$345	$405
2 spindle	590	605	725
3 spindle	850	865	1,045
4 spindle	1,140	1,120	1,365
6 spindle	1,975	1,650	2,015
DE type—Bench type:			
1 spindle	195	290	350
2 spindle	350	525	645
3 spindle	520	760	940
4 spindle	660	980	1,220
6 spindle	1,030	1,435	1,800
BK type:			
1 spindle	525	360	425
2 spindle	800	580	710
3 spindle	1,075	780	980
4 spindle	1,350	1,035	1,320
6 spindle	1,000	1,580	1,975
2 spindle on 3 Sp. Base	900	625	760
BW or No. 2, 8″ over-hang:			
1 spindle	1,050	470	510
2 spindle	1,450	770	880
3 spindle	1,850	1,100	1,265
4 spindle	2,500	1,435	1,655
6 spindle	3,700	2,105	2,435
BX or No. 2, 12″ overhang:			
1 spindle	1,175	495	540
2 spindle	1,610	835	945
3 spindle	2,080	1,185	1,350
4 spindle	2,600	1,540	1,760
6 spindle	3,800	2,240	2,570
No. 3 machine:			
1 spindle on 30″ base	2,200	720	-------
2 spindle on 30″ base	2,900	1,325	-------
1 spindle on 15″ base	1,700	690	-------

THE FOOTE-BURT CO., CLEVELAND, OHIO—Con.

INDEPENDENT FEED DRILLING MACHINES

Number	Type	Capacity	Weight	Present price
			Pounds	
1	4-spindle	¾″	2,500	$2,400
1½	5-spindle	¾″	4,500	3,960
2	4-spindle	1⅝″	7,000	4,640
3	6-spindle	1¾″	12,000	7,815
4	4-spindle	2″	10,000	6,350
5	6-spindle	2″	14,000	8,975
4½	4-spindle	3″	12,000	8,470
5½	6-spindle	3″	17,000	11,700
17	2-spindle	2″	8,600	4,265

HIGH-DUTY DRILLING MACHINES

21½	Manufacturing	1½″	1,750	$1,470
22½	do	2½″	3,575	2,220
23½	do	3½″	5,500	3,025
23	Gear box	1½″	1,875	1,775
23	Manufacturing	1½″	1,750	1,380
24	Gear box	2″	2,650	2,510
24	Manufacturing	2″	2,575	2,085
25	24″ gear box	3″	3,100	2,715
25	36″ gear box	3″	3,400	3,140

HAMMOND RADIAL DRILLS

[Type C & D on column and base. Friction head for drilling and tapping]

Specifications

	Type C	Type D
Vertical adjustment of saddle	24″	24″.
Traverse of spindle	8″	8″.
Diameter of spindle	1″	1¾″.
Hole in spindle	No. 2 Morse taper	No. 3 Morse taper.
Diameter of friction cone	7″	9″.
Spindle speeds	390–625–1000	300–485–775.
Working surface of base	34″ x 48″	34″ x 48″.
Shipping weight with table	3,000 pounds	3,000 pounds.
Shipping weight without table	2,500 pounds	2,500 pounds.
Capacity in steel	⅝″ drill, ½″ taper	¾″ drill, ⅝″ taper.
Capacity in cast iron	¾″ drill, ⅝″ taper	1″ drill, ¾″ taper.

Prices

	Type C	Type D
On column and base complete with motor and starter	$1,210	$1,295
On column and base arranged for, but not including motor	1,135	1,220
On column and base arranged for, belt drive	1,135	1,220
20″ x 30″ box type work table 22″ high	95	95

TYPE G RADIAL, 6-SPEED BALL-BEARING GEARED HEAD FOR DRILLING AND TAPPING AUTOMATIC (AND HAND) REVERSAL

Specifications

Vertical adjustment of saddle 24″
Traverse of spindle 7″
Motor, 1 h. p. 900/1800 r. p. m.
Spindle speeds, 95, 190, 380, 570, 760, 1140 r. p. m.
Diameter splined end of spindle, 1⅛″
Standard hole in spindle, No. 3 Morse Taper.
Capacity in steel, 1⅛″ drill, ⅞″ tap.
Capacity in cast-iron, 1¼″ drill. 1″ tap.
Working surface of base, column and base type. 34″ x 48″
Shipping weight, column and base type, with work table 3,000 lbs.
Shipping weight, column and base type without work table 2,500 lbs.
Shipping weight, post or wall type 950 lbs.

Prices

	Column and base type	Post or wall type
Complete with electrical equipment power elevating mechanism and controls	$1,720	------
Arranged for hand elevation, complete otherwise	1,485	$1,255
Extra for 20″ x 30″ x 22″ box type work table	95	------

HAMMOND NO. 2 SURFACE GRINDER

[Direct inbuilt motor spindle, hand feed]

Specifications

Longitudinal travel, 18″
Transverse travel, 6½″
Vertical travel, 10⅝″
Standard wheel, 7″ x 1½″ x 1¼″ hole
Distance 7″ wheel to table, 9½″ maximum
Working surface of table, 6″ x 18″
Spindle speed, 3,450 r. p. m.
Transverse feed, .250″ per rev.
Vertical feed, .050″ per rev.
Shipping weight, 1,900 pounds.

Prices

No. 2 grinder arranged for but not including spindle	$1,000
Extra for spindle	225
Extra for motor-driven exhaust attachment complete	135

THE FOSDICK MACHINE TOOL CO., CINCINNATI, OHIO

UPRIGHT DRILLS

	Weight, crated for shipment	Price
	Pounds	
21" round-column upright drill	2,800	$1,600
21" box-column upright drill	3,000	1,650
30" round-column upright drill	4,000	2,300
30" box-column upright drill	4,350	2,350

FOSDICK ECONOMAX HYDRAULIC RADIAL DRILLS

Size	Shipping weight	Price
	Pounds	
3-foot 11-inch column	7,650	$6,215
4-foot 11-inch column	7,800	6,515
4-foot 13-inch column	11,200	7,000
4-foot 15-inch column	13,800	8,000
5-foot 13-inch column	12,100	7,325
5-foot 15-inch column	15,300	8,350
5-foot 17-inch column	18,800	9,575
6-foot 15-inch column	16,850	8,700
6-foot 17-inch column	20,300	9,950
6-foot 19-inch column	22,400	11,300
7-foot 17-inch column	21,850	10,325
7-foot 19-inch column	24,000	11,700
8-foot 19-inch column	25,500	12,100

UPRIGHT DRILLS

25" round column	3,260	$1,800
25" box column	3,500	1,850

(Above weights cover the machines crated for shipment.)

JIG BORERS

No. 30 table size 18" x 36"	[1] 6,700	$5,000
No. 30-A table size 22" x 44"	[1] 7,600	6,000

[1] Crated for shipment.

NO. 1 AND NO. 2 SUPERSPEED SENSITIVE DRILLS

No. 1 bench type	Weight	Price	No. 2 floor type	Weight	Price
	Pounds			*Pounds*	
1-spindle	360	$305	1-spindle	700	$365
2-spindle	700	560	2-spindle	875	635
3-spindle	850	795	3-spindle	1,390	905
4-spindle	1,100	1,025	4-spindle	1,900	1,290
6-spindle		1,500	6-spindle	2,550	1,725

NO. 4 AND NO. 5 HIGH-SPEED BALL-BEARING SENSITIVE DRILLS

[No. 4, ⅞" capacity; No. 5, 1¼" capacity. 12" overhang]

No. 4 sensitive	Weight	Price	No. 5 sensitive	Weight	Price
	Pounds			*Pounds*	
1-spindle	1,400	$600	1-spindle	1,750	$760
2-spindle	2,100	1,000	2-spindle	3,150	1,345
3-spindle	2,900	1,420	3-spindle	4,100	1,920
4-spindle	4,300	1,850	4-spindle	5,800	2,595
5-spindle	4,750	2,155	5-spindle		
6-spindle	5,400	2,690	6-spindle	8,500	3,760

NO. 4-BM AND NO. 5-BM HIGH-SPEED BALL-BEARING MOTOR-DRIVEN SENSITIVE DRILLS

[No. 4-BM, ⅞" capacity; No. 5-BM, 1¼" capacity 12" overhang]

No. 4-BM	Weight	Price	No. 5-BM	Weight	Price
	Pounds			*Pounds*	
1-spindle	1,650	$895	1-spindle	2,150	$1,065
2-spindle	2,400	1,625	2-spindle	4,200	1,990
3-spindle	3,900	2,360	3-spindle	6,250	2,910
4-spindle	5,400	3,080	4-spindle	7,900	3,835
5-spindle	7,000	3,805	5-spindle		
6-spindle	8,000	4,535	6-spindle	10,500	5,680

FOX GRINDERS, INC., PITTSBURGH, PA.

SWING FRAME GRINDERS

Size carrying wheels without motors			With motor	
No. 8	16 x 2 or 2½ x 6	$500	7½ H.P.—2 V-Belts	$640
No. 6	20 x 2 or 2½ x 6	590	10 H. P.—3 V-Belts	762
No. 4	24 x 3 or 12"	777	15 H. P.—5 V-Belts	970

STAND GRINDERS

No. 5	24 x 3 x 12	$578	10 H. P.—4 V-Belts	$720
No. 7	30 x 4 x 12	756	15 H. P.—4 V	930

All motors are totally enclosed, fan-cooled ball-bearing type. Motor prices include starting equipment.

Prices are based on using 220/440-volt 50-cycle, 3-phase current.

FRAY MACHINE TOOL CO., GLENDALE, CALIF.

Fray No. 7 all-angle milling machine. Price	$1,475
Price does not include head or milling attachment. Approximate weight of machine 1,500 lbs.	
Fray all-angle milling attachment type A. Weight 90 lbs. Price	195
Equipped with back gear unit. Price	245
Fray all-angle milling attachment type B. Weight 105 lbs. Price	245
Equipped with back gear unit. Price	295
Fray all-angle milling attachment type C. Weight 115 lbs. Price	345
Equipped with back gear unit. Price	395

THE FREW MACHINE CO., PHILADELPHIA, PA.[1]

NO. 1 AUTOMATIC TAPPING MACHINES

Belt drive with plain countershaft	$530
Vee belt motor drive, without motor, but with motor base and motor pulley:	
Single spindle speed	545
Three spindle speeds	575
Mounting and wiring customer's motor and switch	20
Foot treadle	40

[1] Prices corrected upon advice of manufacturer. They differ from those shown in first edition of Prices of New Machine Tools.

NO. 2 AUTOMATIC TAPPING MACHINES

Single speed, belt drive with countershaft	$840
Two speeds, belt drive with countershaft	920
Four speeds, gear box, motor drive but without motor	1,210
Mounting and wiring customer's motor and switch	20
Oil pump and piping for tappers	95

PROFILING MACHINES

Size	Single spindle	Double spindle
No. 4, belt drive	$2,150	$2,450
No. 5, belt drive	2,800	3,450
No. 5A, belt drive	2,900	3,550
No. 6, belt drive	3,550	4,050
No. 6A, belt drive	3,850	4,450
Motor drive parts but without motor		155
Pump and piping		125
Mounting and wiring customer's motor and switch		25
No. 3 motor on spindle drive, including motor and switch		2,000

CAM MILLING MACHINES

6" cam cutter, no fixtures, belt drive with countershaft	$1,105
6" flat cam fixture for above	500
6" cylinder cam fixture for above	590
12" cam cutter, no fixtures, belt drive	[2]
12" flat cam fixture for above	[2]
12" cylinder cam fixture for above	[2]
24" and 36" cam cutters	[2]
Pump and piping	95
12" cam cutting attachment for standard milling machines, power feed	750

[2] Prices on application.

THE FREW MACHINE CO., PHILADELPHIA, PA.—Continued

NO. 3 CHUCKING LATHE

No. 3, Chucking Lathe, air operated, with 6" chuck and cylinder, plain slide, belt drive	$1,800
Pump and piping	100

HAND MILLING MACHINES

No. 2, Hand Miller, belt drive, four step cone, countershaft, bench type	$630
No. 2, Vee-Driv Hand Miller, bench type, with ¾ hp. motor and switch, three spindle speeds:	
3,600—2,700—1,800 r. p. m.	690
1,800—1,350—900 r. p. m.	670
1,200—900—600 r. p. m.	680
900—675—450 r. p. m.	690
No. 2, Vee-Driv Hand Miller, bench type but without motor or switch	600
Mounting customer's motor and switch	15
Extras for No. 2 millers:	
Screw feed to table instead of lever feed	30
Screw feed to knee instead of lever feed	30
Screw and lever feed to table	60
Floor column base	50
4" plain vise	32
Arbors, 1" or ⅜" diameter	30
Oil pump and piping	75
No. 3, Hand Miller, belt drive with countershaft	690
No. 3, Hand Miller, motor drive but without motor	875
Mounting and wiring customer's motor and switches	50
5" plain vise	44
Arbor, 1"	36
Oil pump and piping	100

DUPLEX HORIZONTAL DRILLS

No. 0, Duplex Drill, hand screw feed, with drum countershaft	$800
No. 0, Duplex Drill, lever feed, drum countershaft	760

Other types and sizes of duplex drills special.

All prices which include motors and switches are based on 220/440 volt, 50 or 60 cycle, 2- or 3-phase currents.

GALLMEYER & LIVINGSTON CO., GRAND RAPIDS, MICH.

GRAND RAPIDS DRILL GRINDERS

[Prices, net crated f. o. b. Grand Rapids—motor driven [1]—complete with 50 or 60 cycle motor and switch [1]]

Double Holder Types—Wet and Dry

Style	Capacity	Net weight	Crated weight	Net price
		Pounds	*Pounds*	
B-6-A	No. 52—1½"	640	740	$543
C-6-A	No. 52—2½"	650	750	545
C-6-B	⅛—2¾"	660	760	547
D-6-B	⅛—4"	735	845	600
D-6-A	No. 52—4"	725	835	598
E-6-B	⅛—5"	800	880	665

Single Holder Types—Wet

Style	Capacity	Net weight	Crated weight	Net price
		Pounds	*Pounds*	
A-6-T	No. 52—¾"	605	700	$515
B-6-T	⅛—1½"	610	710	517
C-6-T	¼—2½"	630	750	520
D-6-T	½—4"	700	810	555

Single Holder Types—Dry

Style	Capacity	Net weight	Crated weight	Net price
		Pounds	*Pounds*	
A-5-T	No. 52—¾"	480	580	$455
B-5-T	⅛—1½"	490	590	457
C-5-T	¼—2½"	500	600	460
A-7-T	No. 52—¾"	270	370	332
B-7-T	No. ⅛—1½"	275	375	325
00	No. 60—⅜"	225	325	275

Bench Type

Style	Capacity	Net weight	Crated weight	Net price
		Pounds	*Pounds*	
A-7-T	No. 52—¾"	120	145	$312
B-7-T	⅛—1½"	125	150	315
00	No. 60—⅜"	100	125	255

[1] Extra for direct current equipment, $50.

GALLMEYER & LIVINGSTON CO., GRAND RAPIDS, MICH.—Continued

GRAND RAPIDS TAP GRINDERS

[Motor driven [1]—complete with 50 or 60 cycle motor and switch [1]]

No.	Type	Capacity	Net weight	Crated weight	Net price
			Pounds	*Pounds*	
1M	Single holder	No. 6 to 1½" [1]	390	465	$400
2M	Single holder	⅜" to 3"	400	475	425
12M	Double holder	No. 6 to 3"	425	500	495
	Extra for attachment on No. 12 machine for bent shank taps.				30

[1] Extra for direct current equipment, $35.

GRAND RAPIDS COMBINATION TAP AND DRILL GRINDERS

[Motor driven [1]—complete with 50 or 60 cycle motor and switch [1]]

No. and type	Capacity	Net weight	Crated weight	Net price
		Pounds	*Pounds*	
10–A—taps No. 6 to 1½", drills No. 52 to ⅝"		500		$493
10–B—taps No. 6 to 1¾", drills ⅛" to 1½"		510		495
20–B—taps ⅜" to 3", drills ⅛" to 1½"		550		510
20–C—taps ¾" to 3", drills ¼" to 2½"		560		513

[1] Extra for direct current equipment, $35.

UNIVERSAL CUTTER AND TOOL GRINDERS

Plain cutter and reamer grinder, motor driven, hand feed, equipped with headstock bored to take No. 12 B & S and standard milling machine taper with reducing collets to take No. 10, No. 9, and No. 7 B & S taper hole and center; tail stock; center gauge; wheel flanges; wheel guards; tooth rests; wrenches, quick action lever handle; including standard 50 or 60 cycle electrical equipment and 6 grind wheels:

	Price
No. 3	$1,250
No. 4	1,360
No. 5	1,500
Extra for power feed proving 6 table speeds on No. 4 and No. 5 machines	175
Extra for wet grinding attachment on No. 4 and No. 5 machines	85

Complete universal cutter and tool grinder, motor driven, hand feed with attachments as listed with plain machine and cylindrical grinding attachment with ¼ hp., 50 or 60 cycle motor; internal grinding attachment; surface grinding attachment; gear cutter grinding attachment:

No. 3	1,575
No. 4	1,675
No. 5	1,825
Extra for power feed providing 6 table speeds on No. 4 and No. 5 machines	175
Extra for wet grinding attachment on No. 4 and No. 5 machines	85

Prices of attachments included in prices of complete universal machines which may be deducted from total price if attachment not desired. These prices do not apply to sale of individual attachments purchased at a later date.

	Prices
Cylindrical grinding attachment including 4" 3-jaw chuck with taper shank and extra set of jaws, dogs and ¼ hp., 50- or 60-cycle motor	$140.00
Internal grinding attachment including pulley, belt, T-slot bolts, and three wheels (requires cylindrical grinding attachment)	65.00
Surface grinding attachment including universal vise with extra V-jaw, center holder, rods, and extension spindle	75.00
Gear cutter grinding attachment	45.00

EXTRAS

Extra for steady rest	25.00
Extra for metal cabinet for attachments	35.00
Extra for face plate with taper shank and 2 expansion collets	15.00
Extra for deep hole internal attachment on no. 5 machine	85.00
Extra for 10" chuck on no. 5 machine	40.00
Extra for universal attachment	125.00

Plain cutter and tool grinder, no. 1½ machine, motor driven, equipped with headstock bored to take no. 12 B & S taper with reducing collets to take no. 10, no. 9, and no. 7 B & S taper hole and center; tailstock with center; wheel flanges; wheel guards; tooth rests; tools—quick-action lever handle; wrenches, five grinding wheels and standard 50- or 60-cycle electric equipment:

No. 1½	687.50
No. 2	622.50

Universal cutter and tool grinder, complete no. 1½ motor-driven universal cutter and tool grinder, includes attachments as listed with plain machines and cylindrical grinding attachment, motor headstock with ¼ hp. 50- or 60-cycle motor; surface grinding attachment; gear cutter grinding attachment, and internal grinding attachment:

No. 1½	$925.00
No. 2	860.00

[Prices—net crated f. o. b. Grand Rapids]

Prices of attachments included in price of *complete* no. 1½ machine, which may be deducted from total price if attachment not desired. These prices do not apply to sale of individual attachments.

Cylindrical grinding attachment including 4" 3-jaw chuck with taper shank and extra set of jaws, dogs, and motor headstock with 50- or 60-cycle motor	$132.50
Internal grinding attachment including pulley, belt, T-slot bolts, and three wheels (requires cylindrical grinding attachment)	25.00
Surface grinding vise	35.00
Gear cutter grinding attachment	45.00

GALLMEYER & LIVINGSTON CO., GRAND RAPIDS, MICH.—Continued

TOOL AND CUTTER GRINDERS

Specifications

	No. 1½	No. 2	No. 4	No. 5
Size of table—inches	5 x 26	5 x 26	5½ x 42	6 x 50
Longitudinal travel—do	16	16	24	32
Transverse movement—do	8	7	9	10
Vertical movement—do	6¾	6¾	10¾	10¾
Maximum swing—do	9½ x 20	9½ x 20	10½ x 32	10½ x 42
Capacity for face milling cutters—do	12	12	18	24
Weight complete, net—pounds	785	670	1,850	2,200
Weight complete, crated—do	875	790	2,000	2,400
Weight complete, boxed—do	1,025	840	2,200	2,600

HAND FEED SURFACE GRINDERS

		Price of machine	Chuck price
No. 0	5" x 12" working surface of table—motor driven with motor	$425	$100
No. 15	6" x 18" working surface of table—motor driven with motor	685	115
No. 15	6" x 18" working surface of table—belt driven with counter shaft	655	115
No. 18	10" x 18" working surface of table—motor driven with motor	875	175
No. 18	10" x 18" working surface of table—belt driven with counter shaft	845	175
No. 25	(Hand feed)—6" x 18" working surface of table—motor driven with motor.	(1)	(1)
	Extra for wet grinding equipment for nos. 15 or 18 machines	165	
	Extra for 3 spindle speeds on nos. 15 or 18 machines	20	

[1] Temporarily discontinued.

NOTE.—Prices on motor driven machines with motor as listed cover suitable 50- or 60-cycle AC motors and control, wired ready to attach to line wires. Prices on machines with direct current or odd frequency motors on application.

HYDRAULIC FEED SURFACE GRINDERS

No.	Working surface of table	Capacity under standard wheel	Wheel size	Net weight	Machine price	Chuck price mounted
	Inches	*Inches*	*Inches*	*Pounds*		
65	12 x 48	17	12 x 1 x 3	8,300	$4,125	$525
55	12 x 36	17	12 x 1 x 3	7,300	3,675	400
45	12 x 24	17	12 x 1 x 3	5,700	3,200	275
38	8 x 36	12	10 x 1 x 2	4,700	2,625	250
35	8 x 24	12	10 x 1 x 2	4,300	2,200	160
25	6 x 18	10	8 x ½ x 1¼	2,300	1,540	115

Above prices cover motor driven machines complete with standard 50- or 60-cycle alternating current motors and controls, wired, ready to attach to line wires.

Prices on machines equipped with direct current or odd-frequency motors on application.

	Price
Extra for portable self-contained motor-driven coolant system on above machines	$165.00
Extra for dust-collecting system on above machines	160.00
Extra for handwheel operation of longitudinal table movement on nos. 35, 45, 55 and 65	85.00
Extra for Bijur one-shot lubricating system on no. 25 machines	60.00
Extra for patented vertical movement on no. 25 machine	75.00
Extra for power rapid vertical travel of wheel head on no. 45, regular equipment on nos. 65 and 55	125.00
Extra for raised column and 20" diameter wheel on nos. 45, 55, and 65	$375.00
Extra for handling and mounting 8" x 24" or smaller magnetic chuck if furnished by customer	17.50
Larger than 8" x 24"	25.00
Extra for trueing device built into wheel hood with diamond	125.00
Extra for radius and angular trueing device with diamond	220.00
Extra for radius trueing device with diamond for both convex and concave radii	235.00

GALLMEYER & LIVINGSTON CO., GRAND RAPIDS, MICH.—Continued

SURFACE GRINDER

Model A Cross Traveling Head Type

Prices covering Model A machines include portable motor driven coolant system, standard 50 or 60 cycle alternating current motors with controls, and power rapid vertical travel of wheel head. Prices on direct current and odd frequency equipment on application.

Working surface of table (inches)	Capacity under standard wheel	Wheel size	Net weight	Code	Machine price	Chuck price, mounted
	Inches	*Inches*	*Pounds*			
12 x 36	17	14 x 3 x 5	9,350		$4,875	$400
12 x 48	17	14 x 3 x 5	10,650		5,400	525
12 x 60	17	14 x 3 x 5	11,850		5,800	650
12 x 72	17	14 x 3 x 5	14,500		6,200	775
14 x 36	17	14 x 3 x 5	9,850		5,475	450
14 x 48	17	14 x 3 x 5	11,100		6,200	600
14 x 60	17	14 x 3 x 5	12,250		6,800	750
14 x 72	17	14 x 3 x 5	15,250		7,400	900

Above machines can be equipped with 20" x 3" x 8" grinding wheel with 15-horsepower motor for driving wheel spindle and with capacity of 16" under the full 20" diameter wheel at an additional charge of $200.

Model F Production Type

[Prices quoted cover standard machines complete with motor driven self-contained coolant system, standard 50 or 60 cycle alternating current motors and controls and power rapid vertical travel of wheel head. Prices on machines with odd frequency and direct current motors will be furnished on request.]

Working surface of table (inches)	Capacity under standard wheel	Wheel size	Net weight	Code	Machine price	Chuck price, mounted
	Inches	*Inches*	*Pounds*			
12 x 36	16	14 x 3 x 5	12,500		$6,100	$400
12 x 48	16	14 x 3 x 5	14,000		6,500	525
12 x 60	16	14 x 3 x 5	15,500		6,900	650
12 x 72	16	14 x 3 x 5	17,000		7,450	775
14 x 36	16	14 x 3 x 5	13,500		6,750	450
14 x 48	16	14 x 3 x 5	15,000		7,200	600
14 x 60	16	14 x 3 x 5	16,500		7,650	750
14 x 72	16	14 x 3 x 5	18,000		8,300	900
16 x 48	17	20 x 4 x 10	22,500		8,800	700
16 x 60	17	20 x 4 x 10	23,500		9,250	825
16 x 72	17	20 x 4 x 10	24,500		9,700	1,050
18 x 48	17	20 x 4 x 10	23,000		9,100	825
18 x 60	17	20 x 4 x 10	24,500		9,550	950
18 x 72	17	20 x 4 x 10	26,000		10,000	1,200
20 x 48	25	20 x 6 x 10	24,000		9,600	925
20 x 60	25	20 x 6 x 10	25,500		10,050	1,125
20 x 72	25	20 x 6 x 10	27,000		10,500	1,400

Extra for automatic down feed (page 12)	$525
Extra for motor driven dust collector unit	250
Extra for diamond trueing device with diamond (page 12)	185
Extra for two spindle speeds 12" and 14" wide machines	400
Extra for two spindle speeds 16" and 18" wide machines	425
Extra for two spindle speeds 20" and 24" wide machines	475

GARDNER MACHINE CO., BELOIT, WIS.

SINGLE SPINDLE DISK GRINDERS

[With 1 plain and 1 universal table, 2 steel disk wheels. Motor-driven machines include Standard A. C. motors]

Size	Drive	Weight	Price
		Pounds	
No. 1, 12"	Belt	640	$423.00
No. 1, 12"	M. D	1,125	671.00
No. 2, 18"	Belt	1,400	609.00
No. 2, 18"	M. D	1,820	903.00
No. 4, 20"	Belt	2,500	758.00
No. 4, 20"	M. D	2,640	1,143.00
No. 5, 18"	M. D	1,600	618.00
No. 6, 26"	Belt	2,600	857.00
No. 6, 26"	M. D	2,775	1,387.00
No. 7½, 30"	Belt	3,350	1,043.00
No. 7½, 26"	M. D	3,150	1,614.00

DOUBLE SPINDLE DISK GRINDERS

No. 14, 20"	Belt	3,100	$1,333.00
No. 14, 20"	M. D	3,100	1,558.00

VERTICAL SPINDLE HORIZONTAL DISK GRINDERS

No. 88, 18"	Vert. motor	1,800	$561.50
No. 86, 30"	Belt	1,700	912.00
No. 86, 30"	Vert. motor	1,800	1,017.00
No. 24, 53"	do	4,700	1,945.00
No. 124, 53"	No motor	6,350	1,670.00
No. 79, 72"	Vert. motor	10,000	3,275.00
No. 179, 72"	No motor	11,500	2,525.00

THE GEAR GRINDING MACHINE CO., DETROIT, MICH.

LIST PRICE SCHEDULE	*Price f. o. b. Detroit*
Types of gear grinding machines (involute and straight sided keys):	
GG–10 (external) 9" I. H., 10" diameter work, 16" between centers	$6,850
GG–19 (external) 9" I. H., 10" diameter work, 24" between centers	7,000

THE GEAR GRINDING MACHINE CO., DETROIT, MICH.—Continued

LIST PRICE SCHEDULE—con.	*Price f. o. b. Detroit*
Types of gear grinding machines (involute and straight sided keys)—Continued.	
GG–22 (external) 90" Index Worm Wheel, 24" to 72" diameter work, 12" face	$61,300
GG–23 (external) 28" Index Worm Wheel, 2½" to 24" diameter work, 24" face	17,800
GG–23–A Special (external) 38" Index Worm Wheel, 6¾" to 33" diameter work, 24" face	20,650
GG–24 (external) 16" I. H., 2¾" to 16" diameter work, 24" face	15,650
GG–27 (external rack) 18" Long Rack, up to 20° R. or L. angle, 4" face	9,850
GG–29 (external and internal) 12" I. H., 2" to 12" external and 3" to 8" internal, 2½" face, internal	10,800
GG–30 (internal) 16" I. H., 3½" to 16" internal, 3" face	11,600
GG–31 (internal) 12" I. H., 3½" to 12" internal, 3" face	10,600
GG–32 (external) 16" I. H., 4" to 15" diameter work	10,450
GG–33 (external) 16" I. H., 1½" to 16" diameter work, up to 42" between centers	10,780
GG–33 (external) 16" I. H., 1½" to 16" diameter work, up to 48" between centers	11,000
GG–34 (external) 12" I. H., 1½" to 12" diameter work, 6" face	10,225
Types of shaft grinders (square keys):	
SG–9, 9" I. H., 10" diameter work, 16" between centers	6,225
SG–11, 9" I. H., 10" diameter work, 24" between centers	6,560
SG–12, 12" I. H., 10" diameter work, 60" between centers	10,425
SGG–16, 12" I. H., 10" diameter work, 80" between centers	18,500
SG–17, 12" I. H., 10" diameter work, 42" between centers	10,200
Worm Grinder WG–2	29,600
Types of measuring instruments:	
MI–1, 72" diameter, Gear Tooth Curve Indicator. (Price upon request.)	
MI–3, 1" to 15" diameter Gear Tooth Curve Indicator	2,350
MI–5, 4" to 18" diameter Gear Tooth Curve Indicator	2,900
MC–3, 2½" to 10" diameter Gear Tooth Curve Comparator	900
ME–2, 18" diameter, Gear Eccentricity Clock Indicator	750

GENERAL ENGINEERING & MANUFACTURING CO., ST. LOUIS, MO

KELLY HEAVY DUTY SHAPERS

Size of machine	16 inches	20 inches	24 inches	28 inches	32 inches	36 inches
Series	Heavy	Heavy	Heavy	Heavy	Heavy	Heavy
Standard machine, regular equipment, single pulley drive	$2,180	$2,280	$2,640	$2,780	$3,307	$3,490
Standard machine, regular equipment, arranged for motor drive through V-belts but no electrical equipment	2,290	2,390	2,755	2,890	(1)	(1)
Mounting and wiring of starter and motor at factory	20	20	25	25		

[1] No longer made.

NOTE: Prices corrected upon advice of manufacturer. They differ from those shown in first edition of Prices of New Machine Tools.

General Machinery Corporation, Hamilton, Ohio

Boring mills

Size	A. C. equipment		D.C. equipment	
	Weight	Price	Weight	Price
	Pounds		Pounds	
53" heavy	24,300	$9,700	23,700	$9,000
62" heavy	30,200	11,300	29,700	10,600
73" standard	31,500	11,700	31,000	11,000

Radial drills

5'	14,300	$6,500	13,300	$6,000
6'	16,300	7,000	15,300	6,500

Engine lathes

Size	Centers	Weight	Price	Extra 2 feet of bed
		Pounds		
27"	4'	15,000	$7,250	270
30"	5'	15,600	8,100	320
36"	5'	16,900	9,150	350

General Machinery Corporation, Hamilton, Ohio—Continued

Engine lathes—continued

Heavy Size	Centers	A. C. equipment Weight	A. C. equipment Price	D.C. equipment Weight	D.C. equipment Price	Extra 2 feet of bed
		Pounds		Pounds		
36"	5'	27,800	$12,000	27,000	$11,250	425
42"	5'	29,050	12,850	28,250	12,100	455
48"	5'	37,100	14,350	35,800	13,250	485
60"	7'	53,500	19,100	52,000	18,000	540
72"	7'6"	72,700	31,185	71,000	29,315	750

Planers

Size	Weight	Price	Per extra foot
	Pounds		
36" x 8"	27,600	$10,065	$270
42" x 8"	29,800	11,330	305
48" x 10"	43,000	13,090	340
60" x 12"	71,400	18,040	430
72" x 12"	85,400	22,440	475

General Manufacturing Company, Detroit, Mich.

General flexible power presses

Press No.	Description	Price
30	3-ton Arbor, G-F-P press, bench type, belt drive, with standard 6" stroke, 12" opening, and 5" table height	$360
	Head only, belt drive with standard 6" stroke	300
	Add the Following Extras to Above Prices	
	Column to bring table 40" from floor	40
	Lathe attachment	20
	Special opening less than standard 12" opening	6
	Special opening more than standard 12" opening, $6.00 plus $0.40 per inch over standard.	
	Special 9" stroke	12
	Special 12" stroke	18
	Silent chain motor drive attachment (not including motor or control) shipped with press	60
	Same attachment ordered later	75
	V-belt motor, drive attachment, with swinging motor bracket (not including motor or control) shipped with press	90
	Same attachment ordered later	105
	Mounting and wiring (not including motor or control)	20
	Motor required: 2 hp., 1,200 r. p. m., motor, less slide rails and pulley.	
33	3-ton, 3 post, G–F–P press, belt drive, with standard 6" stroke, 12" opening, and 40" table height	420
	Head only, belt drive, with standard 6" stroke	310
	Add the Following Extras to Above Prices	
	Special legs for 29" table height	5
	Special opening less than standard 12" opening	6
	Special opening more than standard 12" opening, $6 plus $0.40 per inch over standard.	
	Special 9" stroke	12
	Special 12" stroke	18
	Extra nosepiece for straightening attachment	14
	Nosepiece for straightening attachment in place of standard nosepiece	7
	Silent chain motor-drive attachment (not including motor or control) shipped with press	95
	Same attachment ordered later	110
	V-belt motor-drive attachment (not including motor or control) shipped with press	95
	Same attachment ordered later	110
	Mounting and wiring (not including motor or control)	20
	Motor required: 2 hp., 1,200 r. p. m., motor, less slide rails and pulley.	
83	8-ton, 3 post, G–F–P press, belt drive, with standard 9" stroke, 12" opening, and 30" table height	700
	Head only, belt drive, with standard 9" stroke	525

General Manufacturing Company, Detroit, Mich.—Continued

General flexible power presses—continued

Press No.	Description	Price
	Add the Following Extras to Above Prices	
83	Special column for 40" table height	$15
	Special opening less than 12" standard opening	6
	Special opening more than 12" standard opening, $6 plus $.50 per inch over standard.	
	Special 12" stroke	15
	Special 15" stroke	22
	Special 18" stroke	30
	Extra nosepiece for straightening attachment	15
	Nosepiece for straightening attachment in place of standard nosepiece	7
	Silent chain motor-drive attachment (not including motor or control) shipped with press	160
	Same attachment ordered later	170
	V-belt motor-drive attachment (not including motor or control) shipped with press	160
	Same attachment ordered later	170
	Mounting and wiring (not including motor or control)	20
	Motor required: 5 hp., 1,200 r. p. m., motor, less slide rails and pulley.	
	8-ton, 3-post, horizontal G-F-P press, belt drive, with standard 9" stroke, 24" opening, height from floor to center of ram, 36"	825
	Add the following extras to above prices	
	Special opening less than standard 24" opening	6
	Special opening more than standard 24" opening, $6 plus $.60 per inch over standard.	
	Special 12" stroke	15
	Special 15" stroke	22
	Special 18" stroke	30
	(No motor-drive attachment for this press.)	
84	8-ton, 4 post, G-F-P press, belt drive, with standard 9" stroke, 12" opening, and 30" table height	965
	Add the following extras to above prices	
	Special opening less than standard 12" opening	15
	Special opening more than standard 12" opening, $8 plus $0.75 per inch over standard.	
	Special 12" stroke	22.50
	Special 15" stroke	30
	Special 18" stroke	
	(No motor-drive attachment for this press.)	
201	20-ton, adjustable knee, G-F-P press, belt drive, with standard 18" stroke, 3" to 27" opening and 43" to 19" table height	1,220
	Add the following extras to above prices	
	Extra parts necessary including straightening nose piece for use with no. 900 shaft straightening attachment	22
	Same parts in place of standard parts	7
	Extra parts necessary including straightening nose piece for use with no. 910 shaft straightening attachment	45
	Same parts in place of standard parts	30
	Silent chain motor drive attachment (not including motor or control) shipped with press	130
	Same attachment ordered later	175
	V-belt motor drive attachment, with swinging motor bracket (not including motor or control) shipped with press	190
	Same attachment ordered later	235
	Mounting and wiring (not including motor or control)	25
	Motor required: 10 hp., 1,200 r. p. m., motor less slide rails and pulley.	
202	20-ton, 3 post, G-F-P press, belt drive, with standard 12" stroke, 18" opening, and 30" table height	1,100
	Head only, with standard 12" stroke	825
	Add the following extras to above prices	
	Special legs, for 24" table height	5
	Special legs, for 21" table height	5
	Special opening less than standard 18" opening	9
	Special opening more than standard 18" opening—$9 plus $1 per inch over standard.	
	Special 15" stroke	25
	Special 18" stroke	34
	Special 21" stroke	43
	Extra no. 1035 straightening nose piece for use with no. 900 heavy base shaft straightening attachment	20
	No. 1035 nose piece in place of standard nose piece	8
	Extra no. 1036 straightening nose piece for use with no. 910 heavy base shaft straightening attachment	18
	No. 1036 nose piece in place of standard nose piece	6
	Silent chain motor drive attachment (not including motor or control) shipped with press	180
	Same attachment ordered later	200
	V-belt motor drive attachment (not including motor or control) shipped with press	180
	Same attachment ordered later	200
	Mounting and wiring (not including motor or control)	20
	Motor required: 10 hp., 1,200 r. p. m., motor less slide rails and pulley	
203	20-ton, 3 post, horizontal G-F-P press, belt drive, with standard 12" stroke, 24" opening, height from floor to center of ram, 40"	1,375

General Manufacturing Company, Detroit, Mich.—Continued

GENERAL FLEXIBLE POWER PRESSES—continued

Press No.	Description	Price
	Add the following extras to above prices	
203	Special opening less than standard 24" opening	9
	Special opening more than standard 24" opening—$9 plus $1 per inch over standard.	
	Special 15" stroke	25
	Special 18" stroke	34
	Special 21" stroke	43
	(No Motor Drive Attachment for this press.)	
204	20-ton, 4 post, G-F-P press, belt drive, with standard 12" stroke, 15" opening, and 30" table height	1,730
	Add the Following Extras to Above Prices	
	Special opening less than standard 15" opening	10
	Special opening more than standard 15" opening—$10 plus $1.50 per inch over standard.	
	Special 15" stroke	25
	Special 18" stroke	34
	Special 21" stroke	43
	(No Motor Drive Attachment for this press.)	
605	60-ton, lever type, G-F-P, belt drive, with standard 4" stroke, 21" opening and 30" table height	2,300
	Add the Following Extras to Above Prices	
	Extra straightening nose piece for use with shaft straightening attachment	25
	Straightening nose piece in place of standard nose piece	15
	Silent chain motor drive attachment (not including motor or control) shipped with press	160
	Same attachment ordered later	175
	V-belt motor drive attachment, with swinging motor bracket (not including motor or control) shipped with press	200
	Same attachment ordered later	215
	Mounting and wiring (not including motor or control)	25
	Motor Required: 10 hp., 1,200 r. p. m., motor less slide rails and pulley.	
	Shaft Straightening Attachments	
	NOTE.—The first dimension after the attachment type, denotes the maximum swing for the work and is followed by the maximum length the attachment will take between centers, which will be shipped unless otherwise specified (however 24", 36", 48", 60" are optional on all attachments when specified). When supplying customer with an attachment for a machine which he already has, it must be remembered that the machine must have a straightening nose piece and other parts necessary to work properly with this attachment. These are all shown under the various machine extras.	

Type	Description	Price
900–A	8" x 24" light base (24" long) spring center type	$115
900–AV	8" x 24" light base (24" long) roller vee type	115
900–B	8" x 36" light base (40" long) spring center type	140
900–BV	8" x 36" light base (40" long) roller vee type	140
900–C	8" x 36" heavy base (40" long) spring center type	160
900–CV	8" x 36" heavy base (40" long) roller vee type	160
900–A, B, or C	Specify type and size desired, carriage only	70
900–AV, BV, CV	Specify type and size desired, carriage only	70
	Add the Following Extras to Above Attachment Prices	
	Special length between centers over 48" (60", 72", 84", 96", 108", 120")	25
	Special no. 1691 indicator holder (for any no. 900 attachment)	10
	Special no. 901 jack (with any no. 900 attachment)	12
910–B	10" x 36" light base (40" long) screw center type	175
910–BV	10" x 36" light base (40" long) roller vee type	165
910–C	10" x 36" heavy base (40" long) screw center type	190
910–CV	10" x 36" heavy base (40" long) roller vee type	180
910–B or C	Specify type and size desired, carriage only	90
910–BV or CV	Specify type and size desired, carriage only	80
	Add the Following Extras to Above attachment Prices	
	Special length between centers over 60" (72", 84", 96", 108", 120")	20
	Special no. 1692 indicator holder (for any no. 910 attachment)	10
	Special no. 901 jack (with any no. 910 attachment)	12
906–C	6" x 36" heavy base (40" long) screw center type	225
906–CV	6" x 36" heavy base (40" long) roller vee type	215
906–C	Specify type and size desired, carriage only	100
906–CV	Specify type and size desired, carriage only	90

General Manufacturing Company, Detroit, Mich.—Continued

GENERAL FLEXIBLE POWER PRESSES—continued

Type	Description	Price
	Add the Following Extras to Above Attachment Prices	
	Special length between centers over 60" (72", 84", 96", 108" 120")	20
	Special no. 1692 indicator holder (for any no. 906 attachment)	10
1514–C	14" x 48" heavy base (48" long) screw center type	500
1514–CV	14" x 48" heavy base (48" long) roller vee type	475
1514–C	14" x 48" screw center type, carriage only	350
1514–CV	14" x 48" roller vee type, carriage only	325

Add the Following Extras to Above Attachment Prices

Either C or CV	14" x 72"	14" x 84"	14" x 96"	14" x 108"	14" x 120"
Attachments	$50	$65	$80	$95	$110
Carriage only	$10	$20	$30	$40	$50

The Geometric Tool Company, New Haven, Conn.

NO. 20 GEOMETRIC CHASER GRINDER

No. 20 chaser grinder complete with ½ hp., capacitor type, 110 volt, single phase, 60 cycle, 1725 r. p. m., open, sleeve bearing motor, resilient base mounting, single pole conduit box switch, foot cord and plug, also one dish grinding wheel 9" x ¾" x 1¼"—weight 560 pounds	$425
One Style E universal chaser grinding fixture with one chaser holder	70
Magnetic tilting chuck, size 4" x 8" (direct current only)	100

GEOMETRIC THREADING MACHINES

Machine, including pump, oil hood, splash guard, necessary wrenches, die operating yoke, vee belt drive, one pair change gears of pick-off type, but *exclusive* of die head, chasers holding device, motor, motor sliding base, electrical equipment and wiring (does not include bench):	
Machine No. 11 (weight, 305 pounds)	375
Machine No. 14 (weight, 625 pounds)	550
Machine No. 16 (weight, 1,025 pounds)	700
Bench for No. 11 machine only	20
Standard vise type chuck, including automatic work gage but exclusive of chuck jaw bushings:	
Machine No.:	
11	125
14	175
16	225

Giddings & Lewis Machine Tool Co., Fond du Lac, Wis.

The following are the current base list prices of our machines:

No. 25–T, 2½" bar table type	$8,000
No. 25–RT. As above except with built-in revolving table	8,800
No. 330–T, 3" bar table type	15,000
No. 340–T, 4" bar table type	18,000
No. 350–T, 5" bar table type	24,000
No. 360–T, 6" bar table type	44,000
No. 570–T, 7" bar table type	48,000
No. 770–T, 7" bar table type	60,000
No. 780–T, 8" bar table type	65,000
No. 50–T, 5" bar table type	24,800
No. 56–T, 6" bar table type	28,600
No. 340–F, 4" bar floor type	16,000
No. 350–F, 5" bar floor type	21,500
No. 360–F, 6" bar floor type	23,000
No. 560–F, 6" bar floor type	37,500
No. 570–F, 7" bar floor type	41,500
No. 770–F, 7" bar floor type	52,000
No. 780–F, 8" bar floor type	57,000

Gisholt Machine Co., Madison, Wis.

CURRENT GISHOLT PRICES

Machine	Description	Weight	Price
		Lb.	
No. 3	1½" Ram Type Turret Lathe	5,000	$3,590
No. 4	2" Ram Type Turret Lathe	5,500	3,880
No. 5	2½" Ram Type Turret Lathe	5,800	4,365
1L	2½" Saddle Type Turret Lathe	8,200	5,725
2L	3½" Saddle Type Turret Lathe	9,700	6,975
3L	4½" Saddle Type Turret Lathe	10,600	8,675
3AL	6¼" Saddle Type Turret Lathe	14,200	9,375
4L	9¼" Saddle Type Turret Lathe	19,000	10,800
	12¾" Saddle Type Turret Lathe	19,000	12,500
5L	9¼" Saddle Type Turret Lathe	23,000	16,100
3D	Platen Type Simplimatic Lathe	11,000	4,900
No. 12	Hydraulic Automatic Lathe	6,000	4,300

GISHOLT LATHES

(Classification by types and dates of manufacture. Additional information of interest)

1. *Classification.*—Classification by date of manufacture wherein:
   "1" indicates lathes of 1936 and after.
   "2" indicates lathes of 1930–35, inclusive.
   "3" indicates lathes of 1920–29, inclusive.
   "4" indicates lathes of 1919 and before.
2. *Type.*—Symbol or number indicating specific type of lathe.
3. *Lot numbers.*—Lot numbers under which lathes were manufactured. (The serial number of any one machine is comprised of the lot from which the machine came and a number indicating the sequence of that machine in its lot.)
4. *Year.*—Years in which the various lots were authorized. In several cases manufacture of a lot was not completed until the following year, but such exceptions are not important enough to be noted.
5. *Size.*—Figures indicating capacity of machine in round bar stock, and in earlier machines, the spindle bore size.
6. *Current model of comparable size.*—Current model of comparable size gives reference to machines listed on the sheet entitled "Current Gisholt Prices." Particular attention should be called to the fact that manufacture of the earlier styles of lathes (Type "G," "H," "I," "J," and "K" especially) have long ago been discontinued, and modern lathes are of too-advanced a nature to be considered at all comparable except in size.
7. *Weight.*—Approximate weight of machine. For earlier machines, these weights are only approximate.

GISHOLT MACHINE CO., MADISON, WIS.—Continued

TURRET LATHES—OLD TYPE

Classification	Type	Lot Nos.	Year	Size	Current model of comparable size No.
				Inches	
4	G	115–135	1898–1915	1½	3
4	G	136–144	1915–19	2½	5
3	G	145	1929	2½	5
4	H	200–224	1898–1904	2	4
4	H	300–313	1905–08	2	4
				3½	2L
4	H	314–349, 501–504	1908–19	3½	2L
3	H	505	1920	3½	2L
				2½	5
				4	2L
4	I	225–249, 350–411	1898–1919	4¼	3L
				5	3L
				6	3AL
				6¼	3AL
3	I	412	1920	6¼	3AL
4	J	108–113, 250–271	1898–1919	3¼	2L
				6¼	3AL
3	J	272–274	1923–27	6¼	3AL
				7½	3AL
4	K	114, 275–292	1898–1913	4¼	3L
4	K	293–296	1914–18	6¼	3AL
3	K	297	1924	6¼	3AL

TURRET LATHES—RAM TYPE

Classification	Type No.	Lot Nos.	Year	Size	Current model of comparable size No.	Weight
				Inches		*Pounds*
3	2	701–707	1925–29	1	3	
3	3	751–756	1924–28	1¼	3	3,300
2	3	757–765–768	1930–35	1½	3	5,000
1	3	769, 773, 775, 776, 780, 782, 784, 785, 786	1936–38	1½	3	5,000
3	4	801–820, 821–823	1924–29	2	4	4,000
2	4	761, 762, 766, 767, 770–772, 774, 777	1930–35	2	4	5,500
1	4	778, 779, 781, 783, 787	1936–38	2	4	5,500
1	[1] 3	788–799	1939–41	1½(3)	3(3)	5,000(3)
	[2] 4	715–746		2(4)	4(4)	5,500(4)
2	5	825–826	1934–35	2½	5	4,200
1	5	827–848	1936–41	2½	5	5,800
3	6	851–861	1924–28	2½	5	3,800
2	6	862	1934	2½	5	3,800

[1] Even. [2] Odd.

GISHOLT MACHINE CO., MADISON, WIS.—Continued

TURRET LATHES—SADDLE TYPE

Classification	Type No.	Lot Nos.	Year	Size	Current model of comparable size No.	Weight
				Pounds		*Pounds*
3	1L	601–609	1927–29	2½	1L	5,600
2	1L	610–612	1930–35	2½	1L	8,200
	1L	613–627	1936–41	2½	1L	8,200
3	2L	651–660	1926–29	3½	2L	7,500
2	2L	661–665	1930–35	3½	2L	7,500
1	2L	666, 667, 669, 670, 672, 674, 675, 676, 678, 680, 682, 684, 686, 688, 690	1936–41	3½	2L	9,700
3	3L	1104, 901–910, 912, 914, 916, 918, 923, 668	1923–28	4⅝	3L	10,600
2	3L	916, 918, 923, 668	1929	4⅝	3L	10,600
1	3L	671, 673, 677, 679, 681, 683	1936–41	4½	3L	10,600
1	3L	685, 687, 689, 691	1936–41	4½	3L	10,600
3	3AL	906–911, 913, 915, 917	1926–29	6¼	3AL	14,200
2	3AL	919–922	1930–35	6¼	3AL	14,200
1	3AL	924–929	1936–39	6¼	3AL	14,200
3	4L	1131, 951–961	1924–29	9¼, 10½, 12¾	4L	19,000
2	4L	962–963	1935	9¼, 12½	4L	
1	4L	964–967, 970–971	1936–41	9¼, 10½, 12½	4L	19,000
3	5L	954–955	1926	9¼	5L	23,000
2	5L	962	1935	9¼	5L	23,000
1	5L	965, 966, 968	1937–40	9¼, 10½	5L	23,000

AUTOMATIC LATHES

Simplimatic lathes:						
3	3D	1055, 1058, 18500–18518, 519–529	1921–29		3D	11,000
2	3D	530–532	1930–35		3D	11,000
1	3D	533–546	1936–41		3D	11,000
Hydraulic lathes:						
2	12	3001	1935		12	6,000
1	12	3002–3014	1936–41		12	6,000

Gleason Works,[1] Rochester, N. Y.

Spiral bevel and hypoid gear machinery

Machine:	Price
3" spiral bevel gear generator	$4,900
No. 7 spiral bevel and hypoid generator	9,875
No. 11 single cycle formate gear finishing machine	11,150
No. 14 spiral bevel and hypoid formate gear grinder	16,500
No. 16 hypoid generator arranged for jobbing work	12,090
No. 16 hypoid generator arranged for production work	12,050
No. 17 hypoid grinder	24,500
No. 22 single cycle spiral bevel and hypoid formate gear finishing machine	16,500
No. 26 hypoid generator	19,200
No. 40 spiral and hypoid bevel gear planing generator	30,750
No. 10 spiral bevel and hypoid gear rougher	8,550
No. 11 gear roughing and semi-finishing machine	8,885
No. 15 spiral bevel pinion rougher	10,475
No. 22 spiral bevel and hypoid gear roughing machine	13,875
No. 7 spiral bevel cutter sharpener	1,300
No. 13 spiral bevel cutter sharpener	8,500
15" spiral bevel cutter sharpener	2,235
cutter truing device	975
cutter angle testing device	750

Straight bevel gear machinery

3" straight bevel gear generator	4,900
No. 6 revacycle completing machine	14,150
No. 9 completing generator	15,920
12" straight bevel gear generator	9,410
No. 24 straight bevel gear generator	17,500
No. 9 automatic disc cutter sharpener	2,100
No. 12 generator tool sharpener	950
No. 12 straight bevel gear rougher (2 tool planer type)	7,700
No. 7 revex straight rougher (special disc cutter type)	8,500

Bevel and spur gear planers

54" straight bevel gear planer	16,200
77" straight bevel gear planer	31,000

[1] Prices corrected upon advice of manufacturer. They differ from those shown in first edition of Prices of New Machine Tools.

Gleason Works, Rochester, N. Y.—Continued

Auxiliary machines

	Price
3" bevel gear testing machine	$1,125
No. 4 (No. 6) angular bevel and hypoid gear testing machine	1,975
10" gear concentricity and space testing fixture	815
No. 13 Universal gear testing machine	4,825
No. 17 comb. testing and lapping machine	5,125
No. 17 hypoid testing machine	3,275
No. 17 spiral bevel pinion burnishing machine	7,485
No. 27 hypoid testing machine	5,580
15" quenching press	2,800
25" quenching press	3,550
No. 2 surface hardening machine	5,650
tooth spacing tester	800
angular hand rolling fixture	750

Machine	Last price	Year dropped
4" Spiral bevel gear generator [1]	$3,500	1929
10" Spiral bevel generator (suitable for mass production)	4,950	1935
15" Spiral bevel gear generator (fixed spindle single motor)	5,600	1928
15" Spiral bevel gear generator (2 motor type)	6,000	1934
15" Hypoid gear generator	6,300	1932
No. 15 Spiral bevel and hypoid pinion grinder	24,500	1940
No. 16 Spiral bevel gear generator	8,950	1935
No. 15A Spiral bevel pinion rougher	11,250	1940
25" Spiral bevel gear generator	15,500	1940
15" Spiral bevel gear rougher	2,680	1935
15" Spiral bevel pinion roucher	3,610	1935
3 Spindle straight bevel gear rougher	9,350	1941
3 Spindle rougher cutter sharpener	975	1941
3" Straight bevel gear generator (old model) [1]	2,000	1926
8" Mfg. generator	7,250	1940
6" Straight bevel gear generator [1]	4,400	1929
11" Straight bevel gear generator [1]	3,650	1924
18" Straight bevel gear generator [1]	4,400	1927
25" Straight bevel gear generator	15,500	1940
37" Straight bevel gear planer (form copying type)	12,450	1940
24" Straight bevel gear planer (form copying type)	5,500	1928
12" Automatic spiral bevel cutter sharpener	5,725	1940
No. 18 Spur gear tester	4,750	1939

[1] Price is shown with full equipment. Many of these machines were shipped stripped for one mass production job. To supply full equipment would cost from $1,000 to $1,500.

Gooley and Edlund

Prices as furnished by Cooper Bros., of Cortland, N. Y.

High duty milling machines

Type A—Prices and Specifications

Traverse of table (inch)	Distance between housings	Taper of arbor	Table working surface	Net weight with countershaft	Price
	Inches		*Inches*	*Pounds*	
16	12¼	No. 11 B. & S.	24 x 8	2,350	$1,320
22	12¼	No. 11 B. & S.	30 x 8	2,500	1,370
28	12¼	No. 11 B. & S.	36 x 8	2,650	1,410
38	12¼	No. 11 B. & S.	49 x 8	2,800	1,650

With extra cutter arbor either 1", 1¼", or 1½", each, $32.
Without oil pump and piping deduct, $15.
Regular equipment consists of motor bracket, sheaves, V-belts, reverse feed, one oil pump with piping, one cutter arbor (specify size), and one set of wrenches. Prices do not include motor nor electrical controls.

Gooley and Edlund—Continued

High duty milling machines—continued

Type B—Prices and Specifications

Traverse of table (inch)	Distance between housings	Taper of arbor	Table working surface	Net weight with countershaft	Price
	Inches		*Inches*	*Pounds*	
34	17	No. 12 B. & S.	50 x 11	4,400	$2,000
42	17	No. 12 B. & S.	50 x 11	4,400	2,120
52	17	No. 12 B. & S.	56 x 11	4,650	2,300
60	17	No. 12 B. & S.	64 x 12	4,650	2,400
72	17	No. 12 B. & S.	78 x 12	5,000	3,000

With extra cutter arbor either 1¼", 1½", 1¾", or 2", each, $40.
Without oil pump and piping, $15.
Regular equipment consists of motor bracket, sheaves, V-belts, reverse feed one oil pump, with piping, one cutter arbor (specify size), and one set of wrenches. Prices do not include motor nor electrical controls.

George Gorton Machine Company, Racine, Wis.

Vertical milling machines

	H. F. weight	H. F. price	P. F. weight	P. F. price
8-D	1,500	$1,495	1,700	$2,125
8½-D	2,300	2,175	2,500	2,945
9-J	3,000	2,730	3,275	3,475

Vertical milling machines equipped as duplicators

8-D	1,730	$3,205	1,930	$3,835
8½-D	2,660	4,005	2,860	4,825
9-J	3,570	4,790	3,845	5,535

Pantograph engraving machines

Standard Two-Dimensional

Style	Weight	Price
3-U	700	$998
3-F Same as 3-U, but with small pantograph	675-700	998
3-S	2,200	3,255

Standard Three-Dimensional

3-B	935	$1,195
3-L	2,225	2,470

The Goss and de Leeuw Machine Company, New Britain, Conn.

Tool rotating four-spindle machines

	6 x 6¾	8½ x 8
Plain machine	$7,000	$10,700
Single threading machine	7,650	11,500
Double threading machine	7,750	11,700

All machines are arranged for motor drive, but do not include the main drive motor. Motor base, chain, chain guard and sprockets are furnished.
On all threading machines the electrical equipment, including A. C. motor, is furnished complete. An extra charge is made for this equipment if for D. C. power or odd voltages or cycles.
Standard equipment includes: Five G. & DL. 2-jaw chucks; one set of change gears, one hardened steel feed cam; one rear lead screw with single threading machine; one rear and one front lead screw with double threading machine; and complete set of wrenches.

The Goss and de Leeuw Machine Company, New Britain, Conn.—Continued

Work rotating machines

6 Spindle

Plain Machine	$12,250
Machine is arranged for direct motor drive, not including motors or controllers.	
Standard equipment includes one set of change gears, one hardened steel cam, and one set of wrenches.	
Extra equipment and attachments:	
Cross slides (3)	950
Pump and piping	175
Hand or electric chucks	1,350
Motors and controllers	List
Lead screw threading attachment	1,500

5 Spindle

Plain machine, 8" diameter	11,750
Machine is arranged for direct motor drive, not including motors or controllers.	
Standard equipment includes one set of change gears, one hardened steel cam, and one set of wrenches.	
Extra equipment and attachments:	
Cross slides (3)	950
Pump and piping	175
Hand or electric chucks	1,250
Motors and controllers	List
Lead screw threading attachment	1,500

8 Spindle

Plain Machine	13,150
Machine is arranged for direct motor drive, not including motors or controllers.	
Standard equipment includes one set of change gears, one hardened steel cam, and one set of wrenches.	
Extra equipment and attachments:	
Cross slides (4)	1,250
Pump and piping	175
Hand or electric chucks	1,800
Motors and controllers	List
Lead screw threading attachment (one position)	1,500
Lead screw threading attachment (two positions)	2,000

GOULD & EBERHARDT, NEWARK, N. J.

Shaper and gear cutting machine prices

SHAPERS

Size	Weight	Price
	Pounds	
14" Plain Tool Room:		
Regular table	2,925	$2,175
Universal table	3,200	2,465
16" Tool Room:		
Regular table	3,100	2,305
Universal table	3,350	2,640
16" Industrial:		
Regular table	4,050	2,565
Universal table	4,350	2,935
16/20" Industrial:		
Regular table	4,100	2,640
Universal table	4,350	3,010
20" Industrial:		
Regular table	4,500	2,795
Universal table	4,800	3,190
20/24" Industrial:		
Regular table	4,550	2,885
Universal table	4,800	3,280
24" Industrial:		
Regular table	6,900	3,280
Universal table	7,400	3,750
28" Industrial:		
Regular table	7,000	3,335
Universal table	7,400	3,810
32" Industrial:		
Regular table	7,100	3,500
Universal table	7,600	3,965
36" Industrial:		
Regular table	8,225	3,940
Universal table	8,750	4,495

GOULD & EBERHARDT, NEWARK, N. J.—Continued

GEAR HOBBING MACHINES

Size	Weight	Price
16HS (spur gears only)	7,700	$5,400
24HS (spur gears only)	8,400	5,950
36HS (spur gears only)	12,000	8,060
48HS (spur gears only)	15,600	10,085
16H (Universal spur and helical gears)	7,800	5,625
24H (Universal spur and helical gears)	8,400	6,250
36H (Universal spur and helical gears)	12,200	8,435
48H (Universal spur and helical gears)	16,400	10,580
72H (Universal spur and helical gears)	33,000	22,000
84H (Universal spur and helical gears)	60,000	42,000
96H (Universal spur and helical gears)	75,000	52,000

GEAR CUTTING MACHINES (DISC TYPE)

36S (spur gears only)	5,200	$6,040
36B (spur and bevel gears)	5,200	6,615
36BM (bevel gear—multiple)	5,200	6,965
36R (rack only)	5,800	7,465
60S (spur gears only)	15,600	10,700
60B (spur and bevel gears)	15,000	11,300
60BM (bevel gear—multiple)	15,800	11,850
60R (rack only)	16,600	12,900

All prices above apply to machines arranged for motor drive but without electrical equipment.

SPECIFICATIONS

Style No.	Face [1] capacity spur pinions and gears	Face capacity 45° helical gears	Maximum diameter spur gear (with support)	Maximum diameter spur gear (no support) [2]	Net weight limited equipment
	Inches	*Inches*	*Inches*	*Inches*	*Pounds*
12H	10	7	12	18	4,700
16H	10	7	14	18	7,550
24H	14	10	16	27	8,150
36H	14	10	24	45	11,800
48H	15	10½	32	60	16,000
60H	18	12	40	72	29,000
72H	24	18	48	90	

[1] Standard rated pitch.
[2] Standard rated pitch hob.

E. O. GRABO MACHINE WORKS, INC., NEW YORK, N. Y.

Metal spinning lathes with standard equipment

SINGLE BED SPINNING LATHES

12-inch swing, 4-foot bed, complete, with countershaft	$225
15-inch swing, 5-foot bed, complete, with countershaft	250
18-inch swing, 5-foot bed, complete, with countershaft	310
22-inch swing, 5-foot bed, complete, with countershaft	345
26-inch swing, 5-foot bed, complete, with countershaft	420
Boxing machines for export, 12- to 18-inch swing net	12
Boxing machines for export, 22- to 26-inch swing net	15

E. O. GRABO MACHINE WORKS, INC., NEW YORK, N. Y.—Continued

EXTENSION BED (GAP) SPINNING LATHES

No. 4 gap lathe, swing 26 to 48 inches, complete	$750
No. 5 gap lathe, swing 30 to 60 inches, complete	1,500
Boxing gap lathe for export, No. 4 net	25
Boxing gap lathe for export, No. 5 net	40

BALL BEARING REVOLVING BACK CENTERS

Type "D" revolving centers for all lathes, extra each	18
Extra heavy revolving center for gap lathe	30

These lathes are used extensively by manufacturers of lighting fixtures and other brass workers. Prices include either lever, or hand screw, on the tail stock and regular equipment.

12-inch swing, 4-foot bed, speed lathe, without slide rest	$175
14-inch swing, 4-foot bed, speed lathe, without side rest	200

E. O. GRABO MACHINE WORKS, INC., NEW YORK, N. Y.—Continued

BALL BEARING REVOLVING BACK CENTERS—continued

Compound slide rest	extra	$72
Boxing speed lathes for export	net	10
Universal chucks, 3-inch, 4-inch, 5-inch and 6-inch diameter, with either 3 or 4 jaws, furnished and fitted extra.		
Fitting universal chucks, any size	each	10

RIGHT AND LEFT LATHES WITH STANDARD EQUIPMENT

These lathes are used by lighting fixture manufacturers for drilling and tapping irregular shapes and fittings. It has two kinds of work holders, viz.: a vise and a clamp.

12-inch swing, 4-foot bed, right and left lathe, complete	$290
14-inch swing, 4-foot bed, right and left lathe, complete	315
Allowance for parts:	
If without clamp, deduct	45
If without vise, deduct	45
Special tool holder for 4 tools extra	65

GRANITE STATE MACHINE CO., INC., MANCHESTER, N. H.

No. 0 Vertical Milling Machine, $835.

SPECIFICATIONS

Diameter of spindle at driving end	inch	⅞
Size of table	do	6½ x 20
Longitudinal travel of table	do	12
Cross travel of table	do	7
Collet capacity	do	½
Weight	pounds	900

THE GRANT MFG. & MACHINE CO., BRIDGEPORT, CONN.

RIVET SPINNING MACHINES

[All prices cover machines crated f. o. b. Bridgeport, Conn.]

No.	Capacity	Throat	Type	Price
	Inch	*Inch*		
80	5/16	5⅝	Pedestal with countershaft, choice of flat or horn type table, supporting anvil, roll holder, one pair spinning rolls for one diameter	$210
82A	5/32	2 13/16	Pedestal with countershaft, other equipment as above	95
82A	5/32	2 13/16	Pedestal for horizontal motor, other equipment as above	95
82A	5/32	2 13/16	Pedestal with horizontal motor, other equipment as above	115
82A	5/32	2 13/16	Pedestal with vertical motor, other equipment as above	125
83	5/16	-------	Pedestal with countershaft, flat table, two roll holders, two pairs spinning rolls for one diameter	360
83	5/16	-------	Pedestal with two direct-connected motors, otherwise as above	545
101	5/16	5⅝	Pedestal with bracket for horizontal motor drive, with flat or horn type table, supporting anvil, roll holder, one pair rolls	210
101	5/16	5⅝	Pedestal with horizontal motor, other equipment as above	265
103	5/16	5⅝	Pedestal with vertical motor, other equipment as above	285
107	5/16	11½	Pedestal with countershaft, other equipment as above	255
107	5/16	11½	Pedestal with bracket for horizontal motor drive, with other equipment as above	255
107	5/16	11½	Pedestal with horizontal motor, other equipment as above	310
107	5/16	11½	Pedestal with vertical motor, other equipment as above	330
120A	7/16	5⅝	Pedestal with countershaft, choice of flat or horn type table, supporting anvil, holder, one pair spinning rolls for one diameter	295
120A	7/16	5⅝	Pedestal with bracket for horizontal motor, other equipment as above	295
120A	7/16	5⅝	Pedestal with vertical motor, other equipment as above	390
120A	7/16	5⅝	Pedestal with horizontal motor, other equipment as above	370
183	3/8	-------	Pedestal with countershaft, two roll holders, two pairs spinning rolls	525
183A	3/8	-------	Pedestal as above	545

When we are required to mount horizontal motors furnished by customers, we make additional charge of $15.

Prices quoted above on machines including motors are for alternating current only. Where direct-current motors are required, prices quoted on application.

SPECIAL RIVET SPINNING MACHINES

Pedestal type milk crate riveting machine—with countershaft, special table with automatic gripping mechanism, crate support, roll holder with spinning rolls for one diameter wire	$390
Pedestal type milk crate riveting machine—arranged for horizontal motor drive, without motor	390
Pedestal type milk crate riveting machine—with horizontal motor	445
Pedestal type milk crate riveting machine—with vertical motor	465
Two-spindle vertical pedestal with countershaft, roll holder with a pair of spinning rolls in each spindle, exclusive of fixtures	630
Three-spindle vertical pedestal equipped as above	745
Four-spindle vertical pedestal equipped as above	860
Five-spindle vertical pedestal equipped as above	975

No.	Capacity	Type	Price
	Inch		
83	5/16	Pedestal type, double-end automatic chain riveting machine with countershaft, roll holder with spinning rolls in each spindle for one diameter pin	$875
183	3/8	Pedestal type, double-end automatic chain riveting machine with countershaft, and other equipment as above	1,250
1	¼	Pedestal type, internal rivet spinner with countershaft roll holder, one pair spinning rolls and supporting anvil	375
1	¼	Pedestal type, internal rivet spinner with vertical motor, other equipment as above	450

THE GRANT MFG. & MACHINE CO., BRIDGEPORT, CONN.—Continued

DOUBLE-END AUTOMATIC CHAMFERING MACHINES

Light type

No.	Capacity	Type	Price
	Inch		
183	1	With countershaft, magazine adjustable for different diameters and lengths within the capacity of the machine, one set cutter heads with cutters, one set clamping jaws, one set feed fingers for one diameter	$1,250
183A	1	Equipped as above	1,300
183B	1	Equipped as above	1,350
		Extra price for arranging these machines for motor drive, exclusive of motor or electrical equipment, $150.	

Heavy Type

	Inch		
183	2	With countershaft, magazine adjustable for different diameters and lengths within the capacity of the machine, one set cutter heads with cutters, one set clamping jaws, one set feed fingers for one diameter	$1,350
183A	2	Equipped as above	1,400
183B	2	Equipped as above	1,450
283	2½	With motor and electrical control, magazine adjustable for different diameters and lengths within the capacity of the machine, one set cutterheads with cutters, one set clamping jaws, one set feed fingers for one diameter	3,750

DOUBLE-END AUTOMATIC THREADING MACHINES

1	36	Bed capacity to and including ½" diameter, 1½" to 5" long, equipped with single pulley drive, magazine adjustable for different diameters and lengths within the capacity of the machine, self-opening and closing die heads with chasers (preferably geometric) clamping jaws, feed fingers, etc., for one diameter	$1,750
2	48	Bed capacity ⅜" to ¾" diameter, 0" to 12" in length, single magazine, other equipment above	1,950
2	48	Bed as above with twin or duplex magazine	2,150
3	68	Bed capacity ⅜" to ¾" diameter, 0" to 32" in length, single magazine, other equipment as above	2,350
4		Capacity ⅝" to 1½" diameter, 12" to 44" in length—single magazine—other equipment as above	5,000
4A		Capacity ¾" to 1½" diameter, 12" to 72" in length—single magazine—other equipment as above	6,500

ROTARY VIBRATING RIVETERS

No.	Capacity	Throat	Type	Price
	Inch	*Inch*		
1A	⅛	3¼	Pedestal, with countershaft, table, supporting anvil and riveting hammer	$170
1A	⅛	3¼	Pedestal, arranged for horizontal motor drive, tooling as above	170
1A	⅛	3¼	Pedestal, with ½ hp. alternating current, horizontal motor, tooling as above	200
2A	3/16	5	Pedestal, with countershaft, tooling as above	245
2A	3/16	5	Pedestal, arranged for horizontal motor drive, tooling as above	245
2A	3/16	5	Pedestal, with ¾ hp. alternating current horizontal motor, tooling as above	285
3A	5/16	5⅝	Pedestal, with countershaft, tooling as above	275
3A	5/16	5⅝	Pedestal, arranged for horizontal motor drive, tooling as above	275
3A	5/16	5⅝	Pedestal, with 1 hp. alternating current horizontal motor, tooling as above	330
3ADT	5/16	20	Pedestal, with countershaft, tooling as above	345
3ADT	5/16	20	Pedestal, arranged for horizontal motor drive	345
3ADT	5/16	20	Pedestal, with 1 hp. alternating current horizontal motor	400
4A	7/16	11½	Pedestal, with countershaft, tooling as above	460
4A	7/16	11½	Pedestal, arranged for horizontal motor drive, tooling as above	460
4A	7/16	11½	Pedestal, with 2 hp. alternating current horizontal motor, tooling as above	535
5A	½	12	Pedestal, with countershaft, tooling as above	750
5A	½	12	Pedestal, arranged for horizontal motor drive, tooling as above	750
5A	½	12	Pedestal, with 3 hp. alternating current horizontal motor, tooling as above	850

When direct-current motors are required with above machines, prices will be quoted on application.

THE G. A. GRAY CO., CINCINNATI, OHIO

DOUBLE HOUSING PLANERS

Size	Base weight	Base price 1 rail head	Extra rail head	Side head	Extra 1' extension	Type of drive
	Pounds					
24" x 24" x 6' standard pattern	8,500	$3,775	$747	----	$174	Belt.
30" x 30" x 6' standard pattern	11,000	4,908	779	----	270	Do.
36" x 36" x 8' standard pattern	14,500	7,328	855	----	293	Do.
30" x 30" x 8' maximum service	25,000	10,719	1,306	$1,450	289	Rev. M. D.
36" x 36" x 8' maximum service	29,000	11,138	1,078	1,611	328	No electrical equipment.
42" x 42" x 8' maximum service	43,000	12,146	1,211	2,001	369	Do.
48" x 48" x 10' maximum service	52,000	14,243	1,211	2,148	415	Do.
56" x 56" x 10' maximum service	66,000	15,818	1,333	2,257	437	Do.
60" x 60" x 12' maximum service	76,000	19,534	1,595	3,165	519	Do.
72" x 72" x 12' maximum service	86,000	24,715	1,595	3,190	599	Do.

OPENSIDE PLANERS

36" x 36" x 8' maximum service	41,000	$13,270	$1,211	$2,196	$353	No electrical equipment.
48" x 48" x 10' maximum service	62,000	17,353	1,333	2,453	456	Do.
60" x 60" x 12' maximum service	90,000	24,408	1,595	3,255	566	Do.

Widening of planers and different types of drive extra.

GRAY MACHINE COMPANY, PHILADELPHIA, PA.

TURRET HEAD METAL CUTTER OR NIBBLER

Following standard equipment furnished with all sizes of machines: 6 cutting tools in 2 selected sizes for line or template cutting; 4 dies to fit tools; 1 double-end wrench; motor-base for mounting motor.

Size No. 1, 24" throat, 3/16" capacity in mild steel, 850 strokes per min. $544
½ hp., single phase, 60 cycle, 110 volts, motor furnished with machine.
Shipping weight, 500 pounds.
Machine No. 1 is a bench model, shown on page 9 of catalog.
This machine can be mounted on a pedestal for $50 extra.

Size No. 3, 24" throat, ¼" capacity in mild steel, 450–900 strokes per min. 850
Shipping weight, 1,400 pounds.

Size No. 4, 30" throat, ¼" capacity in mild steel, 450–900 strokes per min 995
Shipping weight, 2,100 pounds.

Size No. 5, 36" throat, ¼" capacity in mild steel, 450–900 strokes per min 1,020
Shipping weight, 2,800 pounds.

Size No. 6, 12" throat, 5/16" capacity in mild steel, 450–900 strokes per min 833
Shipping weight, —

Size No. 8, 12" throat, 3/8" capacity in mild steel, 350–700 strokes per min 935
Shipping weight, 1,600 pounds.

Size No. 9, 24" throat, 3/8" capacity in mild steel, 350–700 strokes per min 1,036
Shipping weight, 2,500 pounds.

Size No. 10, 36" throat, 3/8" capacity in mild steel, 350–700 strokes per min 1,407
Shipping weight, 3,750 pounds.

Size No. 10–A, 36" throat, ½" capacity in mild steel, 160 strokes per min 2,500
Shipping weight, 5,000 pounds.

Size No. 11, 36" throat, 5/8" capacity in mild steel, 160 strokes per min 2,700
Shipping weight, 5,000 pounds.

Size No. 12, 36" throat, ¾" capacity in mild steel, 160 strokes per min 4,500
Shipping weight, 7,000 pounds.

No. 11, 5/8" capacity and No. 12, ¾" capacity machines are of welded steel construction, also No. 10–A, ½" capacity.

D. C., single phase, and special voltage motors are higher in price.

Prices quoted on heavier capacity machines, up to 1", on application.

PARTS FOR 5/8" AND ¾" CAPACITY MACHINES

Belts, each	$35
Belt guards, each	35
Table support arms	25
Pin type circle cutting attachment	45

PRICE LIST OF EXTRA EQUIPMENT AND TOOLS FOR GRAY TURRET HEAD METAL CUTTER

Adjustable table support arms, to support sheet plate level with die while cut is being made, shown at 18 and 18–A, page 4 of catalog	$12.00
Pin type circle cutting attachment for cutting circles, disks, rings, large washers, round gaskets, etc.	18.00
Turret circle cutting attachment	45.00
18 gage shearing attachment	55.00
10 gage shearing attachment	75.00
Wiring in motor and starter	16.00
Belt guards, each	35.00
Leather belts, up to ¼" capacity machines, each	8.50
Leather belts, ⅜" capacity machines, each	10.00
12-position swivel square die and tool holder	65.00
18 gage shear dies, each	2.50
18 gage shearing tools, upper and lower, each	2.50
18 gage shearing die holder	15.00
10 gage shearing die holder	65.00
10 gage upper and lower blades, each	3.50

GREENERD ARBOR PRESSES, NASHUA, N. H.

Standard equipment includes motor and starter with start and stop buttons in cover for 220/440/550 two or three phase 50/60 cycle current.

1½-TON BENCH TYPE

H–53–F3	$510.00
H–53–F	500.00
H–53–E	500.00
H–54–F–3	520.00
H–54–F	510.00
H–54–E	510.00
H–54–F–16	550.00
Extra for stand	30.00
Extra for foot control	15.00

2-TON PRESSES

H–51–E	600.00
H–51–F	635.00
H–51–A	633.00
H–51–A–5	633.00

GREENERD ARBOR PRESSES, NASHUA, N. H.—Con.

2- AND 4-TON PRESSES

H-55-D	$685.00
H-55-C	685.00
H-56-D	715.00
H-56-E	690.00
H-56-F	690.00
H-56-A	690.00
H-56-C	715.00
Coolant pump and chip pan, extra	225.00
Extra for 21" over plate	40.00
Extra for 30" over plate	60.00
Extra for latch type	75.00

6-TON PRESSES

H-57-A	750.00
H-57-C	785.00
H-57-D	820.00
Extra for 21" over plate	45.00
Extra for 30" over plate	75.00
Coolant pump and chip pan, extra	225.00

10-TON PRESSES

57-ND (guide head)	1,150.00
H-58 [1]	1,100.00
H-58-D [1]	1,000.00
H-58-CD	1,100.00
H-58-C [1]	950.00
H-58-AD [1]	1,060.00

15-TON PRESSES

H-60-D	1,000.00
H-60-AD	1,125.00
H-61-AD	1,210.00
H-64-AD	1,225.00
H-60-CD	1,165.00
H-64-CD	1,265.00
H-61-CD	1,265.00
81 four-posted type	1,325.00
W-60	[2]
W-60-CD	[2]
W-56-D	[2]
61-NDE	[2]
AD-61-NDE	[2]

Extra for BB ram pressure control attachment which may be attached to the 4-, 6-, 10-, and 15-ton presses except the No. 81, $100.

30-TON PRESSES

H-70	$1,600.00
H-70-21 (21" daylight and 21" stroke of ram)	2,200.00
H-70-CD	1,450.00
H-70-P-pull type	1,700.00

GREENERD ARBOR PRESSES

No. 1 press lever type	12.00
No. 1 press pilot wheel type	13.50
No. 2 press lever type	24.00
No. 2 press with 12" pilot wheel	28.00
No. 3 press lever type	35.00
No. 3 press with 12" pilot wheel	38.00
No. 3 press with 24" pilot wheel	45.00
No. 3 ratchet type	50.00
No. 30 press lever type	52.00
No. 30 press, 12" pilot wheel	55.00
No. 30 press, 24" pilot wheel	62.00
No. 3JR press	62.00
No. 3 armature press lever type	36.00
No. 3 armature press-12" pilot wheel	39.00
No. 3 armature press with 24" pilot wheel	46.00
No. 3G geared press with 24" pilot wheel	110.00
No. 3A press lever type	53.00
No. 3A press with 12" pilot wheel	56.00
No. 3A press, 24" pilot wheel	63.00
No. 3A ratchet type	64.00
No. 3B press lever type	70.00
No. 3B press, 12" pilot wheel	73.00
No. 3B press, 24" pilot wheel	80.00
No. 3C press lever type	52.00
No. 3C press with 12" pilot wheel	55.00
No. 3C press, 24" pilot wheel	62.00
No. 3E press lever type	62.00
No. 3E press, 12" pilot wheel	65.00
No. 3E press, 24" pilot wheel	72.00
No. 3½ press lever type	80.00
No. 3½ press, 24" pilot wheel	85.00
No. 3½ press, 36" pilot wheel	100.00
Holding attachment extra	30.00
No. 3¾ press lever type	95.00
No. 3¾ press, 24" pilot wheel	100.00
No. 3¾ press, 36" pilot wheel	110.00
Holding attachment extra	30.00
No. 4 press, lever type	170.00
No. 4 press, 24" pilot wheel	175.00
Holding attachment extra	30.00
No. 4F press lever type	250.00
No. 5S press Timken bearing equipped, complete with holding attachment	325.00
No. 6 press, 36" pilot wheel	340.00
No. 6 press lever type	335.00
No. 6A press lever type	215.00
No. 6A press, 24" pilot wheel	220.00
No. 6A press, 36" pilot wheel	235.00
No. 7 press	595.00
No. 8 press	650.00
No. 9 press	700.00
No. 13 press	85.00
No. 14 press	250.00
No. 15 press	325.00

[1] Extra for 21" over plate $60. Extra for 30" over plate $100.

[2] Prices quoted upon request.

GREENERD ARBOR PRESSES, NASHUA, N. H.—Con.

GREENERD ARBOR PRESSES—continued

Nos. 14 and 15 holding attachment extra	$35.00
No. 16 press, horizontal	700.00
No. 17 press	485.00
No. 32 press	700.00
No. 33 press	700.00
No. 34 press	325.00
No. 35 press	500.00
No. 36 press	250.00
Holding device on No. 34 and 36 extra	35.00
No. 40 press	235.00

STANDS

No. 2 stand	$26.00
No. 3 stand	32.00
Nos. 3C, 3E, 3G, 3JR stands, no lead pot	30.00
Nos. 3½, 3¾, 40 stands	45.00
No. 3B stand	55.00
No. 3A stand	50.00

GREENLEE BROS. & CO., ROCKFORD, ILL

4-SPINDLE AUTOMATIC SCREW MACHINES

Size	Weight	Price
	Pounds	
1"	9,550	$8,000
1¼"	15,000	8,250
1⅜"	15,000	8,250
1⅝"	15,300	9,300
2¼"	16,700	10,100
2⅝"	16,800	11,400

6-SPINDLE AUTOMATIC SCREW MACHINES

1"	16,125	$9,350
1⅜"	19,850	10,250
1⅝"	20,140	11,600
2"	20,140	13,850

GROB BROS., GRAFTON, WIS.

GROB METAL BAND SAW PRICES

Type NS-36 Grob metal band saw with ½ hp., 1,750 r. p. m., 3 phase, 60 cycle, 220 or 440 volt built-in motor and manual starter, 36" throat, electric butt welder built-in frame; equipped with air blower and light attachment; automatic table feed, oil checked, with work-holding device	$1,400.00
Same as above but as a combination machine for sawing and filing, using ½" wide Grob file chains	1,600.00
Type NS-24 Grob metal band saw with ½ hp., 1,750 r. p. m. 3 phase, 60 cycle, 220 or 440 volt built-in motor and manual starter, 24" throat, electric butt welder built-in frame; equipped with air blower and light attachment; automatic table feed, oil checked, with workholding device	900.00
Same as above but as a combination machine for sawing and filing, using ½" wide Grob file chains	1,100.00
Type NS-14 Grob metal band saw with ½ hp., 1,750 r. p. m., 3 phase, 60 cycle, 220 or 440 volt built-in motor and manual starter, 14" throat, electric butt welder built-in frame; equipped with air blower and light attachment; automatic table feed, oil checked, with work-holding device	588.00
Same as above but without electrical equipment	548.00
Same as above, with electrical equipment but without table feed	523.00
Same as above but without electrical equipment and without table feed	483.00
One pair of saw guides for type NS-14	.50
Type S-14 Grob metal band saw with ¼ hp., 110 volt AC single phase motor and starter, with electric band saw butt welder, with rotary air blower and light attachment	245.00
Same as above but without butt welder	147.00
Above with electrical equipment deduct	12.00

GROB METAL BAND SAW MACHINES

	NS-18			NS-24		NS-36	
	NS-18-3	NS-18-5	NS-18-10	NS-24-5	NS-24-10	NS-36-5	NS-36-10
Base price with 3 speeds, ¼ hp., single phase motor and starter, light attachment and light table, ready to operate	$250						
Base price with 5 speeds, ¾ hp., 3 phase motor and starter, light attachment, heavy table and table stabilizer, ready to operate		$345		$653		$1,153	
Base price with 10 speeds, 1 hp. motor, light attachment, heavy table and table stabilizer, ready to operate			$385		$693		$1,193
Butt welder ⅛-½" saw blades	125	125	125	125	125	125	125
Air blower	22	22	22	22	22	22	22
Table feed		85	85	85	85	85	85
Circular cutting attachment		15	15	15	15	15	15
Total	397	592	632	900	940	1,400	1,440

THE HALL PLANETARY CO., PHILADELPHIA, PA.

Style thread millers	Weight	Base price	Price per foot extra length; approximate only
	Pounds		
"B"	2,050	$4,575	$50
"C"	4,900	6,400	75
"D"	7,800	7,600	100

Schedule of prices 1928 to 1940, inclusive. All standard models

"A" MACHINES

Date From—	Date To—	Machine Nos.	Price
1920	1920	A-132	$1,200
1922	1923	A-157 and A-501 to A-504	2,400
1924	1925	A-505 to A-528	3,100
1926	1928	A-529 to A-552	3,270
1929	1933	A-553 to A-577	3,300
1934	1937	A-578 to A-598	3,630

"B" MACHINES

1926	1929	B1 to B4 and B6	$2,700
1936	1939	B-519 to B-541	3,400
1940	1940	B-542 to B-557	4,160

THE HALL PLANETARY CO., PHILADELPHIA, PA.—Continued

"C" MACHINES

Date From—	Date To—	Machine Nos.	Price
1920	1920	C-137 to C-155	$1,900
1921	1921	C-156	2,500

NEW STYLE

1937	1939	C-502 to C-508	$4,800
1940	1940	C-509 to C-522	5,850

"D" MACHINES

1925	1925	D-501 to D-508	$4,900
1926	1929	D-509 to D-553	5,100
1930	1932	D-554 to D-562	5,150
1933	1933	D-563 to D-565	5,300
1934	1936	D-566 to D-588	5,665
1937	1939	D-589 to D-619	5,750
1940	1940	D-620 to D-652	6,975

HAMMOND MACHINERY BUILDERS, INCORPORATED, KALAMAZOO, MICH.

Polishing and buffing lathes

TYPE "C"—3 TO 20 HORSEPOWER

With Master Electric Co. motor and air cleaner

[F. O. B. Kalamazoo, Mich.]

	Price complete
Model 3-C [1]	$330
Model 5-C [1]	345
Model 3-CH [1]	380
Model 5-CH [1]	395
Model 7-CH, 440-volt, 3-phase, 60-cycle	421
Model 7-CH, 220-volt, 3-phase, 60-cycle	435
If wanted with push-button control only, no combination switch and brake (deduct)	15

With Totally Enclosed Fan-cooled Motor Mounted Outside Base

Same machine as shown above—Only difference is in motor. (Any standard make totally enclosed fan-cooled motor can be used.)

Model 3-C [1]	$355
Model 5-C [1]	380
Model 3-CH [1]	405
Model 5-CH [1]	430
Model 7-CH, 440-volt, 3-phase, 60-cycle	476
Model 7-CH, 220-volt, 3-phase, 60-cycle	490
Model 10-CH	555
Model 10-CEH, extra heavy duty	655
Model 15-CEH, extra heavy duty	685
Model 20-CEH, 440-volt, 3-phase, 60-cycle, extra heavy duty	750
Model 20-CEH, 220-volt, 3-phase, 60-cycle, extra heavy duty	770
If wanted with push-button control only, no combination switch and brake (deduct)	15
Also available with two speeds at extra charge of [1]	10

TYPE "R"—2 TO 10 HP.

With Motor Mounted Inside Base

Model 3-RH	$405
Model 5-RH	420
Model 7-RH, 440-volt, 3-phase, 60-cycle	446
Model 7-RH, 220 volt, 3-phase, 60-cycle	460
Model 10-RH (same general specifications as 7-RH except 10 hp. motor)	595
If wanted with push-button control only—no combination switch and brake (deduct)	15

TYPE "RO"—OVERHANGING SPINDLE, 3 TO 20 HP.

With Motor Mounted Inside Base

Model 3-ROH	$420
Model 5-ROH	435
Model 7-ROH, 440-volt, 3-phase, 60-cycle	463
Model 7-ROH, 220-volt, 3-phase, 60-cycle	477
Model 10-ROH (same general specifications as 7-ROH except 10 hp. motor)	510
Model 10-ROEH, extra heavy duty	655
Model 15-ROEH, extra heavy duty	700
Model 20-ROEH, extra heavy duty	750
If wanted with push-button control only—no combination switch and brake (deduct)	15

TYPE "RR"—TWO-SPINDLE, MOTORS-IN-RASE, 3 TO 7½ HP. EACH SPINDLE

With Motors Mounted Inside Base

Model 3-RR	$610
Model 5-RR	650
Model 7-RRW, 440-volt, 3-phase, 60-cycle	710
Model 7-RRW, 220-volt, 3-phase, 60-cycle	738
If wanted with push-button control only—no combination switch and brake (deduct)	30

TYPE "RRH"—TWO-SPINDLE, MOTORS-IN-RASE, 10 TO 15 HP. EACH SPINDLE

With Motors Mounted Inside Base

Model 10-RRH	$998
Model 15-RRH	1,050
If wanted with push-button control only—no combination switch and brake (deduct)	30

Type "CCO" Overhanging—Motors on Rear of Pedestal

	Price
Model 3-CCO with open ball bearing motors	$630
Model 3-CCO with totally enclosed fan cooled motors	676
Model 5-CCOH with open ball bearing motors	754
Model 5-CCOH with totally enclosed fan cooled motors	810
Model 7-CCOH, 440 volt, 3 phase, 60 cycle, with open ball bearing motors	809
Model 7-CCOH, 440 volt, 3 phase, 60 cycle, with totally enclosed fan cooled motors	887
For 220 volt, 3 phase, 60 cycle, service on model 7-CCOH only (add)	28
If wanted with push-button control only—no combination switch and brake (deduct)	30

HAMMOND MACHINERY BUILDERS, INCORPORATED, KALAMAZOO, MICH.—Continued

TYPE "RV" AND "RRV"

Model "VRO" variable speed polishing lathe

	Price
Model 3-VRO	$535
Model 5-VRO	550
Model 7-VRO, 440 volt, 3 phase, 60 cycle	576
Model 7-VRO, 220 volt, 3 phase, 60 cycle	590
If wanted with push button control only—no combination switch and brake (deduct)	15

TYPE "RRW" WIDE SWING—TWO SPINDLE

Model 3-RRWA	$640
Model 3-RRWB	650
Model 5-RRWA	680
Model 5-RRWB	690
Model 7-RRWA, 440 volt, 3 phase, 60 cycle, a. c.	740
Model 7-RRWA, 220 volt, 3 phase, 60 cycle, a. c.	768
Model 7-RRWB, 440 volt, 3 phase, 60 cycle, a. c.	750
Model 7-RRWB, 220 volt, 3 phase, 60 cycle, a. c.	778
If wanted with push button control only—no combination switch and brake (deduct)	30

TYPE "R" MOTOR-IN-RASE 2 OR 3 HP.

Model 2-R with manual starter having overload protection	$267
Model 3-R with manual starter having overload protection	275
Extra for magnetic starter	12
Extra for combination switch and brake	15

ACCESSORIES

Adjustable exhaust hoods, per pair of 2	$40.00
Taper points:	
For 1" diameter spindles (each)	2.75
For 1¼" diameter spindles (each)	3.25
Foot operating brake can be had instead of hand brake on all models except 2-spindle machines at an extra cost per machine of	15.00

Flat top shelf—same as used on type "R," can be had on all models without extra charge.

TYPE "C-2" TWO SPEED, 3 AND 5 HP.

Add $10 to prices of 3-C, 5-C, 3-CH, and 5-CH rite speeds as listed in column 1, page 1, of this price list. Available in 3 and 5 hp. sizes only.

LOW BASE—NO. 10

No. 10 with single tight pulley	$105.00
No. 10 with tight and ball bearing loose pulley	120.00

TYPE "RO" COMBINATION GRINDER AND POLISHER

With 3 hp. motor, 14" boiler plate guard	$450.00
With 5 hp. motor, 14" boiler plate guard	465.00
With 7½ hp., 440 volt, a.c. motor, 14" guard	491.00
With 7½ hp., 220 volt, a.c. motor, 14" guard	505.00
If wanted with push button control—no combination switch and brake (deduct)	15.00

TYPE "L" MOTOR-ON-SPINDLE

Light duty

1 horsepower, 2-bearing, floor type	$105
2 horsepower, 2-bearing, floor type	155
3 horsepower, 2-bearing, floor type	170
For bench model (deduct)	10

Above lathes similar to heavy duty models shown below but lighter construction.

Heavy Duty—Four-Bearing

3 horsepower	$346
5 horsepower	371
7½ horsepower, 440 volt, 3 phase, 60 cycle	427
7½ horsepower, 220 volt, 3 phase, 60 cycle	441

VICTORY—HEAVY DUTY (2 AND 4 BEARING)

Victory single pulley	$110
Victory T & L pulley	130
Heavy duty 2-bearing, single pulley	150
Heavy duty 2-bearing, T & L pulley	170
Heavy duty 4-bearing, single pulley	165
Heavy duty 4-bearing, T & L pulley	185

Other Belt Driven Models

No. 9 lathes	Prices on application
No. 12 single pulley	$160
No. 12 T & L pulley	180
No. 5 double spindle	250
Extra for 4-groove pulley for V-belt drive instead of standard flat belt pulley	10

Belt Strapping Attachment

Complete with cross bar, cross bar column, and rest	$85

TYPE "W" 1½, 2 AND 3 HORSEPOWER—TOTALLY ENCLOSED MOTORS, BENCH AND FLOOR MODELS

1½ horsepower, 10" x 1½", floor A. C. with manual starter having overload protection, no eye shields	$135
1½ horsepower, 12" x 2" wheels, floor A. C. with manual starter having overload protection, no eye shields	187

HAMMOND MACHINERY BUILDERS, INCORPORATED, KALAMAZOO, MICH.—Continued

TYPE "W" 1½, 2 AND 3 HORSEPOWER—TOTALLY ENCLOSED MOTORS, BENCH AND FLOOR MODELS—con.

	Price
2 horsepower, 12" x 2", floor A. C. with manual starter having overload protection, no eye shields	$195
3 horsepower 14" x 3", A. C. with manual starter having overload protection, no eye shields	245
Extra for eye shields, per machine	5
Extra for magnetic starter	12
For bench mounting (deduct)	25

Prices do not include wheels.

TYPE "WS" 2 AND 3 HORSEPOWER WIDE-SWING GRINDER—TOTALLY ENCLOSED MOTORS

2 horsepower, 12" x 2", with manual starter having overload protection	$295
3 horsepower, 14" x 2½", with manual starter having overload protection	340
(On above models, distance between wheels, 30".)	
Extra for eye shields	5
Extra for magnetic starter	12
3 horsepower, wide-swing heavy duty 4-bearing grinder with magnetic starter, eye shields, 14" x 3" boiler plate wheel guards (distance between wheels 36")	430

TYPE "W" 3, 5, 7½ HP. TOTALLY ENCLOSED AND TOTALLY ENCLOSED FAN COOLED MOTORS

3 hp. with 14" boiler plate guards, manual starter and totally enclosed motor	$355
With totally enclosed fan cooled motor	378
Extra for magnetic starter	12
5 hp. with 18" boiler plate guards, magnetic starter and totally enclosed motor	470
With totally enclosed fan cooled motor	509
With 20" guards (add)	15
7½ hp. with 20" boiler plate guards, 440 volts, 3 phase, 60 cycle, A. C. totally enclosed motor	510
With totally enclosed fan cooled motor	564
For 220 volts, 3 phase, 60 cycle service in 7½ hp. size only (add)	14

TYPE "WH" 5 AND 7½ HP. TOTALLY ENCLOSED AND TOTALLY ENCLOSED FAN COOLED MOTORS

5 hp. with 18" boiler plate guards, magnetic starter and totally enclosed motor	$625
With totally enclosed fan cooled motor	664
Extra for 20" boiler plate guards instead of 18"	15
7½ hp. with 20" boiler plate guards, magnetic starter and 440 volts, 3 phase, 60 cycle totally enclosed motor	666
With totally enclosed fan cooled motor	720
For 220 volts, 3 phase, 60 cycle service in 7½ hp. size only (add)	14
This 7½ hp. grinder is heavy enough to accommodate 24" wheels. If wanted with 24" boiler plate guards, this would require an 850 r. p. m. motor. For 24" machine (add)	80
(Not available with larger than 7½ hp. motor.)	
7½ hp. for 20" high-speed wheels, with 440 volts, 3 phase, 60 cycle totally enclosed, 1,750 r. p. m. motor	670
With totally enclosed fan cooled motor	709
For 220 volts, 60 cycle, 3 phase service in 7½ hp. size only (add)	14
Extra for large hole steel flanges up to 12" usually employed with high-speed wheels (per machine)	50

TYPE "DW" COMBINATION DISK AND PRODUCTION GRINDER, 2, 3, 5, AND 7½ HP.

Totally enclosed motors on 2 hp., totally enclosed or totally enclosed fan cooled motors on 3, 5, 7½ hp. sizes.

2 hp., 12" with manual starter	$270
2 hp., 12" with magnetic starter	282
3 hp., 14", manual starter, totally enclosed motor	445
3 hp., 14", manual starter totally enclosed fan cooled motor	468
Extra for magnetic starter	12
5 hp., 18", magnetic starter, totally enclosed motor	541
5 hp., 18" magnetic starter, totally enclosed fan cooled motor	580
7½ hp., 20" magnetic starter, totally enclosed motor for 440 volts, 3 phase, 60 cycle	567
7½ hp., 20" with magnetic starter and totally enclosed fan cooled motor for 440 volts, 3 phase, 60 cycle	621
Extra for 220 volts, 3 phase, 60 cycle, in 7½ hp. sizes only	14

Prices include steel guard for grinding wheel, disk, and plain table. If lever feed table is wanted, add $50.00.

TYPE "D" DOUBLE DISK 3, 5, 7½ HP. TOTALLY ENCLOSED AND TOTALLY ENCLOSED FAN COOLED MOTORS

3 hp., 14", manual starter, totally enclosed motor	$520
3 hp., 14", manual starter, totally enclosed fan cooled motor	543
Extra for magnetic starter	12
5 hp., 18" magnetic starter, totally enclosed motor	601
5 hp., 18", magnetic starter, totally enclosed fan cooled motor	640

HAMMOND MACHINERY BUILDERS, INCORPORATED, KALAMAZOO, MICH.—Continued

TYPE "D" DOUBLE DISK 3, 5, 7½ HP. TOTALLY ENCLOSED AND TOTALLY ENCLOSED FAN COOLED MOTORS—con.

	Price
7½ hp., 20", magnetic starter, totally enclosed motor for 440 volts, 3 phase, 60 cycle	$657
7½ hp., 20", magnetic starter, totally enclosed fan cooled motor for 440 volts, 3 phase, 60 cycle	711
Extra for 220 volts, 3 phase, 60 cycle in 7½ hp. sizes only	14
Prices include two disks, one plain and 1 lever feed table.	
If equipped with two plain tables, deduct	50
If equipped with two lever feed tables (add)	50

TYPE "RW" MULTI-V BELT DRIVE 1 TO 2 HP. TOTALLY ENCLOSED MOTOR

1 hp., 220-440 volt, 3 phase, 60 cycle for 10" x 1½" wheels, cast iron guards, with manual starter having overload protection, no eye shields or wheels	$221
Extra for 1 hp., 25-cycle motor	28
If wanted with 12" guards (add)	5
2 hp., 220-440 volts, 3 phase, 60 cycle, as above except for 12" x 2" wheels	240
Extra for 2 hp., 25-cycle motor	40
Extra for shatterproof eye shields (per machine)	5
Extra for magnetic starter	12

TYPE "LW"

1½ hp., 10" x 1½", floor, A. C. with manual starter	$203
2 hp., 12" x 2", floor, A. C. with manual starter	248
For bench mounting, deduct from above prices	25
Extra for magnetic starter both sizes	12

RITE-SPEED ELECTRIC GRINDER—3, 5, AND 7½ HP. TOTALLY ENCLOSED FAN COOLED MOTOR

3 hp. rite-speed, 4-bearing spindle 46" long overall, 35" between wheels, with 14" boiler plate guards and 3 hp., A. C. 1,800 R. P. M. totally enclosed fan cooled motor, no wheels	$445
5 hp., same as above	470
5 hp., rite-speed electric grinder, same as above except with 16" boiler plate guards and 1,200 r. p. m. motor	515

HAMMOND MACHINERY BUILDERS, INCORPORATED, KALAMAZOO, MICH.—Continued

RITE-SPEED ELECTRIC GRINDER—3, 5, 7½ HP. TOTALLY ENCLOSED FAN COOLED MOTOR—continued

	Price
7½ hp., extra heavy rite-speed, 4-bearing, spindle 50" long over-all, 39" between wheels with 18" boiler plate wheel guards, no wheels	$775

TYPE "WRO" OVERHANGING SPINDLE GRINDER FOR LARGE AND BULKY PIECES, SPINDLE 52" LONG OVER-ALL, WHEEL SPACING 40" BETWEEN CENTERS

3-WRO with 3 hp., A. C., 60-cycle motor 14" exhaust type wheel guards, no work rests	$450
5-WRO with 5 hp., A. C., 60-cycle motor 14" exhaust type wheel guards, no work rests	465
Extra for work rests (per machine)	15

This Grinder is the same as the type "RO" Polishing Lathe, except it is fitted with boiler plate guards for grinder purposes. An excellent Grinder where extra working space is required around the wheels.

TYPE "WR" "MULTI-HI SPEED" 10, 15, AND 20 HP.

Motors-in-Base for Vitrified or High-Speed Wheels

10 hp., 2-speeds, 20" boiler plate wheel guards	$1,095
10 hp., 2-speeds, 24" boiler plate wheel guards	1,125
10 hp., 3-speeds, 24" boiler plate wheel guards	1,225
If totally enclosed fan cooled motor wanted (add)	54
15 hp., 2-speeds, 24" boiler plate wheel guards	1,150
15 hp., 3-speeds, 24" boiler plate wheel guards	1,250
If totally enclosed fan cooled motor wanted (add)	53
20 hp., 2-speeds, 24" boiler plate wheel guards	1,185
20 hp., 3-speeds, 24" boiler plate wheel guards	1,285
If totally enclosed fan cooled motor wanted (add)	79
Extra for 30" boiler plate guards instead of 24" (per machine)	60
Extra for large hole steel flanges up to 12", usually employed with high-speed wheels (per machine)	50

ACCESSORIES FOR GRINDERS

Extra for foot treadle switch, all models	$15

HAMMOND MACHINERY BUILDERS, INCORPORATED, KALAMAZOO, MICH.—Continued

TYPE "J" ROTARY AUTOMATIC POLISHING MACHINES, WITH TABLES 21", 23", 31", AND 34" IN DIAMETER

Indexing Type

[For continuous rotating table machines, see models "M" and "MB" below]

Model	Horsepower of motor	Type of drive	Table diameter	Number of heads	Number of work spindles	Type of head	Price
			Inches				
S	1½	Motor-on-spindle	21	3	8	Nonlift	$2,125
S	2	do	21	3	8	do	2,155
S	3	do	21	3	8	do	2,190
S	5	do	21	3	8	do	2,270
S	7½	do	21	3	8	do	2,360
SL	1½	do	21	3	8	Lifting	2,630
SL	2	do	21	3	8	do	2,660
SL	3	do	21	3	8	do	2,695
SL	[1] 5	do	21	3	8	do	2,780
SB	2	Multi-V belt	21	3	8	Nonlift	2,650
SB	3	do	21	3	8	do	2,675
SB	5	do	21	3	8	do	2,750
SBL	2	do	21	3	8	Lifting	3,280
SBL	3	do	21	3	8	do	3,315
S-6	3	Motor-on-spindle	34	[2] 4	6	Nonlift	2,790
S-6	5	do	34	[2] 4	6	do	2,830
SB-6	3	Multi-V belt	34	[2] 4	6	do	3,430
SB-6	5	do	34	[2] 4	6	do	3,490
SBL-6	3	Multi-V belt (multi-V belt lifting heads not supplied over 3 horsepower).	34	[2] 4	6	Lifting	4,030
SS	1-5 2-7½	Motor-on-spindle	31	3	8	Nonlift	3,020
SSB	1-5 2-7½	Multi-V belt	31	3	8	do	3,575

Continuous Rotating Type Without Electro-Magnetic Chucks

M	3	Motor-on-spindle	23	3		Nonlift	2,615
M	5	do	23	3		do	2,695
MB	3	Multi-V belt	23	3		do	3,315
MB	5	do	23	3		do	3,400

[1] 5 horsepower maximum size of this model.
[2] Independent heads.

Price of "J" base and table without heads (table having 8 work spindles) is $1,045. Therefore, if "J" with floor supported (independent heads) is wanted, add to this price for the number and kind of independent heads wanted.

	Price
1-RW—Spec	$155.15
2-RW—Spec	198.00
10-WWH	976.80
2-CW	356.00
CDH-26-30" disk grinder (without disks)	959.25
CDH-18-20" disk grinder (without disks)	496.00

This price list covers special grinders—sold to one customer only.

HANCHETT MANUFACTURING CO., BIG RAPIDS, MICH.

SURFACE GRINDERS (STANDARD)

Description	Diameter of table available	Weight	Price
Rotary, standard:	*Inches*	*Pounds*	
No. 36	40	20,000	$7,950
No. 36-A	30	15,000	7,900
No. 36-A2	30	27,500	10,500
No. 24-A	24	12,000	6,000
No. 24-A2	24	22,000	7,800
No. 72		26,000	14,375
Rotary plano, standard		75,000	18,000
	Table lengths available	Weight in 60" length	
Vertical spindle, standard:	*Inches*	*Pounds*	
300	36-84	16,500	$6,825-$8,340
400	50-132	24,000	8,925-12,335
400SS	60 and 120	32,000	17,850-19,850

HANCHETT MANUFACTURING CO., BIG RAPIDS, MICH.—Continued

BADGER GRINDERS, STANDARD WITH BUILT-IN MOTOR DRIVE

Description	Weight	Price
	Pounds	
2	950	$550
4	1,600	786
6	2,800	968
7	3,100	1,165
8	4,000	1,430
9	5,500	2,200
153, 53" disk [1]	7,240	2,435
206	1,500	750
214	3,600	1,500
220	6,000	2,255
221	9,000	2,720
228	15,000	3,300
230	18,000	4,070

[1] Belted type motor drive.

FACE GRINDERS (STANDARD)

Model No.	Capacities	Weight	Price
	Inches	*Pounds*	
900	60-218	24,000-29,000	$8,500-$15,370
1000	60-218	22,000-37,000	7,795- 12,285
2000	60-218	16,000-29,000	6,310- 9,890
3000	60-218	14,000-26,000	5,685- 9,085
4000		13,000-21,500	4,600- 7,970

PLANO SURFACE GRINDERS

Width of table	Table lengths	Weight	Prices	
			Straight wheel, standard	Vertical spindle segmental wheel
Inches	*Inches*	*Pounds*		
30	72-220	45,000 and up	$17,650 and up	$17,400 and up.
50	72-220	85,000 and up	27,000 and up	26,750 and up.

TRAVELING WHEEL GRINDERS (STANDARD)

Model number	Lengths	Weight	Price
	Inches	*Pounds*	
500 UK	84-170	20,000-32,000	$7,320-$10,115.
600 UK	84-170	35,000-54,000	13,105-18,300.
700 UK	84-170	58,000-75,000	20,960-26,635 and up.

SWING ARM GRINDERS (STANDARD)

Model number	Weight	Price
	Pounds	
700	2,500	$955
800	3,500	1,420

No. 14 automatic grinder, standard, 500 pounds... $287

THE HANSON-WHITNEY MACHINE CO., HARTFORD, CONN.

4" X 9" THREAD MILLING MACHINE

[Regular equipment, including machine with two motors, one each for work head and cutter head, and controller, regular headstock with draw-back collet mechanism and 2" master collet, cutter head with arbor and support]

Tailstock and one lead cam for any pitch specified	$4,600
Extra charge for applying motors if sent to us by customer	20
Extra lead cams, each	15

8" X 16" THREAD MILLING MACHINE

Regular equipment, including machine with two motors, one each for work head and cutter head, and controller, regular headstock with draw-back collet mechanism and either 2" or 3" master collet, cutter head with arbor and support]

Tailstock and one lead cam for any pitch specified	$5,950
Extra charge for bed 74" long	700
Extra charge for applying motors if sent to us by customer	20
Extra lead cams, each	15
Relieving attachment with one cam	190
Extra relief cams, each	45

THE HANSON-WHITNEY MACHINE CO., HARTFORD, CONN.—Continued

10" X 24" THREAD MILLING MACHINE

[Regular equipment, including machine with two motors, one each for work head and cutter head, and controller, regular headstock with draw-back collet mechanism with either 2½" or 4" master collet: cutter head with arbor and support]

Tailstock and one lead cam for any pitch specified	$6,750
10" x 48" machine with bed 84" long	7,685
Extra for machine with 19" swing	1,320
Extra for machine with 22" swing	1,350
Extra for extended cross slide	200
Extra charge for applying motors if sent to us by customer	20
Extra lead cams, each	15
Relieving attachment with one cam	190
Extra relief cams, each	45

HARDINGE BROTHERS, INC., ELMIRA, N. Y.

Open Cone Plain Bearing Lathe with slide rest	$400
Open Cone Ball Bearing Lathe with slide rest	425
Enclosed Head Ball Bearing Lathe with pedestal drive and slide rest	950
Enclosed Head Ball Bearing Lathe with bench drive and slide rest	850
Plain Bearing Cone Style Vertical Milling Machine	535
Plain Bearing Cone Style Horizontal Milling Machine	530
Ball Bearing Cone Style Horizontal Milling Machine	555

R-G-HASKINS CO., CHICAGO, ILL

Haskins, no. 1-C air-controlled tapping machine, recommended for handling taps up to and including No. 10 or 5/16" in mild steel and ¾" in brass, less tap lubricant pump, for operation on—	
110 or 220 volt, 60 cycle, single-phase current	$530.00
220 or 440 volt, 60 cycle, 3-phase current	530.00
550 volt, 60 cycle 3-phase current	540.00
115 or 230 volt direct current	545.00
Haskins no. 2-C air-controlled tapping machine, recommended for handling taps from No. 8 to 5/16" in mild steel and 3/8" in brass, less tap lubricant pump, for operation on—	
110 or 220 volt, 60 cycle, single-phase current	570.00
220 or 440 volt, 60 cycle, 3-phase current	570.00
550 volt, 60 cycle, 3-phase current	580.00
115 or 230 volt direct current	585.00
Haskins no. 3-C air-controlled tapping machine, recommended for handling taps from No. 10 to ½" S. A. E. in mild steel or brass, less tap lubricant pump, for operation on—	
220 or 440 volt, 60 cycle, 3-phase current	640.00
550 volt, 60 cycle, 3-phase current	650.00
115 or 230 volt direct current	655.00

R-G-HASKINS CO., CHICAGO, ILL.—Continued

Haskins single shot, air-operated lubricant pump mounted on any of the above machines	$40.00
Haskins continuous flow, motor-driven lubricant pump mounted on any of the above machines—	
110 to 220 volt, 60 cycle, single phase	75.00
220 volt, 60 cycle, 3 phase	75.00
440 volt, 60 cycle, 3 phase	80.00
550 volt, 60 cycle, 3 phase	85.00
115 or 230 volt direct current	90.00
Work tables. Specifications listed in catalog indicate size of standard work table for each machine. Larger tables may be substituted for standard table at the following additional prices:	
11¼" x 14¾" table for nos. 1-C and 2-C	8.00
12" x 21¾" table for nos. 1-C and 2-C machines	16.00
12" x 21¾" table for no. 3-C machine	12.00
Reversing switch (for left-hand tapping)	16.50
Dirt and moisture trap	6.00

	Weight of equipment (pounds)
No. 1-C tapper:	
Net weight with air-operated oil pump	368
Net weight with motor-driven oil pump	387
Weight crated with air-operated oil pump	466
Weight crated with motor-driven oil pump	487
No. 2-C tapper:	
Net weight with air-operated oil pump	374
Net weight with motor-driven oil pump	395
Weight crated with air-operated oil pump	474
Weight crated with motor-driven oil pump	495
No. 3-C tapper:	
Net weight with air-operated oil pump	576
Net weight with motor-driven oil pump	597
Weight crated with air-operated oil pump	702
Weight crated with motor-driven oil pump	723

THE HEALD MACHINE CO., WORCESTER, MASS.

BORING MACHINES

[Complete with motors and controls, water attachments, and all standard equipment, but without boring heads, quills, and tools]

No.	Approximate weight	Price
	Pounds	
44, facing machine	5,500	$3,650
45, single end	11,000	6,250
45, double end	13,000	8,500
46B, single end	7,500	4,550
46B, double end	8,000	4,950
47A	5,100	3,695
48A	2,800	2,240
49, single end	5,150	3,500
49, double end	5,650	3,815
49, universal chucker	6,000	3,650

ROTARY SURFACE GRINDING MACHINES

[Complete with all standard equipment, including magnetic chuck, grinding wheel, mounted diamond, belts, and wrenches. Motor-driven machine prices include motors and controls]

No.	Approximate weight	Price
	Pounds	
22, 8" belt drive	3,650	$3,455
22, 8" motor drive	3,750	3,780
22, 12" belt drive	3,675	3,545
22, 12" motor drive	3,775	3,870
25A, 12" belt drive	7,150	5,915
25A, 12" motor drive	7,250	6,165
25A, 16" belt drive	7,800	5,990
25A, 16" motor drive	7,900	6,240
25A, 24" motor drive	8,900	7,725
25A, 30" motor drive	9,100	8,585

CYLINDER GRINDING MACHINES

[Complete with all standard equipment, including 38" cross slidetable, standard 7½", 10", 11"-18", 15" or 18" wheel spindle and arm as specified, grinding wheel, mounted diamond, and necessary wrenches, but without pump, tank, and water attachments. Motor-driven machine prices include motors and controls]

No.	Approximate weight	Price
	Pounds	
50, belt drive	5,800	$6,775
50, motor drive	6,000	7,145
55, belt drive	4,500	5,510
55, motor drive	4,700	5,975

THE HEALD MACHINE CO., WORCESTER, MASS.—Continued

INTERNAL GRINDING MACHINES

[Complete with all standard equipment including workhead and wheelhead cross slide but not including wheelheads, fixtures, or pump, tank, and water attachments. Motor-driven machine prices include motors and controls]

No.	Approximate weight	Price
	Pounds	
70A, belt drive	5,100	$4,265
70A-3, motor drive	5,300	5,140
72A-3, plain belt drive	5,600	5,360
72A-5, plain belt drive	7,350	5,755
72A-3, plain 2-motor drive	5,800	5,500
72A-5, plain 2-motor drive	7,550	5,895
72A-3, plain 3-motor drive	5,900	5,945
72A-5, plain 3-motor drive	7,650	6,340
72A-3, dial indicator belt drive	5,800	5,810
72A-5, dial indicator belt drive	7,550	6,205
72A-3, dial indicator 2-motor drive	6,000	5,950
72A-5, dial indicator 2-motor drive	7,750	6,345
72A-3, dial indicator 3-motor drive	6,100	6,395
72A-5, dial indicator 3-motor drive	7,850	6,790
72A-3, electric indicator belt drive	5,700	7,660
72A-5, electric indicator belt drive	7,450	8,055
72A-3, electric indicator 2-motor drive	5,900	7,795
72A-5, electric indicator 2-motor drive	7,650	8,190
72A-3, electric indicator 3-motor drive	6,000	8,240
72A-5, electric indicator 3-motor drive	7,750	8,635
72A-3, size-matic belt drive	5,700	7,660
72A-5, size-matic belt drive	7,450	8,055
72A-3, size-matic 2-motor drive	5,900	7,795
72A-5, size-matic 2-motor drive	7,650	8,190
72A-3, size-matic 3-motor drive	6,000	8,240
72A-5, size-matic 3-motor drive	7,750	8,635
72A-3, gage-matic belt drive	6,000	8,410
72A-5, gage-matic belt drive	7,750	8,805
72A-3, gage-matic 2-motor drive	6,200	8,545
72A-5, gage-matic 2-motor drive	7,950	8,940
72A-3, gage-matic 3-motor drive	6,300	8,990
72A-5, gage-matic 3-motor drive	8,050	9,385
75A, belt drive	3,800	3,260
75A, 2-motor drive	4,000	3,975
72, size-matic duplex	14,000	15,420
73, airplane cylinder grinder	11,500	8,480
74, plain	12,000	8,690
172, gap base	11,800	7,775
174, gap base	16,000	9,880
81, plain chucker	4,375	5,025
81, size-matic chucker	4,375	7,220
81, gage-matic chucker	4,375	7,480
81, plain (hand loading) centerless	5,400	8,430
81, size-matic centerless	5,400	9,950
81, gage-matic centerless	5,400	9,950

OBSOLETE HEALD GRINDING MACHINES (SEE NOTE)

[The following Heald machines are now obsolete. The last quotations were made in the years designated and the prices are those quoted at that time]

No.	Price	Year
20	$1,950	1929
60	2,100	1922
65	2,350	1927
80	1,600	1929
85	750	1929
200	690	1919
210	750	1919
255	1,300	1919
200	1,950	1921

NOTE: Compare following obsolete models as shown below:
No. 20—Rotary surface grinder to No. 22.
No. 255—Rotary surface grinder to No. 22.
No. 65—Planetary cylinder grinder to No. 50.
No. 60—Planetary cylinder grinder to No. 55.

THE HENDEY MACHINE CO., TORRINGTON, CONN.

HENDEY CONE TYPE LATHES—TIE BAR HEADSTOCK

Size lathe	Approximate net weight	Price	Extra per 2 feet bed
	Pounds		
12" x 30"	2,000	*$2,050	$120
14" x 30"	2,280	2,160	130
16" x 30"	3,350	2,475	140
18" x 30"	3,500	2,900	160
20" x 48"	4,600	3,260	200

HENDEY 18-SPEED GEARED HEAD LATHES

12" x 30"	2,900	$3,620	$130
14" x 30"	3,550	3,895	150
16" x 30"	4,800	4,505	170

THE HENDEY MACHINE CO., TORRINGTON, CONN.—Continued

HENDEY 12-SPEED GEARED HEAD LATHES

Size lathe	Approximate net weight	Price	Extra per 2 feet bed
	Pounds		
12" x 30"	2,900	$3,420	$130
14" x 30"	3,550	3,685	150
16" x 30"	4,800	4,225	170
18" x 30"	6,100	4,835	180
20" x 48"	6,600	5,465	200
24" x 48"	7,350	6,050	220

HENDEY 4C 12-SPEED GEARED HEAD LATHE

14" x 42"	4,500	$3,990	$150

THE HENDEY MACHINE CO., TORRINGTON, CONN.—Continued

HENDEY CRANK SHAPERS

Size lathe	Approximate net weight	Price	Extra per 2 feet bed
	Pounds		
12" high speed universal	2,850	$2,750	
16" heavy duty	4,800	3,020	
20" standard	5,000	3,100	
20" heavy duty	5,900	3,270	
24" standard	6,100	3,350	
24" heavy duty	8,100	3,900	
28" standard	8,500	3,980	

HENDLEY & WHITTEMORE, BELOIT, WIS.

Punches, shears, and bending rolls

COMBINED POWER PUNCHES AND SHEARS (BELT DRIVE) PRICES AND SPECIFICATIONS

Size number	Throat depth	Capacity punch [1]	Shear flat bars	Shear rounds	Shear angles	Stroke	Approximate weight skidded	List price
	Inches	*Inches*	*Inches*	*Inches*	*Inches*	*Inches*	*Pounds*	
51	5	5/8 through 3/4	3/4 x 2 or 1/4 x 4	7/8	1/4 x 1 1/2	3/4	1,050	$350
52	6	1/2 through 1/2	1/2 x 4 or 3/8 x 6	1	1/4 x 2	3/4	1,650	380
53	7	5/8 through 5/8	5/8 x 4 or 1/2 x 6	1 1/4	1/4 x 3	7/8	2,350	500
54	8	3/4 through 3/4	3/4 x 4 or 5/8 x 6	1 1/2	3/8 x 3	1 5/16	3,250	650
55	10	1 through 3/4	7/8 x 4 or 3/4 x 6	1 3/4	3/8 x 4	1	5,000	800
55 1/2	12	1 through 1	1 x 6	2	1/2 x 4	1 3/8	8,500	1,500
56	12	1 1/2 through 1	1 x 8	2 3/4	1/2 x 5	1 3/8	11,000	2,000

[1] All ratings based on mild steel.

ALLIGATOR SHEARS (BELT DRIVE), PRICES AND SPECIFICATIONS

Size number	Capacity rounds [1]	Capacity flats [1]	Size blades	Weight	List price
	Inches	*Inches*	*Inches*	*Pounds*	
46	1	4 x 1/2	6 and 9	1,300	$320
46 1/2	1 1/4	6 x 1/2	6 1/2 and 10	2,150	440
47	1 1/2	6 x 3/8	7 and 12	2,800	500
48	2	6 x 1	7 and 12	4,600	700
49	2 1/2	8 x 1	10 and 15	8,000	1,250

[1] All ratings based on mild steel.

SPLITTING SHEARS PRICES AND SPECIFICATIONS

Size No.	Splitting capacity [1]	Length shear blades	Approximate weight skidded	List price
	Inches	*Inches*	*Pounds*	
40	3/16	6 1/2	650	$190
41	1/4	6 1/2	750	220
42	5/16	7	1,150	280
43	3/8	10	2,000	370
44	1/2	12	2,750	500
25	5/8	10	1,800	500
26	1/2	12	3,000	650
27	5/8	12	4,000	750

[1] Ratings based on soft steel.

ALLIGATOR SHEARS (BELT DRIVE) PRICES AND SPECIFICATIONS

Size number	Capacity rounds [1]	Capacity squares [1]	Size blades	Domestic shipping weight	List price
	Inches	*Inches*	*Inches*	*Pounds*	
1	1	7/8	4 1/2 and 7	1,250	$280
1 1/2	1 1/2	1 3/8	7 and 12	4,000	750
2	2	1 3/4	7 and 12	5,800	880
2 1/2	2 1/2	2 1/4	10 and 15	8,400	1,350

[1] Ratings based on soft steel.

DOUBLE END COMBINED POWER PUNCHES AND SHEAR (BELT DRIVE) PRICES AND SPECIFICATIONS

Size No.	Punching capacity	Punch throat depth [1]	Shearing			Stroke		Approximate weight skidded	List price
			Round bars	Flat bars	Angles	Punch end	Shear end		
	Inches	*Inches*	*Inches*	*Inches*	*Inches*	*Inches*	*Inches*	*Pounds*	
9-A	1/2 x 1/2	12	1	1/2 x 4	1/2 x 3	7/8	1 1/4	2,800	$750
9-B	5/8 x 5/8	12	1 1/4	5/8 x 5	3/8 x 3	1	1 5/8	3,800	880
9-C	3/4 x 3/4	12	1 1/2	3/4 x 6	3/8 x 4	1 1/8	1 1/2	5,400	1,000
9-D	1 x 1	12	1 3/4	1 x 6	1/2 x 4	1 1/2	2	11,000	2,000

[1] Ratings based on soft steel.

HENDLEY & WHITTEMORE, BELOIT, WIS.—Con.

SINGLE END COMBINED POWER PUNCHES AND SHEAR (BELT DRIVE) PRICES AND SPECIFICATIONS

Size No.	Throat depth	Approximate weight skidded	List price
	Inches	*Pounds*	
57	6	1,350	$320
58	12	1,450	340
59	18	1,800	380
60	24	2,300	440
61	30	2,800	500
62	36	3,200	550
63	45	4,450	750
A-6	6	2,650	620
A-12	12	3,050	690
A-18	18	3,750	750
A-24	24	4,700	820
A-36	36	6,000	1,000
B-12	12	5,000	940
B-24	24	6,350	1,070
B-36	36	8,500	1,250

PYRAMID TYPE BENDING ROLLS (BELT DRIVE) PRICES AND SPECIFICATIONS

Size No.	Capacity	Length	Diameter top roll	Diameter lower rolls	Approximate weight	List price
	Inches	*Inches*	*Inches*	*Inches*	*Pounds*	
10A	5/16	50	6	5	3,125	$750
10B	1/4	62	6	5	3,350	820
10C	1/4	74	6 3/8	6	4,000	940
10D	7/32	86	6 3/8	6	4,350	1,000
10E	5/16	98	6 3/8	6	4,700	1,050
10F	1/4	110	6 3/8	6	5,250	1,100
11A	5/16	62	7	6 3/8	4,100	940
11B	5/16	74	7	6 3/8	4,600	1,000
11C	1/4	86	7	6 3/8	5,200	1,070
11D	1/4	98	7	6 3/8	5,700	1,160
11E	5/16	110	7	6 3/8	6,200	1,250
11F	1/4	122	7	6 3/8	6,700	1,350
12A	3/8	62	7 1/2	7	5,675	1,220
12B	3/8	74	7 1/2	7	6,150	1,280
12C	5/16	86	7 1/2	7	6,700	1,380
12D	5/16	98	8	7	7,300	1,570
12E	1/4	110	8	7	8,000	1,630
12F	1/4	122	8	7	8,700	1,750
13A	1/2	62	8 1/2	7 1/2	7,050	1,380
13B	1/2	74	8 1/2	7 1/2	7,800	1,500
13C	3/8	86	8 1/2	7 1/2	8,550	1,630
13K	11/32	98	8 1/2	7 1/2	8,875	1,690
13L	5/16	110	8 1/2	7 1/2	9,700	1,820
13M	5/16	122	8 1/2	7 1/2	10,250	1,900
13D	3/8	98	9	7 1/2	9,150	1,730
13E	1/2	86	9 1/2	8	9,325	1,820
13F	1/2	98	10	8 1/2	10,325	1,940
13G	3/8	122	10	8 1/2	11,765	2,200
14A	3/8	146	12	9	18,600	3,080
14B	1/2	122	12	9	17,050	2,800
14C	1/2	146	13	9 1/2	20,300	3,200
14D	5/8	74	10 1/2	9 1/2	10,700	2,000
14E	5/8	98	12	9	15,000	2,600
14F	5/8	122	13	9 1/2	18,000	3,000
14G	5/8	146	14	10	21,500	3,800

INITIAL TYPE BENDING ROLLS (BELT DRIVE) PRICES AND SPECIFICATIONS

Size No.	Capacity [1]	Diameter top roll	Diameter lower roll	Length	Approximate shipping weight	List price
		Inches	*Inches*	*Inches*	*Pounds*	
1-A	10 GA.	4 1/4	4 1/4	38	1,650	$360
1-B	11 GA.	4 1/4	4 1/4	44	1,750	380
1-C	12 GA.	4 1/4	4 1/4	50	1,850	400
1-D	14 GA.	4 1/4	4 1/4	62	2,000	440
1-E	16 GA.	4 1/4	4 1/4	74	2,200	470
1-F	18 GA.	4 1/4	4 1/4	86	2,500	500
1-G	20 GA.	4 1/4	4 1/4	98	2,800	540
1-H	22 GA.	4 1/4	4 1/4	122	3,200	600
2-A	8 GA.	4 3/4	4 3/4	38	1,740	380
2-B	9 GA.	4 3/4	4 3/4	44	1,860	400
2-C	10 GA.	4 3/4	4 3/4	50	1,970	420
2-D	11 GA.	4 3/4	4 3/4	62	2,150	470
2-E	14 GA.	4 3/4	4 3/4	74	2,400	510
2-F	15 GA.	4 3/4	4 3/4	86	2,730	570
2-G	16 GA.	4 3/4	4 3/4	98	3,050	630
2-H	18 GA.	4 3/4	4 3/4	122	3,600	750
3-A	1/4 "	6	5	38	2,750	630
3-B	1/4 "	6	5	44	2,875	650
3-C	1/4 "	6	5	50	3,000	680
3-D	5/16"	6	5	62	3,250	750
3-E	5/16"	6	5	74	3,500	820
3-F	5/16"	6	5	86	3,950	880
3-G	10 GA.	6	5	98	4,250	950
3-H	12 GA.	6	5	122	4,800	1,070
4-A	3/8 "	7	6 3/8	38	3,650	750
4-B	3/8 "	7	6 3/8	44	3,825	790
4-C	5/16"	7	6 3/8	50	4,000	820
4-D	5/16"	7	6 3/8	62	4,350	900
4-E	5/16"	7	6 3/8	74	4,850	980
4-F	1/4 "	7	6 3/8	86	5,250	1,050
4-G	1/4 "	7	6 3/8	98	5,600	1,130
4-H	10 GA.	7	6 3/8	122	6,300	1,250

[1] Ratings based on soft steel.

HENDLEY & WHITTEMORE, BELOIT, WIS.—Con.

HEAVY DUTY SHORT ROLLS (BELT DRIVE) PRICES AND SPECIFICATIONS

Size No.	Capacity [1]	Diameter top roll	Diameter lower roll	Length	Approximate shipping weight	List price
		Inches	*Inches*	*Inches*	*Pounds*	
5-A	1/4	6	6	14	2,450	$570
5-B	1/4	6	6	20	2,600	600
5-C	1/4	6	6	26	2,750	630
5-D	1/4	6	6	32	2,900	660
6-A	3/8	7	7	14	2,700	630
6-B	3/8	7	7	20	3,000	670
6-C	3/8	7	7	26	3,300	700
6-D	3/8	7	7	32	3,600	740

[1] Ratings based on soft steel.

ANGLE BENDING ROLLS

Price belt drive, No. 20A		$1,250
Specifications:		
Diameter of angle rolls	inches	7
R. p. m. of rolls		14.50
Feet per minute, angle rolls		26.50
Diameter shafts in bearings	inches	3
Diameter in roll heads	do	2 1/2
Gear ratio		1-22.8
Approximate shipping weight	pounds	2,300

HAND FORMING ROLLS—BELT DRIVE, SINGLE BACK GEAR, PRICES AND SPECIFICATIONS

Bench type

Size No.	Capacity	Length	Diameter top roll	Diameter lower roll	Approximate weight	List price
	Gage	*Inches*	*Inches*	*Inches*	*Pounds*	
1	14	32	3	3	550	$140
2	14	38	3	3	600	150
3	16	44	3	3	650	170
4	16	50	3	3	700	180
5	18	62	3	3	800	200
6	20	74	3	3	900	230
7	22	86	3	3	1,000	250
8	24	98	3	3	1,100	270

HENDLEY & WHITTEMORE, BELOIT, WIS.—Con.

HAND FORMING ROLLS—BELT DRIVE, SINGLE BACK GEAR, PRICES AND SPECIFICATIONS

Floor type

Size No.	Capacity	Length	Diameter top roll	Diameter lower roll	Approximate weight	List price
	Gage	*Inches*	*Inches*	*Inches*	*Pounds*	
11	13	32	3 1/2	3 1/2	740	$190
12	13	38	3 1/2	3 1/2	800	210
13	14	44	3 1/2	3 1/2	875	230
14	14	50	3 1/2	3 1/2	950	250
15	16	62	3 1/2	3 1/2	1,100	270
16	18	74	3 1/2	3 1/2	1,250	290
17	20	86	3 1/2	3 1/2	1,400	320
18	22	98	3 1/2	3 1/2	1,550	350

HAND FORMING ROLLS—BELT DRIVE, DOUBLE BACK GEAR, PRICES AND SPECIFICATIONS

Floor type

Size No.	Capacity	Length	Diameter top roll	Diameter lower roll	Approximate weight	List price
	Gage	*Inches*	*Inches*	*Inches*	*Pounds*	
21	10	38	4 1/4	4 1/4	1,435	$300
22	11	44	4 1/4	4 1/4	1,535	320
23	12	50	4 1/4	4 1/4	1,635	340
24	14	62	4 1/4	4 1/4	1,785	380
25	16	74	4 1/4	4 1/4	1,985	410
26	18	86	4 1/4	4 1/4	2,285	440
27	20	98	4 1/4	4 1/4	2,585	480
28	22	122	4 1/4	4 1/4	2,985	540
31	8	38	4 3/4	4 3/4	1,525	320
32	9	44	4 3/4	4 3/4	1,645	340
33	10	50	4 3/4	4 3/4	1,755	360
34	11	62	4 3/4	4 3/4	1,935	410
35	14	74	4 3/4	4 3/4	2,185	450
36	15	86	4 3/4	4 3/4	2,515	510
37	16	98	4 3/4	4 3/4	2,835	570
38	18	122	4 3/4	4 3/4	3,385	690

THE HENRY & WRIGHT MANUFACTURING CO., HARTFORD, CONN.

BELT DRIVE DYEING MACHINES EQUIPPED WITH DOUBLE ROLL FEED AND BOLSTER PLATE

Machine	Weight	Price
	Pounds	
10-ton	1,750	$2,560
25-ton	3,550	2,985
50-ton	8,500	4,285
60-ton	10,000	5,390
75-ton	25,000	8,020
100-ton	27,000	8,940
150-ton	29,000	9,980

BELT DRIVE DRILLING MACHINES WITH EXCEPTION OF CLASS "AA" WHICH IS ALWAYS FURNISHED WITH MOTOR DRIVE MOTORS

Machine No. / Number of spindles	1 1	2 2	3 3	4 4	5 5	6 6	7 7	8 8	23 2	35 3	47 4
Class "AA":											
8" overhang:											
Price	$435	$775	$1,115	$1,450	------	$2,130	------	------	------	------	------
Weight, pounds	700	1,100	1,400	1,870	------	3,200	------	------	------	------	------
12" overhang:											
Price	$465	$840	$1,225	$1,580	------	$2,335	------	------	------	------	------
Weight, pounds	1,070	1,525	1,830	2,390	------	3,685	------	------	------	------	------
Class "B":											
8" overhang:											
Price	$405	$675	$955	$1,245	$1,540	$1,830	$2,115	$2,405	$775	$1,150	$1,500
Weight, pounds	720	1,200	1,500	1,806	2,500	2,900	3,150	3,400	1,325	2,150	2,625
12" overhang:											
Price	$440	$740	$1,065	$1,390	$1,720	$2,045	$2,375	$2,700	$845	$1,260	$1,650
Weight, pounds	975	1,335	1,650	2,000	2,800	3,200	3,500	3,800	1,475	2,450	2,975
Class "K":											
8" overhang:											
Price	$395	$660	$935	$1,210	$1,485	$1,760	$2,035	$2,305	$745	$1,030	$1,320
Weight, pounds	620	800	1,050	1,425	1,700	1,926	2,170	2,450	1,324	1,500	1,870
12" overhang:											
Price	$425	$725	$1,045	$1,330	$1,650	$1,955	$2,265	$2,570	$810	$1,135	$1,450
Weight, pounds	758	938	1,230	1,565	1,950	2,175	2,480	2,825	1,500	1,750	2,180
Class "I":											
8" overhang:											
Price	$600	$1,100	$1,610	$2,120	------	$3,135	------	------	$1,215	------	------
Weight, pounds	1,128	1,450	2,324	3,000	------	5,900	------	------	2,350	------	------
12" overhang:											
Price	$640	$1,175	$1,725	$2,270	------	$3,370	------	------	$1,290	------	------
Weight, pounds	1,175	1,525	2,440	3,370	------	6,300	------	------	2,475	------	------
Class "R," Four speed quick change:											
8" overhang:											
Price	$470	$830	$1,205	$1,550	$1,925	$2,275	------	------	------	------	------
Weight, pounds	820	1,550	2,300	2,800	------	------	------	------	------	------	------
12" overhang:											
Price	$505	$920	$1,320	$1,730	$2,145	$2,560	------	------	------	------	------
Weight, pounds	1,020	1,800	2,500	3,100	------	------	------	------	------	------	------
Class "R," Single purpose including four pairs of pulleys for standard speeds:											
8" overhang:											
Price	$450	$790	$1,150	$1,490	$1,835	$2,100	------	------	------	------	------
Weight, pounds	820	1,550	2,300	2,800	------	------	------	------	------	------	------
Class "R," Single purpose:											
12" overhang:											
Price	$495	$885	$1,295	$1,600	$2,060	$2,455	------	------	------	------	------
Weight, pounds	1,020	1,800	2,500	3,100	------	------	------	------	------	------	------

S. S. HEPWORTH COMPANY, LONG ISLAND CITY, N. Y.

STANDARD STRAIGHT BED TYPE SPINNING LATHES

[Including regular equipment and choice of tailstock style A, B, or D]

15" swing semiball bearing	$415
18" swing semiball bearing	445
22" swing semiball bearing	500
26" swing semiball bearing	600
32" swing semiball bearing (Tailstock style "A" is standard equipment, style "B" or "D" to special order only.)	1,275
Headstock will be furnished with lugs for future use of oval chuck at an additional charge (to special order only)	25
All ball bearing headstock, add to price of lathe (to special order only)	45
Additional length of bed per foot for any size straight bed lathe (to special order only)	45

STANDARD EXTENSION BED OR GAP TYPE SPINNING LATHES, NOT BACK GEARED

[Including regular equipment and choice of tailstock style A or B on 22" x 44" and 27" x 60" only. (Tailstock style "A" is standard equipment. Style "B" to special order only.)]

22" x 44" swing semiball bearing	$875
27" x 60" swing semiball bearing	1,850
32" x 72" swing semiball bearing	2,300
27" x 60" swing semiball bearing, extra heavy duty	2,300
Headstock will be furnished with lugs for future use of oval chuck at an additional charge (to special order only)	25
All ball bearing headstock on 22" x 44" lathe only, add to price of lathe (to special order only)	75

S. S. HEPWORTH COMPANY, LONG ISLAND CITY, N. Y.—Continued

STANDARD BACK-GEARED EXTENSION BED OR GAP TYPE SPINNING LATHES

[Including regular equipment, choice of tailstock style A or B on 22" x 44" and 27" x 60" only. (Tailstock style "A" is standard equipment, style "B" to special order only.)]

22" x 44" swing semiball bearing	$1,265
27" x 60" swing semiball bearing	2,300
32" x 72" swing semiball bearing	2,875
Headstock will be furnished with lugs for future use of oval chuck on 22" x 44" only at an additional charge (to special order only)	25

STANDARD MOTOR-DRIVEN STRAIGHT BED TYPE SPINNING LATHE

[Including regular equipment and choice of tailstock style A, B, or D]

15" swing semiball bearing	$600
18" swing semiball bearing	660
For voltages other than 220 volt in 3 phase, 60 cycle, AC, requiring special winding, add to listed prices of motor-driven lathes	30

OVAL CHUCKS

6" type D	$500
8" type D	630
8" special, type D, all steel and bronze construction. Including extra pair of loose and tight pulleys for countershaft, and tailstock plate, when furnished with lathe.	1,250

STANDARD COMPOUND SLIDE REST NO. 5

For 18" lathe	$215
For 22" lathe	225
For 26" lathe	235
For 22" x 44" extension gap lathe	225

THE HIGH SPEED HAMMER CO., INC., ROCHESTER, N. Y.

HIGH SPEED RIVETING HAMMERS

No.	Type	Horizontal gap	Capacity	With AC motor	Arranged for motor drive
		inches	*inches*		
1AA	Bench	3	1/64 to 3/32	$215	$202.15
1AA	Pedestal	3	1/64 to 3/32	230	217.15
1½B	Bench	3	1/16 to 1/8	215	202.15
1½B	Pedestal	3	1/16 to 1/8	230	217.15
2A heavy duty	Bench	6	1/8 to 3/16	385	333.75
2A heavy duty	Pedestal	6	1/8 to 3/16	395	343.75
3A	do	8	3/16 to 5/16	455	406.75
3A heavy duty	do	8	1/4 to 3/8	570	514.00
4A	do	11	1/4 to 7/16	675	619.00
5A	do	14	5/8 to 1/2	1,070	999.00
5½B	do	14	1/2 to 3/4	1,545	1,462.00
6B	do	15¾	5/8 to 1¼	2,435	2,327.00
7B	do	15½	3/4 to 1½	3,055	2,918.00

ELECTRICAL DATA

Motor driven hammers equipped with motorshelf, direct connected motor installed, including special motor pulley and belt.

Hammers 1AA and 1½B furnished with 110-volt, single phase, 60-cycle, AC motors; 2AHD to 7B inclusive with 220- or 440-volt, 3 phase, 60-cycle motors.

The above prices do not include motor control.

Prices with DC and other types of AC motors furnished on request.

Drilling machine model R-53 cap. No. 80¼

MOTOR SPECIFICATIONS—4 SPEED BENCH TYPE

Complete with 110-volt, single phase, 50- or 60-cycle motor	$185
Complete with 220-volt, single phase, 50- or 60-cycle motor	190
Complete with 220-volt, 3-phase, 50- or 60-cycle motor	205
Complete with 440-volt, 3-phase, 50- or 60-cycle motor	210
Complete with 110-volt, single phase, 25-cycle motor	190
Complete with 220-volt, single phase, 25-cycle motor	195
Complete with 115-volt, DC motor	195
Complete with 230-volt, DC motor	200
Pedestal (extra)	40
Foot treadle for bench or pedestal type (extra)	5

Deduct $5 from above prices for 3-speed type. Deduct $10 from above prices for 2-speed type.

All prices include 80-¼" chuck.

Cord, switch, and plug furnished with single phase AC and DC motors.

No switch or control furnished with polyphase motors.

Prices with other types of motors furnished on request.

THE HILL ACME COMPANY, CLEVELAND, OHIO

Canton division

NO. 1½ HIGH-KNIFE SHEAR

Belt driven, shear only (without motor, belt, or timbers)	$1,420
Belt driven, shear only, on timbers (without motor or belt)	1,465
Belt driven,[1] shear on timbers (with 5 hp., 3-phase, 60-cycle, 220-volt motor and belt)	1,580

THE HILL ACME COMPANY, CLEVELAND, OHIO—Continued

NO. 1½ HIGH-KNIFE SHEAR—Continued

Gear driven, shear only (without motor or timbers)	$1,475
Gear driven, shear only, on timbers (without motor)	1,520
Gear driven, shear on timbers (with 5 hp., 3-phase, 60-cycle, 220-volt motor)	1,610
Gear driven, shear on portable truck (with 5 hp., 3-phase, 60-cycle, 220-volt motor)	1,690

NO. 2 LOW-KNIFE SHEAR

Belt driven, shear only (without motor, belt, or timbers)	$1,995
Belt driven, shear only, on timbers (without motor or belt)	2,045
Belt driven, shear on timbers (with 7½ hp., 3-phase, 60-cycle, 220-volt motor, starter, and belt) [1]	2,220
Gear driven, shear only (without motor or timbers)	2,095
Gear driven, shear only, on timbers (without motor or starter)	2,145
Gear driven, shear on timbers (with 7½ hp., 3-phase, 60-cycle, 220-volt motor and starter)	2,290

NO. 2 HIGH-KNIFE SHEAR

Belt driven, shear only (without motor, belt, or timbers)	$2,045
Belt driven, shear only, on timbers (without motor or belt)	2,095
Belt driven,[1] shear on timbers (with 7½ hp., 3-phase, 60-cycle, 220-volt motor, starter, and belt)	2,270
Gear driven, shear only (without motor or timbers)	2,145
Gear driven, shear only, on timbers (without motor or starter)	2,195
Gear driven, shear on timbers (with 7½ hp., 3-phase, 60-cycle, 220-volt motor and starter)	2,340

THE HILL ACME COMPANY, CLEVELAND, OHIO—Continued

NO. 3 LOW-KNIFE SHEAR

24" blades, belt driven, shear only (without motor, starter, or belt)	$3,410
30" blades, belt driven, shear only (without motor, starter, or belt)	3,520
24" blades,[1] belt-driven shear (with 15 hp., 3-phase, 60-cycle, 220-volt motor and starter)	3,715
30" blades,[1] belt-driven shear (with 15 hp., 3-phase, 60-cycle, 220-volt motor and starter)	3,825
24" blades, gear-driven shear (without motor or starter)	3,685
30" blades, gear-driven shear (without motor or starter)	3,795
24" blades, gear-driven shear (with 15 hp., 3-phase, 60-cycle, 220-volt motor and starter)	3,920
30" blades, gear-driven shear (with 15 hp., 3-phase, 60-cycle, 220-volt motor and starter)	4,030

NO. 3 HIGH-KNIFE SHEAR

24" blades, belt-driven, shear only (without motor, starter, or belt)	$3,520
30" blades, belt-driven, shear only (without motor, starter, or belt)	3,630
36" blades, belt-driven, shear only (without motor, starter, or belt)	3,795
24" blades,[1] belt-driven shear (with 15 hp., 3-phase, 60-cycle, 220-volt motor and starter)	3,825
30" blades,[1] belt-driven shear (with 15 hp., 3-phase, 60-cycle, 220-volt motor and starter)	3,935
36" blades,[1] belt-driven shear (with 15 hp., 3-phase, 60-cycle, 220-volt motor and starter)	4,105
24" blades, gear-driven shear (without motor or starter)	3,795
30" blades, gear-driven shear (without motor or starter)	3,910
36" blades, gear-driven shear (without motor or starter)	4,075
24" blades, gear-driven shear (with 15 hp., 3-phase, 60-cycle, 220-volt motor and starter)	4,030
30" blades, gear-driven shear (with 15 hp., 3-phase, 60-cycle, 220-volt motor and starter)	4,140
36" blades, gear-driven shear (with 15 hp., 3-phase, 60-cycle, 220-volt motor and starter)	4,310

NO. 4 LOW-KNIFE SHEAR

24" blades, belt-driven, shear only (without motor, starter, or belt)	$3,835
30" blades, belt-driven, shear only (without motor, starter, or belt)	3,945
24" blades,[1] belt-driven shear (with 15 hp., 3-phase, 60-cycle, 220-volt motor and starter)	4,265
30" blades,[1] belt-driven shear (with 15 hp., 3-phase, 60-cycle, 220-volt motor and starter)	4,375
24" blades, gear-driven shear (without motor or starter)	4,165
30" blades, gear-driven shear (without motor or starter)	4,275
24" blades, gear-driven shear (with 15 hp., 3-phase, 60-cycle, 220-volt motor and starter)	4,545
30" blades, gear-driven shear (with 15 hp., 3-phase, 50-cycle, 220-volt motor and starter)	4,655

NO. 4 HIGH-KNIFE SHEAR

30" blades, belt-driven shear only (without motor, starter, or belt)	4,055
36" blades, belt-driven shear only (without motor, starter, or belt)	4,220
30" blades,[1] belt-driven shear (with 15 hp., 3-phase, 60-cycle, 220-volt motor and starter)	4,490
36" blades,[1] belt-driven shear (with 15 hp., 3-phase, 60-cycle, 220-volt motor and starter)	4,645
30" blades, gear-driven shear only (without motor or starter)	4,390
36" blades, gear-driven shear only (without motor or starter)	4,555
30" blades, gear-driven shear (with 15 hp., 3-phase, 60-cycle, 220-volt motor and starter)	4,780
36" blades, gear-driven shear (with 15 hp., 3-phase, 60-cycle, 220-volt motor and starter)	4,935

NO. 5 LOW-KNIFE SHEAR

26" blades, belt-driven shear only (without motor, starter or belt)	4,835
30" blades, belt-driven shear only (without motor, starter, or belt)	5,000
26" blades,[1] belt-driven shear (with 25 hp., 3-phase, 60-cycle, 220-volt motor and starter)	5,445
30" blades,[1] belt-driven shear (with 25 hp., 3-phase, 60-cycle, 220-volt motor and starter)	5,610

NO. 5 LOW-KNIFE SHEAR

26" blades, gear-driven shear only (without motor or starter)	5,165
30" blades, gear-driven shear only (without motor or starter)	5,335
26" blades, gear-driven shear (with 25 hp., 3-phase, 60-cycle, 220 volt motor and starter)	5,720
30" blades, gear-driven shear (with 25 hp., 3-phase, 60-cycle, 220-volt motor and starter)	5,890

NO. 5 HIGH-KNIFE SHEAR

30" blades, belt-driven shear only (without motor, starter, or belt)	5,010
36" blades, belt-driven, shear only (without motor, starter, or belt)	5,305
30" blades,[1] belt-driven shear (with 25 hp., 3-phase, 60-cycle, 220-volt motor and starter)	5,665
36" blades,[1] belt-driven shear (with 25 hp., 3-phase, 60-cycle, 220 volt motor and starter)	5,915

[1] Price includes belt, also motor complete with pulley and slide rails.

THE HILL ACME COMPANY, CLEVELAND, OHIO—Continued

NO. 5 HIGH-KNIFE SHEAR—continued

30" blades, gear-driven shear only (without motor or starter)	$5,390
36" blades, gear-driven shear only (without motor or starter)	5,640
30" blades, gear-driven shear (with 25 hp., 3-phase, 60-cycle, 220-volt motor and starter)	5,945
36" blades, gear-driven shear (with 25 hp., 3-phase, 60-cycle, 220-volt motor and starter)	6,195

All prices f. o. b. factory.

All prices given above covering motor-driven equipment include standard alternating current motors, 2- or 3-phase, 60-cycle, and 220 or 440 volt. All 5 and 7½ hp. motors are 1,750 r. p. m., 15. and 25 hp. motors are

THE HILL ACME COMPANY, CLEVELAND, OHIO—Continued

1,200 r. p. m. We furnish starters only with 7½ hp. motors and larger.

All prices include one extra set of standard knives. Nos. 1½ and 2 shears when mounted on timber foundations are shipped completely assembled.

When belt is required and not included in price, it can be furnished as follows:

	No. 1½	No. 2	No. 3	No. 4	No. 5
Belt	$17.50	$22.50	$45	$85	$110

THE HISEY-WOLF MACHINE COMPANY, CINCINNATI, OHIO

BENCH AND FLOOR GRINDERS

Catalog page	Type	Horsepower	Current	Size wheel	Style	Price with—Manual starter	Price with—Magnetic starter
				Inches			
	4LAS	2	Alternating current	12 x 2	Floor	$229	$241
	4LDS	2	Direct current	12 x 2	do	282	310
	3LA	1	Alternating current	10 x 1	do	180	192
	4LA	2	do	12 x 1½	do	268	280
	6LAS	3	do	14 x 2	do	311	323
	3LD	1	Direct current	10 x 1	do	210	238
	4LD	2	do	12 x 1½	do	312	340
5	6LA	3½	Alternating current	14 x 3	do	350	362
	7LAS	5	do	18 x 3	do	383	395
	6LWA	3½	do	14 x 2½	do	375	387
	6LD	3½	Direct current	14 x 3	do	452	480
	6LWD	3½	do	14 x 2½	do	487	515
6	7LA	5	Alternating current	18 x 3	do		468
	8LA	7½	do	20 x 4	do		515
	7WFA	5	do	18 x 3	do		615
	7WFAH	5	do	18 x 3	do		605
	7WFAS	5	do	20 x 4	do		675
	8WFA	7½	do	20 x 4	do		685
	8WFAH	7½	do	20 x 4	do		675
	8WFAS	7½	do	24 x 4	do		820
	10WFA	10	do	24 x 4	do		870
	7LD	5	Direct current	18 x 3	do		680
	8LD	7½	do	20 x 4	do		730
	7WFD	5	do	18 x 3	do		860
	8WFD	7½	do	20 x 4	do		945
	10WFD	10	do	24 x 4	do		1,135

DRILL GRINDERS

8	1JA	¼	Alternating current	6	Floor	$188	
	2JA	½	do	7	do	235	
	1JD	¼	Direct current	6	do	207	
	2JD	½	do	7	do	260	
9B	3JA	1	Alternating current	10	do	305	$317
	4JA	2	do	12	do	357	369
	3JD	1	Direct current	10	do	340	368
	4JD	2	do	12	do	405	433
	3JJA	1	Alternating current	10	do	365	377
	3JJD	1	Direct current	10	do	400	428
9C	3JJWA	1	Alternating current	10	Wet	490	502
	3JWA	1	do	10	do	430	442
	4JWA	2	do	12	do	477	489
	3JJWD	1	Direct current	10	do	520	548
	3JWD	1	do	10	do	460	488
	4JWD	2	do	12	do	524	552

THE HISEY-WOLF MACHINE COMPANY, CINCINNATI, OHIO—Continued

COMBINATION AND DOUBLE END DISC GRINDERS

Type	Horsepower	Current	Price of plain table	Price of universal table	Price of machine less tables—Manual starter	Price of machine less tables—Magnetic starter	CL
3DCA	1	Alternating current	$33	$110	$238	$250	C
6DCA	3½	do	52	146		415	C
7DCA	5	do	58	168		493	C
8DCA	7½	do	58	168		545	C
3DA	1	do	33	110	238	250	C
6DA	3½	do	52	146		415	C
7DA	5	do	58	168		493	C
8DA	7½	do	58	168		545	C
3DCD	1	Direct current	33	110	273	285	C
6DCD	3½	do	52	146		535	C
7DCD	5	do	58	168		687	C
8DCD	7½	do	58	168		757	C
3DD	1	do	33	110	273	285	C
6DD	3½	do	52	146		535	C
7DD	5	do	58	168		687	C
8DD	7½	do	58	168		757	C

COMBINATION GRINDERS AND BUFFERS

Type	Horsepower	Current	Description	Price with—Manual starter	Price with—Magnetic starter	CLD
CMA	½	Alternating current	Floor	$118		B
3COA	1	do	do	185	$197	B
4COA	2	do	do	248	260	C
3CEA	1	do	do	210	222	B
4CEA	2	do	do	273	285	C
CMD	½	Direct current	do	125		B
3COD	1	do	do	210	238	B
4COD	2	do	do	307	335	C
3CED	1	do	do	235	263	B
4CED	2	do	do	332	360	C

BUFFERS AND POLISHERS

Type	Horsepower	Current	Description	Price with—Manual starter	Price with—Magnetic starter	CLD
HMA	½	Alternating current	Floor	$117		B
3HOA	1	do	do	170	$182	B
4HOA	2	do	do	238	250	C
6HOAS	3	do	do	288	300	C
6HOA	3½	do	do	335	347	C
7HOA	5	do	do	370	382	C
8HOA	7½	do	do	[1] 410	422	C

BUFFERS AND POLISHERS

Type	Horsepower	Current	Description	Price with—Manual starter	Price with—Magnetic starter
HMD	½	Direct current	Floor	$119	
3HOD	1	do	do	195	$223
4HOD	2	do	do	297	325
6HOD	3½	do	do	442	470
3HEA	1	Alternating current	do	195	207
4HEA	2	do	do	263	275
6HEAS	3	do	do	311	323
6HEA	3½	do	do	368	380
7HEA	5	do	do	400	412
8HEA	7½	do	do	[1] 440	432
3HED	1	Direct current	do	220	248
4HED	2	do	do	322	350
6HED	3½	do	do	472	500

[1] 220 volts must be furnished with magnetic starter.

THE HISEY-WOLF MACHINE COMPANY, CINCINNATI, OHIO—Continued

TEX-DRIVE GRINDERS

Type	Horsepower	Price less motor: With manual starter	Price less motor: With magnetic starter	CL	Price of motor net—No discount: Open ball-bearing	Price of motor net—No discount: Enclosed ball-bearing
3F	1	$210	$222	C	$39	$43
4F	2	225	237	C	53	76
5F	3	245	257	C	59	82
4FE	2	270	282	C	53	76
6MGE	3	410	422	C	59	82

TEX-DRIVE DISC AND COMBINATION GRINDERS

Type	Horsepower	Less tables: With manual starter	Less tables: With magnetic starter	CL	Price of motor net—No discount: Open ball-bearing	Price of motor net—No discount: Enclosed ball-bearing
4D	2	$255	$267	C	$53	$76
5D	3	280	292	C	59	82
4DF	2	255	267	C	53	76
5DF	3	280	292	C	59	82
Plain table (each)			$33	C		
Universal table (each)			110	C		

TEX-DRIVE SNAGGING GRINDERS

Type	Horsepower	With manual starter	With magnetic starter	CL	Price of motor net—No discount: Open ball-bearing	Price of motor net—No discount: Enclosed ball-bearing
7E1	5		$590	C	$71	$99
8E1	7½		670	C	92	131
10E1	10		700	C	118	172
10F1	10		1,020	C	118	172
15F1	15		1,065	C	[1] 141	[2] 194
8E2	7½		730	C	92	131
10E2	10		760	C	118	172
10F2	10		1,125	C	118	172
15F2	15		1,160	C	[1] 141	[2] 194
10FF1	10		1,170	C	118	172
15FF1	15		1,220	C	[1] 141	[2] 194
					Each	*Each*
88FF1	7½		1,170	C	92	131
1010FF1	10		1,220	C	[3] 118	[4] 172
88FF2	7½		1,370	C	92	131
1010FF2	10		1,420	C	[3] 118	[4] 172
7TW	5		750	C	71	
8TW	7½		775	C	92	
10TW	10		800	C	118	
15TW	15		870	C	[1] 141	
8TTW	7½		850	C	92	
10TTW	10		875	C	118	

TEX-DRIVE WET AND COMBINATION GRINDERS

Type	Horsepower	With manual starter	With magnetic starter	CL	Price of motor net—No discount: Open ball-bearing	Price of motor net—No discount: Enclosed ball-bearing
3FWS	1	$415	$427	C	$39	$43
4FWS	2	425	437	C	53	76
5FWS	3	445	457	C	59	82
3FWW	1	495	507	C	39	43
4FWW	2	505	517	C	53	76
5FWW	3	525	537	C	59	82
16FW	3	660	672	C	59	82
18FW	3	670	682	C	59	82
20FW	5	685	697	C	71	99
24FW	5	700	712	C	71	99
16FWW	3	690	702	C	59	82
18FWW	3	700	712	C	59	82
20FWW	5	720	732	C	71	99
24FWW	5	730	742	C	71	99

[1] For high-speed wheels. Motor for vitrified wheels is $185.
[2] For high-speed wheels. Motor for vitrified wheels is $263.
[3] For high-speed wheels. Motor for vitrified wheels is $141.
[4] For high-speed wheels. Motor for vitrified wheels is $194.

THE HISEY-WOLF MACHINE COMPANY, CINCINNATI, OHIO—Continued

TEX-DRIVE BUFFING AND POLISHING MACHINES

Type	Horsepower	Price less motor: With manual starter	Price less motor: With magnetic starter	CL	Price of motor net—No discount: Open	Price of motor net—No discount: Enclosed
3FB	1	$190	$202	C	$39	$43
4FB	2	210	222	C	53	76
5FB	3	220	232	C	59	82
3FBE	1	220	232	C	39	43
4FBE	2	240	252	C	53	76
5FBE	3	250	262	C	59	82
6MO	3	325	337	C	59	82
7MO	5	335	347	C	71	99
8MO	7½	[1] 350	362	C	92	131
6ME	3	355	367	C	59	82
7ME	5	365	377	C	71	99
8ME	7½	[1] 380	392	C	92	131
6TV			[*]			
7TV			[*]			
8TV			[*]			
7MSO	5		430	C	71	99
8MSO	7½		450	C	92	131
10MSO	10		465	C	118	172
15MSO	15		480	C	141	194
15FO	15		895	C	141	194
20FO	20		930	C	168	247
25FO	25		945	C	194	272
7MSE	5		460	C	71	99
8MSE	7½		480	C	92	131
10MSE	10		495	C	118	172
15MSE	15		510	C	141	194
15FE	15		940	C	141	194
20FE	20		980	C	168	247
25FE	25		995	C	194	272
					Each	Each
6MMO	3		510	C	59	82
7MMO	5		530	C	71	99
8MMO	7½		570	C	92	131
10FFO	10		1,055	C	118	172
15FFO	15		1,080	C	141	194
6MME	3		525	C	59	82
7MME	5		545	C	71	99
8MME	7½		585	C	92	131
10FFE	10		1,085	C	118	172
15FFE	15		1,110	C	141	194
7TO	5		435	C	71	
8TO	7½		455	C	92	
10TO	10		475	C	118	
7TE	5		470	C	71	
8TE	7½		490	C	92	
10TE	10		510	C	118	
6TTO	3		560	C	59	
7TTO	5		575	C	71	
6TTE	3		585	C	59	
7TTE	5		600	C	71	

[1] 220 volts must be supplied with magnetic starter. [2] For high-speed wheels. Motor for vitrified wheels is $194.

VERTICAL SPINDLE GRINDERS

Type	Horsepower	Current	Size wheel in inches (cup wheel)	Price
3VA	½	Alternating current	4	$173
4VA	1	do	6	210
5VA	2	do	6	292
6VA	3	do	6	345
7VA				
8VA				
10VA				
3VD	½	Direct current	4	202
4VD	1	do	6	260
5VD	2	do	6	362
6VD	3	do	6	450
7VD				

*Discontinued. [Prices of Bare Machines Without Electrical Equipment]

Hoefer Mfg. Co., Freeport, Ill.

DRILLING MACHINES

Prices of Hoefer Self-Contained Hydraulic Feed Units

(Including one pair of speed change gears)

½" capacity 1½ HP	$635
¾" capacity 3 HP	750
1¼" capacity 5 HP	865
2" capacity 7½ HP	1,200
2¾" capacity 10 HP	1,650
— capacity 15 HP	2,125

Prices subject to change without notice.

MULTIPLE SPINDLE HEAD PRICE LIST

[Base price type A full ball bearing]

Number of spindles	2	3	4	5	6	7	8	9	Over 10
No. 1 M. T. Spindle	$128	$150	$168	$188	$209	$231	$252	$274	$30
No. 2 M. T. Spindle	135	160	182	205	230	255	280	305	33
No. 3 M. T. Spindle	151	184	214	245	278	311	344	377	41
No. 4 M. T. Spindle	195	250	302	355	410	465	520	575	63

Above prices cover heads fitted with M. T. drive or flange quill adaption.
Above prices are based on 8" maximum center distance. Complete to nearest even inch. Example: 3⅞s—13 in. 13⅜s—14 in. Add $10 per inch to above prices for every inch over 8 in. center distance.

Hunter Saw & Machine Co., Pittsburgh, Pa.

HIGH SPEED METAL CUT-OFF SAWS

[Prices of bare machines without electrical equipment]

No. 1A	$600
No. 6	385
No. 2B	1,450
No. 2A	2,050

Illinois Machine & Mfg. Co., La Salle, Ill.

GRINDERS—PRICES AND SPECIFICATIONS

Model No.	Maximum distance, wheel to table	Distance between wheels	Two wheels	Table	Spindle pulley	Belt drive		Motor drive including motor [1]	
						Weight crated	Price	Weight crated	Price
	Inches	*Inches*	*Inches*	*Inches*	*Inches*	*Pounds*		*Pounds*	
10	11	18	8 x 1 x ¾	10 x 29	3½ x 2¾	530	$192.50	650	$315
				Table travel, inches					
11	11	18	8 x 1 x ¾	24 x 6	3½ x 2¾	660	360.00	850	488

[1] Motor is 1 hp. ball-bearing type—1,720 r. p. m.

The Ingersoll Milling Machine Company

Prices on the following mills have been established by the Office of Price Administration.

TYPE A-20 ADJUSTABLE RAIL INGERSOLL MILLING MACHINE

This machine has four heads. Each head has two speeds. Spindles are driven by a 20-horsepower motor. Control is through levers and hand-operated rheostats. Table is carried on tubular ways and driven by a Johnson drive.

30" x 30" x 10-ft., 4 head	$18,590
2-ft. of additional length up to 28-ft.	580
36" x 30" x 10-ft., 4-head	18,850
2-ft. of additional length up to 28-ft.	600

TYPE A-20 ADJUSTABLE RAIL INGERSOLL MILLING MACHINE—continued

42" x 30" x 10-ft., 4-head	$19,175
2-ft. of additional length up to 28-ft.	620
48" x 30" x 10-ft., 4-head	19,500
2-ft. of additional length up to 28-ft.	640
54" x 30" x 10-ft., 4-head	19,825
2-ft. of additional length up to 28-ft.	660
Additional 6" of height	700

The following features may be deducted at the following prices:

Left-hand horizontal head, each	$2,225
Vertical head or right-hand horizontal head, each	1,780

The Ingersoll Milling Machine Company—Con.

TYPE A-30 ADJUSTABLE RAIL INGERSOLL MILLING MACHINE

This machine has four heads. Each head has two speeds. Spindles are driven by 30-horsepower motor. Control is through push button pendant. Fluorescent lights are contained in the rail. Table is carried on tubular ways and driven by a Johnson drive.

42" x 36" x 10-ft., 4-head	$24,345
2-ft. of additional length up to 28-ft.	625
48" x 36" x 10-ft., 4-head	24,600
2-ft. of additional length up to 28-ft.	675
54" x 36" x 10-ft., 4-head	24,930
2-ft. of additional length up to 28-ft.	700
60" x 36" x 10-ft., 4-head	25,250
2-ft. of additional length up to 28-ft.	725
Additional 6" of height	750

The Ingersoll Milling Machine Company—Con.

The following features may be deducted at the following prices:

Left-hand horizontal head	$2,375
Each vertical head or right-hand horizontal head	1,935

INGERSOLL FIXED RAIL MILLING MACHINE

With offset milling and boring head

Head is mounted on a slide that travels horizontally on a fixed rail at right angles to the table, and is driven by a 15-horsepower motor. Table is mounted on the bed with flat ways and driven by a Johnson drive.

42" wide by 6-ft. long	$19,200
60" wide by 6-ft. long	20,000
60" machine may be equipped with additional head	1,820

International Machine Tool Corporation, Foster Div., Elkhart, Ind.

Note.—Price corrections made upon advice of manufacturer. Prices differ from those shown in first edition of Prices of New Machine Tools.

Size and type of machine	Bar capacity	Swing	Approx. weight (pounds)	Prices					
				Bare machine	Automatic chuck and bar feed when purchased with machine	Automatic chuck and bar feed when purchased separately	Bar feed purchased separately	Power feed to turret	Power cross feed to cross slide
Screw machine:									
No. 1 motor in base	1¾s	11½	2,400	$2,040	$380	$450	$200	None	None
No. 3 all geared head	1⅝s	14½	2,225	2,200	330	220	110	$300	$200
No. 5 all geared head	1¹³⁄₁₆s	17½	3,350	2,400	320	200	120	300	200
No. 7 all geared head	2⅜s	20¾	5,600	3,400	425	275	150	Included with bare machine.	Not available.
No. 5 Univ. all geared head.	1¹³⁄₁₆s	17½	5,600	3,550	375	250	125	Included with bare machine.	
No. 7 Univ. all geared head.	2⅜s	20¾	5,800	3,900	450	300	150	Do.	
No. 1B Universal	2⅜s	20¾	6,000	5,300	365	265	100	Do.	
No. 2B Universal	3¼	22	6,500	6,200	725	475	250	Do.	
No. 3B Universal	4½	28	11,500	8,000	1,100	800	300	Do.	

UNIVERSAL FASTERMATICS, TURRET TYPE

Model No.	Swing over bed	Diameter hole through spindle	Length of cross slide	Price, standard machine, motor drive mounting without motor
	Inches	*Inches*	*Inches*	
1-F	19	2⅛	16½	$6,875
2-F	23¾	3	19	8,200
3-F	28¼	4	22½	11,800
4-F	35½	4	22½	14,850

UNIVERSAL FASTERAMTICS, PLATEN TYPE

Model No.	Swing over bed	Diameter hole through spindle	Length of cross slide	Price, standard machine with main slide, front and rear cross slides, motor drive, without motor	Deduct for main slide	Deduct for each cross slide
	Inches	*Inches*	*Inches*			
1-F	19	2⅛	16½	$6,875	$577.50	$660
2-F	23¾	3	19	8,200	605.00	795
3-F, 12-speed head	28¼	4	22½	9,080	695.00	905
3-F, 16-speed head	28¼	4	22½	11,800	695.00	905
4-F, 16-speed head	35½	4	22½	14,850	1,010.00	1,230

INTERNATIONAL MACHINE TOOL CORPORATION, INDIANAPOLIS, IND.

NOTE.—Price corrections made upon advice of manufacturer. Prices differ from those shown in first edition of "Prices of New Machine Tools as of March 1, 1941."

"LIBBY" TURRET LATHES

Type	Swing	Spindle bore	Price
	Inches	*Inches*	
H-5"	18	5¼	$10,059
1H-5"	24	5¼	10,675
2H-8"	27	8¼	12,560
3H-8"	29	8¼	13,575
4H-12"	32	12½	18,470
5H-12"	36	12½	20,988

Prices shown are stripped prices on the machine only. Does not include any chucks, electrical or tooling equipment. For extra length of bed add approximately $600 per foot.

OBSOLETE MACHINES

[Use equivalents as shown]

Model	Capacity	Equivalent to—		
		Model	Company	Base price
A	18" x 3½"	2L	Gisholt	$6,975
A	18" x 5"	3L	Gisholt	8,675
C	26" x 4½"	3L	Gisholt	8,675
C	26" x 7½"	3AL	Gisholt	9,375
C	26" x 8"	3AL	Gisholt	9,375
C	26" x 10½"	4L	Gisholt	10,900
D	32"	4L	Gisholt	12,500

JACKSON MACHINE & TOOL COMPANY, JACKSON, MICH.

	Price
Jackson No. 1 Horizontal Milling Machine, including totally enclosed ball bearing motor (850 r. p. m. 220/440, 60 cycle, 3 phase), thermally protected starting switch, and longitudinal power feed to table	$925.00
Jackson No. 2 Vertical Milling Machine, including totally enclosed ball bearing motor (850 r. p. m. 220/440, 60 cycle, 3 phase) and thermally protected starting switch	950.00
Longitudinal power feed for No. 2 mill (complete with motor and reversing switch), installed	210.00
Automatic coolant system (for either No. 1 or No. 2 mill), installed	170.00
1" Arbor and wrench (for No. 1 mill)	20.00
4½" swivel base vise	23.60
6½" swivel base vise	32.55
6" Universal Angleworm Vise	160.00
L-W 11" dividing head and tail stock (for No. 2 Mill)	128.55
Craley Eccentric Boring Head (for No. 2 Mill)	65.00
12" rotary table	160.00
DA-15 dividing attachment for 12" rotary table	35.00
9" rotary table	97.00

JEFFERSON MACHINE TOOL CO., CINCINNATI, OHIO

	Price
No. 100F floor type hand miller complete with ⅓ horsepower motor reversing control, draw-in attachment and ½-inch collet and hand lever feed	$410
No. 200F floor type screw and power feed miller complete with ⅓ horsepower motor, reversing control, draw-in attachment and ½-inch collet	460
Arbors ½, ¾, ⅞, each	9
6-inch swing dividing head and tailstock with 3 plates	120
Vertical attachment with one collet	100
Each extra collet	6
Plain vise hardened jaws attached handle bolts and clamps	25

JEFFERSON MACHINE TOOL CO., CINCINNATI, OHIO—Continued

	Price
Swivel vise hardened jaws graduated for 360°	$36

SPECIFICATIONS

Table:	*Inches*
Longitudinal travel	8
Traverse travel	3
Vertical travel	5¾
Working surface	14½ x 4⅜

Three spindle speeds.
Shipping weight: Floor type, 500 pounds.

JONES & LAMSON MACHINE CO., SPRINGFIELD, VT.

UNIVERSAL RAM TYPE TURRET LATHES—PRICES AND SPECIFICATIONS

Model No.	Bar capacity	Swing	Price	Model No.	Bar capacity	Swing	Price
	Inches	*Inches*			*Inches*	*Inches*	
3	1½	10	$4,310	5	2½	14	$4,950
4	1¾	10	4,425	5-5	5¼		5,995

SADDLE TYPE TURRET LATHES

Model No.	Bar capacity	Swing	Prices				
			Universal fixed head with fixed center 6 position hollow hexagon turret	Universal fixed head with 6 position cross sliding hollow hexagon turret	Cross sliding head with 6 position fixed center flat turret	Fixed head with 6 position fixed center flat turret	Fixed head with fixed center, 6 position hollow hexagon turret 5¼" hole in spindle
	Inches	*Inches*					
7	2½	40	$6,380	$7,183	$5,957	$5,187	$7,425
8	3	36	6,501	7,304	6,078	5,308	7,546

FAY AUTOMATIC LATHE

Size	Purpose	Price	Size	Purpose	Price
8" x 15"	Center work	$2,855	16" x 33"	Center work	$8,750
	Chuck work	2,770		Chuck work	8,230
8" x 21"	Center work	3,256	16" x 51"	Center work	9,335
	Chuck work	3,171	16" x 69"	do	10,065
8" x 33"	Center work	3,460	16" x 87"	do	10,800
8" x 45"	do	3,658	20" x 25"	do	6,254
8" x 63"	do	4,169		Chuck work	5,806
12" x 15"	do	4,351	20" x 37"	Center work	6,551
	Chuck work	4,180		Chuck work	6,103
12" x 21"	Center work	4,642	20" x 55"	Center work	7,134
	Chuck work	4,471	20" x 73"	do	7,865
12" x 33"	Center work	4,928	20" x 91"	do	8,597
12" x 45"	do	5,225	20" x 127"	do	10,496
12" x 63"	do	5,808	24" x 42"	do	10,379
12" x 81"	do	6,545		Chuck work	9,815
12" x 99"	do	7,271	24" x 60"	Center work	11,110
16" x 21"	do	8,455	24" x 96"	do	12,579
	Chuck work	7,930			

JARECKI MANUFACTURING COMPANY, ERIE, PA.

JARECKI PIPE THREADING MACHINES

[Consumers' net prices, f. o. b. Erie, Pa.]

Style No.	Range	Sets of dies required	Cost per set	Belt with standard dies	With A. C. motor 110, 220, or 440 volt			D. c. motor, 110 or 220 phase volt, and starter	Arranged for, but less motor and starter
					60 cycle, 2 or 3 phase, and starter	25 cycle, 2 or 3 phase, and starter	60 cycle, single phase, and non-revolving starter		
7	Std. ¼-2	4	$5.70	$439					
	Spec. ⅛	1	7.15						
22	Bolt ⅜-1½	8	5.70	627	$721	$761	$820	$836	$650
7-B	Std. ¼-3	5	6.95	644					
	Spec. ⅛	1	8.70						
33	Bolt ⅜-2	11	6.95	762	856	897	955	970	785
44	Std. 1-4	4	8.50	1,033	1,151	1,189	1,268	1,332	1,059
	Spec. ¼-¾ (Bolt Spec.)	1	10.65						
66	Std. 1¼-6	5	11.60	1,201	1,318	1,356	1,437	1,499	1,228
	Spec. 1-1¼ (Bolt Spec.)	1	14.50						
88	Std. 2½-8	5	15.30	1,834	1,979	2,026	2,122	2,206	1,865
	Spec. 1¼-2	1	19.15						
100	Std. 2½-10	6	18.80	2,308	2,450	2,497	2,594	2,677	2,336
	Spec. 1¼-2	1	23.50						
120	Std. 2½-12	7	23.80	2,619	2,769	2,816	2,912	2,995	2,655
	Spec. 1½-2	1	29.75						
4 HD	Std. 1-4	2	10.40	2,322	2,477	2,518	2,598	2,664	2,371
	Spec. ¼-¾ (Bolt Spec.)	1	12.70						
6 HD	Std. 1¼-6	2	14.55	2,639	2,822	2,870	2,968	3,054	2,684
	Spec. 1-1¼	1	16.85						
8 HD	Std. 2½-8	[1] 1	19.40	3,172	3,354	3,402	3,500	3,586	3,216
	Spec. 1¼-2	1	19.40						
12 HD	Std. 4-12	[1] 1	37.45	5,379	5,623	5,710		5,911	5,437
	Spec. 2½-3½	1	37.45						

[1] 2 furnished.

Nipple holders, solid die holders, nut gripping chuck, special chucks and die heads, and pipe machine repairs—list less 40%.

THREAD-GRINDING MACHINES

External

Size	Maximum swing	Maximum: Distance between centers	Maximum: Thread length	Net weight	Base price
	Inches	*Inches*	*Inches*	*Pounds*	
6" x 15"	6¼	15	3	5,450	$6,750
6" x 36"	7½	36	12	8,200	10,175
12" x 45"	21	45	18	10,300	11,880

Internal

Size	Maximum swing	Maximum thread length	Minimum diameter	Maximum diameter	Net weight	Base price
	Inches	*Inches*	*Inches*	*Inches*	*Pounds*	
6" x 3"	7	3	1	5	5,500	$7,250
6" x 24"	7½	5	1	5	8,300	11,675
12" x 30"	21	5	1	14	10,400	13,880

JONES MACHINE TOOL WORKS, INC., PHILADELPHIA, PA.

SLOTTERS—HEAVY DUTY

15" stroke	$6,500
20" stroke	8,500
25" stroke	11,350
30" stroke	12,000
36" stroke	16,000

VERTICAL SHAPERS

6" stroke	4,500
8¼" stroke	5,800
12" stroke	6,800

DUPLEX CONTROL SLOTTER

12" stroke	5,250

KEARNEY & TRECKER CORPORATION, MILWAUKEE, WIS.

KNEE AND COLUMN TYPE MACHINES

Machine	Net weight	Price
	Pounds	
1H–12 manufacturing	2,600	$3,560
1H–18 manufacturing	2,700	3,805
1H–12 manufacturing vertical	2,700	4,820
1H–18 manufacturing vertical	2,700	4,930
1H–plain	2,600	3,540
1H–Univ. Conv. lead	2,800	4,215
1H–plain vertical	2,800	4,215
2HL plain	2,700	3,660
2HL univ. conv. lead	3,000	4,335
2HL plain vertical	3,000	4,320
2H plain	3,750	4,050
2H univ. conv. lead	3,950	4,785
2H plain vertical	4,350	4,915
2KM plain	6,100	5,185
2KM univ. conv. lead	6,400	6,005
2KM plain vertical	6,800	6,260
2K plain	6,100	5,555
2K univ. conv. lead	6,400	6,440
2K plain vertical	6,800	6,670
3H plain	6,150	5,780
3H univ. conv. lead	6,450	6,715
3H plain vertical	6,850	7,250
3KM plain	7,800	6,280
3KM univ. conv. lead	8,250	7,345
3KM plain vertical	8,900	7,775

KEARNEY & TRECKER CORPORATION, MILWAUKEE, WIS.—Continued

KNEE AND COLUMN TYPE MACHINES—continued

Machine	Net weight	Price
	Pounds	
3K plain	7,800	$6,725
3K univ. conv. lead	8,250	7,785
3K plain vertical	8,900	8,210
4H plain	7,850	7,075
4H univ. conv. lead	8,250	8,400
4H plain vertical	8,850	8,410
4K plain	12,500	8,170
4K univ. conv. lead	13,300	9,750
4K plain vertical	13,850	9,665
5H plain	12,500	8,670
5H univ. conv. lead	13,200	10,250
5H plain vertical	14,150	10,165

NOTE.—Prices corrected on all 1H and 2HL machines upon advice of manufacturer. Prices differ from those shown in first edition of Prices of New Machine Tools.

"MILWAUKEE" KNEE TYPE MILLING MACHINES

Discontinued Models	*Horizontal Current Equivalent Machines*
1B plain—1 plain (or universal)	1H plain (or universal).
1½B plain—2BS plain—2 spec. plain (or universal)	2H plain (or universal).
2 standard plain (or universal)	
2B plain—2 hy. plain (or universal)	2KM plain (or universal)
3 standard plain (or universal)	3H plain (or universal).
3B plain—3 hy. plain (or universal)	3KM plain (or universal)
4 standard plain (or universal)	4H plain (or universal).
4B plain—4 hy. plain (or universal)	4K plain (or universal).
4B plain and 4 hy. plain with 52" table Fd. (or universal)	5H plain (or universal).

MANUFACTURING

1A—1 mfg.	1H18 mfg.
1½A mfg.	
2AS mfg.	2H plain.
2A mfg.	2H plain.
1404 simplex	1404 simplex, 1940 price.
1404 duplex	1404 duplex, 1940 price.

KEARNEY & TRECKER CORPORATION, MILWAUKEE, WIS.—Continued

PLAIN VERTICAL

Discontinued Models	*Horizontal Current Equivalent Machines*
1B vertical—1 plain vertical	1H vertical.
1½B vertical—2BS vertical—2 spec. vertical	2H vertical.
2 standard vertical	
2B vertical—2 hy. vertical	2KM vertical.
3 standard vertical	3H vertical.
3B vertical—3 hy. vertical	3KM vertical.
4 standard vertical	4H vertical.
4B vertical—4 hy. vertical	4K vertical.
4B and 4 hy. vertical. 52" table Fd	5H vertical.

MANUFACTURING VERTICAL

1A vertical—1 vertical	1H18 mfg. vertical.
2AS vertical—2 spec. vertical	2H vertical.
2A mfg. vertical—2 mfg. vertical	2KM vertical.

THE KEMPSMITH MACHINE CO., MILWAUKEE, WIS.

MAXIMILLER—ALL GEARED MILLING MACHINES

[All Maximillers are motor-in-base of single pulley drive]

Size of milling machine	Approximate shipping weight	Price
	Pounds	
No. 2, plain Maximiller	6,100	$4,785
No. 3, plain Maximiller	6,620	5,420
No. 4, plain Maximiller	9,400	6,710
No. 5, plain Maximiller	10,600	7,355
No. 2, universal Maximiller	6,410	5,610
No. 3, universal Maximiller	6,870	6,370
No. 4, universal Maximiller	10,050	7,975
No. 5, universal Maximiller	11,300	8,820
No. 2, vertical Maximiller	7,250	4,980
No. 3, vertical Maximiller	7,550	5,655
No. 4, vertical Maximiller	11,300	7,245
No. 2, vertical Maximiller with adjustable spindle	7,350	6,380
No. 3, vertical Maximiller with adjustable sprindle	7,750	7,800
No. 4, vertical Maximiller with adjustable spindle	11,600	8,800

MILLING MACHINES—PRICES AND SPECIFICATIONS

Model Number	Description	Power feed range: Lengthwise	Power feed range: Trans.	Power feed range: Vertical	Table working surface	Net weight	Price
		Inches	*Inches*	*Inches*	*Inches*	*Pounds*	
1	Plain, motor in base, 3 hp., a. c.	22	8	18	42 x 10	3,500	$3,675
2	Plain, motor in base, 3 hp., a. c.	28	10	18	45 x 10	3,700	3,750
1	Universal, motor in base, 3 hp., a. c.	22	8	19	42 x 10	3,800	4,350
2	Universal, motor in base, 3 hp., a. c.	28	10	19	45 x 10	4,000	4,450
1	Plain, cone drive	22	8	19	42 x 10	3,100	1,950
2	Plain, cone drive	28	9	19	45 x 10	3,475	2,250
3	Plain, cone drive	34	11	20	54 x 12	4,740	2,725
1	Universal, cone drive	22	7½	18	39½ x 8¼	3,200	2,625
2	Universal, cone drive	28	8½	18	45 x 10	3,700	2,950
3	Universal, cone drive	34	10	19	52 x 12	5,150	3,475

THE KENT MACHINE COMPANY, CUYAHOGA FALLS, OHIO

¼" AUTOMATIC CAP SCREW AND BOLT THREADER

Kent automatic cap screw and bolt threader ½" size, belt drive, with countershaft and all equipment necessary to thread one size of work, without die head or chasers $2,090.00

Additional for motor drive, not including motor or starter 165.00

A 2 hp. 1,200 r. p. m. motor is required to operate.

Any standard die head with chasers desired will be furnished mounted on machine at manufacturer's list price.

1" AUTOMATIC CAP SCREW AND BOLT THREADER

Kent automatic cap screw and bolt threader, 1" size, belt drive, including countershaft and all equipment necessary to thread one size of work, without die head and chasers 2,695.00

Additional for motor drive, not including motor or starter 220.00

A 3 hp. 1,200 r. p. m. motor is required to operate.

STUD THREADERS

Kent ¼" standard stud threaders, for studs up to ½" diameter and 4½" long, belt drive, including countershaft and all equipment for one diameter stud, except die heads and chasers 1,705.00

THE KENT MACHINE COMPANY, CUYAHOGA FALLS, OHIO—Continued

STUD THREADERS—continued

Kent ½" special stud threader for studs up to ½" diameter and 7½" long, belt drive, including countershaft and all equipment for one diameter stud, except die heads and chasers $1,980.00

Additional for arranging for motor drive, not including motor or starter 275.00

A 2 hp. motor is required to operate.

Any standard die head and chasers will be furnished mounted on machine at die head manufacturer's list price.

Kent 1" standard stud threader, for studs ⅜" to 1" diameter, and 1¼" to 6" long, belt drive, including countershaft and all equipment for one diameter stud, except die head and chasers 2,145.00

Kent 1" special stud threader for studs ⅜" to 1" diameter, and 1¼ to 9" long, belt drive, including countershaft and all equipment for one diameter stud, except die head and chasers 2,447.50

Additional for motor drive for either standard or special 1" stud threaders 275.00

A 3 hp. motor is required to operate.

Any standard die head and chasers will be furnished mounted on machine at manufacturer's list price.

THE KENT MACHINE COMPANY, CUYAHOGA FALLS, OHIO—Continued

NO. 2 BOLT THREADER

No. 2 Kent two spindle threading machine, belt drive, including countershaft, but without die heads or work holding fixtures $860.00
Arranging for motor drive, without motor or starter 93.00
A 1 hp. 1,800 r. p. m. motor is required to operate.
Any standard die head with chasers desired will be furnished mounted on machine at the manufacturer's list price.

NO. 2A BOLT THREADER

No. 2A Kent two spindle threading machine, belt drive, including countershaft and one set of standard vise jaws, but without die heads or chasers 745.00
Arranging for motor drive, without motor or starter 93.00
A 1 hp. 1,800 r. p. m. motor is required to operate.

SCREW SLOTTERS

No. 117 Kent screw slotter, belt drive, including countershaft, pump and piping for cutting lubricant, but without work holding disks 715.00
Arranging for motor drive, not including motor or starter 120.00
A 1 hp. 1,200 r. p. m. motor is required to operate.
No. 3 Kent screw slotter, belt drive, including countershaft, pump and piping for cutting lubricant and one set (10) standard work holding bushings 770.00

KENT DUPLEX DRILLING MACHINE

Kent duplex drilling machine arranged for hand feed, with one set of grip jaws for round work, equipped with motor drive, but without motor or control 2,255.00
One (1) 1½ hp., 1,200 r. p. m., 3 phase, 60 cycle, 220/440 volt, motor with double extended shaft, installed in driller 68.00
Transfer mechanism for feeding blanks from front of machine to the grip jaws 195.00
Hopper for standard screws with motor drive and gear reduction including chute to transfer mechanism 560.00

KENT-OWENS MACHINE COMPANY, TOLEDO, OHIO

	Weights	Prices
	Pounds	
No. 1-M hand milling machine	950	$790
No. 1-M DS (double spindle) milling machine	1,100	1,680
No. 1-8 DS (double spindle) milling machine	1,450	2,590
No. 1-14 hydraulic milling machine	1,500	2,020
No. 1-8 hydraulic milling machine	1,300	1,720
No. 1-14 DS (double spindle) milling machine	1,650	2,930
No. 1-V hydraulic milling machine	1,440	2,100
No. 2-20 hydraulic milling machine	3,500	3,620
No. 2-RV hand milling machine	2,575	1,250

DISCONTINUED MODELS

Kent-Owens No. 2 hand milling machine (plain drive), base price effective after March 1, 1940 (discontinued sometime before March 1, 1941) $895

KENT-OWENS MACHINE COMPANY, TOLEDO, OHIO—Continued

DISCONTINUED MODELS—continued

Kent-Owens No. 3 miller (power-feed to table), base price effective after March 1, 1940 (discontinued sometime before March 1, 1941) $1,240
Kent-Owens No. 3RV power-feed with varispeed to spindle, base price effective after April 1, 1940 (discontinued sometime before March 1, 1941) 1,390
Kent-Owens No. 1 hand milling machine plain miller base price effective after March 1, 1940 (this machine discontinued December 31, 1940) 505
Kent-Owens 1RV hand milling machine (plain miller with varispeed drive to spindle) base price effective after March 1, 1940 (this machine discontinued December 31, 1940) 645

KING MACHINE TOOL CO., CINCINNATI, OHIO

VERTICAL BORING AND TURNING MILLS (NEW TYPE HVY. DUTY)

Size	Base weight	Prices [1]		Extra side head	
		Arranged for 900 r. p. m. motor drive	500/1000 r. p. m. motor drive	Weight	Price
	Pounds			*Pounds*	
30" [2]	20,000	$10,500	$10,100	------	------
36" [2]	24,000	11,500	11,100	------	------
42" [2]	29,000	13,070	12,470	------	------
42"	25,000	10,700	10,100	7,000	$3,250
52" [3]	34,000	12,600	12,000	7,000	3,550
62" [3]	48,000	14,900	14,150	8,000	3,900
72" [3]	54,000	17,200	16,450	8,000	3,900
84" [3]	75,000	22,000	21,150	10,000	4,400
100" [3]	95,000	28,600	27,750	10,000	4,400
120" [3]	140,000	----------	38,800	10,000	4,925

[1] Prices are: 1. Arranged for 900 r. p. m. direct coupled, constant speed motor drive, less electrical equipment. 2. Arranged for 500/1,000 r. p. m. adjustable speed motor drive.
[2] These machines have as standard equipment: Swivel turret only on rail, right hand side head with 4-position tool holder, plain table.
[3] These machines have as standard equipment right and left hand swivel heads on rail, plain table. Size 42" has 2 swivel heads on rail, and plain table.

KINGSBURY MACHINE TOOL CORPORATION, KEENE, N. H.

KINGSBURY SEMISTANDARD VERTICAL MODEL DRILLING MACHINES

	Weight	Price
	Pounds	
Model VAP, 1-spindle floor type	475	$478
Model VDMP, 2-spindle floor type	975	[1] 957
Model MDMP, 3-spindle floor type	1,900	1,479
Model MDMP, 4-spindle floor type	2,150	1,826

[1] Denotes price correction advised by manufacturer. Price differs from that shown in first edition of Prices of New Machine Tools.

KLING BROTHERS ENGINEERING WORKS, 1300 NORTH KOSTNER AVENUE, CHICAGO, ILL.

COMBINATION SHEAR, PUNCH, AND COPER

[When sold for delivery in Illinois 2 percent is added on account of State occupational tax]

	No. 3	No. 4	No. 5
Capacity to punch	1 1/16" through ½"	1 3/16" through ¾"	1 5/16" through 1".
Depth of throat	10"	15"	24".
Shearing capacities:			
Angles 90° with standard blades	4" x 4" x ¼"	4" x 4" x ⅜"	6" x 6" x ½".
Round bars	1⅜"	1¾"	2¼".
Square bars	1¼"	1½"	2".
Flat bars	¼" x 4"	⅝" x 6"	1" x 7".
Plate	¾"	½"	¾".
Motor required—1,800 r. p. m.	2 horsepower	5 horsepower	10 horsepower.
Net weight—Pounds, approximate	3,000	5,100	13,000.

REGULAR EQUIPMENT

Standard punch holder with stripper coupling nut and punch.	#4 H and J	#6 H and J	#7 H and J.
Small architectural jaw with die	1" x ¾"	1" x ¾"	Not inclusive.
Large architectural jaw with die	1½" x 1"	1½" x 1"	2⅜" x 1¼".

PRICES

Price, B. D. with countershaft:		Price, Arr, M. D. No. El. (equipment):	
No. 3	$1,545	No. 3	$1,575
No. 4	2,300	No. 4	2,330
No. 7	3,925	No. 7	3,965

KLING SINGLE END VERTICAL GEARED PUNCHES

	No. 2	No. 4	No. 7
Capacity, M. S.:			
Punch	½" x 1¼" x ¼"	¾" through ¾"	1⅛" through 1".
Shear angles	1½" x 1½" x ⅜"	3" x 3" x ⅝"	5" x 5" x ⅝".
Shear flats	3" x ½"	5" x ½"	6" x 1".
Shear rounds	¾"	1⅜"	2".
Shear plate	¼"	½"	⅝".
Height, gap	10"	17"	17".
Flywheel	30" x 3"	42" x 4½"	54" x 5".
Size, gear	36" x 3½"	36" x 5½"	44" x 6".
Diameter pinion	4⅞"	5½"	69½2".
	No. 10	**No. 12**	**No. 14**
Capacity, M. S.:			
Punch	2" through 1"	2" through 1¼"	2⅛" x 1¼".
Shear angles	6" x 6" x ½"	6" x 6" x ⅝"	8" x 8" x ¾".
Shear flats	8" x 1¼"	8" x 1½"	10" x 1½".
Shear rounds	2½"	2¾"	3".
Shear plate	1⅛"	1¼"	1½".
Height, gap	20"	20"	22".
Flywheel	54" x 7"	54" x 5¾"	54" x 6½".
Size, gear	63" x 7"	63" x 7"	72" x 8".
Diameter pinion	7⅞"	7¾"	8".
Motor	10 horsepower	10 horsepower	15 horsepower.
Motor r. p. m.	1,200	1,200	1,200.
	No. 2	**No. 4**	**No. 7**
Motor	3 horsepower	5 horsepower	7½ horsepower.
Motor r. p. m.	1,200	1,200	1,200.

KLING BROTHERS ENGINEERING WORKS, 1300 NORTH KOSTNER AVENUE, CHICAGO, ILL.—Continued

NO. 2 (½" THROUGH ½)'

Depth throat	Weight	Price
	Pounds	
12"	3,000	$840
15"		
18"	3,800	940
24"	4,600	1,045
30"	5,200	1,150
36"		
48"		
60"		
72"		

NO. 4 (¾" THROUGH ¾")

12"		
15"	6,600	$1,235
18"		
24"	7,500	1,350
30"		
36"	9,200	1,640
48"	11,000	1,965
60"		
72"		

NO. 7 (1¼" THROUGH 1")

12"	10,600	$1,875
15"		
18"	11,500	2,018
24"	12,200	2,150
30"		
36"	15,000	2,565
48"	19,000	3,135
60"	24,000	3,675
72"	32,000	4,440

NO. 10 (2" THROUGH 1")

12"		
15"	16,000	$2,755
18"		
24"	20,000	3,145
30"		
36"	22,500	3,555
48"	26,500	4,005
60"	35,000	4,845
72"		

NO. 12 (2" THROUGH 1¼")

12"		
15"		
18"	20,600	$3,250
24"		
30"		
36"		
48"	35,000	4,820
60"		
72"		

NO. 14 (2½" THROUGH 1¾")

12"		
15"		
18"		
24"	29,000	$4,380
30"		
36"		
48"*, 60", 72"*	45,000	6,190

*Have no weight or price listed.

MOTOR DRIVE ARRANGEMENT

No. 2	$83
No. 4	95
No. 7	127
No. 10	153
No. 12	171
No. 14	176

Prices on complete machines cover regular belt drive arrangement, with either plain or architectural jaw punching attachment only.

Extra charge for motor drive arrangement covers motor bracket, pinion and gear, but does not include the 1,200 r. p. m. motor.

Double end punches.—To obtain price, add the prices of two single end machines, and deduct 5 percent. Figure weights in the same manner.

KLING BROTHERS ENGINEERING WORKS, 1300 NORTH KOSTNER AVENUE, CHICAGO, ILL.—Continued

SINGLE END VERTICAL FLYWHEEL PUNCHES—QUICK ACTING TYPE

	No. 1	No. 2
Capacity:		
Punch holes	⅜" through ⅜"	½" through ½".
Shear angles	1½" x 1½" x ⅜"	1½" x 1½" x ¼".
Shear flat bars	3" x ⅜"	3" x ½".
Shear round bars	⅝"	¾".
Shear plate	3/16"	¼".
Height of gap	8"	10".
Size of flywheel	36" x 4¼"	38" x 5¾".
Size of motor required	2 horsepower	3 horsepower.
Speed of motor revolutions per minute	1,200	1,200.

Depth of throat	Weight	Price
	Pounds	
8" on No. 1	1,200	$600
12" on No. 2	2,700	705
18" on No. 2	3,000	790
24" on No. 2	3,800	890
30" on No. 2	4,800	995

EXTRAS

Motor Drive Arrangement, without motor (No. 1)	$76
Prices of complete machines cover regular belt driven arrangement, with either plain or architectural jaw. Unless otherwise specified, architectural jaw will be furnished (No. 2)	83

Extra charge for motor drive arrangement covers motor bracket, pinion and cutting fly-wheel gear, but does not include the motor.

These quick-acting punches are not geared, being designed for direct drive to flywheel.

KLING HORIZONTAL PUNCHES

	No. 4	No. 7
Punching capacity	¾" through ¾"	1¾" through 1".
Depth of throat	7"	13".
Size of motor required	5 horsepower	7½ horsepower.
Weight (approximately)	6,150 pounds	10,000 pounds.

Arranged for belt drive:	
No. 4	$1,450
No. 7	2,060
Extra for direct motor drive arrangement:	
No. 4	100
No. 7	130

Extra for gear guards:	
No. 4	$100
No. 7	135

Extra charge for motor drive arrangement covers motor bracket, pinion and gear, but does not include the motor.

KLING SINGLE END BEAM BENDER AND STRAIGHTENER

Capacity	15"	24".
I-beams up to	15"	24".
Channels up to	15"	Maximum standard.
Angles up to	8"	8".
Rails up to	90 pounds per yard	130 pounds per yard.
Horsepower required	7½ horsepower	15 horsepower.
Speed of motor recommended	1,200 revolutions per minute	1,200 revolutions per minute.
Net weight (pounds)	14,500	33,400.

15 inches:	
Arranged for belt drive	$2,995
For direct motor drive arrangement	130
For gear guards complete	135
24 inches:	
Arranged for belt drive	5,300
For direct motor drive arrangement	165
For gear guards complete	145

These machines are designed for bending and straightening I-beams, channels and other structural shapes and rails.

Machines are furnished for either belt drive with tight and loose pulleys as shown, or at an extra charge for geared motor drive.

BENDING END

Capacity:	
I-beams and channels	15".
Angles up to	8".
Rails up to	90 pounds per yard.

PUNCHING END

Punching capacity	1¼" through 1".
Depth of throat	13".
Net weight, pounds	20,000.
Horsepower required to operate 1,200 r. p. m.	10 horsepower.

These machines are designed for bending, straightening, and punching I-beams, channels, and other structural shapes.

Arranged for belt drive	$3,460
For direct motor drive arrangement	145
For gear guards	135

KLING BULLDOZERS

	No. 3.	No. 6
Stroke of crosshead	16"	20".
Face of crosshead	39" x 10"	62" x 16".
Size of motor required	10 horsepower	20 horsepower.
Speed of motor (r. p. m.).	1,200	1,200.
Net weight	8,600 pounds	25,000 pounds.

PRICE

Belt drive:	
No. 3	$1,870
No. 6	3,600
For motor drive, less motor:	
No. 3	130
No. 6	195
For gear guards:	
No. 3	200
No. 6	265

This machine is used for a large variety of bending, pressing, forming, punching and shearing operations.

Both sizes are double-geared and fitted with friction clutch drive.

These machines can be furnished arranged either for belt drive or for direct geared motor drive as desired; in either case a friction clutch is incorporated in the drive mechanism.

POWER BAR BENDER

This machine is furnished arranged for direct motor drive.

	No. 1	No. 2
Capacity—round or square—hard grade steel to 180 around center pin.	1¼"	2".
Horsepower motor required.	15 horsepower.	25 horsepower.
Speed of motor required (r. p. m.)	1,800	1,200.
Weight—net, without motor.	2,800 pounds	6,800 pounds.

Less motor:	
No. 1	$1,650
No. 2	3,560

Regular equipment includes two stops, one set of dies, gear guards rawhide pinion and motor base.

KLING BROTHERS ENGINEERING WORKS, 1300 NORTH KOSTNER AVENUE, CHICAGO, ILL.—Continued

KLING ANGLE BENDING ROLLS

Capacity, cold bending	No. 0	No. 1	No. 2
Mild steel:			
Angles	2″ x 2″ x ¼″	4″ x 4″ x ½″	6″ x 6″ x ½″.
Tees	2″ x 1½″ x ¼″	5″ x 3″ x ½″	Largest standard.
Zees		5″ x 3¼″ x ½″	6″ x 3½″ x ½″.
Bar on edge	2″ x ½″	4″ x 1″	6″ x 1″.
Diameter of rolls	7″	18″	19¼″.
Horsepower required	5	15 and 3	30 and 3.
Motor Speed—r. p. m.	1,200	1,200	900.
Approximate net weight	2,900	15,500	22,000.

Belt driven:	
No. 0	$1,645
No. 1	4,950
No. 2	6,810
Motor driven, without motors:	
No. 0	1,745
No. 1	5,080
No. 2	6,930

Gear guards:	
No. 0	$105
No. 1	215
No. 2	245

No. 1 and No. 2 require a separate 3 horsepower reversing motor for power adjustment of the upper roll.

No. 1—Extra for power raise and lower (not including electrical equipment), $385.

KLING PYRAMID TYPE PLATE BENDING ROLLS

Capacity full length	Length between housing	Diameter of rolls: Upper	Diameter of rolls: Lower	Size of motor required	Weight approximate	Price
	Feet Inches	*Inches*	*Inches*	*Horsepower*	*Pounds*	
¼″	6 2	6½	5	5	5,850	$1,395
	8 2	7½	6	5	8,000	2,025
	10 2	8	7	7½	10,000	2,530
	12 2	10	8	10	14,500	3,035
⅜″	6 2	7½	6	5	6,500	1,645
	8 2	8	7	7½	9,000	2,025
	10 2	10	8	10	13,000	3,340
	12 2	12	9	15	20,000	4,335
½″	6 2	8	7	7½	7,300	1,965
	8 2	10	8	10	11,500	2,910
	10 2	12	9	15	19,500	3,840
	12 2	13	9½	15	23,000	4,650
⅝″	6 2	10	8	10	10,000	2,785
	8 2	12	9	15	17,500	3,715
	10 2	13	9½	15	22,500	4,650
	12 2	14	10	20	28,500	5,700

With power adjustment for upper roll

Capacity full length	Length between housing	Diameter of rolls: Upper	Diameter of rolls: Lower	Size of motor required	Weight approximate	Price
	Feet Inches	*Inches*	*Inches*	*Horsepower*	*Pounds*	
½″	6 2	8	7	10	10,000	$2,785
	8 2	10	8	10	15,000	3,715
	10 2	12	9	15	24,000	4,650
	12 2	13	9½	15	27,000	5,820
	14 2	14	10	20	35,000	7,552
	16 2	15	11	25	44,000	8,360
	18 2	16	11½	30	50,000	9,130
	20 2	17	12	30	57,500	9,900
⅝″	6 2	10	8	10	13,500	3,520
	8 2	12	9	15	22,000	4,275
	10 2	13	9½	15	26,000	5,790
	12 2	14	10	20	32,000	7,330
	14 2	15	11	25	41,500	8,015
	16 2	16	11½	30	47,500	9,285
	18 2	17	12	30	54,200	10,175
	20 2	18	13	35	68,000	15,455
¾″	6 2	12	9	15	18,700	3,960
	8 2	13	9½	15	24,000	5,500
	10 2	14	10	20	29,500	6,930
	12 2	15	11	25	40,000	7,810
	14 2	16	11½	30	45,000	8,470
	16 2	17	12	35	51,000	9,660
	18 2	18	13	40	63,000	14,235
	20 2	20	14	40	81,000	17,325
⅞″	8 2	14	10	20	27,000	6,775
	10 2	15	11	25	35,000	7,480
	12 2	16	11½	30	41,500	8,690
	14 2	17	12	35	47,500	9,900
	16 2	18	13	35	60,000	13,620
	18 2	20	14	40	76,500	17,325
	20 2	22	15½	50	110,000	23,520
1″	8 2	15	11	25	32,000	7,125
	10 2	16	11½	30	38,000	8,050
	12 2	17	12	35	46,000	9,660
	14 2	18	13	35	56,000	13,000
	16 2	20	14	40	72,000	16,095
	18 2	22	15½	50	104,000	22,275

Prices listed above do not include gear guards.

KLING BROTHERS ENGINEERING WORKS, 1300 NORTH KOSTNER AVENUE, CHICAGO, ILL.—Continued

KLING FRICTION SAWS

Hand feed

Phase	Cycle	Volts	Size of motor required	Price
3	50	220	No. 0	$1,145
			No. 1	2,190
			No. 2	2,940
			No. 2½	3,160
3	50	440 or 550		
3	25	220, 440, 550	No. 0 [1]	
			No. 1	2,365
			No. 2	3,145
			No. 2½	3,365
3		230 d. c.	No. 0	1,440
			No. 1	3,200
			No. 2	3,475
			No. 2½	3,650
		115 d. c.	No. 0	1,630
			No. 1	3,565
			No. 2	3,840
			No. 2½	4,490
		550 d. c.	No. 0	1,575
			No. 1	3,280
			No. 2	3,565
			No. 2½	4,090

[1] Cannot supply No. 0 saw for 25 cycle operation.

Self-contained constant pressure, oil feed

	Size of motor required	Price
3 phase, 50 cycle, 220 volt	No. 1	$3,060
	No. 2	3,830
	No. 2½	4,070
	No. 3	4,785
	No. 3½	5,470
	No. 4	6,380
	No. 4½	7,900
	No. 5	11,880
3 phase, 50 cycle, 440 or 550 volt		
3 phase, 25 cycle, 220, 440, 550 cycle	No. 1	3,290
	No. 2	4,070
	No. 2½	4,300
	No. 3	4,995
	No. 3½	5,700
	No. 4	6,600
	No. 4½	8,095
	No. 5	12,080
230 d. c.	No. 1	4,190
	No. 2	4,490
	No. 2½	4,665
	No. 3	5,455
	No. 3½	6,510
	No. 4	7,415
	No. 4½	9,735
	No. 5	13,705
115 d. c.	No. 1	4,555
	No. 2	4,840
	No. 2½	5,500
	No. 3	6,305
	No. 3½	6,940
	No. 4	7,865
	No. 4½	None
	No. 5	None
550 d. c.	No. 1	4,310
	No. 2	4,620
	No. 2½	5,150
	No. 3	5,940
	No. 3½	7,150
	No. 4	8,050
	No. 4½	8,865
	No. 5	13,860

The downstroke friction saw equipped with pneumatic feed and 15 horsepower standard a. c. motor is (without work table)	$1,650
Equipped with 20 horsepower standard a. c. motor is	1,705
Equipped with 25 horsepower standard a. c. motor is	1,815

Our large downstroke saw is suitable for many sawing jobs and is regularly supplied without work table but with self-contained hydraulic feeding mechanism. It can be furnished with main motor from 40 to 75 horsepower arranged for friction sawing, with electrical equipment for 220 or 440 volts, 3 phase, 60 cycle, a. c. at following prices:

40 horsepower	3,990
50 horsepower	4,280
60 horsepower	4,630

FRICTION SAW BLADE DRESSING MACHINE

Machine complete with hob and milling cutters:	
Belt drive with pulley	965
Geared motor drive without 2 horsepower 1,500–1,800 motor	1,075

KLING BROTHERS ENGINEERING WORKS, 1300 NORTH KOSTNER AVENUE, CHICAGO, ILL.—Continued

CUTTING CAPACITIES, COLD, MILD STEEL KLING FRICTION SAWS

	0	1	2	2½	3	3½	4	4½	5
I-beams	8"	12"	18"	18"	24"	24"	30¾"	30¾"	Maximum
Rails (pounds)	30	50	80	100	100	130	130	150	150
Rounds	1"	1½"	2"	3"	3"	4"	4"	4½"	4½"
Squares	¾"	1¼"	1¾"	2½"	2½"	3½"	3½"	4"	4"
Horsepower	10	30	40	50	50	75	75	125	125
Shipping weight:									
Hand feed	1,458	4,300	5,660	6,060					
Hydraulic feed		4,800	6,200	6,600	10,040	10,420	17,270	18,395	28,875

DOUBLE ANGLE SHEARS

	No. 2	No. 3	No. 4	No. 5
Capacity—square cut	4" x 4" x ¾"	6" x 6" x ½", 6" x 6" x 1"	8" x 8" x 1¼"	8" x 8" x 1½".
Flywheel—size	44" x 7" x 5" x 2⅝"	54" x 5½" x 5" x 3"	54" x 7" x 5" x 3½"	66" x 8" x 8" x 4".
Motor recommended	5 horsepower	10 horsepower	20 horsepower	25 horsepower.
Net weight	13,000 pounds	21,000 pounds	38,000 pounds	48,000 pounds.
Turntable:				
Diameter	72"	89"	118"	118".
Weight	4,000 pounds	6,500 pounds	13,000 pounds	13,000 pounds.

Price with C. I. cut gears:	
No. 2	$3,035
No. 3	4,495
No. 4	8,250
No. 5	None
Price with steel cut gears:	
No. 2	3,260
No. 3	4,760
No. 4	8,625
No. 5	10,150
Extra for gear guards:	
No. 2	160
No. 3	210
Extra for gear guards—Continued.	
No. 4	$265
No. 5	265
Extra for turntable:	
No. 2	635
No. 3	880
No. 4	1,595
No. 5	1,595

Kling angle shears are of the double shaft driven type, each slide having its own clutch with automatic stop, and operating independently of the other slide.

KLING GUILLOTINE TYPE BARS SHEARS

	No. 1	No. 3	No. 4	No. 6
Capacity, mild steel:				
Round bars	1½"	2½"	3"	6".
Square bars	1¼"	2¼"	2⅝"	5".
Flat bars	4" x ⅞"	8" x 1¼"	10" x 1¼"	20" x 1½".
Angles	4" x 4" x ⅝"	6" x 6½"	6" x 6" x ¾"	8" x 8" x 1½".
Size of motor required	7½ horsepower	10 horsepower	15 horsepower	40 horsepower.
Speed of motor recommended.	1,200 r. p. m.	1,200 r. p. m.	900 r. p. m.	900 r. p. m.
Net weight (Approximate)	5,400 pounds	11,000 pounds	7,000 pounds	79,000 pounds.

Belt drive:	
No. 1	$1,370
No. 3	2,635
No. 4	3,795
No. 6	18,095
Motor drive without motor:	
No. 1	1,550
No. 3	2,750
No. 4	3,920
No. 6	18,200

ADDITIONAL EQUIPMENT

Bar-shearing equipment and adjustable bar hold-down attachment. Belt driven machines are equipped with tight and loose pulleys.

Extra charge for motor-drive arrangement includes sub-base for motor, pinion, and gearing, but does not include motor.

TYPE "TT" GRINDER—FOR 30" X 4" X 12" GRINDING WHEELS

Type "TT" grinder equipped for five-speed changes and with 220-440 or 550 volt, 3 phase, 60 cycle electrical equipment—price, complete, f. o. b. our plant, not including wheels $1,720

Type "TT" grinder, same as above except with 230 volt, direct current electrical equipment—price, complete, not including wheels 1,950

TYPE "ST" GRINDER—FOR 24" X 3" X 12" GRINDING WHEELS

Type "ST" grinder equipped for three-speed changes and with 220-440 or 550 volt, 3 phase, 60 cycle electrical equipment—price, complete, f. o. b. our plant, not including wheels 1,330

Type "ST" grinder, same as above except with 230 volt direct current electrical equipment—price, complete, not including wheels 1,575

TYPE "RT" GRINDER—FOR 18" X 2" X 7" GRINDING WHEELS

Type "RT" grinder equipped for three-speed changes and with 5 horse-power motor 220-44-550 volt, 3 phase, 60 cycle electrical equipment—price, complete, f. o. b. our plant, not including wheels 880

Type "RT" grinder same as above except with 230 volt, direct current electrical equipment—price, complete, excepting wheels 1,030

Type "RT" grinder equipped for three-speed changes and with 7½ horsepower, 220-440-550 volt, 3 phase, 60 cycle electrical equipment—price, complete, f. o. b. our plant, not including wheels 925

Type "RT" grinder, same as above, with 230 direct current equipment (except wheels) 1,095

W. B. KNIGHT MACHINERY CO., ST. LOUIS, MO.

MILLING MACHINES—PRICES AND SPECIFICATIONS

Size No.	Table travel		Spindle head travel on column	Table working surface	Weight	Price
	Longitudinal	Transverse				
	Inches	*Inches*	*Inches*	*Inches*	*Pounds*	
20	23	10	12	9 x 33½	5,900	$5,170
30	25	12	14	10 x 42	4,000	4,290
40	28	14	15	12 x 46	3,000	3,520
1½					1,600	1,050
1					750	535

No. 2 discontinued price Mar. 1, 1941, $1,800.

L & J PRESS CORPORATION, ELKHART, IND.

LIST PRICES OF L & J PRESSES

Model No.	Weight	List price, f. o. b. Elkhart, Ind.
0 bench	300	$175
0 stand	510	195
1	1,000	280
1 special	1,050	292
2	1,350	345
2 special	1,400	357
3	2,050	475
3 special	2,150	488
4	3,600	675
4½	4,100	795
5	5,700	930
5 special geared	6,000	1,030
4 geared	4,017	970
4½ geared	4,500	1,090
5 geared	6,700	1,220
5 special geared	6,900	1,320
4 combination geared	4,167	1,005
4½ combination geared	4,650	1,125
5 combination geared	6,850	1,285
5 special combination geared	7,050	1,385

WILLIAM LAIDLAW, INC., BELMONT, N. Y.

SAWS

[Crated f. o. b.]

[For machines with other than the standard electrical equipment regularly furnished, prices will be quoted on request]

Consumer's price

1 Type C. M. T. With hydraulic feed, has 30" disk wheels, distance from table to upper saw guide when in highest position 12", cuts long or short pieces on both sides at the same time, 4-speed sliding gear transmission, ball bearing throughout, all gears run in oil, motor gear reduction and transmission unit housed in base of machine. Complete with standard ball bearing alternating current motor, with overload control, starting switch, 2 stock stands and 2 saws $1,445.75

2 Type C. M. T. Same as above except with gravity feed. (Shipping weight approximately 3,700 pounds) 1,185.50

3 Type J. M.-30". With hydraulic feed, has 30" disc wheels, steel table 18" x 8', capacity 18" x 40", 4 or 8 speeds, standard 2 horsepower alternating current motor, with overload contro starting switch. (Shipping weight approximately 2,600 pounds.) 1,185.50

4 Type J. M.-30". With 8 speeds, gravity feed, 30" disc wheels, capacity of vise 12", travel of carriage 12", 18" from table to upper saw guide. Complete with standard alternating current motor with overload control, starting switch, stock stand and 2 saw blades. (Shipping weight approximately 2,000 pounds.) 875.50

5 Type J. M.-30". Same as above except with 4 speeds $40.25

6 Type S. M.-30". With 8 speeds 30" round or square table. Complete with 2 horsepower standard alternating current motor with overload control starting switch and 2 saw blades 760.75
Same as above equipped with 30" square tilting table 800.75

7 Type S. M.-30". Same as above except with 4 speeds 720.75
Equipped with tilting table 760.75

NOTE.—30" saws having a speed of 1,450 feet and over require a 3 horsepower motor. Additional cost to be added to above prices.

8 Type J. M. With hydraulic feed, has 20" wheels, vise 12" x 4½" with opening, travel of carriage 10", distance from table to upper guide when in highest position 9", 8 speed changes through short endless belt and gear box drive, ball bearing throughout. Complete with standard alternating current motor with overload control starting switch, stock stand and 2 saws 815.00

9 Type J. M. Same as above except with gravity feed. (Shipping weight approximately 1,350 pounds.) 700.00

10 Type J. M. With gravity feed, has 20" wheels, capacity of vise 6", travel of carriage 6¼", distance from table to upper guide when in highest position 9", 8 speed changes through short endless belt and gear box drive, ball bearing throughout. Complete with standard alternating current motor with overload control, starting switch, stock stand and 2 saws. (Shipping weight approximately 1,200 pounds.) 635.25

WILLIAM LAIDLAW, INC., BELMONT, N. Y.—Continued

SAWS—continued

	Consumer's price
11 Type S. M. Has 20" wheels, 24" round or square table, distance from table to upper guide when in highest position 10", 8 speeds through short endless belt and gear box drive. Complete with standard alternating current motor, overload control starting switch and 2 saw blades. (Shipping weight approximately 850 pounds.)	$504.00
12 Type S. M. Same as above except with 4 speeds. (Shipping weight approximately 850 pounds.)	464.00
13 Type S. M. 20" equipped with tilting table add $40 to above prices.	
NOTE.—20" saws having a speed of 1,450 feet and over require a 1½ horsepower motor. Additional cost to be added to above prices.	
14 Saw guides. All are ball bearing, roller type. The ¼" and ⅜" are made up on one roller. 4 flanged rollers and 2 plain rollers make a complete set. ½" rollers will accommodate 1 size only, ⅝" rollers will accommodate 1 size only	20.00
Complete set of replacement rollers consisting of 4 flanged and 2 plain rollers from ¼" up to ⅝"	11.50
15 Saw guides. Complete set of saw guides with rollers for ¾" or 1" saw blade	22.50
Complete set of replacement rollers consisting of 4 flanged and 2 plain rollers from ¾" up to 1"	13.50
When saws ½" wide or wider are used we recommend plain iron wheels but if saws narrower than ½" are to be used, it is necessary to use rubber tired wheels. Unless otherwise ordered all machines are shipped with iron wheels.	
16 Model 110 J. R. Portable bandsaw butt welder. Capacity blades ⅛" to ⅝" in width for 110 volts, 15 amperes. Can be plugged into any light socket	130.00
The same as above less portable stand	115.00
Can also be furnished with capacity ¼" to 1" for an additional $25.00.	
C. M. T.-N	1,925.00

LANDIS MACHINE CO., WAYNESBORO, PA.

LANDIS STANDARD THREADING MACHINES

[Plain machines arranged for motor drive but without motor]

Size	Net weight	Price
	Pounds	
9/16" single	1,150	$925
¾" single	1,150	960
1" single	1,750	1,235
1½" single	1,800	1,310
2" single	2,500	1,650
2½" single	2,600	1,960
3" single	5,200	3,015
4" single	5,500	3,400
9/16" double	1,750	1,390
¾" double	1,750	1,455
1" double	2,750	2,035
1½" double	2,850	2,220
2" double	4,350	2,750
2½" double	4,500	3,140
4" double	9,000	5,400
1" triple	3,800	2,605
1½" triple	4,350	3,120
2" triple	6,200	3,870

[Machines equipped with lead-screw attachments, arranged for motor but without motor]

9/16" single	1,150	$1,135
¾" single	1,150	1,170
1" single	1,750	1,485
1½" single	1,800	1,560
2" single	2,500	1,960
2½" single	2,600	2,270
3" single	5,200	3,430
4" single	5,500	3,815
9/16" double	1,750	1,810
¾" double	1,750	1,875
1" double	2,750	2,535
1½" double	2,850	2,720
2" double	4,350	3,370
2½" double	4,500	3,760
4" double	9,000	6,230
1" triple	3,800	3,355
1½" triple	4,350	3,870
2" triple	6,200	4,800

LANDIS MACHINE CO., WAYNESBORO, PA.—Con.

LANDMACO THREADING MACHINES

[Plain machines arranged for motor drive but without motor]

Size	Net weight	Price
	Pounds	
1" single	2,600	$1,595
1¼" single	2,900	1,695
2" single	3,600	2,355
2½" single	3,650	2,790
1" double	4,500	2,510
1½" double	4,950	2,805
2" double	5,900	3,695
2½" double	5,950	3,990
1" quadruple	8,300	5,960
1½" quadruple	8,500	6,320

[Machines equipped with lead-screw attachments, arranged for motor but without motor]

1" single	2,600	$1,910
1¼" single	2,900	2,010
2" single	3,600	2,725
2½" single	3,650	3,160
1" double	4,500	3,140
1½" double	4,950	3,435
2" double	5,900	4,435
2½" double	5,950	4,730
1" quadruple	8,300	6,500
1½" quadruple	8,500	6,870

PIPE THREADING AND CUTTING MACHINES

[Machines arranged for motor drive but without motor]

2" little Landis	1,075	$545
2" standard machine	3,000	1,550
4" pipe machine	5,400	2,560
6" pipe machine	9,800	3,175
8" pipe machine	10,500	3,565
10" pipe machine	15,800	5,370
12" pipe machine	15,800	6,140
16" pipe machine	19,000	8,020
18" pipe machine	23,100	9,570
20" pipe machine	23,300	10,120

PIPE THREADING AND CUTTING MACHINES WITH RECEDING CHASER DIE HEADS

[Machines arranged for motor drive but without motor]

4⅜"	6,950	$3,870
8⅝"	11,050	4,895
13⅜"	18,200	8,625

LANDMACO PIPE AND NIPPLE THREADING MACHINES

[Machines arranged for motor drive but without motor]

1¼" single	2,510	$1,945
2" single	2,750	2,645
1¼" double	4,170	3,325
2" double	4,450	4,335

STANDARD PIPE AND NIPPLE THREADING MACHINES

[Machines arranged for motor drive but without motor]

½" single	1,150	$1,075
1¼" single	1,800	1,525
2" single	2,500	1,890
4" single	5,500	3,915
½" double	1,750	1,655
1¼" double	2,900	2,610
2" double	4,300	3,230
4" double	9,000	6,205

LANDMACO SHELL TAPPERS

[Machines arranged for motor drive but without motor]

1½ R single	2,900	$3,350
1½ H O single	2,900	2,725
1½ H O double	4,950	4,550

AUTOMATIC FORMING AND THREADING MACHINES

[Machines arranged for motor drive but without motor]

¾"	4,700	$4,360
1"	4,700	4,560

LANDIS MACHINE CO., WAYNESBORO, PA.—Con.

FOUR SPINDLE SEMIAUTOMATIC THREADING MACHINE

[Machine arranged for motor drive but without motor]

Size	Net weight	Price
	Pounds	
¾"	6,550	$6,800

CHASER GRINDERS

[Machines equipped with 220 volt—3-phase—60-cycle motors]

Model "O"	225	$265
No. 1	675	440
No. 1½	1,395	865

LANDIS TOOL CO.

CURRENT PRICES OF LANDIS GRINDING EQUIPMENT

Machine	Net weight	Price, including standard equipment
	Pounds	
*4" x 12" type H plain	4,000	$3,955
*4" x 18" type H plain	4,400	4,230
10" x 18" type DC plain	11,800	9,005
10" x 36" type DC plain	12,850	9,485
10" x 48" type DC plain	13,350	10,105
10" x 72" type DC plain	14,950	11,325
14" x 36" type D plain	13,050	11,850
14" x 48" type D plain	13,750	12,480
14" x 72" type D plain	15,150	13,165
16" x 36" type D plain	13,350	12,310
16" x 48" type D plain	14,050	12,745
16" x 72" type D plain	15,450	13,590
6" x 18" type C plain	5,500	4,505
6" x 30" type C plain	6,000	4,855
10" x 18" type LC plain	5,600	5,410
10" x 30" type LC plain	6,100	5,765
10" x 18" type C plain	8,000	7,675
10" x 36" type C plain	9,300	8,080
10" x 48" type C plain	10,125	8,470
10" x 72" type C plain	11,925	8,870
10" x 96" type C plain	16,800	9,415
10" x 120" type C plain	18,500	9,970
14" x 18" type C plain	8,500	8,475
14" x 36" type C plain	9,800	8,880
14" x 48" type C plain	10,625	9,270
14" x 72" type C plain	12,425	9,670
14" x 96" type C plain	17,300	10,215
14" x 120" type C plain	19,000	10,770
10" x 96" type BD plain	17,800	12,915
10" x 120" type BD plain	19,800	14,030
14" x 96" type BD plain	18,900	14,150
14" x 120" type BD plain	20,900	15,460
16" x 96" type B plain	27,500	17,300
16" x 120" type B plain	30,500	19,020
16" x 144" type B plain	33,500	20,745
16" x 168" type B plain	36,500	22,430
16" x 192" type B plain	39,500	24,155
20" x 96" type B plain	36,600	27,310
20" x 120" type B plain	41,600	29,375
20" x 144" type B plain	46,600	31,445
20" x 168" type B plain	51,600	33,545
20" x 192" type B plain	56,600	35,610
24" x 96" type B plain	38,500	29,180
24" x 120" type B plain	43,500	31,240
24" x 144" type B plain	48,500	33,320
24" x 168" type B plain	53,500	35,420
24" x 192" type B plain	58,500	37,480
28" x 96" type B plain	40,000	31,120
28" x 120" type B plain	45,000	33,230
28" x 144" type B plain	50,000	35,300
28" x 168" type B plain	55,000	37,400
28" x 192" type B plain	60,000	39,470
*10" x 24" type C universal	4,155	4,785
*12" x 30" type LC universal	5,350	5,570
*12" x 36" type LC universal	5,535	5,895
*12" x 40" type LC universal	5,750	6,070
*12" x 48" type LC universal	6,100	6,500
*12" x 36" type C universal	7,500	6,595
*12" x 48" type C universal	8,300	7,260
*12" x 72" type C universal	9,900	7,925
*14" x 36" type C universal	7,600	6,805
*14" x 48" type C universal	8,400	7,470
*14" x 72" type C universal	10,000	8,135
*16" x 36" type C universal	7,700	7,045
*16" x 48" type C universal	8,500	7,685
*16" x 72" type C universal	10,100	8,350
*18" x 36" type C universal	7,800	7,225
*18" x 48" type C universal	8,600	7,890
*18" x 72" type C universal	10,200	8,560
3" type C chucking	3,200	4,600
10" x 16" type D crank	15,200	11,045
10" x 34" type D crank	15,500	11,765

See footnotes at end of table.

LANDIS TOOL CO.—Continued

CURRENT PRICES OF LANDIS GRINDING EQUIPMENT—con.

Machine	Net weight	Price, including standard equipment
	Pounds	
14" x 16" type D crank	15,400	$11,835
14" x 34" type D crank	15,700	12,635
16" x 32" type D crank	17,700	14,885
16" x 42" type D crank	18,000	15,475
16" x 62" type D crank	21,400	17,290
16" x 72" type D crank	21,700	17,900
5" x 26" type D cam	12,700	13,295
5" x 30" type D cam	12,900	13,565
5" x 36" type D cam	13,100	13,860
5" x 40" type D cam	13,300	14,035
*18" radial cam	7,150	9,075
*No. 1 Race-a-way	3,500	4,345
*No. 2 Race-a-way	4,800	4,540
36" x 120" type 30 roll	110,700	42,140
36" x 144" type 30 roll	114,700	42,970
36" x 168" type 30 roll	118,700	43,880
36" x 192" type 30 roll	122,700	44,855
36" x 216" type 30 roll	126,700	45,930
36" x 240" type 30 roll	130,700	47,065
44" x 144" type 30 roll	130,800	45,825
44" x 168" type 30 roll	134,800	46,985
44" x 192" type 30 roll	138,800	48,090
44" x 216" type 30 roll	142,800	49,285
44" x 240" type 30 roll	146,800	50,555
44" x 264" type 30 roll	150,800	52,035
44" x 288" type 30 roll	154,800	53,335
50" x 144" type 30 roll	138,800	50,225
50" x 168" type 30 roll	142,800	51,275
50" x 192" type 30 roll	146,800	52,385
50" x 216" type 30 roll	150,800	53,580
50" x 240" type 30 roll	154,800	54,915
50" x 264" type 30 roll	158,800	56,150
50" x 288" type 30 roll	162,800	57,545
60" x 144" type 30 roll	155,700	55,600
60" x 168" type 30 roll	159,700	56,815
60" x 192" type 30 roll	163,700	58,105
60" x 216" type 30 roll	167,700	59,460
60" x 240" type 30 roll	171,700	60,905
60" x 264" type 30 roll	175,700	62,430
60" x 288" type 30 roll	179,700	64,015
16" x 96" type B roll	30,000	20,640
16" x 120" type B roll	33,000	22,365
16" x 144" type B roll	36,000	24,090
16" x 168" type B roll	39,000	25,775
16" x 192" type B roll	42,000	28,050
20" x 96" type B roll	39,100	30,880

LANDIS TOOL CO.—Continued

CURRENT PRICES OF LANDIS GRINDING EQUIPMENT—con.

Machine	Net weight	Price, including standard equipment
	Pounds	
20" x 120" type B roll	44,100	$32,945
20" x 144" type B roll	49,100	35,025
20" x 168" type B roll	54,200	37,120
20" x 192" type B roll	59,000	39,730
24" x 96" type B roll	41,000	32,910
24" x 120" type B roll	46,000	34,980
24" x 144" type B roll	51,000	37,050
24" x 168" type B roll	56,000	39,150
24" x 192" type B roll	61,000	41,765
28" x 96" type B roll	42,500	35,005
28" x 120" type B roll	47,500	37,120
28" x 144" type B roll	52,500	39,185
28" x 168" type B roll	57,500	41,285
28" x 192" type B roll	62,500	43,910
*18" x 66" type C regrinding	10,800	9,370
22" x 72" type C regrinding	16,400	9,530

*All machines so indicated are supplied with complete electrical equipment as a part of standard equipment and therefore this electrical equipment is included in the price. Machines not so indicated do not have the electrical equipment as a part of standard equipment and the prices given therefore do not include electrical equipment.

LANGELIER MANUFACTURING COMPANY, PROVIDENCE R. I.

No. 41 drill, sensitive	$150
No. 11 drilling unit	450
No. 31 drilling unit	700
No. 12 tapper	450
No. 22 tapper	600
No. 1 hammering machine	500
No. 2 hammering machine	750
No. 3 hammering machine	1,100
A swager	250
B swager	600
C swager	800
E swager	1,600
G swager	2,200
H swager	3,000

Prices shown above are for the base machines without electrical equipment.

THE LAPOINTE MACHINE TOOL CO., HUDSON, MASS.

LAPOINTE TYPE "SPD" SMALL PULL DOWN VERTICAL BROACHING MACHINES

	Size of machine			
	SPD 4-12	SPD 6-18	SPD 8-24	SPD 10-24
Complete machine (see standard equipment)	$1,925	$2,310	$2,640	$2,860

LAPOINTE TYPE "CPC" CAST HYDRAULIC PRESS

	Size of machine				
	CPC-5-12	CPC-5-18	CPC-5-24	CPC-5-30	CPC-5-36
Complete machine (see standard equipment)	$1,700	$1,725	$1,750	$1,775	$1,800
Additional, hardened ways	150	150	150	150	150
Additional, coolant pump	50	50	50	50	50
Additional, hand-operated broach lift	200	200	200	200	200

The above prices do not include electrical equipment.

THE LAPOINTE MACHINE TOOL CO., HUDSON, MASS.—Continued

LAPOINTE TYPE "CPC" CAST HYDRAULIC PRESS—continued

	Size of machine				
	CPC-6-12	CPC-6-18	CPC-6-24	CPC-6-30	CPC-6-36
Complete machine (see standard equipment)	$1,825	$1,850	$1,875	$1,900	$1,925
Additional, hardened ways	150	150	150	150	150
Additional, coolant pump	50	50	50	50	50
Additional, hand-operated broach lift	200	200	200	200	200

	Size of machine			
	CPC-8-18	CPC-8-24	CPC-8-30	CPC-8-36
Complete machine (see standard equipment)	$2,295	$2,335	$2,375	$2,415
Additional, hardened ways	150	150	150	150
Additional, coolant pump	50	50	50	50
Additional, hand-operated broach lift	200	200	200	200

	Size of machine			
	CPC-10-18	CPC-10-24	CPC-10-30	CPC-10-36
Complete machine (see standard equipment)	$2,485	$2,535	$2,585	$2,635
Additional, hardened ways	150	150	150	150
Additional, motorized lubricant pump	50	50	50	50
Additional, hand-operated broach lift	200	200	200	200

	Size of machine			
	CPC-12-18	CPC-12-24	CPC-12-30	CPC-12-36
Complete machine (see standard equipment)	$2,690	$2,750	$2,810	$2,870
Additional, hardened ways	150	150	150	150
Additional, motorized coolant pump	50	50	50	50
Additional, hand-operated broach lift	200	200	200	200

	Size of machine			
	CPC-15-18	CPC-15-24	CPC-15-30	CPC-15-36
Complete machine (see standard equipment)	$3,060	$3,120	$3,180	$3,240
Additional, hardened ways	150	150	150	150
Additional, coolant pump	50	50	50	50
Additional, hand-operated broach lift	200	200	200	200

The above prices do not include main motor or starting switch.

LAPOINTE "UNIVERSAL TYPE" BROACH SHARPENER

	Size of machine		
	60 inches	72 inches	80 inches
Complete machine—With motors (see standard equipment)	$3,245	$3,465	$3,630
Accessories [1]			

[1] See price sheet.

THE LAPOINTE MACHINE TOOL CO., HUDSON, MASS.—Continued

LAPOINTE TYPE "SRV" SINGLE RAM SURFACE BROACHING MACHINES

	Size of machine				
	SRV 3-30	SRV 3-48	SRV 5-42	SRV 5-54	SRV 10-42
Complete machine (see standard equipment)	$3,580	$3,965	$4,175	$4,585	$5,860

	Size of machine				
	SRV 10-54	SRV 15-48	SRV 15-66	SRV 25-48	SRV 25-66
Complete machine (see standard equipment)	$6,250	$7,490	$8,480	$10,105	$11,500
Extra equipment.[1] (See list below.)					

[1] Prices on request.

LAPOINTE TYPE "DRV" DOUBLE RAM SURFACE BROACHING MACHINES

	Size of machine				
	DRV 3-30	DRV 3-48	DRV 5-42	DRV 5-54	DRV 10-42
Complete machine (see standard equipment)	$5,370	$5,945	$6,260	$6,875	$8,790

	Size of machine				
	DRV 10-54	DRV 15-48	DRV 15-66	DRV 25-48	DRV 25-66
Complete machine (see standard equipment)	$9,375	$11,235	$12,720	$15,155	$17,250
Extra equipment.[1] (See list below.)					

[1] Prices on request.

LAPOINTE TYPE "V" VERTICAL HYDRAULIC BROACHING MACHINES

	Size of machine			
	V-1	V-2	V-3	V-4
Complete machine [1] (see standard equipment)	$5,350	$7,175	$8,790	$9,335

	Size of machine			
	V-5	V-7	V-8	V-9
Complete machine [1] (see standard equipment)	$10,450	$12,950	$15,470	$17,425
Automatic broach lifters [2]				
Automatic broach pullers [2]				

[1] The above prices do not include main motor or starter.
[2] Prices on request.
[3] See automatic broach pullers and lifters.

THE LAPOINTE MACHINE TOOL CO., HUDSON, MASS.—Continued

LAPOINTE "L" TYPE HYDRAULIC BROACHING MACHINES

[F. O. B. Hudson, Mass., U. S. A.]

	Size of machine			
	2 SL	2 SL6	2 L	2 L6
Complete machine [1] (see standard equipment)	$2,550	$2,700	$2,800	$3,135
Sliding broach support with soft ways and broach-clamping fixture	245	245	275	275
Sliding broach support with hardened steel ways and broach-clamping fixture	330	330	355	355
Additional reducing bushing	10	10	10	10
Additional pull bushing	10	10	10	10

	Size of machine			
	3 L	3 L S	3½ L	4 L
Complete machine [1] (see standard equipment)	$3,600	$4,600	$5,300	$7,550
Sliding broach support with soft ways and broach-clamping fixture	300	410	410	410
Sliding broach support with hardened steel ways and broach-clamping fixture	385	495	495	495
Additional reducing bushing	10	18	18	18
Additional pull bushing	10	15	15	15

[1] Prices do not include electrical equipment.

LAPOINTE "HP TYPE" HORIZONTAL HYDRAULIC BROACHING MACHINES

	Size of machine		
	HP-15	HP-20	HP-30
Complete machine [1] (see standard equipment)	$3,200	$3,525	$4,500
Sliding broach support with soft ways and broach-clamping fixture	300	300	325
Sliding broach support with hardened steel ways and broach-clamping fixture	400	400	425

	Size of machine			
	HP-40	HP-50	HP-75	HP-100
Complete machine [1] (see standard equipment)	$4,950	$6,750	$8,300	$10,900
Sliding broach support with soft ways and broach-clamping fixture	450	450	450	775
Sliding broach support with hardened steel ways and broach-clamping fixture	550	550	550	875

[1] Prices do not include main motor or starting switch.

LAPOINTE SCREW TYPE BROACHING MACHINES

	Size of machine						
	No. 0	No. 1	No. 2	No. 2 short stroke	No. 3	No. 4	No. 3 duplex
Complete belt-driven machine	$750	$1,375	$1,650	$1,430	$1,870	$2,475	$2,915
Complete motor-driven machine [1]	900	1,565	1,870	1,675	2,100	2,860	3,245
Broach guiding trays		175	175	175	200	250	350

[1] Motor drive prices do not include motor or starter.

THE LAPOINTE MACHINE TOOL CO., HUDSON, MASS.—Continued

BROACH SHARPENER ACCESSORIES—MAGNETIC CHUCKS

[Electromagnetic type

	No.	Working surface	Magnetic surface	Watts used	Shipping weight	Price [1]
		Inches	*Inches*		*Pounds*	
Complete with switch, 2 adjustable stop plates, and hold-down clamps.	408	4 by 8	3 by 7	27	50	$70
	618	6 by 18	4⅞ by 16¾	60	125	115
	624	6 by 24	5¼ by 22¾	75	150	150
	1,060	10 by 60	8¾ by 57½	460	665	550

[1] Prices of other size chucks will be quoted upon request.

These chucks are available for use on 110- or 220-volt direct current. To avoid delay, voltage should be specified in order. These chucks cannot be used on alternating current (A. C.) circuits.

VISES FOR FLAT BROACHES [1]

No.	Width of jaws	Depth of jaws	Jaws open	Height	Net weight	Shipping weight	Price, each
	Inches	*Inches*	*Inches*	*Inches*	*Pounds*	*Pounds*	
21 F	4⅛	1 3/16	2	2 13/16	21	26	$50
22 F	5⅛	1¼	2¾	3¼	34	42	60
23 F [2]	6⅛	1 9/16	3⅝	3 13/16	53	62	75
24 F	7⅛	2	4½	4⅜	98	113	115

[1] In most cases 2 vises are required.
[2] Magnetic chucks are recommended for holding broaches over 3⅝" wide.

FREQUENCY CHANGER

Frequency changer with 2 fixed speeds [1] $600

[1] Frequency changers are furnished with speeds of 3,600 and 7,200 r. p. m., for 60-cycle current. Frequency changers for use with 50-cycle current will have speeds of 3,000 and 6,000 r. p. m. Other combinations of two fixed speeds may be provided. Prices will be quoted upon request.

AUTOMATIC BROACH PULLERS AND LIFTERS

Outside diameter of broach	Automatic broach puller, each	Automatic broach lifter	
		Price, each	Type
Up to and including 1¼"	$65	$110	1 finger.
Over ¼" to 1¾"	110	110	1 finger.
Over 1¾" to 2½"	110	190	2 finger.
Over 2½" to 3"	165	220	2 finger.
Over 3"	220	275	2 finger.

NOTE.—Broach pullers and lifters are made in any one size within the above ranges. Price is for any one size of puller or lifter within the corresponding size range. The above listed pullers are for use only with slotted broach shanks and for vertical pull-down machines.

THE R. K. LEBLOND MACHINE TOOL CO., CINCINNATI, OHIO

HEAVY DUTY LATHES

Size	Weight base length	Price	Extra 2 feet of bed	Extra taper attachment
	Pounds			
12" x 30"	3,160	$2,885	$105	$252
14" x 30"	3,210	3,130	115	268
16" x 30"	4,900	3,450	125	286
18" x 30"	5,040	3,850	145	303
20" x 48"	7,350	5,100	182	370
22" x 48"	7,650	5,450	194	370
24" x 48"	11,200	7,100	254	418
27" x 48"	12,485	7,650	273	418
30" x 60"	15,300	9,500	345	484
36" x 60"	16,100	10,000	360	484
42" x 60"	35,100	14,850	512	935
48" x 60"	36,300	15,950	545	990

Above arranged for M. D., not including motors.

THE R. K. LEBLOND TOOL CO., CINCINNATI, OHIO—Continued

REGAL TYPE

Size	Weight	Price	Extra 2 feet of bed	Extra taper attachment
	Pounds			
13" x 18" floor type	1,045	$847	$40	-------
13" x 18" bench type	970	826	40	-------
15" x 18" floor type	1,240	1,009	40	-------
17" x 30" floor type	1,985	1,299	60	-------
19" x 30" floor type	2,225	1,569	74	-------
21" x 36" floor type	4,150	2,784	124	-------
24" x 36" floor type	4,275	3,218	124	-------

Regal prices include 3-phase, 60-cycle motors.

No. 1 Universal tool and cutter grinder:	*Price*
With universal equipment	$1,550
With plain equipment	1,096

Complete with motor and starter.

THE LEES-BRADNER CO., CLEVELAND, OHIO

Type machine	Model	Weight	Price
		Lbs.	
Gear hobber	14" 5-AC	6,000	$4,500
	19" 5-AC	6,100	4,800
	7-AC single spindle	5,800	3,500
Rotary gear hobber	7-AC 4-spindle	24,750	16,000
	7-AC 6-spindle	36,300	20,000
	7-AC 8-spindle	44,750	24,000
Vertical gear hobber	12-S	8,000	4,400
Horizontal spline hobber.	SH 6 x 54"	9,000	6,000
Gear tester		622	1,500
Lead tester		1,252	2,750
Gear grinder	10-B	6,000	6,500
	2-HS	16,800	13,900
Light thread miller	LT 6" x 36"	5,600	5,100
	LT 6" x 72"	7,400	5,800
	LT 6" x 132"	11,000	8,350
Heavy thread miller	HT 12" x 24"	6,995	6,100
	HT 12" x 30"	7,300	6,300
	HT 12" x 36"	7,650	6,400
	HT 12" x 54"	8,000	6,550
	HT 12" x 102"	10,000	7,250
Thread miller	CT 36"	9,150	7,100
	CT 54"	9,400	7,250

LEHMANN MACHINE CO., ST. LOUIS, MO.

[Prices f. o. b. St. Louis, Mo., crated. Includes automatic pump lubrication to carriage, cross slide (and taper attachment when furnished)]

Size of lathe	16"	18"	20" Ltd. Pat.	20" Hy. Pat.	22"	24"	24" Ex. Hy.	27"	30"	36"
Base center distance	30"	30"	30"	48"	48"	48"	60"	60"	60"	60"
Base bed length	7'	7'	7'	9'	9'	9'	12'	12'	12'	12'
Actual swing	18½"	20½"	22½"	22½"	24½"	27½"	27½"	30½"	34½"	37½"
Cone drive, double back geared, hardened spindle and double spindle nose	$2,425	$2,600	$2,660	------	$4,040	$4,330	------	------	------	------
Weight, base length, crated, pounds	3,150	3,350	3,600	------	7,000	7,300	------	------	------	------
Sixteen speed geared head, arranged for motor drive (not including motor):										
Timkin spindle bearings	$3,440	$3,700	$3,850	$5,420	$5,620	$5,920	------	------	------	------
Sleeve type spindle bearings										
Weight, base length, crated, pounds	4,350	4,600	4,800	8,300	8,400	8,800	------	------	------	------
Sixteen speed hydratrol, arranged for motor drive (not including motor):										
Timken spindle bearings	$4,005	$4,270	------	$5,775	$6,005	$6,350	$9,470	$9,760	$10,050	$10,740
Sleeve type spindle bearings	$4,120	$4,380	------	$5,900	$6,130	$6,480	$9,700	$9,990	$10,300	$11,000
Weight base length, crated, pounds	4,600	4,900	------	8,250	8,600	8,900	17,400	17,800	18,200	19,400
7⅛" hollow spindle	------	$5,400	------	------	------	------	------	------	------	------
11" hollow spindle	------	------	------	------	------	$8,100	------	$11,400	$11,850	$12,375
12" hollow spindle	------	------	------	------	------	$8,300	------	$11,750	$12,000	$12,500
13" hollow spindle	------	------	------	------	------	------	------	12,100	12,550	13,000
14"	------	------	------	------	------	------	------	------	13,900	14,400
16"	------	------	------	------	------	------	------	------	14,400	14,900
Weight, base length, crated, pounds	------	5,200	------	------	------	11,000	------	19,000	19,400	19,700
Bed, each additional 24" between centers	$145	$150	$150	$190	$200	$200	$320	$325	$340	$340
Weight, extra 2 feet of bed, pounds	350	350	350	600	600	600	1,000	1,000	1,000	1,000

THE LEWIS MACHINE CO., CLEVELAND, OHIO

LEWIS AUTOMATIC WIRE STRAIGHTENING AND CUTTING MACHINES—SPECIFICATION SHEET

Model	Capacity	Length	Price less electrical equipment	Price with electrical equipment (X)	Extra for length per foot	Roll straightener	Feed transmission	Feed and flywheel transmission	Motor size	Wire feed per minute with all extra equipment
No. 7	1/16"	1'	$215.00	X $302.50					½ hp., 345 r. p. m.	50'
1-C	1/16", 1/8"	2'	605.00	X 667.00	$22.00				1½ hp., 1,800 r. p. m.	115'
7-C	1/16", 3/16"	2'	688.00	X 757.00	33.00				2 hp., 1,800 r. p. m.	100'
7-C, S. C	1/16", 1/8"	1¼"	798.00	X 867.00					2 hp., 1,800 r. p. m.	145'
2-C	3/32", 1/4"	3'	1,030.00	X 1,122.00	38.50				5 hp., 1,800 r. p. m.	190'
2-C, S. C	3/32", 1/4"	3"	1,205.00	X 1,297.00					5 hp., 1,800 r. p. m.	100'
3-C	1/16", 3/16"	2'	1,075.00	X 1,283.00	38.50	$165.00	$110.00	[1] $110.00	5 hp., 1,800 r. p. m.	95'–120'
4-C	3/32", 1/4"	3'	1,805.00	X 2,146.00	44.00	330.00	165.00	275.00	15 hp., 1,800 r. p. m.	95'–195'
6-C	1/8", 5/16"	3'	2,085.00	X 2,529.00 *x* 2,466.00	50.00	435.00	182.00	314.00	20 hp., 1,800 r. p. m.	95'–195'
8-C	5/32", 3/8"	3'	2,365.00	X 2,915.00 *x* 2,852.00	55.00	577.50	215.00	375.00	25 hp., 1,200 r. p. m.	95'–195'
9-C	1/4", 1/2"	3'	4,240.00	X 4,808.00	60.00	(*)	247.50	412.50	30 hp., 1,800 r. p. m.	95'–195'
10-C	3/8", 5/8"	3'	5,401.00	X 6,308.00 *x* 6,122.00	66.00	(*)	275.00	495.00	40 hp., 1,200 r. p. m.	90'–165'
11-C	1/2", 3/4"	4'	8,690.00	X 9,695.00 *x* 9,509.00	110.00	(*)	(*)		50 hp., 1,200 r. p. m.	
3-F	5/64", 3/16"	3'	2,805.00	X 3,013.00	49.50	(*)	(*)		5 hp., 1,800 r. p. m.	95'–195'
4-F	3/32", 1/4"	3'	3,828.00	X 4,169.00	60.00	(*)	(*)		15 hp., 1,800 r. p. m.	95'–195'
8-F	5/32", 3/8"	3'	4,774.00	X 5,324.00 *x* 5,261.00	88.00	(*)	(*)		25 hp., 1,200 r. p. m.	95'–195'
9-F	1/4", 1/2"	3'	6,050.00	X 6,618.00	88.00	(*)	(*)		30 hp., 1,800 r. p. m.	95'–195'
10-F	3/8", 5/8"	4'	8,393.00	X 9,300.00 *x* 9,114.00	99.00	(*)	(*)		40 hp., 1,200 r. p. m.	90'–165'
11-F	1/2", 3/4"	4'	12,100.00	X 13,105.00 *x* 12,919.00	110.00	(*)	(*)		50 hp., 1,200 r. p. m.	75'–115'
14-C	3/16", SQ	2'	1,842.50	1,934.50	49.50	(*)			3 hp., 1,200 r. p. m.	120'
16-C	3/4", SQ	3'	3,459.50	3,800.50	49.50	(*)			10 hp., 1,200 r. p. m.	120'
20-F	5/16"–5/8", SQ	4'	9,750.00	10,384.00	99.00	(*)			30 hp., 1,200 r. p. m.	115'

[1] Flywheel transmission only.

NOTE.—Asterisk (*) indicates that the item is included in the original price of the machine.
Above prices (X) on machines with electrical equipment cover 220- and 440-volt, 3-phase, 60-cycle current—unless marked (*x*) which are for 440-volt only.

LELAND GIFFORD CO., WORCESTER, MASS.

DRILLING MACHINES

Belted spindle

Model and size	1-spindle		2-spindle		3-spindle		4-spindle		5-spindle		6-spindle	
	Weight	Price	Weight	Price	Weight	Price	Weight	Price	Weight	Price	Weight	Price
	Lbs.		*Lbs.*		*Lbs.*		*Lbs.*		*Lbs.*		*Lbs.*	
No. 1:												
12" bench	165	$290	275	$525	400	$760	525	$980			650	$1,435
12" floor	300	345	450	605	600	865	740	1,120			1,000	1,650
No. 2:												
14"	790	455	1,280	745	1,350	1,065	1,800	1,385	2,300	$1,705	2,900	2,040
20"	895	485	1,385	810	1,500	1,145	2,000	1,490	2,500	1,720	3,100	2,165
26"	1,055	530	1,530	890	1,700	1,265	2,200	1,650	2,700	2,025	3,300	2,400
No. 3: 24"	1,800	805	3,200	1,445	4,600	2,080	6,000	2,720				

MOTOR SPINDLE

[Prices include built-in light]

Swing and type	1-spindle		2-spindle		3-spindle		4-spindle		5-spindle		6-spindle	
	Weight	Price	Weight	Price	Weight	Price	Weight	Price	Weight	Price	Weight	Price
	Lbs.		*Lbs.*		*Lbs.*		*Lbs.*		*Lbs.*		*Lbs.*	
No. 1, L. M. S.—2 speeds from 60 c.:												
12" bench	525	$440		$805		$1,190	1,900	$1,545				
12" floor	750	510	1,300	930	1,600	1,345	2,270	1,745	2,525	$2,165	2,900	$2,590
20" bench		480		885		1,310		1,705				
20" floor	980	550	1,500	1,010	1,925	1,465	2,620	1,905	3,000	2,370	3,600	2,840
No. 1, L. M. S.—4 speeds from 60 c.:												
12" bench		470		865		1,275	1,900	1,670				
12" floor	525	540	1,300	985	1,600	1,430	2,270	1,860	2,525	2,310	2,900	2,770
20" bench	750	510		945		1,395		1,820				
20" floor		580	1,500	1,065	1,925	1,550	2,620	2,020	3,000	2,515	3,600	3,020
No. 2, L. M. S.:												
14"	980	700	1,900	1,240	2,850	1,785	3,980	2,330	5,050	2,875	6,050	3,425
20"	1,100	735	2,280	1,295	3,200	1,865	4,230	2,425	5,350	2,990	6,220	3,555
26"	1,460	775	2,500	1,375	3,450	1,990	4,500	2,595	5,600	3,210	6,660	3,820
M. D. coolant	1,650	125		135		145		155		165		175

No. 3 motor spindle

Number of spindles	Weight	Price	
		Plain machine	M. D. coolant
	Pounds		
1	1,800	$1,225	$125
2	3,200	2,240	135
3	4,600	3,280	145
4	6,000	4,300	155

LIBERT MACHINE COMPANY, GREEN BAY, WIS.

SHEARING

Model	Capacity	Throat depth	Approximate shipping weight	Hand control	Foot control
	Gage	*Inches*	*Pounds*		
1430	14	30	850	$340	(1)
1236	12	36	1,240	(1)	$475
1036	10	36	1,610	(1)	665
1460	14	60	1,450	625	690
1260	12	60	1,810	725	795
1060	10	60	2,460	950	1,025

[1] Not furnished.

LIBERTY PLANERS, INC., HAMILTON, OHIO

STANDARD DOUBLE HOUSING PLANERS

Size	22 x 22	24 x 24	30 x 30	36 x 36	42 x 42	48 x 48
Length of stroke.....feet	4	6	8	8	10	10
Price with one head arranged for reversing motor drive	$4,000	$4,500	$6,250	$9,450	$10,850	$12,100
Price extra foot	170	200	300	310	350	400
Extra rail head		800	850	890	890	950
Right-hand side head		1,050	1,200	1,360	1,360	1,700
Left-hand side head		1,100	1,250	1,460	1,460	1,800
Single speed countershaft	300	300	350	450	460	500
Overhead motor drive	400	400	500	700	700	750
	Weight in pounds					
Weight with 1 head reversing motor drive	5,000	9,000	13,000	20,000	24,000	32,000
Weight extra foot	450	550	800	1,000	1,200	1,300
Weight extra rail head		325	350	600	600	700
Weight right-hand side head		480	670	1,200	1,200	1,400
Weight left-hand side head		550	780	1,200	1,200	1,400
Weight single speed countershaft	395	465	490	600	650	740
Weight overhead motor drive	850	1,150	1,300	1,850	1,925	2,025

STANDARD OPENSIDE PLANERS

Length of stroke.....feet		6	8	8	10	10
Price with one head arranged for reversing motor drive		$6,200	$8,000	$11,200	$12,480	$14,700
Price extra foot		200	300	310	350	400
Extra rail head		800	850	890	890	950
Side head		1,050	1,200	1,360	1,360	1,700
Single speed countershaft		300	350	450	460	500
Overhead motor drive		400	400	700	700	750
		Weight in pounds				
Weight with 1 head reversing motor drive		12,000	20,000	24,000	31,000	38,000
Weight extra foot		550	800	1,000	1,200	1,300
Weight extra rail head		325	350	600	600	700
Weight side head		480	670	1,200	1,200	1,400
Weight single speed countershaft		465	490	600	650	740
Weight overhead motor drive		1,150	1,300	1,850	1,925	2,025

LIBERTY PLANERS, INC., HAMILTON, OHIO—Continued

NEW DESIGN DOUBLE HOUSING PLANERS

Size	36 x 36	42 x 42	48 x 48	54 x 54	60 x 60	72 x 72
Length of stroke.....feet	8	10	10	10	12	12
Price with 1 head arranged for reversing motor drive	$11,132	$12,790	$14,245	$15,800	$19,500	$24,800
Price extra foot	310	350	400	430	510	600
Extra rail head	1,050	1,050	1,100	1,100	1,550	1,550
Right-hand side head	1,600	1,600	2,000	2,000	3,000	3,000
Left-hand side head	1,600	1,600	2,000	2,000	3,000	3,000
Single speed countershaft	400	420	460	500		
Overhead motor drive	700	750	800	900		
	Weight in pounds					
Weight with 1 head reversing motor drive	30,000	42,000	50,000	61,000	77,000	85,000
Weight extra foot	1,300	1,600	1,900	2,000	2,600	3,000
Weight extra rail head	800	800	1,000	1,000	1,700	1,700
Weight right-hand side head	2,000	2,000	2,400	2,400	3,300	3,400
Weight left-hand side head	2,000	2,000	2,400	2,400	3,300	3,400
Weight single speed countershaft	660	695	780	795		
Weight overhead motor drive	1,850	1,925	2,025	2,120		

NEW DESIGN OPENSIDE PLANERS

Price with 1 head arranged for reversing motor drive	$13,200	$14,685	$17,325	$19,800	$23,870	$29,020
Price extra foot	310	350	400	430	510	600
Extra rail head	1,050	1,050	1,100	1,100	1,550	1,550
Side head	2,000	2,000	2,300	2,300	3,100	3,100
Single speed countershaft	400	420	460	500		
Overhead motor drive	700	750	800	900		
	Weight in pounds					
Weight with 1 head reversing motor drive	40,000	50,500	61,000	70,000	86,000	95,000
Weight extra foot	1,300	1,600	1,900	2,000	2,600	3,000
Weight extra rail head	800	800	1,000	1,000	1,700	1,700
Weight side head	2,100	2,100	2,500	2,500	3,575	3,575
Weight single speed countershaft	660	695	780	795		
Weight overhead motor drive	1,850	1,925	2,025	2,100		

LINLEY BROTHERS COMPANY, BRIDGEPORT, CONN.

Description	Riveting	Price
No. 10C	3/16" capacity, floor type, countershaft drive, with countershaft	$105.00
No. 10D	3/16" capacity, floor type, horizontal motor drive with motor	120.00
No. 10D	3/16" capacity, floor type, horizontal motor drive without motor but with motor base	105.00
No. 10E	3/16" capacity, floor type, direct connected vertical motor drive with motor	125.00
	Prices on above motor driven machines are for 1/4 horsepower, 110-volt, alternating-current, 50- or 60-cycles, single-phase motors.	
	For series 10 machines equipped with 1/4 horsepower, 220-volt, alternating-current, 50- or 60-cycles, 3-phase motors, add to above motor machine prices	12.50
No. 29D	1/4" capacity, floor type horizontal motor drive, 1/2 horsepower, 110-, 220-, or 440-volt, alternating-current, 50 or 60-cycle, single or 3-phase motor	235.00
No. 29D	1/4" capacity, floor type, horizontal motor drive without motor but with motor base	200.00
No. 29E	1/4" capacity, floor type, direct connected vertical motor drive, 1/2 horsepower, 110-, 220-, or 440-volt, alternating-current, 50- or 60-cycle, single or 3-phase motor	240.00
No. 30	3/8" capacity, floor type, countershaft drive, with countershaft	200.00
No. 30D	3/8" capacity, floor type, horizontal motor drive, 1 horsepower, 220- or 440-volt, alternating-current, 60 cycle, 3-phase motor	250.00
No. 30D	3/8" capacity, floor type, horizontal motor drive without motor, but with motor base	200.00
No. 30E	3/8" capacity, floor type, direct connected vertical motor drive, 1 horsepower, 220- or 440-volt, alternating-current, 60 cycle, 3-phase motor	260.00
	Jig boring machine, bench model, 5 1/2" x 15" table size	695.00
	Jig boring machine, floor model, 5 1/2" x 15" table size	735.00
	Vertical milling machine, floor model, 5" x 14" table size	1,055.00
	Vertical milling machine, floor model, 8" x 20" table size	1,425.00
	Riveting machine, floor model, 3/32" capacity, 2 spindles	295.00
	Also round collets for milling and jig boring machine in 1/32" to 1/2" capacity.....each	4.25

W. C. LIPE, INC., SYRACUSE, N. Y.

Model	Approximate weight	Base price
	Pounds	
9" production lathe	1,200	$850
9" production lathe (high speed)		990
Mechanical carbo (low speed)	3,000	1,805
Mechanical carbo (high gear)		1,840
Hydraulic carbo	4,500	3,235
Hydraulic carbo with backfacing attachment		3,610
Carbo-matic (low geared)	7,500	4,100
Carbo-matic (high geared)		4,145

LIPPMANN ENGINEERING WORKS, MILWAUKEE, WIS.

DIRECT CONNECTED—ALTERNATING CURRENT, 60 CYCLES, 2- OR 3-PHASE, 220 OR 440 VOLTS ONLY

No. 108 floor type 1 horsepower, 12 x 2"	$175
No. 109 floor type 1 horsepower, 12 x 2"	260

Prices include motor, starter, and style N guards.

DIRECT CONNECTED—DIRECT CURRENT, 230 VOLTS ONLY

No. 116 3 horsepower, 12 x 2"	$380
No. 126 3 horsepower, 14 x 2"	390

Prices include motor, starter having overload and under-voltage protection, and style N guards.

DIRECT CONNECTED—ALTERNATING CURRENT, 2- OR 3-PHASE, 220 OR 440 VOLTS, EITHER 25 OR 60 CYCLES

	60 cycles	25 cycles
No. 110, 2 hp., 12 x 2"	$260	
No. 111, 3 hp., 12 x 2"	275	
No. 120, 2 hp., 14 x 2"	270	$310
No. 121, 3 hp., 14 x 2"	285	340
No. 123, 5 hp., 14 x 2"	350	

Prices include motor, starter having overload and under-voltage protection, and style N guards.

DIRECT CONNECTED—ALTERNATING CURRENT, 2- OR 3-PHASE, 220 OR 440 VOLTS, EITHER 25 OR 60 CYCLES

	60 cycles		25 cycles
124, 5 hp., 14 x 3"	$435		
131, 5 hp., 18 x 3"	450	5 hp., 16 x 3"	$500
131C, 5 hp., 20 x 3"	460		
132, 7½ hp., 18 x 3"	580	7½ hp., 16 x 3"	680
132C, 7½ hp., 20 x 3"	590		
141, 5 hp., 24 x 4"	600		
142, 7½ hp., 24 x 4"	670		

Prices include motor, starter having overload and under-voltage protection, an style N guards.

RW TYPE— DIRECT CURRENT, CONSTANT SPEED, 230 VOLTS, OPERATING UP TO 6,500 FEET SURFACE SPEED

No. 15 RW, 3 horsepower, 11" or 12" x 3"	$545
No. 16 RW, 4½ horsepower, 11" or 12" x 3"	620
No. 25 RW, 3 horsepower, 14" x 3"	545
No. 26 RW, 4½ horsepower, 14" x 3"	620
No. 35 RW, 3 horsepower, 16" x 3"	560
No. 36 RW, 5 horsepower, 16" x 3"	635
No. 37 RW, 7½ horsepower, 16" x 3"	685
No. 46 RW, 5 horsepower, 18" x 3"	635
No. 47 RW, 7½ horsepower, 18" x 3"	685
No. 56 RW, 5 horsepower, 20" x 3"	650
No. 57 RW, 7½ horsepower, 20" x 3"	690
No. 66 RW, 5 horsepower, 21" x 3"	650
No. 67 RW, 7½ horsepower, 21" x 3"	750
No. 75 RW, 5 horsepower, 24" x 4"	720
No. 76 RW, 5 horsepower, 24" x 4"	830
No. 77 RW, 7½ horsepower, 24" x 4"	945
No. 78 RW, 10 horsepower, 24" x 4"	1,040
No. 87 RW, 7½ horsepower, 27" x 4"	1,015
No. 88 RW, 10 horsepower, 27" x 4"	1,110
No. 89 RW, 15 horsepower, 27" x 4"	1,205
No. 97 RW, 7½ horsepower, 30" x 4"	1,055
No. 98 RW, 10 horsepower, 30" x 4"	1,110
No. 99 RW, 15 horsepower, 30" x 4"	1,205

Prices include motor and style G guards, also belt on machines smaller than 24" and texrope on machines 24" and larger; but no starter or field failure relay. If machines smaller than 24" are wanted with texrope drive instead of belt drive, add the following extras: 3 horsepower $15, 5 horsepower $20, and 7 horsepower $25. Extra for push button, automatic starter having overload and under-voltage protection, and field-failure relay: 3 horsepower $112, 5 horsepower $112, 7½ horsepower $112, 10 horsepower $130, and 15 horsepower $160.

If arbors are wanted smaller in diameter than standards listed, add $5 per machine.

If standard arbors listed are smaller than holes in customer's wheels, we will furnish steel bushings to go on the arbor without extra charge.

Machines arranged to take safety shape wheels or straight side wheels wider than listed require longer spindle and wider guards for which there is an extra charge of $15 per machine. This extra, however, does not include safety shaped flanges.

Above prices do not include abrasive wheels.

RW TYPE—DIRECT CURRENT WITH SPEED CONTROLLER, 230 VOLTS ONLY OPERATING UP TO 6,500 FEET SURFACE SPEED

No. 36 RW, 5 horsepower, 16" x 3"	$985
No. 37 RW, 7½ horsepower, 16" x 3"	1,035
No. 46 RW, 5 horsepower, 18" x 3"	985
No. 47 RW, 7½ horsepower, 18" x 3"	1,035
No. 56 RW, 5 horsepower, 20" x 3"	995
No. 57 RW, 7½ horsepower, 20" x 3"	1,045
No. 75 RW, 5 horsepower, 24" x 4"	1,010
No. 76 RW, 5 horsepower, 24" x 4"	1,160
No. 77 RW, 7½ horsepower, 24" x 4"	1,210
No. 78 RW, 10 horsepower, 24" x 4"	1,275

Prices include motor, automatic starter having overload and under-voltage protection, field-failure relay, speed controller, texrope drive, and style F guards.

RW TYPE—ALTERNATING CURRENT, SINGLE- OR TWO-SPEED MACHINES 2- OR 3-PHASE, 220 OR 440 VOLTS, EITHER 25 OR 60 CYCLES. OPERATING UP TO 6,500 FEET SURFACE SPEED.

Prices cover single-speed machines. For prices two-speed machines, see extra below

	60 cycles	25 cycles
No. 10 RW, 3 horsepower, 11" or 12" x 3"	$495	$539
No. 11 RW, 5 horsepower, 11" or 12" x 3"	510	570
No. 20 RW, 3 horsepower, 14" x 3"	495	539
No. 21 RW, 5 horsepower, 14" x 3"	510	570
No. 30 RW, 3 horsepower, 16" x 3"	510	554
No. 31 RW, 5 horsepower, 16" x 3"	525	585
No. 32 RW, 7½ horsepower, 16" x 3"	545	639
No. 41 RW, 5 horsepower, 18" x 3"	525	585
No. 42 RW, 7½ horsepower, 18" x 3"	545	639
No. 51 RW, 5 horsepower, 20" x 3"	535	595
No. 52 RW, 7½ horsepower, 20" x 3"	560	720
No. 61 RW, 5 horsepower, 21" x 3"	540	600
No. 62 RW, 7½ horsepower, 21" x 3"	565	659
No. 70 RW, 5 horsepower, 24" x 3"	575	
No. 71 RW, 5 horsepower, 24" x 4"	685	745
No. 71½ RW, 7½ horsepower, 24" x 3"	600	
No. 72 RW, 7½ horsepower, 24" x 4"	705	799
No. 73 RW, 10 horsepower, 24" x 4"	735	833
No. 82 RW, 7½ horsepower, 27" x 4"	775	869
No. 83 RW, 10 horsepower, 27" x 4"	800	898
No. 84 RW, 15 horsepower, 27" x 4"	820	974
No. 92 RW, 7½ horsepower, 30" x 4"	775	869
No. 93 RW, 10 horsepower, 30" x 4"	800	873
No. 94 RW, 15 horsepower, 30" x 4"	825	979

Prices include motor belt, and style G guards but no starter. Numbers 10, 11, 20, 21, 30, 31, 41, 51, 61, 70, and 71 RW machines can be furnished with General Electric Co.'s magnetic starter having overload and under-voltage protection for $18 per machine. This includes the mounting of the push button.

Nos. 32, 42, 52, 62, 71½, 72, 73, 82, 83, 84, 92, 93, and 94 RW machines can be furnished with General Electric Co.'s magnetic starter having overload and under-voltage protection for $32 per machine. This includes the mounting of the push button.

Extra for texrope drive on any of the above machines: 3 horsepower $15, 5 horsepower $20, 7½ horsepower $25, 10 horsepower $30, and 15 horsepower $35.

Two-step cones with texrope drive giving approximately 20% variation in speed can be furnished at the following extras: 3 horsepower $55, 5 horsepower $60, 7½ horsepower $75, 10 horsepower $80, and 15 horsepower $85. (Not to be added to the single speed texrope drive.)

If arbors are wanted smaller in diameter than standards listed, add $5 per machine.

Machines arranged to take safety shaped wheels or straight side wheels that are wider than those listed require a longer spindle and wider guards, for which there is an extra charge of $15 per machine.

If arbors are smaller than holes in customer's wheels, we will furnish steel bushings to go on the arbor without extra charge.

Above prices do not include abrasive wheels.

HS—DIRECT CURRENT, SINGLE SPEED MACHINES, 230 VOLTS ONLY, FOR OPERATING UP TO 9,500 FEET SURFACE SPEED

No. 27 HS, 7½ horsepower 14" x 3"	$695
No. 48 HS, 10 horsepower 18" x 3"	900
No. 68 HS, 10 horsepower 21" x 3"	915
No. 78 HS, 10 horsepower 24" x 3"	995
No. 79 HS, 15 horsepower 24" x 3"	1,060
No. 88 HS, 10 horsepower 27" x 3"	1,060
No. 98 HS, 10 horsepower 30" x 3"	1,315
No. 99 HS, 15 horsepower 30" x 3"	1,380
No. 128 HS, 10 horsepower 36" x 3"	1,395
No. 129 HS, 15 horsepower 36" x 3"	1,460

Prices include motor, texrope drive, and style G guards, but no starter.

Add for push button type enclosed starter (not mounted) having overload and under-voltage protection and field-failure relay: 7½ horsepower $112, 10 horsepower $130, and 15 horsepower $160.

HS TYPE—ALTERNATING CURRENT, 2- OR 3-PHASE, EITHER 25 OR 60 CYCLES, OPERATING UP TO 9,500 FEET SURFACE SPEED

	60 cycles	25 cycles
No. 22 HS, 7½ horsepower 14" x 3"	$505	$600
No. 43 HS, 10 horsepower 18" x 3"	698	795
No. 63 HS, 10 horsepower 21" x 3"	715	810
No. 64 HS, 15 horsepower 21" x 3"	735	890
No. 73 HS, 10 horsepower 24" x 3"	820	920
No. 74 HS, 15 horsepower 24" x 3"	845	1,000
No. 83 HS, 10 horsepower 27" x 3"	890	985
No. 84 HS, 15 horsepower 27" x 3"	910	1,065
No. 93 HS, 10 horsepower 30" x 3"	1,145	1,240
No. 94 HS, 15 horsepower 30" x 3"	1,165	1,320
No. 123 HS, 10 horsepower 36" x 3"	1,220	1,320
No. 124 HS, 15 horsepower 36" x 3"	1,245	1,400

Prices include motor and style G guards but no starter.

Add $32 for magnetic starter having overload and under-voltage protection, enclosed, for separate mounting and push button mounted on the machine.

One-speed machines for wheels 24" and larger have texrope drive, and machines smaller have belt drive. Machines smaller than 24", when wanted with texrope drive, take the following extras: 7½ horsepower $25, 10 horsepower $30, and 15 horsepower $35.

Two-speed machines require texrope drive on all sizes, and take the following extras: 7½ horsepower $75, 10 horsepower $80, and 15 horsepower $85. (Not to be added to single-speed texrope drive.)

Above machines arranged to take safety shaped wheels or straight side wheels that are wider than those listed require longer spindle and wider guards, for which there is an extra charge of $15 per machine.

Prices do not include abrasive wheels.

WATER TOOL GRINDER—BELT AND MOTOR DRIVEN

Belt driven for 20" x 1½" x 10" wheel with countershaft, abrasive wheel but without dressing attachment	$245
Motor driven for 20" x 1½" x 10" wheel with 2 horsepower direct current 230-volt ball-bearing motor, abrasive wheel, belt, belt guard, and push-button starter with overload and under-voltage protection, but without dressing attachment	470
Motor driven for 20" x 1½" x 10" wheel with 2 horsepower ball-bearing alternating current motor fo 60 cycles, 2- or 3-phase, 220 or 440 volts, abrasive wheel, belt, belt guard, starter having overload and under-voltage protection and push button	400
Extra for dressing attachment	35
Extra for arranging any of the above with wheel 20" x 3" x 10"	20

BB TYPE—BELT DRIVEN FOR OPERATING WHEELS AT EITHER 6,500 OR 9,500 FEET SURFACE SPEED

	6 BB		7 BB	8 BB
	16" or 18" x 3"	20" x 3"	24" x 4"	30" x 4'
Price with countershaft and guards	$360	$370	$425	$630
Price of countershaft only	75	75	85	95
Price of style G guards, see below.				

If arbors are wanted smaller in diameter than standards listed, add $5 per machine.

If arbors are smaller than holes in customer's wheels, we will furnish steel bushings to go on the arbor, without extra charge.

Machines arranged to take safety shaped wheels or straight side wheels that are wider than those listed require longer spindle and wider guards, for which there is an extra charge of $15 per machine. Taper flanges extra, see below.

TUNGSTEN CARBIDE GRINDER

No. 107, 1 Hp. 12" x 3":	
60-cycles, 3 phase, alternating current	$490
230-volts, direct current	700

Prices include motor, reversing starter, diamond dressing attachment without the diamond, one bevel protractor, and two cup wheels.

TYPE "C"—HIGH SPEED GRINDER

15 hp., 60-cycles, 3-phase current:	
24"	$1,475
30"	1,680

Prices include motor, starter, and style G guards.

Unless otherwise stated, the above prices do not include abrasive wheels.

CAST IRON FLANGES FOR STRAIGHT SIDE WHEELS

Diameter of flanges	6"	8"	10"	12"	14"	16"	18"	20"	24"
Price	$10	$12	$15	$27	$52	.75	$90	$120	$170

This price includes a set of 2 tight and 2 loose flanges, and may be used as an addition or deduction.

ADAPTERS

[Per pair]

Diameter	8"	10"	12"	14"	16"	18"	20"
Price	$18	$24	$30	$36	$48	$60	$72

Example: Customer wants a No. 78 HS machine with 19-inch flanges and 12-inch adapters. Standard machine has flanges 12-inch diameter, so deduct price of 12-inch flanges ($27); then 19-inch flanges are not listed so take price of 20-inch ($120) and add to price of machine, making $1,088. Then add the price of 1 pair 12-inch adapters ($30) making the total price $1,118 without starter.

STYLE G GUARDS

[Per pair]

Size of wheels	14"	16"	18"	20"	24"	30"	36"
Price	$60	$75	$75	$85	$100	$170	$200

GLASS EYE SHIELDS

[Per pair]

For 12- or 14-inch wheels, $10.
For 16-, 18-, or 20-inch wheels, $12.
For 24- and 30-inch wheels, $14.

STEEL SAFETY FLANGES

Diameter of flange	Price, per pair
8"	$8.50
10"	11.00
12"	14.50
14"	20.00
16"	25.00
18"	32.00
20"	48.00

Orders should specify diameter of hole and whether ½- or ¾-inch taper per foot is wanted.

LITTLE GIANT, INC., MANKATO, MINN.

LITTLE GIANT POWER HAMMERS

[Price list—net f. o. b. Mankato, Minn.]

Size of ram	25 pounds	50 pounds	100 pounds	250 pounds	500 pounds
Belt driven	$150	$225	$450	$1,000	$1,750
Motor driven with motor base and pulley, without motor	175	265	500	1,085	1,850
With 60 cycle 2- or 3-phase motor (state voltage)	215	320	560	1,205	2,035
With 110- or 220-volt, 60 cycle, single phase	220	340	595		
Heavy endless drive belt extra	7	9	12	15	25
Wire belt guard for motor-driven hammer	25	30	35	50	60
Enclosed safety switch	5	6	8	[1] 40	[1] 50

[1] Remote-control magnetic switch, with overload and under-voltage protection. If hand compensator is desired, ask for price.

Note that belts and switches are quoted separately.

LOBDELL CAR WHEEL CO., WILMINGTON, DEL.

DILL SLOTTERS

	10 inches	12 inches	15 inches	18 inches	20 inches	24 inches
Standard head arranged for M. D., no motor:						
Price	$5,500	$6,000	$7,000	$7,500	$11,500	$12,000
Weight, pounds	5,750	6,000	11,000	11,500	25,000	26,000
Universal head arranged for M. D., no motor:						
Price		6,750		8,500		13,500
Weight, pounds		6,000		11,500		26,000

LOBDELL CAR WHEEL CO., WILMINGTON, DEL.—Continued

NAZEL HAMMERS

	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7
Type B:							
Price	$1,750	$2,150	$2,800	$4,300	$5,800	$8,300	$11,800
Weight, pounds	5,000	7,600	11,000	14,000	21,500	32,500	50,000
	No. 10	No. 11	No. 12	No. 13	No. 14		
Type S:							
Price	$3,900	$5,500	$7,000	$10,000	$15,500		
Weight, pounds	12,000	15,500	24,000	37,000	72,500		
	No. 4	No. 5	No. 6				
Type N:							
Price	$5,000	$6,500	$9,200				
Weight, pounds	14,000	22,000	33,000				
Type I:							
Price	5,500	7,200	10,100				
Weight, pounds	15,000	24,000	36,000				

Above arranged for constant-speed motor drive but without electrical equipment.

THE LOCOMOTIVE FINISHED MATERIAL COMPANY, ATCHISON, KANS.

No. 45 Giddings & Lewis type horizontal boring machine. This machine follows older design G. & L. but has been brought up to date and has a 5-inch spindle, price $20,000, weight 32,000 pounds. Plus $600 per machine for tooling up.

LODGE & SHIPLEY MACHINE TOOL CO., CINCINNATI, OHIO

SELECTIVE HEAD ENGINE LATHES

Size	Distance between centers	Approximate shipping weight	Prices	
			Base machine	Additional 24-inch centers
	Inches	*Pounds*		
12"	30		$2,911	
14"	30	4,500	3,148	$113
16"	30	5,300	3,485	125
16"-20"	30	5,800	3,739	125
18"	30	7,500	4,347	145
20"	48	8,500	5,199	182
22"	48	9,500	5,550	194
24"	48	13,000	7,453	254
27"	48	14,000	7,985	273
30"	60	20,500	10,115	345
36"	60	21,500	10,647	363

SELECTIVE HEAD TOOL ROOM LATHE

	Inches	*Pounds*		
14"	30	4,680	3,563	132
16"	30	5,480	3,948	145
16"-20"	30	6,000	4,202	145
18"	30	7,700	4,887	168
20"	48	8,700	5,811	207
22"	48	9,700	6,176	222

LODGE & SHIPLEY MACHINE TOOL CO., CINCINNATI, OHIO—Continued

OIL COUNTRY LATHE

Size	Distance between centers	Hole in spindle	Approximate shipping weight	Prices: Base machine	Prices: Additional 24-inch centers
	Inches	*Inches*	*Pounds*		
24"	48	12½	15,500	$9,238	$254
27"	48	12½	16,200	9,770	273
30"	48	12½	17,000	11,912	345

No. 3A x 15-inch centers duomatic lathe	$7,439
Additional 12-inch between centers	$230
Approximate shipping weight, pounds	21,500

THE LUCAS MACHINE TOOL CO., CLEVELAND, OHIO

HORIZONTAL BORING MACHINES

Size	Base weight	Base price	Extra for bed to take 6'	Extra for bed to take 8'	Extra height to take 36"
	Pounds				
No. 41–3" bar	13,800	$9,075	$190	$570	$465
No. 42–4" bar	20,075	12,700	$	440 / 880–10'	525–40'

Arranged for constant-speed motor drive without electrical equipment.
Rotary tables, dial indicators, etc., extra.

Extra for special wide table:	
34-inch width in the 3" bar No. 41 size machine	$190
40" wide in the 4" bar size	220

MCDONOUGH MANUFACTURING CO., EAU CLAIRE, WIS.

STERLING, MODEL D, CUTTER AND TOOL GRINDER, $1,100

Specifications

Wheel head: Totally enclosed, ¾ horse power, 3,450 revolutions per minute totally enclosed ball-bearing motor with switch, V-belt drive.
Table dimensions: 5 inch wide, 36 inches long.
Swing-over table: 10".
Maximum distance between centers:
With work head 22".
With left-hand tail stock 26".
Longitudinal table travel: 23".
Cross feed: 8".
Vertical movement: 8".
Weight, net: 1,350 pounds.

MACHINERY MANUFACTURING COMPANY, LOS ANGELES, CALIF.

VERNON HIGH SPEED PRECISION VERTICAL MILLING MACHINE AND JIG BORER

Bench model: Completely arranged for motor drive with all necessary belts and pulleys fully enclosed in helmet head, less motor and electrical equipment	$725.00
Floor model: Mounted on rigid pyramid type pedestal with shelf for holding tools and attachments. Completely arranged for motor drive with all necessary belts and pulleys fully enclosed in helmet head, less motor and electrical equipment	800.00
Profiling attachment: Two dimensional	60.00
Profiling attachment: Three dimensional	140.00
Dial indicators and measuring rods: Consisting of two Starrett dial indicators with jewel bearings, double dial and telltale, with 1-inch range; and seven assorted Starrett measuring rods in lengths from 1- to 4-inch. Standard set with all necessary equipment for holding and attaching same to machine. This attachment will be mounted at factory if purchased with machine, however, can be purchased at any time later as machine is arranged to take same.	125.00
Motor: ½ horsepower, 1,750 revolutions per minute, 60-cycle, 110/220-volt, single-phase, or 220/440-volt, three-phase motor	26.50
Drum reversing switch	6.00

VERNON 11" STROKE PRECISION SHAPER

Floor model with 7-inch swivel vise: Mounted on pedestal with following equipment mounted and assembled: All necessary belts, sliding motor bracket, variable pitch motor pulley, handwheel speed control, countershaft with driver and driven pulleys, completely arranged for motor drive, less motor and electrical equipment	$575.00
Motor and starting equipment: ¾ horsepower, 1,750 revolutions per minute, 60-cycle, 110/220 volt, single-phase, or 220/440-volt, three-phase motor with toggle-type starting switch	38.50

MACHINERY MANUFACTURING COMPANY, LOS ANGELES, CALIF.—Continued

VERNON NO. 0 PLAIN HORIZONTAL MILLING MACHINE

With lever-operated rack-and-pinion feed or hand-screw feed: Mounted on pedestal, completely arranged for motor drive, less motor and electrical equipment. Includes two-step cone motor pulley, motor bracket, fully enclosed variable-speed unit with hand-wheel control mounted on side of pedestal	$595.00
⅞-inch or 1-inch arbor of heat-treated steel and ground with No. 9 B. & S. taper in shank, including spacing collars, draw-bar and wrench	20.00
4¼-inch swivel-base vise of nickel-iron	25.00
Dividing centers	45.00
Power feed attachment for screw-feed-type machine	60.00
Universal vertical milling attachment	130.00
¾ horsepower, 1,750 revolutions per minute, 60 cycle, 100/200-volt, single-phase, or 220/440-volt, three-phase motor, mounted on hinged bracket	33.50
Drum reversing switch	6.00

VERNON TOOL AND CUTTER GRINDER

Vernon plain tool and cutter grinder: Complete with ½ horsepower, 3,450 revolutions per minute, 220/440-volt, 50/60-cycle, 3-phase motor (quotations on motors other than specified will be furnished on request), including the attachments shown in list A	$1,400.00

ATTACHMENT LIST A

1. Spindle extension for cup and saucer wheels.
2. Spring-lever-type tailstock.
3. Footstock.
4. Universal work head (not power driven), No. 12 Brown & Sharpe taper on one end, and No. 50 NMTB taper on the other.
5. Three work head reducer sleeves, No. 12 Brown & Sharpe taper to reduce to Nos. 10, 9, and 7 Brown & Sharpe tapers.
6. Four grinding wheels, sizes 6" x ½", 5-inch saucer, 5-inch cup, and 4-inch cone cup.
7. Complete set of wrenches.
8. Universal tooth rest including bracket.
9. Diamond bracket and diamond holder, less diamond (tailstock mount type).
10. Plain vise.

Vernon universal tool and cutter grinder: Equipped for cylindrical and internal grinding, complete with ½ horsepower, 3,450 revolutions per minute, 220/440-volt, 50/60-cycle, 3-phase motor (quotations on motors other than specified will be furnished on request) including the attachments in list "A" and "B"	$1,650.00

ATTACHMENT LIST B

11. Motor-drive arrangement including motor for universal work head.
12. Internal-grinding attachment with intermediate ball bearing auxiliary drive, and with one each ⅜-, ¾-, 1, 1¼-, and 1½-inch wheels.
13. No. 50 center for use with universal work head.

MACHINERY MANUFACTURING COMPANY, LOS ANGELES, CALIF.—Continued

Special attachments which can be supplied as extras

ATTACHMENT LIST C

14. Coolant system, complete with 1/10 horsepower motor and pump, reservoir, and necessary fittings	$140.00
15. Universal grinding wheel dresser	45.00
16. Chuck adapter for work head, No. 50 taper (semifinished)	25.00
17. 4-inch, three-jaw, universal chuck (light pattern) two sets of jaws	30.00
18. Universal vise	165.00
19. 7-inch rotary table	125.00

THE E. J. MANVILLE MACHINE CO., WATERBURY, CONN.

SINGLE-STROKE SOLID-DIE HEADERS

Model of machine	Belt driven without tools	Motorization	Countershaft	Steel frame
130–C	$2,150	$180	$65	$240
188–C	2,650	210	75	345
250–C	3,750	220	85	550
312–C	4,700	260	85	610
375–C	5,850	290	120	660
500–C	7,050	290	135	805
625–C	9,850	350	160	935
750–C	12,700	390	170	1,325
875–C	17,350	440	210	[1]

[1] Included.

DOUBLE-STROKE SOLID-DIE HEADERS

130–C	$2,300	$180	$65	$240
188–C	2,950	215	75	345
250–C	4,250	230	85	550
312–C	5,200	260	105	660
375–C	7,100	290	135	810
500–C	9,200	325	160	935
625–C	11,900	390	170	1,155
750–C	19,500	440	210	[1]

[1] Included.

DOUBLE-STROKE SOLID-DIE HEADERS, MODEL E

Size and model	Without tools	Motorization	Countershaft	Steel frame
⅛"	$2,425	$170	$60	$240
3/16"	2,900	180	75	345
¼"	4,375	195	85	550
5/16"	6,075	220	105	[1]
⅜"	7,875	280	135	[1]
½"	10,300	330	150	[1]

[1] Included.

TRIPLE-STROKE SOLID-DIE HEADERS

Model of machine	Without tools	Motorization	Countershaft	Steel frame
250–C	$5,600	$275	$100	$665
312–C	7,250	290	130	805
375–C	9,825	305	140	935
500–C	13,700	390	155	1,155
625–C	21,225	440	200	[1]

[1] Included.

SINGLE-STROKE OPEN-DIE HEADERS

Model of machine	Without tools	Motorization	Countershaft	Steel frame	Automatic feed throwout
130–C	$2,075	$180	$65	$240	$195
188–C	2,425	205	75	345	210
250–C	3,350	230	85	550	230
312–C	4,750	260	100	695	245
375–C	5,775	290	120	830	260
500–C	6,900	325	135	990	295
625–C	9,100	360	160	1,210	320
750–C	11,350	440	170	1,690	345
875–C	18,900	495	210	[1]	410

[1] Included.

THE E. J. MANVILLE MACHINE CO., WATERBURY CONN.—Continued

TRIPLE-STROKE OPEN-DIE HEADERS

Model of machine	Without tools	Motorization	Countershaft	Steel frame
188–C	$6,975	$275	$85	$695
250–C	8,375	305	110	780
312–C	9,700	330	135	990
375–C	12,850	390	150	1,220
500–C	16,275	440	170	1,565
625–C	26,925	495	210	[1]

[1] Included.

DOUBLE-STROKE OPEN-DIE HEADERS

Model of machine	Without tools	Motorization	Automatic feed throwout	Countershaft	Steel frame
254–C	$5,300	$230	$245	$85	$695
246–C	5,300	230	245	85	695
312–C	6,385	260	260	110	780
375–C	7,600	290	295	135	990
500–C	10,150	360	320	150	1,210
625–C	12,600	415	345	170	1,565
750–C	21,550	495	410	210	[1]

[1] Included.

SINGLE-STROKE SOLID-DIE MODEL C BALL HEADER

Model of machine	Without tools	Motorization	Countershaft	Steel frame
130–C	$2,075	$180	$60	$240
188–C	2,575	205	75	345
250–C	3,750	220	85	550
2–D	4,600	290	100	660
3–D	5,950	305	120	805
4–D	7,275	330	135	935
5–D	9,825	440	150	1,200

SINGLE-STROKE SOLID-DIE BALL HEADERS, MODEL F

Model of machine	Without tools	Motorization	Countershaft
188–F	$3,475	$200	$75
312–F	5,125	290	100

SINGLE-STROKE SOLID-DIE PLOW BOLT HEADERS WITH RELIEF MECHANISM

Model of machine	Without tools	Motorization	Countershaft	Steel frame
375–C	$6,875	$320	$120	$830
500–C	8,675	325	135	935
625–C	10,950	335	160	1,155

HIGH-SPEED AUTOMATIC SCREW-SLOTTING MACHINE

Model of machine	Belt driven	Motorization	Countershaft
188–C, 1–C	$1,600	$85	$45
250–C, 2–C	1,775	90	60
375–C, 3–C	2,650	95	65

THE E. J. MANVILLE MACHINE CO., WATERBURY, CONN.—Continued

HORIZONTAL RECIPROCATING SCREW-THREAD ROLLING MACHINES

Model of machine	Hand feed	Automatic feed	Standard dies, carbon steel, single face	Motorization	Countershaft
130–C	$1,950	$1,250	$15	$110	$70
188–C	975	1,300	15	195	70
250–C	1,450	1,850	18	220	80
375–C	1,700	2,350	25	245	100
500–C	2,250	3,200	30	245	120
625–C	2,550	3,850	40	245	150
750–C	3,350	[1] 4,150 [2] 5,500	45	245	170
1000–C	4,550	5,850	75	330	195

[1] Semi-automatic.
[2] Full automatic.

HIGH-SPEED AUTOMATIC BOLT-HEAD TRIMMERS

Model of machine	Without tools	Motorization	Countershaft
370–D	$3,600	$220	$80
375–E	4,700	220	80
380–D	4,250	220	100
510–D	6,250	275	120
520–D	7,050	330	120
626–D	8,400	330	135
758–D	12,700	360	170

THE E. J. MANVILLE MACHINE CO., WATERBURY, CONN.—Continued

DOUBLE- AND SINGLE-STROKE SOLID-DIE CONVERTIBLE HEADERS

Model of machine	Without tools	Motorization	Countershaft
130–C	$3,025	$180	$65
188–C	3,925	215	75
250–C	5,725	230	85
312–C	6,925	260	105

COMBINATION HEADING AND PINCH-POINTING MACHINE

Without tools	With tools	Motorization	Countershaft
$3,850	$3,925	$250	$85

BULLET SLUG MACHINES

Model of machine	Belt driven without tools	Motorization
188–C	$2,870	$210
250–C	3,820	220

MARSHALLTOWN MANUFACTURING CO., MARSHALLTOWN, IOWA

OPEN BACK INCLINABLE PUNCH PRESSES

Number of press	0	1	2	3	4	5	6	6A
Slide pressure near bottom of stroke—tons	5	10	14	22	32	50	70	70
Weight of flywheel press (without stand)—pounds	385							
Weight of flywheel press (floor type)—do	540	800	1,200	2,200	3,700	5,200	8,700	[1]
Weight of geared press—do					4,300	5,900	10,000	11,500
Price of flywheel press (without stand)	$150							
Price of flywheel press (floor type)	$165	$260	$320	$410	$560	$770	$1,300	[2]
Price of geared press				$560	$780	$990	$1,550	$1,665
For construction other than standard the following additions are to be made:								
Longer stroke (more than standard up to maximum)	[1]	$6	$8	$10	$20	$20	$30	$30
1-inch addition to frame (No. 5 only)						$20		
2-inch addition to frame (No. 5 only)						$30		
3-inch addition to frame (No. 5 only)						$40		
4-inch addition to frame (No. 5 only)						$50		
Tie rods				$14	$15	$16	$18	$22
Extra plain bolster	$5	$8	$13	$15	$20	$33	$45	$45
Convertible back gearing (add to geared price)					$50	$60	$70	$70
Intermittent brake	[1]	$10	$10	$12	$15	$18	$20	$20
Flanged slides					$15	$25	$40	[2]

INDIVIDUAL MOTOR DRIVE

[Motors for all presses at current list prices. No charge for labor installation]

V-belt drive including bracket, belts, and motor sheave (flywheel not grooved)	[3]	$25	$30	$45	$55	$70	$80	$80
Motor bracket (idler pulley extra, see below)	[3]	15	20	35	35	45	50	[4]
Idler pulley (required on No. 3, 4, 5, and 6 flywheel only)				10	10	15	15	[4]
Direct motor drive with pinion	[1]	75	85	90	95	100	105	[4]

[1] Not made. [2] No extra. [3] Standard.

Item	
16–M rotary throatless shear, f. o. b.	$155
112–M throatless shear arranged for geared motor drive, including motor bracket, but without motor	1,071

MATTISON MACHINE WORKS, ROCKFORD, ILL.

SURFACE GRINDERS

Size	Weight	Price
	Pounds	
12″ x 16″ x 36″	11,000	$6,150
12″ x 16″ x 48″	11,800	6,550
12″ x 16″ x 60″	12,600	6,950
12″ x 16″ x 72″	13,400	7,500
14″ x 16″ x 36″	11,500	6,550
14″ x 16″ x 48″	12,300	6,950
14″ x 16″ x 60″	13,100	7,350
14″ x 16″ x 72″	13,900	7,900
16″ x 24″ x 72″	24,500	9,750
16″ x 24″ x 96″	26,000	10,750
16″ x 24″ x 120″	27,500	11,950
16″ x 24″ x 144″	29,200	13,250
16″ x 24″ x 168″	30,800	14,550
18″ x 24″ x 72″	25,250	10,050
18″ x 24″ x 96″	27,000	11,050
18″ x 24″ x 120″	28,750	12,350
18″ x 24″ x 144″	30,600	13,700
18″ x 24″ x 168″	32,500	15,050
20″ x 24″ x 72″	26,000	10,550
20″ x 24″ x 96″	28,000	11,750
20″ x 24″ x 120″	30,000	13,150
20″ x 24″ x 144″	32,000	14,750
20″ x 24″ x 168″	34,000	16,350
24″ x 24″ x 72″	32,000	12,050
24″ x 24″ x 96″	34,500	13,450
24″ x 24″ x 120″	37,000	15,050
24″ x 24″ x 144″	38,500	16,850

MATTISON MACHINE WORKS, ROCKFORD, ILL.—Con.

SURFACE GRINDERS—continued

Size	Weight	Price
	Pounds	
24″ x 24″ x 168″	40,000	$18,650
30″ x 24″ x 72″	35,000	14,250
30″ x 24″ x 96″	38,500	16,000
30″ x 24″ x 120″	42,000	18,000
30″ x 24″ x 144″	45,500	20,250
30″ x 24″ 168″	49,000	22,750
30″ x 24″ x 192″	53,000	25,500
36″ x 24″ x 72″	----------	[1]16,450
36″ x 24″ x 96″	----------	[1]18,550
36″ x 24″ x 120″	----------	[1]20,950
36″ x 24″ x 144″	----------	[1]23,650
36″ x 24″ x 168″	----------	[1]26,850
36″ x 24″ x 192″	----------	[1]29,350

[1] Equipment will be the same as furnished on 12″, 14″, 16″, 18″, 20″, 24″, 30″ machines, only that the hydraulic pump motor will be 10 hp. instead of 7½ hp.

Extra for 30″ height between wheel and table	$300
Extra for 36″ height between wheel and table	400

CHUCK PRICES FOR ABOVE MACHINES

Either O. S. Walker or Taft-Peirce:	
36″ x 36″ approximate weight 1,800 pounds	$1,500
36″ x 48″ approximate weight 2,500 pounds	1,800
36″ x 60″	2,200

MICHIGAN TOOL CO., DETROIT, MICH.

Model	Name	Capacity	Weight	Price, less motor
			Pounds	
900	Rack type finisher (heavy duty)	1-8″ diameter	9,450	$9,250
854	Rack type finisher (old style)	1-8″ diameter	7,550	8,250
859	Duplex	3-8″ diameter	8,600	7,500
		3-16″ diameter		8,250
991	Lapping (3 lap)	1-8″ diameter	4,350	3,950
		1¾-12″ diameter		4,250
993	Lapping (2 lap)	3-20″	7,800	6,950
995	Lapping (2 lap)	½-8″ diameter	4,200	3,950
		½-12″ diameter		4,250
1127	Standard gear speeder		2,000	5,800
860	Finisher-rotary (oscillation transverse to work axis)	1-8″	5,400	4,800
		1½-12″	5,600	5,600
		3-18″	5,600	7,300
860-B	Finisher-rotary (oscillation parallel to work axis)	1-8″	5,600	4,900
		1½-12″	5,600	5,700
		3-18″	5,600	7,485
		24″	----------	----------
		36″	----------	----------
860-A	Finisher-rotary (both parallel and transverse movement)	1-8″	----------	5,300
		1½-12″	----------	6,250
		3-18″	----------	7,900
		24″	----------	----------
		36″	----------	----------
		48″	----------	----------
1712	Relieving machine	12″	----------	9,000
1708	Relieving machine	8″	----------	7,500
1708-A	Relieving machine	8″	----------	6,850

MILLER & CROWNINGSHIELD, GREENFIELD, MASS.

No. 3 hand milling machine with lever feed table and following standard equipment:
Timken adjustable precision roller bearings on spindle and jackshaft; ½ horsepower standard voltage Westinghouse alternating current motor drive complete with reversing switch, mounted and wired in welded steel pedestal base; 4 single-V interchangeable pulleys in addition to the 3-step-V pulleys on motor and jackshaft; graduated-feed dials; table stops; 1 hardened arbor with No. 10 B. & S. taper shank, either ⅞″ or 1″ diameter; necessary V-belts, wrenches, and guards $375.00

MILLER & CROWNINGSHIELD GREENFIELD, MASS.—Con.

ADDITIONAL EQUIPMENT

Power-feed attachment complete	$75.00
Plain index centers	47.50
Draw-in attachment complete: includes drawbar, adapter, and 1 round standard 2AB Hardinge collet	23.50
No. 4 swivel vise with hardened- and ground-steel jaws complete with wrench opens 2¼″ x 4″ x 1½″. Weight 26 pounds. (This size suitable for No. 3 hand miller)	22.50
No. 5½ swivel vise with hardened- and ground-steel jaws complete with wrench. Opens 3¼″ x 5½″ x 1¾″	30.00
No. 5½ plain vise, same dimensions as above. Jaws not hardened	20.00

THE MINSTER MACHINE CO., MINSTER, OHIO

MINSTER OPEN BACK INCLINABLE PRESSES

	1	2	3	4	5	6	7	8	9
Number of press	1	2	3	4	5	6	7	8	9
Capacity near bottom of stroke, tons	12	16	22	32	45	56	71	88	106
Number of engagements in clutch	10	10	4	4	4	4	4	4	4
Flywheel press, standard stroke, standard die space or shut height, clutch wheel mounted on Timken roller bearings, inclining attachment, crankshaft bearings bushed with true ring nickel bronze bushings, dot lubrication, K. O. in slide, plain bolster plate and without motor drive	$325	$395	$460	$610	$765	$1,100	$1,775	$2,280	$2,715
Approximate weight, pounds	1,400	1,650	2,750	4,100	6,000	8,250	14,500	22,500	26,000
Flywheel press, same description as above, except furnished with pin-type clutch having nickel bronze flywheel bushing	$295	$360	$435	$580	$735	------	------	------	------
Geared press, standard stroke, standard die space or shut height, clutch wheel mounted on Timken roller bearings, inclining attachment, crankshaft bearings bushed with true ring nickel bronze bushings, drive shaft mounted on Timken roller bearings, dot lubrication, K. O. in slide, plain bolster plate and without motor drive	------	------	------	$845	$1,030	$1,365	$2,145	$2,655	$3,090
Approximate weight, pounds	------	------	------	4,500	6,600	9,200	16,000	25,500	30,000

NOTE.—Price corrections made upon advice of manufacturer. Prices differ from those shown in first edition of Prices of New Machine Tools.

MITTS & MERRILL, SAGINAW, MICH.

GIANT KEYSEATERS

No. of machine	Maximum capacity, width by length		Weight (machine only)	Current price (machine only)
	Inches		*Pounds*	
No. 0	¾	6	900	$528
No. 2	1¼	12	1,770	885
No. 3	2	15	2,300	1,150
No. 3A	2	24	2,430	1,210
No. 4	2½	18	2,765	1,430
No. 5	3	24	4,800	1,815
No. 6	3½	30	5,390	2,050
No. 6A	4	36	5,785	2,430
No. 8	4	42	6,390	2,900
No. 8A	4	50	6,860	3,630
No. 9	4	60	7,580	4,350

Last serial number for year 1919: 92253.
Last serial number for year 1929: A-112277.
Last serial number for year 1935: B-1217-½.

MODERN MACHINE TOOL CO., JACKSON, MICH.

THE MODERN CUTTING-OFF MACHINE

	Weight	Price
	Pounds	
No. 2 Modern cutting-off machine with single cross slide	1,600	$1,170
No. 2 machine with double cross slide	------	1,285
No. 3 Modern cutting-off machine with single cross slide	1,800	1,260
No. 3 machine with double cross slide	------	1,380
No. 4 Modern cutting-off machine with single cross slide	2,300	1,690
No. 4 machine with double cross slide	------	1,810

MOLINE TOOL COMPANY, MOLINE, ILL.

No. 114 Cylinder Boring Machine with 3 spindles	$11,024
No. 115 Cylinder Boring Machine with 3 spindles	14,003

MOLINE TOOL COMPANY, MOLINE, ILL.—Continued

HU68 Universal Joint Drilling Machine with 17 spindles	$14,845
M24 Special Two Spindle Milling Machine	9,455
HL21 Honing Machine	7,900
MR103 Special Way Machine	11,978
12D Drilling Machine with 8 spindles	8,590
115U Universal Joint Drilling Machine with 16 spindles	8,439
MR104 Way Machine	5,672
MR105 Special Mechanical Feed Horizontal Boring Machine	8,804
17D Drilling Machine with 6 spindles	4,525
M22 Milling Machine with 2 spindles	9,185
16D Drilling Machine with 6 spindles	7,565
M23 Milling Machine with 2 spindles	11,675
No. 9 Drilling Machine with 10 spindles	5,485
No. 4 and No. 5 Drillers	3,500
PA789 No. 9 Drillers	5,611
12D Drillers	7,625
HD13 Drillers	6,789
H-F64 Drillers	7,885
HV13 Drillers	13,121
115V Drillers	7,662
(PA738-HV68) Drillers	14,676

MONARCH MACHINE TOOL CO., SIDNEY, OHIO

STANDARD LATHES

Nominal size	Distance between centers, base bed length	Actual swing over bed	Weight	Prices: 16-speed, silent chain, or multiple V-belt drive	Prices: Each additional 24" between centers
	Inches	*Inches*	*Pounds*		
KK	12	30	3,100	$2,900	$103
AA	14	30	4,600	3,150	115
W	16	30	4,750	3,450	126
BB	18	48	5,600	3,900	140
M	20	48	10,100	5,150	185
M	22	48	10,300	5,450	190
N	24	60	14,800	7,225	250
N	27	60	15,300	7,685	270
NN	30	60	30,500	9,500	340
NN	36	60	21,500	10,050	360

STANDARD EQUIPMENT

Prices include headstocks, quick change gear boxes, and aprons completely Timkinized, and with automatic force-feed lubrication to bedways, carriage, apron, and compound rest; without motor or electrical equipment, but including mounting and wiring of electrical equipment.

MODEL "C" TOOLROOM LATHES

Nominal size (inches)	Distance between centers, base bed length	Actual swing over bed	Weight	Prices: Helical geared head motor drive	Prices: Each additional 24" between centers
	Inches	*Inches*	*Pounds*		
12	30	14½	3,300	$3,290	$120
14	30	16½	4,300	3,570	135
16	30	18½	4,800	3,935	146
18	48	20½	6,000	4,580	165
20	48	22½	6,200	4,880	170

STANDARD EQUIPMENT

Prices include lead screw reverse mechanism with automatic stop in both directions of carriage travel, when either threading or feeding; oil pan, patented chasing stop including automatic force-feed lubrication on bedways, carriage apron and compound rest; Timkenized motor drive, without motor but including mounting, wiring.

MOORE SPECIAL TOOL COMPANY, INCORPORATED, BRIDGEPORT, CONN.

Jig borer: Moore precision	$3,375
Jig grinder: Moore precision	5,900

THE MORGAN ENGINEERING COMPANY, ALLIANCE, OHIO

SINGLE STAND STEAM HAMMERS

Capacity (pounds):	*Price, each*
150	$1,770
250	1,860
400	2,340
600	2,590
800	3,150
1,000	4,050
1,250	4,340
1,500	5,255
2,000	5,850
2,500	6,750

DOUBLE STAND STEAM HAMMERS

Capacity (pounds):	*Price, each*
2,000	$6,885
2,500	8,090
3,000	8,300
3,500	9,610
4,000	10,440
5,000	11,250
6,000	14,130
8,000	20,520
10,000	28,260
12,000	34,020
12,000, C. S. stands	35,550

STEAM DROP HAMMERS

Capacity (pounds):	*Price, each*
1,000	$8,695
1,500	10,725
2,000	11,790
2,500	16,075
3,000	17,550
4,000	22,770
5,000	27,900
6,000	30,420
8,000	39,400
10,000	47,880
12,000	49,760

THE MORRIS MACHINE TOOL CO., CINCINNATI, OHIO

RADIAL DRILLS

	3'11" Col.	4'11" Col.	4'13" Col.	5'13" Col.
Constant speed motor drive on arm	$5,550	$5,885	$7,150	$7,480
Variable speed motor drive on arm	5,300	5,640	6,930	7,250

TABLES

Plain box tables, 18" x 24" x 18"	$110	$110	$110	$110
Plain box tables, 24" x 28" x 18"	180	180	180	180
Universal tables, 18" x 24" x 21"	365	365	365	365

CUTTING LUBRICANT SYSTEM

Including electrical equipment	$200	$200	$200	$200

On 13" column machines price includes rapid traverse to head and electric column clamp. On 11" column machines these are extra. $484 for clamp. $242 for Rapitrav.

	3'	4'
9" col. light duty radials including standard A. C. motor 9 spindle speeds	$2,970	$3,160
9" col. heavy duty radials including standard A. C. motor 12 spindle speeds	3,520	3,720
Plain box table	110	110

Old type horizontal drilling machine, $4,500.

MOTCH & MERRYWEATHER MACH. CO., CLEVELAND, OHIO

NO. 1 AUTOMATIC SAW SHARPENER

Machine arranged for grinding alternate high and low teeth, also the alternately bevelled roof-shaped teeth; drive is enclosed for protection against dust, with built-in dust exhaust system; machine has 2-stroke speeds, oil pump, for lubricating all moving parts inside head. Machine equipped with 1 index plate, 1 grinding wheel, and 1 saw blade arbor for either 28-, 30-, 38-, or 42-inch blade,* belts and pulleys less motor and control $1,000

ELECTRICAL EQUIPMENT

¾ horsepower, 1,800 revolutions per minute, constant-speed, fully enclosed ball-bearing motor with manual starter for operation on 220- or 440-volt, 3-phase, 60-cycle, alternating current 44

Prices on other current and voltages furnished on request.

SPECIFICATIONS

No. 1 Automatic Saw Sharpener

Capacity blade sizes	inches	6 to 42
Maximum pitch will grind	inches	1⅝
Minimum pitch will grind	inch	3/16
Motor required		¾ hp., 1,800 r. p. m.
Weight	pounds	1,000

No. 3 hydraulic feed cold sawing machine

Standard equipment: Hydraulically operated vertical vise, hand operated horizontal vise, 2 V-blocks, gooseneck for cutting without burr, length stop, stock feed by swing lever and automatic elevating roller, star wheel chip remover, 1 28-inch diameter segmental type saw blade, saw blade guard, cutting compound pump and piping, pressure gauge, ammeter, push-button station, belt guard, and 2 horsepower, 1,200 revolutions per minute [1] open-type ball-bearing motor for hydraulic and coolant pumps, less main motor and control $5,300.00

Extra equipment

28-inch diameter high-speed segmental-type saw blades, each	$175.00
30-inch diameter high-speed segmental-type saw blades, each	190.00
Segments for 28-inch blades furnished in .73- or .90-inch pitch, each	6.50
Segments for 30-inch blades furnished in .98-inch pitch, each	5.95
Additional star wheels for chip remover (1 required for each pitch blade) each	15.00
Foot-treadle-operated stock stop	250.00
Dolly-type stock conveyor	200.00
Power driven roller feed attachment	250.00

Electrical equipment [1]

Saw carriage drive: 10 horsepower, 1,800 revolutions per minute, constant-speed open-type ball-bearing motor without base or pulley	$118.00
Starting apparatus: Magnetic starter for 10 horsepower, motor with overload relays for 2 horsepower motor without push button	52.00
Mounting electrical equipment and wiring between motors and starters	50.00

No. 4 hydraulic-feed cold-sawing machine

Standard equipment: Hydraulically operated vertical vise, hand-operated horizontal vise, 2 V-blocks, gooseneck for cutting without burr, length stop, stock feed by swing lever and automatic elevating roller, star wheel chip remover, 1 38-inch diameter segmental-type saw blade, saw-blade guard, cutting-compound pump and piping, pressure gauge, ammeter, push-button station, belt guard, and a 3 horsepower, 1,200 revolution per minute [1] open-type ball-bearing motor for hydraulic and coolant pumps, less main motor and control $8,500.00

Extra equipment

38-inch diameter high-speed segmental-type saw blades, each	$290.00
42-inch diameter high-speed segmental-type saw blades, each	355.00
Segments for 38-inch blades furnished in .98-inch pitch, each	7.40
Segments for 42-inch blades furnished in 1.220-inch pitch, each	7.55
Additional star wheels for chip remover (1 required for each pitch blade), each	15.00
Foot treadle operated stock stop	250.00
Dolly-type stock conveyor	200.00
Power driven roller feed attachment	250.00

[1] Electrical equipment for operation on 220- and 440-volt, 3-phase, 60-cycle alternate current.

MOTCH & MERRYWEATHER MACH. CO., CLEVELAND, OHIO—Continued

SPECIFICATIONS—continued

No. 4 hydraulic feed cold-sawing machine—Continued

Electrical equipment [1]

Saw carriage drive: 15 horsepower, 1,800 revolutions per minute, constant-speed open-type ball-bearing motor without base or pulley	$141.00
Starting apparatus:	
Magnetic starter for 15 horsepower motor with overload relays for 3 horsepower motor without push button for operation on 440-volt alternate current	86.00
Magnetic starter for operation on 220-volt alternate current	86.00
Mounting electrical equipment and wiring between motors and starter	50.00

MURCHEY MACHINE AND TOOL CO., DETROIT, MICH.

NOTE.—Price corrections made upon advice of manufacturer. They differ from those shown in first edition of prices of New Machine Tools.

Model F roller pipe cutting-off machine:	
Less motor and control, less cutter wheel, capacity ⅛- to 2-inch	$550.00
Extra cage of rollers ⅛- to 3/16-inch	38.50
Motors or electrical equipment at vendor's list price.	
Model H roller pipe cutting-off machine:	
Belt driven, less cutter wheel, capacity 1⅛- to 4-inch	745.00
Above machine arranged for motor drive, but not including 3 horsepower 1,200 revolutions per minute motor required	835.00
Extra cage of rollers for cutting pipe from ⅛- to 1¼-inch	65.00
Extra cage of rollers for cutting pipe from 4- to 6-inch	104.50
Motors or electrical equipment vendor's list price.	
Model K double-end reaming and chamfering machine with motor reeves drive less center chuck and tooling	1,997.00
Center chuck and tooling are ordinarily furnished by purchaser.	
Where furnished by Murchey these items are special and are quoted to meet requirements.	
Chaser and die grinding machine less motor:	
Less motor and controls, less chaser holders and fixtures	635.00
Motors or electrical equipment at vendor's list price.	
Fixture No. 2 to grind rake angle of tap or die chasers	106.25
Fixture No. 3 to grind chamfer of the tap chasers	106.25
Fixture No. 4 to grind cutter wheels	106.25
Chaser holder Nos. 66, 67, or 68 ..... each	35.00
No. 11 single-spindle pipe-threading machine (capacity ⅛- to 1¼-inch pipe):	
Less motors, controls, reamers, nipple holders, and chasers	1,842.50
Motors and electrical equipment at vendor's list price.	
NOTE.—Additional equipment listed below.	
No. 11 double-spindle pipe-threading machine (capacity ⅛- to 1¼-inch pipe):	
Less motor, controls, reamers, nipple holders, and chasers	2,975.50
Motors and electrical equipment at vendor's list price.	
Standard equipment for No. 11 pipe-threading machines.	
No. 22 single-spindle pipe-threading machine (capacity ⅛- to 2-inch pipe):	
Less motor, controls, reamers, nipple holders, and chasers	2,514.00
Motors and electrical equipment at vendor's list prices.	
NOTE.—Additional equipment listed below.	
No. 22 double-spindle pipe-threading machine (capacity ⅛ to 2-inch pipe):	
Less motor, controls, reamers, nipple holders, and chasers	4,042.50
Motors, and electrical equipment at vendor's list prices.	
Standard equipment for No. 22 pipe-threading machines.	
No. 11 single-spindle bolt-threading machine (capacity ⅛- to 1-inch N.C.) (standard bed):	
Less motor, controls, less lead screw, lead nuts, locator, and chasers	1,517.00
No. 11 single-spindle bolt-threading machine (long-bed type)	1,550.00
Motors and electrical equipment at vendor's list prices.	
No. 11 double-spindle bolt-threading machine (capacity ⅛- to 1-inch N. C.) (standard bed):	
Less motor, controls, less lead screw, lead nuts, locators, and chasers	2,437.00
No. 11 double-spindle bolt-threading machine (capacity ⅛- to 1-inch N. C.) (long-bed type)	2,503.00
Motors and electrical equipment at vendor's list prices.	

[1] Electrical equipment for operation on 220- and 440-volt, 3-phase, 60-cycle alternate current.

MURCHEY MACHINE AND TOOL CO., DETROIT, MICH.—Continued

No. 11 double-spindle—Continued.	
Standard equipment for No. 11 bolt-threading machines:	
Lead screw attachment geared for any selected pitch (standard-bed machine) each	$370.00
Lead screw attachment geared for any selected pitch (long-bed machine) each	380.00
No. 22 single-spindle bolt-threading machine (capacity ⅛- to 1½-inch N. C.) (standard-bed type):	
Less motor control, less lead screw, lead nuts, locator, and chasers	2,184.00
No. 22 single spindle bolt threading machine (capacity ⅛ to 1½ inches) (long bed type):	
Less motor, control, less lead screw, lead nuts, locator and chasers	2,217.00
Motors and electrical equipment at vendor's list prices.	
No. 22 double spindle bolt threading machine (capacity ⅛ to 1½ inches N. C.) (standard bed type):	
Less motor control, less lead screw, lead nuts, locator and chasers	3,345.00
No. 22 double spindle bolt threading machine (capacity ⅛ to 1½ inches N. C.) (long bed type)	3,410.00
Motors and electrical equipment at vendor's list prices.	
Standard equipment for No. 22 bolt threading machines.	
Lead screw attachment geared for any selected pitch standard bed machine ..... each	357.00
Lead screw attachment geared for any selected pitch (long bed machine ..... each	413.00
No. 22 double spindle long bed shell tapping machine (capacity 1½ to 2½ inches). Less motor, controls, wiring; less taps, chasers and fixtures	3,390.75
No. 32 single spindle thread milling machine (capacity 1 to 4 inches) with standard motors, controls, hydraulic equiment less lead screw, lead nuts, hob milling head and fixture	6,850.00
1 lead screw any single pitch	125.00
1 set lead nuts any single pitch	90.00
1 No. 1 milling head (capacity ⅜ to 1⅜ inches) without cutters	600.00
1 No. 2 milling head (capacity 1 5/16 to 2⅜ inches) without cutters	700.00
1 No. 3 milling head (capacity 2¼ to 3¼ inches) without cutters	800.00
1 No. 4 milling head (capacity 3 3/16 to 4⅛ inches) without cutters	900.00
No. 42 single spindle thread milling machine (capacity 4 to 12 inches) with standard motors, controls, hydraulic equipment less lead screw, lead nuts, hob, milling head and fixture	9,000.00
1 lead screw any single pitch	150.00
1 set lead nuts any single pitch	90.00

MURCHEY MACHINE AND TOOL CO., DETROIT, MICH.—Continued

No. 42 single spindle—Continued.	
1 No. 5 milling head (capacity 3 5/16 to 4⅞ inches) without cutters	$1,000.00
1 No. 6 milling head (capacity 4¾ to 5⅝ inches) without cutters	1,275.00
1 No. 7 milling head (capacity 5 9/16 to 6⅞ inches) without cutters	1,550.00

THE NATIONAL ACME CO., CLEVELAND, OHIO

Machine size	Domestic shipping weight	Price
Model RA-4 Spindle:	*Pounds*	
1" [1]	10,200	$8,200
1 5/16" [1]	13,100	9,450
2¼" [1]	23,700	11,550
2 5/16" [1]	24,500	12,375
3½" [1]	30,000	13,650
4¾" [1]	32,000	16,425
5¼" [1]	33,000	17,600
Model RA-6 Spindle:		
9/16"	9,500	7,875
1"	10,500	9,025
1¼"	13,200	9,775
1 5/16"	23,200	12,000
2" RAS	23,700	13,450
2 5/16"	29,100	15,200
3½"	33,300	18,400
Model RA-8 Spindle:		
1 5/16" [1]	29,300	14,700
2¼" [1]	33,100	17,250
2 5/16" [1]	34,700	18,300

[1] These machines temporarily discontinued.

NATIONAL ACME

Obsolete machines		Equivalent
Model No.	Description	
715	9/16" plain	$3,000
515	9/16" with threading	3,520
72	¾" plain	3,200
52	¾" with threading	3,750
73	1" plain	3,600
53	1" with threading	4,000
75	1 5/16" plain	4,700
55	1 5/16" with threading	5,200
76	2¼" plain	5,000
56	2¼" with threading	5,500

THE NATIONAL AUTOMATIC TOOL CO., RICHMOND, IND.

DRILLS

Model	Head size	Bored for	Size upper joints	Item No. 1 base price arranged for belt or motor drive	Item No. 2 base price reversing motor drive tapper	Spindles standard	Tap holders
			Inches				
C type 12	10" x 16"	20	1	$3,060	$2,675	$35	$13
C type 13	14" round	18	1¼	3,680	3,305	35	13
Do	16" x 24"	24	1¼	3,965	3,590	35	13
Do	10" x 40"	32	1	4,340	3,840	35	13
B type 14	18" round	12	2	4,230	3,845	[1] 65 [2] 40 [3] 40	[1] 23 [2] 12 [3] 13
Do	18" round	18	1½	4,305	3,865	Same as above	
Do	16" x 32"	16	2	4,820	4,415	Same as above	
Do	18" x 32"	24	1½	4,845	4,385	Same as above	
B type 16	26" round	12	2	4,445	3,970	[1] 65 [2] 40 [3] 40	[1] 22 [2] 13 [3] 13
Do	26" round	22	1½	4,585	4,095	Same as above	
Do	22" x 38"	24	2	5,515	5,045	Same as above	
Do	22" x 38"	34	1½	5,610	5,165	Same as above	
Do	22" x 38" [4]	48	1	5,815	5,370	Same as above	
Do	24" x 50"	42	1½	6,285	5,825	Same as above	
Do	24" x 50" [4]	60	1	6,635	6,175	Same as above	

[1] 3 or 4. [2] 2 or 3. [3] 1 or 2.

[4] These heads are not designed for drilling or tapping in steel, and should not be used for drilling or tapping larger than ¼-inch holes in case iron or ½-inch holes in aluminum.

The No. 16 machine was formerly known as No. 30.

THE NATIONAL AUTOMATIC TOOL CO., RICHMOND, IND.—Continued

MODEL B TYPE 14—NATCO MULTIDRILLER AND TAPPER

Item No. 1, base price includes all electrical equipment including enclosed motor and power feed to head but does not include adjustable table. For tapping operations this machine must be arranged with a mechanical tapping attachment.

Item No. 2, base price includes all electrical equipment including enclosed motor and hand feed to head but does not include adjustable table.

PRICES FOR ADDITIONAL ATTACHMENTS

Cluster plate	$150
Slip spindle plate	235
Add for boring slip spindle plate, per hole	8
Slip spindles, plain nose (for use with slip spindle plates only):	
Standard 2¼" diameter No. 3 or 4 M. T	65
Standard 1⅝" diameter No. 2 or 3 M. T	40
Standard 1⅜" diameter No. 1 or 2 M. T	40
Special 1⅛" diameter No. 1 or 2 M. T	45
Special ⅞" diameter No. 1 or 2 M. T	45
Slip spindles, nose adjusting (for use with slip spindle plates only):	
Standard 2¼" diameter No. 2 or 3 M. T	65
Standard 1⅝" diameter No. 1 or 2 M. T	40
Standard 1⅜" diameter No. 1 M. T	40
Special 1⅛" diameter No. 1. M. T	45
Tapping attachment (for machines under item No. 1 only)	620
Spot facing attachment (for machines under item No. 1 only)	435
Coolant pump, gear driven gear type (for machines under item No. 1 only)	85
Coolant pump, motor driven, complete with motor and controls for machines under Item No. 2 or for machines under item No. 1 or 2 if arranged with a V belt drive	160
Extension to column and feed, 12"	150
Extension to column and feed, 24"	260

ADDITIONAL EQUIPMENT PRICES FOR MACHINES ALREADY IN FIELD

Size	Spindles taper	Price
	STANDARD	
2¼"	3 or 4	$75
1⅝"	2 or 3	45
1⅜"	1 or 2	45
	SPECIAL	
1⅛"	1 or 2	50
⅞"	1 or 2	50

MODEL B TYP 16—NATCO MULTIDRILLER AND TAPPER

Item No. 1, base price includes all electrical equipment including enclosed motor and power feed to head but does not include adjustable table. For tapping operations this machine must be arranged with a mechanical tapping attachment. Item No. 2, base price includes all electrical equipment including enclosed motor and hand feed to head but does not include an adjustable table.

PRICES FOR ADDITIONAL ATTACHMENTS

Cluster plate	$265
Slip spindle plate	335
Add for boring slip spindle plate, per hole	8
Slip spindles, plain nose (for use with slip spindle plates only):	
Standard 2¼" diameter No. 3 or 4 M. T	65
Standard 1⅝" diameter No. 2 or 3 M. T	40
Standard 1⅜" diameter No. 1 or 2 M. T	40
Special 1⅛" diameter No. 1 or 2 M. T	45
Special ⅞" diameter No. 1 or 2 M. T	45
Slip spindles, nose adjusting (for use with slip spindle plates only):	
Standard 2¼" diameter No. 2 or 3 M. T	65
Standard 1⅝" diameter No. 1 or 2 M. T	40
Standard 1⅜" diameter No. 1 M. T	40
Special 1⅛" diameter No. 1 M. T	45
Tapping attachment (for machines under item No. 1 only)	670
Spot facing attachment (for machines under item No. 1 only)	435
Coolant pump, gear driven gear type (for machines under item 1 only)	85
Coolant pump, motor driven, complete with motor and controls for machines under Item No. 2 or for machines under item No. 1 or No. 2 if arranged with a V-belt drive	160
Extension to column and feed, 12"	150
Extension to column and feed, 24"	260
Extension to column and feed, 36"	430

ADDITIONAL EQUIPMENT PRICES FOR MACHINES ALREADY IN FIELD

Size	Spindles, Taper, Standard	Price
2¼"	3 or 4	$75
1⅝"	2 or 3	45
1⅜"	1 or 2	45
	SPECIAL	
1⅛"	1 or 2	50
⅞"	1 or 2	50

THE NATIONAL AUTOMATIC TOOL CO., RICHMOND, IND.—Continued

MODEL C TYPE 12—NATCO MULTIDRILLER AND TAPPER

Item No. 1, Base price includes all electrical equipment including enclosed motor, adjustable table and power feed to head.

Item No. 2, Base price includes all electrical equipment including enclosed motor, adjustable table and hand feed to head.

PRICES FOR ADDITIONAL ATTACHMENTS

Cluster plate	$115
Slip spindle plate	165
Add for boring slip spindle plate, per hole	8
Slip spindles, plain nose (for use with slip spindle plate only):	
Standard 1⅛" diameter No. 1 or 2 M. T	35
Special ⅞" diameter No. 1 or 2 M. T	45
Slip spindle, nose adjusting (for use with slip spindle plate only):	
Standard 1⅛" diameter No. 1 M. T	35
Tapping attachment (for machines under item No. 1 only)	430
Spot facing attachment (for machines under item No. 1 only)	435
Coolant pump, belt driven gear type (for machines under item No. 1 only)	85
Coolant pump, motor driven, complete with motor and controls for machines under item No. 2 or for machines under item No. 1 or 2 if arranged with a V belt drive	160
12-inch extension to column and feed	120

ADDITIONAL EQUIPMENT PRICES FOR MACHINES ALREADY IN FIELD

Size	Spindles Taper, Standard	Price
1⅛"	1 or 2	$40
	SPECIAL	
⅞"	1 or 2	50

MODEL C TYPE 13—NATCO MULTIDRILLER AND TAPPER

Item No. 1, base price includes all electrical equipment including enclosed motor, adjustable table and power feed to head.

Item No. 2, base price includes all electrical equipment including enclosed motor, adjustable table and hand feed to head.

PRICE FOR ADDITIONAL ATTACHMENTS

Cluster plate	$120
Slip spindle plate	205
Add for boring slip spindle plate, per hole	8
Slip spindles, plain nose (for use with slip spindle plate only):	
Standard 1⅛" diameter No. 1 or 2 M. T	35
Special 1⅛" diameter No. 1 or 2 M. T	45
Slip spindle, nose adjusting (for use with slip spindle plate only):	
Standard 1⅛" diameter No. 1 M. T	35
Special 1⅛" diameter No. 1 M. T	45
Tapping attachment (for machines under item No. 1 only)	430
Spot facing attachment (for machines under item No. 1 only)	435
Coolant pump, belt driven gear type (for machines under item No. 1 only)	85
Coolant pump, motor driven complete with motor and controls for machines under item No. 2, or for machines under item No. 1 or 2 with a V belt drive	160
Extension to column and feed, 12"	120

THE NATIONAL AUTOMATIC TOOL CO., RICHMOND, IND.—Continued

ADDITIONAL EQUIPMENT PRICES FOR MACHINES ALREADY IN FIELD

Size	Spindles Taper Standard	Price
1⅜"	1 or 2	$40
	SPECIAL	
1⅛"	1 or 2	50
⅞"	1 or 2	50
⅝"	0 or 1	50

MISCELLANEOUS EQUIPMENT

Standard rotating tables, hand indexed for 2, 3, 4, or 6 positions:	
22-inch diameter table [1]	$355
34-inch diameter table [1]	500
44-inch diameter table [1]	710
Additional charge for indexing other than above	45
Additional charge for T slots in working surface of table	35

Additional charge for electric Interlock on Natco C12, C18, B14, B16, and B225H machines, $250.

NATIONAL BROACH & MACHINE CO., DETROIT, MICH.

Type of machine	Capacity	Price
Standard Gear Shaving Machine.	1" to 8"	$5,025
Do	1" to 12"	5,855
Do	3" to 16"	6,525
Do	3" to 24"	11,590
Heavy Duty Gear Shaving Machine.	1" to 8"	5,425
Do	1" to 12"	6,355
Do	3" to 18"	7,750
Gear Lapping Machine	1" to 8"	3,360
Do	3" to 15"	3,865
Do	3" to 18"	4,255
Sound Testing Machine:		
Hollow spindle	10" O. D	1,795
Solid spindle	10" O. D	1,695
Hollow spindle	18" O. D	2,650
Solid spindle	18" O. D	2,550
Universal Gear Tester	1½" to 12½"	1,600
Do	3" to 24"	2,400
Lead Comparator	1½" to 12½"	2,025
Do	3" to 24"	3,070
Roto Milling Machine	10" maximum	24,710
Do	24" maximum	29,425
Roto Shaving Machine	Vertical type	8,600
Do	Horizontal type	11,950
Gear Grinding Machine (12" between centers):		
For spur gears	18" O. D	11,300
For helical gears	18" O. D	13,850
Profile Milling Machine	3" x 5"	9,650
Do	6" x 10"	13,050

NATIONAL MACHINERY CO., TIFFIN, OHIO

NATIONAL SEMIHOT AUTOMATIC FEED HEADERS—SEMIAUTOMATIC HAMMER HEADERS

Size	Net weight	Price belt drive with regular equipment	Price geared motor drive with regular equipment [1]	Regular equipment	Size of motor	R. p. m. of motor
	Pounds				*Horsepower*	
⅜" semihot rivet header, steel bed, with automatic feed	7,200	$8,350	$9,100	A	10	900
⅝" semihot rivet header, steel bed, with automatic feed [2]	18,000	13,125	14,100	A	20	900
1" automatic feed hot header, steel bed [2]	18,000	13,125	14,100	A	20	900
1" semihot rivet header, steel bed, with automatic feed [2]	31,500	17,325	18,375	A	30	720
1¼" automatic feed hot header, steel bed [2]	31,500	17,325	18,375	A	30	720
1" continuous motion semiautomatic hammer bolt header	12,000	8,625	9 450	B	10	900
1½" same	25,000	14,675	15,725	B	15	900

A—The regular equipment includes automatic feed attachment, automatic oiling system, friction-slip flywheel, countershaft, wrenches and one size of sample dies.

B—The regular equipment includes friction-slip flywheel, countershaft, wrenches, cam for any one number of blows and one size of sample dies.

[1] Geared motor drive includes cut steel driving gear, silent motor pinion, gear guard, motor platform, mounting of the motor if sent to us, etc., but does not include motor or controls. (Drive is though the national friction-slip flywheel.

[2] Keep in mind that the ⅝" semihot is a 1" hot header, and the 1" semi-hot is a 1¼" hot header. In every case where low price is a deciding factor, the quotation should cover both semihot and hot machines.

NATIONAL MACHINERY CO., TIFFIN, OHIO—Continued

NATIONAL HIGH DUTY FORGING MACHINES

Size	Net weight	Price V-belt motor drive	Allowance for omission of dies	Extra for side shear	Extra for back stop	Regular equipment[1]	Size of motor	R. p. m. of motor
	Pounds						*Horsepower*	
1" high duty heading and forging machine	13,000	$9,250	$150	$160	$90	C	7½	900
extra for rivet ejector		325						
extra for bending attachment		265						
1⅛" high duty heading and forging machine	23,500	12,950	225	175	100	C	10	900
extra for rivet ejector		340						
extra for bending attachment		265						
extra for back gages for grab irons		190						
2" high duty forging machine	37,000	16,550	300	190	140	C	15	900
2⅛" same	43,000	20,275	375	210	150	C	20	900
3" same	75,000	26,100	450	250	190	C	25	900
4" same	130,000	38,300	600	290	225	C	40	720 or 900
5" same	180,000	50,600	750	340	260	C	50	720 or 900
6" same	255,000	73,850	900	390	290	C	75	720 or 900
7½" same	375,000	107,500	1,125	450	350	C	150	600 or 720
9" same	580,000	141,750	1,350	500	425	C	250	600 or 720

NATIONAL HIGH SPEED FORGING MAXIPRESSES

Size	Net weight	Price V-belt motor drive with regular equipment[1]	Size of motor	R. p. m. of motor
	Pounds		*Horsepower*	
No. 1½	32,000	$12,300	20	900
No. 2	42,000	14,950	30	900
No. 3	70,000	20,600	50	900
No. 4	122,000	34,500	75	900
No. 5	184,000	47,600	100	900
No. 6	280,000	71,200	150	900

NATIONAL COINING MAXIPRESSES

Size	Net weight	Price V-belt motor drive with regular equipment[1]	Size of motor	R. p. m. of motor
	Pounds		*Horsepower*	
No. 1	19,000	$7,600	10	900
No. 1½	31,600	11,700	15	900
No. 2	41,200	14,300	25	900
No. 3	69,000	19,650	40	900
No. 4	120,000	32,900	50	900
No. 5	180,000	45,400	75	900
No. 6	275,000	67,950	100	900

[1] Regular equipment includes over-arm ram, friction air clutch with telltale safety, air brake, centralized force feed lubrication and wrenches, V-belts, motor sheave, adjustable motor platform, mounting of motor if sent to us, but does not include motor or dies.

NATIONAL MACHINERY CO., TIFFIN, OHIO—Continued

NATIONAL DOUBLE STROKE OPEN DIE COLD HEADERS (UNIVERSAL TYPE)

Size	Length	Net weight	Price belt drive with regular equipment[1]	Price motor drive with regular equipment[2]	Size of motor	R. p. m. of motor	Code word belt drive	Code word motor drive
		Pounds			*Horsepower*			
⅛"	1½"	2,800	$4,375	$4,475	2	1,800	Colub	Ellub.
3/16"	2½"	4,800	5,525	5,675	3	1,200	Coluf	Elluf.
¼"	3"	8,700	7,000	7,200	5	1,200	Coluk	Elluk.
5/16"	3½"	11,700	8,750	8,975	7½	1,200	Colum	Ellum.
⅜"	4"	16,400	10,950	11,200	15	1,200	Colup	Ellup.
½"	5"	31,000	15,200	15,500	20	1,200	Colur	Ellur.
⅝"	6"	57,500	22,400	22,750	40	900	Colue	Ellue.
¾"	8"	73,000	32,200	32,650	50	900	Colud	Ellud.

NATIONAL COLD BALL HEADERS

Size	Net weight	Price belt drive with regular equipment[1]	Price motor drive with regular equipment[2]	Size of motor	R. p. m. of motor
	Pounds			*Horsepower*	
3/16"	2,100	$3,150	$3,250	2	1,200
5/16"	3,800	4,225	4,375	3	1,200
7/16"	6,700	5,650	5,850	5	1,200
9/16"	9,700	7,325	7,550	7½	1,200
1 1/16"	13,400	9,400	9,650	10	1,200
1 3/16"	22,200	12,700	13,000	20	1,200
1"	39,500	17,900	18,250	40	900

[1] Regular equipment for both single and double blow machines includes steel bed frame, over arm heading slide, friction slip flywheel, cut-off and carry-over mechanism, automatic oiling system, wrenches, and one set of sample dies.
[2] Motor drive: Multiple V-belt motor drive is furnished on 1/8", 3/16", ¼", and 5/16" machines. The ⅜" and above are furnished direct geared motor drive.

NATIONAL SINGLE STROKE SOLID DIE COLD HEADERS

Size	Length	Net weight	Price belt drive with regular equipment[1]	Price motor drive with regular equipment[2]	Size of motor	R. p. m. of motor
		Pounds			*Horsepower*	
⅛"	¾"	2,100	$2,450	$2,550	2	1,200
3/16"	1"	3,800	3,325	3,475	3	1,200
¼"	1⅜"	6,700	4,550	4,750	5	1,200
5/16"	1 9/16"	9,700	5,925	6,150	7½	1,200
⅜"	1¾"	13,400	7,625	7,875	10	1,200
½"	2¼"	22,200	10,600	10,900	20	1,200
⅝"	3¼"	39,500	15,250	15,600	40	900
¾"	4½"	58,500	22,550	22,700	50	900

NATIONAL LONG STROKE SINGLE BLOW SOLID DIE COLD HEADERS

		Pounds			*Horsepower*	
⅛"	1½"	2,400	$3,000	$3,100	2	1,200
3/16"	2½"	4,450	3,950	4,100	3	1,200
¼"	3"	7,700	5,200	5,400	5	1,200
5/16"	3½"	10,650	6,675	6,900	7½	1,200
⅜"	4"	15,400	8,425	8,675	15	1,200
½"	5"	27,850	11,550	11,850	20	1,200
⅝"	6"	49,800	16,750	17,100	40	900
¾"	8"	65,000	23,850	24,300	50	900

[1] Regular equipment for both single and double blow machines includes steel bed frame over arm heading slide, friction slip flywheel cut-off and carry-over mechanism, automatic oiling system, wrenches, and one set of sample dies.
[2] Motor drive: Multiple V-belt motor drive is furnished on 1/8", 3/16", ¼", 5/16". The ⅜" and above are furnished direct geared motor drive.

NATIONAL MACHINERY CO., TIFFIN, OHIO—Continued

NATIONAL DOUBLE STROKE SOLID DIE COLD HEADERS

Size	Length	Net weight	Price belt drive with regular equipment	Price motor drive with regular equipment	Size of motor	R. p. m. of motor
		Pounds			*Horsepower*	
1/8"	3/4"	2,200	$3,375	$3,475	2	1,800
5/16"	1"	4,100	4,475	4,625	3	1,200
1/4"	1 3/8"	7,000	5,900	6,100	5	1,200
5/16"	1 9/16"	10,400	7,500	7,725	7 1/2	1,200
3/8"	1 3/4"	14,800	9,525	9,775	10	1,200
1/2"	2 1/2"	22,800	13,200	13,500	20	1,200
5/8"	3 1/4"	42,000	19,325	19,675	40	900
3/4"	4 1/2"	60,000	27,950	28,400	50	900

NATIONAL LONG STROKE DOUBLE BLOW SOLID DIE COLD HEADERS

		Pounds			*Horsepower*	
1/8"	1 1/4"	2,700	$4,000	$4,100	2	1,800
5/16"	2 1/2"	4,650	5,050	5,200	3	1,200
1/4"	3"	8,500	6,525	6,725	5	1,200
5/16"	3 1/4"	11,450	8,225	8,450	7 1/2	1,200
3/8"	4"	15,700	10,350	10,600	15	1,200
1/2"	5"	28,700	14,375	14,675	20	1,200
5/8"	6"	53,000	20,850	21,200	40	900
3/4"	8"	67,000	30,050	30,500	50	900

[1] Regular equipment for both single and double blow machines includes steel bed frame, over-arm heading slide, friction-slip flywheel, cut-off and carry-over mechanism, automatic oiling system, wrenches, and one set of sample dies.
[2] Motor drive: multiple V-belt motor drive is furnished on 1/8", 3/16", 1/4", and 5/16" machines. The 3/8" and above are furnished direct geared motor drive.

Multiple V-belt drive includes belts, motor sheave, adjustable motor platform, guard, mounting of motor if sent to us, but does not include motor.

Direct geared drive includes cut steel driving gear, silent motor pinion, motor platform, guard, mounting of motor if sent to us, but does not include motor.

Attachments for cold headers

RELIEVING ATTACHMENT

Size	Price	Code Word
1/4"	$425	Relab.
5/16"	475	Relak.
1/4"	550	Relaw.
5/16"	600	Reled.
3/8"	650	Reliz.
1/2"	725	Relop.
5/8"	825	Relor.
3/4"	950	Relot.

Relieving attachments are available for all double-blow machines. This attachment must be installed at the time the machine is built.

STANDARD WIRE STRAIGHTENERS

1/8"	$125	Strab.
5/16"	150	Stram.
1/4"	170	Strat.
5/16"	190	Straw.
3/8"	200	Strax.
1/2"	225	Straz.

Standard wire straighteners are available for all types of machines.

FEEDING MECHANISM AND STRAIGHTENING DEVICE

1/4"	$1,400	Strad.
5/8"	1,650	Stray.
3/4"	2,700	Stras.

Feeding mechanism and straightening device is available for all large machines. Price includes special stallable type motor. This attachment for the 3/4" Machine also includes motor driven hydraulic grip roll.

NATIONAL MACHINERY CO., TIFFIN, OHIO—Continued

NATIONAL AUTOMATIC BOLT TRIMMER

Size	Net weight	Price belt drive with regular equipment	Price V-Belt motor drive with regular equipment [1]	Price geared motor drive with regular equipment [2]	Size of motor	R.p.m. of motor	Code word belt drive	Code word geared motor drive
	Pounds				*Horsepower*			
1" machine	9,700	$7,000	$7,250	$7,650	5	900	Trima	Eltri.
Extra for feeding table, conveyor and scrap separator.	1,400	875					Trimx	

The regular equipment includes lubricating system, oil pan, countershaft, wrenches and a complete set of tools for trimming 1/2", 5/8", 3/4", 7/8", and 1" USS Square and Hexagonal head bolts.

[1] V-belt motor drive includes multiple V-belts, motor sheave, but does not include the motor. Motor is mounted on floor, and connection is by V-belts.
[2] Geared motor drive includes cut steel motor gear, silent pinion, motor platform, mounting, etc., but does not include motor.

NATIONAL BOLT POINTERS

Size	Net weight	Price belt drive with regular equipment	Price motor drive with regular equipment [1]	Regular equipment	Size of motor	R.p.m. of motor	Code word belt drive	Code word motor drive
	Pounds				*Horsepower*			
5/8" bench pointer	400	$475	$525	A	3/4	1,200	Poiad	Eliad.
1" pointer	1,000	650	750	B	1	1,200	Poiam	Eliam.
1 1/4" pointer	1,475	775	1,150	C	1 1/2	1,200	Poiap	Eliap.
2" pointer	1,775	900	1,325	D	2	1,200	Poiar	Eliar.

Regular equipment—A includes wrenches, bushings, and cutting tools for pointing 3/8, 1/4, 5/16, 1/2, and 5/8 inch diam. Countershaft is furnished extra when ordered.
B includes countershaft, wrenches, bushings, and cutting tools for pointing 1/4, 3/8, 1/2, 5/8, 3/4, 7/8, and 1 inch diam.
C includes pump, countershaft, wrenches, bushings, and cutting tools for pointing 3/8, 1/2, 5/8, 3/4, 7/8, 1, 1 1/4, and 1 1/2 inch diam.
D includes pump, countershaft, wrenches, bushings, and cutting tools for pointing 1/2, 5/8, 3/4, 7/8, 1, 1 1/8, 1 1/4, 1 1/2, 1 3/4, and 2 inch diam.

[1] On 1" machine a direct geared single, constant speed motor drive is provided; but on the 1 1/2" and 2" machines a speed change device is provided, giving four changes of speed, the same as used on national motor-driven bolt cutters. Any make of shunt wound constant speed DC motor, or squirrel cage AC motor is satisfactory. Price includes mounting but does not include motor.

NATIONAL LAG SCREW GIMLET POINTERS

Size	Net weight	Price belt drive with regular equipment [1]	Price motor drive with regular equipment [2]	Size of motor	R.p.m. of motor	Code word belt drive	Code word motor drive
	Pounds			*Horsepower*			
1/4" machine	1,800	$2,000	$2,100	3	1,200	Poias	Elias.
3/4" machine	2,100	2,400	2,600	5	1,200	Poiat	Eliat.

[1] The regular equipment includes pump, countershaft, wrenches, and one sample set of cutters.
[2] A direct-geared, single constant speed, motor drive is provided.

Price includes mounting, but does not include motor.
Any make of shunt wound constant speed DC or squirrel cage AC motor is satisfactory.

NATIONAL MACHINERY CO., TIFFIN, OHIO—Continued

NATIONAL RAPID BOLT CUTTERS

Size	Net weight	Price belt drive with regular equipment	Price motor drive with regular equipment [1]	Regular equipment	Size of motor	R.p.m. of motor	Code word belt drive	Code word motor drive
	Pounds				*Horsepower*			
⅝" single bench	575	$475	Not built	A			Rapad	Elpad.
⅝" single rapid	1,100	800	Not built	B			Rapaf	Elpaf.
⅝" double rapid	1,800	1,260	$1,650	C	2	1,200	Rapak	Elpak.
1" double rapid	2,450	1,550	2,000	D	3	1,200	Rapal	Elpal.
1" triple rapid	3,250	2,100	2,650	E	5	1,200	Rapan	Elpan.
1" quadruple rapid	4,800	2,850	3,475	F	5	1,200	Rapar	Elpar.

Regular Equipment—A includes countershaft, wrenches, screw vise, and one set of sample dies.
B includes pump, countershaft, wrenches, screw vise, and one set of sample dies.
C and D include pump, countershaft, wrenches, screw vises, and two sets of sample dies.
E includes pump, countershaft, wrenches, screw vises, and three sets of sample dies.
F includes pump, countershaft, wrenches, screw vises, and four sets of sample dies.
Plain or track bolt vises will be substituted for screw vises, if wished.

[1] Price covers patented speed change device and Morse chain drive, but does not include motor. Four changes of speed are provided in the gearing, hence any make of shunt wound constant speed DC or squirrel cage AC motor is satisfactory.

Price includes attaching of motor, if motor is shipped to Tiffin.

NATIONAL (OPEN DIE) BOLT CUTTERS; ALSO LEAD SCREW ATTACHMENTS

Size	Net weight	Price machine only [1]	Price tap chuck only	Price complete with regular equipment	Regular equipment [2]	Code word	Lead screw attachment extra [3] [4]	Change gears per set	Code word machine with lead screw
	Pounds								
¾" single B. C	1,275	$800	$20	$900	A	Cutad	Not built	----------	----------
1" single B. C	1,425	875	20	985	B	Cutaf	Not built	----------	----------
1¼" single B. C	1,450	890	20	1,010	C	Cutag	$160	$14.50	Cutig.
1½" single B. C	1,800	900	25	1,070	D	Cutak	185	14.50	Cutik.
2" single B. C	2,500	1,125	30	1,415	E	Cutal	215	14.50	Cutin.
2½" single B. C	3,800	1,800	30	2,190	F	Cutam	230	18.80	Cutip.
3" single B. C	4,200	2,200	53	2,750	G	Cutap	290	18.00	Cutir.
3½" single B. C	4,400	2,325	60	3,060	H	Cutat	315	20.00	Cutis.
4" single B. C	4,500	2,850	60	3,675	I	Cutaw	355	20.00	Cutit.
5" single B. C	5,150	2,925	100	3,410	J	Cutax	355	20.00	Cutiv.
6" single B. C	5,850	3,350	125	3,950	K	Cuteb	425	20.00	Cutix.
¾" double B. C	2,100	1,425	------	1,550	L	Cutef	315	14.50	Cutob.
1" double B. C	2,200	1,575	------	1,725	M	Cuteg	315	14.50	Cutog.
1¼" double B. C	2,300	1,700	------	1,865	N	Cutek	315	14.50	Cutok.
1½" double B. C	2,600	1,775	------	1,985	O	Cutel	350	14.50	Cutol.
2" double B. C	4,300	2,250	------	2,635	P	Cutem	370	14.50	Cutom.
2½" double B. C	4,675	2,850	------	3,235	Q	Cutep	450	18.00	Cutop.
1" triple B. C	3,000	2,200	------	2,310	R	Cutet	480	14.50	Cutos.
1¼" triple B. C	3,700	2,575	------	2,700	S	Cutew	500	14.50	Cutow.
2" triple B. C	5,700	3,300	------	3,470	T	Cutex	550	14.50	Cutox.
1" quadruple B. C	4,800	2,975	------	3,080	U	Cutey	Not built	----------	----------
1¼" quadruple B. C	5,000	3,400	------	3,535	V	Cutib	Not built	----------	----------
1½" double stay B. C	3,700	1,975	------	2,185	W	Cutif	370	14.50	Cutoz.

In ordering always state style of thread wished.

[1] Price machine only includes pump, countershaft, wrenches, but no dies, taps or tap chucks.
[2] For list of regular equipment see below under regular equipment.
[3] The above prices on Lead Screw Attachment include one set of change gears for any one pitch of thread.
[4] In quoting on lead screw machines which do not have lead screws for all heads, write for special prices.

NATIONAL MACHINERY CO., TIFFIN, OHIO—Continued

MOTOR DRIVE ATTACHMENTS FOR NATIONAL BOLT CUTTERS

Size	Price motor drive attachments, without motor [1]	Number of steps in speed box	Size of motor recommended h. p.	R.p.m. of motor	Code words of motor driven bolt cutters			
					Without lead screw attachment		With lead screw attachment	
					Without motor	With motor included	Without motor	With motor included
1" single	$465	4	1½	1,200	Cumad	Cumew	Cumog	Cumut.
1¼" single	500	4	2	1,200	Cumag	Cumex	Cumok	Cumuv.
1½" single	515	4	2	1,200	Cumak	Cumey	Cumol	Cumux.
2" single	560	4	3	1,200	Cumal	Cumid	Cumon	Cupad.
2½" single	600	6	5	1,200	Cuman	Cumif	Cumop	Cupak.
3" single	665	6	5	1,200	Cumap	Cumig	Cumor	Cupal.
3½" single	710	6	7½	1,200	Cumar	Cumij	Cumos	Cupan.
4" single	800	6	7½	1,200	Cumas	Cumik	Cumot	Cupar.
1" double	490	4	3	1,200	Cumaw	Cumil	Cumow	Cupas.
1¼" double	500	4	3	1,200	Cumax	Cumin	Cumox	Cupat.
1½" double	560	4	4	1,200	Cumay	Cumip	Cumud	Cupaw.
2" double	600	4	5	1,200	Cumeb	Cumir	Cumuf	Cupax.
2½" double	725	6	7½	1,200	Cumef	Cumis	Cumug	Cupay.
1" triple	580	4	5	1,200	Cumej	Cumit	Cumuk	Cupaz.
1½" triple	600	4	5	1,200	Cumel	Cumiv	Cumul	Cuped.
2" triple	725	4	7½	1,200	Cumen	Cumix	Cumun	Cupek.
1" quadruple	600	4	5	1,200	Cumep	Cumiz	Cumup	Cupen.
1¼" quadruple	700	4	7½	1,200	Cumer	Cumob	Cumor	Cuper.
1½" double stay B. C	560	4	5	1,200	Cumet	Cumoe	Cumus	Cupet.

[1] These prices are to be added to those of the belt driven bolt cutters.

Prices cover patented speed change device, and Morse chain drive, but do not include motor. Any make of shunt wound constant speed DC motor, or squirrel cage AC motor can be used.
Prices include attaching of motor, if motor is shipped to Tiffin.

REGULAR EQUIPMENT FURNISHED WITH NATIONAL BOLT CUTTERS

The regular equipment furnished with the machines shown on p. — includes pump, countershaft, wrenches, and the following interchangeable dies with hardened steel cases (or plain case dies), taps, tap chuck, etc., as listed below:

A—6 sets dies; 1 each 5/16, ¼, ⅜, ½, ⅝, and ¾ inch; 6 nut taps to correspond; and tap chuck.
B—7 sets dies; 1 each ¼, ⅜, ½, ⅝, ¾, ⅞, and 1 inch; 7 nut taps to correspond; and tap chuck.
C—8 sets dies; 1 each ⅜, ½, ⅝, ¾, ⅞, 1, 1⅛, and 1¼ inch; 8 nut taps to correspond; and tap chuck.
D—9 sets dies; 1 each ⅜, ½, ⅝, ¾, ⅞, 1, 1⅛, 1¼, and 1½ inch; 9 nut taps to correspond; and tap chuck.
E—11 sets dies; 1 each ½, ⅝, ¾, ⅞, 1, 1⅛, 1¼, 1⅜, 1½, 1¾, and 2 inch; 11 nut taps to correspond; and tap chuck.
F—13 sets dies; 1 each ¾, ⅞, 1, 1⅛, 1¼, 1⅜, 1½, 1⅝, 1¾, 1⅞, 2, 2¼, and 2½ inch; 13 nut taps to correspond; and tap chuck.
G—13 sets dies; 1 each 1, 1⅛, 1¼, 1⅜, 1½, 1⅝, 1¾, 1⅞, 2, 2¼, 2½, 2¾, and 3 inch; 13 nut taps to correspond; and tap chuck.
H—15 sets dies; 1 each 1, 1⅛, 1¼, 1⅜, 1½, 1⅝, 1¾, 1⅞, 2, 2¼, 2½, 2¾, 3, 3¼, and 3½ inch; 15 nut taps to correspond; and tap chuck.
I—13 sets dies; 1 each 1½, 1⅝, 1¾, 1⅞, 2, 2¼, 2½, 2¾, 3, 3¼, 3½, 3¾, and 4 inch; 13 nut taps to correspond; and tap chuck.
J—15 sets dies; 1 each 1½, 1⅝, 1¾, 1⅞, 2, 2¼, 2½, 2¾, 3, 3¼, 3½, 3¾, 4, 4½, and 5 inch; and tap chuck.
K—17 sets dies; 1 each 2, 2¼, 2½, 2¾, 3, 3¼, 3½, 3¾, 4, 4¼, 4½, 4¾, 5, 5¼, 5½, 5¾, and 6 inch; and tap chuck.
L—10 sets dies: 2 each ¼, ⅜, ½, ⅝, and ¾ inch.
M—12 sets dies; 2 each ⅜, 7/16, ½, ⅝, ¾, and 1 each ⅞ and 1 inch.
N—13 sets dies; 2 each ⅜, ½, ⅝, ¾, ⅞, and 1 each 1, 1⅛, and 1¼ inch.
O—14 sets dies; 2 each ½, ⅝, ¾, ⅞, 1 and 1 each 1⅛, 1¼, 1⅜, and 1½ inch.
P—20 sets dies; 2 each ½, ⅝, ¾, ⅞, 1, 1⅛, 1¼, 1⅜, 1½, and 1 each 1⅝, and 2 inch.
Q—20 sets dies; 2 each ¾, ⅞, 1, 1⅛, 1¼, 1⅜, 1½, 1⅝, 2, and 1 each 2¼, and 2½ inch.
R—9 sets dies; 1 each ¾, ⅜, ½, ⅝, ¾, and 2 each ⅞ and 1 inch.
S—9 sets dies; 1 each ⅜, ½, ⅝, ¾, ⅞, 1, 1⅛, 1¼, and 1½ inch.
T—9 sets dies; 1 each ½, ¾, 1, 1¼, 1⅜, 1½, 1⅝, 1¾, and 2 inch.
U—9 sets dies; 1 each ¼, ⅜, ½, ⅝, ¾, and 2 each ⅞, and 1 inch.
V—9 sets dies; 1 each ⅜, ½, ⅝, ¾, ⅞, 1, 1⅛, 1¼, and 1½ inch.
W—14 sets dies of any size within the capacity of the machine.

NATIONAL DIE SHARPENER

Size die sharpener	Net weight	Price belt drive with regular equipment [1]	Price motor drive with regular equipment [2]	Size of motor	Code word belt drive	Code word motor drive
	Pounds			*Horsepower*		
No. 1	250	$525	$660	¼	Sharm	Elarm.
No. 2	275	635	785	½	Sharx	Elarx.

[1] The regular equipment includes countershaft, and one grinding wheel.
[2] Price motor drive includes motor platform and motor, either DC or AC, any voltage.

NATIONAL MACHINERY CO., TIFFIN, OHIO—Continued

NATIONAL VERTICAL ROLL THREAD MACHINES

Size machine	Net weight	Price belt drive with regular equipment [1]	Price motor drive with regular equipment [2]	Size of motor	R. p. m. of motor	Code word belt drive	Code word motor drive
	Pounds			*Horsepower*			
1"	19,000	$6,825	$7,500	10	900	Rolew	Ellew.
1½"	25,000	9,100	9,800	15	900	Rolex	Ellex.

[1] The regular equipment includes friction-slip flywheel, pump, countershaft, wrenches, and one sample set of dies.
[2] Price for motor drive includes cut steel gear and silent motor pinion, mounting, etc., but does not include the motor. Squirrel cage AC motors are satisfactory, but if motor is DC it should be compound wound.

NATIONAL CENTER FEED HOT PRESSED NUT MACHINES

Size machine	Net weight	Price belt drive with regular equipment [1]	Price motor drive with regular equipment [2]	Size of motor	R. p. m. of motor	Code word belt drive	Code word motor drive
	Pounds			*Horsepower*			
1"	15,000	$7,900	$8,500	10	900	Nutab	Eltab.
1½"	24,000	11,000	11,650	15	900	Nutan	Eltan.
2"	36,000	15,250	16,000	20	720	Nutar	Eltar.

[1] The regular equipment includes friction-slip flywheel, wrenches and one size of sample dies.
[2] Price for motor drive includes cut steel gear and silent motor pinion, mounting, etc., but does not include the motor. Squirrel cage AC motors are satisfactory, but if motor is DC it should be compound wound.

NATIONAL SEMIAUTOMATIC NUT BURRING MACHINES

Size machine	Net weight	Price belt drive with regular equipment [1]	Price motor drive with regular equipment [2]	Size of motor	R. p. m. of motor	Code word belt drive	Code word motor drive
	Pounds			*Horsepower*			
¾"	2,000	$2,300	$2,500	2	1,200	Buran	Elran.
1¼"	2,900	2,400	2,650	3	1,200	Burap	Elrap.
2"	3,300	2,550	2,800	5	1,200	Burax	Elrax.

[1] The regular equipment includes countershaft, wrenches, and tools as follows: For ¾" machine, all tools to burr all sizes of nuts from ⅜" to ¾" U. S. Standard, square and hexagonal.
For 1¼" machine, all tools for ⅝" to 1¼" U. S. Standard, square and hexagonal.
For 2" machine, all tools for 1" to 2" U. S. Standard, square and hexagonal.
[2] Price for motor drive includes cut gear and silent motor pinion, mounting, etc., but does not include the motor. Motors should be 2 to 1 variable speed.

NATIONAL NUTTING BENCHES (BELT DRIVE ONLY)

Size spindle machine	Net weight	Price with regular equipment [1]	Code word
	Pounds		
2	900	$525	Benir.
4	1,600	735	Benit.
6	2,250	990	Benix.

[1] The regular equipment includes countershaft, wrenches, and one sample nut holder and plate for each spindle.

NATIONAL AUTOMATIC PRECISION NUT TAPPERS

Size	Net weight	Price with regular equipment [1]	Extra tools for other size nuts	Code word
	Pounds		*Per set*	
¼"	1,800	$2,650	$140	Preta.
⅜"	2,250	2,850	155	Preti.
½"	2,850	3,100	175	Preto.
¾"	4,875	3,850	230	Pretu.

[1] The regular equipment includes motor and complete electrical control, pump, wrenches, and tools for any one size of nut.

NATIONAL MACHINERY CO., TIFFIN, OHIO—Continued

NATIONAL AUTOMATIC (BENT TAP) NUT TAPPERS

Size machine	Net weight	Price with regular equipment [1]	Extra for motor drive [2]	Extra tools for other size nuts, per set	Size of motor	R. p. m. of motor	Code word belt drive	Code word motor drive
	Pounds				*Horsepower*			
¼"	160	$775	$75	$85	¼	1,800	Tapat	Elpat.
5/16"	550	1,125	95	100	½	1,200	Tapav	Elpav.
¼"	550	1,125	110	100	½	1,200	Tapaw	Elpaw.
3/8"	850	1,275	160	110	½	1,200	Tapax	Elpax.
½"	1,250	1,450	190	125	¾	1,200	Taped	Elped.
5/8"	1,880	1,850	225	185	1	1,200	Tapeg	Elpeg.
⅞"	4,000	2,375	240	225	1½	1,200	Tapek	Elpek.

[1] The regular equipment includes machine complete with pump, wrenches, and tooled for any one size of nut.
[2] Includes mounting of the motor, if sent to us, but does not include the motor.

NATIONAL NUT TAPPERS (FOOT TREADLE TYPE AND SEMIAUTOMATIC)

Size	Net weight	Price machine only [1]	Price socket equipment [2]	Price complete with regular equipment	Extra for motor drive [3]	Regular equipment	Code word	Size of motor	R.p.m. of motor	Code word motor drive
	Pounds							*Horsepower*		
5/16" 6 sp. treadle type	1,500	$1,150	$129	$1,275	Not built	A	Tapel			
1" 8 sp. semiautomatic	5,000	3,110	172	3,275	$900	B	Tapen	7½	900	Elpen.
1½" 10 sp. same	9,800	5,730	270	6,000	1,050	C	Tapet	10	900	Elpet.
2" 6 sp. same	7,600	5,425	177	5,600	1,050	D	Tapew	10	600	Elpew.
2" 12 sp. same	12,000	8,400	354	8,750	1,150	E	Tapex	20	600	Elpex.

[1] Price "machine only" includes pump, countershaft and wrenches, but no sockets or taps.

Regular equipments A to E include pump, countershaft, wrenches, and interchangeable ring lock sockets and tapper taps as follows:

A—6 sockets and 6 taps; 1 each ¼, ⅜, 7/16, ½, 9/16 and ⅝ inch.
B—8 sockets and 8 taps; 1 each ½ and ⅝ and 2 each ¾, ⅞ and 1 inch.
C—10 sockets and 10 taps; 2 each ¾, 1, 1⅛, 1¼ and 1½ inch.
D—6 sockets and 6 taps; 1 each 1, 1⅛, 1¼, 1½, 1¾ and 2 inch.
E—12 sockets and 12 taps; 2 each 1, 1⅛, 1¼, 1½, 1¾ and 2 inch.

NATIONAL WASHER MACHINES

Size machine	Net weight	Price with regular equipment [1]	Code word
	Pounds		
1"	4,400	$2,200	Wasen.
1½"	9,800	3,900	Waset.
2"	13,000	5,450	Wasex.

[1] The regular equipment includes countershaft, wrenches, and one size of sample dies.

NATIONAL MACHINERY CO., TIFFIN, OHIO—Continued

NATIONAL VERTICAL SHEARS

Size	Net weight	Price, belt drive with regular equipment [1]	Price, motor drive with regular equipment [2]	Size of motor	R. p. m. of motor	Code word belt drive	Code word motor drive
	Pounds			*Horsepower*			
5/8" machine	1,400	$975	$1,400	3	720	Sheak	Eleak.
1" machine	4,000	1,575	2,100	5	900	Shean	Elean.
1 1/4" machine	6,800	2,800	3,350	10	1,200	Shesp	Elesp.
1 1/2" machine with clutch [3]	7,000	3,550	4,100	10	1,200	Sheax	Eleax.

[1] The regular equipment for the 5/8- and 1 1/4-inch machines includes wrenches, one set of knives and three bushes for any three sizes of bars; and for the 1-inch machine wrenches, one set of knives and four bushes for any four sizes of bars.

[2] Includes driving gears, guard, silent motor pinion, mounting, etc., but does not include motor.

[3] The 1 1/2-inch machine with clutch is provided with foot-lever-operated clutch so that 1 or more strokes may be had, as wished.

NATIONAL WIRE NAIL MACHINES

Size	Net weight	Price with regular equipment [1]	Code word	Size	Net weight	Price with regular equipment [1]	Code word
	Pounds				*Pounds*		
No. 5 or 2d	900	$1,025	Winal.	No. 1 1/2 or 30d	9,150	$3,875	Winat.
No. 4 or 4d	1,650	1,350	Winam.	No. 0	16,500	5,950	Winaw.
No. 3 or 6d	2,500	1,550	Winap.	No. 00	20,000	7,175	Winax.
No. 2 or 10d	3,500	1,850	Winar.				

[1] The regular equipment includes wrenches, and one sample set of dies.

THE NEBEL MACHINE TOOL COMPANY, CINCINNATI, OHIO (FORMERLY THE RAHN LARMON CO.)

ENGINE LATHES

Size	Center distance	Weight for geared head	Price geared head	Weight cone head	Price cone head
	Inches	*Pounds*		*Pounds*	
16 inches	30	3,100	$2,050	2,500	$1,325
18 inches	30	3,200	2,110	2,600	1,385
Additional for 2 feet of bed		200	80	200	80
18 inches	26	4,000	3,200	3,100	2,000
20 inches	26	4,100	3,275	3,200	2,075
Additional for 2 feet of bed		300	100	300	100
20 inches	45	4,900	4,025	4,300	2,500
22 inches	45	5,000	4,110	4,400	2,585
Additional for 2 feet of bed		400	120	400	120
24 inches	60	7,200	5,300	6,700	3,650
26 inches	60	7,500	5,425	7,000	3,775
Additional for 2 feet of bed		450	135	450	135
25 inches	57	9,200	6,125	7,800	4,125
27 inches	57	9,500	6,260	8,100	4,260
Additional for 2 feet of bed		500	150	500	150
30 inches	50	10,000	6,950	9,000	5,120
32 inches	50	10,500	7,100	9,500	5,270
36 inches	50	11,500	7,330	10,000	5,500
Additional for 2 feet of bed		700	200	700	200

THE NEBEL MACHINE TOOL COMPANY, CINCINNATI, OHIO—Continued

REMOVABLE BLOCK GAP LATHES

Size	Center distance	Weight for geared head	Price geared head	Weight cone head	Price cone head
	Inches	*Pounds*		*Pounds*	
1 5/16 inches	30	3,200	$2,225	2,600	$1,500
1 9/27 inches	30	3,300	2,285	2,700	1,560
Additional for 2 feet of bed		200	80	200	80
2 9/10 inches	26	3,800	3,475	3,300	2,275
Additional for 2 feet of bed		300	100	300	100
2 3/4 inches	45	5,100	4,410	4,500	3,185
Additional for 2 feet of bed		400	120	400	120
2 5/10 inches	60	7,800	5,775	7,000	4,125
Additional for 2 feet of bed		450	135	450	135

EXTENSION BED GAP LATHES

	Feet	*Inches*	*Pounds*		*Pounds*	
1 5/8 inches, gap closed	2	3	5,100	$4,850	4,700	$3,350
2 9/10 inches, gap open	4	3	5,200	5,000	4,800	3,500
Additional for 2 feet of bed			425	175	425	175
2 1/4 8 inches, gap closed	4	3	11,000	7,100	9,500	5,000
2 5/10 inches, gap open	7	9	11,500	7,300	10,000	5,200
Additional for 2 feet of bed			750	220	750	220

NEW ALBANY MACHINE MANUFACTURING COMPANY, NEW ALBANY, IND.

ROBINSON INCLINABLE PRESSES

Press No.	0	1	1 1/2	2	3	4	5	5 1/2
Diameter crank shaft at bearing...inches	1 1/4	2	2 5/8	3	3 1/2	4	4 1/2	5
Capacity at bottom of stroke...tons	5	14	24	31	43	56	71	88
Standard stroke of slide...inches	1	1 1/2	2	2	2	3	3	3
Maximum stroke of slide...do	2	2 1/2	3	3	3	5	5	5
Approximate weight (fly wheel press)...pounds	290	1,050	1,800	2,700	4,450	5,800	9,000	9,750
Diameter and face fly wheel (fly wheel press) inches	15 x 2 1/2	23 x 3 5/8	28 x 4 1/4	30 x 5 1/4	36 x 5 1/2	36 x 6	45 x 6	45 x 7
Weight of fly wheel (fly wheel press)...pounds	65	200	375	575	750	900	1,200	1,400
Capacity and speed of motor (fly wheel press) (hp. and r. p. m.)	1/2—900	1—900	1 1/2—900	2—900	3—900	5—900	7 1/2—900	7 1/2
Price, fly wheel press	$152	$265	$380	$531	$852	$1,012	$1,645	$1,771
Price, single geared press			633	784	1,169	1,328	2,024	2,151
Price, combined geared press			759	911	1,296	1,454	2,151	2,277
Extra for stay rods				11	11	22	22	22
Extra V-belt motor drive	27	66	71	71	71	82	110	110
Extra geared motor drive		82	82	82	82	110	110	110
Extra for table and legs, No. 0 press	22							
Extra for arranging No. 0 bench type press for foot treadle	5							

Change in stroke above maximum, $11 per inch, extra.

NEW ALBANY MACHINE MANUFACTURING COMPANY, NEW ALBANY, IND.—continued

ROBINSON HORN PRESSES

Press No.	16	17	19	20	22	22½
Diameter crank shaft at bearing—inches	2	2⅝	3	3½	4½	5
Capacity at bottom of stroke—tons	14	24	31	43	71	88
Standard stroke—inches	1½	1½	2	2	3	3
Maximum stroke—do	2½	3	3	3½	5	6
Approximate weight (fly wheel press)—pounds	1,750	3,000	4,000	6,000	10,000	12,000
Diameter and face fly wheel (fly wheel press)—inches	23 x 3⅝	28 x 4¼	30 x 5½	36 x 5½	45 x 6	45 x 7
Weight of fly wheel (fly wheel press)—pounds	200	375	575	750	1,200	1,400
Price, fly wheel press	$315	$632	$784	$1,012	$1,597	$2,024
Price, single geared press	------	------	1,037	1,328	2,277	2,403
Price, combined geared press	------	------	1,164	1,454	2,403	2,530
Extra adjustable table	66	82	110	165	275	275
Extra swinging table	77	110	165	220	330	330
Extra, V-belt motor drive	66	71	71	71	110	110
Extra, geared motor drive	82	82	82	82	110	110

Geared motor drive prices include motor bracket, motor pinion and gear guards, but does not include motor or electrical equipment.

V-belt motor drive prices include motor bracket, V-belt and motor pulley, but does not include belt guard or electrical equipment.

Change in stroke above maximum, $11 per inch, extra.

NEWARK GEAR CUTTING MACHINE CO., NEWARK, N. J.

GEAR HOBBERS—PRICES AND SPECIFICATIONS

Style No.	Diameter capacity	Face capacity	Pitch capacity	Weight	Price
				Pounds	
3 plain	With support arm, 18"	14" on spur gears		6,000	$4,510
3 universal	With support arm, 18"	12" on helical gears up to above 30° helix.		6,000	5,060
5	With column support, 32"; without column support, 72".		2½ D. P. in steel, 2 D. P. in grey iron.	20,000	14,400

SPUR GEAR CUTTER—PRICES AND SPECIFICATIONS

Style No.	Diameter capacity	Face capacity	Pitch capacity	Weight	Price
				Pounds	
3	40"	10"	4 D. P. in steel, 3 D. P. in cast iron; ¾" C. P. in steel, 1" C. P. in cast iron.	3,800	$4,000
5	48"	16"	2 D. P. in steel, 1½ D. P. in cast iron; 1½" C. P. in steel, 2" C. P. in cast iron.	8,300	6,050
5	72"	16"	2 D. P. in steel, 1½ D. P. in cast iron; 1½" C. P. in steel, 2" C. P. in cast iron.	8,700	6,710
7	100"	24"	1 D. P. in steel, ¾ D. P. in cast iron; 3" C. P. in steel, 4" C. P. in cast iron.	21,000	13,300

	Weight	Price
	Pounds	
No. 1 gear tester	975	$660
No. 0 cutter grinder	925	800

NEW BRITAIN-GRIDLEY MACH. DIVISION, THE NEW BRITAIN MACHINE CO., NEW BRITAIN, CONN.

WORK ROTATING AUTOMATIC CHUCKING MACHINES

Model No.	No. of spindles	Swing	Chuck size	Price
		Inches	*Inches*	
38	1	10½	10½	$7,250
49	4	8¾	9	14,250
23A	4	6	5	12,500
412	4	12	12	17,500
65	6	5¼	5⅝	13,950
665	6	6¾	6¾	14,250
675	6	7¼	7½	14,900
16	6	9¼	9	14,950
86	8	6¾	6¾	16,500

AUTOMATIC SCREW MACHINES

Model No.	No. of spindles	Size	Price
		Inches	
60	6	1	$10,500
61	6	1⅝	12,750
61	6	2¼	14,900

NEW BRITAIN-GRIDLEY MACH. DIVISION, THE NEW BRITAIN MACHINE CO., NEW BRITAIN, CONN.—Con.

MACHINES LISTED BELOW ARE OBSOLETE

[Amounts shown are to be used as equivalent]

CHUCKING MACHINES

Model No.	Number of spindles	Maximum swing	Amount to be used as equivalent
12A	3	5½"	$6,200
22	4	4¼"	7,500
23	4	5½"	8,500
24	4	7½"	10,500
33	5	5½"	9,500
34	5	7½"	12,000
452	4	6"	9,000
454	4	8"	12,500
652	6	4⅜"	13,950
654	6	5⅜"	14,200
3-254	6	3"	13,450
53	Double end—three on side	4½"	11,500
54	do	7¼"	13,000

BAR MACHINES

172	6 (for threading)	1 x 5	$11,500
263	6 (without threading)	1 x 5	11,000
204	6	⅝ x 3¾	7,875
206	6 (for threading)	1⅝ x 7	12,000
264	6 (without threading)	1⅝ x 7	11,500
226	6	1"	9,025
227	6	1⅝	12,000
527	6	1¾	13,000
270	6 (without threading)	2½	15,200
208	6 (with threading)	2½	15,700
41	4	1¾	9,450
41	4	1⅝	9,450

NIAGARA MACHINE & TOOL CO., BUFFALO, N. Y.

NIAGARA HEAVY SLIP ROLL FORMING MACHINES

No.	Capacity	Weight	Price
		Pounds	
415–5" x 36"	7/32", 3/16"	2,700	$1,176
416–5" x 48"	3/16", 10 gage	2,900	1,246
417–5" x 60"	5/32", 12 gage	3,200	1,315
418–5" x 72"	11, 14 gage	4,000	1,385
419–5" x 96"	14, 16 gage	4,500	1,524
420–5" x 120"	16, 18 gage	4,900	1,663
425–6" x 48"	3/16", ¼"	6,100	2,100
426–6" x 60"	9/32", 7/32"	6,550	2,262
426–6" x 72"	¼', 5/32"	7,000	2,364
428–6" x 96"	5/32", 3/32"	7,900	2,568
429–6" x 120"	7/64", 5/64"	8,800	2,772
430–7½" x 60"	3/16", 9/32"	8,700	3,072
431–7½" x 72"	11/32", ¼"	9,400	3,198
432–7½" x 96"	5/16", 3/16"	10,800	3,450
433–7½" x 120"	¼", 1/8"	12,200	3,702

NIAGARA POWER SQUARING SHEARS—SERIES NO. L

No.	Capacity	Length	Weight	Price
	Inch	*Inches*	*Pounds*	
L8	½	96	28,000	$7,160
L10½	½	126	32,000	7,800
L12	½	144	36,000	8,100
L14	⅝	168	44,000	8,800
L16	¾	192	49,000	9,850
L18	¼	216	55,000	10,800

NIAGARA POWER GANG PUNCHES

No.	Type	Weight	Price
		Pounds	
4	Not geared	2,300	$974
4	Geared	2,600	1,095
6-B	Not geared	4,500	1,343
6-B	Geared	5,000	1,535
6-C	Not geared	4,800	1,446
6-C	Geared	5,500	1,537

NIAGARA PRESS BRAKES

		Pounds	
175-C	Single geared	3,400	$1,506
175-E	do	4,700	1,906

NIAGARA POWER SQUARING SHEARS

Series No. 100-200 Geared

No.	Capacity	Length	Weight	Price
		Inches	*Pounds*	
260 geared	14 gage	60	3,300	$1,205
272 geared	14 gage	72	3,600	1,260
196 geared	16 page	96	4,200	1,360
1120 geared	16 gage	120	4,800	1,480
136 geared	14 gage	36	1,600	580
148 geared	14 gage	48	1,750	625
160 geared	16 gage	60	1,950	680
172 geared	16 gage	72	2,150	745

Series No. 100

		Inches	*Pounds*	
136	16 gage	36	1,450	$485
148	16 gage	48	1,600	530
160	18 gage	60	1,800	585
172	18 gage	72	2,000	650

Series No. O

		Inches	*Pounds*	
02½	22 gage	30	750	$265
03	20 gage	36	800	285
03½	22 gage	42	900	310

[The following series shears were discontinued during the emergency. Prices given were the last in effect]

Series No. 300-L

		Inches	*Pounds*	
336-L	10 gage	36	3,400	$1,050
342-L	10 gage	42	3,600	1,083
352-L	10 gage	52	4,000	1,122
362-L	10 gage	62	4,500	1,171
372-L	10 gage	72	5,000	1,237

NIAGARA MACHINE & TOOL CO., BUFFALO, N. Y.—Continued

NIAGARA POWER SQUARING SHEARS—continued

Series No. 600-L

No.	Capacity	Length	Weight	Price
		Inches	*Pounds*	
636-L	10 gage	36	4,200	$1,116
642-L	10 gage	42	4,400	1,150
652-L	10 gage	52	4,800	1,366
662-L	10 gage	62	5,300	1,237
672-L	10 gage	72	5,800	1,498

Series No. 300

		Inches	*Pounds*	
336	3/16"	36	3,400	$1,188
342	3/16"	42	3,600	1,221
352	3/16"	52	4,000	1,259
362	3/16"	62	4,500	1,309
372	3/16"	72	5,000	1,375

Series No. 600

		Inches	*Pounds*	
636	3/16"	36	4,200	$1,254
642	3/16"	42	4,400	1,287
652	3/16"	52	4,800	1,325
662	3/16"	62	5,300	1,375
672	3/16"	72	5,800	1,441

Series No. 4

		Inches	*Pounds*	
44	12 gage	48	4,900	$2,200
46	12 gage	72	5,500	2,300
48	14 gage	96	6,500	2,450
410	14 gage	120	7,500	2,650
412	16 gage	144	8,500	2,900

Series No. B-BL

		Inches	*Pounds*	
B-6	3/16"	72	6,500	$1,995
BL-6	10 gage	72	6,500	1,995
BL-8	10 gage	96	7,500	2,130
BL-10	10 gage	120	9,000	2,330
BL-12	12 gage	144	11,000	2,660

Series No. 7

		Inches	*Pounds*	
76	1/4"	72	12,000	$3,550
78	3/16"	96	14,000	3,650
710	3/16"	120	16,800	4,050
712	10 gage	144	19,500	4,500

Series No. H-HL

		Inches	*Pounds*	
H-6	3/16"	72	9,000	$3,060
HL-8	10 gage	96	10,000	3,190
HL-10	10 gage	120	12,000	2,485
HL-12	10 gage	144	14,500	3,885
HL-14	12 gage	168	19,000	4,390

Series No. I-IL

		Inches	*Pounds*	
I-4	1/4"	48	11,000	$3,300
I-6	1/4"	72	13,000	3,430
IL-8	5/16"	96	14,500	3,560
IL-10	5/16"	120	17,000	3,910
IL-12	5/16"	144	19,500	4,340
IL-13	10 gage	156	21,000	4,650
IL-14	10 gage	168	24,000	4,900

Series No. J-JL

		Inches	*Pounds*	
J-6	3/8"	72	16,000	$4,000
JL-8	1/4"	96	18,000	4,150
JL-10	1/4"	120	21,000	4,500
JL-12	1/4"	144	24,000	5,100
JL-13	5/16"	156	25,500	5,400
JL-14	5/16"	168	29,000	5,800
JL-16	10 gage	192	34,000	6,700

Series No. K-KL

		Inches	*Pounds*	
K-6	1/4"	72	20,500	$4,900
KL-8	3/8"	96	24,000	5,200
KL-10	3/8"	120	27,000	5,565
KL-12	3/8"	144	31,000	6,125
KL-14	1/4"	168	40,000	7,080
KL-16	5/16"	192	44,500	7,880
KL-18	5/16"	216	50,000	8,810

NIAGARA MACHINE & TOOL CO., BUFFALO, N. Y.—Continued

NIAGARA INCLINABLE POWER PRESSES, SERIES NO. 1

[The following series of presses was discontinued during the emergency. Prices given were the last in effect]

No.	Type	Weight	Price
		Pounds	
3-B	Not geared	1,600	$353
4	Not geared	1,900	462
4	Geared	2,100	632
4½	Not geared	2,300	495
4½	Geared	2,500	665
5	Not geared	3,200	649
5	Geared	3,500	841
5½	Not geared	3,500	704
5½	Geared	3,800	896
7-B	Not geared	8,800	1,386
7-B	Geared	9,300	1,666
7, Not inclinable	Not geared	11,000	1,820
7, Not inclinable	Geared	11,500	2,079
7, Inclinable	Not geared	11,000	1,925
7, Inclinable	Geared	11,500	2,183

NIAGARA INCLINABLE POWER PRESSES, SERIES "A"

No.	Type	Weight	Price
		Pounds	
A-1¼	Not geared	500	$220
A-1½	do	750	265
A-1¾	do	1,100	335
A-1¾	Geared	1,200	455
A-2	Not geared	1,500	420
A-2	Geared	1,650	555
A-2¼	Not geared	2,100	495
A-2¼	Geared	2,300	650
A-2½	Not geared	2,800	560
A-2½	Geared	3,000	730
A-3	Not geared	4,400	765
A-3	Geared	4,700	995
A-3½	Not geared	6,200	990
A-3½	Geared	6,600	1,265
A-3½	Not geared steel casting frame	5,100	1,105
A-3½	Geared steel casting frame	5,500	1,380
A-4	Not geared steel casting frame	8,800	1,660
A-4	Geared steel casting frame	9,300	2,000
A-4½	Not geared steel casting frame	11,700	2,295
A-4½	Geared steel casting frame	12,500	2,705
A-5	do	17,000	3,570
A-5½	do	22,500	4,470
A-6½	do	34,000	6,355

NIAGARA DOUBLE CRANK PRESSES—SERIES NO. 60

		Pounds	
65-B	Not geared	4,800	$1,615
65-B	Single geared	5,400	1,845
65-BX	Not geared	5,200	1,712
65-BX	Single geared	5,800	1,942
65-C	Not geared	5,600	1,754
65-C	Single geared	6,200	1,984
65-D	Not geared	6,500	1,803
65-D	Single geared	7,100	2,033
65-E	Not geared	7,500	1,936
65-E	Single geared	8,100	2,166
65-B	Not geared	5,500	1,809
65-B	Single geared	6,100	2,039
65-BX	Not geared	5,900	1,900
65-BX	Single geared	6,500	2,130
65-C	Not geared	6,300	1,948
65-C	Single geared	6,900	2,178
65-D	Not geared	7,200	1,990
65-D	Single geared	7,800	2,220
65-E	Not geared	8,200	2,123
65-E	Single geared	8,800	2,353
66-B	Not geared	7,600	1,894
66-B	Single geared	8,500	2,160
66-BX	Not geared	8,100	1,984
66-BX	Single geared	9,000	2,251
66-C	Not geared	8,800	2,057
66-C	Single geared	9,700	2,323
66-D	Not geared	9,900	2,293
66-D	Single geared	10,800	2,559
66-E	Not geared	11,400	2,505
66-E	Single geared	12,300	2,771
66-F	do	14,000	3,043
66-B	Not geared	8,400	2,033
66-B	Single geared	9,300	2,299
66-BX	Not geared	8,900	2,160
66-BX	Single geared	9,800	2,426
66-C	Not geared	9,600	2,226
66-C	Single geared	10,500	2,493
66-D	Not geared	10,700	2,353
66-D	Single geared	11,600	2,620
66-E	Not geared	12,200	2,535
66-E	Single geared	13,100	2,801
66-F	do	14,800	3,007
67-B	Not geared	10,300	2,511
67-B	Single geared	11,500	2,813
67-BX	Not geared	10,900	2,601
67-BX	Single geared	12,100	2,904
67-C	Not geared	11,500	2,692
67-C	Single geared	12,700	2,995
67-D	Not geared	12,900	2,952
67-D	Single geared	14,100	3,255
67-E	Not geared	14,400	3,243

NIAGARA MACHINE & TOOL CO., BUFFALO, N. Y.—Continued

NIAGARA DOUBLE CRANK PRESSES—SERIES NO. 60—continued

No.	Type	Weight	Price
		Pounds	
67-E	Single geared	15,600	$3,545
67-F	do	17,200	3,890
67-B	Not geared	11,300	2,747
67-B	Single geared	12,500	3,049
67-BX	Not geared	11,900	2,843
67-BX	Single geared	13,100	3,146
67-C	Not geared	12,500	2,922
67-C	Single geared	13,700	3,225
67-D	Not geared	13,900	3,085
67-D	Single geared	15,100	3,388
67-E	Not geared	15,400	3,364
67-E	Single geared	16,600	3,666
67-F	do	18,200	4,017
67½-B	Not geared	13,000	3,037
67½-B	Single geared	14,500	3,340
67½-BX	Not geared	13,800	3,158
67½-BX	Single geared	15,300	3,461
67½-C	Not geared	14,500	3,279
67½-C	Single geared	16,000	3,582
67½-D	Not geared	16,000	3,582
67½-D	Single geared	17,500	3,884
67½-E	Not geared	17,700	3,890
67½-E	Single geared	19,200	4,193
67½-F	do	21,000	4,568
68-B	Not geared	17,500	3,255
68-B	Single geared	19,500	3,588
68-BX	Not geared	18,400	3,394
68-BX	Single geared	20,400	3,727
68-C	Not geared	19,500	3,527
68-C	Single geared	21,500	3,860
68-C	Double geared	22,500	4,283
68-D	Not geared	21,800	3,854
68-D	Single geared	23,800	4,187
68-D	Double geared	24,800	4,610
68-E	Not geared	24,200	4,217
68-E	Single geared	26,200	4,550
68-E	Double geared	27,200	4,973
68-F	Single geared	29,000	5,046
68-F	Double geared	30,000	5,469
68-G	Single geared	32,000	5,475
68-G	Double geared	33,000	5,899
69-B	Single geared	26,000	4,671
69-BX	do	27,400	4,900
69-C	do	29,000	5,118
69-C	Double geared	30,500	5,572
69-D	Single geared	32,200	5,632
69-D	Double geared	33,700	6,086
69-E	Single geared	36,100	6,201
69-E	Double geared	37,600	6,655
69-F	Single geared	40,300	6,842
69-F	Double geared	41,800	7,296
69-G	Single geared	45,100	7,484
69-G	Double geared	46,600	7,938
69-H	Single geared	50,500	8,077
69-H	Double geared	52,000	8,530
69-I	Single geared	56,500	8,706
69-I	Double geared	58,000	9,160
69-J	Single geared	63,000	9,281
69-J	Double geared	64,500	9,734
69-B	Single geared	21,500	4,961
69-BX	do	22,500	5,191
69-C	do	23,500	5,536
69-D	do	25,500	5,741
69-E	do	28,500	6,147
69-F	do	31,500	6,945
69-G	do	34,500	7,441
69-H	do	38,000	8,204
69-I	do	42,000	8,936
69-J	do	49,000	10,237
610-BX	do	35,800	5,657
610-BX	Double geared	37,800	6,141
610-C	Single geared	37,800	5,923
610-C	Double geared	39,800	6,407
610-D	Single geared	42,000	6,492
610-D	Double geared	44,000	6,976
610-E	Single geared	46,500	7,048
610-E	Double geared	48,500	7,532
610-F	Single geared	51,500	7,581
610-F	Double geared	53,500	8,065
610-G	do	59,000	8,863
610-H	do	65,500	9,589
610-I	do	72,000	10,364
612-C	Single geared	49,500	7,502
612-C	Double geared	52,000	8,046
612-D	Single geared	55,500	8,034
612-D	Double geared	58,000	8,579
612-E	Single geared	61,500	8,573
612-E	Double geared	64,000	9,117
612-F	Single geared	68,000	9,262
612-F	Double geared	70,500	9,807
612-G	Single geared	76,000	9,952
612-G	Double geared	79,000	10,497
612-H	do	87,500	11,326
612-I	do	97,000	11,943
615-D	do	73,000	11,174
615-E	do	80,000	12,094
615-F	do	89,000	13,165
615-G	do	98,000	14,387
615-H	do	108,000	15,458
615-I	do	119,000	16,674
615-J	Twin drive, double geared	131,000	18,065
615-K	do	144,000	19,136
620-D	do	92,000	14,236
620-E	do	101,000	15,155
620-F	do	110,000	16,370

NIAGARA MACHINE & TOOL CO., BUFFALO, N. Y.—Continued

NIAGARA DOUBLE CRANK PRESSES—SERIES NO. 60—continued

No.	Type	Weight	Price
		Pounds	
620-G	do	120,000	17,605
620-H	do	132,000	18,828
620-I	do	144,000	20,207
620-J	do	157,000	21,429
630-K	do	170,000	22,657
625-E	do	123,000	17,448
625-F	do	135,000	18,676
625-G	do	148,000	20,207
625-H	do	163,000	21,738
625-I	do	180,000	23,571
625-J	do	198,000	25,410
625-K	do	218,000	27,249

NIAGARA SINGLE CRANK PRESSES

Series No. 50

		Pounds	
54	Not geared	2,600	$986
54	Single geared	3,100	1,174
55	Not geared	3,900	1,307
55	Single geared	4,500	1,519
56	Not geared	5,700	1,682
56	Single geared	6,400	1,924
57	Not geared	8,200	2,130
57	Single geared	9,200	2,396
57½	Not geared	10,400	2,450
57½	Single geared	11,600	2,753
58	Not geared	16,300	3,152
58	Single geared	18,000	3,485
58	Double geared	19,500	3,908
59	Single geared	26,000	4,404
59	Double geared	28,000	4,979
510	Single geared	32,500	5,354
510	Double geared	36,000	5,959
512	Single geared	46,000	7,151
512	Double geared	51,000	7,817
515	Single geared	75,000	11,132
515	Double geared	78,000	11,676
520	Twin drive, double geared	92,000	13,552
525	do	117,000	16,008
530	do	145,000	18,452
535	do	176,000	21,659

Series No. 150

		Pounds	
155	Single geared	5,000	$1,767
156	do	6,500	2,238

W. H. NICHOLS & SONS, WALTHAM, MASS.

NICHOLS HAND MILLING MACHINE

Specifications

Table working surface	6½" x 21".
Table T slot, ⅝" standard measures	1 1/16.
Table travel, longitudinal, maximum	10".
Table travel, longitudinal, per setting of lever	6.
Table travel, transverse	7.
Table travel, vertical	13½.
Vertical movement of head	4½".
Spindle, hardened and ground, taper 3½" to foot	No. 40 MMS.
Spindle bearings	Timken precision roller.
Spindle speeds, 4, through dual V belts with sheaves (standard)	100, 200, 600, 1,200 r. p. m.
Weight of machine, regular equipment (approximate net pounds)	1,150.

Base price Nichols hand milling machine with regular equipment including ¾ hp. master geared head motor with drum reversing switch wired; machine light; coolant pots depth stop for head; graduated feed dials; micrometer table stops; set of wrenches; one hardened holder for ½" straight shank cutters; draw-in bolt; belt guard; one hardened arbor (either ⅞" or 1" diameter), $1,000.

Additional equipment

Addition of graduated feed screw to table	$27.50
Motor driven coolant pump (¼ hp.) with piping and switch	77.00
Universal vertical milling attachment with No. 7 B. & S. taper in spindle and ½" adapter and drawbar	93.50
Arbors, hardened and ground, 5" shoulder to nut, with collars, either ⅞" or 1" diameter, each	25.00
Swivel vise, base graduated, hardened jaws, 1 piece body, with nuts, bolts, and washers, 5" width, 1¼" depth, 2⅝" opening	50.00
Upright vise, 2 sizes, for keyseating cylindrical work:	
No. 1, work up to 2⅝" diameter	27.50
No. 2 work, from 2½" to 6" diameter	33.00
Plain vertical milling attachment as above	77.00

NORTON CO., WORCESTER, MASS.

NORTON GRINDING AND LAPPING MACHINES

Machine size	Weight	Price of standard arrangement with standard equipment but without motors	Price of standard arrangement with standard equipment with motors
	Pounds		
6" by 18" type C plain	5,700	$4,615	
6" by 30" type C plain	6,150	4,945	
10" by 18" type C plain	8,600	7,500	
10" by 36" type C plain	9,200	7,905	
10" by 48" type C plain	10,650	8,295	
10" by 72" type C plain	12,100	8,695	
10" by 96" type C plain	14,700	9,240	
10" by 120" type C plain	16,600	9,795	
14" by 36" type C plain	17,400	12,465	
14" by 48" type C plain	18,400	12,910	
14" by 72" type C plain	20,400	14,000	
14" by 96" type C plain	22,400	15,085	
14" by 120" type C plain	24,400	16,885	
16" by 36" type C plain	18,000	13,215	
16" by 48" type C plain	19,000	13,640	
16" by 72" type C plain	21,000	14,675	
16" by 96" type C plain	23,000	15,720	
16" by 120" type C plain	25,000	17,370	
14" by 36" type C roll	15,100	15,960	
14" by 48" type C roll	16,100	16,400	
14" by 72" type C roll	18,500	17,490	
14" by 96" type C roll	20,900	18,575	
14" by 120" type C roll	23,300	20,210	
14" by 144" type C roll	25,700	21,780	
14" by 168" type C roll	28,100	23,420	
16" by 36" type C roll	15,900	[1] 16,735	
16" by 48" type C roll	16,900	17,160	
16" by 72" type C roll	19,300	18,195	
16" by 96" type C roll	21,700	19,235	
16" by 120" type C roll	24,100	20,730	
16" by 144" type C roll	26,500	22,775	
16" by 168" type C roll	28,900	23,850	
10" by 36" C angular slide	8,500	7,475	
10" by 48" C angular slide	9,700	7,833	
10" by 72" C angular slide	11,100	8,195	
6" by 18" C semiautomatic	6,000	5,455	
6" by 30" C semiautomatic	6,500	5,785	
10" by 18" C semiautomatic	8,300	8,010	
10" by 36" C semiautomatic	9,600	8,415	
10" by 48" C semiautomatic	10,800	8,805	
5" by 26" Cam-O-Matic	12,400	12,440	
5" by 30" Cam-O-Matic	13,200	12,835	
5" by 36" Cam-O-Matic	13,800	13,530	
5" by 42" Cam-O-Matic	14,200	14,085	
17" by 32" D-86 crankpin gr	18,300	15,015	
17" by 42" D-86 crankpin gr	18,500	15,645	
17" by 62" D-86 crankpin gr	21,000	17,460	
17" by 72" D-86 crankpin gr	21,200	18,065	
23" x 26" type C Hi-Swing	13,700	[1] 11,137	
23" x 48" type C Hi-Swing	14,700	[1] 11,622	
23" x 72" type C Hi-Swing	16,700	[1] 12,107	
26" x 36" type C Hi-Swing	14,200	[1] 11,862	
26" x 48" type C Hi-Swing	15,200	[1] 12,347	
26" x 72" type C Hi-Swing	17,200	[1] 12,832	
18" x 72" type C autopart	12,600	8,880	
44' car wheel grinder	35,000	13,915	
16" and 40" x 96" C piston rod	23,800	16,025	
16" and 40" x 120" C piston rod	26,500	17,655	
16" and 40" x 144" C piston rod	29,200	19,290	
6" x 18" hydraulic surface	2,000	1,485	
10" x 24" hydraulic surface	6,600	4,990	
10" x 36" hydraulic surface	7,600	5,390	
10" x 48" hydraulic surface	8,600	5,790	
10" x 60" hydraulic surface	9,600	6,190	
12" x 24" hydraulic surface	10,000		$8,360
12" x 36" hydraulic surface	11,000		8,800
12" x 48" hydraulic surface	12,500		9,240
12" x 60" hydraulic surface	14,000		9,680
12" x 72" hydraulic surface	15,500		10,285
No. 1 universal tool and cutter	1,180		1,350
No. 2 universal tool and cutter	2,500		2,870
No. 2 cutter and tool	2,400		1,985
12" x 36" type C multipurpose	6,700		6,565
12" x 48" type C multipurpose	7,500		7,230
12" x 72" type C multipurpose	9,100		7,900
14" x 36" type C multipurpose	7,100		6,775
14" x 48" type C multipurpose	7,900		7,440
14" x 72" type C multipurpose	9,500		8,105
16" x 36" type C multipurpose	7,300		7,020
16" x 48" type C multipurpose	8,100		7,655
16" x 72" type C multipurpose	9,700		8,320
12" x 24" type LC multipurpose	5,075		5,360
12" x 36" type LC multipurpose	5,500		5,925
12" x 48" type LC multipurpose	6,000		6,480
12" x 72" type LC multipurpose	6,950		7,670
No. 10-U vertical lapper	1,000	1,415	
No. 2-F vertical lapper	2,500	3,895	
No. 2-C vertical lapper	2,500	3,550	
No. 2-F hand lapper	2,250	2,065	
No. 26 hyprolap	8,500	6,790	
Type No. 30 Cam-O-Lap	3,600	11,985	
Type No. 30 Crank-O-Lap	2,700	10,615	
Type No. 40 Crank-O-Lap			
16" x 48"	5,200	13,575	
16" x 72"	6,200	13,940	

[1] Denotes price correction advised by manufacturer. Prices differ from those shown in first edition of Prices of New Machine Tools.

THE S. OBERMAYER CO., CHICAGO, ILL.

SPRUE CUTTERS

Foot power	$200.
Dimensions:	
Depth of throat from cutting edge	10½ inches.
Space up and down back of cutter	12 inches.
Height over all	5 feet.
Shipping weight	550 pounds.
New belt power	$400.
Dimensions:	
Depth of throat from cutting edge	12 inches.
Space up and down back of cutters	11½ inches.
Distance between cutters	1¼ inches.
Height of cutters from base	35 inches.
Height over all	5 x 4 inches.
Floor space	20 by 36 inches.
Shipping weight	1,350 pounds.
Power required	1 horsepower.

THE OHIO MACHINE TOOL CO., KENTON, OHIO

SHAPERS

[Prices do not include electrical equipment]

Size	Weight	Price
	Pounds	
16"	5,100	$3,350
20"	5,500	3,465
24"	8,200	4,330
28"	8,300	4,380
32"	8,450	4,565
32" extra heavy	9,500	5,000
36"	8,600	4,820
36" extra heavy	9,900	5,215
36" super-dread	11,500	6,050

PLANERS

	Pounds	
24" x 24" x 6' heavy	7,600	$4,500
30" x 30" x 6' standard	9,800	5,450
30" x 30" x 8' heavy	14,000	8,000
36" x 36" x 8' standard	15,000	8,800
38" x 38" x 8' heavy	24,000	11,500
42" x 42" x 10' standard	27,500	12,800
48" x 42" x 10' widened	29,500	14,200

MILLING MACHINES

Type	Size	Weight	Price
		Pounds	
Ohio Production Mill	36" table feed	8,300	[1] $8,000

[1] Denotes price correction advised by manufacturer. Differs from that shown in 1st edition of Prices of New Machine Tools.

HORIZONTAL BORING, DRILLING, AND MILLING MACHINE

Type	Weight	Price
	Pounds	
5T-430 table type	36,200	$28,000
Extra for 48" x 72" table	500	500
Extra for 48" x 84" table	1,000	1,000
Extra for each additional 12" bed length	700	380
Extra for each additional 12" vertical travel	800	650
T-600 table type	47,000	34,000
Extra for 60" x 96" table	600	580
Extra for 60" x 120" table	1,200	1,200
Extra for each additional 12" bed length	1,000	730
Extra for each additional 12" vertical travel	800	825
5T-43-A table type	54,000	33,000
Extra for 48" x 72" table	1,000	450
Extra for 48" x 84" table	1,500	900
Extra for each 12" bed length	700	380
Extra for each additional 12" vertical travel	800	1,000
5T-60-A table type	63,000	37,000
Extra for 60" x 96" table	1,200	1,300
Extra for 60" x 120" table	2,400	3,000
Extra for each additional 12" bed length	1,000	730
Extra for each additional 12" vertical travel	1,500	1,000
6T-60-A table type	66,500	44,000
Extra for 60" x 96" table	1,200	1,300
Extra for 60" x 120" table	2,400	3,000
Extra for each additional 12" bed length	1,000	730
Extra for each additional 12" vertical travel	1,500	1,000
5F-420 floor type	25,900	18,750
For each 12" additional head travel	300	330
For each 12" additional column travel on runway	525	330
5-FA floor type	40,000	26,800
For each additional head travel of 12"	1,000	925
For each 12" additional column travel on runway	900	450
6-FA floor type	46,000	34,500
For each 12" additional head travel	1,000	1,000
For each 12" additional column travel on runway	1,500	580

THE OILGEAR CO., MILWAUKEE, WIS.

OILGEAR BROACHING MACHINES

Size	Capacity	Stroke	Net weight	Base price
	Pounds	*Inches*	*Pounds*	
Horizontal:				
XL-6	6,000	36	3,500	$2,145
XL-12	12,000	48	4,000	2,805
XL-20	20,000	56	5,700	3,355
XL-32	32,000	64	8,000	4,375
XL-50A	50,000	64	9,000	5,445
XL-50B	50,000	64	12,500	6,050
XL-75A	75,000	72	14,000	7,590
XL-75B	75,000	72	15,500	8,295
XL-100	100,000	72	18,000	10,890
Twin horizontal: XB-12	12,000	36	3,900	3,500
Cyclematic (vertical):				
XM-30 x 54	30,000	54	16,000	9,600
XM-50 x 66	50,000	66	24,000	13,800
XM-75 x 66	75,000	66	34,000	17,600
Single slide vertical surface:				
XS-6 x 30	6,000	30	6,500	4,700
XS-6 x 48	6,000	48	8,800	5,100
XS-10 x 42	10,000	42	11,000	5,400
XS-10 x 54	10,000	54	12,500	5,700
XS-20 x 42	20,000	42	13,000	6,540
XS-20 x 54	20,000	54	15,000	6,935
XS-20 x 66	20,000	66	17,000	7,450
XS-30 x 48	30,000	48	16,000	8,165
XS-30 x 66	30,000	66	18,000	9,165
XS-50 x 48	50,000	48	21,000	10,790
XS-50 x 66	50,000	66	24,000	12,170
Double slide vertical surface:				
XD-6 x 30	6,000	30	10,000	7,050
XD-6 x 48	6,000	48	12,500	7,655
XD-10 x 42	10,000	42	14,000	8,100
Double slide vertical surface:				
XD-10 x 54	10,000	54	16,000	8,450
XD-20 x 42	20,000	42	18,000	9,810
XD-20 x 54	20,000	54	20,500	10,405
XD-20 x 66	20,000	66	23,500	11,175
XD-30 x 48	30,000	48	24,500	12,245
XD-30 x 66	30,000	66	29,000	13,750
XD-50 x 48	50,000	48	29,200	16,185
XD-50 x 66	50,000	66	35,000	18,225
Pull-down (vertical):				
XP-10 x 30	10,000	30	7,600	$4,535
XP-10 x 54	10,000	54	12,000	5,010
XP-20 x 42	20,000	42	11,450	6,540
XP-20 x 66	20,000	66	17,300	7,450
XP-30 x 54	30,000	54	16,600	8,485
XP-30 x 66	30,000	66	19,600	9,165
XP-50 x 66	50,000	66	26,700	12,170
XP-75 x 66	75,000	66	30,000	15,375

OILGEAR PRESSES

Capacity (tons)	Stroke	Pump size	Net weight	Base price
	Inches	*Horsepower*	*Pounds*	
Type "PG" and "PGR" gooseneck:				
6	18	4	3,300	$1,775
6	18	8	3,500	1,990
10	18	8	3,800	2,015
10	18	12	4,000	2,140
15	18	12	4,500	2,340
15	18	20	5,000	2,570
20	18	12	5,550	2,615
20	18	20	6,000	2,845
25	18	12	6,500	2,700
25	18	20	7,000	2,935
Type "PR" gooseneck straightening:				
25	12	12	5,700	2,585
25	12	20	6,300	2,805
35	12	12	5,900	2,805
35	12	20	6,500	3,025
50	16	12	7,000	3,025
50	16	20	8,700	3,245
75	16	12	10,400	3,770
75	16	20	11,300	3,990
100	16	20	13,000	4,785
150	20	20	17,000	5,720
200	20	20	20,000	6,545
Type "PEC" sideplate:				
6	30	8	3,700	1,625
10	30	12	4,100	1,790
15	30	12	4,200	1,925
Type "PED" sideplate:				
6	30	8	3,900	1,815
10	30	12	4,300	2,015
15	30	12	4,400	2,130

OLIVER INSTRUMENT CO., F. O. B. ADRIAN, MICH.

FILING OR DIE-MAKING MACHINES

Prices and specifications

Style No.	Standard overarm	Standard table	Net weight	Price
			Pounds	
S-1 and S-4	8½" throat	10" square	S-1, 117; S-4, 117	$125
SP-1 and SP-2	8½" throat	10" square	SP-1, 195; SP-2, 195	150
P-4	14" throat	14" square	400	425
Heavy duty		14" square	680	650

Twist Drill Grinders

No. 21—Capacity, 3/32" to ½" 2 lip drills. A special collet is available for increasing the capacity from 3/32" down to a No. 57 drill—		
Weight—net weight with accessories and motor	pounds	150
Price		$225
No. 510—Capacity: ¼" to 3" and 2-3-4- lips:		
Weight—net without motor, 860 pounds; with motor	pounds	950
Price		$700

Ace Tool and Cutter Grinder

Capacity—Face mills up to 15" in diameter.		
Maximum distance between centers	inches	15
Swing of centers	do	8
Cross carriage travel	do	8
Angular adjustment of carriage		180°
Longitudinal adjustment of table	inches	10
Maximum distance between grinding wheel and tilting table	inches	7½
Maximum distance between grinding wheel and base table	inches	16¾
Maximum horizontal travel of grinding unit	inches	10
Size of center table	do	3¼ x 24
Net weight machine	pounds	1,090
Price		$930

Face Mill Grinders

No. 2 "Arc" face mill grinder:		
Capacity—6" to 26" in diameter.		
Weight—net including motor and electrical equipment	pounds	1,500
Price		$1,520
Automatic face mill grinder:		
Capacity—approximately 10" to 21" face mills.		
Price		$3,800

Drill Point Thinner

Capacity—5/16" to 3" in diameter, 2 lip drills.		
Weight—net	pounds	400
Price		$325

Tap Grinder

Price	$550

Template Tool Bit Grinder

Capacity—Tool bits up to ¾" square.		
Weight—Net	pounds	1,150
Price		$1,850

OSTER MANUFACTURING CO., CLEVELAND, OHIO

	Net weight (pounds)	Price
No. 410 sewer cleaning machine	165	$135

PIPE MACHINES—PRICES AND SPECIFICATIONS

Model No.	Standard range of pipe	Netweight	Price with 110-volt Universal motor
	Inches	*Pounds*	
412		150	$165.00
414	⅛-4	380	415.00
422	3/8-2	140	117.00
502	¼-2	280	235.00
531	3/16-1¼	450	475.00
562	¼-2	425	410.00
4	1 -4	4,250	2,450.00
6A	½-6	6,000	2,925.00
8	2½-8	7,350	3,400.00
8B	2½-8	5,500	2,385.00
12	3½-12	12,500	5,750.00
12B	3½-12	7,775	3,650.00
302	¼- 2	780	660.00
304	1 - 4	1,170	880.00
326	1¼- 6	2,075	1,290.00
308	2½- 8	4,400	2,175.00
704	1 - 4	2,975	1,585.00
706	1 - 6	3,400	1,925.00
572	¼- 2	830	730.00

OSTER MANUFACTURING CO., CLEVELAND, OHIO—Continued

BOLT MACHINES

Model No.	Range of pipe or nipples	Range of bolts N. C. or Whitworth	Range of bolts N. F. or B. S. F.	Net weight, including 110-volt Universal motor	Price
	Inches	*Inches*	*Inches*	*Pounds*	
541	⅛-1¼	5/16-1¼	5/16-1½	925	$615
542	⅛-1¼	5/16-1½	5/16-1½	925	690

NO. 601 HAND SCREW MACHINE

Automatic chuck capacity:		
Round bar	inches	1½
Square bar	do	1 1/16
Hex bar	do	1 5/16
Swing over bed	do	14
Length of bed	do	33
Length of saddle	do	8
Length of cross slide	do	18¾
Net weight	pounds	1,750
Price		$1,725

	Weight	Price
	Pounds	
No. 825 chaser grinder	125	$215
Willie Williams pipe machine	535	295
No. 915 single spindle bolt machine	4,400	1,425
No. 915 double spindle bolt machine	5,850	2,250
No. 922 single spindle bolt machine	4,500	2,025
No. 922 double spindle bolt machine	6,000	3,025

PAWTUCKET MANUFACTURING COMPANY, PAWTUCKET, R. I.

Upright bar shears:	
No. 1	[1] $1,725; [2] 2,000
No. 2	[1] 1,100; [2] 1,350
No. 3	[1] 850; [2] 1,000
Forging machines:	
½"	[1] 2,500; [2] 2,700
¾"	[1] 2,900; [2] 3,200
⅞"	[1] 3,000; [2] 3,300
1¼"	[1] 3,650; [2] 4,000
1½"	[1] 4,600; [2] 5,000

[1] Belt driven.
[2] Motor driven.

PAWTUCKET MANUFACTURING CO., PAWTUCKET, R. I.—Continued

Screw shaving machines:	
No. 0	800
No. 1	1,300
No. 1½	1,400
No. 2	1,800
Nut facers	1,350
Tools, for forging machine:	
½"	40
¾"	44
⅞"	50
1¼"	55
1½"	60
Collets for shavers:	
No. 0	15
No. 1	18
Size 1¼"	20
No. 2	34

PEDRICK TOOL AND MACHINE COMPANY, PHILADELPHIA, PA.

PEDRICK BENDING MACHINES (ALL MODELS)

Hand machines:	
Model A without forms and shoes 1" standard weight	$558
Model B without forms and shoes	750
Motor driven machines:	
Model C without forms and shoes 2" extra heavy	[1] 2,000
Model C-2 without forms and shoes 3"	[2] 2,725
Model D without forms and shoes 4"	[3] 3,500
Model E without forms and shoes 6"	6,000
Model E-2 without forms and shoes 6" extra heavy	7,500

Forms and shoes extra as follows:

Pipe size (inches)	Standard radius	Price (cast iron)
	Inches	
¼	1	$14
3/8	1	16
½	2⅛	18
¾	2¼	22
1	3	40
1¼	4	48
1½	5	60
2	6	80
2½	10	120
3	11	160
3½	12	200
4	15	250
4½	20	315
5	25	375
6	28	495

[1] Model B-1 was made of welded steel and due to impossibility to secure same it has been substituted for the duration for the model C.
[2] Model C-2 has been substituted for the C-1; heavier construction, but same price.
[3] Model D-1 is substituted for duration due to impossibility to secure steel plate (welded).

Automatic double disk grinders: 20", $4,200; 30", $4,650

PEERLESS MACHINE CO., RACINE, WIS.

METAL SAWING MACHINES

Peerless Standard Type

Description	Capacity							
	6" x 6"		9" x 9"		13" x 16"		13" x 16"	
	Weight	Price	Weight	Price	Weight	Price	Weight	Price
	Pounds		*Pounds*		*Pounds*		*Pounds*	
Single speed, belt drive	750	$275	1,150	$505	1,750	$725	-------	-------
Single speed, motor mountings	800	315	1,245	535	1,800	760	-------	-------
Single speed, AC motor drive	920	415	1,345	635	1,900	865	-------	-------
Single speed, DC motor drive	920	500	1,345	700	1,900	930	-------	-------
3 speed, belt drive	950	370	-------	-------	-------	-------	-------	-------
6 speed, belt drive	-------	-------	1,290	605	1,950	825	3,220	$1,165
3 speed, motor mountings	1,015	410	-------	-------	-------	-------	-------	-------
6 speed, motor mountings	-------	-------	1,360	635	2,000	860	3,225	1,200
6 speed, AC motor drive	-------	-------	1,460	735	2,110	965	3,340	1,305
6 speed, DC motor drive	-------	-------	1,460	800	2,110	1,030	3,340	1,370
3 speed, AC motor drive	1,125	510	-------	-------	-------	-------	-------	-------
3 speed, DC motor drive	1,125	595	-------	-------	-------	-------	-------	-------

PEERLESS MACHINE CO., RACINE, WIS.—Continued

METAL SAWING MACHINES—continued

Peerless Improved Universal Type

Description	Capacity					
	6" x 6"		10" x 10"		13" x 13"	
	Weight	Price	Weight	Price	Weight	Price
	Pounds		*Pounds*		*Pounds*	
Belt driven	900	$500	2,075	$980	3,100	$1,265
Motor driven, customer's motor and starter	1,000	530	2,175	1,010	3,200	1,295
Motor driven, AC	1,000	600	2,175	1,080	3,200	1,370
Motor driven, DC	1,000	685	2,175	1,165	3,200	1,460

	Weight	Price
	Pounds	
Peerless universal No. 2 portable pipe cutting and threading machine	300	$285
Peerless vertical type heavy duty metal sawing machine:		
Plain	5,300	3,245
With AC motor	5,400	3,335
With DC motor	5,400	3,465

Peerless High Duty Type Hydraulic Type Metal Sawing Machine

Description	Capacity					
	6½" x 6½"		10" x 10"		14" x 14"	
	Weight	Price	Weight	Price	Weight	Price
	Pounds		*Pounds*		*Pounds*	
Without motor	2,070	$960	2,830	$1,580	4,030	$2,085
With AC motor	2,170	1,045	2,930	1,665	4,150	2,175
With DC motor	2,170	1,130	2,930	1,750	4,150	2,270
With customer's motor	2,170	980	2,930	1,600	4,150	2,105

Peerless High Duty Type Hydraulic Feed Metal Sawing Machine With Hydraulically Operated Automatic Bar Feed

Description	Capacity			
	6" x 6"		9" x 9"	
	Weight	Price	Weight	Price
	Pounds		*Pounds*	
Without motor	3,325	$1,550	4,760	$2,425
With customer's motor	3,425	1,570	4,880	2,445
With AC motor	3,425	1,635	4,880	2,515
With DC motor	3,425	1,720	4,880	2,610

Peerless Dry Cut Type

Description	4½" x 4½" Capacity			
	Belt driven		Motor driven	
	Weight	Price	Weight	Price
	Pounds		*Pounds*	
AC current	-------	-------	235	$170
DC current	-------	-------	235	175
AC current, 208 volts	200	$110	235	175

PERKINS MACHINE CO., WARREN, MASS.

MODEL A PRESSES

No.	Prices	
	Plain drive	Geared
1	$115	$175
1 [1]	175	-------
1 [2]	210	-------
2	150	250
3	290	410
4	475	525
5	585	690
6	825	995
7	1,125	1,325
8	1,425	1,650
9	2,200	2,500

[1] 12-inch throat.
[2] 18-inch throat.

PERKINS MACHINE CO., WARREN, MASS.—Con.

MODEL B PRESSES

Model No.	Prices		
	Plain drive	Geared	"V" belt motor drive plain or geared including motor support, sheave and belts
100B	$150	$185	$30
100B spec	175	210	-------
200B	235	290	40
201B	-------	420	-------
300B	285	350	45
350B	435	525	50
355B	485	575	50
400B	625	735	60
500B	825	975	70
600B	1,325	1,500	80
700B	1,825	2,250	90
800B	2,250	2,850	100

Standard junior including motor	$105
Standard junior—"E" with motor	105
No. 6 La Foot press	65
No. 7 La Foot press	115
No. 3 model K screw press	125
No. 4 model K screw press	190
No. 7H special	1,675

THE PETTINGELL MACHINE COMPANY, AMESBURY, MASS.

Description:	Price
Regular size automatic power hammer, 33" throat	$195
Extra large automatic power hammer, 33" throat	265
Motorized hammer with motor (bracket type), 33" throat	485
Motorized hammer with motor (bracket type), 40" throat	525
Motorized hammer with motor (pedestal type)	510
Hammer with mallet base and steel dies	330
Combination hammer (1 top arm, 2 lower arms)	330
Regular power beader, folder and cutter, 19" throat	310
Friction drive rotary cutting shear, 60" throat	425
Electric rotary shear, 60" throat	675
Friction drive rotary cutting shear, 30" throat	365
Electric rotary cutting shear, 30" throat	625
Extra heavy rotary trimming cutter, 16" throat	650
Heavy type electric rotary shear	800
Special rotary trimming cutter, 30" throat	365
Electric rotary trimming cutter	625
Electric table moulder	125

POPE MACHINERY COMPANY, HAVERHILL, MASS.

PYRAMID TYPE BENDING ROLLS (3 ROLLS)—PRICES AND SPECIFICATIONS

Capacity (inches)	Length	Diameter upper roll	Base weight	Price (base machine)
	Feet	*Inches*	*Pounds*	
¼	6	6½	5,850	$2,050
	8	7½	8,000	2,600
	10	8	10,000	3,000
	12	10	14,500	4,300
⅜	6	7½	6,500	2,112
	8	9	9,000	2,700
	10	10	13,000	3,900
	12	12	20,000	5,600
½	6	8	10,000	3,280
	8	10	15,200	4,560
	10	12	24,300	7,250
	12	13	27,400	7,950
	14	14	35,500	9,940
	16	15	44,600	12,000
	18	16	50,700	13,150
	20	17	57,800	15,000
	22	18	69,100	17,250
	24	20	88,500	22,125
	26	22	115,200	28,800
	28	24	150,100	37,500
	30	26	179,900	45,000
⅝	6	10	13,600	4,080
	8	12	22,300	6,250
	10	13	26,400	7,400
	12	14	32,000	8,650
	14	15	41,800	10,875
	16	16	47,600	11,900
	18	17	54,500	13,625
	20	18	68,300	17,000
	22	19	81,700	20,400
	24	21	102,100	25,500
	26	23	130,100	32,500
	28	25	157,000	39,000
	30	27	187,500	46,500
¾	6	12	18,900	5,675
	8	13	24,300	7,050
	10	14	29,800	8,345
	12	15	40,500	10,935
	14	16	45,500	11,830
	16	17	51,300	12,825
	18	18	63,500	17,800
	20	20	81,500	20,350
	22	22	102,000	25,500
	24	24	127,600	31,900
	26	26	156,500	39,000
	28	28	202,300	50,000
	30	30	238,200	59,500
⅞	8	14	27,500	8,250
	10	15	35,500	10,300
	12	16	41,800	11,700
	14	17	47,900	12,935
	16	18	60,500	15,725
	18	20	76,800	19,200
	20	22	105,000	26,200
	22	24	127,800	31,700
	24	26	154,900	38,700
	26	28	189,700	47,500
	28	30	233,100	58,000
	30	32	288,900	72,000
1	8	15	32,500	9,750
	10	16	38,500	10,065
	12	17	46,500	13,000
	14	18	56,500	15,250
	16	20	72,500	18,850
	18	22	95,000	23,700
	20	24	120,000	30,000
	22	26	150,400	37,500
	24	28	187,300	46,750
	26	30	227,700	56,500
	28	33	282,900	70,000
	30	36	347,600	86,000
	32	40	400,000	100,000
	34	44	480,000	120,000

STRAIGHTENING ROLLS (7 ROLLS)—PRICES AND SPECIFICATIONS

Capacity (inches)	Length	Diameter upper roll	Weight	Price (base machine)
	Feet	*Inches*	*Pounds*	
½	4	8	45,000	$13,000
	6	10	52,000	15,000
	8	12	60,000	17,500
	10	13	70,000	20,000
	12	14	83,000	23,500
¾	8	14	77,000	20,500
	10	15	82,000	23,000
	12	16	96,000	26,000
1	10	17	100,000	33,000
	12	18	120,000	39,000

PORTER-McLEOD MACHINE TOOL CO., INC., HATFIELD, MASS.

PORTER-MCLEOD COLD-METAL SAWING MACHINES

Swing carriage type—8" round stock capacity

[Blade 20" diameter is standard, 18" to 20" may be used]

8-inch standard machine including oil pump with ¼ hp. motor, blade speed 54 feet per minute. Friction feed 0" to 3" per minute. Manual clamping equipment, silent chain drive, but without main drive motor	$3,000.00
Extra for 5 hp. 1,800 r. p. m. constant speed motor, starter and push-button station	100.00
Extra for adjustable clamp beam	75.00
Extra for 20" diameter high-speed inserted tooth blades	129.20
8-inch machine having variable speeds and feeds:	
Blade speed 28 feet; 0.86", 1.22", and 1.72" feed per minute.	
Blade speed 54 feet; 1.63", 2.33", and 3.26" feed per minute.	
Blade speed 108 feet; 3.26", 4.66", and 6.52" feed per minute.	
And including oil pump with its motor, manual clamping equipment silent chain drive, but without main drive motor	3,500.00
Extra for 7½ hp., 1,800 r. p. m. constant speed motor, starter and push-button station	125.00
Extra for adjustable clamp beam	75.00

PORTER-MCLEOD MACHINE TOOL CO., INC., HATFIELD, MASS.—Continued

PORTER-MCLEOD COLD-METAL SAWING MACHINES—continued

Swing carriage type—8" round stock capacity—Continued

Hydraulic clamping, including hydraulic cylinder, clamp beam, adjusting screw and handwheel, hydraulic pump giving pressures up to 1,000 pounds per square inch on clamping piston, 1½ hp. motor, operating valve control, gage and starter complete	$1,200.00
Stock feed tables, hand feed up to	250.00
Chain feed with multiple fixtures for production work up to	750.00
Short end fixtures for production work, multiples, no burrs. Prices quoted on application.	

PORTER-MCLEOD 1" CAPACITY WET ABRASIVE CUTTING-OFF MACHINE

No. 2A bench-type machine, without electrical equipment, mounted on pedestal tank base, complete with impeller pump, motor and strainer mounted inside the pedestal with necessary piping and throttle valve mounted	625.00
Extra for mounting 1½ hp. 220-, 440-, or 550-volt, 60-cycle, 3-phase, 1,800 r. p. m. motor with manual starter mounted on front of the base	66.00
Extra for magnetic starter in place of manual type	12.00
Extra for single-phase motor	10.00

PORTER-MCLEOD 16-INCH GEARED HEAD, SINGLE PULLEY DRIVE, 12 SPEED, SCREW CUTTING, ENGINE LATHES

[Arranged for motor drive, without electrical equipment]

	16" x 6'	16" x 7'	16" x 8'	16" x 10'
Including large motor leg under headstock, and small cabinet leg under tailstock and chip pan	$3,000	$3,090	$3,180	$3,360
Extra for taper attachment	190	190	190	190
Extra for draw in chuck and one collett	100	100	100	100
Extra for fitting chuck plate to chuck	15	15	15	15
Extra for 3 hp. standard voltage motor including magnetic switch and push-button station, mounted and wired	100	100	100	100
Extra for 5 hp. standard voltage motor including magnetic switch and push-button station, mounted and wired	120	120	120	120

POTTER & JOHNSON MACHINE CO., PAWTUCKET, R. I.

AUTOMATIC TURRET LATHES

Type	Swing over bed	Swing over cross slide	Distance between spindle centers	Price
	Inches	*Inches*	*Inches*	
4-D	21	10	----------	$5,775
5-D	25	12	----------	7,480
6-DRE [1]	34½	21	----------	8,760
6-DREL [1]	34½	21	----------	9,915
5-D-2 [2]	2	11½	10½	8,377
5-D-2 [3]	2	13	15½	10,010
5-D-2E [4]	2	18⅛	15½	10,560

[1] Includes electric power reverse.
[2] 9-inch.
[3] 12-inch.
[4] 15-inch.

PRATT & WHITNEY, WEST HARTFORD, CONN.

Machine	Weight	Base price with motor, not furnished without
	Pounds	
Deep Hole Drill Sharpener	900	$1,515
½B Drilling Machine, 2-spindle:		
½B x 30"	6,200	7,670
½B x 50"	6,940	8,060
½B 2-spindle Reaming Machine:		
½B x 30"	5,580	7,415
½B x 50"	6,450	7,800
½B Chambering Machine:		
½B x 30"	4,060	8,700
½B x 50"	4,900	8,980
½B 2-spindle Rifling Machine:		
½B x 30"	6,900	11,225
½B x 50"	7,880	11,500
1B Drilling Machine:		
1B x 50"	8,020	9,865
1B x 74"	8,640	10,345
1B x 98"	9,260	10,890
1B Reaming Machine:		
1B x 50"	8,320	9,335
1B x 74"	8,920	9,800
1B x 98"	9,500	10,235
1B 6-spindle Reaming Machine:		A
1B x 50"	10,400	15,950A

PRATT & WHITNEY, WEST HARTFORD, CONN.—Con.

Machine	Weight	Base price with motor, not furnished without
	Pounds	
1B Rifling Machine:		
1B x 50"	10,750	13,125
1B x 74"	11,500	13,550
1B x 98"	12,250	14,000
Jig Borers:		
1½B Jig Borer	4,125	5,245
2A Jig Borer:		
24" x 30"	8,175	8,150
36" x 44"	9,440	9,150
3B Jig Borers: 24" x 54"	14,900	13,750
3C Universal Bench Miller with bench and motor drive complete	850	1,340
Bench Lathes—with bench and motor drive complete:		
7" x 16"	655	965
10" x 20"	707	1,025
2B Universal Die Sinker: 0 to 3½"	7,930	6,930
2B Plain Die Sinker	5,325	4,640
3B Universal Die Sinker	12,750	8,900
3B Plain Die Sinker	8,250	5,575
Hydraulic Vertical Surface Grinders:		
36"	12,500	7,800
60"	14,400	9,040
Gear Grinders:		
9"	5,620	7,350
10"	8,410	9,900
10" 2-wheel Grinder	10,250	14,225
Model C Thread Miller:		
4½" x 12"	2,780	4,700
4½" x 36"	3,520	5,225
6" x 20"	4,750	6,065
6" x 60"	5,850	6,435
6" x 90"	7,150	7,670
6" x 120"	8,400	8,425
12B Vertical Miller and Profiler:		
Single spindle 14" x 18"	3,850	3,600
Double spindle 14" x 18"	4,475	4,160
Bench Shaver	1,600	3,740
Contour Cutter Grinder	700	3,925
1½ Drilling Machine:		
1½ x 37"	10,000	12,100
1½ x 61"	12,235	13,200
1½ x 81"	13,540	14,300
1½ x 105"	16,070	15,290
1½B Rifling Machine:		
1½ x 37"	----------	14,000
1½ x 61"	----------	15,150
1½ x 81"	----------	16,250
1½ x 105"	----------	17,350

PRATT & WHITNEY, WEST HARTFORD, CONN.—Con.

Machine	Weight without motor	Base price with motor and starter	Base price without motor
	Pounds		
Model C Toolroom Lathe:			
12" x 30"	2,600	$3,817	$3,740
12" x 54"	3,200	3,937	3,860
14" x 30"	4,120	3,984	3,895
14" x 54"	4,700	4,124	4,035
14" x 78"	4,725	4,274	4,185
16" x 30"	4,200	4,644	4,530
16" x 54"	4,650	4,819	4,695
16" x 78"	5,900	5,004	4,880
Vertical Shapers:			
6"	5,140	4,817	4,730
12"	8,850	6,828	6,720
30" Vertical Miller and Profiler:			
Single spindle 24" x 30"	5,460	6,774	6,685
Double spindle 24" x 30"	5,500	7,264	7,175

Machine	Weight including fixture	Base price with motor not furnished without	Fixture
	Pounds		
Keller Cutter and Radius Grinder:			
R-6	815	$1,045	------
R-8	815	1,825	------
Keller Automatic Die Cutting Machine:			
Type E-6	5,840	5,650	------
Type E-63	6,600	6,600	------
Keller Automatic Bottle Mold Cutting Machine:			
No. 542	7,685	7,000	------
No. 543	7,985	8,100	------
Keller Machine, types G and GG:			
Type G	5,400	6,215	$385
Type GG	5,500	7,315	385
Keller Machine, type BL:			
BL-2416 Single Spindle	8,610	10,450	715
BL-2416 3-Spindle Belt	8,810	12,100	850
BL-2416 3-Spindle Geared	8,810	12,980	850
BL-2420 Single Spindle	9,180	11,220	910
BL-2420 3-Spindle Geared	9,400	14,190	1,100
BL-3620 Single Spindle	9,700	12,650	910
BL-3620 3-Spindle Geared	10,000	15,620	1,100
Keller Machine, type BG:			
BG-1-482	24,500	17,600	1,100
BG-1-483	25,500	18,800	1,265
BG-1-602	27,800	18,200	1,485
BG-1-603	29,200	19,400	1,700
BG-2-724	52,000	26,600	3,740
BG-2-1085	61,800	30,800	4,400
BG-2-1205	65,300	31,700	4,620

Obsolete models	*Equivalents*
Centering: 4"—2 spindle	Sundstrand.
Die sinker:	
No. 2	$1,000.
No. 3	$1,500.
Drills: Multiple spindle	National Automatic Tool Co.
Grinders (cylindrical):	
5 x 30	Fitchburg Grinding Machine Co.
6 x 48	6 x 32.
Grinders (vert. surface):	
14"	Pratt & Whitney 36".
22"	$14,500.
Rotary table type	O. S. Walker.
Milling:	
Automatics:	
No. 5 and No. 8	Sunstrand No. 00 Hyd. Feed—$1,749.
No. 10	Cincinnati Plain Auto. No. 1-12.
No. 12	$4,000.
Cam	Frew.
Duplex	Sundstrand Duplex.
Hand:	
No. 2	Standard Eng. Works—$550.
No. 10	U. S. Machine Tool—$350.
No. 2 Horizontal Pl. power feed).	Kempsmith No. 1, plain.
Lincoln Type	Gooley & Edlund.
Spline Miller:	
2"	Taylor & Fenn 4".
4"	Taylor & Fenn 6".
Thread Mills:	
6" and 14"	Pratt & Whitney 6" & 20".
12" and 48"	$7,000.
Turret lathes:	
1½" x 18"	Foster No. 5 (screw machine).
No. 2⅝"	Warner & Swasey No. 1—$2,190.
1" x 33"	Foster No. 3.
2½" belt drive	Foster No. 7.
2"	Foster No. 5 (universal).
Flat turret lathes	Jones & Lamson.
Planers	See list of equivalents.

PRODUCTION ENGINEERING CO. (FORMERLY AUTOMETRIC MACHINE TOOL CO.) BERKELEY, CALIFORNIA

	Weight (pounds)	Base price
Autometric universal jig boring layout and inspection machine	2,700	$4,325
Autometric horizontal universal precision boring machine	2,600	4,090

THE PRODUCTO MACHINE CO., BRIDGEPORT, CONN.

No. 1 Producto gear cutter	$1,775
No. 2 Producto gear cutter	2,150
No. 3 Producto gear cutter	3,400
No. 0 Bristol hand miller	850
No. 6 automatic miller (Producto)	2,800
No. 7½ automatic miller (Producto)	3,700
No. 44 automatic miller (Producto)	9,000
No. 50 automatic miller (Producto)	7,500

PROVIDENCE ENGINEERING WORKS, INC., PROVIDENCE, R. I.

DRILLING MACHINES

Prices Models H 16-Inch and K 24-Inch

Machine No.	Number of spindles	Distance between spindles	Belt drive T. and L. pulleys, type B	Motor drives: Motors and equipment not included, type C	Motor drives: Motors and equipment fully wired, type V
		Inches			
H-1	1		$450	$450	$500
H-2	2	9	740	740	845
H-23	2	18	810	810	920
H-3	3	9	1,060	1,060	1,260
H-24	3	13½	1,120	1,120	1,330
H-35	3	18	1,190	1,190	1,400
H-4	4	9	1,380	1,380	1,600
H-45	4	12	1,450	1,450	1,680
H-46	4	15	1,520	1,520	1,760
H-5	5	9	1,655	1,655	2,070
H-56	5	11¾	1,725	1,725	2,150
H-6	6	9	2,025	2,025	2,430
K-1	1		490	490	540
K-2	2	9	825	825	930
K-23	2	18	895	895	1,010
K-3	3	9	1,150	1,150	1,350
K-34	3	13½	1,210	1,210	1,420
K-35	3	18	1,280	1,280	1,490
K-4	4	9	1,525	1,525	1,745
K-45	4	12	1,595	1,595	1,825
K-46	4	15	1,655	1,655	1,905
K-5	5	9	1,780	1,780	2,180
K-56	5	11¼	1,950	1,950	2,360
K-6	6	9	2,145	2,145	2,550

Prices, Models E (Bench Type) and F (Floor Type) 14-Inch Machines

Machine No.	Number of spindles	Distance between spindles	Working surface of tables	Weights	Price, including motor fully wired
		Inches		*Pounds*	
E1V	1	7	12" x 14"	235	$350
E2V	2	7	12" x 21"	425	640
E23V	2	14	12" x 28"	460	680
E3V	3	7	12" x 28"	600	930
E34V	3	10½	12" x 35"	625	970
E35V	3	14	12" x 42"	670	1,010
E4V	4	7	12" x 35"	760	1,210
E45V	4	9⅓	12" x 42"	815	1,250
E46V	4	11⅔	12" x 49"	850	1,290
E5V	5	7	12" x 42"	950	1,495
E56V	5	8¾	12" x 49"	1,000	1,540
E6V	6	7	12" x 49"	1,130	1,800
F1V	1	7	12" x 14"	400	400
F2V	2	7	12" x 21"	600	720
F23V	2	14	12" x 28"	705	790
F3V	3	7	12" x 28"	850	1,040
F34V	3	10½	12" x 35"	915	1,110
F35V	3	14	12" x 42"	1,055	1,190
F4V	4	7	12" x 35"	1,050	1,360
F45V	4	9⅓	12" x 42"	1,220	1,440
F46V	4	11⅔	12" x 49"	1,300	1,520
F5V	5	7	12" x 42"	1,350	1,680
F56V	5	8¾	12" x 49"	1,435	1,760
F6V	6	7	12" x 49"	1,585	2,000

QUICKWORK—WHITING, HARVEY, ILL.

	Price
Shear No. 7A	$1,690
Shear No. 8A	1,690
Shear No. 10A	1,970
Shear No. 20A	2,310
Shear No. 23A	2,560
Shear No. 25A	3,050
Shear No. 30A	5,480
Shear No. 34A	7,075
Shear No. 35A	6,400
Shear No. 40A	9,480
Shear No. 50A	13,620
Shear No. 60A	14,640
Stamping trimmer [1]	3,200
Standard light hammer [2]	1,432
Standard large hammer [2]	1,726
Heavy duty hammer	2,364

[1] Does not include cutters.
[2] Includes column for mounting.

RACINE TOOL & MACHINE CO., RACINE, WIS.

HIGH SPEED GRAVITY FEED MACHINES

Model No.	Capacity: Rated	Capacity: Actual	Capacity: At 45°	Prices: Belt driven	Prices: Belt driven, 3-speed transmission	Prices: Arranged for motor without motor	Prices: Motor driven (standard motor)	Prices: Arranged for motor drive, 3-speed transmission without motor	Prices: Motor driven 3-speed transmission, and standard motor
	6" x 6"	Solid vise, 6⅝" x 6⅝".		1 $220	4 $300	3X $305	3 $335	5X $385	5 $415
2	6" x 6"	Swivel vise, 6⅝" x 6⅝".	4½"	275	A 355	BX 360	B 390	CX 440	C 470
7	12" x 12"	Swivel vise, 12⅜" x 12¾".	9"	465	A 545	BX 560	B 610	CX 640	C 690
9	12" x 15"	Swivel vise, 12¾" x 16".	11"	525	A 605	BX 620	B 670	CX 700	C [2] 750
10 [1]	9" x 9"		Swivel vise, 6" x 8".	410	A 490	BX 445	B 515	CX 525	C [2] 575

[1] Extra for magnetic push button control AC $15, DC $40.
[2] With manual safety switch.

SAWS—HYDRAULIC FEED HEAVY DUTY EQUIPPED WITH BUILT-IN 3-SPEED TRANSMISSION

Model No.	Capacity: Rated	Capacity: Actual	Capacity: With swivel vise at 45°	Prices: Belt driven	Prices: Arranged for motor without motor	Prices: Complete with standard motor and push-button control
30	[1] 10" x 10"	10" x 11"	10" x 6"	A $1,195	CX $1,255	C $1,350
31	12" x 12"	13" x 13"	13" x 8"	A 1,380	CX 1,440	C 1,535
32	10" x 16"	10" x 16⅝"	10" x 10"	A 1,380	CX 1,440	C 1,535
33	12" x 16"	13" x 16⅝"	13" x 10"	A 1,570	CX 1,630	C 1,725
34	10" x 20"	10" x 22"	10" x 10"	A 1,630	CX 1,690	C 1,785
35	14" x 20"	14" x 22"	13" x 10"	A 1,820	CX 1,880	C 1,975

[1] Special 10" x 13" capacity, for these machines, add $95.

RACINE—TOOL & MACHINE CO., RACINE, WIS.—Continued

SHEAR CUT PRODUCTION SAWS POSITIVE-PROGRESSIVE SCREW FEED

Capacity		Prices			
Rated	Actual	Belt driven, single speed	Belt driven, three speeds	Arranged for motor 3-speed transmission, without motor	Motor driven. 3-speed transmission, standard motor, push button control
	Solid vise				
6" x 6" [1]	6⅝" x 6⅝"	$600	$655	$675	$760
8" x 9"	[2] 8¼" x 9¾"	715	770	790	875

[1] For these machines in 7½" x 7½" capacity, $75.
[2] With quick acting swivel vise 8¼" x 4½".

RACINE "OIL-CUT" HYDRAULIC MACHINE HYDRAULIC FEED AND PRESSURE

Rated capacity—6" x 6"—actual capacity 6⅝" rated capacity at 45° 4" 6⅝".

No. 6-C. 3-speed motor driven with standard motor and enclosed manual starter with thermal overload protection $625
Extra for push-button control with a. c. motors, built-in type, with overload and low voltage protection 15
No. 6-CX. Same as above, arranged for motor without motor or electrical equipment. Includes cast iron adjustable motor mounting base, bolted to rear of machine base, cast iron safetyg uard, motor sheave pulley and three "V" belts 565
No. 6-A. Belt driven and equipped with cast iron adjustable belt guard 525

RACINE UTILITY SAW (HYDRAULIC) DRY CUT

[Capacity—rated 6" x 6", actual 6⅝" x 6⅝" at 45°, 6⅝" x 4"]
No. D-3. Single speed, belt driven $190
No. D-3BX. Two speeds, arranged for motor without motor 250

RACINE UTILITY SAW (HYDRAULIC) DRY CUT—con.

No. D-3B. Two speeds, complete with our standard motor $295
(Includes safety manual switch, with overload protection.)
Extra for magnetic push-button control (AC) 65

RACINE UTILITY SAW (HYDRAULIC) WET CUT

[Capacity—rated 6" x 6", actual 6⅝" x 6⅝" at 45° 6⅝" x 4"]
No. W-3. Single speed, belt driven $305
No. W-3BX. Two speeds, arranged for motor without motor 365
No. W-3B. Two speeds, complete with our standard motor 415
(Includes manual safety switch with overload protection.)
Extra for equipping with 3-speed sliding gear transmission 65

RACINE DUPLEX BAND SAW

[Capacity 14". Capacity under guide, Nos. 12 and 13, 6"; No. 14, 5"; Nos 12-A, 13-A, 14-A, 3"]
No. 12. Single speed, solid table $185
No. 13. Two speeds, solid table 225
No. 14. Two speeds, table and vise sliding on ball bearings, gravity feed 265

RASMUSSEN MACHINE CO., INC., RACINE, WIS.

SAW MORE METAL CUTTING MACHINE

Model	Capacity	Arranged for motor without motor		Standard motor,[1] starter and push button station	
		Weight	Price	Weight	Price
	Inches	*Pounds*		*Pounds*	
Model V [2] manual:					
6 VP	6 x 6	1,470	$600	1,550	$660
10 VP	10 x 10	1,650	890	1,750	950
Model V automatic:					
6 VA	6 x 6	2,205	950	2,335	1,039
10 VA	10 x 10	2,315	1,240	2,445	1,329
Model GB [3] manual:					
6 BP	6 x 6	1,470	670	1,550	759
10 BP	10 x 10	1,650	960	1,750	1,049
Model GB [3] automatic:					
6 BA	6 x 6	2,205	1,055	2,335	1,144
10 BA	10 x 10	2,315	1,345	2,445	1,434

[1] Model V has standard starter. All others have magnetic starter.
[2] Model V manual includes—3-speed silent V-belt transmission, without automatic bar feed but with cabinet base, quick acting swivel vise, swivel on base to 45° for angle cutting.
Model G B manual—4-speed, gear box transmission instead of 3-speed silent V-belt transmission. Otherwise the same as model V manual.
[3] Model V automatic machine—3-speed silent V-belt transmission, with 12-foot full automatic bar feed carrier. Cabinet base, quick acting swivel vise—swivel on base to 45° for angle cutting.
Model GB automatic machine—4-speed gear box transmission instead of 3-speed silent V-belt transmission. Otherwise same as model V automatic.

REED PRENTICE CORP., WORCESTER, MASS.

LATHES

Size	8-speed headstock		10-speed headstock		Extra 2' of bed
	Weight	Price	Weight	Price	
Engine:	*Pounds*		*Pounds*		
14" AA	3,500	$2,955	3,600	$3,050	$123
16" AA	3,850	3,325	3,950	3,425	136
20" A	4,600	4,199	4,750	4,283	152
Tool room:					
14" B	3,700	3,432	3,800	3,527	145
16" B	4,000	3,808	4,100	3,910	158

VERTICAL MILLING MACHINES

Model	Weight	Price	Model	Weight	Price
	Pounds			*Pounds*	
2V	1,650	$1,550	5	11,500	$11,957
3VG	2,850	3,681	6	18,500	18,124
3VGS	4,795	4,575			

No. 5 combination jig boring and vertical milling machine $13,409
Weight ..... pounds.. 10,500

BECKER VERTICAL MILLING MACHINE PRICES

Model No.	Drive	Feeds		Power		Weight	Price, new
		Long	Cross	V. knee	V. head		
		Inches	*Inches*	*Inches*	*Inches*	*Pounds*	
1	Cone					900	800
2	do	12	11	16	2	1,000	950
2H	do	16	8	16	2	1,345	1,300
2A	do	P19	11	16	3	1,360	1,350
3	do	P21	12	17	3½	1,900	1,750
3H	do	27	10	17	3½	1,940	1,950
4B	do	P28	14	19	5	2,540	3,000
AB	Gear box	P32	P14	P14	P4	3,234	3,500
5	Cone	39	14	(1)	(1)	5,000	4,000
5B	do	P32	P12	12	P4	4,500	4,450
5C	do	P54	P16	18	P8¾	5,000	4,750
B	Gear box	P36	P14	12	P4	5,200	5,000
C	do	P43	P15½	P15	P8¾	7,700	6,250
C1	do	P55	P15½	P15	P8¾	7,800	6,500
C2	do	P68	P15½	P15	P8¾	8,700	7,000
6	Cone	P62	P20	P22	P12	8,400	8,000

[1] Vertical travel 7 inches.

REID BROTHERS CO., INC., BEVERLY, MASS.

	Weight	Price
	Pounds	
Reid No. 2-1 surface grinder, arranged for motor drive, without motor	1,350	$750
Reid No. 2-1 surface grinder, belt drive, including countershaft	1,350	750
Reid No. 2-2 surface grinder, arranged for motor drive, without motor	1,550	925
Reid No. 2-2 surface grinder, belt drive, including countershaft	1,550	925
Reid No. 2-3 surface grinder, arranged for motor drive, without motor	1,200	800
Reid No. 2-3 surface grinder, belt drive, including countershaft	1,200	800

RHODES MACHINE CO., LYNN, MASS.

PROFILER

1B $880

RICKERT-SHAFER CO., ERIE, PA.

Model 2 HT hand threading and tapping machine $550
Single spindle, light duty, semiautomatic threading machine 2,400
Single spindle, heavy duty, semiautomatic threading machine 2,700
Double spindle, semiautomatic threading machine 3,740
Die head and tap chaser grinders 375

Rickert-Shafer Co., Erie, Pa.—Continued

BELT DRIVEN, HORIZONTAL

Size	Bench type	Column—with motor bracket		Column-oil feed—with motor bracket	
3/16"	$37.50	$55	$60		
5/16"	42.50	65	75		
1/2"	90.00	125	140	$150	$165
5/8"	105.00	140	155	165	180

BELT[1] DRIVEN, VERTICAL

Size	Without motor bracket	With motor bracket
1/4"	$150	$165
1/2"	425	440

MOTOR[1] DRIVEN, HORIZONTAL

Size	Bench	Pedestal
3/16"	$49.50	
5/16"	59.50	$82

[1] Prices include ¼ hp., 60 cycle, 110 volt, single-phase, 1,725 r. p. m. motor with switch, cord and plug.

Rivett Lathe and Grinder, Inc., Boston, Mass.

GRINDERS

No. 104 with internal bracket and spindle	$2,400
No. 104 with internal-external turret and spindles	2,575

Specifications

Grinding capacity, internal—diameter smallest to maximum	3"
Grinding capacity, external—diameter smallest to maximum	3"
Center distance using tailstock flush	8"
Net weight, with motors and interior or exterior bracket, approximate—pounds	1,650
Net weight with motors and interior-exterior turret, approximate—pounds	1,850
No. 112 universal grinder with internal and external spindles	$4,350
No. 112 universal grinder with internal spindle	$3,800
No. 112 universal grinder with external spindle	$4,000
Grinding capacity, hole diameter	½" to 8"
Grinding capacity, outside diameter	Up to 8"
Automatic table travel	½" to 8"
Net weight—with motors and internal or external spindle—pounds	3,700

LATHES—PRICES AND SPECIFICATIONS

Style No.	Swing over bed diameter	Length of bed	Distance between centers tail stock flush	Net weight[1]	Prices: 5/8" collet capacity	Prices: 1" collet capacity
	Inches	*Inches*	*Inches*	*Pounds*		
505 precision bronze bearing open head bench lathe	8"	38½"	20"	200	$275	$300
608 precision back geared screw cutting lathe [2]	8½"	40"	18¼"	350	1,260	1,385
918 ball bearing bench lathe	9"	39½"	18"	400		450

[1] Net weight, standard attachments, mount and drive.
[2] With change gears.

DISCONTINUED MODELS

No. 3 grinder, discontinued in 1910; approximate net weight, 900 pounds	$600
No. 103 grinder, discontinued in 1925; approximate net weight, 1,150 pounds	1,200
No. 6 grinder, discontinued in 1916; approximate net weight, 2,200 pounds	1,200
No. 106 grinder, discontinued in 1925; approximate net weight, 3,000 pounds	1,800

Rockford Iron Works, Rockford, Ill.

[Rockford Ironworks]

NEW ROCKFORD INCLINABLE PRESSES

	Weight	Flywheel	Weight	Geared
	Pounds		*Pounds*	
"A" Press	350	$66.00		
"B" Press with legs	350	165.00		
"B" Press without legs		154.00		
No. 1R	1,275	308.00	1,350	$544.50
No. 2R	1,890	423.50	2,100	665.50
No. 3R	2,900	528.00	3,400	786.50
No. 4R	4,500	726.00	4,750	995.50
No. 5R	7,600	1,116.50	8,750	1,325.50
No. 5½R	7,700	1,149.50	8,900	1,391.50
No. 6R	9,700	1,331.00	10,700	1,633.50
No. 6½R	8,100	1,496.00	8,700	1,798.50
No. 7R	18,500	2,420.00	20,000	2,783.00
No. 8R	24,000	3,025.00	25,600	3,509.00

Rockford Iron Works, Rockford, Ill.—Continued

Our No. 5½ geared press has a 4" diameter crankshaft, with 5¼" pin; all other specifications have the same as our No. 5R.

"B" press direct motor drive, pinion, or V-belt	$22.00
No. 1R direct motor drive, pinion, or V-belt	38.50
No. 2R direct motor drive, pinion, or V-belt	44.00
No. 3R direct motor drive, pinion, or V-belt	49.50
No. 4R direct motor drive, pinion, or V-belt	$55.00
No. 5R direct motor drive, pinion, or V-belt	60.50
No. 5½R direct motor drive, pinion, or V-belt	60.50
No. 6R direct motor drive, pinion, or V-belt	66.00
No. 6½R direct motor drive, pinion, or V-belt	66.00
No. 7R pinion	71.50
No. 8R	82.50

Horning Press	Weight	Flywheel without table	Extra for table	Weight	Geared without table	Extra for table
	Pounds			*Pounds*		
No. 22R	2,500	$385.00	$121.00	2,750	$627.00	$121.00
No. 23R	3,800	638.00	137.50	4,100	896.50	137.50
No. 24R	6,500	940.50	176.00	7,200	1,210.00	176.00
No. 25½R	9,000	1,402.50	275.00	10,000	1,644.50	275.00
No. 26R	10,300	2,255.00	330.00	12,900	2,585.00	330.00

Rockford Machine Tool Co., Rockford, Ill.

HY-DRAULIC SHAPER PRICES

12" Shaper	$2,540
16" Shaper	3,080
20" Shaper	3,265
24" Standard Shaper	3,450
24" Heavy Shaper	3,930
28" Standard Shaper	4,115
36" Openside Shaper	5,325

HY-DRAULIC SHAPER-PLANER PRICES

24" x 24" x 66"	10,225
24" x 24" x 90"	10,830
24" x 24" x120"	11,615
24" x 24" x144"	12,220

HY-DRAULIC PLANER PRICES

36" x 36" x 10' Openside Planer	15,730
Each 2 feet to table length Planer	1,330
36" x 36" x 10' Double Housing Planer	17,300
Each 2 feet to table length	1,330
42" x 42" x 10' Openside Planer	17,790
Each 2 feet to table length	1,450
42" x 42" x 10' Double Housing Planer	18,995
Each 2 feet to table travel	1,450

ADDITIONS TO PREVIOUS PRICES

Type	Weight	Price
	Pounds	
20" Rockford Hy-Draulic Slotter	34,000	$18,150

TYPES DISCONTINUED BECAUSE OF EMERGENCY

	Pounds	
48" x 48" x 10' Openside Hy-Draulic Planer	42,000	$22,385
Each 2' additional table length		1,570
48" x 48" x 10' Double Housing Hy-Draulic Planer	46,000	20,570
Each 2' additional table length		1,570

Rockford Machine Tool Co., Rockford, Ill.—Con.

TYPES DISCONTINUED PREVIOUS TO PRESENT EMERGENCY

[These gear-driven shapers of obsolete type were discontinued and not replaced in regular production. Prices given are as of January 1st, 1937]

Type machine	Approximate weight	1937 price
	Pounds	
16" Mechanical Shaper	4,100	$1,950
20" Standard Shaper	4,200	2,040
20" Heavy Duty Shaper	4,800	2,150
24" Standard Shaper	4,900	2,250
24" Heavy Duty Shaper	6,200	2,450
28" Standard Shaper	6,250	2,575

Rogers Machine Works, Inc., Alfred, N. Y.

ROGERS VERTICAL TURRET LATHE

36 inch vertical turret lathe with side head, price, $4,850; weight, 7,600 pounds.

The Rowbottom Machine Co., Waterbury, Conn.

Model No. 325, Rowbottom cam milling machine complete with standard AC. motors	$6,000
Net f. o. b. Waterbury, Conn.; weight of standard machine without skids 7,552 pounds.	
Attachments available:	
High speed milling	300
Cam grinding	550
Cross feed	700
Swinging arm milling	725
Uniform rise	300

Royersford Foundry & Machine Co., Royersford, Pa.

EXCELSIOR SENSITIVE DRILLS

Model	Price
10", including column	$40
14" with countershaft	76
14" arranged for motor drive but without motor	92
14" ball bearing throughout with countershaft	140
14" ball bearing throughout, arranged for motor drive but without motor	140

EXCELSIOR DRILLS

21" plain	$202
21" wheel and lever	222
21" wheel and lever with automatic stop	232
21" back geared, power feed, automatic stop	240
21" motor drive, backgeared, not including motor	275

EXCELSIOR FOOT PRESSES

10	$64
12	76
15	88
18	100
20	216
25	264
30 vertical adjustable bed	400

EXCELSIOR GRINDERS

Model:	Price
0 Babbitted bearings, with countershaft	$36
1 Babbitted bearings, with countershaft	50
2 Babbitted bearings, with countershaft	63
3 Babbitted bearings, with countershaft	84
4 Babbitted bearings, with countershaft	108
5 Special low grinder, babbitted bearings	66
5 Special low grinder, ball bearings	96
8B Ball bearing polisher, machine only	78
8B Ball bearing polisher, head only	72
9 Grinding and buffing wheel stand, with countershaft	44
Heavy foundry grinder	175
Oblique grinder and polisher	100
Polisher	38

Royersford Foundry & Machine Co., Royersford, Pa.—Continued

HACK SAWS

	Price
2A power, hack saw, belt driven	$80
M2A Power hack saw, motor drive, not including motor	96

W. J. Savage Co., Knoxville, Tenn.

SAVAGE NIBBLING MACHINES—NIBBLER TYPE

Size	Capacity	Weight	Price with standard equipment and AC motor
	Inch	*Pounds*	
No. 109	1/8	125	$300
No. 218	3/16	1,250	590
No. 130	1/8	1,500	630
No. 212	5/16	1,350	745
No. 236	1/4	3,000	905
No. 336	3/8	4,000	1,052
No. 412	1/2	2,500	952

ROLLER DIE TYPE

		Pounds	
No. 1	1/4	2,700	$1,015
No. 2	3/8	4,700	1,825
No. 3	3/4	7,800	2,550

Wm. Sellers & Co., Inc., Philadelphia, Pa.

THE FOLLOWING PRICES ARE EXCLUSIVE OF MOTORS

Machine	Type	Size	Weight	Base price	Additional length per 2 feet	Additional vertical, per 1 foot
			Pounds			
Horizontal Boring, Drilling, and Milling	Table	4"	28,000	$17,820	$495	$550
	do	5"	40,000	22,770	525	660
	Floor	5"	36,150	20,570	525	660
	Table	6"	51,500	26,510	590	715
	Floor	6"	43,000	22,770	580	715
Planer	Double housing	48" x 48" x 10'	42,500	14,520	760	
	do	60" x 60" x 12'	75,000	19,600	950	
	do	72" x 72" x 12'	84,000	24,805	1,080	
	Open side	60" x 60" x 12'	90,000	24,445	990	
	do	48" x 48" x 10'	54,000	17,425	830	
Boring and Turning Mill	Vertical	10'	133,000	52,500		
	do	12'	193,000	68,250		
	do	14'	210,000	73,500		
	do	16'	233,000	77,000		

THE FOLLOWING PRICES INCLUDE MOTORS

Drill Grinder	Dry	1/16" to 1/2"	100	$285		
	do	1/4" to 3"	1,100	980		
Tool Grinder	Wet	2" x 1 1/2"	2,700	2,410		
	do	2 1/2" x 2"	4,900	3,810		

The Sebastian Lathe Company, Cincinnati, Ohio

Type	Description	Swing—bed 12" x 4'	14" x 6'	16" x 6'	18" x 6'	20" x 8'
H	3-phase, 50 or 60 cycle, 220—400—440—or 550 volt	$1,795	$2,420	$2,445	$3,045	$3,190
H	115 or 230 volt d. c	1,870	2,580	2,605	3,235	3,380
H	Motor and switch furnished us for fitting	1,755	2,370	2,395	2,970	3,115
H	Not motor drive but arranged for single friction pulley drive	1,710	2,310	2,335	2,895	3,040
	Extra for additional 2' of bed	80	100	100	120	120

Regular equipment.—Large face plate—small face plate—2 centers—wrenches—chip pan—steady rest—depth threading stop—threading dial—lever control for start and stop of friction pulley mounted on headstock with brake action for quick stop.

[All orders subject to acceptance by the Sebastian Lathe Co. All prices net crated f. o. b. cars, Cincinnati, Ohio. (See extra for export boxing and delivery New York)]

Type	Description	Swing—bed 12" x 4'	14" x 6'	16" x 6'	18" x 6'	20" x 8'
H	3-phase, 50 or 60 cycle, 220—400—440—or 550 volt	$1,795	$2,420	$2,445	$3,045	$3,190
H	115 or 230 volt d. c	1,870	2,580	2,605	3,235	3,380
H	Motor and switch furnished us for fitting	1,755	2,370	2,395	2,970	3,115
H	Not motor drive but arranged for single friction pulley drive	1,710	2,310	2,335	2,895	3,040
	Extra 2' of bed	80	100	100	120	120

NOTE.—All prices on motor-driven lathes (except where noted) include motor, reserving switch, and wiring.

Seneca Falls Machine Company, Seneca Falls, N. Y.

[All prices cover machines crated f. o. b. Seneca Falls, N. Y.]

STAR ENGINE LATHES

Rated swing	Distance between centers 24"	36"	48"	60"	84"
10 Inches—Actual Swing 10 1/16 Inches					
Plain Change Gear	$464	$481			
Extra for Quick Change Gear Box	42	42			
Extra for Oil Pan	17	19			
(Bed length is 22 inches more than center distance.)					
12 Inches—Actual Swing 12 1/16 Inches					
Plain Change Gear	520	537	$559	$585	
Extra for Quick Change Gear Box	65	65	65	65	
Extra for Oil Pan	25	29	36	41	
(Bed length is 28 inches more than center distance.)					
14 Inches—Actual Swing 14 1/16 Inches					
Plain Change Gear	768	792		841	$888
Extra for Quick Change Gear Box	80	80		80	80
Extra for Oil Pan	32	37		46	73
(Bed length is 36 inches more than center distance.)					
18 Inch by 18-inch Gap with Bridge—Actual Swing 18 1/16 Inches by 18 1/16 Inches					
Plain Change Gear		649	673	697	
Extra for Quick Change Gear Box		65	65	65	
Extra for Oil Pan		29	36	41	
(Bed length is 28 inches more than center distance.)					
14 Inch by 21-inch Gap with Bridge—Actual Swing 14 1/16 Inches by 21 1/16 Inches					
Plain Change Gear		937		975	1,072
Extra for Quick Change Gear Box		80		80	80
Extra for Oil Pan		37		46	
(Bed length is 36 inches more than center distance.)					

See notes at end of table.

SENECA FALLS MACHINE COMPANY, SENECA FALLS, N. Y.—Continued

STAR ENGINE LATHES—continued

Rated swing	Distance between centers				
	24"	36"	48"	60"	84"
14-inch special tool room lathe—actual swing 14⅛ inches					
Q. C. Gear	1,164	1,179	.....	1,223	1,265
Extra for Oil Pan	29	33	.....	42	66
(Bed length is 36 inches more than center distance.)					

For lathe with bench legs, deduct $5 from list price.
For lathe with foot power drive (10- or 12-inch plain change gear lathes only) same price as regular.
Regular equipment includes compound rest, power cross and longitudinal.

ADDITIONAL EQUIPMENT

	10 inches	12 inches	14 inches
Draw-in chuck and 1 round collet	$49.00	$57.00	$73.00
Draw-in chuck, hand lever with 1 round collet	73.00	84.00	105.00
No. 2 collets (5C spec.):			
Round 1/16" to 9/16" ..... each	5.00	5.00	.....
Square 1/16" to 3/8" ..... do	7.75	7.75	.....
Hexagon 1/16" to 7/16" ..... do	7.75	7.75	.....
No. 3 collets:			
Round 1/16" to 3/4" ..... do	.....	.....	6.50
Square 1/16" to 1/2" ..... do	.....	.....	9.00
Hexagon 1/16" to 1/2" ..... do	.....	.....	9.00
Milling- and gear-cutting attachment complete	285.00	341.00	412.00
Vertical feed column and vise	119.00	137.00	153.00
Vise only for milling attachment	46.00	57.00	63.50
Simplified motor drive (without motor)	(1)	(1)	(1)
Regular motor drive (without motor) extra	146.00	178.00	235.00
Oil pump and piping	49.00	49.00	49.00
Relieving attachment	.....	247.00	316.00
Taper attachment	119.00	137.00	174.00
Thread indicator or chasing dial	12.75	13.25	14.75

[1] Same price as countershaft drive.

8-INCH LO-SWING LATHES

8-inch Lo-Swing lathe with geared head (all head gears chrome-nickel steel (steel hardened)), hardened steel carriage ways, gear feed, constant-speed drive, 1 power feed carriage 18 inches long, measuring device with automatic carriage-stop system, tailstock, head-stock and tailstock centers, suitable wrenches and screw-driver. Bed arranged with shelf for fitting automatic back squaring attachment.

Capacity:	*Price*
36 inches between centers	$4,995
60 inches between centers	5,130
84 inches between centers	5,820
108 inches between centers	7,305
132 inches between centers	8,705

ADDITIONAL EQUIPMENT

Head leg and plate for mounting motor on rear of head leg, including "V" belts, guards, or on top of headstock	245
Chain drive, either mounting (including sprockets and chain), and oiltight chain case	321
Coolant pump and piping	138
18-inch power-feed carriage	435
24-inch power-feed carriage	525
30-inch power-feed carriage	615
36-inch power-feed carriage	705
8-inch facing attachment to mount on carriage for diameters 0 inch to 8 inches, hand operated	120
8-inch single tool block only, straight or effect slide	215
Taper attachment bracket	76
Template arm	7
Template 12-inch blank	15
Single template, taper only, not form	26

SHELDON MACHINE COMPANY, INCORPORATED, CHICAGO, ILL.

Lathes

SHELDON 10-INCH BELT DRIVE WITH COUNTERSHAFT

Number [1]	Center distance	Weight crated	Semi-quick change gear box	Full quick change gear box
	Inches	*Pounds*		
1020-BC	20	350	$264	$314
1020-BCW	20	360	309	359
1020-FC	20	400	280	330
1020-FCW	20	420	325	375
1026-BC	26	400	282	332
1026-BCW	26	415	327	377
1026-FC	26	450	298	348
1026-FCW	26	465	343	393
1042-BC	42	465	336	386
1042-BCW	42	480	381	431
1042-FC	42	515	352	402
1042-FCW	42	530	397	447

SHELDON MACHINE COMPANY, INCORPORATED, CHICAGO, ILL.—Continued

SHELDON 10-INCH WITH MOTOR-DRIVE ATTACHMENT

Number [1]	Center distance	Weight crated	Semi-quick change gear box	Full quick change gear box
	Inches	*Pounds*		
1020-BM	20	425	$300	$350
1020-BMW	20	440	345	395
1020-FM	20	475	316	366
1020-FMW	20	490	361	411
1026-BM	26	475	318	368
1026-BMW	26	490	363	413
1026-FM	26	525	334	384
1026-FMW	26	540	379	429
1042-BM	42	540	372	422
1042-BMW	42	555	417	467
1042-FM	42	580	388	438
1042-FMW	42	605	433	483

SHELDON 11-INCH WITH BELT-DRIVE COUNTERSHAFT

1124-GBC	24	485	$360	$410
1124-GFC	24	525	385	435
1136-GBC	36	510	390	440
1136-GFC	36	550	415	465
1124-WBC	24	490	410	460
1124-WFC	24	535	435	485
1136-WBC	36	520	440	490
1136-WFC	36	560	465	515
1148-GBC	48	600	420	470
1148-GFC	48	640	445	495
1148-WBC	48	610	470	520
1148-WFC	48	650	495	545

SHELDON 11-INCH WITH HEADSTOCK MOTOR DRIVE ATTACHMENT

1124-GBM	24	535	$400	$450
1124-GFM	24	575	425	475
1136-GBM	36	560	430	480
1136-GFM	36	600	455	505
1124-WBM	24	540	450	500
1124-WFM	24	585	475	525
1136-WBM	36	570	480	530
1136-WFM	36	610	505	555
1148-GBM	48	640	460	510
1148-GFM	48	690	485	535
1148-WBM	48	660	510	560
1148-WFM	48	700	535	585

[1] Add letter Q to number if full quick change gear box is wanted.

SHELDON MACHINE COMPANY, INCORPORATED, CHICAGO, ILL.—Continued

SHELDON 12-INCH WITH BELT-DRIVE COUNTERSHAFT

Number [1]	Center distance	Weight crated	Semi-quick change gear box	Full quick change gear box
	Inches	*Pounds*		
1224-GBC	24	535	$456	$506
1224-GFC	24	575	481	531
1236-GBC	36	560	486	536
1236-GFC	36	600	511	561
1224-WBC	24	550	506	556
1224-WFC	24	585	531	581
1236-WBC	36	570	536	586
1236-WFC	36	610	561	611
1248-GBC	48	640	516	566
1248-GFC	48	690	541	591
1248-WBC	48	660	566	616
1248-WFC	48	700	591	641

SHELDON 12-INCH WITH HEADSTOCK MOTOR DRIVE ATTACHMENT

1224-GBM	24	585	$501	$551
1224-GFM	24	625	526	576
1236-GBM	36	610	531	581
1236-GFM	36	650	556	606
1224-WBM	24	600	551	601
1224-WFM	24	635	576	626
1236-WBM	36	620	581	631
1236-WFM	36	660	606	656
1248-GBM	48	700	561	611
1248-GFM	48	740	586	636
1248-WBM	48	710	611	661
1248-WFM	48	750	636	686

If any 12-inch lathe above is desired with a maximum collet capacity of 1 inch, add $50 to the price of the lathe desired.

SHELDON CABINET BASE UNDERDRIVE LATHES

10-inch lathes

[Less motor]

Number	Apron	Gear box quick change	Approximate weight	Price
			Lb.	
E-1020 G	Plain	Semi	610	$405
E-1020 GQ	do	Full	605	455
E-1020 W	Power cross feed	Semi	615	450
E-1020 WQ	do	Full	610	500
U-1020 G	Plain	Semi	665	445
U-1020 GQ	do	Full	660	495
U-1020 W	Power cross feed	Semi	670	490
U-1020 WQ	do	Full	665	540
E-1026 G	Plain	Semi	675	423
E-1026 GQ	do	Full	670	473
E-1026 W	Power cross feed	Semi	680	468
E-1026 WQ	do	Full	675	518
U-1026 G	Plain	Semi	725	463
U-1026 GQ	do	Full	720	513
U-1026 W	Power cross feed	Semi	730	508
U-1026 WQ	do	Full	725	558
E-1042 G	Plain	Semi	735	477
E-1042 GQ	do	Full	730	527
E-1042 W	Power cross feed	Semi	740	522
E-1042 WQ	do	Full	735	572
U-1042 G	Plain	Semi	785	517
U-1042 GQ	do	Full	780	567
U-1042 W	Power cross feed	Semi	790	562
U-1042 WQ	do	Full	785	612

11-inch lathes

E-1124 G	Plain	Semi	755	$575
E-1124 GQ	do	Full	750	625
E-1124 W	Power cross feed	Semi	760	625
E-1124 WQ	do	Full	755	675
U-1124 G	Plain	Semi	810	610
U-1124 GQ	do	Full	805	660
U-1124 W	Power cross feed	Semi	815	660
U-1124 WQ	do	Full	810	710
E-1136 G	Plain	Semi	780	593
E-1136 GQ	do	Full	775	643
E-1136 W	Power cross feed	Semi	785	643
E-1136 WQ	do	Full	780	693
U-1136 G	Plain	Semi	810	628
U-1136 GQ	do	Full	805	678
U-1136 W	Power cross feed	Semi	815	678
U-1136 WQ	do	Full	810	728
E-1148 G	Plain	Semi	870	647
E-1148 GQ	do	Full	865	697
E-1148 W	Power cross feed	Semi	875	697
E-1148 WQ	do	Full	870	747
U-1148 G	Plain	Semi	900	682
U-1148 GQ	do	Full	895	732
U-1148 W	Power cross feed	Semi	905	732
U-1148 WQ	do	Full	900	782

SHELDON MACHINE COMPANY, INCORPORATED, CHICAGO, ILL.—Continued

SHELDON CABINET BASE UNDERDRIVE LATHES—con.

12-inch lathes

Number	Apron	Gear box quick change	Approximate weight	Price
E-1224 G	Plain	Semi	770	$660
E-1224 GQ	do	Full	765	710
E-1224 W	Power cross feed	Semi	775	710
E-1224 WQ	do	Full	770	760
U-1224 G	Plain	Semi	825	700
U-1224 GQ	do	Full	820	750
U-1224 W	Power cross feed	Semi	830	750
U-1224 WQ	do	Full	825	800
E-1236 G	Plain	Semi	795	690
E-1236 GQ	do	Full	790	740
E-1236 W	Power cross feed	Semi	800	740
E-1236 WQ	do	Full	795	790
U-1236 G	Plain	Semi	825	730
U-1236 GQ	do	Full	820	780
U-1236 W	Power cross feed	Semi	830	780
U-1236 WQ	do	Full	825	830
E-1248 G	Plain	Semi	885	720
E-1248 GQ	do	Full	880	770
E-1248 W	Power cross feed	Semi	890	770
E-1248 WQ	do	Full	885	820
U-1248 G	Plain	Semi	915	760
U-1248 GQ	do	Full	910	810
U-1248 W	Power cross feed	Semi	920	810
U-1248 WQ	do	Full	915	860

The letter "E" or "U" before the catalog number designates the type of underneath motor drive.

SHELDON CABINET BASE UNDERDRIVE LATHES WITH PRELOADED BALL BEARING HEADSTOCK SPINDLE BEARINGS—ONE-INCH COLLET CAPACITY—1¾-INCH HOLE THROUGH SPINDLE

11-inch lathes

[Less motor]

			Lb.	
BB E-1124 G	Plain	Semi	755	$740
BB E-1124 GQ	do	Full	750	790
BB E-1124 W	Power cross feed	Semi	760	790
BB E-1124 WQ	do	Full	755	840
BB U-1124 G	Plain	Semi	810	775
BB U-1124 GQ	do	Full	805	825
BB U-1124 W	Power cross feed	Semi	815	825
BB U-1124 WQ	do	Full	810	875
BB E-1136 G	Plain	Semi	780	770
BB E-1136 GQ	do	Full	775	820
BB E-1136 W	Power cross feed	Semi	785	820
BB E-1136 WQ	do	Full	780	870
BB U-1136 G	Plain	Semi	810	805
BB U-1136 GQ	do	Full	805	855
BB U-1136 W	Power cross feed	Semi	815	855
BB U-1136 WQ	do	Full	810	905
BB E-1148 G	Plain	Semi	870	800
BB E-1148 GQ	do	Full	865	850
BB E-1148 W	Power cross feed	Semi	875	850
BB E-1148 WQ	do	Full	870	900
BB U-1148 G	Plain	Semi	900	835
BB U-1148 GQ	do	Full	895	885
BB U-1148 W	Power cross feed	Semi	905	885
BB U-1148 WQ	do	Full	900	935

The letter "E" of "U" before the catalog number designates the type of underneath motor drive.

Prices are less motor, but include standard equipment (single back gears, small face plate, compound rest with tool post, thread-chasing dial, centers, and necessary wrenches) reversing-drum switch, necessary belts and pulleys.

12-inch lathes

BB E-1224 G	Plain	Semi	770	$828
BB E-1224 GQ	do	Full	765	878
BB E-1224 W	Power cross feed	Semi	775	878
BB E-1224 WQ	do	Full	770	928
BB U-1224 G	Plain	Semi	825	868
BB U-1224 GQ	do	Full	820	918
BB U-1224 W	Power cross feed	Semi	830	918
BB U-1224 WQ	do	Full	825	968
BB E-1236 G	Plain	Semi	795	858
BB E-1236 GQ	do	Full	790	908
BB E-1236 W	Power cross feed	Semi	800	908
BB E-1236 WQ	do	Full	795	958
BB U-1236 G	Plain	Semi	825	898
BB U-1236 GQ	do	Full	820	948
BB U-1236 W	Power cross feed	Semi	830	948
BB U-1236 WQ	do	Full	825	998
BB E-1248 G	Plain	Semi	885	888
BB E-1248 GQ	do	Full	880	938
BB E-1248 W	Power cross feed	Semi	890	938
BB E-1248 WQ	do	Full	885	988
BB U-1248 G	Plain	Semi	915	928
BB U-1248 GQ	do	Full	910	978
BB U-1248 W	Power cross feed	Semi	920	978
BB U-1248 WQ	do	Full	915	1,028

The letter "E" or "U" before the catalog number designates the type of underneath motor drive.

Prices are less motor, but include standard equipment (single back gears, small face plate, compound rest with tool post, thread-chasing dial, centers, and necessary wrenches) reversing-drum switch, necessary belts and pulleys.

SHELDON MACHINE COMPANY, INCORPORATED, CHICAGO, ILL.—Continued

PRICE LIST SHELDON CABINET BASE UNDERDRIVE LATHES WITH PRECISION TIMKEN ROLLER BEARING HEADSTOCK SPINDLE BEARINGS—ONE-INCH COLLET CAPACITY—1⅝ INCH HOLE THROUGH SPINDLE

11-inch lathes

Less motor

Number	Apron	Gear box quick change	Approximate weight	Price
			Lb.	
TRB E-1124 G	Plain	Semi	755	$740
TRB E-1124 GQ	do	Full	750	790
TRB E-1124 W	Power cross feed	Semi	760	790
TRB E-1124 WQ	do	Full	755	840
TRB U-1124 G	Plain	Semi	810	775
TRB U-1124 GQ	do	Full	805	825
TRB U-1124 W	Power cross feed	Semi	815	825
TRB U-1124 WQ	do	Full	810	875
TRB E-1136 G	Plain	Semi	780	770
TRB E-1136 GQ	do	Full	775	820
TRB E-1136 W	Power cross feed	Semi	785	820
TRB E-1136 WQ	do	Full	780	870
TRB U-1136 G	Plain	Semi	810	805
TRB U-1136GQ	do	Full	805	855
TRB U-1136 W	Power cross feed	Semi	815	855
TRB U-1136 WQ	do	Full	810	905
TRB E-1148 G	Plain	Semi	870	800
TRB E-1148 GQ	do	Full	865	850
TRB E-1148 W	Power cross feed	Semi	875	850
TRB E-1148 WQ	do	Full	870	900
TRB U-1148 G	Plain	Semi	900	835
TRB U-1148 GQ	do	Fill	895	885
TRB U-1148 W	Power cross feed	Semi	905	885
TRB U-1148 WQ	do	Full	900	935

The letter "E" or "U" before the catalog number designates the type of underneath motor drive.

Prices are less motor, but include standard equipment (single back gears, small face plate, compound rest with tool post, thread-chasing dial, centers, and necessary wrenches) reversing-drum switch, necessary belts and pulleys.

SHELDON MACHINE COMPANY, INCORPORATED, CHICAGO, ILL.—Continued

12-inch lathes

Number	Apron	Gear box quick change	Approximate weight	Price
			Lb.	
TRB E-1224 G	Plain	Semi	770	$828
TRB E-1224 GQ	do	Full	765	878
TRB E-1224 W	Power cross feed	Semi	775	878
TRB E-1224 WQ	do	Full	770	928
TRB U-1224 G	Plain	Semi	825	868
TRB U-1224 GQ	do	Full	820	918
TRB U-1224 W	Power cross feed	Semi	830	918
TRB U-1224 WQ	do	Full	825	968
TRB E-1236 G	Plain	Semi	795	858
TRB E-1236 GQ	do	Full	790	908
TRB E-1236 W	Power cross feed	Semi	800	908
TRB E-1236 WQ	do	Full	795	958
TRB U-1236 G	Plain	Semi	825	898
TRB U-1236 GQ	do	Full	820	948
TRB U-1236 W	Power cross feed	Semi	830	948
TRB U-1236 WQ	do	Full	825	998
TRB E-1248 G	Plain	Semi	885	888
TRB E-1248 GQ	do	Full	880	938
TRB E-1248 W	Power cross feed	Semi	890	938
TRB E-1248 WQ	do	Full	885	988
TRB U-1248 G	Plain	Semi	915	928
TRB U-1248 GQ	do	Full	910	978
TRB U-1248 W	Power cross feed	Semi	920	978
TRB U-1248 WQ	do	Full	915	1,028

The letter "E" or "U" before the catalog number designates the type of underneath motor drive.

Prices are less motor, but include standard equipment (single back gears, small face plate, compound rest with tool post, thread-chasing dial, centers, and necessary wrenches) reversing-drum switch, necessary belts and pulleys.

SIBLEY MACHINE AND FOUNDRY CORPORATION, SOUTH BEND, IND.

UPRIGHT DRILLING MACHINES

	Price	Code word
STATIONARY HEAD		
20" square base, combined wheel and lever feed drill with belt power feed, automatic stop and back gears.	$315	Child.
22½" square base, complete as above	395	Chuck.
24" stationary head, geared power feed, heavy pattern complete	565	Comma.
26" stationary head, geared power feed, heavy pattern complete	615	Coach.
28" stationary head, geared power feed, heavy pattern complete	640	Canoe.
SLIDING HEAD		
24" sliding head, geared power feed, heavy pattern complete	$630	Choir.
26" sliding head, geared power feed, heavy pattern complete	690	Copse.
28" sliding head, geared power feed, heavy pattern complete	730	Coral.
30" sliding head, geared power feed, complete	795	Cider.
EXTRAS WHEN FURNISHED WITH MACHINE		
Geared tapping attachments (code word: Cash)		
For 20" and 22½" drills	$65.00	----------
For 24", 26", and 28" drills	105.00	----------
For 30" drills	105.00	----------
Friction tapping attachments (code word: Credit)		
For 24", 26", and 30" drills	$210.00	----------
Motor drive equipment		
Drills fitted for motor drive without motors but including bracket, countershaft pulley, V-belts or gears and motor drive guards.	Code word: Cabel V-belted	Code word: Cameo geared
20" and 22½" drills	$25.00	$50.00
24", 26", and 28" drills	43.00	60.00
30" drills	53.00	65.00
Prices based on using standard N. E. M. A. motors and size listed in our specifications.		
Sliding head		
25" Sibley box column all-geared upright motor-driven drilling machine, 12 selective spindle speeds, 9 selective feeds, square table, mounting and wiring of electrical equipment, but not including the motor or electrical equipment	$2,800.00	Bore.
Extra for motor drive coolant pump, capacity 4 gallons per minute. Complete with fittings	100.00	Boss.
Extra for Splash Guards	75.00	Boot.
Extra for 5 hp., 1,800 r.p.m., type K, frame 254, 1,800 r.p.m. 220/440-volt, 3-phase, 60-cycle, ball-bearing motor	71.00	----------
Extra for reversing magnetic type starting switch with relay heaters for the above motor	35.00	----------

SIBLEY MACHINE AND FOUNDRY CORPORATION, SOUTH BEND, IND.—Continued

UPRIGHT DRILLING MACHINES—continued

	Price	Code word
Wiring		
Extra for wiring in motor and starter in armoured cable with push button station mounted on the column:		
20" and 22½" drills	[1] $6.00	
24", 26", 28", and 30" drills	[1] 8.50	
Wire mesh belt guards		
The wire mesh belt guards completely enclosing the belting between the upper and lower cone pulleys:		
20" and 22½" drills	$27.00	
24", 26", and 28" stationary head drills	37.50	
24", 26", and 28" sliding head drills	41.00	
30" sliding head drills	45.00	
Leather drill belts		
20" drills—2" double ply belt x 11' 6" long and ¾" single ply belt x 2' 2" long	$10.50	
22½" drills—2½" double ply belt x 13' 0" long and ¾" single ply belt x 3' 2" long	15.00	
24", 26", and 28" stationary head—3½" double ply belt 13' 10"	20.00	
24", 26", and 28" sliding head—3½" double ply belt x 15' 2"	22.50	
30" sliding head drill—3" double ply belt x 16' 3" long	19.00	
Square tables		
Square or rectangular tables can be furnished instead of the standard round tables at the following extras:		
20" square oil groove table, 20" x 22" (working surface 14" x 16")	$5.00	
20" extra large offset oil groove table, 28¾" x 28¾" (working surface 24" x 24")	45.00	
24", 26", 28", square oil groove table, 22" x 26" (working surface 15" x 19")	10.00	
24", 26", 28", extra large oil groove table, 28¾" x 40¾" (working surface 24" x 36")	75.00	
24", 26", 28", extra large offset oil groove table, 40¾" x 40¾" (working surface 36" x 36")	90.00	
Table jack support for all extra large tables	20.00	
24", 26", and 28" compound table	300.00	
Oil pump outfit code word: cork		
Complete for all machines with rotary geared pump	$45.00	
Special oil pump outfits having pump with direct-connected electric motor can be furnished. Price on request.		

[1] Net.

THE SIDNEY MACHINE TOOL CO., SIDNEY, OHIO

Lathes and milling machines—base prices and weights—Sidney lathes

TOOLROOM LATHE

	Net weight	Net weight additional 2-foot bed	Price	Additional 2-foot bed length
	Pounds	*Pounds*		
14" x 6'	4,000	375	$3,326	$124
16" x 6'	4,300	375	3,659	137
18" x 6'	4,900	475	4,180	150
20" x 6'	5,400	475	4,663	162

16-SPEED ENGINE LATHE

14" x 6'	4,000	375	$2,975	$110
16" x 6'	4,300	375	3,299	116
18" x 6'	4,900	475	3,753	130
20" x 6'	5,400	475	4,239	140
24" x 10'	11,000	850	6,410	227
27" x 10'	11,300	850	6,865	241
30" x 12'	16,000	1,050	8,694	324
30" x 12'	17,000	1,050	9,158	335

THE SIDNEY MACHINE TOOL CO., SIDNEY, OHIO—Continued

12-SPEED ENGINE LATHE

	Net weight	Net weight additional 2-foot bed	Price	Additional 2-foot bed length
	Pounds	*Pounds*		
14" x 6'	3,800	375	$2,751	$110
16" x 6'	4,100	375	3,055	120
18" x 6'	4,900	475	3,465	132
20" x 6'	5,000	475	3,883	144
24" x 10'	11,000	700	6,230	231
30" x 10'	12,000	800	7,315	275
36" x 10'	12,700	1,000	7,610	297

8-SPEED "MONOTROL"

14" x 6'	3,850	375	[1] $2,755	$108
16" x 6'	4,150	375	3,107	116
18" x 6'	4,675	475	3,510	130
20" x 6'	4,775	475	3,920	142
24" x 10'	11,000	700	6,225	227

[1] Denotes price correction. Advised by manufacturer. Differs from that shown in first edition of Prices of New Machine Tools.

THE SIDNEY MACHINE TOOL CO., SIDNEY, OHIO—Continued

8-SPEED "TRITROL"

	Net weight	Net weight additional 2-foot bed	Price	Additional 2-foot bed length
	Pounds	*Pounds*		
14" x 6'	3,850	375	$2,735	$108
16" x 6'	4,150	375	3,053	116
18" x 6'	4,675	475	3,456	130
20" x 6'	4,775	475	3,866	142
24" x 10'	11,000	700	6,171	227

SIGOURNEY TOOL CO., HARTFORD, CONN.

FLOOR-TYPE DRILLS

Description	Prices			
	Single spindle	2 spindle	3 spindle	4 spindle
Plain bearing, belt drive, superseded	$150	$230	$310	$390
Ball bearing, model No. 1, belt drive, 5/16" capacity	250	395	540	685
Ball bearing, model No. 1, motor drive, complete with motor, 5/16" capacity	395	540	690	835

SIMMONS MACHINE TOOL CORPORATION, ALBANY, N.Y.

NEW SIMMONS MICRO-SPEED TURRET SCREW MACHINE

All machines include 1¼ inches round-bar capacity, magnetic brake, push button reversing control, with overload and under-voltage protection.

Plain machine: Including 2 horsepower motor and control, giving spindle speeds of 375 to 1,500 revolutions per minute	$1,750
Plain machine: Including 3 horsepower, 2 speed motor and control, giving spindle speeds 375 to 1,500 revolutions per minute, and 188 to 750 revolutions per minute	1,840
Back geared machine: Including 3 horsepower motor and control, giving spindle speeds of 188 to 750 revolutions per minute in high, and 44 to 177 revolutions per minute in back gear	1,100

The plain machine can be arranged for maximum spindle speed of 2,100 revolutions per minute. Where power feed to turret is provided, maximum spindle speed is 750 revolutions per minute.

Extras:	
Power feed to turret	250
Longitudinal feed to cross-slide	75
Positive stops for longitudinal feed to cross-slide, including 4 adjustable stops	35

Optional equipment: Automatic chuck and wire feed; or universal 3-jaw chuck.

Condensed price list Simmons micro miller

Size	Range of feeds	Weight	Price
		Pounds	
A-1	34" long, 8" cross, 18" vertical	2,400	$2,040
	Table working surface, 27" x 8"		

NOTE.—Machine built in this one size only and price includes arranging for motor drive and including Simmons micro-speed drive unit mounted in base with built-in alternating-current motor.

SIMMONS MACHINE TOOL CORPORATION, ALBANY, N. Y.—Continued

Rated size	Length of beds (feet)												
	6	8	10	12	14	16	18	20	22	24	26	28	30
16" standard engine lathe, motor in leg	$2,046	$2,145	$2,244	$2,310	$2,409	$2,508	$2,607	$2,706	[1]	[1]	[1]	[1]	[1]
Boxing for export	72	90	107	125	143	160	178	195					
18" standard engine lathe, motor in leg	2,134	2,233	2,332	2,431	2,530	2,629	2,728	2,827					
Boxing for export	72	90	107	125	143	160	178	195					
18" heavy duty standard lathe, motor in leg	2,937	3,069	3,201	3,333	3,465	3,597	3,729	3,861					
Boxing for export	88	107	127	147	167	187	206	226					
20" heavy duty standard lathe, motor in leg	3,059	3,190	3,322	3,454	3,586	3,718	3,850	3,982					
Boxing for export	88	107	127	147	167	187	206	226					
15½" gap bed lathe, motor in leg	2,222	2,321	2,420	2,519	2,618	2,717	2,816	2,915					
Boxing for export	72	90	107	125	143	160	178	195					
18½" gap bed lathe, motor in leg	2,354	2,453	2,552	2,651	2,750	2,849	2,948	3,047					
Boxing for export	72	90	107	125	143	160	178	195					
23¼" gap bed lathe, motor in leg	------	3,872	4,026	4,180	4,334	4,488	4,642	4,796	$4,950	$5,104	$5,258	$5,412	$5,566
Boxing for export	------	88	110	132	154	176	198	220	242	264	286	308	330
29½" sliding bed gap lathe, motor on top	5,005	5,192	5,379	5,566	5,753	5,940	6,127	6,314	6,501	6,688	6,875	7,062	7,249
Boxing for export	94	121	147	173	200	226	253	279	305	332	358	385	411
29½" gap lathe, motor in leg	------	------	5,621	5,808	5,995	6,182	6,369	6,456	6,633	6,820	7,007	7,194	7,381
Boxing for export	------	------	121	147	171	198	224	250	272	303	330	359	382
25½" sliding bed gap lathe, motor on top	------	------	7,656	7,953	8,250	8,547	8,844	9,194	9,438	9,735	10,032	10,329	10,626
Boxing for export	------	------	187	222	257	292	327	363	398	433	468	503	539

[1] Prices on longer bed lengths for these sizes on application.

Simplicity Mfg. Co., Port Washington, Wis.

REBORING AND GRINDING MACHINES

Model	Capacity		Weight	Price, standard equipment
	Diameter	Depth		
	Inches	*Inches*	*Pounds*	
L	2 1/16 x 4 1/2	11	140	$475
S	2 3/4 x 5 1/16	16	275	675

Extra equipment to rebore and grind foreign motors from 2.2"-2¾" in diameter, for use only with lightning reborer and grinder	$50
Piston grinder with standard equipment	675
Piston adapters, 4 inches and larger, each	4

Capacity diameter, 7-inch length, 8-inch, net weight 750 pounds.

TWIN HEAD CON-ROD BORING MACHINES

Model No.	Capacity		Price, standard equipment
	Diameter	Length	
	Inches	*Inches*	
1	1½ x 2½	24	$550
2	1½ x 3½	24	585
3	1½ x 4	24	[1] 675

[1] With three-speed transmission.

TWIN HEAD CON-ROD BORING MACHINES—con.

Extra equipment for boring, facing, and oil grooving con-rods from 1⅛"-1½" in diameter (for use with No. 1, No. 2, and No. 3 twin-head machine)	$26.50

Smalley-General Company, Bay City, Mich.

THREADMILLERS

Machine No. 27 MB-1	$8,850
Pot chuck	525
Wiring for motors	125
Face plate	690
Hydraulic power traverse	712
Dial indicators	100
Electric motors including 1-7, ½ and 1-5 hp. multispeed type	1,336
Extra gears, each	17
Extra hob arbors, do	45
Two 24" Universal chucks	901
Machine No. 20 MB	6,050
3-jaw wedge chuck	1,213
Single 12" air cylinder	330
Open side push-out chuck	703
Face plate and bronze bushed bearing	390
Taper attachment	380
Tool holder	50
Tool holder with hand-operated cross-feed slide	250
Live center with face plate	138

Smith & Mills Company, Cincinnati, Ohio

SMITH & MILLS SHAPERS

Machine—Service	Back geared heavy duty					
Stroke	12"	16"	20"	25"	28"	32"
Price—Speed box single pulley belt drive	$1,925	$2,525	$2,850	$3,227	$4,100	$4,250
Price—Constant speed belt connected motor drive, not including motor (motor pulley but no base required)	2,050	2,650	3,000	3,450	4,275	4,425
Price—V-belt motor drive, not including motor (motor base but no pulley required)	2,050	2,650	3,000	3,450	4,275	4,425
Price—Silent chain motor drive, not including motor (motor base but no pulley required)	2,075	2,675	3,025	3,475	4,300	4,450
Price [1]—Flange mounted gear motor drive—price includes A. C. motor and control, 220 or 440 volts, 60 cycle, 3 phase	2,175	2,775	3,150	3,625	4,475	4,625
Priced Extra [1]—Power rapid traverse to table cross feed individual motor drive—price includes A. C. motor and control, 220 or 440 volts, 60 cycles, 3 phase	80	80	90	90	115	115
Motor recommended, other than for flanged mounted gear motor drive, speed 1,200-1,600 r. p. m. constant	2 hp.	3 hp.	5 hp.	7½-10 hp.	10 hp.	10 hp.

[1] Shapers with motors of different current characteristics will take a special price.

Standard equipment—Single screw vise, table support, automatic forced feed oiling system, and necessary wrenches. Double screw vise optional. Table support not included as standard equipment 12" shapers and is priced $50 extra.

Motor Drive Specifications—On flat belt connected motor driven machines, motor must be arranged for mounting with pulley on right when facing wall. Motor and control delivered to our factory will be mounted and wired. Prices of D. C. and on single phase A. C. flanged mounted gear-motor drives or other current characteristics than that named for the various sizes of shapers will be furnished on application.

Sommer & Adams Co., Cleveland, Ohio

Cleveland No. 1 vertical milling machine	$1,725
Coolant pump and motor	90

Sommerfeld Machine Company, Braddock, Pa., Manufacturers of Pittsburgh Lathes

SPECIFICATIONS AND PRICE LIST

Size	27" x 36"	32" x 36"	36" x 48"	42" x 48"	50" x 90"	60" x 90"
Bed length (Standard), feet	10	12	14	14	18	18
Swing over ways, inch	30	35	37	43	54	60
Swing over compound rest, do	18½	23	25	29½	35	44
Distance between centers, feet	3	3	4	4	7½	7½
Number of spindle speeds	16	16	16		16	16
Horsepower motor required	10-15	15-20	20-25	25-40	30-50	30-50
Motor speed:						
60-cycle, r. p. m.	1,200	1,200	1,200	1,200	1,200	1,200
50-cycle, do	1,500	1,500	1,500	1,500	1,500	1,500
Speed of drive pulley, do	500	300	300	400	300	300
Range of spindle speeds	5-348	3-209			5-120	5-120
Hole through spindle, inch	2 1/16	2¼	3	3	6	6
Number of changes through quick change gear box	41	41	41	41	36	36
Thread range	1-32	1-32	1-32	1-32	1-28	1-28
Range of feeds	0.004-0.300	0.004-0.400	0.004-0.400	0.004-0.400	0.008-0.620	0.008-0.620
Diameter of lead screw, inch	1 5/16	2 1/16	2 1/16	2 1/16	3 1/16	3 1/16
Length of carriage on bed, do	39	44	48	48	63	63
Width of carriage bridge, do	12	12	16½	16½	22½	22½
Size of front spindle boring	(1)	(1)	(1)		(1)	(1)
Size of rear spindle boring	(1)	(1)	(1)		(1)	(1)
Length of tail stock on bed, inch	22	26	32	32	44	44
Diameter of tail stock spindle, do	4	4½	5½	5½	8	8
Width of bed on top, do	27½	29	36½	36½	46	46
Depth of bed on top, do	17	20	20	20	22	22
Price—Standard bed (regular equipment)	$7,900	$9,885	$15,675		$22,900	$25,870
Price—Extra 2 foot bed	$325	$385	$485		$660	$660
Price—Taper attachment	$425	$485	$570		$960	$960
Coolant pump and piping	$170	$170	$200		$225	$225
Oil pan—Per foot of bed	$20	$20	$30			
Rapid traverse (without motor or control)	$285	$285	$440		$490	$490
Four position turret tool post	$360	$360				
Follower rest	$150	$150				
Weight—Base length, pounds	12,000	17,000	26,200	27,500	41,500	44,500
Weight—Boxed for export, do	14,000	19,500	29,100	30,400	45,000	48,000
Weight—Each additional 2 feet, do	1,160	1,260	1,560	1,560	2,000	2,000
Weight—Each additional 2 feet, boxed, do	1,360	1,460	1,750	1,750	2,200	2,200
Extra for boxing—Base length	$225	$245	$325		$415	$415
Extra for boxing—2 feet additional	$20	$20	$25		$30	$30
	6'		7'	7'	7'-6"	7'-6"
Dimensions of box—Standard bed, feet	6 x 12		7 x 16	7 x 16	7 x 20	7 x 20
Standard bed length, do	10	12	14	14	18	18
Cubic contents, cubic feet	432		588	588	1,050	1,050

[1] Timken.

South Bend Lathe Works, South Bend, Ind.

UNDERNEATH MOTOR-DRIVEN LATHES (WITH MOTOR AND FLOOR LEGS)

Swing over bed	Length of bed	Approximate weight crated	Price with 3-60-220 motor			Extra per foot bed
			Quick change gear lathe	Standard change gear lathe	Toolroom lathe	
	Feet	*Pounds*				
16"	6	2,300	$1,299	$1,214	$1,651	$30
14½"	5	1,995	1,143	1,068	1,458	30
13"	4	1,460	922	857	1,213	28
10"	3	790	599	549	849	24
10"-1" col	3	810	732		992	24
16"-24"	6	2,480	1,464	1,379		30

PEDESTAL MOTOR-DRIVEN LATHES (WITH MOTOR AND FLOOR LEGS)

16"	6	2,165	1,145	$1,060	$1,509	$30
14½"	5	1,735	996	921	1,324	30
13"	4	1,295	806	741	1,097	28
10"	3	685	533	483	790	24
10"-1" col	3	705	666		933	24
16"-24"	6	2,325	1,295	1,210		30

SOUTH BEND LATHE WORKS, SOUTH BEND, IND.—Continued

COUNTERSHAFT DRIVEN LATHES (WITH FLOOR LEGS)

Swing over bed	Length of bed	Approximate weight crated	Price with D. F. countershaft			Extra per foot bed
			Quick change gear lathe	Standard change gear lathe	Toolroom lathe	
	Feet	*Pounds*				
16"	6	1,875	$979	$894	$1,343	$30
14½"	5	1,575	830	755	1,158	30
13"	4	1,060	660	595	960	28
10"	3	515	[1] 435	[1] 385	692	24
10"-1" col	3	525	[1] 555		822	24
16"-24"	6	2,035	1,115	1,030		30

[1] For prices of Bench Lathes deduct $10 from above prices.

10" UNDERNEATH-MOTOR DRIVEN BENCH LATHES WITH MOTOR AND STEEL BENCH

Swing over bed	Length of bed	Approximate weight crated	Price with 3-60-220 motor			Extra per foot bed
			Quick change gear lathe	Standard change gear lathe	Toolroom lathe	
	Feet	*Pounds*				
10"	3	830	$689	$639	$918	$34
10"-1" col	3	850	822		1,061	34

10" HORIZONTAL MOTOR-DRIVEN BENCH LATHES WITH MOTOR (LESS BENCH)

10"	3	501	$472	$422		$24
10"-1" col	3	521	605			24

9" WORKSHOP HORIZONTAL MOTOR DRIVEN BENCH LATHES (LESS MOTOR AND BENCH)

Swing over bed	Length of bed	Approximate weight crated	Price less motor and bench			Extra per foot bed
			Model A	Model B	Model C	
	Feet	*Pounds*				
9"	3	340	$226.50	$166.50	$112.50	$24

9" WORKSHOP 12-SPEED HORIZONTAL MOTOR DRIVEN BENCH LATHES (LESS MOTOR AND BENCH)

9"	3	355	$241.50	$181.50	$127.50	$24

9" WORKSHOP V-BELT HORIZONTAL MOTOR DRIVEN BENCH LATHES (LESS MOTOR AND BENCH)

9"	3	340	$240.50	$180.50	$126.50	$24

9" WORKSHOP UNDERNEATH MOTOR DRIVEN BENCH LATHES (LESS MOTOR AND BENCH)

9"	3	380		$215.50	$161.50	$24

SOUTH BEND LATHE WORKS, SOUTH BEND, IND.—Continued

9" WORKSHOP COUNTERSHAFT DRIVEN BENCH LATHES (LESS BENCH)

Swing over bed	Length bed	Approximate weight crated	Price less motor and bench			Extra per foot bed
			Model A	Model A	Model C	
9"	*Feet* 3	*Pounds* 320	$224.50	$164.50	$110.50	$24

9" WORKSHOP PEDESTAL MOTOR DRIVEN FLOOR LEG LATHES (LESS MOTOR)

9"	3	580	$266.50	$206.50	$152.50	$24

9" WORKSHOP COUNTERSHAFT DRIVEN FLOOR LEG LATHES (WITH D. F. C.)

9"	3	395	$234.50	$174.50	$120.50	$24

9" WORKSHOP TOOLROOM PEDESTAL MOTOR DRIVEN FLOOR LEG LATHES (LESS MOTOR)

9"	3	680	$467.00			$25

9" WORKSHOP TOOLROOM COUNTERSHAFT DRIVEN FLOOR LEG LATHES (WITH D. F. C.)

9"	3	495	$430.00			$26

THE SPRINGFIELD MACHINE TOOL CO., SPRINGFIELD, OHIO

TOOLROOM LATHES

[Base price includes lathe arranged for silent chain, flat or V-belt drive with motor mounted in cabinet leg without electrical equipment but including mounting and wiring; quick change gear box with lead screw and feed rod reverse operated at right-hand side of apron, with automatic stops in either direction; oil pump in apron providing automatic lubrication for all bearings, bedways, and carriage cross slide; combined oil pump and splash lubricating system to headstock gears and main spindle bearings; ball bearings on driving shafts with precision Timken bearings on spindle; compound rest and tool post, large and small face plates, steady rest, thread-chasing dial, micrometer-chasing stop for cross feed, oil pan, cabinet leg, tailstock end, and all necessary wrenches]

Base size	14" x 6' heavy	16" x 6' heavy	18" x 6' heavy	20" x 8' medium	20" x 8' heavy	22" x 8' medium	24" x 10" heavy
Length of bed	6'4"	7'0"	7'6"	9'8"	8'11"	8'11"	10'
Distance between centers	30"	30"	30"	48"	48"	48"	48"
Swing over bed	16½"	18½"	20½"	22½"	22½"	24½"	27½"
Swing over carriage	11⅜"	12¾"	14⅜"	16½"	15"	17¼"	19½"
Gear head lathe, 12 speed, arranged for motor drive, without electrical equipment	$3,550	$3,850	$4,500	$4,800			$7,200
Gear head lathe, 16 speed, arranged for motor drive, without electrical equipment			$4,600	$4,950	$5,600	$5,900	$7,300
Extra for helical gears			$50	$50			$100
Motor drive horsepower recommended	3-5	5	5-7½	5-7½	10-15	10-15	10-15
Speed of motor, r. p. m.	1,200	1,200	1,200	1,200	1,200	1,200	1,200
Deduct for single pulley drive instead of motor drive	$100	$100	$100	$100	$100	$100	$100
3-step cone double back gear lathe with countershaft	$2,400	$2,700	$3,300	$3,800			

THE SPRINGFIELD MACHINE TOOL CO., SPRINGFIELD, OHIO—Continued

TOOLROOM LATHES—continued

Base size	14″ x 6′ heavy	16″ x 6′ heavy	18″ x 6′ heavy	20″ x 8′ medium	20″ x 8′ heavy	22″ x 8′ medium	24″ x 10′ heavy	27″ x 10′ medium	30″ x 10′ medium	36″ x 12′	42″ x 12′
Lenght of bed	6′4″	7′0″	7′6″	9′6″	8′11″	8′11″	10′	10′	10′	12′	12′
Distance between centers	30″	30″	30″	48″	48″	48″	48″	48″	48″	54″	54″
Swing over bed	16½″	18½″	20½″	22½″	22½″	24½″	27½″	30½″	34½″	37″	42½″
Swing over carriage	11⅝″	12¾″	14⅜″	16½″	15″	17¼″	19½″	21″	23½″	24½″	31″

QUICK CHANGE GEAR LATHE

[Are regularly equipped with quick-change gear, one cabinet leg and one plain leg, compound rest, steady rest, thread-chasing dial, large and small face plates, micrometer thread depth stop, Timken precision bearings on spindle, combined oil pump and splash lubricating system to headstock gears and main spindle bearings; oil pump in apron providing automatic lubrication for all bearings, bedways, and carriage cross slide; round tool post, and necessary wrenches]

Geared head lathe, 12 speed, arranged for motor drive, without electrical equipment	$3,000	$3,410	$3,795	$4,300	------	------	$6,000	$7,200	$8,000	------	------
Geared head lathe, 16 speed, arranged for motor drive, without electrical equipment	------	------	$3,850	$4,400	------	$5,400	$7,000	$7,400	$8,200	------	------
Extra for helical gears	------	------	50	50	[1]$5,000	------	100	100	100	------	------
Motor-drive horsepower recommended	3–5	5	5–7½	5–7½	10–15	10–15	10–15	10–15	10–15	------	------
Speed of motor, r. p. m.	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	------	------
Deduct for single-pulley drive instead of motor drive	100	100	100	100	100	100	100	100	100	------	------
3-step cone double back gear lathe with countershaft	$2,000	$2,300	$2,750	$3,100	------	------	------	------	------	------	------

[1] Price on the 20″ x 8′ was changed upon advice of manufacturer. Differs from that shown in first edition of Prices of New Machine Tools.

THE STANDARD ENGINEERING WORKS, PAWTUCKET, R.I.

HAND-MILLING MACHINES

Type	Weight	Price
	Pounds	
No. 1 standard with countershaft	900	$550
No. 1½ standard with countershaft	1,000	575
No. 2 standard with countershaft	1,165	750

STANDARD MACHINERY COMPANY, PROVIDENCE, R. I.

AUTOMATIC DROP HAMMERS

Number:	*Price*
½	$762
1	835
2	1,186
3	1,722
4	2,299
5	2,505
6½	3,001
8	4,162
12	5,977

PLAIN DROP HAMMERS

½	$302
1	387
1½	436
2	561
3	609
3½	927
5	1,198
8	2,117

ROTARY SWAGING MACHINES

1-A	$322
2-A	490
3-A	720
4-A	1,200
5-A	1,930
6-A	2,700
7-A	5,900
8-A	9,660

ROLLING MILLS

031	$866
0315	1,023
041	1,530
051	1,886
061	2,500
081	2,726

WIRE-FLATTENING MILLS

044	$969
064	1,545
084	2,640
104	3,553

POWER PRESSES

2-B	$360
3-B	600
4-B	790

STANDARD MACHINERY COMPANY, PROVIDENCE, R. I.—Continued.

POWER PRESSES—continued

Number	*Price*
5-B	$1,850
6-B	3,600
2-J	345
3-J	580
4-J	770
5-J	1,575
5-S	164
7-S	245
5-S double plunger	714
7-S double plunger	1,075

JOHN B. STEVENS, INC., NEW YORK, N. Y.

VERTICAL SLOTTER

Machine:	*Price*
Adjustable stroke, 0 to 4 inches (can be arranged for motor drive)	$2,400

SCREW HEAD SLOTTERS

Size	Capacity	Price
½″	1/16″–½″ Screws	$350.
¾″	¼″–¾″ Screws	400.
	Special bushings	Application.

SCREW MACHINES

Number	Machine	Price
00	Plain wire feed (cap. 1/16″–5/16″)	$950.
1	Plain wire feed (cap. 3/16″–5/8″)	1,150.
2	Plain wire feed (cap. ¼″–1⅛″)	1,550.

STOKERUNIT CORPORATION, MILWAUKEE, WIS.

SIMPLEX PRECISION BORING MACHINES AND SPINDLES

No. 1—Standard Machine, complete with one No. 1 spindle, base, belt guard and motor bracket, less spindle-driving motor and control	$1,155
No. 1—Standard Machine, complete with two No. 1 spindles, base, belt guard and motor bracket, less spindle-driving motor and control	1,409
No. 1—L1 Machine, complete with one No. 1 spindle, base, belt guard and motor bracket, less spindle-driving motor and control	1,414
No. 1—L3 Machine, complete with one No. 3 spindle, base, belt guard and motor bracket, less spindle-driving motor and control	1,527
No. 1—LD Double End Machine, complete with two No. 1 spindles, base, belt guard and motor bracket, less spindle-driving motor and control	1,668

NOTE.—Above electrical equipment all 220-volt, 3-phase, 60-cycle.

STOKERUNIT CORPORATION, MILWAUKEE, WIS.—Continued

SPINDLES

[Including draw rod, but without sheave or quill]

No. 1	$232
No. 1L	255
No. 3	291
No. 4	377
No. 2—Machine, complete with one No. 1 spindle, base, belt guard and motor bracket, less spindle-driving motor and control	1,727
No. 2B—Machine, complete with one No. 3 spindle, base, belt guard and motor bracket, less spindle-driving motor and control	1,850
No. 2D1—Machine (Double End), complete with two No. 1 spindles, base, belt guard and motor bracket, less spindle-driving motor and control	2,023
No. 2LD1—Machine (Double End), complete with two No. 1 spindles, base, belt guard and motor bracket, less spindle-driving motor and control	2,227
No. 2LD3—Machine (Double End), complete with two No. 3 spindles, base, belt guard and motor bracket, less spindle-driving motor and control	2,436
Series 200—Double End, complete with electrical control only and facing feed, but without spindles or spindle-driving motors	2,309

NOTE.—Motors quoted to suit spindle requirements. Spindles at prices as per section 1.

Motors and control for Series 200 machine 220/440-volt, 3-phase, 60-cycle:	
With two No. 3 spindles	327
With four No. 3 spindles	440

NOTE.—Above electrical equipment all 220/440-volt, 3-phase, 60-cycle.

SIMPLEX UNIT TYPE PRECISION BORING MACHINES

[All electrical equipment, 220/440 volt, 3 phase, 60-cycle, with 110-volt control circuit. Other current extra]

1 Way 2U machine, hydraulic feed with one No. 3 spindle, all motors and electrical control (less coolant pump)	$3,159
2 Way 2U machine, hydraulic feed with two No. 3 spindles, all motors and electrical control (less coolant pump)	5,409
3 Way 2U machine, hydraulic feed with three No. 3 spindles, all motors and electrical control (less coolant pump)	7,227
1 Way 3U machine, hydraulic feed with one No. 3 spindle, all motors and electrical control (less coolant pump)	3,477
2 Way 3U machine, hydaulic feed with two No. 3 spindles, all motors and electrical control (less coolant pump)	4,545
3 Way 3U machine, hydraulic feed with three No. 3 spindles, all motors and electrical control (less coolant pump)	8,182
1 Way 4U machine, hydraulic feed with one No. 4 spindle, all motors and electrical control (less coolant pump)	3,864
2 Way 4U machine, hydraulic feed with two No. 4 spindles, all motors and electrical control (less coolant pump)	6,432
3 Way 4U machine, hydraulic feed with three No. 4 spindles, all motors and electrical control (less coolant pump)	9,341
No. 2U—Knee type precision boring machine, complete with one No. 3 spindle, motors and control (less coolant pump)	4,477
Additional for length bars and indicators	500
No. 3U—Knee type precision boring machine, complete with one No. 3 spindle, motors and control (less coolant pump)	5,114
Additional for length bars and indicators	545
Coolant pump and piping for all machines	109

ACCESSORIES

Quill for No. 1 and No. 1L spindles (solid for 1 tool)	$22
Quill for No. 3 spindle (solid for 1 tool)	31
Quill for No. 4 spindle (solid for 1 tool)	44
Feed change gears, per pair	7
One pair sheaves and belt (any ratio):	
No. 1 and No. 1L spindle	10
No. 3 spindle	15
Unit boring machine	15
Coolant pump and tank, 220-volt, A. C.	109
Magnetic brake for motor:	
No. 1, 2, and unit boring machine, per motor	59
No. 3 machine, per motor	84
Tool setting indicator and bracket with jewel bearing indicator reading to one ten-thousandths inch	109

TOOLS

Tungsten Carbide:	
1/16″ to 5/16″, each	7
Over 5/16″ to ½″, do	9
Diamond boring or turning tools according to weight of stone. Approximately	31-45

STOKERUNIT CORPORATION, MILWAUKEE, WIS.—Continued

ELECTRICAL EQUIPMENT—FOR NOS. 1 AND 2 MACHINE

220-volt, 3-phase, 60-cycle, A. C., subject to change as electrical manufacturers prices are changed. 440-volt, 3-phase, 60-cycle—$40 extra, on all machines. Other voltage, frequency, and phase quoted on request.

For No. 1 and No. 1L and No. 2 single spindle machines, ½ hp. motor and control	$55
For No. 1, No. 1L and No. 2 two spindle machines, 1 hp. motor and control	67
For No. 1L3 and 2B single spindle machines, motor and control	78
For No. 1L3 and 2 B two spindle machines, motor and control	91
For No. 1, 2D1 and 2LD1 double end machines with two No. 1 spindles	210
For No. 1, 2D1 and 2LD1 double end machines with 4 No. 1 spindles	241
For No. 2LD3 double end machines with two No. 3 spindles	241
For No. 2LD3 double end machines with four No. 3 spindles	273

STORM MANUFACTURING CO. INC., MINNEAPOLIS, MINN.

PISTON GRINDER

Model DE-2	$1,090

THE STREINE TOOL & MANUFACTURING CO., NEW BREMEN, OHIO

UNDERDRIVEN POWER SQUARING SHEARS

Capacity mild steel	Length of shear blades	Hp. of motor	Approximate weight	Price
	Inches		*Pounds*	
¼-inch	38	5	6,500	$1,485
	50	5	7,500	1,750
	62	7½	8,500	1,941
	74	7½	9,500	2,169
	98	10	16,000	2,931
	127	10	20,000	3,502
	146	10	24,000	4,225
5/16-inch	38	5	5,500	1,294
	50	5	7,000	1,523
	62	7½	8,100	1,713
	74	7½	8,700	1,941
	98	10	15,000	2,664
	127	10	17,000	3,197
	146	10	22,000	3,806
10-gage	38	5	4,200	1,141
	50	5	5,000	1,294
	62	5	5,500	1,370
	74	5	6,500	1,599
	98	7½	11,000	2,132
	127	7½	14,000	2,664
	146	7½	18,000	3,464
12-gage	38	3	3,100	989
	50	3	3,700	1,141
	62	3	3,900	1,294
	74	5	5,600	1,446
	98	5	8,000	1,979
	127	7½	9,800	2,436
	146	7½	15,000	3,045

Standard equipment includes one set of solid four-edge high carbon tool-steel knives, front gage, side gage, front support arms, and micrometer back gage, V-belt, motor sheave, flywheel guard, and knife guard. All shears up to and including 98 inches long are furnished with 24-inch back gage, longer shears are furnished with 30-inch back gages as standard equipment. 36-inch long gages will be quoted as an extra. Standard lubrication is alemite.

Prices of high carbon, high chrome shear blades are furnished on application.

THE STREINE TOOL & MANUFACTURING CO., NEW BREMEN, OHIO—Continued

OVERDRIVEN POWER GAP SHEARS (POSITIVE PIN TYPE CLUTCH)

Capacity mild steel	Length of shear blades	Hp. of motor	Approximate weight	Price	Extra	
					24-inch gap	36-inch gap
	Inches		*Pounds*			
5/16-inch	50	20	27,000	$5,040	$400	$800
	62	20	33,000	5,880	400	800
	74	20	40,000	6,580	400	800
	98	25	45,000	7,700	400	800
	127	25	50,000	8,820	400	900
	146	25	65,000	10,640	400	900
½-inch	50	15	17,000	3,710	300	600
	62	15	20,000	4,270	300	600
	74	15	30,000	4,760	300	600
	98	20	38,000	5,600	300	600
	127	20	45,000	6,440	300	600
	146	20	60,000	7,560	400	800
3/8-inch	50	10	14,000	2,682	250	550
	62	10	16,000	3,117	250	550
	74	10	18,500	3,552	250	550
	98	15	30,000	4,132	250	550
	127	15	36,000	4,785	250	550
	146	15	40,000	5,365	300	600
	156	15	45,000	6,887	300	600
¼-inch	50	5	11,000	2,030	200	450
	62	7½	13,000	2,247	200	450
	74	7½	15,000	2,718	200	450
	98	10	19,000	3,335	200	450
	127	10	23,000	3,842	200	450
	146	10	26,000	4,567	250	500
	156	10	39,000	5,800	250	500
5/16-inch	50	5	8,000	1,921	200	450
	62	7½	11,000	2,175	200	450
	74	7½	13,500	2,610	200	450
	98	10	15,000	2,900	200	450
	127	10	20,000	3,480	200	450
	146	10	24,000	4,168	200	450
	156	10	35,000	5,075	200	475
10-gage	50	5	8,000	1,850	175	375
	62	5	10,000	2,066	175	375
	74	5	12,500	2,465	175	375
	98	7½	14,000	2,719	175	375
	127	7½	18,000	3,262	175	375
	146	7½	21,000	3,842	200	400
	156	7½	32,000	4,712	200	400

Standard equipment includes one set of solid, four-edge, high carbon, tool-steel knives, front gage, side gages, two front support arms, and micrometer back gage, V-belts, motor sheave, flywheel guard, and knife guard. Shears arranged with 6-inch, 12-inch, and 18-inch gap are standard equipment. All shears up to and including 98 inches long are furnished with a 24-inch back gage; longer shears are furnished with 30-inch back gages as standard equipment. 36-inch-long gages will be quoted as an extra. All shears are arranged with a mechanical holddown as standard equipment. Standard lubrication is alemite.

Prices of high carbon, high chrome shear blades are furnished on application.

THE STREINE TOOL & MANUFACTURING CO., NEW BREMEN, OHIO—Continued

OVERDRIVEN, TWIN DRIVE, AIR FRICTION CLUTCH SHEARS

Capacity mild steel	Length of shear blades	Horsepower of motor	Approximate weight	Strokes per minute	Price with standard gap	Extra	
						24" gap	36" gap
	Inches		*Pounds*				
3/4"	74	20	48,000	30	$12,355	$400	$800
	98	30	55,000	30	13,321	400	800
	122	30	64,000	25	14,672	400	900
	146	30	79,000	25	16,464	400	900
	158	30	86,000	25	17,745	400	900
	170	35	96,000	25	19,390	450	950
	182	35	120,000	25	22,750	450	950
5/8"	74	20	36,000	35	7,175	400	800
	98	20	45,000	30	8,395	400	800
	122	25	60,000	30	11,700	400	900
	146	25	73,000	30	12,940	400	900
	158	25	79,000	30	14,610	400	900
	170	30	86,000	30	16,130	450	950
1/2"	74	15	32,000	40	6,375	300	600
	98	20	40,000	35	7,687	300	600
	122	20	47,500	35	8,700	300	600
	146	20	54,000	30	9,787	400	800
	158	20	60,000	30	11,025	400	800
	170	25	78,000	30	12,218	400	800
3/8"	74	10	21,000	45	4,837	250	550
	98	15	29,000	45	5,500	250	550
	122	15	35,000	40	6,250	250	550
	146	15	40,000	40	6,925	300	600
	158	15	44,000	40	8,500	300	600
	170	15	58,000	40	9,843	350	650
5/16"	74	10	18,500	40	4,500	250	550
	98	10	25,000	40	5,150	250	550
	122	15	29,000	40	5,981	250	550
	146	15	32,500	40	6,575	300	600
	158	15	42,000	40	7,775	300	600
	170	15	49,000	40	9,250	350	650
	182	20	58,000	40	10,775	350	650
1/4"	74	7½	17,500	55	3,987	200	450
	86	7½	20,000	55	4,200	200	450
	98	10	22,000	50	4,475	200	450
	122	10	25,000	50	5,125	200	450
	146	10	28,000	45	5,856	250	500
	158	10	37,000	45	7,150	250	500
	170	15	44,000	45	8,437	300	500
3/16"	74	7½	14,500	55	3,687	200	450
	98	7½	17,500	50	4,062	200	450
	122	7½	21,500	50	4,562	300	450
	146	10	25,000	45	5,362	200	450
	158	10	34,000	45	6,306	200	475
	170	15	40,000	45	7,687	200	475
10 gage	74	5	14,000	55	3,550	175	375
	98	5	15,000	50	3,906	175	375
	122	5	20,000	50	4,337	175	375
	146	7½	22,000	50	5,187	200	400
	158	7½	27,500	45	5,625	200	400
	170	10	33,000	45	6,206	200	400

Standard equipment includes 1 set of solid 4-edge high carbon tool steel knives, front gage, side gage, 2 front support arms and micrometer back gage, V-belts, motor sheave, flywheel guards, and knife guard. Shears arranged with 6-, 12-, and 18-inch gap are standard equipment. All shears up to and including 98 inches long are furnished with a 24-inch back gage; longer shears are furnished with 30-inch back gages as standard equipment. 36-inch-long gages will be quoted as an extra. All shears are arranged with an air-operated holddown as standard equipment. Standard lubrication is alemite.

$150 extra for equipping shears with Farval one shot lubricating system.

Prices of high carbon high chrome shear blades are furnished on application.

SUNDSTRAND MACHINE TOOL CO., ROCKFORD, ILL.

MOTOR DRIVE

Type	Weight	With tail-stock	Without tail-stock
	Pounds		
Model 8 automatic stub lathe:			
8" x 15" centers	3,600	$2,730	$2,488
8" x 21" centers	3,900	2,912	2,670
8" x 28" centers	4,250	3,166	2,924
8" x 36" centers		3,366	
Model 10 automatic lathe:			
10" x 16" centers	5,050	3,830	3,491
10" x 22" centers	5,500	4,023	3,684
10" x 34" centers	6,400	4,485	4,146
10" x 46" centers			
Model 12 automatic lathe:			
12" x 16" centers	5,350	4,235	3,897
12" x 22" centers	5,800	4,427	4,089
12" x 34" centers	6,650	4,889	4,551
12" x 46" centers			

Brake drum turning stub lathe, belt drive, front carriage	$1,635
Brake drum turning stub lathe, belt drive, front and rear carriage	2,135

NO. 53 DRILLING AND CENTERING MACHINE

Type	Vises	Price
4" x 12" (using Jacobs chucks) or 19" (using collets)	1	$835
4" x 24" (using Jacobs chucks) or 31" (using collets)	2	950
4" x 36" (using Jacobs chucks) or 43" (using collets)	2	997
4" x 48" (using Jacobs chucks) or 55" (using collets)	2	1,045
4" x 60" (using Jacobs chucks) or 67" (using collets)	2	1,092
4" x 72" (using Jacobs chucks) or 79" (using collets)	2	1,139
4" x 84" (using Jacobs chucks) or 91" (using collets)	2	1,186
4" x 96" (using Jacobs chucks) or 103" (using collets)	2	1,234

DRILLING AND CENTERING MACHINE

4" x 24" (using Jacobs chucks) or 34" (using collets)	2	$1,513
4" x 36" (using Jacobs chucks) or 46" (using collets)	2	1,562
4" x 48" (using Jacobs chucks) or 58" (using collets)	2	1,612
4" x 60" (using Jacobs chucks) or 70" (using collets)	2	1,661
4" x 72" (using Jacobs chucks) or 82" (using collets)	2	1,711

Type	Weight	Price
	Pounds	
Sundstrand 2-wheel tool grinder	1,090	$635
Sundstrand 3-wheel tool grinder, type A, B, or C	1,530	855
No. 00 Rigidmil (hand feed) motor drive	1,000	1,320
No. 00 Rigidmil (hydraulic feed) motor drive	1,270	1,749
No. 0 Rigidmil (hand feed) motor drive	1,550	1,523
No. 0-12" Rigidmil (hydraulic feed) motor drive	2,055	2,100
No. 0-18" Rigidmil (hydraulic feed) motor drive	2,155	2,247
No. 1-12" Rigidmil (hydraulic feed) motor drive	2,850	2,960
No. 1-18" Rigidmil (hydraulic feed) motor drive	2,950	3,192
No. 2-18" Electromil (mechanical feed) motor drive	5,200	3,932
No. 2-24" Electromil (mechanical feed) motor drive	5,300	4,072
No. 3-24" Rigidmil (horizontal) (mechanical feed) motor drive		3,712
No. 3-24" Rigidmil (vertical) (mechanical feed) motor drive		4,187

SUNDSTRAND MACHINE TOOL CO., ROCKFOD, ILL.—Continued

DRILLING AND CENTERING MACHINE—continued

Type	Table feed	Column face to edge table	Maximum spindle to top of table	Weight	Price
	Inches	*Inches*	*Inches*	*Pounds*	
No. 3-A Rigidmil	24	4	14		$4,400
Do	36	4	14		4,640
Do	24	4	18		4,567
Do	36	4	18		4,809
Do	24	9	14		4,676
Do	36	9	14		4,918
Do	24	9	18		4,845
Do	36	9	18		5,087
No. 3-C Rigidmil	48	5.375	16		5,365
Do	60	5.375	16		5,862
Do	72	5.375	16		6,358
Do	48	9.375	16		5,626
Do	60	9.375	16		6,080
Do	72	9.375	16		6,534
No. 4 Rigidmil	48	3.5	16		5,535
Do	60	3.5	16		6,025
Do	72	3.5	16		6,522
Do	48	7.5	16		5,797
Do	60	7.5	16		6,249
Do	72	7.5	16		6,703
Hydro-screw Rigidmil:					
Simplex	36		13	9,500	5,740
Do	48		13	10,000	5,938
Do	60		13	12,000	6,785
Do	72		13	12,500	7,115
Duplex	36		13		7,925
Do	48		13		8,056
Do	60		13		8,805
Do	72		13		9,493

Combination surface and internal link grinder, not including electrical equipment $6,735

SUPERIOR MACHINE AND ENGINEERING COMPANY, DETROIT, MICH.

Standard slot milling machine equipped with motor drive $750
Special high speed machine 875

THE TAFT-PIERCE MANUFACTURING CO., WOONSOCKET, R. I.

No. 1 precision surface grinder—5" x 12" x 12", 1,500 pounds, $1,800.

TAYLOR & FENN CO., HARTFORD, CONN.

MILLING MACHINES

	Each
8-inch vertical milling machine with standard equipment, arranged for motor drive, but without electrical equipment	$1,550
12-inch vertical milling machine with standard equipment, arranged for motor drive, but without electrical equipment	2,500
4-inch duplex spline milling machine with standard equipment, arranged for motor drive, but without electrical equipment	2,650
6-inch duplex spline milling machine with standard equipment, arranged for motor drive including shipper-rod master switch, standard magnetic starter, but without motor	3,600

TAYLOR & FENN CO., HARTFORD, CONN.—Continued

MODELS DRILLING MACHINES

[Complete with standard equipment including ½ horsepower alternating current, 3,450 revolutions per minute motor, switch, pushbutton and drill chuck on each head]

Number of spindles	Prices	
	Bench	Floor
1	$315	$435
2	605	735
3	895	1,065
4	1,185	1,395
5	1,475	1,725
6	1,765	2,060

MODEL 66 DRILLING MACHINE, FLOOR TYPE

[Complete with standard equipment, hand feed, without motor-drive arrangement, motor, or electrical equipment]

Number of spindles	Price
1	$420
2	730
3	1,040
4	1,330
5	1,650
6	1,975

TAYLOR & FENN CO., HARTFORD, CONN.—Continued

GRINDER

20-inch wet tool grinder arranged for motor drive with motor-belt guard, motor pulley and belt, but without electrical equipment $305
Fishtail cutter grinder, floor type 250

SURFACE GRINDERS

Size of machine	Net weight	Price
	Pounds	
6 x 12 x 18	3,800	$1,980
8 x 12 x 24	4,200	2,450
9 x 12 x 40	6,700	3,500
12 x 12 x 40	7,000	4,100
12 x 12 x 60	7,900	4,800
12 x 10 x 24	7,200	3,970
12 x 16 x 48	12,000	6,000

THE THOMPSON GRINDER COMPANY, SPRINGFIELD, OHIO

Item No.	Width	Height under wheel	Length	Grinding wheel	Net weight	Price	Magnetic chuck	Chuck height	Chuck price	Increase vertical capacity to	Price
	Inches	*Inches*	*Inches*	*Inches*	*Pounds*		*Inches*	*Inches*	*Inches*	*Inches*	
1	6	12	18	12 x 1½ x 5	3,800	$1,980	6 x 18	3⅜	$115		$200
2	8	12	18	12 x 1½ x 5	4,000	2,120	8 x 18	4⅛	150		
3	8	12	24	12 x 1½ x 5	4,240	2,450	8 x 24	4⅛	160	18	
4	10	12	24	12 x 1½ x 5	4,400	2,710	10 x 24	4	225	18	
5	12	12	24	12 x 1½ x 5	4,500	3,340	12 x 24	4	275	18	
6	9	12	40	12 x 2 x 5	6,700	3,500	9 x 40	4¼	325	18	
7	9	12	60	12 x 2 x 5	7,500	4,200	9 x 60	4¼	500	18	
8	12	12	40	12 x 2 x 5	7,000	4,100	12 x 40	4	425	18	
9	12	12	60	12 x 2 x 5	7,900	4,800	12 x 60	4	650	18	
10	12	10	24	20 x 2 x 8	7,200	3,970	12 x 24	4	275	16	

Prices shown above are for machines equipped for wet grinding and with all motors, automatic starters, and push buttons.

AUXILIARY EQUIPMENT AT EXTRA PRICE FOR B TYPE GRINDING MACHINES

	Price
1A. Direct current generator sets: Motor: 3- or 2-phase, 60- or 25-cycle, 220-, 440-550-volt, ball bearing, horsepower. Generator: Compound wound, ball-bearing, ½ kilowatt capacity. Complete with magnetic starter	$145
2A. Dust exhauster unit: Equipped with ¾ hp. 3,600 revolutions per minute direct connected motor and steel hose. Catalog No. 9, p. 18, item 1	175
3A. Automatic spark-out control: Catalog No. 9, p. 19, item 4	$300
4A. Automatic down feed: 0.00025 inch to 0.004 inch per wheel head reverse. Catalog No. 9, p. 19, item 2	300
5A. Automatic downfeed (plunge cut operations only): 0.0025 inch to 0.004 inch per table reverse. Catalog No. 9, p. 19, item 2	300
6A. Coolant filter	75

Item No.	Width	Height under wheel	Length	Grinding wheel	Net weight	Price	Magnetic chuck	Chuck height	Chuck price	Increase vertical capacity to—	Price	Increase vertical capacity to—	Price
	Inches	*Inches*	*Inches*	*Inches*	*Pounds*		*Inches*	*Inches*		*Inches*		*Inches*	
11	12	16	40	20 x 3 x 8	10,400	$5,600	12 x 40	4	$425	28	$400	36	$500
12	12	16	48	20 x 3 x 8	12,000	6,000	12 x 48	4	525	28		36	
13	12	16	60	20 x 3 x 8	13,000	6,400	12 x 60	4	650	28		36	
14	12	16	72	20 x 3 x 8	16,400	6,800	12 x 72	4½	775	28		36	
15	14	16	40	20 x 3 x 8	11,500	6,200	14 x 40	4¾	475	28		36	
16	14	16	48	20 x 3 x 8	13,000	6,800	14 x 48	4¾	600	28		36	
17	14	16	60	20 x 3 x 8	14,000	7,400	14 x 60	4¼	750	28		36	
18	14	16	72	20 x 3 x 8	16,400	8,000	14 x 72	4½	900	28		36	

Prices shown above are for machines equipped for wet grinding and with all motors, automatic starters, and push buttons, with electric elevation. 15 horsepower wheel heads.

THE THOMPSON GRINDER COMPANY, SPRINGFIELD, OHIO—Continued

AUXILIARY EQUIPMENT AT EXTRA PRICE FOR C TYPE GRINDING MACHINES

	Price
1A. Direct current generator sets: Motor: 3- or 2-phase, 60- or 25-cycle, 220-, 440-, 550-volt, ball-bearing. 1 horsepower for items 11, 12, 13, 15, 16. ½ horsepower for items 14, 18. Generator: Compound wound ball bearing. ½-kilowatt capacity for items 11, 12, 13, 15, 16. ¾-kilowatt capacity for items 14, 18. Complete with magnetic starter:	
Items 11, 12, 13, 15, 16	$145
Items 14, 18	212

AUXILIARY EQUIPMENT AT EXTRA PRICE FOR C TYPE GRINDING MACHINES—continued

	Price
2A. Dust exhauster unit: Equipped with ¾ horse power, 3,600 revolutions per minute, direct connected motor and steel hose. Catalog No. 9, p. 18, item 1	$175
4A. Automatic down feed: 0.00025 inch to 0.004 inch pr wheel head reverse. Catalog No. 9, p. 19, item 2	400

[Prices shown are for 25-, 40-, 50-, 60-cycle; 220-, 440-, or 550-volt; 3- or 2-phase motors, and controls. Prices on equipment for special frequencies, and direct current on application]

Item No.	Width	Height under wheel	Length	Grinding wheel	Net weight	Price	Magnetic chuck	Chuck height	Chuck price	Increase vertical capacity to—	Price	Increase vertical capacity to—	Price
	Inches	*Inches*	*Inches*	*Inches*	*Pounds*		*Inches*	*Inches*		*Inches*		*Inches*	
19	16	16	40	20 x 3 x 8	13,000	$6,800	16 x 40	4¼	$600	28		36	
20	16	16	48	20 x 3 x 8	14,000	7,400	16 x 48	4¼	675	28		36	
21	16	16	60	20 x 3 x 8	15,000	8,000	16 x 60	4¼	825	28		36	
22	16	16	72	20 x 3 x 8	17,000	8,500	16 x 72	4¼	1,000	28		36	
23	16	16	96	20 x 3 x 8	10,600	9,700	16 x 96	4¼	1,400	28		36	
24	16	16	120	20 x 3 x 8	25,000	11,570	16 x 120	4¼	1,650	28	$400	36	$500
25	16	16	144	20 x 3 x 8	32,000	12,770	16 x 144	4¼	2,000	28		36	
26	16	16	168	20 x 3 x 8	34,000	14,270	16 x 168	4¼	2,440	28		36	
27	18	16	48	20 x 3 x 8	15,000	8,400	18 x 48	5	775	28		36	
28	18	16	60	20 x 3 x 8	17,000	8,900	18 x 60	5	950	28		36	
29	18	16	72	20 x 3 x 8	18,500	9,500	18 x 72	5	1,150	28		36	
30	18	16	96	20 x 3 x 8	21,000	11,100	18 x 96	5	1,650	28		36	
31	18	16	120	20 x 3 x 8	26,000	12,200	18 x 120	5	1,900	28		36	
32	18	16	144	20 x 3 x 8	34,000	13,400	18 x 144	5	2,300	28		36	
33	18	16	168	20 x 3 x 8	38,000	14,600	18 x 168	5	2,800	28		36	
34	20	16	48	20 x 3 x 8	16,400	9,000	20 x 48	5⅛	900	28		36	
35	20	16	60	20 x 3 x 8	17,800	9,600	20 x 60	5⅛	1,125	28		36	
36	20	16	72	20 x 3 x 8	19,400	10,200	20 x 72	5⅛	1,350	28		36	
37	20	16	96	20 x 3 x 8	23,000	11,150	20 x 96	5⅛	1,850	28		36	
38	20	16	120	20 x 3 x 8	29,000	12,350	20 x 120	5⅛	2,250	28		36	
39	20	16	144	20 x 3 x 8	37,000	13,550	20 x 144	5⅛	2,700	28	$400	36	$500
40	20	16	168	20 x 3 x 8	41,000	14,750	20 x 168	5⅛	3,200	28		36	
41	24	16	48	20 x 3 x 8	18,000	9,600	24 x 48	5¼	1,100	28		36	
42	24	16	60	20 x 3 x 8	18,800	10,350	24 x 60	5¼	1,350	28		36	
43	24	16	72	20 x 3 x 8	21,000	11,300	24 x 72	5¼	1,600	28		36	
44	24	16	96	20 x 3 x 8	31,000	12,550	24 x 96	5¼	2,250	28		36	
45	24	16	120	20 x 3 x 8	35,000	13,650	24 x 120	5¼	2,700	28		36	
46	24	16	144	20 x 3 x 8	40,000	15,000	24 x 144	5¼	3,200	28		36	
47	24	16	168	20 x 3 x 8	43,000	16,800	24 x 168	5¼	3,800	28		36	

Pricee shown above are for machines equipped for wet grinding, and with all motors, automatic starters' and push buttons, with electric elevation. 15-horsepower wheel heads.

AUXILIARY EQUIPMENT AT EXTRA PRICE FOR C TYPE GRINDING MACHINES

	Price
2A. Dust exhauster unit: Equipped with ¾ horsepower, 3,600 revolutions per minute direct connected motor and steel hose. Catalog No. 9, p. 18, item 1	$175
4A. Automatic down feed: 0.00025 inch to 0.004 inch per wheel head reverse. Catalog No. 9, p. 19, item 2	400
5A. Automatic down feed (plunge cut operations only): 0.00025 inch to 0.004 inch per table reverse. Catalog No. 9, p. 19, item 2	400
6A. Coolant filter	100

MACHINES FOR GRINDING FLAT AND ROUND BROACHES

Machine size (inches)	Hand feed table and head	Automatic feed table and head	Round broach attachment with 10,000 r. p. m. spindle
6 x 48	$3,500	$5,300	$1,500
6 x 60	4,100	5,900	
6 x 72	4,700	6,500	
12 x 48	----------	7,100	
12 x 60	----------	8,500	

Above prices include all motors, automatic starters, and push buttons. 1 wheel guard, 1 type 11 grinding wheel, 1 type 12 grinding wheel, 1 dial type tooth locator for hand-feed machines, 1 electric tooth locator for automatic machines, 1 set wrenches.

THE THOMPSON GRINDER COMPANY, SPRINGFIELD, OHIO—Continued

EXTRA AND OPTIONAL EQUIPMENT FOR FLAT BROACHES

Magnetic chuck (inches)	Tilting	Tilting and swiveling	M-G set with starter	Neutral switch
6 x 48	$600	$900	500 watt $145	$90
6 x 60	800	1,100		108
6 x 72	1,100	1,400		108
12 x 48	850	1,150		108
12 x 60	1,075	1,375		126

MACHINES FOR GRINDING ROUND BROACHES

Machine size (inches)	Hand swivel to wheel head	Full automatic swivel
6 x 48	$3,750	$5,250
6 x 60	4,300	5,800
6 x 72	4,950	6,450

Above prices include all motors, automatic starters, and push buttons. 1 high-speed spindle 10,000/15,000 revolutions per minute with belt and pulleys. 1 work head with drive plate, 250/800 revolutions per minute. 1 footstock with center (adjustable for taper broaches), 3 steady rests, 2 grinding wheels 3" x ½" x ½", 1 set wrenches, 1 electric tooth locator.

THE TOLEDO PIPE THREADING MACHINE CO., TOLEDO, OHIO

NO. 999 SUPER MODEL PIPE MACHINE

	Approximate shipping weights	Users' net prices
	Pounds	
No. 999 with 6 quick-opening die heads and ½- to 2-inch dies (6 sets), built-in reamer and 110-volt universal motor	473	$350.00
No. 999 with 3 quick-opening die heads and ½- to 2-inch dies (6 sets), built-in reamer and 110-volt universal motor	432	309.95

2-INCH HIGH SPEED POWER PIPE MACHINE

2-inch high speed with 220–440 volt, 3-phase, 60-cycle motor	1,110	$750.00
2-inch high speed with direct current or 1-phase, 110–220 volt, 60-cycle motor	1,110	775.00

NO. 999 STANDARD MODEL PIPE MACHINE

No. 999 with 6 nonopening die heads and ½- to 2-inch dies (6 sets), built-in reamer and 110-volt universal motor	434	$275.00
No. 999 with 9 nonopening die heads and ½- to 2-inch dies (9 sets), built-in reamer and 110-volt universal motor (or 220-volt universal motor) (Also furnished with 220–440-volt, 3-phase motor for 60 cycles only, at same price as with universal motor).	440	287.45

NO. 1–2–4 POWER PIPE MACHINE

No. 1–2–4 with 220–440-volt, 3-phase, 60-cycle motor	2,500	$1,900.00
No. 1–2–4 with 220–440-volt, 3-phase, 25-cycle motor	2,500	1,450.00
No. 1–2–4 with 220-volt, 1-phase, 60-cycle motor	2,500	1,475.00
No. 1–2–4 with direct current 230-volt motor	2,500	1,500.00

THE TORRINGTON CO., TORRINGTON, CONN.

SWAGING MACHINE PRICE LIST

	Price	Extra price for Texrope motor drive	Approximate price of dies, single groove, LaBelle steel
2-die machines:			*Per pair*
No. 00	$150		$7.50
No. 1	300		9.00
No. 2	575	$75.60	10.00
No. 3	725	101.80	13.00
No. 3½	1,125	109.50	16.00
No. 4	1,350	137.60	20.00
No. 4 heavy	1,425	137.60	26.00
No. 4–10	1,800	137.60	36.00
No. 5	1,150	101.80	22.00
No. 6	1,500	137.60	28.00
No. 7	1,700	137.60	34.00
4-die machines:			*Per set*
No. 3	1,000	101.80	30.00
No. 4	1,500	137.60	40.00

RACK AND PINION FEEDS

(For both new style and old style machines)

For No. 2 machine	$155
For No. 3 machine	180
For No. 3½ machine	200
For No. 4 machine	225

THE UNITED STATES ELECTRICAL TOOL COMPANY, CINCINNATI, OHIO

HEAVY-DUTY FLOOR GRINDER

(Pedestal)

½ horsepower, 8" x 1"	A	$110
1 horsepower, 10" x 1"	B	140
1 horsepower, 10" x 1¼"	B	175

For other than 50- or 60-cycle, increase price 10 percent net.

MODEL 10 GRINDERS

2 horsepower, 12" x 2"	C	$300
3 horsepower, 12" x 3"	C	345
5 horsepower, 14" x 3"	C	380
7½ horsepower, 16" x 3"	C	468
7½ horsepower, 18" x 3"	C	490
7½ horsepower, 20" x 3"	C	545
7½ horsepower, 20" x 3", 1,800 r. p. m.	C	583

For other than 50- or 60-cycle, increase price 10 percent net. For 2 horsepower and 3 horsepower, single-phase, increase price 25 percent net.

MODEL 10WG COMBINATION WET AND DRY GRINDER

3 horsepower, 12" x 2"	C	$450

For other than 50- or 60-cycle, increase price 10 percent net.

MODEL 20 WIDE-TYPE GRINDERS

2 horsepower, 12" x 2"	C	$330
3 horsepower, 12" x 3"	C	380
5 horsepower, 14" x 3"	C	425
7½ horsepower, 16" x 3"	C	512
7½ horsepower, 18" x 3"	C	539
7½ horsepower, 20" x 3"	C	594
7½ horsepower, 20" x 3", 1,800 r. p. m.	C	635

For other than 50- or 60-cycle, increase price 10 percent net. For 2 horsepower and 3 horsepower, single-phase, increase price 25 percent net.

MODEL 30 GRINDER

7½ horsepower, 16" x 3"	C	$613
7½ horsepower, 18" x 3"	C	650
7½ horsepower, 20" x 3"	C	705
7½ horsepower, 20" x 3", 1,800 r. p. m.	C	743
10 horsepower, 24" x 4"	C	883

For other than 50- or 60-cycle, increase price 10 percent net.

MODEL 40 GRINDERS

7½ horsepower, 18" x 3"	C	$704
7½ horsepower, 20" x 3"	C	743
7½ horsepower, 20" x 3", 1,800 r. p. m.	C	787
10 horsepower, 24" x 4"	C	935
15 horsepower, 24" x 4¾"	C	1,066
20 horsepower, 30" x 5"	C	1,436
20 horsepower, 30" x 3", 1,200 r. p. m.	C	1,540

For other than 50- or 60-cycle, increase price 10 percent net.

MODEL 64 FOR VITRIFIED WHEELS

3 horsepower, 12" x 2"	C	$550
5 horsepower, 14" x 3"	C	594
7½ horsepower, 18" x 3"	C	666
7½ horsepower, 20" x 3"	C	737

MODEL 64 FOR HIGH-SPEED WHEELS

3 horsepower, 12" x 2"	C	$605
5 horsepower, 14" x 3"	C	649
7½ horsepower, 18" x 3"	C	721
7½ horsepower, 20" x 3"	C	792

For other than 50- or 60-cycle, increase price 10 percent net.

THE UNITED STATES ELECTRICAL TOOL COMPANY, CINCINNATI, OHIO—Continued

MODEL 65 FOR VITRIFIED WHEELS

7½ horsepower, 18" x 3"	C	$1,210
7½ horsepower, 20" x 3"	C	1,254
10 horsepower, 24" x 3"	C	1,353
15 horsepower, 30" x 3"	C	1,403

MODEL 65 FOR HIGH-SPEED WHEELS

7½ horsepower, 18" x 3"	C	$1,265
7½ horsepower, 20" x 3"	C	1,309
10 horsepower, 24" x 3"	C	1,463
15 horsepower, 30" x 3"	C	1,503

For other than 50- or 60-cycle, increase price 10 percent net.

MODEL 66 FOR VITRIFIED WHEELS

5 horsepower, 16" x 2"	C	$908
7½ horsepower, 18" x 3"	C	963
7½ horsepower, 20" x 2"	C	1,018
10 horsepower, 24" x 3"	C	1,073

MODEL 66 FOR HIGH-SPEED WHEELS

5 horsepower, 16" x 2"	C	$963
7½ horsepower, 18" x 3"	C	1,018
7½ horsepower, 20" x 2"	C	1,073
10 horsepower, 24" x 3"	C	1,128

For other than 50- or 60-cycle, increase price 10 percent net.

MODEL 80 DOUBLE DISK GRINDER

2 horsepower, 8" disk	C	$458
3 horsepower, 10" disk	C	504
5 horsepower, 12" disk	C	611
7½ horsepower, 18" disk	C	834
10 horsepower, 20" disk	C	1,111
15 horsepower, 24" disk	C	1,338
15 horsepower, 26" disk	C	1,608
20 horsepower, 30" disk	C	2,048

For other than 50- or 60-cycle, increase price 10 percent net. For 2 horsepower and 3 horsepower, single phase, increase price 25 percent net.

MODEL 70 COMBINATION GRINDER AND DISK GRINDER

½ horsepower, 7" disk	B	$255
1 horsepower, 8" disk	B	315
2 horsepower, 10" disk	C	414
3 horsepower, 12" disk	C	460
5 horsepower, 14" disk	C	574
7½ horsepower, 16" disk	C	681
7½ horsepower, 18" disk	C	715
7½ horsepower, 20" disk	C	766

The ½ horsepower and 1 horsepower prices are for 110-220-volt, 60-cycle, single-phase or 220-440-volt, 50- or 60-cycle, 2- or 3-phase. 3 horsepower to 7½ horsepower, inclusive, prices are for 220-, 440-, 550-volt, 50- or 60-cycle, 2- or 3-phase. For other than 50- or 60-cycle, increase price 10 percent net.

MODEL 85 BUFFER AND POLISHER

2 horsepower	C	$253
3 horsepower	C	314
5 horsepower	C	330
7½ horsepower	C	446
10 horsepower	C	523
15 horsepower	C	633
20 horsepower	C	743

For other than 50- 60-cycle, increase price 10 percent net. For 2 horsepower and 3 horsepower, single-phase, increase price 25 percent net.

MODEL 90 BUFFER AND POLISHER

2 horsepower	C	$275
3 horsepower	C	336
5 horsepower	C	352
7½ horsepower	C	468
10 horsepower	C	539
15 horsepower	C	655
20 horsepower	C	765

For other than 50- or 60-cycle, increase price 10 percent net. For 2 horsepower and 3 horsepower, single-phase, increase price 25 percent net.

MODEL 95 MULTISPEED BUFFER AND POLISHER

1 horsepower	C	$429
2 horsepower	C	468
3 horsepower	C	495
5 horsepower	C	539
7½ horsepower	C	622
10 horsepower	C	704
15 horsepower	C	820
20 horsepower	C	930

For other than 50- or 60-cycle, increase price 10 percent net.

MODEL 100 MOTOR-IN-BASE BUFFER AND POLISHER

(Single Spindle)

3 horsepower	C	$450
5 horsepower	C	473
7½ horsepower	C	529
10 horsepower	C	585
15 horsepower	C	709
20 horsepower	C	821

For other than 50- or 60-cycle, increase price 10 percent net.

THE UNITED STATES MACHINE TOOL COMPANY, CINCINNATI, OHIO

NO. 1 U. S. IMPROVED HAND-MILLING MACHINE AND ACCESSORIES

Machine with No. 9 B. & S. taper hole in spindle, complete with wrenches, oil pot, countershaft or arranged for motor drive (without electrical equipment), and 2 micrometer dials (1 for vertical feed and 1 for cross feed), full antifriction bearing, timken bearings on spindle, with ball-bearing backshaft boxes, V-belt drive, completely guarded	$350
Motor and switch mounted and wired on machine. 1 horsepower 1,200 r. p. m., 220–440-volt, 60 cycle, 3-phase motor required	60
Other voltages—Prices on application.	
When motor and starter are supplied by customer and shipped to us for mounting and wiring to machine, charge is (depending upon type of starter)	10 to 20
When machine is furnished for countershaft drive, flat-belt pulleys are furnished on countershaft and backshaft.	

EXTRAS

No. 10 Brown & Sharpe taper hole in spindle	$5
Milling machine flat vise, complete (opens 3¼ x 5½ inches wide by 1¼ inches deep)	20
Swivel base vise, complete (opens 3¼ x 5½ inches wide by 1¼ inches deep)	32
Arbor for holding cutters, ¾-, ⅞-, or 1-inch hole, No. 9 B. & S. taper shank (length from shoulder to nut, 4 inches)	8
Arbor for holding cutters, ¾-, ⅞-, or 1-inch hole, No. 10 B. & S. taper shank (length from shoulder to nut, 4 inches)	10
(Arbors any length and diameter can be furnished according to specifications at special prices.)	
Spring collet for holding Woodruff keyway cutters with ½-inch straight shank No. 9 B. & S. taper	8
Spring collet for holding Woodruff keyway cutters, with ½-inch straight shank No. 10 B. & S. taper	9
No. 2 universal milling attachment	120
6-inch universal dividing head	130
8-inch universal dividing head	145
Extra for oil pump, tank and all attachments complete	45

U. S. TOOL CO., INC., AMPERE (EAST ORANGE), N. J.

U. S. MULTIMILLERS AND ACCESSORY EQUIPMENT

Item:	*Price*
MM–1–4 multimiller	$1,500
MM–1–6 multimiller with No. 9 taper	1,700
MM–1–6 multimiller with No. 40 taper	1,725
MM–1–5–2 with automatic vertical motion, either No. 9 or No. 40 taper	2,550

ATTACHMENTS

Rotary attachment	200
Positive table return	50
180° rotary index table	160
Washout arrangement	15
Vertical adjustable head	285
Hydraulic table preloader	125
Heavy duty overarm support	75
Vises:	
MV–1	65
MV–2	75
Micrometer table stop	40

UNIVERSAL BORING MACHINE COMPANY, HUDSON, MASS.

3-INCH SPINDLE MACHINE

Base price: 60-inch bed, 26-inch vertical range, 27 x 58-inch table	$9,625
Extras (to be added to base price):	
1. 33-inch vertical in place of 27 inch	275
2. 40-inch vertical in place of 27 inch	495
3. 72-inch bed length in place of 60 inch	165
4. 96-inch bed length in place of 60 inch	495
5. 32- x 58-inch table in place of 26- x 58-inch	330
6. 40- x 58-inch table in place of 26- x 58-inch	495
7. Complete coolant system	300
8. Verniers	200
9. Rod and dial measuring (base machine)	680
10. Auxiliary table	165
11. Special low speed 11–440 r. p. m.	110
12. Special high speed 15–1,200 r. p. m.	265
13. Threading attachment	1,250

4-INCH SPINDLE MACHINE

Base price: 72-inch bed, 36-inch vertical range, 40- x 60-inch table	$15,900
Extras (to be added to base price):	
1. 48-inch vertical range in place of 36 inch	975
2. 60-inch vertical range in place of 36 inch	1,575
3. 96-inch bed length in place of 72 inch	675
4. 120-inch bed length in place of 72 inch	1,350
5. 42- x 76-inch table in place of 40- x 60-inch	975
6. 48- x 84-inch table in place of 40- x 60-inch	1,950
7. Complete coolant system	300
8. Verniers	300
9. Rod and dial measuring (base machine)	800
10. Auxiliary table	165
11. Special high speed 8–1,000 r.p.m.	600
12. 5-inch spindle head in place of 4-inch	500
13. Threading attachment	1,200

THE V. & O. PRESS CO., INC., HUDSON, N. Y.

PRESSES

Size	Plain		Geared	
	Weight	Price	Weight	Price
	Pounds		*Pounds*	
020	300	$225		
00	350	255		
015	685	355		
0	750	290		
01	950	330		
01W	1,050	395		
1	1,150	360		
1W	1,250	430		
1½	1,400	450	1,700	$640
2	2,000	495	2,300	695
2W	2,100	600	2,350	815
2½	2,650	645	3,150	880
2½W	2,850	750	3,350	990
3	3,300	710	4,100	950
3W	3,600	845	4,400	1,100
3¼	3,800	825	4,600	1,075
3½	4,350	825	5,200	1,075
4	5,100	1,000	6,200	1,325
4W	5,500	1,200	6,600	1,550
5	7,500	1,200	8,800	1,550
5W	8,100	1,600	9,450	1,960
5½	10,500	1,870	12,300	2,245
6	11,500	2,420	13,400	2,800
6½	25,000	3,600	28,00	4,050
10½	700	900		
11	1,200	1,150		
12	1,800			
12½	2,700	1,350	3,050	1,590
13	3,500	1,600	4,100	1,855
14	5,500	2,100	6,250	2,450
15	7,200	2,600	8,100	2,960
20	1,000	360		
21	1,650	495	1,950	695
22	2,500	645	2,850	880
22½	3,200	740	3,600	975
23	4,200	1,000	4,900	1,325
23½	4,500	1,000	5,200	1,285
24	6,000	1,250	6,700	1,600
31	5,200	1,330	6,000	1,705
31½	6,800	1,910	7,900	2,340
41	1,100	470		
42	2,400	650	2,700	855
43	5,750	1,100	6,550	1,340
44	8,500	1,615	9,600	1,965
45	10,000	1,830	11,300	2,180
70	200	60		
71	300	90		
72	450	105		
73	525	160		
101	1,600	575	1,900	750
102	2,500	725	3,000	945
103	3,300	1,275	4,100	1,525
104	5,600	1,550	6,700	1,875
210	500	1,430		
201W	750	1,650		
202	1,550	2,060		
201¼	600	1,870		
201½W	875	1,980		
202½	1,650	2,290		
25T	3,700	975		
30T	4,600	1,100		
35T	5,600	1,250		
41N	1,100			
410	1,250	1,600		
3¼S	5,000	2,650		
325	5,375	2,650		

No. 104 V. & O. geared reducing press, $1,875.

VAN NORMAN MACHINE TOOL CO., SPRINGFIELD, MASS.

RAM-TYPE UNIVERSAL MILLING MACHINES—PRICES AND SPECIFICATIONS

Model No.	Table travel	Saddle hand cross feed	Knee—vertical range from center line of spindle in horizontal position to top of table in lowest position	Net weight including standard equipment	Price
	Inches	*Inches*	*Inches*	*Pounds*	
6 (hand)	18	5⅜	16¼	1,350	$1,350
12	17	6⅝	17	1,650	2,250
22L	28	10	17	3,300	4,050
22LU	28	10	18	3,400	5,150
26	28	12	19	4,600	5,350
26SU	28	12	18	4,700	5,500
36	35	12	21¾	4,950	6,100

VAN NORMAN MACHINE TOOL CO., SPRINGFIELD, MASS.—Continued

HORIZONTAL MILLING MACHINE

Model No.	Table travel (power)	Cross feed (power)	Vertical feed knee (power)	Net weight standard equipment	Price
	Inches	*Inches*	*Inches*	*Pounds*	
2LP	28	10	16	2,700	$3,575
2LU	28	10	15	2,800	3,700
2SP	28	10	18	4,400	4,700
2SU	28	10	17	4,500	5,100

Hand mill:
- Working surface of table ..... inches .. 26 x 6
- Net weight with standard equipment ..... pounds .. 1,700
- Price $1,185

118 bed-type milling machine:
- Working surface of table ..... inches .. 34 x 10
- Longitudinal power table feed ..... do 18
- Net weight ..... pounds .. 3,600
- Price $3,350

3V vertical milling machine:
- Table feed ..... inches 34
- Saddle—cross feed ..... do 12
- Knee—vertical feed ..... do 18
- Net weight, including standard equipment ..... pounds .. 6,550
- Price $6,925

Obsolete machines	*Equivalents*
Piston grinding and turning: No. 88, No. 96, No. 98	No. 101—$2,175.
No. 76 with automatic feeds; No. 3 with automatic feeds; No. 85	$1,400.
No. 76 without automatic feed	
No. 76	$1,200.
Bantam cylinder grinders, motor driven	
No. 2	No. 75—$1,200.
No. 3 without automatic feed.	No. 75—$1,200.
No. 4	No. 75—$1,200.
Oscillating radius: No. 42	$7,000.
Plain horizontal mills: No. 0	No. 6.
No. 2L	$3,725.
Duplex mills: No. ½, No. 10	No. 12—Van Norman Ram Type Universal.
No. 2	No. 22L—Van Norman Ram Type Universal.
No. 3	No. 26—Van Norman Ram Type Universal.

VERSON ALLSTEEL PRESS COMPANY, CHICAGO, ILL.

T SERIES MAJOR PRESS BRAKES

Machine No.	Capacity	Price	Stroke maximum [1] in standard frame reducing tonnage	Stroke maximum [1] in standard frame maintaining tonnage	18-inch gap	2-speed gear-box
T116	6′ x ½″	$5,980	$250	$500	$225	$500
T118	8′ x ⅜″	6,235	250	500	225	500
T1110	10′ x 5/16″	6,505	250	500	225	500
T1112 [2]	12′ x ¼″	7,190	250	500	225	500
T1114 [2]	14′ x 7/32″	7,690	250	500	225	500
T1116 [2]	16′ x 3/16″	8,160	250	500	225	500
T34	4′ x 3/16″	2,275	150	350	125	375
T36	6′ x 10 gage	2,410	150	350	125	375
T38	8′ x 12 gage	2,695	150	350	125	375
T310	10′ x 13 gage	2,950	150	350	125	375
T312	12′ x 14 gage	3,255	150	350	125	375
T314	14′ x 16 gage	3,760	150	350	125	375
T316	16′ x 18 gage	4,035	150	350	125	375
T44	4′ x ¼″	2,720	175	375	150	400
T46	6′ x 3/16″	2,860	175	375	150	400
T48	8′ x 10 gage	3,060	175	375	150	400
T410	10′ x 12 gage	3,405	175	375	150	400
T412	12′ x 13 gage	3,715	175	375	150	400
T414	14′ x 14 gage	4,080	175	375	150	400
T416	16′ x 16 gage	4,500	175	375	150	400
T54	4′ x ⅜″	3,015	200	400	175	425
T56	6′ x ¼″	3,225	200	400	175	425
T58	8′ x 5/16″	3,385	200	400	175	425
T510	10′ x 10 gage	3,665	200	400	175	425
T512	12′ x 11 gage	4,050	200	400	175	425
T514	14′ x 12 gage	4,405	200	400	175	425
T516	16′ x 13 gage	4,820	200	400	175	425
T76	6′ x 5/16″	3,930	225	450	200	450
T78	8′ x ¼″	4,160	225	450	200	450
T710	10′ x 3/16″	4,395	225	450	200	450
T712	12′ x 9 gage	4,805	225	450	200	450
T714	14′ x 10 gage	5,185	225	450	200	450
T716	16′ x 11 gage	5,625	225	450	200	450
T96	6′ x 5/16	4,180	250	500	225	475
T98	8′ x 5/16″	4,390	250	500	225	475
T910	10′ x ¼″	4,650	250	500	225	475
T912	12′ x 7/32″	4,935	250	500	225	475
T914	14′ x 3/16″	5,355	250	500	225	475
T916	16′ x 9 gage	5,755	250	500	225	475

[1] Maximum stroke is 6 inches on T11 series and 4 inches on remaining series.
[2] Price includes Verson air counterbalance of Ram. If this feature is not desired, deduct $375 from T1112 and $455 from T1114 and T1116.

VERSON ALLSTEEL PRESS COMPANY, CHICAGO, ILL.—Continued

VERSON INTERMEDIATE SERIES PRESS BRAKES

No.	204	206	208
Tonnage capacity	60	60	60.
Rated bending capacity:			
Die opening:			
2 inches	48" x ¼"	48" x ¼"	48" x ¼".
1½ inches	60" x 3/16"	60" x 3/16"	60" x 3/16".
1¼ inches	72" x 10 gage [1]	78" x 10 gage	78" x 10 gage.
1 inch	72" x 11 gage [1]	96" x 11 gage	96" x 11 gage.
¾ inch	72" x 12 gage [1]	96" x 12 gage [1]	102" x 12 gage.
⅝ inch	72" x 14 gage [1]	96" x 14 gage [1]	120" x 14 gage.
Distance between housings	54"	78"	102".
Length of bed and ram	72"	96"	120".
Standard stroke	3"	3"	3".
Standard adjustment	4"	4"	4".
Die space bed to slide, stroke down adjustment up (holder removed).	12"	12"	12".
Width of gap	8"	8"	8".
Strokes per minute	35	35	35.
Size of driving motor recommended for full capacity.	5 Hp.—1,800 R. P. M.	5 Hp.—1,800 R. P. M.	5 Hp.—1,800 R. P. M.
Type of gearing	Double	Double	Double.
Type of drive	V-belt	V-belt	V-belt.
Weight	8,000 pounds	11,000 pounds	14,400 pounds.
Price	$1,935	$2,075	$2,215.

[1] Capacity limited only by bed and ram length.

Lighter gage materials can be bent full length bed and ram.

Standard equipment: V-belt motor-drive arrangement, including driving motor and starter, sectional-ram clamp, lower-die holder, automatic lubrication, wrenches, motorized adjustment of ram with motor and control.

VERSON JUNIOR SERIES PRESS BRAKES

No. 1038	$740
No. 1050	835
No. 1062	960
No. 2038	1,020
No. 2050	1,170
No. 2062	1,295
No. 2078	1,895

The above prices include sectional-ram clamp, lower-die holder, V-belt motor drive and a 3-phase, 60-cycle, 220-440-volt, main driving motor and starter.

VERSON JUNIOR SERIES PRESS BRAKES EQUIPPED WITH SWINGING BEDS

No. 1038, bed size 3" x 9" x 52"	$915
No. 1050, bed size 3" x 12" x 66"	1,010
No. 2038, bed size 4" x 9" x 54"	1,220
No. 2050, bed size 4" x 12" x 66"	1,370

These prices include same auxiliary equipment as listed above. The foregoing sizes are standard. Other sizes of bed depth and length will be quoted on application. Furnish complete information when requesting quotation.

ALLOWANCES

	10 series	20 series	2078
If driving motor and starter not required, deduct	$41.20	$46.40	$58.40
EXTRAS			
If direct current motor, 115- or 230-volt is desired, deduct for alternating-current motor, and add [1]	$124.00	$128.00	$128.00
Variable speed drive	$45.00	$55.00	$55.00
1 trip stop-on-top control of friction clutch [2]	$95.00	$105.00	$105.00
For increasing shut height up to 12" [3]	$55.00	$65.00	$65.00
The standard bed height from floor is [4] inches	31	31	31
Motorized ram adjustment including a 3-phase, 60-cycle, 220-440-volt, alternating-current motor, control and gear box	$125.00	$125.00	$125.00

[1] In the case of direct current, 10 series machines require 2-horsepower motors, and "02" series 3-horse-power motors.

[2] If flanges are desired contact home office, furnishing complete information. If removable flange is desired such as shown in Bulletin JPB–40 contact home office furnishing complete information.

[3] When increasing shut height, the bed is dropped on the housings in direct ratio to amount of increase. When shut height is increased, higher die holder is furnished.

[4] Greater throat depth can be provided. Prices on application.

No. 10 series machines are equipped with bronze bushed main bearings and wrist pins. No. 20 series machines are equipped with bronze bushed main bearings, knuckles, and wrist pins.

All machines have laminated shims on main and connection bearings and gibs.

All prices f. o. b. factory, Chicago.

O. S. WALKER CO., WORCESTER, MASS.

SURFACE GRINDERS

Model	Capacity: Diameter	Capacity: Height	Work table: Diameter	Work table: Center hole	Weight	Price
	Inches	*Inches*	*Inches*	*Inches*	*Pounds*	
DA	12	4	12	1⅛	4,450	$2,750
DB	12	4	12	1⅛	5,250	3,250

WALKER-TURNER CO., INC.

MACHINE POWER TOOLS

Catalog No.	Machine	Weight	List price
		Pounds	
BN560 [1]	10" band saw	61	$21.50
BN730	12" band saw	115	39.50
BN905	14" band saw	405	79.50
BN1135	16" band saw	460	105.00
D570 [1]	Drill press	32	19.25
D571 [1]	do	32	15.25
D573 [1]	do	32	14.25
D715	do	85	36.50
D902	2 spindle drill press	290	129.50
D904	4 spindle drill press	570	275.00
D935	Drill press	110	52.25
D936	do	110	60.25
D937	do	110	53.50
D938	do	110	61.50
D950	do	133	43.95
D951	do	133	44.95
L540	Lathe	55	19.95
L752	do	130	37.50
L905	do	180	49.50
MB1	Motor rails	3	.80
MBN935	Band saw	470	123.75
MBN1150	do	575	155.00
SF150A	Flexible shaft machine	65	109.00
SF150B	do	65	107.50
SF150C	do	65	86.00
SF150D	do	65	85.00
SF150E	do	65	66.00
SF150F	do	65	65.00
SF155A	do	120	121.50
SF155B	do	120	120.00
SF155C	do	120	99.50

WALKER-TURNER CO., INC.—Continued

MACHINE POWER TOOLS—continued

Catalog No.	Machine	Weight	List price
		Pounds	
SF155D	do	120	99.50
SF155E	do	120	77.50
SM700	Surfacers	98	36.75
SM705	Surfacer with bench	158	48.50
TA950	Tilting arbor saw	195	59.50
TA950B	do	195	65.50
TA1180	do	265	79.50
TA1180B	do	265	87.50
WAC7	Geared grinder	75	82.50

[1] Obsolete.

WALSH PRESS & DIE COMPANY, CHICAGO, ILL.

No. 2 foot press	$75
No. 0 O. B. I. press (flywheel type), on stand	140
No. ¾ O. B. I. press (flywheel type)	235
No. 1 O. B. I. press (flywheel type)	300
No. 2 O. B. I. press (flywheel type)	415
No. 3 O. B. I. press (flywheel type)	585
No. 4 O. B. I. press (flywheel type)	765
No. 5½ O. B. I. press (flywheel type)	1,175
No. 3 O. B. I. press (geared type)	785
No. 4 O. B. I. press (geared type)	965
No. 5½ O. B. I. press (geared type)	1,375

These prices are f. o. b. Chicago and subject to State sales tax if used in Illinois. Prices quoted are on standard presses.

THE WARNER & SWASEY CO., CLEVELAND, OHIO

Size	Swing	Weight	Selling price
	Inches	*Pounds*	
No. 1 electric turret lathe	10¾	1,230	$2,190
No. 2 all geared head	14	2,770	3,335
No. 3 universal	15	3,300	4,030
No. 4 universal	16½	3,700	4,815
No. 5 universal	17¾	5,000	4,940
1-A	16	5,850	5,950
2-A	20	7,250	7,285
3-A, 4½"	23½	8,790	8,750
3-A, 6"	23½	8,790	9,150
4-A, 8"	28	14,880	10,550
4-A, 9"	28	14,880	10,950
4-A, 12½"	28	15,880	13,275

THE WARNER & SWASEY CO., CLEVELAND, OHIO—Continued

MACHINES NO LONGER MANUFACTURED

Size and type—turret lathe	Last selling price	Comparative Machine No.	Net weight	Machine price
			Pounds	
No. 1 plain head, 5/8"			750	$1,100
No. 1 electric, 5/8"			1,230	1,980
No. 2 plain head, 1"			1,210	1,400
No. 2 geared friction head, 1"			1,455	1,600
No. 2 all geared head, 1"			2,770	3,010
No. 2 electric, 1"			2,400	2,570
14" plain head, 1"	$1,145		1,200	
No. 4 plain head, 1 1/4"	880		1,700	
14" geared friction head, 1"	1,343		1,465	
No. 4 geared friction head, 1 1/4"	1,250		2,150	
No. 4 universal geared friction head, 1 1/4"	2,561		2,790	
No. 4 universal 6-speed all geared head, 1 1/4"	2,728	3 M1200	2,735	4,030
No. 4 universal 12-speed all geared, 1 1/4"	3,168	3 M1200	3,035	4,030
No. 3 universal 6-speed all geared head, 1 1/2"			3,300	4,030
No. 4 universal 12-speed all geared head, 1 3/4"	3,955	4 M1420	3,700	4,815
No. 4 universal 12-speed all geared head, 2"			3,700	4,815
16" plain head, 1 1/8"	1,139		1,400	
16" geared friction head, 1 1/8"	1,557		1,735	
No. 6 geared friction head, 2 1/4"	1,295		3,200	
No. 6 double back geared friction head, 2 1/4"	2,090		3,275	
No. 6 12-speed all geared head, 2 1/4"		5 M1740	3,250	4,940
No. 5 12-speed all geared head, 2 1/2"			5,000	4,940
1-A universal hollow hexagon, 2 1/2"			5,850	5,950
2-A universal hollow hexagon, 2 1/2"		1-A M470	4,500	5,950
2-A universal hollow hexagon, 3 1/8"		2-A M510	4,500	7,285
2-A universal hollow hexagon, 3 1/4"			7,250	7,285
3-A universal hollow hexagon, 3 1/2"		2-A M510	8,000	7,285
3-A universal hollow hexagon, 4 1/2"		3-A M1950	8,000	8,750
3-A universal hollow hexagon, 4 1/2"			8,790	8,750
3-A universal hollow hexagon, 6"			8,790	9,150

Compare old style No. 4 friction head, cone drive, to new No. 3, with a plain cross slide, at price of $3,500.
Compare old style No. 4 friction head, cone drive universal, with new No. 3 universal, at price of $4,030.
Compare old style No. 6 friction head, cone drive, to new No. 5, with plain cross slide, at price of $4,715.
Compare old style No. 6, universal to new No. 5 universal, at price of $4,940.
Compare No. 2 plain friction head to new No. 2 at price of $3,100.
Compare No. 2 geared friction head to new No. 2 at price of $3,335.

WATERBURY FARREL FOUNDRY AND MACHINE COMPANY, WATERBURY, CONN.

STANDARD SERIES A OPEN-BACK PRESSES

Machine No.	Drawing No.	Basic machine price	Countershaft price	Motor drive arrangements without electrical equipment
2	6112	$405	$44	$121
3	6113	465	44	155
4	6114	665	49	182
5	6115	795	62	215
6	6116	915	85	245
7	6117	1,140	97	275

STANDARD SERIES E PRESSES

100	3911	$195	$37	$97
100A	4012	212	37	97
100½	4400	300	39	97
100½A	4413	325	39	97

STANDARD 2-POST OPEN-BACK PRESSES

11	6951	$510	$155	$195
22	6952	615	182	225
33	6862	825	215	260
44	6954	1,060	245	290
55	6955	1,435	275	330

SAFETY BENCH PRESSES

1	7006	$195		$12
1A	7133	215		12

STANDARD PILLAR PRESSES

31	4720	$515	$45	$155
41½	4721	650	50	180
52	4722	815	62	215
63	4723	1,070	86	275
31A	4724	560	45	155
41½A	4725	710	50	180
52	4726	900	62	215
63	4727	1,215	86	275

HIGH-SPEED BLANKER

0	7197	$1,325		(1)
1	7362	1,850		(1)

[1] Included.

WATERBURY FARREL FOUNDRY AND MACHINE COMPANY, WATERBURY, CONN.—Continued

FOUR-POST PRESSES

Machine No.	Drawing No.	Basic machine price	Countershaft price	Motor drive arrangements without electrical equipment
1	7127	$3,145		$195
2	7212	4,355		250
3	6663	5,460		305
2W	7173	5,515		250
3W	7681	6,890		305

CRANK EYELET MACHINES

100-11	7142	$8,350		(1)
150-7	7199	9,085		
150-9	6981	10,285		
150-11	7110	11,495		
150-A-9	7228	11,115		
200-A-9	7140	17,025		
200-A-11	7079	18,575		

[1] Included.

STANDARD D. A. CAM PRESSES

2	6312	$1,020	$44	$121
3	6313	1,325	44	155
4	6314	1,820	49	182
5	6315	2,245	62	215
6	6316	2,790	85	245
7	6317	3,475	97	275

NO. 1807, 250-TON HYDRAULIC PRESS

Press only	$1,085
Hand pump or quick-operating valve	165
Power pump No. 4640 without electrical equipment	775
Total	2,025

STD. D. A. CRANK PRESSES

2	6482	$720	$44	$121
3	6483	950	44	155
4	6484	1,080	49	182

WATERBURY FARREL FOUNDRY AND MACHINE COMPANY, WATERBURY, CONN.—Continued

SEMIAUTOMATIC EDGING AND TRIMMING LATHES

Machine No.	Drawing No.	Basic machine price	Countershaft price	Motor drive arrangements without electrical equipment
1	6537	$1,805	(1)	None
2	6717	2,620		

STANDARD HAND LATHES

1	6284	$510	(1)	None
2	6636	610		
3	4999	1,090		

SEMIAUTOMATIC SCREW-CAP THREADER

Small	6694	$1,805	(1)	None
Medium size	6908	2,910		

OPEN DIE DOUBLE STROKE CRANK HEADERS

11	6659	$6,490	$125	$360
22	6660	8,360	140	415
33	6417	9,680	165	470

SOLID DIE DOUBLE STROKE ONE CYCLE TOGGLE TYPE HEADERS

0	3416	$1,610	$75	$165
1	3430	2,035	100	195
2	3433	3,080	125	250

SOLID DIE DOUBLE STROKE TUBULAR RIVET HEADERS

0	3416	$2,985	$75	$165
1	3430	3,520	100	195

TUBULAR ATTACHMENTS ONLY

0	3416	$1,375		
1	3430	1,485		

SOLID DIE DOUBLE STROKE CRANK HEADERS

00	6670	$4,180	$100	$305
11	6739	5,610	125	360
22	6747	7,590	135	415
33	6265	10,200	165	470

HI-PRO SOLID DIE DOUBLE STROKE HEADERS

3/16	7041	$3,300	$100	$165
5/16	7286	6,400		195

AUTOMATIC NUT FORMING MACHINES

3	7194	[2] $14,350		
4	6991	[2] 16,000		

HORIZONTAL HAND FEED SCREW THREAD ROLLING MACHINES

10	7120	$1,125	$100	$220
20	7112	1,500	125	250
30	7113	1,950	135	275
40	7114	2,750	150	275
50	7115	3,355	210	330
60	6579	4,160	220	525

AUTOMATIC INCLINED SCREW THREAD ROLLING MACHINES WITH LIFT BLADE TYPE FEED

00	6496	$980		$140
0	7186	1,500		165
10	7121	1,845	$100	195
20	6382	2,145	125	360
30	6485	2,800	140	415

[2] Includes motor drive arrangement.

WATERBURY FARREL FOUNDRY AND MACHINE COMPANY, WATERBURY, CONN.—Continued

AUTOMATIC INCLINED SCREW THREAD ROLLING MACHINES WITH CHAIN HOPPER FEEDS

Machine No.	Drawing No.	Basic machine price	Countershaft price	Motor drive arrangements without electrical equipment
20	7122	$4,500	$125	$250
30	7123	5,425	140	275
40	7124	6,930	150	275

AUTOMATIC SCREW HEAD SLOTTING MACHINES

00	6592	$1,135	----------	----------
0	6310	1,185	----------	$90
1	6217	1,515	----------	110
2	6306	2,365	----------	145

AUTOMATIC BOLT HEAD TRIMMING MACHINES

1	6897	$3,080	$100	$275
2	7060	4,565	125	275
2A	7060	5,170	125	275
3	6752	7,040	185	330
4 [1]	6753	[2]	----------	----------

[1] Built to order only.

The following are list prices on standard eyelet machines, latest type, ordinarily built for stock.

No. 56, 6 plunger machine No. 5931	$2,730
No. 58, 8 plunger machine No. 5925	3,355
No. 510, 10 plunger machine No. 5929	3,985
No. 106, 6 plunger machine No. 5933	2,965
No. 108, 8 plunger machine No. 5924	3,660
No. 1010, 10 plunger machine No. 5916	4,490
No. 126, 6 plunger machine No. 5935	4,045
No. 128, 8 plunger machine No. 5927	5,020
No. 1210, 10 plunger machine No. 5919	5,990
No. 156, 6 plunger machine No. 5936	4,825
No. 158, 8 plunger machine No. 5930	5,950
No. 1510, 10 plunger machine No. 5926	7,075

The following are list prices on standard gang slitting machines, friction clutch pulley drive, without winders. The prices given cover the 3 sizes of machines normally built for stock.

No. 0, 12" machine No. 5049	$1,265.00
No. 1, 12" machine No. 5022	1,457.50
No. 2, 18" machine No. 5157	1,732.50

FRANK L. WELLS CO., KENOSHA, WIS.

PRESSES

No. 2 power punch press	$315
No. 3 power punch press	572
No. 3 power punch press (built special)	850
No. 3 power riveter	391
No. 3½ power punch press	644
No. 5½ including O. B. punch press	797
No. 35 back geared 5-inch stroke press	1,408
No. 34 punch press, plain	974
No. 34 press, arranged for motor drive but without motor	1,067
No. 8 O. B. geared press with bolster plate	2,173
No. 8 O. B. plain press with bolster plate	1,793

PUNCH PRESSES

Description	Size	Price
	Inches	
No. 4	30	$1,662
	36	1,723
	42	1,800
	48	2,043
No. 6	52	2,818
	65	3,047
	73	3,247
No. 10	52	3,287
	65	3,529
	73	3,834
	84	4,032
No. 12	48	4,774
	69	5,574
	73	5,898
	Feet	
No. 15	10	6,082
No. 15[1]	10	4,805

[1] Built lighter on same frame and parts as No. 6 with steel die beds.

WESTERN MACHINE TOOL WORKS, HOLLAND, MICH.

All prices shown below are subject to 10 percent increase

[Western radials, Chard lathes, Steptoe Shapers, Garvin tappers]

WESTERN RADIAL DRILLS

	3′	3½′	4′	4½′	5′	6′
12-speed high speed, 13″ col.	$3,285	3,345	$3,405	$3,460	$3,530	$3,740
6-speed high speed, 13″ col.	2,990	3,050	3,110	3,165	3,230	3,450

	3′, 14″ col.	3½′, 14″ col.	4′, 18″ col.	5′, 20″ col.	6′, 22″ col.	7′, 22″ col.	8′, 22″ col.
Heavy duty type, arranged for motor drive, no motors	$3,935	$4,055	$5,805	$6,780	$8,080	$9,200	$9,670

	4′, 16″ col.	5′, 18″ col.	6′, 20″ col.	7′, 22″ col.	8′, 22″ col.
Manufacturing type, arranged for motor drive, no motors	$4,445	$6,045	$7,080	$8,325	$9,430

	4′, 14″ col.	5′, 16″ col.	6′, 18″ col.	7′, 20″ col.
Leader type, arranged for motor drive, no motors	$4,175	$4,645	$6,215	$7,325

	4′, 15″ col.	5′, 20″ col.	6′, 21¼″ col.
Full universal, arranged for motor drive, no motors	$5,655	$7,005	$8,115

STEPTOE SHAPERS

	14″ S. G.	14″ B. G.	16″ S. G.	16″ B. G.	20″ S. G.	20″ B. G.	24″ B. G.
Countershaft drive	$1,770	$1,850	$2,105	$2,175	$2,405	$2,475	$2,780
Extra for motor drive, no motor	195	195	195	195	195	195	195
Extra for forced feed lubrication	125	125	125	125	125	125	125
Extra for rapid traverse	175	175	175	175	175	175	175
Extra for power down feed to head	150	150	150	150	150	150	150

CHARD LATHES—TIMKEN BEARING

	16″ x 5′	18″ x 7′	20″ x 7′	24″ x 9′	28″ x 9′
MANUFACTURING LATHE					
3 step plain head	$1,675	----------	----------	----------	----------
3 step back geared	1,840	$2,445	----------	----------	----------
Multispeed, single pulley, 4 speeds	2,280	----------	----------	----------	----------
Multispeed, motor drive, 4 speeds	2,525	----------	----------	----------	----------
Multispeed, single pulley, 8 speeds	2,465	2,920	$3,605	----------	----------
Multispeed, motor drive, 8 speeds	2,690	3,230	3,810	----------	----------
ENGINE LATHES					
2 step double back geared	2,095	----------	----------	----------	----------
4 step double back geared	----------	----------	----------	$4,695	$5,245
Multispeed, single pulley, 12 speeds	2,870	3,360	3,855	----------	----------
Multispeed, motor drive, 12 speeds	2,965	3,460	3,925	----------	----------
Extra for 2′ of bed	116	120	130	180	190

GARVIN TAPPERS

No. 1 automatic tapper, belt drive	$350
No. 1 automatic tapper, arranged for motor drive, no motor	400
No. 1 automatic tapper, arranted for motor drive, no motor, 3-speed gear box	470
No. 2-x automatic tapper, belt drive	590
No. 2-x automatic tapper, arranged for motor drive, no motor, 4-speed gear box	740
No. 2-BG automatic tapper, belt drive	695
No. 2-BG automatic tapper, arranged for motor drive, no motor, 4-speed gear box	845
No. 3-B heavy, automatic tapper, belt drive	795
No. 3-B heavy, automatic tapper, arranged for motor drive, no motor, 4-speed gear box	945

WHITNEY METAL TOOL CO., ROCKFORD, ILL.

SPECIAL PORTABLE BRAKES

Description	Size	Prices	
		Bench, skidded	Floor, skidded
Plain bending	4 feet, 20 gage	$127.30	$144
Box and finger	4 feet, 20 gage	147.20	164

Box fingers for box and finger style brakes per lineal inch net f. o. b., Rockford, Ill., $1.68.

WHITNEY METAL TOOL CO., ROCKFORD, ILL.—Continued

WHITNEY-JENSEN BRAKES—PRICES

Size (feet)	12 gage	14 gage	16 gage	18 gage
4	$320	$240	$220.00	----------
5	416	340	273.60	$200
6	512	360	300.00	216
8	620	460	360.00	240
10	800	620	533.60	420

No. 75-1 duplex rolling machine with 1 set of Pittsburgh lock rolls, ⅜-inch pocket depth, $752.50.

No. 75-2 special duplex rolling machine with 1 set of Pittsburgh lock rolls ½-inch pocket depth equipped with hardened worms and bronze gear, $955.50, net f. o. b. Rockford, Ill.

WHITNEY METAL TOOL CO., ROCKFORD, ILL.—Continued

DISCONTINUED MODELS

No. 129 heavy duty punch, with motor	$375.20
No. 129 heavy duty punch, without motor	325.50
No. 130 heavy duty punch, with motor	451.50
No. 130 heavy duty punch, without motor	402.50
No. 47–4' power press Whitney-Jensen brake with motor	1,200.00
No. 47–5' power press Whitney-Jensen brake with motor	1,475.00
No. 47–6' power press Whitney-Jensen brake with motor	1,775.00

Madison-Kipp mechanical feed oiler, for any of the above machines, if desired, $48 each, net f. o. b., Rockford, Ill.

D. E. WHITON MACHINE COMPANY, NEW LONDON, CONN.

CENTERING MACHINES

No. 1 single spindle screw feed	$200
No. 2 single spindle screw feed	250
No. 3 single spindle screw feed	300
No. 4 single spindle screw feed	350
4" single spindle lever feed	425
5" single spindle lever feed (light type)	425
5" single spindle lever feed (regular)	600
6" single spindle lever feed	650
7" single spindle lever feed	750
4" 2-spindle lever feed	450
5" 2-spindle lever feed	650
6" 2-spindle lever feed	725
7" 2-spindle lever feed	875

D. E. WHITON MACHINE COMPANY, NEW LONDON, CONN.—Continued

CENTERING MACHINES—continued

9" 2-spindle lever feed	$1,175
4" 2-spindle revolving	900
5" 2-spindle revolving	1,225
3¼" 2-spindle turnable	625
4" x 38" single spindle duplex	1,000
4" x 50" single spindle duplex	1,050
4" x 86" single spindle duplex	1,125
7" x 90" single spindle duplex	1,700
8" x 81" single spindle duplex	1,700

AUTOMATIC GEAR CUTTERS

No. 14	2,400
No. 15	
No. 16	2,600
No. 24	2,200
No. 26	2,300

THE WICACO MACHINE CORPORATION, PHILADELPHIA, PA.

Wicaco standard internal precision grinding machine, 3,000 pounds	[1] $6,000
Wicaco standard patented continuous oil grooving machine, belt driven, 900 pounds	1,250
Wicaco standard patented continuous oil grooving machine, motor driven, 975 pounds	1,375
Wicaco standard patented continuous oil grooving machine, arranged for motor drive, not including motor, 925 pounds	1,325

[1] Denotes price correction advised by manufacturer. Differs from that appearing in first edition of Prices of New Machine Tools.

WICKES BROS., SAGINAW, MICH.

WICKES STANDARD ENGINE LATHES

[Base price of machine includes: Quick change gears with power feed; compound rest; tool post; large face plate; Timken bearings on main spindle; small face plate; thread chasing dial; steady rest, standard; centers; wrenches]

	26" x 60"	30" x 60"	32" x 60"	36" x 60"
Swing over bed, inches	26½	30½	32¼	36½
Swing over cross slide, do	14	19	19½	24
Distance between centers, do	60	60	60	60
Net weight, pounds	8,400	9,000	14,000	15,000
Weight, each additional 2 feet of bed, do	550	550	700	700
Domestic shipping, weight, do	9,700	10,400	15,000	16,500
Geared head, multiple V-belt motor drive (no motor)	$6,200	$6,600	$8,700	$9,100
Bed, extra per 2 feet	220	240	300	325
Joining beds over 24 feet between centers	400	425	500	510
Carriage complete with apron, compound rest, and round tool post	1,100	1,200	1,300	1,400
Centers, regular, each	12	12	14	14
Chuck plate, fitted to spindle only	27	27	32	34
Chuck plate and chuck, fitted to spindle (no chuck)	39	41	47	50
Face plate—large	50	54	60	68
Face plate—small	24	26	30	32
Pan, standard length bed	200	220	260	280
Pan, extra per 2 feet	30	32	40	42
Pump and tubing	140	140	160	160
Power angular feed to compound rest	400	420	480	500
Power rapid traverse	450	450	500	500
Raising in sand to swing 40 inches				580

WICKES BROS., SAGINAW, MICH.—Continued

WICKES HEAVY DUTY GEARED HEAD ENGINE LATHES, TRIPLE GEARED, FACE PLATE DRIVE

Base price of machine includes: Power feed, through quick-change gears; compound rest with power angular feed and 4-stud tool holder; large face plate; steady rest, standard opening; centers; thread-chasing dial; arranged for motor drive with mechanical or electrical apron motor control; wrenches]

	42" x 60"	48" x 60"	60" x 96"
Swing over bed, inches	44½	50	62
Swing over cross-slide, do	32	38	50
Distance between centers	5'2"	5'2"	8'0
Net weight, standard length of bed, pounds	30,000	33,000	48,000
Weight, each additional foot of bed, do	650	650	850
Domestic shipping weight, do	33,000	36,000	51,000
Geared head, multiple V-belt motor drive (no motor)	$13,900	$14,900	$22,000
Extra for Timken bearings on main spindle	250	250	400
Bed, extra per foot	250	270	300
Joining beds over 30'6" long, per joint	650	700	800
Carriage, complete with apron, compound rest, and tool post	2,800	3,200	4,900
Centers	22	22	26
Face plate, steel instead of cast iron, extra	600	700	800
Face-plate jaws—Fitting only	75	85	100
Face-plate jaws fitted to face plate, 1 set of 4 (cast iron) [1]			
Face-plate jaws fitted to face plate, 1 set of 4 (steel) [1]			
Power rapid traverse to carriage and cross-slide	900	950	1,050
Rests:			
Follow rest	175	200	275
Full swing rest	200	225	260
Steady rest, standard, cast iron	250	300	400
Steady rest, standard, cast steel	500	600	800
Steady rest, oversize, cast iron	500	550	700
Steady rest, oversize, cast steel	1,000	1,100	1,400
Taper attachment	925	1,100	1,200

[1] Prices on application.

WILLIAMS, WHITE & CO., MOLINE, ILL.

HORIZONTAL BULLDOZERS

Machine size	Standard stroke	Die space crosshead forward	Face of crosshead	Weight machine	Price machine	Weight reverse	Price reverse
	Inches	*Inches*	*Inches*	*Pounds*		*Pounds*	
2	8	24	5 x 18	2,900	$1,035		
21	14	24	5 x 29½	4,600	1,574		
22	16	30	6½ x 34½	7,200	1,791		
23	16	30	7 x 39	9,500	1,930		
24	18	38	8½ x 57	15,500	2,609	1,000	$217
25	20	38	12 x 68	22,500	3,609	1,100	239
26	20	42	12 x 69	27,250	4,174	1,400	261
27	22	50	16 x 70	38,900	5,087	1,700	304
28	24	60	16 x 80	52,800	7,217	2,500	435
29U	28	72	36 x 20 x 108	107,000	17,087	With machine.	
30	36	82	40 x 24 x 118	230,000	32,609		

VERTICAL BULLDOZERS

Specifications

	No. 53	No. 54
Double back geared flywheel air clutch with spring set, air released brake, foot treadle, and inching button control. Air counterbalance, gear guards, 1 inch vertical adjustment of die space. Arranged for texrope belted motor drive.	$4,130 16,000 pounds	$4,826. 23,000 pounds.
Capacity, tons, distributed over face of ram at end of stroke	50	85.
Stroke of slide	12 inches	14 inches.
Distance bed to slide, stroke down	26 inches	28 inches.
Distance between housings	32 inches	41 inches.

WILLIAMS, WHITE & CO., MOLINE, ILL.—Continued

STRAIGHT SIDE TRIMMING PRESS

Size	4-OT-18	5-OT-24	6-OT-26	7-OT-28	8-OT-30
Capacity—tons	55	75	120	165	225
Shaft—inches	4¾-6	5¾-7	6¾-8	7¾-9	8¾-10
Stroke—do	5	4	5	5	6
Strokes per minute	45	40	37	30	26
Die space	12	15	15	19	21
Between housing—inches	18	24	26	28	30
Rame face—do	16 x 14	24 x 19	24 x 20½	30 x 22½	32 x 24
Bed area—do	18 x 18	28 x 24	30 x 26	36 x 28	40 x 30
Opening in bed—do	10 x 10	12 x 12	14 x 14	15 x 15	16 x 16
Outer side					
Die space—inches	8	10½	14½	15	15
Stroke—do	2	2½	3	3	3
Throat—do	3½	4½	5	6	7½
Motor required					
Size	5	7½	7½	10	15
R. p. m					
Ship weight—pounds	6,000	9,800	16,500	22,000	32,000
Price	$2,149	$3,287	$4,039	$4,600	$6,104

General specifications

Main frames are one-piece, semisteel castings, heavily reinforced.
Shafts are hammered forgings of steel of No. 1045 SAE specifications.
Main shaft bearings are bushed with bronze.
Single back geared. Main gears of the Nos. 4 and 5 presses are cast semisteel. Main gears of the Nos. 6, 7, and 8 presses are of cast steel.
Automatic stop, steel jaw clutch.
Fly wheel shafts are mounted in antifriction bearings.
Arranged for direct texrope, belted motor drive.

TIE ROD PRESSES

No. 6-S-26:		
Distance between housings—inches		26
Stroke—do		6
Adjustment—do		3½
Die space—do		13
Strokes per minute		40
Bed—inches		26 x 26
Ram—do		16 x 21
Single geared—jaw clutch.		
Main shaft bearings bronze bushed.		
Fly wheel bearings antifriction.		
Texrope motor drive.		
Motor required, 10 hp., 1,200 r. p. m.		
Shipping weight—pounds		22,550
Price		$5,217

WILLIAMS, WHITE & CO., MOLINE, ILL.—Continued

CRANK DROP HAMMERS

Size	No. 2	No. 3	No. 5A	No. 7A	No. 9A
Weight of ram—pounds	250	350	600	950	1,600
Maximum weight lifted ram and die—do	350	500	900	1,500	2,500
Distance between guides—inches	12¼	12¼	16¼	20¼	30
Ram face—do	14 x 11	12 x 13	16 x 13½	20 x 14	24 x 17
Anvil seat—do	12 x 14	12 x 16	16 x 19½	20 x 25	24 x 25
Guides	(1)	(1)	(2)	(3)	(3)
Drive	(2)	(2)	(4)	(4)	(4)
Maximum lift—inches	30	30	30	30	30
Strokes per minute	70	60	60	60	60
Motor required—horsepower			7½	10	15
Shipping weight:					
Lifter only—pounds	1,200	1,700	2,800	4,700	6,600
Anvil and parts—do	4,400	6,000	12,400	19,300	25,000
Total—do	5,600	7,700	15,200	24,200	31,600
Price:					
Lifter only	$587	$717	$1,087	$1,391	$1,826
Anvil and parts	$652	$739	$1,391	$1,739	$2,457
Extras:					
Ratchet type with steel-cut gear	50	65	125	150	225

[1] Single V belt.
[2] Double V belt.
[3] Flat belt.
[4] V belt with motor bracket.

JUSTICE HAMMERS

Size	35-pound	55-pound	90-pound	130-pound	165-pound
Arranged for belt drive, including 1 pair of plain forging dies	$587	$783	$983	$1,548	$1,791
Weight—lb.	1,525	2,600	4,500	7,100	8,800
Motor drive (texrope) without motor	$83	$104	$130	$143	$143
Motor required—hp	½	1½	3	5	7½
Motor required—r. p. m.	900	900	900	900	900
Export boxes	$90	$109	$115	$140	$170
Weight—lb.	400	400	600	1,000	1,200

Anvil of the 35-, 55-, and 90-pound hammers is cast integral with frame.

BATES HAMMERS

Size	100-pound	300-pound	500-pound
Standard hammer, arranged for texrope, belted motor drive	$1,674	$2,696	$3,652
Weight—lb.	5,600	9,500	13,200

ROTARY SHEARS

Size	¼-inch	¾-inch	1-inch
Throat—in	48	48	48
Standard machine, arranged for direct motor drive	$5,739	$7,826	$11,304
Weight—lbs.	23,000	30,000	47,000
Motor required	15—1,150	20—1,150	25—1,150
Hp.—speed		5—1,150	5—1,150

WILLIAMS, WHITE & CO., MOLINE, ILL.—Con.

HORIZONTAL PUNCHES

No. 2:
Throat: 12 inches.
Capacity: 1 inch through 1 inch.
Price $2,248
Weight ..... pound.. 10,000
Extra for 24-inch throat $191

No. 3:
Capacity: 1¼ inches through 1 inch.
Throat: 12 inches.
Price $3,304
Weight ..... pounds.. 15,400

MULTIPLE PUNCHES

No. 35-A:
Capacity: 130 tons.
Distance between housing: 4'2".
Stroke: 2".
Adjustment: 2".
Throat: 8".
Die space 14".
Ram length: 5'2".
Ram width: 10".
Table length: 5'10".
Table width: 17".
Main shaft: Bearings bronze bushed.
Flywheel bearings: Antifriction.
Automatic stop-jaw clutch: Foot-treadle control.
Texrope motor connections.
Motor required: 7½ hp., 1,200 r. p. m.
Shipping weight: 26,350 pounds.
Price: $5,761.

NO. 11 C—FRAME PUNCH AND SHEAR

Capacity: 300 tons. 11.77". 2½" through 1½".
Shears: Bars 11 x 1½", rounds 3¼", angles 8 x 8 x ¾", splits 1½".
Overhead drive. Antifriction flywheel bearings. Ram pocket brass lined. Automatic stop-jaw clutch. Single geared. Gear cast iron with steel clutch face.
Stroke: 2½".
Die space: 13".
Strokes per minute: 20.
Motor required: 20 hp., 1,200 r. p. m.
Ram: Face, 10" x 23", Body 8½" x 18".
Table: Face 13" x 30", Hole 8½" x 18".
Counterbalance: Compression springs.

Throat	Single end	
	Shipping weight	Price
	Pounds	
18	33,000	$5,287
25	43,000	6,070

NO. 12 C—FRAME PUNCH AND SHEAR

Capacity: 200 tons. 8". 2¼" hole through 1⅜".
Shears: Bars 9" x 1¼", rounds 2½", angles 6" x 6" x ¾", splits 1¼".
Overhead drive. Antifriction flywheel bearings. Ram pockets brass lined. Automatic stop-jaw cluth. Single geared. Cast iron gear with renewable steel clutch hub. Ram counterbalanced with compression springs. Direct geared motor drive with bakelite pinion. Gear guards standard equipment.
Stroke: 2".
Die space: Regular 12", high.
Strokes per minute: 25.
Ram: Face 8" x 21", body 6" x 15", body for adjustments.
Table: Face 13" x 28", hole 3½" x 14"
Motor required: 15 hp., 1,200 r. p. m.

Throat	Single end	
	Shipping weight	Price
	Pounds	
15	20,000	$3,478
25	30,500	4,087
30	32,000	4,174
36	36,000	4,409
42	38,000	4,522
48	47,000	5,043
54	49,000	5,161
60	51,500	5,304

NO. 13 C—FRAME PUNCH AND SHEAR

Capacity: 137 tons. 5.50". 1¾" hole through 1".
Shears: Bars 8" x 1⅛", rounds 2¼", angles 6" x 6 x ½", splits 1⅛".
Overhead drive. Antifriction flywheel bearings. Ram pockets brass lined. Automatic stop-jaw clutch. Single geared with cast iron gear with renewable steel clutch hub. Ram counterbalanced with compression springs. Direct geared motor drive with bakelite pinion.

WILLIAMS, WHITE & CO., MOLINE, ILL.—Con.

NO. 13 C—FRAME PUNCH AND SHEAR—continued

Stroke 2".
Die space: Regular 12", high.
Strokes per minute: 25.
Gear guards standard equipment.
Ram: Face 7" x 19½", body 5¼" x 14", body for adjustment.
Table: Face 13" x 25", hole 3" x 12".
Motor required: 10 hp., 1,200 r. p. m.

Throat	Single end		Double end	
	Shipping weight	Price	Shipping weight	Price
	Pounds		*Pounds*	
15	15,375	$2,935	25,000	$5,375
20	21,200	3,243	----------	----------
25	22,500	3,313	----------	----------
30	24,000	3,391	----------	----------
36	30,000	3,709	----------	----------
42	32,500	3,835	----------	----------
48	39,000	4,187	----------	----------
54	41,000	4,404	----------	----------
60	43,000	4,622	----------	----------

NO. 14 C—FRAME PUNCH AND SHEAR

Capacity: 100 tons. 4". 1¼" hole through 1".
Shears: Bars, 7" x 1", rounds 2", angles 6" x 6" x ⅝", splits 1".
Overhead drive. Antifriction flywheel shaft bearings. Ram pockets lined with brass. Automatic stop-jaw-type clutch. Single geared with cast iron main gear with renewable clutch hub. Counter balanced ram with compression springs. Direct geared motor drive with bakelite motor pinion. Gear guards standard equipment.
Stroke: 1⅜".
Die space: Reg. 11", high.
Strokes per minute 25.
Ram, standard: Face 6" x 8", body 4½" x 13". Adjustable face. Ram body.
Table: Face 13" x 25", hole 3" x 12".
Motor required: 7½ hp., 1,200 r. p. m.

Throat	Single end	
	Shipping weight	Price
	Pounds	
12	10,700	$2,417
15	11,500	2,461
20	15,500	2,670
25	16,750	2,730
30	18,000	2,791
36	22,500	3,013
42	24,000	3,087
48	27,500	3,261
54	28,500	3,348
60	31,000	3,478

NO. 14½ C—FRAME PUNCH AND SHEAR

Capacity: 78 tons. 3.12". 1" through 1".
Shears: Bars 6" x ⅞", rounds, 1¾", angles 6" x 6" x ¼", splits ⅞".
Overhead drive. Antifriction flywheel shaft bearings. Ram pockets lined with brass. Automatic stop-jaw-type clutch. Single geared. Cast iron main gear with renewable steel clutch hub. Direct geared motor drive with bakelite motor pinion. Gear guards are standard equipment.
Stroke 1¼".
Die space: Regular 10", high.
Strokes per minute: 25.
Motor required: Single: 7½ hp., 1,200 r. p. m. Double: 10 hp., 1,200 r. p. m.
Ram, standard: Face 5¼" x 15", body. Ram for adjustment: Face, body.
Table: Face 10½" x 20", hole 3" x 6".

Throat	Single end	
	Shipping weight	Price
	Pounds	
12	9,500	$2,165
18	11,500	2,322
25	13,200	2,439
30	16,500	2,670
36	18,000	2,761
42	20,000	2,883
48	20,500	2,913
60	22,000	3,304
72	30,000	3,700

WILLIAMS, WHITE & CO., MOLINE, ILL.—Con.

NO. 15 C—FRAME PUNCH AND SHEAR

Capacity: 50 tons. 2. ⅞" through ¾".
Shears: Bars 5" x ¾", rounds 1½", angles 4" x 4" x ¼", splits ¾".
Antifriction flywheel shaft bearings. Automatic stop-jaw-type clutch. Single geared. Cast iron main gear with renewable steel clutch hub. V-belt drive motor connection with motor mounted on adjustable bracket attached to main frame. Grooves for V-belts are cut in face of flywheel. Gear guards are standard equipment.
Stroke: 1¼".
Die space: Regular 10½", high.
Strokes per minute: 30.
Motor required: 5 hp., 1,200 r. p. m.
Ram: Face 4½" x 13", body. Ram for adjustment: Face, body.
Table: Face 8" x 16½", hole 3" x 5".

Throat	Single end	
	Shipping weight	Price
	Pounds	
8	5,500	$1,470
12	6,000	1,513
18	8,000	1,670
25	9,000	1,748
30	11,000	1,887
36	11,500	1,922
54	17,000	2,348
60	18,000	2,435

NO. 17 C—FRAME PUNCH AND SHEAR

Capacity: 30 tons. 1.20". ⅝" through ⅝".
Shears: Bars 3" x ½", rounds 1⅛", angles 2½" x 2½" x ¼", splits ½".
Antifriction flywheel shaft bearings. Automatic stop-jaw-type clutch. Single geared. Cast iron main gear with renewable steel clutch hub. V-belt drive motor connection with motor mounted on adjustable bracket attached to main frame. Grooves for V-belts are cut in face of flywheel. Gear guards are standard equipment.
Stroke: 1".
Die space: 10½".
Strokes per minute: 35.
Motor required: 2 hp., 1,200 r. p. m.
Ram: Face 3¼" x 10".
Table: Face 8" x 13".
Table: Hole 2" x 3".

Throat	Single end	
	Shipping weight	Price
	Pounds	
8	3,700	$1,148
12	4,000	1,174
20	5,200	1,252
25	5,980	1,304
30	7,400	1,409
36	8,000	1,452
42	10,000	1,609
48	10,800	1,696

THE YODER COMPANY, CLEVELAND, OHIO

Machine
Sheet Slitters:
Size:
2" x 18" $1,821
2" x 36" 2,267
2½" x 18" 2,352
2½" x 36" 2,911
3" x 18" 3,171
3" x 36" 3,990
Horizontal Boring Mill:
3" table type 9,850
AC-1 Cut-off Machine 1,850
AC-2 Cut-off Machine 2,100
AC-3 Cut-off Machine 5,200
K-90 Power Hammer 1,210
LK-90 Power Hammer 1,000

ZEH & HAHNEMANN COMPANY, NEWARK, N. J.

MECHANICAL POWER PRESSES

Reclinable, Open Back and Horn Presses—Roll and Dial Feeds

	No. 36-2	No. 36-3	No. 36-4	No. 36-4½	No. 35-5	No. 36-6	No. 36-7	No. 36-8½	No. 36-10
Reclinable presses:									
Plain	$231	$289	$420	$473	$578	$840	$1,103	$2,520	
Geared		475	630	710	840	1,130	1,420	2,950	$3,800
For razor blades		375							

	No. 1-1	No. 1-1A	No. 1-2B	No. 1-3	No. 1-6	No. 1-8	No. 1-11
Open back presses:							
For bench	$165	$185	$205				
With legs and table	190	210	230	$350	$780	$1,600	$3,400
Geared				525	1,040	2,000	3,900
Type "S" for bench	205	225	250				
With legs and table	230	250	275				

	No. 2-2	No. 2-3	No. 2-4	No. 2-5
Horn presses:				
Without table	$290	$330	$450	$680
With screw adjustable table	335	380	550	880
Gearing extra		175	200	250

	No. 1 and 2	No. 3 and 4	No. 5 and 6	No. 5-3	No. 5-4	No. 5-5	No. 5-6	Razor blade feeds
Roll feeds:								
Plain	$110	$195	$235					$250
Geared	135	220	265	$330	$440	$540	$625	

	No. 1 and 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8
Dial feeds: Standard	$200	$275	$300	$330	$440	$540	$625

All prices are for standard equipment, f. o. b. Newark, N. J. and subject to change without notice.

Arch, Punching, Drawing and Reducing Presses—Sprue Cutters

	No. 3-4	No. 88-5	No. 88-5B	No. 3-6
Arch presses:				
Plain	$400	$625	$700	$1,100
Geared	600	900	950	1,375

	No. 7	No. 4-6	No. 4-2	No. 4-4	No. 4-5	No. 4-6	No. 4-7
Punching presses:							
Plain for bench	[1] $185	$185					
Plain on floor stand		205	$255		$525	$650	$950
18" throat "A"					675		
22" throat "B"						825	
24" throat "B"				$550			
Gearing extra					250	275	300

NOTE.—All plus 5 percent with the exception of those with [1].

ZEH & HAHNEMANN COMPANY, NEWARK, N. J.—Continued

MECHANICAL POWER PRESSES—continued

Arch, Punching, Drawing, and Reducing Presses—Sprue Cutters—Continued

	No. 37-5	No. 37-5A	No. 37-7
Sprue cutters:			
Plain	$550	$650	$1,020
Geared			1,320

	No. 4-4B
Selective multiple die punching press	$750

	No. 5-1	No. 5-2	No. 5-3	No. 5-4	No. 5-5	No. 5-6
Double action presses:						
With spring lift	$450	$550	$600	$800	$975	$1,375
With cam lift				900	1,076	1,475
Gearing extra			176	200	250	275

	No. 6-7	No. 6-8
Double action, pillar type:		
Spring lift, plain	$2,400	$3,000
Cam lift, geared		

	No. 31-10
Drawing and reducing press	[1] $5,500

NOTE.—All plus 5 percent with the exception of those with [1].

	No. 20-4	No. 20-7
Screw reducing press	$2,300	$3,500

Straight Side, Toggle, Tube Presses

	No. 7-5	No. 7-6	No. 7-7
Straight side presses (wedge adjustment):			
Plain	$800	$1,000	$1,200
Geared		1,275	1,500

	No. 8-4	No. 8-5	No. 8-6	No. 8-7	No. 8-8	No. 8-9	No. 8-12	No. 8-14
Straight side presses (screw adjustment):								
Plain	$650	$700	$900	$1,150	$1,500	$2,200		
Geared	850	150	1,175	1,450	1,850	2,600	$4,400	$5,500

	No. 9-6	No. 9-7	No. 9-9	No. 9-11	No. 9-12	No. 9-16
Pillar presses (tie-rod construction):						
Plain	$875	$1,425	$2,300			
Geared	1,150	1,725	2,700	$3,500	$5,000	$7,000

ZEH & HAHNEMANN COMPANY, NEWARK, N. J.—Continued

MECHANICAL POWER PRESSES—continued

Straight Side, Toggle, Tube Presses—Continued

	No. 23-7	No. 23-10	No. 23-12
Pillar toggle presses:			
Plain	$1,200		
Geared	1,500	$2,500	$2,900

	No. 39-7	No. 39-12	No. 39-14
Tube presses:			
Standard	$1,750	$3,800	$4,950
Attachments	600	1,200	1,500

	No. 25-7	No. 25-10	No. 25-26	No. 24-7
Toggle presses:				
Tie-rod construction	$1,275	$2,600	$11,000	
Gap type:				
Plain				$1,100
Geared				1,400

Double Crank Presses

	No. 10-2	No. 10-3	No. 10-4	No. 10-5
Double crank presses (solid frame):				
Plain	$330	$650	$900	$1,100
Geared			1,150	1,400

	No. 11-4	No. 11-5	No. 11-6
Double Crank presses (overhanging):			
Plain	$720	$1,100	$1,400
Geared		1,400	1,700

	No. 12-7	No. 12-9	No. 12-11	No. 12-12 [2]	No. 12-16 [2]
Double crank presses (built-up type):					
Size A	$1,550	$3,100	$3,900	$7,300	
Size B	1,890	3,450	4,300	7,900	$10,560
Size C	2,080	3,900	4,850	8,450	11,440
Size D	2,600	4,325	5,600	9,000	12,320
Size E		4,750	6,450	9,850	14,080
Size F					15,490
Gearing extra	350	450	500		

	No. 13-5	No. 13-6
Double crank presses (overhanging) (built-up type):		
Plain	$1,275	$2,000
Geared	1,575	2,300

[2] Made back geared only.

ZEH & HAHNEMANN COMPANY, NEWARK, N. J.—Continued

MECHANICAL POWER PRESSES—continued

Patent, Percussion Power Presses

	No. 5	No. 7	No. 8½	No. 10	No. 12	No. 16	No. 20	No. 25	No. 30
Air control				$3,200	$4,200	$6,300	$11,000	$22,000	$30,000
Mechanical control	$800	$1,200	$2,200	3,750					

	No. 14-7	No. 14-8½	No. 14-10
Type 14, pillar	$1,260	$2,400	$3,100
Pneumatic ejector	215	300	400

	No. 16-1	No. 16-3	No. 17-5	No. 16-8½	No. 16-10
Type 16, gap	$330	$550		$2,300	$3,150
Type 17, horn			$750		

	No. 38-1	No. 38-3	No. 38-5
Type 38, pen raising	$530	$750	$950

	No. 28-1	No. 28-3	No. 27-5	No. 27-7	No. 27-7A	No. 27-7O
Hand screw presses: Standard	$185	$265	$525	$630	$690	$785

APPENDIX B—FORM FOR SECOND-HAND MACHINE TOOL REPORT

OPA FORM 100:1
(Rev. 6-19-43)

Form Approved
Budget Bureau
No. 08-R222

UNITED STATES OF AMERICA

OFFICE OF PRICE ADMINISTRATION

AND

WAR PRODUCTION BOARD

Second-hand machine tool report

To Be Used By Dealers, Auctioneers, Brokers, and All Other Persons Subject to Maximum Price Regulation No. 1—Second-hand machine tools—in reporting offering prices or additions to stock and sales, leases or rentals.

IMPORTANT INSTRUCTIONS

To Dealers, Auctioneers and Brokers. Prepare five (5) copies only when reporting offering price or addition to stock (check applicable box below to identify each copy):

- ☐ Copy 1. Send to your Regional Office, Office of Price Administration, within one week after acquiring machine tool.
- ☐ Copy 2. Send to the War Production Board, Tools Division, Washington, D. C., within one week after acquiring machine tool.
- ☐ Copy 3. Hold until machine is sold, leased, or rented, then send it within one week to your Regional Office, Office of Price Administration.
- ☐ Copy 4. Hold until machine is sold, leased or rented, then send it within one week to the War Production Board, Tools Division, Washington, D. C.
- ☐ Copy 5. Retain for your permanent record as required by section 9 (c) (1) of Maximum Price Regulation No. 1.

To Persons Other Than Dealers, Auctioneers, and Brokers. Prepare only three (3) copies when reporting a sale, lease or rental, except under the following condition.

When a machine tool user sells to a dealer, auctioneer or broker, this report is not required.

- ☐ Copy 1. Send to your Regional Office, Office of Price Administration, within one week after making sale, lease, or rental.
- ☐ Copy 2. Send to the War Production Board, Tools Division, Washington, D. C., within one week after making sale, lease or rental.
- ☐ Copy 3. Retain for your permanent record as required by section 9 (c) (1) of Maximum Price Regulation No. 1.

I. Report of offering price or addition to stock (See item instructions on reverse side.)

1. Inventory number of machine tool
2. Date inventory number assigned
3. Description of machine tool:
   - A. Make
   - B. Type
   - C. Size
   - D. Details (describe fully)

(If additional space is required, attach separate sheet.)

4. Manufacturer's serial number
5. Drive (check one).
   - ☐ Geared head.
   - ☐ Other than geared head.
6. Age classification (check one).
   Class ☐1 ☐2 ☐3 ☐4
7. Present condition (check one):
   - ☐ Rebuilt and guaranteed.
   - ☐ Other condition.
8. Is machine tool jointly owned? (Check one):
   - ☐ Yes.
   - ☐ No.

   Name of business
   Address (number and street)
   City and State

APPENDIX B—FORM FOR SECOND-HAND MACHINE TOOL REPORT—Continued

I. Report of offering price or addition to stock. (See item instructions on reverse side)—Continued

9. Description of equivalent new machine tool:
A. Make.....
B. Type.....
C. Size.....
D. Details (describe fully).....

(If additional space is required, attach separate sheet.)

10. Price of equivalent new machine tool..... $.....

11. Offering price of machine tool and attachments only:
A. Rebuilt and guaranteed..... $.....
B. Other condition..... $.....

12. Offering price of extras:
A. Total..... $.....
B. Itemization and prices.....
.....
.....

(If additional space is required, attach separate sheet.)

II. Report of sale, lease or rental. (See item instructions on reverse side)

13. Date.....

14. Condition (check one):
☐ Rebuilt and guaranteed.
☐ Other condition.

15. Nature of disposition (check one):
☐ Sale.
☐ Lease.
☐ Rental.

16. Price of machine tool and attachments only. $.....

17. If lease or rental, show hours of operation (check one):
☐ 8 hrs. ☐ 16 hrs. ☐ 24 hrs.

18. If lease or rental, show use (check one):
☐ General use.
☐ Outdoor use.

19. Price of extras only:
A. Total..... $.....
B. Itemization and prices..... .....

(If additional space is required, attach separate sheet.)

20. To whom was machine tool sold, leased or rented?
A. Name.....
B. Address (number and street).....
C. City and State.....

21. Nature of purchaser's business (check one):
☐ Dealer.
☐ Ultimate user.

22. Has machine tool been previously reported as an addition to stock? (Check one):
☐ Yes.
☐ No.

Signature of owner or authorized representative.....
Title.....

INSTRUCTIONS FOR PREPARING SECOND-HAND MACHINE TOOL REPORT

Note: A report is required on each floor type second-hand machine tool and on each other type of second-hand machine tool which has an offering or sale price of $100 or more.

PART I. REPORT OF OFFERING PRICE OR ADDITION TO STOCK

Note: Part I of this report is to be prepared by dealers, auctioneers and brokers when a machine tool is added to stock, and is to be sent in accordance with the "Important Instructions" on the front of this sheet. Use the check boxes to identify each copy. Other persons subject to this regulation, and dealers, auctioneers and brokers that have sold a machine tool within one week after it was acquired and before the report of addition to stock is sent, shall prepare Part I, "Report of Offering Price", and include it with Part II, "Report of Sale, Lease or Rental", in accordance with the "Important Instructions" to persons other than dealers, auctioneers and brokers on the front of this sheet.

Item 1. Inventory number of machine tool. In reporting this item, assign a separate number to each machine tool. The number which is carried on your books will serve this purpose. Use the number in referring to the machine tool in all correspondence with the Office of Price Administration or the War Production Board.

Item 2. Date inventory number assigned. Use the date March 15, 1941, for all machine tools in dealer's auctioneer's or broker's stock, or owned by other persons subject to this regulation on or before that date. Give the date of purchase for all machine tools added to stock or installed for use after that date.

Item 3. Description of machine tool. Care should be taken to give full details in part (d) as well as to (a) make (b) type, and (c) size, of the machine tool so that the report can be adequately compared with the description of an equivalent new machine tool as listed in Item 9 below. If machine is not currently built or is of special design, furnish complete details including illustrations or photographs to assist in determining proper equivalent machine or base price.

APPENDIX B—FORM FOR SECOND-HAND MACHINE TOOL REPORT—Continued

Item 4. Manufacturer's serial number. The serial number of the machine tool shall be reported for all machine tools reported in age Classes 1, 2, and 3. (See Instructions, Item 6, below.) The reporting of this item is not required for machine tools placed in Class 4, except where the insertion of the number will help to identify the machine.

Item 5. Drive. Check the original drive of the machine tool. Machine tools which were originally manufactured as pulley driven or stepped cone driven are not equivalent to geared head machines even though subsequently motorized, therefore, they *must* be reported as "other than geared head" machines.

Item 6. Age classification. Class 1, machine tools manufactured on January 1, 1936 and after; Class 2, machine tools manufactured from January 1, 1930 to December 31, 1935; Class 3, machine tools manufactured from January 1, 1920 to December 31, 1929; and Class 4, machine tools manufactured before January 1,1920. Where the manufacturer's serial number and year of manufacture are not known, the machine must be placed in Class 4.

Item 7. Present condition of the machine tool. Check the present condition of the machine tool. A "rebuilt and guaranteed" machine tool is one in which worn or missing parts have been replaced or reworked, and which has been tested under power so as to prove that it has a substantially equivalent performance to that of the machine when new.

(a) *The term "rebuilt and guaranteed"* applies only to a machine tool which (1) has been rebuilt or is in equivalent condition to a rebuilt machine tool; (2) has been tested under power so as to prove that it has a substantially equivalent performance to that of the machine when new; (3) carries a binding written guaranty of satisfactory performance for a period of not less than 30 days from date of shipment; and (4) is expressly invoiced as a rebuilt machine tool or its equivalent and as guaranteed for satisfactory operation for 30 days.

(b) *The term "other condition"* applies to all machine tools other than those which meet the conditions in part (a) above. A machine reported in any other manner or form than rebuilt and guaranteed will be considered as in "other condition".

Item 8. Joint owners. If the machine tool is jointly owned, indicate by checking opposite "Yes", otherwise check opposite "No".

Item 9. Description of equivalent new machine tool. Care should be taken to give full details in part (d) as well as to (a) make, (b) type, and (c) size, of the machine tool so that the report can be adequately compared with the description of the second-hand machine tool as listed in Item 3 above.

Item 10. Price of equivalent new machine tool. Enter the manufacturer's March 1, 1941 list price of an equivalent new machine tool which is substantially similar in design and construction to the second-hand machine tool reported in Item 9 above. In cases where a machine tool is "other than a geared head machine" and the equivalent new machine tool is a geared head machine, determine the price of the second-hand machine tool by deducting twenty percent (20%) from the March 1, 1941, manufacturer's list price of the equivalent geared head machine tool. (See Instructions, Item 5, above.)

Item 11. Offering price of machine tool and attachments only. The maximum prices of machine tools (exclusive of all extras) shall be in terms of percentages of the March 1, 1941, manufacturer's list prices of determined equivalent new machine tools according to the following age classes:

Machine tool condition classification	Machine tool age classification			
	Class 1 (Jan. 1, 1936, and after)	Class 2 (Jan. 1, 1930, to Dec. 31, 1935)	Class 3 (Jan. 1, 1920, to Dec. 31, 1929)	Class 4 (before Jan. 1, 1920)
	Percent	*Percent*	*Percent*	*Percent*
(a) Rebuilt and guaranteed.....	95	90	80	70
(b) Other condition.....	70	65	55	45

Item 12. Offering price of extras only.

(a) Total. Show the total offering price of machine tool extras. Second-hand machine tool extras are subject to the same maximum price percentage that is applicable to the basic second-hand machine tool with which the extras are sold. (See Instructions, Item 11, above.)

(b) Itemization and Prices. All extras must be separately itemized, and each offering price must be included. The total of the prices should equal the amount inserted in part (a) above.

APPENDIX B—FORM FOR SECOND-HAND MACHINE TOOL REPORT—Continued

PART II. REPORT OF SALE, LEASE OR RENTAL

Note: Part II of this report is to be prepared by all persons subject to this regulation and is to be sent in accordance with the "Important Instructions" on the front of this sheet, except under the following condition. When a machine tool user sells to a dealer, auctioneer, or broker for resale, this report is not required. Dealers, auctioneers and brokers are to use copies three and four of the report, "Part I, Report of Addition to Stock," that was previously sent in accordance with the "Important Instructions" on the front of this sheet, using the check boxes to identify each copy. Part II of this report is to be prepared when a machine tool is ordered. If the order is later cancelled, please advise your Regional Office, Office of Price Administration, and the War Production Board, Tools Division, Washington, D. C.

Item 13. Date of sale, lease or rental. Specify the date on which order was accepted.

Item 14. Condition of machine tool when sold, leased or rented. For description of condition of the machine tools, see Instructions, Item 7 above.

Item 15. Nature of the disposition of the machine tool. Check the nature of the disposition of the machine tool as to sale, lease or rental.

Item 16. Sale, lease or rental price of machine tool and attachments only. Show the invoice price of the machine tool exclusive of all extras.

Annual rental basis for any lease or rental. The maximum annual rental for any lease or rental entered into subsequent to July 26, 1943, for a second-hand machine tool or extra, shall be computed by using the applicable rental percentage set forth in the following table as applied to the maximum sale price computed in accordance with Item 11, above.

Machine tool use classification	Hours of operation		
	8-hour operation	16-hour operation	24-hour operation
General use of machine tool...	25%	30%	35%
Outdoor use of machine tool designed for indoor use.....	35%	45%	55%

Less than annual rental basis for any lease or rental. The maximum daily rental shall be 1/200 of the annual rental; the maximum monthly rental shall be 1/10 of the annual rental. See section 6 (c) of Maximum Price Regulation No. 1, for restrictions on use of daily or monthly rental rates.

Item 17. Hours of operation. Check the hours of operation of the machine tool if lease or rental.

Item 18. Use of machine tool on lease or rental. Check the machine tool use according to "General use of machine tool" or "outdoor use of machine tool designed for indoor use."

Item 19. Price of extras when sold, leased or rented.

(a) *Total.* Show the total sale, lease or rental price of the extras. This amount must be shown on the invoice.

(b) *Itemization and prices.* All extras must be separately itemized and each price must be included. The total of the prices should equal the amount inserted in part (a) above. These items and prices must be shown on the invoice.

Item 20. To whom was machine tool sold, leased or rented. Show under parts (a), (b), and (c), the name and address of the purchaser, lessee or renter.

Item 21. Nature of purchaser's business. If the machine tool was purchased by a dealer for resale, indicate by checking opposite "Dealer", otherwise check opposite "Ultimate User".

Item 22. Has machine tool been previously reported as an addition to stock? Dealers, auctioneers and brokers are to check opposite "Yes" when a report "Part I, Report of Addition to Stock" has been filed at a previous date. Other persons subject to this regulation check opposite "No."

Effective Date. This regulation shall become effective July 26, 1943.

NOTE: All reporting and record-keeping provisions of this regulation have been approved by the Bureau of the Budget in accordance with the provisions of the Federal Reports Act of 1942.

Issued this 20th day of July 1943.

PRENTISS M. BROWN,
Administrator.

[F. R. Doc. 43-11680; Filed, July 20, 1943; 4:34 p. m.]

PART 1315—RUBBER AND PRODUCTS AND MATERIALS OF WHICH RUBBER IS A COMPONENT

[RO 1A,[1] Amdt. 41]

TIRES, TUBES, RECAPPING AND CAMELBACK

A rationale to this amendment has been issued simultaneously herewith and has been filed with the Division of the Federal Register.*

Ration Order No. 1A is amended in the following respects:

1. Section 1315.501 (b) (1) (ii) is amended to read as follows:

(ii) That the tire for which replacement is sought has become unfit for recapping through the fault of the applicant, such as driving a recappable tire carcass beyond the breaker strip, or driving for unnecessary purposes or when other means of transportation are available.

2. Section 1315.701 (b) (3) is amended by adding the following sentence to the end thereof:

However, in no event shall the inspector sign the Tire Inspection Record if the tire is a recappable tire carcass worn to the breaker strip.

3. Section 1315.803 (d) is amended to read as follows:

(d) *Tire requiring repair or recapping.* (1) No dealer or manufacturer may transfer to a consumer:

(i) A tire in need of repair, except that a repairable passenger-type tire which cannot be recapped may be transferred without repair in exchange for a certificate if the sidewall of the tire has been conspicuously marked by a branding iror with the figure "0".

(ii) A tire in need of recapping, except that a recappable passenger-type tire which is not worn to the breaker strip may be transferred without recapping in exchange for a certificate.

(2) A dealer who brands with the figure "0" repairable passenger-type tires which cannot be recapped shall keep a record of all such tires branded by him. Such record shall contain the serial numbers of the tires and the date of branding.

4. Section 1315.1005 (g) is added to read as follows:

(g) *Records of branding.* A dealer who brands with the figure "0" repairable passenger-type tires which cannot be recapped shall keep a record of all such tires branded by him. Such record shall contain the serial numbers of the tires and the date of branding.

This amendment shall become effective July 19, 1943.

NOTE: All reporting and record-keeping requirements of this amendment have been approved by the Bureau of the Budget in accordance with the Federal Reports Act of 1942.

(Pub. Law 671, 76th Cong. as amended by Pub. Laws 89, 421 and 507, 77th Cong.; E.O. 9125, 7 F.R. 2719, issued April 7, 1942, WPB Dir. No. 1, 7 F.R. 562, Supp. Dir. No. 1Q, 7 F.R. 9121)

Issued this 19th day of July 1943.

PRENTISS M. BROWN,
Administrator.

[F. R. Doc. 43-11639; Filed, July 20, 1943; 9:16 a. m.]

PART 1351—FOOD AND FOOD PRODUCTS

[Rev. MPR 335,[1] Amdt. 1]

PEANUTS AND PEANUT BUTTER

A statement of the considerations involved in the issuance of Amendment No. 1 to Revised Maximum Price Regulation No. 335 has been issued and filed with the Division of the Federal Register.*

Revised Maximum Price Regulation No. 335 is amended by adding the following new section:

SEC. 2a. *List of maximum prices which the Commodity Credit Corporation may charge for cleaned farmers' stock peanuts.* (a) The maximum prices per ton, f. o. b. warehouse, which the Commodity Credit Corporation may charge for cleaned farmers' stock peanuts shall be:

	Dollars per ton
White Spanish type	$186
Runner type	$170

(b) This section shall expire on July 31, 1943.

This amendment shall become effective July 20, 1943.

(Pub. Laws 421 and 729, 77th Cong.; E.O. 9250, 7 F.R. 7871; E.O. 9328, 8 F.R. 4681)

Issued this 20th day of July 1943.

PRENTISS M. BROWN,
Administrator.

[F. R. Doc. 43-11681; Filed, July 20, 1943; 4:31 p. m.]

PART 1358—TOBACCO

[MPR 440]

GEORGIA AND FLORIDA SHADE GROWN TOBACCO OF THE 1943 CROP

In the judgment of the Price Administrator, it is necessary and proper to establish maximum prices for Georgia and Florida shade grown tobacco of the 1943 crop by a specific maximum price regulation.

A statement of the considerations involved in the issuance of this regulation has been issued and filed with the Division of the Federal Register.*

In the judgment of the Price Administrator, the maximum prices established by this regulation are and will be generally fair and equitable and will effectuate the purposes of the Emergency Price Control Act of 1942, as amended, and Executive Orders 9250 and 9328. So far as practical the Price Administrator has advised and consulted with the members of the industry which will be affected by this regulation.

§ 1358.253 *Maximum prices for Georgia and Florida shade grown tobacco of the 1943 crop.* Under the authority vested in the Price Administrator by the Emergency Price Control Act of 1942, as amended, and Executive Orders 9250 and 9328, Maximum Price Regulation No. 440 Georgia and Florida shade grown tobacco of the 1943 crop, which is annexed hereto and made a part hereof, is hereby issued.

AUTHORITY: § 1358.253 issued under Pub. Laws 421 and 729, 77th Cong.; E.O. 9250, 7 F.R. 7871; E.O. 9328, 8 F.R. 4681.

MAXIMUM PRICE REGULATION NO. 440—GEORGIA AND FLORIDA SHADE GROWN TOBACCO OF THE 1943 CROP

1 Explanation of regulation.
2 Maximum prices for purchases of unsized and unsorted Georgia and Florida shade grown tobacco of the 1943 crop.
3. Maximum prices for sales of Georgia and Florida shade grown tobacco of the 1943 crop by packers.
4. Maximum prices for sales of Georgia and Florida shade grown tobacco of the 1943 crop by jobbers.
5. Customary discounts and allowances.
6. Export sales.
7. Geographical applicability.
8. Records.
9. Compliance with regulation.
10. Petitions for amendment.
11. Adjustable pricing.
12. Applications for exemption of purchases from subsidiaries.
13. Definitions.

SECTION 1. *Explanation of regulation.* The purpose of this regulation is to establish maximum prices for purchases and sales of Georgia and Florida shade grown tobacco of the 1943 crop.

Any purchaser's weighted average purchase price for unsized and unsorted tobacco during each six weeks' period may not exceed $1.23 per pound green weight. Such purchases are usually made from growers, but may also be made from other sellers.

At the packer level, specific dollar-and-cents maximum prices are established for sale of listed grades of sized and sorted leaves fourteen inches or more in length, for listed grades of sorted and unsized tobacco, and for string grades. For sized and sorted leaves less than fourteen inches in length, the packer's weighted average selling price, computed from all sales made by him between the effective date of this regulation and any particular subsequent date, may not exceed $1.25 per pound selling weight. For unlisted grades of sized and sorted leaves fourteen inches or more in length, and for unlisted grades of sorted and unsized tobacco, the packer's maximum selling prices are established at the highest prices charged by the packer for the same tobacco of the 1942 crop, or, if no such prices are available, further pricing methods are provided.

At the jobber level, maximum prices are to be determined by adding to the jobber's net delivered cost for tobacco of the 1943 crop, the same dollar-and-cents

*Copies may be obtained from the Office of Price Administration.

[1] 7 F.R. 9160, 9392, 9724.

[1] 8 F.R. 2502, 3705, 6834.

margins that were added during the year 1942 to net delivered cost of corresponding tobacco of the 1942 crop.

These maximum prices are not applicable to any purchases of sales of Georgia and Florida shade grown tobacco of the 1942 crop.

SEC. 2 *Maximum prices for purchases of unsized and unsorted Georgia and Florida shade grown tobacco of the 1943 crop.* (a) During the period from July 20, 1943 to August 31, 1943, inclusive, and during each six weeks' period subsequent to August 31, 1943, the weighted average purchase price paid by any person for unsized and unsorted Georgia and Florida shade grown tobacco of the 1943 crop shall not exceed $1.23 per pound green weight. Any person may make a particular purchase of such tobacco at a price in excess of $1.23 per pound green weight: *Provided,* That the weighted average purchase price for all of such tobacco bought by any purchaser during each of these periods does not exceed $1.23 per pound green weight.

(b) As used in this section the term "weighted average purchase price" means the total purchase price paid by any person for all unsized and unsorted Georgia and Florida shade grown tobacco of the 1943 crop purchased by him in any particular period, divided by the number of pounds green weight of unsized and unsorted tobacco of that crop purchased by him during that period.

"Total purchase price": (1) Includes all commissions, fees or other compensation paid by the purchaser to another person at the seller's instance or request, and all profit or gain realized by a grower from a resale made by a purchaser.

(2) Excludes all prices or charges paid or computed by the purchaser for Georgia and Florida shade grown tobacco of the 1943 crop grown on a farm or plantation owned or operated by him.

(c) Within ten days after the expiration of each of the periods for which provision is made in (a), each person who purchases any unsized and unsorted Georgia and Florida shade grown tobacco of the 1943 crop shall file with the Office of Price Administration, in Washington, D. C., a statement setting forth the total number of pounds of such tobacco purchased by him during such period and the total purchase price paid therefor. This statement shall exclude both the tobacco for which prices or charges are excluded from total purchase price by (b) (2) and such prices or charges.

NOTE: Inability to make under-ceiling purchases will not be accepted as an excuse for exceeding the weighted average purchase price provided by this section. Each purchaser is warned not to exceed $1.23 per pound for any purchase without assurance of ability to make subsequent purchases during the applicable period at prices permitting him to maintain the prescribed weighted average purchase price during that period.

SEC. 3. *Maximum prices for sales of Georgia and Florida shade grown tobacco of the 1943 crop by packers*—(a) *Maximum prices for sales of sized and sorted leaves fourteen inches or more in length*—(1) *Listed grades.* The packer's maximum price per pound selling weight for sized and sorted leaves fourteen inches or more in length of Georgia and Florida shade grown tobacco of the 1943 crop, of a particular grade listed in Table I, shall be as follows:

TABLE I

Grade:	*Maximum price per pound selling weight*
Prime lights	$3.50
Light wrappers	2.75
L. L.	2.25
No. 2 Lights (slightly torn)	2.00
L. C.	1.75
K–2	.90
Bright and fleshy lights	2.25
"B" lights or medium lights	1.25

(2) *Grades not listed.* The packer's maximum price per pound selling weight for sized and sorted leaves fourteen inches or more in length of Georgia and Florida shade grown tobacco of the 1943 crop, of a particular grade not listed in Table I, shall be:

(i) The highest price charged by such packer to a purchaser of the same class for the same size and grade of tobacco of the 1942 crop; or

(ii) If a packer's maximum price for any particular size and grade cannot be determined under (i), his maximum price therefor shall be the highest price charged by a seller of the same class to a purchaser of the same class for the same size and grade of tobacco of the 1942 crop; or

(iii) If a packer's maximum price for any particular size and grade cannot be determined under (i) or (ii), his maximum price therefor shall be the highest price charged by such packer to a purchaser of the same class for the most closely comparable size and grade of tobacco of the 1942 crop; or

(iv) If a packer's maximum price for any particular size and grade cannot be determined under (i), (ii) or (iii), his maximum price therefor shall be the highest price charged by a seller of the same class to a purchaser of the same class for the most closely comparable size and grade of tobacco of the 1942 crop.

(b) *Maximum prices for sales of sized and sorted leaves less than fourteen inches in length.* The weighted average selling price which a packer may charge for leaves less than fourteen inches in length of sized and sorted Georgia and Florida shade grown tobacco of the 1943 crop shall not exceed $1.25 per pound selling weight. Any packer may make a particular sale of such tobacco at a price in excess of $1.25 per pound selling weight: *Provided,* That on any particular date the weighted average selling price charged by any packer for all of such tobacco sold by him between July 20, 1943, and that date, both inclusive, shall not exceed $1.25 per pound selling weight.

As used in this section the term "weighted average selling price" means the gross dollar and cent amount charged by any packer for leaves less than fourteen inches in length of sized and sorted Georgia and Florida shade grown tobacco of the 1943 crop sold by him between July 20, 1943, and the particular date of calculation, both inclusive, divided by the total number of pounds of leaves less than fourteen inches in length of sized and sorted tobacco of the 1943 crop sold by him between July 20, 1943, and the particular date of calculation, both inclusive. In determining the gross dollar and cent amount charged, the packer shall include all commissions, fees or other compensation paid by or for the purchaser to another person at the packer's instance or request.

NOTE: Each packer is warned not to charge more than $1.25 per pound for any sale at any time if his weighted average selling price for all of this tobacco sold by him since July 20, 1943 equals $1.25 per pound. In other words, he must not exceed the ceiling unless he has previously sold enough of this tobacco at prices under the ceiling to maintain his weighted average selling price at the prescribed maximum.

Maximum prices for sales of sorted and unsized tobacco—(1) *Listed grades.* The packer's maximum price per pound selling weight for sorted and unsized Georgia and Florida shade grown tobacco of the 1943 crop, of a particular grade listed in Table II, shall be as follows:

TABLE II

Grade:	*Maximum price per pound*
XL	$0.75
Broken backs	1.35
Green lights	1.50
XL[2]	.25
Loose leaves	.10

(2) *Grades not listed.* The packer's maximum price per pound selling weight for sorted and unsized Georgia and Florida shade grown tobacco of the 1943 crop, of a particular grade not listed in Table II, shall be:

(i) The highest price charged by such packer to a purchaser of the same class for the same grade of unsized tobacco of the 1942 crop; or

(ii) If a packer's maximum price for a particular grade cannot be determined under (i), his maximum price therefor shall be the highest price charged by a seller of the same class to a purchaser of the same class for the same grade of unsized tobacco of the 1942 crop; or

(iii) If a packer's maximum price for any particular grade cannot be determined under (i) or (ii), his maximum price therefor shall be the highest price charged by such packer to a purchaser of the same class for the most closely comparable grade of unsized tobacco of the 1942 crop; or

(iv) If a packer's maximum price for any particular grade cannot be determined under (i), (ii) or (iii), his maximum price therefor shall be the highest price charged by a seller of the same class to a purchaser of the same class for the most closely comparable grade of unsized tobacco of the 1942 crop.

(d) *Maximum prices for sales of string grades.* The packer's maximum price per pound selling weight for string grades of Georgia and Florida shade grown tobacco of the 1943 crop shall be the price listed therefor in Table III, as follows:

TABLE III

Grade:	*Maximum price per pound selling weight*
No. 1 String wrappers (Lights and thinner)	$2.00
No. 2 String wrappers (Medium and heavier)	1.60
String throwouts	.40
String tops	.40

SEC. 4. *Maximum prices for sales of Georgia and Florida shade grown tobacco of the 1943 crop by jobbers.* The maximum price per pound or other unit of sale which a jobber may charge for any of the 1943 crop of Georgia and Florida shade grown tobacco of a particular grade, sorted and packed, or for tobacco of such crop of any priming sold sorted and unsized, or unsorted (whether sized or unsized) shall be determined as follows:

(a) He shall:

(1) Determine the highest price per pound or other unit of sale charged by him for tobacco of the 1942 crop of the same grade, or of the same priming and condition, sold or delivered by him during the period January 1, 1942 through December 31, 1942. If he did not sell or deliver tobacco of the 1942 crop of the same grade, or of the same priming and conditioning, during that period, he shall determine the highest price per pound or other unit of sale charged by him during that period for the most closely comparable tobacco of the 1942 crop;

(2) Subtract from the price determined in (1) his net delivered cost for the same unit of sale of such tobacco of the 1942 crop; and

(3) Add the figure so obtained to his net delivered cost for the same unit of sale of the particular tobacco of the 1943 crop being priced. The resulting figure shall be the jobber's maximum price per unit of sale for the particular tobacco of the 1943 crop being priced.

"Net delivered cost" means the amount the jobber pays for the particular tobacco delivered at his customary receiving point, less all discounts allowed him except the discount for prompt payment. No charges for local hauling or trucking shall be included.

(b) If a jobber's maximum price for any particular tobacco of the 1943 crop cannot be determined under (a), his maximum price therefor shall be the maximum price of the most closely competitive jobber for the same unit of sale for tobacco of the 1943 crop of the same grade, or of the same priming and condition.

SEC. 5. *Customary discounts and allowances.* Every packer and every jobber shall allow from his maximum selling prices established by this regulation for Georgia and Florida shade grown tobacco of the 1943 crop his customary discounts and allowances with respect to sales of the 1942 crop to the particular purchaser in question. If a particular packer or jobber made no sales of the 1942 crop to a particular purchaser, he shall allow from his maximum selling prices his customary discounts and allowances with respect to sales of the 1942 crop to purchasers of the same class.

SEC. 6. *Export sales.* The maximum prices at which a person may export any Georgia and Florida shade grown tobacco of the 1943 crop shall be determined in accordance with the provisions of the Second Revised Maximum Export Price Regulation,[1] issued by the Office of Price Administration.

SEC. 7. *Geographical applicability.* The provisions of this regulation shall be applicable to the forty-eight states of the United States and the District of Columbia.

SEC. 8. *Records.* Every person selling or purchasing any Georgia and Florida shade grown tobacco of the 1943 crop, for which maximum prices are established by this regulation, shall:

(a) Make and preserve for examination by the Office of Price Administration, for so long as the Emergency Price Control Act of 1942, as amended, shall remain in effect, records of the same kind as he has customarily kept, relating to the prices which he charged or paid for such tobacco after the effective date of this regulation.

(b) Preserve for examination by the Office of Price Administration, for so long as the Emergency Price Control Act of 1942, as amended, shall remain in effect, all his existing records which are the basis of figuring maximum prices in the manner directed by this regulation, showing the method used in computations.

(c) Preserve for examination by the Office of Price Administration, for so long as the Emergency Price Control Act of 1942, as amended, shall remain in effect, all his existing records relating to the price which he charged for any of the 1942 crop.

SEC. 9. *Compliance with regulation—* (a) *No buying or selling above maximum prices.* On and after July 20, 1943, regardless of any contract, agreement or other obligation,

(1) Except as provided in section 2 (a), no person shall buy or receive any unsized and unsorted Georgia and Florida shade grown tobacco of the 1943 crop at a price in excess of the maximum price established by this regulation for the particular purchase in question:

(2) No person shall sell or deliver any sorted and sized leaves fourteen inches or more in length, any sorted and unsized leaves, or any string grades, of Georgia and Florida shade grown tobacco of the 1943 crop, at a price in excess of the maximum price established by this regulation for the sale of the particular tobacco in question; and no person in the course of trade or business shall buy or receive any sorted and sized leaves fourteen inches or more in length, any sorted and unsized leaves, or any string grades, of Georgia and Florida shade grown tobacco of the 1943 crop, at a price in excess of the maximum price established by this regulation for the sale of the particular tobacco in question:

(3) Except as provided in section 3 (b), no person shall sell or deliver any leaves less than fourteen inches in length of sized and sorted Georgia and Florida shade grown tobacco of the 1943 crop at a price in excess of the maximum price established by this regulation for the particular sale in question; and

(4) No person shall agree, offer, solicit or attempt to do any of the foregoing.

However, lower prices than those established by this regulation may be charged, demanded, paid or offered.

(b) *Evasion.* (1) The price limitations set forth in this regulation shall not be evaded, whether by direct or indirect methods, in connection with an offer, solicitation, agreement, sale, delivery, purchase or receipt of, or relating to Georgia and Florida shade grown tobacco of the 1943 crop, alone or in conjunction with any other commodity, or by way of any commission, service, transportation or other charge or discount, premium or other privilege, or by tying-agreement or other trade understanding or otherwise.

(2) Specifically, but not exclusively, the following practices in the marketing of any of the 1943 crop of Georgia and Florida shade grown tobacco are prohibited:

(i) Any sale or purchase of such tobacco other than as a grade or in a condition for which maximum prices are established under section 2, 3 or 4 of this regulation.

(ii) In the case of a seller, the grading of any of the 1943 crop in a manner that constitutes an alteration of or deviation from the customary grading practices with respect to the 1942 crop, normal variations alone excepted.

(iii) In the case of a seller, the elimination or reduction of initial credit terms allowed with respect to sales of the 1942 crop to any particular purchaser, or, if no sales of the 1942 crop were made by the particular seller to the particular purchaser, the elimination or reduction of initial credit terms allowed by such seller on his sales of the 1942 crop to purchasers of the same class.

(iv) In the case of a seller, in a sale made through a broker or agent, the elimination or reduction of commissions, fees, or other compensation customarily paid by the seller to a broker or agent with respect to similar sales of prior crops.

(c) *Enforcement.* Persons violating any of the provisions of this regulation are subject to the criminal penalties, civil enforcement actions and suits for treble damages provided for by the Emergency Price Control Act of 1942, as amended.

SEC. 10. *Petitions for amendment.* Any person seeking a general modification of this regulation may file a petition for amendment in accordance with the provisions of Revised Procedural Regulation No. 1,[2] issued by the Office of Price Administration.

SEC. 11. *Adjustable pricing.* Any person may agree to sell at a price which can be increased up to the maximum price in effect at the time of delivery; but no person may, unless authorized by the Office of Price Administration, deliver or agree to deliver at prices to be adjusted upward in accordance with action taken by the Office of Price Administration after delivery. Such

[1] 8 F.R. 4132, 5987, 7662.

[2] 7 F.R. 8961; 8 F.R. 3313, 3533, 6173.

authorization may be given when a request for a change in the applicable maximum price is pending, but only if the authorization is necessary to promote distribution or production and if it would not interfere with the purposes of the Emergency Price Control Act of 1942, as amended. The authorization may be given by the Administrator or by any official of the Office of Price Administration to whom the authority to grant such authorization has been delegated. The authorization will be given by order.

SEC. 12. *Applications for exemption of purchases from subsidiaries.* (a) A corporation engaged in the business of manufacturing tobacco products (hereinafter called "parent company") which purchases Georgia and Florida shade grown tobacco of the 1943 crop for its own use from one or more of its subsidiaries, and the subsidiary selling such tobacco to the parent company, may apply jointly to the Office of Price Administration, Washington, D. C., for permission to make such purchases and sales without regard to the maximum prices established by this regulation if:

(1) Purchases and sales for which such permission is sought will be made in accordance with their business practices established during and prior to March 1942, including, but not limited to, purchase by the parent company of all the Georgia and Florida shade grown tobacco of the 1943 crop sold by the subsidiary (with the exception of insignificant portions or byproducts thereof); and

(2) Compliance with the price limitations of this regulation for Georgia and Florida shade grown tobacco of the 1943 crop requires or threatens to require substantial change in their standard accounting practices in use during and since March 1942, as applied to their records of inter-company transactions; and

(3) The Georgia and Florida shade grown tobacco of the 1943 crop to be so purchased and sold (with the exception of insignificant by-products) is to be used by the parent company solely in the manufacture of tobacco products for which maximum prices are established by the General Maximum Price Regulation [8] or other regulations issued by the Office of Price Administration.

(b) The application shall be in writing, subscribed by both the parent company and the subsidiary, and shall set forth all information necessary to substantiate the existence of the conditions required by paragraph (a). After receipt of such application, the Office of Price Administration, or any of its duly authorized officers, may by letter grant the requested permission if in its judgment such action will not interfere with the purposes of the Emergency Price Control Act of 1942, as amended. Such permission, if granted, may be revoked in the same manner at any time.

(c) Permission granted pursuant to this section to make particular purchases and sales of Georgia and Florida shade grown tobacco of the 1943 crop without regard to the maximum prices established by this regulation shall not constitute justification for any increase in maximum prices established for tobacco products manufactured therefrom.

(d) "Subsidiary" means a corporation whose business operations during and since March 1942 were controlled through ownership of voting stock by a parent company engaged in the manufacture of tobacco products, and whose business activities are confined to producing, buying, curing or handling tobacco for its parent company.

SEC. 13. *Definitions.* (a) When used in this regulation, the term

"Georgia and Florida shade grown tobacco" means United States Type No. 62, as specified in the Regulatory Announcement No. 118 of the Bureau of Agricultural Economics of the United States Department of Agriculture.

"Person" includes an individual, corporation, partnership, association or any other organized group of persons or a legal successor or representative of any of the foregoing, and includes the United States Government or any agency thereof or any other government, or any of its political subdivisions or any agency of any of the foregoing.

"Grade" means a subdivision of the type of tobacco according to group and quality, and according to color when color is of sufficient importance to be treated as a separate factor.

"Priming" means a picking of tobacco.

"Green weight" means the weight of the tobacco at its first weighing after being cured in a shed.

"Selling weight" means the weight of the tobacco when invoiced.

"1943 crop" means Georgia and Florida shade grown tobacco grown during the 1943 growing season.

"1942 crop" means Georgia and Florida shade grown tobacco grown during the 1942 growing season.

"Initial credit terms" means terms fixing the time for payment of the purchase price agreed to by a seller and purchaser at or prior to delivery of the tobacco in question.

"Packer" means a person who sweats, sizes, sorts, packages or otherwise processes tobacco for use by a manufacturer of tobacco products. A grower shall be deemed a packer of any tobacco with respect to which he performs any of these functions.

"Purchaser of the same class" refers to the practice adopted by the seller in setting different prices for commodities or services for sales to different purchasers or kinds of purchasers (for example, manufacturer, wholesaler, jobber, retailer, government agency, public institution, individual consumer) or for purchasers located in different areas or for different quantities or grades or under different conditions of sale.

"Sell" includes sell, supply, dispose, barter, exchange, lease, transfer, and deliver, and contracts and offers to do any of the foregoing. The terms "sale", "selling", "sold", and "seller" shall be construed accordingly. "Purchase" includes contracts and offers to purchase. The terms "buy", "bought" and "purchaser" shall be construed accordingly.

(b) Unless the context otherwise requires, the definitions set forth in section 302 of the Emergency Price Control Act of 1942, as amended, shall apply to other terms used herein.

Effective date. This regulation shall become effective July 20, 1943.

NOTE: All reporting and record-keeping requirements of this regulation have been approved by the Bureau of the Budget in accordance with the Federal Reports Act of 1942.

Issued this 20th day of July 1943.

PRENTISS M. BROWN,
Administrator.

Approved: July 19, 1943.

MARVIN JONES,
War Food Administrator.

[F. R. Doc. 43-11682; Filed, July 20, 1943; 4:32 p. m.]

PART 1364—FRESH, CURED, AND CANNED MEAT AND FISH PRODUCTS

[MPR 439]

FRESH FISH AND SEAFOOD AT RETAIL

In the judgment of the Price Administrator, it is necessary in order to effectuate the purposes of the Emergency Price Control Act of 1942, as amended, and Executive Orders Nos. 9250 and 9328, that maximum prices be established for the sale by retailers of fresh fish and seafood.

So far as practicable, the Price Administrator has consulted and advised with representative members of the industry which will be affected by the regulation. In the judgment of the Price Administrator, prices established are generally fair and equitable and will effectuate the purposes of the Act. The prices established are not below the average retail prices of fresh fish and seafood in the year 1941.

A statement of the considerations involved in the issuance of the regulation has been issued herewith and filed with the Division of the Federal Register.*

§ 1364.19 *Maximum retail prices for fresh fish and seafood.* Under the authority vested in the Price Administrator by the Emergency Price Control Act of 1942, as amended, and Executive Orders Nos. 9250 and 9328, Maximum Price Regulation No. 439 (Fresh Fish and Seafood at Retail), which is annexed hereto and made a part hereof, is hereby issued.

AUTHORITY: § 1364.19 issued under Pub. Laws 421 and 729, 77th Cong.; E.O. 9250, 7 F.R. 7871; E.O. 9328, 8 F.R. 4681.

MAXIMUM PRICE REGULATION 439—FRESH FISH AND SEAFOOD AT RETAIL

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Sec.

1. What this regulation does.
2. What species of fresh fish and seafood are covered by this regulation.
3. How retailers determine their maximum prices for fresh fish and seafood.

[8] 8 F.R. 3096, 3849, 4347, 4486, 4724, 4978, 4848, 6047, 6962, 8511, 9025.

*Copies may be obtained from the Office of Price Administration.

Sec.
4. Directions for applying the mark-up rule.
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Article I—Purpose and Scope of Regulation

SECTION 1. *What this regulation does.* This regulation fixes the maximum retail prices at which retailers may sell certain species of fresh fish and seafood. On and after July 22, 1943, the date this regulation takes effect, no retailer may sell or deliver any of such fresh fish or seafood, and no person in the course of trade or business may buy or receive any of such fresh fish or seafood from a retailer at prices higher than the prices fixed by this regulation. But prices lower than those fixed may be charged or paid.

SEC. 2. *What species of fresh fish and seafood are covered by this regulation.* (a) The following species of fish and seafood are included in this regulation:

1. Alewives (Pomolobus pseudo-harengus).
2. Codfish (Gadus callarias).
3. Cusk (Brosme).
4. Blackback (Pesudo-pluronectes americanus).
5. Dab, Sea (Hippoglossoides platessoides).
6. Yellow tail (Limanda ferruginea).
7. Haddock (Melanogrammus aeglefinus).
8. Hake (Urophycis species).
9. Hake, mud (Urophycis species).
10. Herring (Clupea harengus).
11. Pollock (Pollachius virens).
12. Rosefish (Sebastus Marinus).
13. Sole, Gray (Glyptocephalus cynoglossus)
14. Sole, Lemon (Pseudo-pleuronectes dignabilis)
15. Whiting (Merluccius bilinearis).
16. Wolffish (Anarhichas lupus).
17. Scallops, Sea (Pecten magellanicus).
18. Scallops, Bay (Pecten irradians).
19. Swordfish (Xiphias gladius).
20. Cod true (Pacific coast) (Gadus macrocephalus).
21. Crabs (Pacific coast).
22. Flounder (Pacific coast).
23. Halibut (Hippoglossus hippoglossus).
24. Ling cod (Pacific coast) (Ophiodon elongatus).
25. Red Cod (rock cod) (Pacific coast) (Sebastes species).
26. Sablefish (Anoplopoma fimbria).
27. Salmon, Chinook (King) (Pacific coast) troll caught (Oncorhynchus tschawytscha) red meated and white meated.
28. Salmon, silver (Pacific coast) troll caught (Oncorhynchus kisutch).
29. Salmon, silver (Pacific coast) seine caught (Oncorhynchus kisutch).
30. Salmon, fall (Pacific coast) seine caught (Oncorhynchus keta).
31. Salmon, pink (Pacific coast) seine caught (Oncorhynchus garbuscha).
32. Salmon, Sockeye (Blueback) (Pacific coast) seine caught (Oncorhynchus nerka).
33. Salmon, Chinook (King) (Pacific coast) seine caught (Oncorhynchus tschawytscha).
34. Salmon, Steelhead (Pacific coast) (Salmo gairdnerii).
35. Smelt, Silver (Pacific coast).
36. Sole, Dover (Pacific coast).
37. Sole, English (Pacific coast).
38. Sole, Petrale (Pacific coast).
39. Sole, Rex (Pacific coast).
40. Sole, Sand (Pacific coast).
41. Sole, Turbot (Pacific coast).
42. Tuna, Albacore (Pacific coast).
43. Tuna, Yellowfin (Pacific coast).
44. Tuna, Bluefin (Pacific coast).
45. Tuna, Shipjack (striped) (Pacific coast).
46. Bonita (Pacific coast).
47. Yellowtail (Pacific coast).

SEC. 3. *How retailers determine their maximum prices for fresh fish and seafood.* (a) Every retailer, in order to determine his maximum selling price for any style or form of each species of fresh fish or seafood set forth in section 2 shall take the same cents per pound mark-up over net delivered cost, which he took on the most sales during the period July 5 to July 10, 1943, inclusive, for the same style and form of the species being priced: *Provided,* That if during that period the retailer fixed his selling price by applying a percentage mark-up over cost, he shall determine his maximum selling price under this regulation by applying the percentage mark-up which he used on most sales during that period.

(b) For any species of fish or seafood listed in section 2 or any style or form of those species, which was not offered for sale during the period July 5 to July 10, 1943, inclusive, the retailer's maximum selling price will be determined by taking the most similar commodity of fresh fish or seafood that he did offer for sale during the period July 5 to July 10, 1943, inclusive, and applying the cents per pound mark-up or the percentage mark-up as set forth in section 3 (a).

(c) Any retailer who did not offer for sale any species of fish or seafood listed in section 2 during the period July 5 to July 10, 1943, inclusive, or any form or style of any species and who cannot price his fresh fish and seafood commodities under section (3) (a) or (3) (b) hereof shall file a written application to the nearest district office of the Office of Price Administration for approval of a permitted retail mark-up on each of said species in the style or form to be sold. The application shall include a statement setting forth the reason why pricing cannot be based on section 3 (a) or (b) and a proposed schedule of mark-ups by species and forms and styles to be sold. Any district office of the Office of Price Administration may establish maximum mark-ups of such an applicant in line with the mark-ups of similar stores.

SEC. 4. *Directions for applying the mark-up rule.* To compute the maximum selling price take the net delivered cost on a per pound basis for each species and apply the permitted mark-up under section 3. Net delivered cost is the amount paid to the supplier less all discounts, except the discount for prompt payment, plus all transportation charges. If more than one purchase is represented in the species to be priced, the retailer, to determine the net delivered cost, may take (a) the average weighted cost of such purchases (total net delivered cost of the purchases divided by the number of pounds bought) or (b) the net delivered cost of the largest purchase involved. No retailer may compute his maximum selling price on a purchase where the net delivered cost is higher than the supplier's ceiling price. Fractions of one-half cent or over shall be considered a cent and fractions of a cent under one-half cent are to be dropped in computing the retailer's maximum selling price per pound. When retailers service and distribute fresh fish and seafood from one or more central warehouses, they shall be permitted to include in their net cost the actual service and warehousing cost. A retailer must calculate maximum prices for the fresh fish and seafood commodities covered by this regulation once every week. This calculation shall be made on Thursday of each week and before any sales of such commodity are made on that day. All maximum prices shall be calculated and stated in cents per pound. In the calculation, costs of fresh fish and seafood, both on hand and in transit, shall be included.

SEC. 5. *Price posting requirement.* The retailer must post a list of his ceiling prices at a place in his store where it can be easily read by customers or prospective customers. Such list must contain a complete list of all species covered in this regulation which are being offered for sale and the form or style in which sold.

SEC. 6. *Additions allowed for deliveries made by the store to its consumers.* (a) If deliveries are made by the retailer to the homes or places of business of his customers of any of the items covered by this regulation, the retailer may add to the total value of the delivery, as a separate charge, the same amount which he charged for such delivery during the period July 5 to July 10, 1943, inclusive.

SEC. 7. *Precedence of community prices over retailers ceilings established by the mark-up method.* (a) The Office of Price Administration may, by order issued pursuant to General Order Number 51, fix in any community dollars-and-cents ceiling prices for some or all of the fishery commodities in this regulation. When such dollars-and-cents prices are fixed, the retailer may not thereafter sell at higher prices than ceiling prices set for the group in which he is classified, if group classifications are set up, and these new ceiling prices shall take the place of the ceiling prices arrived at under this regulation.

SEC. 8. *Where this regulation applies.* The provisions of this regulation shall apply to the forty-eight states of the United States and the District of Columbia.

SEC. 9. *Sales to which this regulation applies.* This regulation applies to all sales of fresh fish or seafood by a retailer, which includes any store, wagon route, establishment, or department which sells for the most part to ultimate consumers

who are not commercial, industrial, or institutional users.

SEC. 10. *Relation to other regulations.* The maximum price at which a person may export fresh fish and seafood at retail shall be determined in accordance with the provisions of the Second Revised Maximum Export Price Regulation [1] issued by the Office of Price Administration.

Article II—Record Keeping and Enforcement

SEC. 11. *Records and reports.* (a) Every seller subject to this regulation shall keep in his possession for inspection by the Office of Price Administration, for so long as the Emergency Price Control Act of 1942, as amended, remains in effect, all available sales slips, books of account, invoices and other purchase and sales records of the period July 5th and 10th, 1943, inclusive. He shall also prepare, for all fresh fish and seafood handled by him during this period, whether or not covered specifically by this regulation, a written statement, for inspection by the Office of Price Administration showing (1) the net delivered cost of each species in each form or style bought, which net delivered cost is (i) computed by dividing the total net delivered cost of each species, bought in the same form, by the total number of pounds bought or (ii) taking the net delivered cost of the largest single purchase; (2) the price at which he made most sales of each of the above-mentioned species in the styles or forms in which he made the sales, and (3) the mark-up in each case. The cents-per-pound mark-up shall be the difference between the net delivered cost per pound and the selling price per pound as computed in (1) and (2), but any retailer who employs a percentage mark-up method may state such a mark-up in percentage terms. A suggested form for this statement, with sample entries based on assumed prices using the cents-per-pound mark-up method is provided in Appendix A.

(b) Every seller shall, subject to approval of the Bureau of the Budget in accordance with the Federal Reports Act of 1942, submit such reports to the Office of Price Administration and keep such records in addition to or in place of the records required in paragraph (a) of this section as the Office of Price Administration may from time to time require.

SEC. 12. *Indirect price increases.* No person shall evade any of the provisions of this regulation by any scheme or device, and no person shall indirectly charge or receive for fresh fish or seafood a price higher than the maximum price permitted by this regulation. No person shall, as a condition of selling fresh fish or seafood, require a purchaser to buy any other fish or seafood or any other product.

SEC. 13. *Enforcement.* On and after July 22, 1943, any person violating any provision of this regulation shall be subject to the criminal penalties, civil enforcement actions, suits for treble damages and proceedings for revocation of licenses provided by the Emergency Price Control Act of 1942, as amended.

SEC. 14. *Licensing and registration.* The licensing and registration provisions of sections 15 and 16 of the General Maximum Price Regulation [2] shall apply to every person subject to this regulation. Sections 15 and 16 provide, in brief, that a license is required of all persons selling at retail commodities for which ceiling prices are established. A license to all retailers engaged in resale of fishery commodities during the period July 5 to July 10, 1943, inclusive, is automatically granted so it is not necessary for any such retailer to apply for it. Other retailers will be automatically licensed upon approval of a mark-up method as outlined in section 3 (c). All sellers may later be required to register. The license may be suspended for violation in connection with the sale of any commodity for which ceiling prices are established. No person whose license is suspended may sell any such commodity during the period of suspension.

Article III—Miscellaneous Provisions

SEC. 15. *Petitions for amendment.* Any person seeking an amendment of any provision of this regulation may file a petition for amendment in accordance with the provisions of Revised Procedural Regulation No. 1 [3] issued by the Office of Price Administration.

SEC. 16. *Definitions.* "Style or form" in this regulation means the various stages at which fresh fish or seafood may be processed by producers and wholesalers and by the retailer for the consumer such as scaled, headed, gutted, steaks, slices, fillets, etc., and includes fish sold in the round or drawn on a gross weight basis and processed at the order of the customer without added compensation.

APPENDIX A: SUGGESTED FORM—RETAIL MARK-UPS RECORD, JULY 5-10, 1943, INCLUSIVE

[Cents-per-pound mark-up method]

Species	Form or style purchased	(1) Net delivered cost per pound	Form or style sold	Gross or net weight (state which)	(2) Selling price per pound	(3) Cents per pound mark-up
SAMPLE ENTRIES		*Cents*			*Cents*	*Cents*
Haddock	Drawn	14	Drawn	Gross	18	4
Haddock	Drawn	14	Prepared-to-order	Gross	21	7
Haddock	Drawn	14	Pan-dressed	Net	28	14
Haddock	Fillets	32	Fillets	Gross	41	9
Croaker	Drawn	12	Drawn	Gross	16	4

(1), (2) and (3) refer to methods of computations outlined in section 11.

Effective date. This regulation shall become effective July 22, 1943.

NOTE: The reporting and record keeping provisions of this regulation are approved by the Bureau of the Budget in accordance with the Federal Reports Act of 1942.

Issued this 20th day of July 1943.

PRENTISS M. BROWN,
Administrator.

[F. R. Doc. 43-11683; Filed, July 20, 1943; 4:32 p. m.]

PART 1404—RATIONING OF FOOTWEAR

[RO 17,[1] Amdt. 29]

SHOES

A rationale accompanying this amendment, issued simultaneously herewith, has been filed with the Division of the Federal Register.*

Section 2.11 (f) (4) is amended by inserting after the first sentence of the paragraph the following:

If Form R-1711 is not available Form R-123 may be used with the words "non-rationed shoes" printed, stamped or written on it.

This amendment shall become effective July 19, 1943.

(Pub. Law 671, 76th Cong. as amended by Pub. Laws 89, 421, and 507, 77th Cong.; WPB Directive 1, 7 F.R. 562, Supplementary Directive 1-T, 8 F.R. 1727; E.O. 9125, 7 F.R. 2719)

Issued this 19th day of July 1943.

PRENTISS M. BROWN,
Administrator.

[F. R. Doc. 43-11641; Filed, July 20, 1943; 9:16 a. m.]

PART 1418—TERRITORIES AND POSSESSIONS

[MPR 374,[1] Amdt. 1]

JEWELRY AND CERTAIN OTHER ARTICLES IN THE TERRITORY OF HAWAII

A statement of the considerations involved in the issuance of this amendment, issued simultaneously herewith, has been filed with the Division of the Federal Register.*

Section 4 is amended by adding paragraphs (d) and (e) to read as follows:

(d) If in the case of a sale by a wholesaler to a buyer who does not have an Hawaii gross income tax license the wholesaler is required by the taxing authorities of the Territory of Hawaii to pay a 1½ per cent gross income tax with respect to such sale, the wholesaler may

[1] 8 F.R. 4132, 5987, 7662.

*Copies may be obtained from the Office of Price Administration.

[1] 8 F.R. 1749, 2040, 2487, 2943, 3318, 3371, 3853, 4129, 3943, 4716, 5589, 5678, 5679, 5567, 5756, 6046, 6687, 7189, 7261, 8061, 8357, 8601, 9062.

[2] 8 F.R. 3096, 3849, 4347, 4486, 4724, 4978, 4848, 6047, 6962; 8511, 9025.

[1] 8 F.R. 5313.

[1] 7 F.R. 8961; 8 F.R. 3313, 3533, 6173.

add to the maximum wholesale price an amount equivalent to 1¼ per cent of such price. This amount shall be stated separately and shall not be included by any retail seller as a part of the price paid to the wholesaler in determining his maximum price under this regulation.

(e) The wholesaler may add the amount provided in paragraph (d) above to his maximum price only on the condition that he refund to the buyer such amount in the event such amount is recovered by or refunded to the wholesaler from or by the Territory of Hawaii.

This amendment shall become effective as of July 6, 1943.

(Pub. Law 421 and 729, 77th Cong.; E.O. 9250, 7 F.R. 7871)

Issued this 19th day of July 1943.

PRENTISS M. BROWN,
Administrator.

[F. R. Doc. 43-11642; Filed, July 20, 1943; 9:18 a. m.]

PART 1418—TERRITORIES AND POSSESSIONS

[MPR 373,[1] Amdt. 7]

MAXIMUM PRICES IN THE TERRITORY OF HAWAII

A statement of the considerations involved in the issuance of this amendment, issued simultaneously herewith, has been filed with the Division of the Federal Register.*

Maximum Price Regulation 373 is amended in the following respects:

1. Section 14 is amended to read as follows:

SEC. 14. *Table I: Maximum prices for rice sold in the Territory of Hawaii.*

Rice	Maximum price at wholesale (for sales in al islands except Oahu)	Maximum price at retail (for sales in all islands in the Territory)
	Per 100 lb. bag	
Rexora, U. S. #4	$10.28	$0.12 per one lb.
U. S. #1	8.20	{$0.10 per one lb. {$0.19 per two lbs.
U. S. #2	8.10	{$0.10 per one lb. {$0.19 per two lbs.
U. S. #3	7.99	$0.09 per one lb.
Brown U. S. #2	7.99	$0.09 per one lb.
U. S. #4	7.88	$0.09 per one lb.
U. S. #5	7.67	$0.09 per one lb.

NOTE: The maximum prices of all other grades or kinds of rice are governed by the General Maximum Price Regulation for Hawaii.[2]

2. Section 15 is amended to read as follows:

SEC. 15. *Table II: Maximum prices for certain food products sold in the Territory of Hawaii.*

	Maximum price at wholesale (for sales in all islands except Oahu)	Maximum price at retail (for sales in all islands in the Territory)
1. Peas, canned:		
Extra Standard No. 2 can	$3.65 per case 24 cans	{$0.19 per one can. {$0.37 per two cans.
Ungraded No. 2 can	$3.61 per case 24 cans	{$0.19 per one can. {$0.37 per two cans.
2. Tomato juice, canned:		
All grades, No. 10 can	{$3.25 per case 6 cans {$3.31 per case 12 cans	$0.70 per one can. $0.35 per one can.
All grades, No. 2 can	$2.79 per case 24 cans	{$0.15 per one can. {$0.29 per two cans.
All grades, No. 2 can, tall	$3.71 per case 24 cans	$0.19 per one can.
All grades, No. 2½ can	$4.01 per case 24 cans	{$0.41 per one can. {$0.41 per two cans.
All grades, 13½ oz. can	$4.24 per case 48 cans	{$0.11 per one can. {$0.21 per two cans.
All grades, 12 oz. can	$3.78 per case 48 cans	$0.10 per one can.
All grades, #1/10½ oz. can	$3.66 per case 48 cans	{$0.10 per one can. {$0.19 per two cans.
All grades, 8 oz. can	$4.36 pe case 72 cans	$0.07 per one can.
3. Prunes, dried:		
1 lb. package 30/40	$3.47 per case 24 pkgs	$0.18 per one pkg.
1 lb. package 50/60	$3.18 per case 24 pkgs	$0.17 per one pkg.
1 lb. package 60/70		$0.15 per one pkg.
1 lb. package 90/100	$2.61 per case 24 pkgs	{$0.27 per two pkgs. {$0.14 per one pkg.
4. Raisins, dried:		
Grade A, 15 oz. pkg	$5.16 per case 48 pkgs	$0.13 per one pkg.
Grade C, 25 lb. box	$2.62 per one box	$0.13 per one lb.
5. Salmon, canned:		
Chinook #½ flats	$13.24 per case 48 cans	$0.35 per one can.
Pink #1 can	$10.22 per case 48 cans	$0.26 per one can.
Red #1 can	$18.13 per case 48 cans	$0.45 per one can.
Medium Red #1 can	$14.20 per case 48 cans	{$0.36 per one can. {$0.71 per two cans.
Grade 1 (No designation of color)	$18.13 per case 48 cans	$0.45 per one can.
Grade 3 (No designation of color)	$10.22 per case 48 cans	$0.26 per one can.
6. Sardines, canned:		
(Maine) Soya Oil 3¼ oz. can	$5.56 per case 100 cans	$0.07 per one can.
(Maine) Tomato & Olive Oil #1 can oval	$6.44 per case 48 cans	$0.17 per one can.
(Maine) Tomato 3½ oz. can	$5.67 per case 100 cans	$0.07 per one can.
(Maine) Tomato 9 oz. can	$5.62 per case 48 cans	$0.15 per one can.
(Maine) Tomato 3¼ oz. can	$5.52 per case 100 cans	{$0.07 per one can. {$0.13 per two cans.
(Maine) Tomato 10 oz. can	$5.91 per case 48 cans	{$0.16 per one can. {$0.31 per two cans.
Pilchards (Calif.) Natural 8 oz. can	$6.22 per case 96 cans	$0.08 per one can.
Pilchards (Calif.) Natural #1 can tall	$4.64 per case 48 cans	$0.13 per one can.
Pilchards (Calif.) Tomato 8 oz. can	$6.50 per case 96 cans	{$0.09 per one can. {$0.17 per two cans
Pilchards (Calif.) Tomato #1 can tall	$5.05 per case 48 cans	$0.13 per one can.
Pilchards (Calif.) Tomato 15 oz. can oval	$5.80 per case 48 cans	{$0.16 per one can. {$0.31 per two cans.
Pilchards (Calif.) Tomato #1 can oval	$5.58 per case 48 cans	$0.14 per one can.
7. Canadian herring, canned:		
Tomato, #1 can oval	$5.98 per case 48 cans	$0.15 per one can.
8. Peaches, canned:		
Grade B, sliced, #2 can	$3.72 per case 24 cans	$0.18 per one can.
Grade B, sliced, #2½ can	$5.38 per case 24 cans	$0.26 per one can.
Grade B, halves, #2½ can	$5.38 per case 24 cans	$0.26 per one can.
Grade C, sliced, #2 can	$3.33 per case 24 cans	{$0.17 per one can. {$0.33 per two cans.
Grade C, sliced, #2½ can	$4.83 per case 24 cans	$0.24 per one can.
Grade C, halves, #2 can	$3.33 per case 24 cans	{$0.17 per one can. {$0.33 per two cans.
Grade C, halves, #2½ can	$4.99 per case 24 cans	$0.26 per one can.
Grade C, halves, #10 can	$4.44 per case 6 cans	$0.87 per one can.
Grade D, sliced, #2½ can	$4.50 per case 24 cans	$0.22 per one can.
Grade D, halves, #2½ can	$4.65 per case 24 cans	{$0.25 per one can. {$0.49 per two cans.
Grade D, mixed, #2½ can	$4.50 per case 24 cans	$0.22 per one can.
9. Corned beef, canned:		
12 oz. can	{$6.77 per case 24 cans {$13.54 per case 48 cans	{$0.34 per one can. {$0.67 per two cans. {$0.34 per one can. {$0.67 per two cans.
#6 can		$2.52 per one can.
10. Luncheon meat, canned:		
12 oz. can	$16.37 per case 48 cans	$0.41 per one can.
#6 can		$3.28 per one can.
#2½ can		$1.41 per one can.
11. Dried beans:		
Baby Limas	$9.26 per 100 lb. bag	$0.11 per one lb.
Large Limas	$11.96 per 100 lb. bag	{$0.15 per one lb. {$0.29 per two lbs.
Red Kidney	$9.20 per 100 lb. bag	$0.11 per one lb.
12. Flour:		
All Purpose Family	$2.67 per case 10/4.9 lb. bags	$0.35 per 4.9 lb. bag.
All Purpose Family	$2.29 per 49 lb. bag	$2.97 per 49 lb. bag.
Bakers Bread	$4.60 per 98 lb. bag	
Cake and Pastry	$4.19 per 98 lb. bag	
Special Cake	$4.35 per 98 lb. bag	
Cracker	$4.08 per 98 lb. bag	

*Copies may be obtained from the Office of Price Administration.

[1] 8 F.R. 5388, 6359, 6849, 7200, 7457, 8064, 8550.

[2] 8 F.R. 5307, 6362.

SEC. 15. *Table II: Maximum prices for certain food products sold in the Territory of Hawaii.*—Continued.

	Maximum price at wholesale (for sales in all islands except Oahu)	Maximum price at retail (for sales in all islands in the Territory)
13. Beans, baked:		
Tomato sauce, #1 can	$4.70 per case 48 cans	{$0.13 per one can. $0.25 per two cans.
Pork and Beans, #2½ can	$4.59 per case 24 cans	{$0.25 per one can. $0.49 per two cans.
14. Evaporated milk, canned 14½ oz. can, terms of sale:	*Per case 48 #14½ oz. cans*	*Per 14½ oz. can*
C. O. D. delivered to retailer in lots of 25 cases or more.	$4.95	$0.12.
C. O. D. delivered to retailer in lots of less than 25 cases.	$4.90	$0.12.
Credit sale, delivered to retailer, in lots of 25 cases or more.	$4.85	$0.12.
Credit sale, delivered to retailer, in lots of less than 25 cases.	$4.80	$0.12.
	(Per case of 6 cans)	
#10 can	$5.16	
15. Pork sausage, canned: 24 oz. can		$0.69 per one can.
16. Pork tongue, canned: #6 can		$3.40 per one can.
17. Dried Beef in jars: 7 oz. jar		$0.48 per one jar.

3. Section 19 Table VI (j) is amended to read as follows:

(j) *Sales at retail of mainland and Island meats, poultry and certain dairy products*—(1) *Prices to be marked and posted.* Notwithstanding the provisions of this Maximum Price Regulation 373, on and after the date any commodity becomes subject to this paragraph (j) every person offering to sell any such commodity shall mark the selling price of such commodity on the commodity itself in a manner plainly visible to and understandable by the purchasing public. In addition to this requirement, every retailer shall also place on his meat counter, or other location equally accessible to the public, one or more copies of the maximum prices established herein. Retailers located in Zones 2 and 3 of Hawaii and Zone 2 of Maui may not include in the posted prices the allowed additions specified in subparagraph (3).

(2) *Definitions.* When used in this paragraph (j) the term:

(i) "Sale at retail" means a sale or a selling to ultimate consumers, restaurants, hospitals, and institutions where the sale of commodities covered herein aggregates $100.00 or less to the same person in a period of twenty-four hours. Sales over this amount shall not exceed the maximum prices for sales at wholesale established by this Maximum Price Regulation 373.

(ii) "Zone 2 on the Island of Maui" shall comprise the district of Hana and that portion of the district of Makawao lying south of the south boundary of Ahupuha Kamaole.

(iii) "Zone 2 on the Island of Hawaii" shall comprise the district of North Hilo, Hamakua, and Kau, as defined by Hawaiian Statute.

(iv) "Zone 3 on the Island of Hawaii" shall comprise the districts of North Kohala, South Kohala, North Kona, and South Kona, as defined by Hawaiian Statute.

(3) The maximum prices of items of different grades from those specified shall be the most nearly comparable grade of that item for which a maximum price is established by this paragraph (j).

(4) Unless otherwise provided, the maximum prices of mainland meats or cheese items not listed in the following tables shall be 24 per cent on selling price over the wholesaler's invoice selling price. This maximum price may be arrived at by dividing the invoice cost in cents per pound by 0.76. For instance, assume mainland item "x" costs the retailer 50 cents per pound. Dividing 50 cents by 0.76 equals 65.7 cents. Adjusting this figure to the nearest cent yields a maximum price at retail of 66 cents per pound.

(5) (i) Retailers whose stores are located in Zone 2 on the Island of Hawaii, or in Zone 2 on the Island of Maui, may add 2 per cent to the maximum prices specified in tables A to J. Sales slips must be given to buyers, showing the prices of the commodities sold at or under the maximum prices specified in Tables A to J. The retailer may add to the sum total of the sale 2 per cent of it as a separate computation. This addition is permitted to cover extra transportation costs paid by the retailer in these zones.

(ii) Retailers whose stores are located in Zone 3 on the Island of Hawaii may add 3 per cent to the maximum prices specified in Tables A to J. Sales slips must be given to buyers, showing the prices of the commodities sold at or under the maximum prices specified in Tables A to J. The retailer may add to the sum total of the sale 3 per cent of it as a separate computation. This addition is permitted to cover extra transportation costs paid by the retailer in this zone.

(6) No retailer may store under refrigeration, for buyers' account, any of the commodities covered by this paragraph (j) for periods exceeding 24 hours.

(7) The maximum price for sales of retail cuts of meat, or other commodities specifically covered by this paragraph (j), aggregating between $50.00 and $100.00 shall be 10 per cent less than the maximum price specified in this paragraph (j).

TABLE A—MAINLAND BEEF AT RETAIL

Grading. The maximum prices listed in Table A are for cuts from Grade A and B (Good and Commercial) steers and heifers or Grades A and B (Good and Commercial) cows. Grade classification is marked on the carcass, box or other container received by the retailer, or may be ascertained by him from the wholesaler's invoice. For cuts from all other grades of steers, heifers and cows except FSCC and Army Specification, the maximum prices shall be determined by adding to or subtracting from each individual cut the following amount:

AA (Choice	Add 4 cents per pound.
C (Utility)	Subtract 3 cents per pound.
D (Cutter or Canner)	Subtract 8 cents per pound.

The maximum prices for all FSCC beef and Army Specification boneless cuts shall be those listed in the second column of Table A. under "Grades A & B, FSCC and Army Specification".

Retail cut	Grades A and B—Bone-in maximum price (¢ per lb.)		Grades A and B—FSCC and Army specification—Boneless maximum price (¢ per lb.)	
	Oahu	Other islands	Oahu	Other islands
Filet Steak or Tenderloin			$1.00	$1.00
Flank Steak	42	44	42	44
Sirloin Tip Steak (Top Sirloin or Sirloin Butt)	60	62	60	62
Sirloin Steak	65	67		
New York Cut			75	75
Porterhouse Steak or T-Bone	65	67		
Market Steaks			75	75
Regular Round Steaks	55	57		
Top Round Steak	60	62	60	62
Bottom Round Steak	55	57	55	57
Prime Rib Roast, 8 Rib	45	47		
Prime Rib Roast, boned and rolled	65	67	65	67
Rib Steak	55	57	65	67
Chuck Roast or shoulder Rib Roast, 1st 5 Ribs	38	40		
Chuck Roast, Boneless	49	51	49	51
Chuck Steak	43	45	53	55
Round Bone Shoulder Roast, Ribs off, Round Bone in	42	44		
Boneless Cross Rib	50	52	50	52
Trimmed Rump	40	42	55	57
Plate Beef	25	27	30	32
Short Ribs	30	32		
Brisket, 1st 5 Ribs, bone in	30	32	35	37
Soup Bones				
Center Shank	20	20		
Knuckle Bones	2	2		
Boneless Lean Stew Meat	45	47	45	47
Hamburger, all grades	32	32	32	32
Lean Ground Beef	49	51	49	51
Corned Beef, boneless brisket	45	45	45	45

NOTE: The maximum price of beef corned from beef other than boneless brisket shall be the maximum price of the original cuts listed above.

TABLE B—MAINLAND VEAL AT RETAIL

Grading. The maximum prices listed in Table B are for cuts from Grade A (Good) veal. For cuts from all other grades, the maximum prices shall be determined by adding to or subtracting from each individual cut the following amounts:

AA (Choice) ---- Add 3 cents per pound.
B (Commercial) - Subtract 3 cents per pound.
C (Utility) ----- Subtract 6 cents per pound.
D (Cull) -------- Subtract 9 cents per pound.

Retail cut	Grade A (good) maximum price (cents per lb.)	
	Oahu	Other islands
Loin Chops	58	60
Sirloin Tip, Roast or Steak	58	60
Loin Steak, Large	60	62
Leg Roast	42	44
Rump Roast	45	47
Leg Cutlet	70	72
Rib Chops	53	55
Shoulder Roast	40	42
Shoulder Chops	43	45
Round Bone Shoulder Roast	43	45
Breast, Neck and Shank	22	24
Trimming	30	30

TABLE C—MAINLAND LAMB AT RETAIL

Grading. The maximum prices listed in Table C are for cuts from Grade A (Good) lambs. For cuts from all other grades, the maximum price shall be determined by adding to or subtracting from each individual cut the following amounts:

AA (Choice) ---- Add 2 cents per pound.
B (Commercial) - Subtract 2 cents per pound.
C (Utility) ----- Subtract 5 cents per pound.

Retail cut	Grade A (good) maximum price (cents per lb.)	
	Oahu	Other islands
Rib Chops	52	54
Shoulder Chops	48	50
Legs	52	54
Small Loin	65	67
Large Loin	54	56
Breast, Neck or Shanks	20	20

TABLE D—MAINLAND MUTTON AT RETAIL

Grading. The maximum prices listed in Table D are for cuts from Grade M (or Commercial) mutton. For cuts from all other grades, the maximum prices shall be determined by adding to or subtracting from each individual cut the following amounts:

S (Good) ---------- Add 2 cents per lb.
R (Utility) --------- Subtract 2 cents per lb.

Retail cut	Grade M, maximum prices (cents per lb.)	
	Oahu	Other islands
Rib Chops	29	31
Shoulder Chops	29	31
Legs	32	34
Small Loin	35	37
Large Loin	35	37
Breast, Neck, or Shanks	19	19

TABLE E—MAINLAND PORK AT RETAIL

	Corned frozen or salted, maximum price, (cents per lb.)	
	Oahu	Other islands
1. RETAIL CUT		
Loin Roast, either end	43	45
Loin Center Chops or Roast	49	51
Tenders	56	58
Spare Ribs	38	40
Boneless Butts	57	59
Boston Butts, fresh	50	52
Boston Butts, sliced	53	55
Bulk Pork Sausage Meat	52	54
Legs, Skin on, Whole or Half (fresh or corned)	46	48
Legs, Skinless, Whole or Half (fresh or corned)	49	51
Center Leg Steaks	55	57
Fresh Clear Bellies	39	41
Dry Salt Bellies	35	36
Shoulder Roasts, bone in	46	48
Steaks	49	51
Shank	30	32
Feet, Fresh	20	22
Tails, Fresh	27	29
Hocks, Fresh	34	36

NOTE: Slices of picnics and bone-in hams shall be center slices only and shall not be more than 20% of the weight of the total picnic or bone-in ham. Loin center chops or roasts shall not be more than 33⅓% of the weight of the pork loin.

	Smoked and wrapped, maximum price (cents per lb.)		Ready-to-eat and wrapped, maximum price (cents per lb.)	
	Oahu	Other islands	Oahu	Other islands
2. SMOKED MEATS				
HAMS				
Regular, bone in, No. 1 Gr., Whole or Half	50	51	53	54
Regular, bone in, No. 2 Gr., Whole or Half	48	49	51	52
Skinned, No. 1, Whole or Half	53	54	57	58
Skinned, No. 2, Whole or Half	51	52	55	56
Regular Boneless No. 1	55	56	59	60
Regular Boneless No. 2	53	54	57	58
Skinned Boneless No. 1	56	57	60	61
Skinned Boneless No. 2	54	55	58	59
Center Slices	75	76	75	76
Shanks Under 3 lbs	28	29	28	29
Shanks 3 to 4 lbs	40	41	40	41
Butt End Sliced	50	51	50	51
Regular Boneless and Fattened:				
No. 1	65	66	70	71
No. 2	63	64	68	69
Virginia Hams	70	71		
Boston Butts	57	58	61	62
Picnics:				
Bone in	50	51	53	54
Boneless	56	57	60	61
Boneless and Fatted	64	65	67	68
Butts, Boneless, C. T	70	71		
Briskets, Boneless	39	40		
Sealtite Regular Smoked Hams No. 1 Grade	58	58		
BACON				
Slab:				
No. 1, Whole or Half	47	48		
No. 1, Sliced, Rind off	58	59		
No. 1, Sliced, Rind on	52	53		
No. 2, Whole or Half	43	44		
No. 2, Sliced, Rind off	54	55		
No. 2, Sliced, Rind on	47	48		
Packaged:				
Standard Grade A	58	59		
Standard Grade B	53	54		
Standard Grade C	51	52		
Sliced Jowl Butts	41	42		
End Slices	37	38		
Canadian Bacon	74	75		
Fat Backs, Sliced	33	34		
Fat Backs, Ends or Squares	31	32		
Bellies	38	39		
PLATES AND JOWLS				
Clear Plates	32	33		
Regular Plates	34	35		
Jowl Butts	32	33		
Square Jowl Butts	36	37		

NOTE: Pork sausage, link, all types—the maximum retail price shall not exceed the wholesaler's selling price plus 12¢ per lb.

TABLE F—MAINLAND POULTRY AT RETAIL

Grading. The maximum prices listed in Table F are for Grade A poultry. The maximum prices for Grade B poultry items shall be 2 cents less than the Grade A price, and for Grade C poultry items 7 cents less than the Grade A price.

Commodity	Dressed weight	Maximum price, (cents per lb.)	
		Oahu	Other islands
1. DRESSED			
Broilers	Under 2½ lbs	54	56
Fryers	2½ to 3½ lbs	56	58
Roasters:			
Light	3½ to 5 lbs	60	62
Heavy	5 lbs & over	62	64

TABLE F—MAINLAND POULTRY AT RETAIL—Continued

Commodity	Dressed weight	Maximum price, (cents per lb.) Oahu	Other islands
1. DRESSED—con.			
Stags:			
Light	Under 5 lbs	53	55
Heavy	5 lbs and over	55	57
Capons:			
Light	Under 7 lbs	65	67
Heavy	7 lbs and over	66	68
Fowl:			
Light	Under 3½ lbs	49	51
Medium	3½ to 5 lbs	53	55
Heavy	5 lbs and over	53	55
Old roosters:			
Light	Under 5 lbs	42	44
Heavy	5 lbs and over	44	46
Ducks	All weights	49	51
Geese	All weights	49	51
Young turkeys:			
Light	Under 16 lbs	54	56
Medium	16 to 20 lbs	58	60
Heavy	20 lbs and over	57	59
Old turkeys:			
Light	Under 16 lbs	55	57
Medium	16 to 20 lbs	53	55
Heavy	20 lbs and over	51	53
Guineas	All weights	58	60
Pigeons	All weights	44	46
2. QUICK FROZEN			
Broilers		76	78
Fryers		77	79
Roasters		80	82
Stags		71	73
Capons		87	89
Fowl		69	71
Ducks		64	66
Geese		69	71
Turkeys, young		75	77
Turkeys, old		72	74
3. COOKED OR BARBECUED POULTRY AT RETAIL			
Broilers			85
Fryers			85
Roasters			90
Capons			95
Fowl			80
Ducks			80
Geese			80
Turkeys			85
Guineas			80
Pigeons			75

TABLE G—MAINLAND FANCY MEATS AT RETAIL

Commodity	Maximum price (cents per lb.) Oahu	Other islands
1. LIVER		
Selected veal	90	92
Calves, under 4 lbs	77	79
Calves 4 lbs. or over	64	66
Baby beef	62	64
Beef, regular	54	56
Pork	40	42
Lamb	39	41
2. SWEETBREADS		
Veal	70	72
Beef	45	47
Lamb	50	52
3. TONGUE		
Veal	50	52
Ox	45	47
Lamb	40	42
Pork	38	40

TABLE G—MAINLAND FANCY MEATS AT RETAIL—Continued

Commodity	Maximum price (cents per lb.) Oahu	Other islands
4. HEARTS		
Calf	29	31
Beef	29	31
Lamb	30	32
Pork	32	34
5. KIDNEYS		
Veal	37	39
Beef	28	30
Lamb	40	42
Pork	30	32
6. BRAINS		
Veal	31	33
Beef	29	31
Lamb or Sheep	29	31
Pork	29	31
7. TAILS		
Ox	28	30
Pork	27	29
8. MISCELLANEOUS		
Pork feet, pickled	25	26
Pork hocks, pickled	30	31
Pork tails, pickled	25	26
Cooked beef tripe	25	26

TABLE H—MAINLAND COLD CUTS AT RETAIL

Commodity	Maximum price (cents per lb.) all islands
Boiled Ham, Sliced	0.90
Dried Chinese Sausage manufactured in Territory	1.30
Canadian Chinese Sausage	1.40
Portuguese Pork Sausage, pure pork, manufactured in Territory	.90
Portuguese Pork Sausage, beef and pork, manufactured in Territory	.70
All meat loaves such as: Minced Sausage, Large Bologna, Spiced Ham, Luncheon Meat, Pork Loaf, Olive Loaf, Head Cheese, Cooked Salami, etc.	.15 per lb. over wholesalers' selling price
Meat in small casings, such as: Stick Bologna, Frankfurters, Liver Sausage (fresh or smoked), Weiners, Garlic Sausage, etc.	.12 per lb. over wholesalers' selling price
All cold cuts not covered by above shall be—	.12 per lb. over wholesalers' selling price

TABLE I—MAINLAND SLICED AND PACKAGED CHEESE AT RETAIL

COMMODITY	Maximum price (cents per lb.) all islands
Wheel Cheese, natural, cheddar or granular type except Jack, Mount Hope, Chantelle, New York Martin & other Cheese aged 18 months or over	50

TABLE I—MAINLAND SLICED AND PACKAGED CHEESE AT RETAIL—Continued

COMMODITY	Maximum price (cents per lb.) all islands
Jack, Mount Hope, and Chantelle	52
New York Martin	60
Loaf: 5 lb. processed, American, Pimento, Swiss, Brick & Neopolitan	50
Wisconsin Swiss, Wheel or Loaf	60
	per pkg.
1 lb. package, processed	50
2 lb. package, processed	93
½ lb. package, processed	28
Old English, ½ lb	30

TABLE J—MAINLAND BUTTER AND EGGS AT RETAIL

COMMODITY	Maximum price all islands
Butter, salted	6¢ per lb. over wholesaler's selling price.
Eggs:	
Shell eggs, loose or delivered to retailer in cartons.	7¢ per doz. over wholesaler's selling price.
Shell eggs, cartoned by retailer.	9¢ per doz. over wholesaler's selling price.
Powdered whole eggs, 8 oz. jar.	80¢ per jar.
F. S. C. C. powdered whole eggs, 5 oz. pkg.	50¢ per pkg.

TABLE K—ISLAND BEEF AT RETAIL

Grading. All Island steers and heifers shall be sold not higher than the maximum price of Grade A cuts. All Island cows shall be sold not higher than the maximum price of Grade B cuts.

Retail cut	Grade A maximum price (cents per lb.) Oahu	Other islands	Grade B maximum price (cents per lb.) Oahu	Other islands
Flank Steak	44	42	40	38
Sirloin Tip Steak (Top Sirloin or Sirloin Butt)	47	46	44	43
Sirloin Steak	47	46	44	43
Porterhouse or T-Bone	55	53	50	47
Regular Round Steak	44	42	40	38
Top Round Steak	47	45	43	41
Bottom Round Steak	40	40	38	36
Prime Rib Roast, 8 Rib	36	34	34	32
Prime Rib Roast Boned & Rolled	47	42	42	40
Rib Steak	45	40	40	38
Chuck Roast or Shoulder Rib Roast:				
1st 5 Ribs	30	25	25	23
Chuck Roast, boneless	35	32	32	30
Chuck Steak	33	28	28	26
Round Bone Shoulder Roast, Ribs off, round bone in	35	29	30	27
Boneless Cross Rib	42	40	38	35
Trimmed Rump	35	32	32	30
Plate Beef	19	17	17	17
Short Ribs	25	22	22	20
Brisket, 1st 5 Ribs, bone in	25	22	22	20
Soup Bones:				
Center Shank	18	18	18	15
Knuckle Bones	2	2	2	2
Boneless Lean Stew Meat	35	32	35	32
Hamburger	30	30	30	30
Lean Ground Beef	40	35	40	35
Corned Beef, boneless brisket	34	30	34	30

NOTE: Beef corned from cuts other than boneless brisket shall sell at a maximum price not to exceed the maximum price of the original cuts as listed above.

TABLE L—ISLAND VEAL AT RETAIL

Retail cut	Maximum price (cents per lb.)	
	Oahu	Other islands
Loin Chops	53	51
Sirloin Tip, Roast or Steak	52	50
Loin Steak, Large	55	53
Leg Roast	38	36
Rump Roast	40	38
Leg Cutlet	63	61
Rib Chops	50	48
Shoulder Roast	35	33
Shoulder Chops	39	37
Round Bone Shoulder Roast	38	36
Breast, Neck & Shank	22	20
Trimming	30	28

TABLE M—ISLAND LAMB AT RETAIL

Retail cut	Maximum price (cents per lb.)	
	Oahu	Other islands
Rib Chops	34	32
Shoulder Chops	29	27
Legs	38	36
Small Loin	49	47
Large Loin	44	42
Breast, Neck or Shanks	15	13

TABLE N—ISLAND MUTTON AT RETAIL

Retail cut	Maximum price (cents per lb.)	
	Oahu	Other islands
Rib Chops	28	26
Shoulder Chops	21	19
Legs	26	24
Small Loin	32	30
Large Loin	28	26
Breast, Neck & Shanks	10	8

TABLE O—ISLAND PORK AT RETAIL

Grading: Grade A Island pork is pork derived from young pigs. Grade B Island pork is defined as pork derived from sows and stags. All Grade B cuts must be plainly marked as such when exhibited for sale. No cuts shall be offered for sale or sold other than those shown below.

TABLE O—ISLAND PORK AT RETAIL—Continued

Retail cut	All islands	
	Grade A maximum price (cents per lb.)	Grade B maximum price (cents per lb.)
Legs, Boneless	55	40
Bone in	63	32
Center Leg Slices	55	----
Shoulder, Boneless	52	35
Bone in	50	28
Steaks	52	----
Loin Roast, either end	52	40
Loin Center Chops or Roast	55	40
Spare Ribs	45	30
Bellies, Rib, Bone in	40	24
Ribs removed	35	22
Loin attached	40	24
Hocks, fresh	35	30
Feet, fresh	25	20
Jowl	25	20
Head, Boneless	25	15
Bone in	17	12
Tails, Fresh	35	20
Roasted or Barbecued, all cuts	70	Not permitted
Rendered Pork Fat or Leaf Lard	20	20
Pork Fat	10	10

TABLE P—ISLAND POULTRY AT RETAIL

Definition. Dressed poultry is poultry which has been killed, bled, and plucked. No Island poultry shall be exhibited for sale or sold in any market which has had the head, feet, and entrails removed. Butchers may draw birds at the request of the customers after the sale is made. The purpose of this provision is to protect customers against the sale of unhealthy birds.

COMMODITY	*Maximum Prices cents per lb.*
Chickens—(Broilers, Fryers, Roasters, and Capons):	
Dressed Weight	70
Live Weight	55
Chickens—(Hens):	
Dressed Weight	60
Live Weight	47
Turkeys—(Young toms or young hens):	
Dressed Weight	70
Live Weight	52
Turkeys—(Gobblers or old hens):	
Dressed Weight	60
Live Weight	45
Ducks and Geese:	
Dressed Weight	60
Live Weight	47
Squabs:	
Dressed Weight	87
Live Weight	77

NOTE: No sales of island poultry for which a maximum price has not been established in this regulation shall be made until application has been made to the Office of Price Administration and a maximum price granted.

Cooked and Barbecued Island poultry shall not sell higher than the prices specified in Table F, category 3.

MISCELLANEOUS

	Maximum prices Cents per lb.
Island rabbits:	
Dressed and drawn	70
Live weight	35

TABLE Q—ISLAND FANCY MEATS AT RETAIL

COMMODITY	*Maximum price Cents per lb. all islands*
1. Liver:	
Veal or calf	55
Beef	40
Lamb or mutton	34
Pork	35
2. Tongue:	
Veal	29
Beef or ox	24
Lamb or mutton	24
Pork	22
3. Hearts:	
Veal	25
Beef	20
Lamb or mutton	25
Pork	25
4. Kidneys:	
Veal or beef	28
Lamb or mutton	35
Pork	28
5. Brains:	
Veal	30
Beef	28
Lamb or mutton	24
Pork	20
6. Tails:	
Ox	28
Pork (See Island Pork)	
7. Tripe:	
Beef, small	12
Beef, large	9

TABLE R—ISLAND EGGS AT RETAIL

COMMODITY	*Maximum Price Cents per doz. all islands*
Shell Eggs—large, cartoned	.85
Shell Eggs—medium, cartoned	.79
Shell Eggs—small, cartoned	.61
Shell Eggs—large, loose	.83
Shell Eggs—medium, loose	.77
Shell Eggs—small, loose	.59

4. Section 19 Table VI (k) is hereby revoked.

5. The table following section 21 (c) (1) is amended to read as follows:

	Wholesale maximum prices	Special institutional maximum prices	Retail maximum prices
Beets	$0.055 per lb. net cont	$0.065 per lb	$0.075 per lb.
Carrots	$0.075 per lb. net cont	$0.0875 per lb	$0.10 per lb.
Celery	$11.60 per crate	$0.24 per lb	$0.29 per lb.
Garlic	$0.15 per lb. net cont	$0.20 per lb	$0.25 per lb.
Lettuce	$10.00 per crate	$0.20 per head	$0.24 per head.
Onions (Red and Yellow)	$3.30 per 50 lb. bag	None	$0.09 per lb.
Potatoes	$5.05 per 100 lbs	None	$0.07 per lb.
Rutabaga Turnips	$0.55 per lb. net cont	$0.065 per lb	$0.075 per lb.

6. The table following section 21 (d) (1) is amended to read as follows:

	Wholesale maximum prices	Special institutional maximum prices	Retail maximum prices
Apples:			
Ex. Fcy. Winesap	$6.15 per box	None	$0. 20 per lb.
Fcy. & Ex. Fcy. Newtons	$6.15 per box	None	$0. 20 per lb.
Grapefruit:			
48's	$4.90 per box	$0.11 each	$0. 14 each.
64's	$4.90 per box	$0. 09 each	$0. 11 each.
70's	$4.90 per box	$0. 08 each	$0. 10 each.
80's	$4.90 per box	$0. 07 each	$0. 08 each.
100's	$4.90 per box	$0. 06 each	$0. 07 each.
Lemons:			
300's	$7. 85 per box	$0. 37 per doz	$0. 42 per doz.
360's	$7.85 per box	$0. 30 per doz	$0. 35 per doz.
432's	$7.85 per box	$0. 25 per doz	$0. 29 per doz.
Oranges:			
126's	$6.10 per box	$0.68 per doz	$0.78 per doz
150's	$6.10 per box	$0.57 per doz	$0.65 per doz.
176's	$6.10 per box	$0.48 per doz	$0.56 per doz.
200's	$6.10 per box	$0.43 per doz	$0.49 per doz.
220's	$6.10 per box	$0.39 per doz	$0.45 per doz.
252's	$6.10 per box	$0.34 per doz	$0.39 per doz.
288's	$6.10 per box	$0.30 per doz	$0.34 per doz.
344's	$6.10 per box	$0.25 per doz	$0.28 per doz.
392's	$6.10 per box	$0.22 per doz	$0.25 per doz.
Pears, D'Anjous, Fcy	$8.80 per box	None	$0.26 per lb.
Pears, D'Anjous, Ex. Fcy	$9.00 per box	None	$0.26 per lb.
Pears, "Winter Nellies"	$8.55 per box	$0.23 per lb	$0.26 per lb.
Pears, "Easter Beurre"	$8.55 per box	$0.23 per lb	$0.26 per lb.
Cantaloups:			
27's	$11.25 per case	None	$0.20 per lb.
36's	$12.40 per case	None	$0.20 per lb.
45's	$12.90 per case	None	$0.20 per lb.

7. Section 21 (e) (3) is amended to read as follows:

(3) "Sale at wholesale" means a sale by a person who customarily distributes Island grown produce to any person other than the ultimate consumers, and shall include sales to the United States, any other government or any of its political subdivisions, any religious, educational or charitable institution, any institution for the sick, deaf, blind, disabled, aged or insane, or any school, hospital, library, and industrial or commercial user, or any agency of any of the foregoing, *Provided*, That any religious, educational or charitable institution, any institution for the sick, deaf, blind, disabled, aged or insane, or any school, hospital, library, an industrial or commercial user, or any agency of any of the foregoing, which during the period September 23, 1942 to December 23, 1942 purchased Island grown produce in an average gross amount not in excess of $100.00 per week, may purchase Island grown produce from licensed retailers at prices not in excess of the maximum prices for sales at retail. Any such purchaser exercising this permission shall file with the Office of Price Administration, Hawaii Territorial Office, Iolani Palace, Honolulu, T. H., not later than ten days after the first purchase from a licensed retailer, a statement setting forth the average weekly gross amount paid for Island grown produce during the period September 23, 1942 and December 23, 1942. Any licensed retailer shall be entitled to rely on a purchaser's statement that such purchaser has complied with this paragraph.

8. The table following section 21 (e) (4) is hereby revoked.

9. Section 21 (e) (5) and (6) is added to read as follows:

(5) Maximum prices for Island grown produce in the Island of Oahu:

Item	Grade	Maximum price at wholesale (per lb.)	Maximum price at retail (per lb.)
1. Asparagus, fresh	A	$0. 23	$0. 30
2. Asparagus, fresh	B	.20	.27
3. Asparagus, fresh	C	.18	.25
4. Avocados	A	.15	.20
5. Avocados	B	.12	.16
6. Avocados	MQ	.08	.12
7. Bananas, bunch (stem limited to 8 inches above first hand where hand joins stem):			
Bunches	MQ	.04	
Hands	MQ	.055	.075
8. Bananas, cooking:			
Bunches	MQ	.08	
Hands	MQ	.10	.14
9. Beans, snap, green, string and yellow wax	A	*Per lb.* $0. 12	*Per lb.* $0. 16
10. Beans, snap, green, string, yellow wax and yard-long	MQ	.10	.14
11. Beans, green lima (pod)	MQ	.07	.10
12. Beans, green lima (shelled)	MQ	.18	.25
13. Beet tops (tubers not to exceed 1 inch)	MQ	.10	.15
14. Beets, bunched	MQ	.055	.08
15. Beets, topped	A	.055	.075
16. Beets, topped	MQ	.045	.06
17. Bitter Melon or Fuqua	MQ	.15	.20
18. Broccoli	MQ	.14	.20
19. Cabbage, Chinese	A	.075	.10
20. Cabbage, Chinese	MQ	.06	.08
21. Cabbage, Head	AA	.065	.09
22. Cabbage, Head	A	.055	.08
23. Cabbage, Head	MQ	.04	.06
24. Cabbage, cunched (all types) (Chinese and Japanese; green mustard and white stem)	MQ	.08	.12
25. Cabbage, Swamp or Ung Choy	MQ	.07	.10
26. Carrots, bunched	MQ	.055	.08
27. Carrots, topped	A	.07	.09
28. Carrots, topped	MQ	.055	.08
29. Celery	MQ	.16	.25
		For 6 doz.	*Per doz.*
30. Corn, Green	A	2.58	.60
31. Corn, green	B	2.10	.60
32. Corn, green	MQ	1.68	.40
		Per lb.	*Per lb.*
33. Cucumbers	A	.12	.18
34. Cucumbers	MQ	.10	.16
35. Eggplant, long (Molokai type)	MQ	.07	.095
36. Eggplant, round and half long	MQ	.05	.075
37. Ginger, mature	MQ	.10	.15
38. Gobo, #1, medium & long stems	MQ	.15	.20
39. Gobo, #2, small & short stems	MQ	.11	.15
40. Gobo, #2, large stems	MQ	.11	.15
41. Kohlrabi, bunched or topped	MQ	.07	.10
42. Lettuce, all types	MQ	.17	.25
43. Lotus roots, or Lilly roots	MQ	.13	.17
44. Okra, Chinese, or Sea Qua	MQ	.15	.20
45. Okra, English	MQ	.10	.15
46. Onions, Maui, Dry	MQ	.046	.065
47. Onions, bunching green	MQ	.15	.22
48. Onions, Kailua bulb, bunching	MQ	.15	.22
49. Papayas	#1	.0425	.06
50. Papayas	#2	.035	.05
51. Parsnips	MQ	.08	.11
52. Peas, Chinese	MQ	.50	.70
53. Peppers, Bell	MQ	.18	.25
54. Peppers, Hot	MQ	.25	.35
55. Peppers, Chile	MQ	.50	.65
56. Pineapples	MQ	.025	.04
57. Potatoes, Irish	AA	.045	.06
58. Potatoes, Irish	A	.045	.055
59. Potatoes, Irish	MQ	.035	.045
60. Potatoes, Sweet (Yam type)	AA	.07	.095
61. Potatoes, Sweet (Yellow)	A	.05	.07
62. Potatoes, Sweet	B	.04	.055
63. Potatoes, Sweet	MQ	.03	.04
64. Pumpkin	MQ	.05	.07
65. Pumpkin, Japanese or Kona Crepe	MQ	.065	.09
		Per doz.	*Per bunch*
66. Radishes, Red (per bunch of not less than 12)	MQ	.50	.06
		Per lb.	*Per lb.*
67. Rhubarb	MQ	.10	.15
68. Soy Beans, edible green	MQ	.10	.14
69. Spinach (all types) bunched	MQ	.10	.15
70. Squash, Chinese (Tung Qua) large 2 lbs. or over	MQ	.05	.07
71. Squash, young Chinese small, below 2 lbs	MQ	.10	.14
72. Squash, banana	MQ	.065	.09
73. Squash, hubbard	MQ	.065	.09
74. Squash, Italian and summer	MQ	.10	.15
75. Squash, queen	MQ	.08	.11
76. Swiss Chard (bunched or loose)	MQ	.05	.075
77. Taro, Japanese or Dasheen	#1	.08	.11

Item	Grade	Maximum price at wholesale (per lb.)	Maximum price at retail (per lb.)
78. Taro, Hawaiian and Chinese, bunched and not for manufacture	MQ	.03	.04
79. Taro, Japanese or Dasheen	#2	.04	.06
80. Taro, tops or luau bunched or loose	MQ	.10	.15
81. Tomatoes, large (2" minimum diameter)	A	.14	.21
82. Tomatoes, large (2" minimum diameter)	B	.12	.18
83. Tomatoes, large (2" minimum diameter)	MQ	.10	.15
84. Tomatoes, small (less than 2" diameter)	MQ	.08	.12
85. Tomatoes, egg	MQ	.08	.12
86. Turnip tops (tubers not to exceed 1")	MQ	.10	.15
87. Turnips, Japanese (Daikon)	MQ	.045	.06
88. Turnips, long white, bunched or topped (including white Chinese, white radish and similar types)	MQ	.045	.06
89. Turnips, round white, purple tops, bunched or topped	MQ	.045	.06
90. Turnips, yellow topped (rutabagas)	MQ	.055	.075
91. Watercress (½ lb. bunch or larger)	MQ	.10	.15
92. Watermelon	MQ	.08	.10
93. Yam (Chop Sud) or Farn Quat	MQ	.10	.135
94. Yam, Mountain	MQ	.065	.09

NOTE: The maximum prices of all other kinds and grades of Island grown produce are governed by the General Maximum Price Regulation for Hawaii.

(6) *Records and reports*—(i) *Records to be kept.* Notwithstanding the provisions of section 11 of this Maximum Price Regulation No. 373, every person making sales of Island grown produce covered by this paragraph (e) shall on and after the date any such produce becomes subject to this paragraph keep for inspection by the Office of Price Administration for a period of not less than one year records as follows:

(*a*) *Persons making sales at wholesale.* Copies of the invoices or sales memoranda given to purchasers as required by subdivision (iii) below. Purchase records showing the date of purchase, name and address of supplier, kind and grade purchased, number of pounds or other unit of purchase, price per unit, total price paid and the quantity of each kind and grade on hand or order at the close of each calendar month.

(*b*) *Persons making sales at retail.* Copies of the invoices and sales memoranda received from suppliers.

(ii) *Prices to be marked and posted.* On and after the date any Island grown produce becomes subject to this paragraph (e) every person offering to sell any such produce at retail shall mark the maximum price of such produce in a manner plainly visible to and understandable by the purchasing public. The maximum price may be marked on the produce itself or may be posted at the place in the establishment where the produce is offered for sale. The maximum price shall be indicated in the form "Ceiling price $———," or "Our ceiling $———."

(iii) *Sales slips and receipts.* (*a*) Every person selling at wholesale shall give the purchaser an invoice or a sales memorandum showing the date of sale, name and address of the seller, the name and address of the purchaser, and with reference to each item of produce sold the following: the kind and grade, the number of pounds or other unit of sale, the price per unit and the total price received.

(*b*) Every person selling at retail who has customarily given purchasers sales slips or receipts or similar evidences of purchase shall continue to do so. However, upon request from a purchaser every such seller, regardless of previous custom, shall give the purchaser a receipt showing the date of sale, the name and address of the seller, the name and address of the purchaser, and with reference to each item of produce sold the following: the kind and grade, the number of pounds or other unit of sale, the price per unit and the total price received.

10. Section 31 is amended to read as follows:

SEC. 31. *Table XVIII: Maximum prices for Hawaiian standard blackout bulbs and motor headlight blackout services.* (a) The maximum price at retail for sales of Hawaiian standard blackout bulbs in the Territory of Hawaii shall be 33 cents per bulb.

(b) The maximum price for blacking out the headlights on a motor vehicle, in accordance with the specifications of Part 3 of General Orders No. 3 of the Military Governor of the Territory of Hawaii, shall be $5.00 when such service is guaranteed in the manner provided in paragraph (d) below.

(c) The maximum price for blacking out the rear light or rear lights on a motor vehicle, in accordance with the specifications of Part 3 of General Orders No. 3 of the Military Governor of the Territory of Hawaii, shall be $.50 when such service is guaranteed in the manner provided in paragraph (d) below. Such maximum price shall apply for the blacking out of the total of all rear lights, whether one or more than one.

(d) The maximum prices prescribed above apply only in the event that the person selling such service guarantees to the purchaser to do, without charge, all repair or alteration work necessary to make such blacking out conform to the said specifications for a period of thirty days from the time of completion. Such guarantee need not cover any repair or alteration work made necessary because of damage caused by collision or misuse. A more comprehensive guarantee than the one above may be given, but no extra charge may be made therefor.

(e) In the event that such guarantee is not given, the maximum price for the service specified in paragraph (b) shall be $2.50, and for the service specified in paragraph (c) $.25.

11. Item 21 in the table following section 35 (a) is amended to read as follows:

Make or label	Wholesale	Retail
21. Hit records 10"	$.36	$.55

12. The table following section 35 (a) is amended by adding items 31 to 41 to read as follows:

Make or label	Wholesale	Retail
31. 12" Standard Records	$0.48	$0.75
32. 12" Standard Opera Records	.55	.85
33. 12" DeLuxe Records	.55	.85
34. 12" DeLuxe Opera Records	.60	.93
35. 10" Symphonic Records	.33	.55
36. 10" Classical Records	.25	.39
37. Sets J-1-2-8-9-10 3-10" Records	1.69	2.67
38. Sets J-3-4-5-11-15-13-14-18-20-24 2-10" Records	1.02	1.61
39. Sets J-8-15-16-21 6-10" Records	2.38	3.76
40. Sets J-6-17-22 3-10" Records	1.35	2.14
41. Sets J-19-23 2-10" Records	.69	1.08

NOTE: Prices for J-Record Sets include albums.

13. Section 41 is amended to read as follows:

SEC. 41. *Table XXVIII: Maximum prices at retail for certain grocery items*—(a) *Records and reports.* Notwithstanding the provisions of section 11 of this Maximum Price Regulation 373, every person making sales of the commodities subject to this section 41 shall keep a "price book", and enter therein, in the case of commodities for which the maximum prices are calculated by a division or multiplication factor (not the commodities for which dollar and cent prices are specified), the net cost, the quantity purchased at such cost, the number of retail units in the customary wholesale unit (e. g. 48 cans to a case), every step in the calculation, including the division or multiplication factor used, and the resulting maximum price per retail unit. Such price book shall be available for inspection by the Office of Price Administration, or any consumer.

(b) *Prices to be marked and posted.* On and after the date any commodity becomes subject to this section 41 every person offering to sell any such commodity shall:

(1) Mark the maximum price of such commodity in a manner plainly visible to, and understandable by, the purchasing public. The maximum price may be marked on the commodity itself or on the shelf, bin, rack, or other holder or container upon or in which the commodity is kept or it may be posted at the place in the business establishment where the commodity is offered for sale: *Provided,* That the maximum price of each commodity offered for sale shall be plainly visible to the purchaser at the place in the business establishment where the commodity is offered for sale, and shall not be obscured by the posted

prices of other commodities, whether by use of price books or catalogs or layers of price lists or otherwise or in any other manner. The maximum price shall be stated as follows: "Ceiling Price $——"; or "Our Ceiling $——".

(2) Post in a place and manner easily accessible to and understandable by the purchasing public the price bulletins issued by this Office which will contain the maximum prices fixed by this regulation.

(c) The maximum prices for the grocery items covered by this section are set forth in the following tables.

These grocery items are divided into categories. In each category maximum dollar and cent prices are specified for certain named items. The maximum prices for all other items in each category shall be computed by dividing or multiplying net cost of the item by the division factor or the multiplication factor specified in the particular category. Where delivery of an item is received at a net cost different from that of an identical item already on hand, the retailer with multiple outlets may use as his net cost for the entire inventory a weighted average net cost of the inventory on hand. Stores which do not possess multiple outlets must price each delivery separately and market the various lots on a first-in first-out basis. Sellers in no event may resort to pricing by means of a multiplication or division factor where a dollar and cent price is specified.

(1) *Example of use of division factor.* Assume the net cost for a case of 24 cans of Brand X is $2.64 and the division factor is .78. Dividing this figure by 24 yields 14.1 cents per can. Adjusting this figure to the nearest cent, in accordance with paragraph (e), results in a maximum price of 14 cents per can.

(2) *Example of use of multiplication factor.* Assume the net cost for a case of 24 cans of Brand Y is $3.78 and the multiplication factor is 1.2. Multiplying $3.78 by 1.2 yields $4.536. Dividing this figure by 24 yields 18.9 cents per can. Adjusting this figure to the nearest cent, in accordance with paragraph (e) results in a maximum price of 19 cents per can.

(d) Net cost means the amount paid by the retailer as shown on the invoice of his supplier, less all discounts except the discount for prompt payment. In the event the item is imported by a retailer directly from the mainland, the net cost shall be the maximum wholesale price computed according to the provisions of section 41a. To this net cost the margins and markups specified in this section may be added. Importing retailers shall be subject to all of the provisions of section 41 (a) with respect to such purchases.

(e) Whenever provision is made in this section 41 for the calculation of a maximum price not otherwise specified in dollars and cents, and such calculation results in a fraction of a cent, then the amount so calculated shall be reduced to the nearest lower cent if the fraction is less than one-half cent, and shall be increased to the nearest higher cent, if the fraction is one-half cent or more.

(f) *Definitions.* (1) "Baby foods" mean all foods prepared in hermetically sealed containers of glass, tin, or other material, especially designed for the nourishment of infants and juniors.

(2) "Dried edible beans and peas" mean all bulk or packaged threshed and dried field or garden beans and peas, and lentils used for human consumption.

(3) "Beverage bases and concentrates" include Kool-Aid, ovaltine, Hires Root Beer extracts, and similar products.

(4) "Bakers' supplies" mean all imported supplies sold for use in the preparation of bakery products, and shall include but are not limited to baking powder, coloring matter, mince meats, and yeast in shelf sizes. Excluded from this category are flour, sugar, and any other commodity included in any other category of this section or specifically covered by a separate regulation.

(5) "Breakfast cereals" mean bulk or packaged processed cereal grains used as breakfast foods, both uncooked and ready to eat types. Included in this classification are hominy grits, puffed rice and puffed wheat; excluded are buckwheat flour, corn meal, pancake flour, pearled barley, and rice.

(6) "Cocoa and chocolate in shelf sizes" include, but are not limited to, powdered, cake, cooking chocolate. Excluded is chocolate bar candy coated with chocolate.

(7) "Mustard, vinegar, soy, catsup and tomato sauces" refer to food garnishes commonly known by these names.

(8) "Condiments and sauces" mean food garnishes, including but not limited to chili sauce, chutney, meat sauces, tobasco sauce, worcestershire sauce, and cocktail sauce.

(9) "Charcoal" means any bagged charred wood, imported or locally produced.

(10) "Corn starch" means edible starch used for cooking.

(11) "Crackers" mean all cookies, crackers, and biscuits imported from the mainland or locally produced.

(12) "Dessert powders" shall include all concentrates of fruits or vegetables used in the preparation of gelatinous desserts.

(13) "Dessert preparations" means all canned and packaged preparations ready to serve for dessert.

(14) Bakers and family flour.

(i) "Bakers flour" means flour in bulk and prepared bulk flour from wheat other than flour made from durum wheat for use by commercial, institutional, or governmental users.

(ii) "Family flour" means flour in bulk from wheat which is packed and sold for ultimate use in the home.

(15) "Prepared packaged flour" means flour and flour mixes made from buckwheat, corn, potatoes, rice, or wheat, including but not limited to Aunt Jemima, Bisquick, corn meal, Dromedary, Sperry, buckwheat flour, Swansdown, and other ready to use packaged flour. Excluded is cake flour.

(16) "Cake flour" means flour and flour mixes made from buckwheat, corn, potatoes, rice, or wheat used in the making of cake.

(17) "Canned fruits and berries" mean fruits and berries preserved by heat and hermetically sealed in containers of metal, glass, or any other material, and include but are not limited to the following:

(i) Apples, apple sauce, apricots, cherries, figs, fruit cocktails, fruits for salads, peaches, pears, pineapples, and plums;

(ii) Blackberries, blueberries, boysenberries, cranberries, gooseberries, huckleberries, loganberries, raspberries, strawberries, and youngberries.

(18) "Dried fruits" mean fruits or parts thereof from which the major portion of moisture has been removed by natural or artificial drying, and include but are not limited to apples, apricots, currants, dates, figs, grapes (raisins), nectarines, peaches, pears, and prunes.

(19) "Canned juices" mean berry juices, citrus fruit juices, fruit juices and nectar, and vegetables juices packed in containers of metal, glass, or any other material.

(20) "Mayonnaise and salad dressing" means all prepared dressings for salads except cooking and salad oils.

(21) "Chicken and turkey" means preparations of chicken and turkey in jars or tins with mixed noodles and/or other ingredients.

(22) "Meats" means canned meats and meats in combination with other foods, in containers of tin or glass, such as luncheon meats, spreads, sausages and sausage meats, frankfurters, hamburger, loaf goods, brains, tongues, bacon, corned beef, dried beef, sliced dried beef, hash, potted and deviled meats, spaghetti and meat balls, spaghetti sauce with meat, noodles and meat, vegetables and meat, stew, chili con carne, poultry, other than turkey and chicken, and similar items which are customarily considered shelf goods, and are not stored under refrigeration.

(23) "Evaporated milk" means evaporated milk in hermetically sealed containers of metal, glass, or any other material. Other milk products mean any food commodity which is processed or manufactured from cow's milk such as Klim, Avoset, condensed milk, and malted milk. Excluded, however, are butter, cheese, powdered skim milk, and fresh milk.

(24) "Packaged nuts" means all nuts packed in glass, tin or cartons, shelled or unshelled, roasted or unprocessed, and sold in shelf sizes, and include almonds, brazil nuts, macadamia nuts, salted nuts and peanuts, and all other nuts whether locally grown or imported. Bulk nuts means nuts which are not customarily sold by the retailer in the original package.

(25) "Olives" means all kinds of olives whether green, ripe, stuffed, oiled, brined, and include olives packed in vinegar and mustard.

(26) "Paper products" means toilet tissue, paper towels, paper napkins and picnic supplies, and wax paper. Picnic

supplies include paper eating implements, plates and cups.

(27) "Paste products" means all canned, packaged, and bulk macaroni, shells, noodles, spaghetti, and vermicelli.

(28) "Pet foods" means all kinds of pet foods, packaged, bulk, canned, or dry.

(29) "Pickles" means all kinds of pickles whether green, ripe, stuffed, oiled, brined and include pickles packed in vinegar and mustard.

(30) "Popcorn" means corn in tins or bags intended for the purpose of making popcorn.

(31) "Preserves, jams, and jellies" mean all preserves, jams, jellies, and marmalade, except bakers' jams and jellies. Peanut butter shall include all spreads of ground peanuts, irrespective of the size of the granules or pieces of peanuts contained therein, including peanut butter chunk.

(32) "Rice" means all grades of white and brown milled rice sold in all types of containers.

(33) "Salt" includes all table and cooking salt.

(34) "Seafood" means all processed fish and sea food in hermetically sealed containers of metal, glass, or any other material, and includes but is not limited to abalone, crab meat, lobster, salmon, sardines, shrimp, canned clam juice and broth. Excluded are fresh, dried, salted, smoked, and frozen fish and sea food.

(35) "Soap" means bar and packaged laundry and toilet soap in bars, cake, chips, powder, plain, granulated, or liquid form.

(36) "Canned soups" mean any soups or broths in hermetically sealed containers of metal, glass, or any other material, and include condensed soups and broths.

(37) "Dehydrated soups" mean any commodity intended for the making of soup by the addition of liquid and shall include noodle soup mixes.

(38) "Spices and extracts" mean all kinds of spices and extracts, including but not limited to sodium glutunate and mapleline, and extracts in shelf sizes, such as cinnamon, pepper, vanilla, and bouillon cubes.

(39) "Cleaners and home laundry supplies" shall include Clorox, Old Dutch Cleanser, laundry starch, bluing, powder and cake cleaners other than soaps, and all other cleansers, and home laundry supplies. Excluded are poisonous home supplies, the merchandising of which requires a license.

(40) "Sugar" means specialty sugars in packages or cartons imported from the mainland and also means direct-consumption sugar manufactured in the Territory of Hawaii.

(41) "Syrup and honey:" (i) "Syrup" means all edible molasses, sorghum, cane, maple, and corn syrups and blends thereof; (ii) "Honey" means imported extracted honey and includes combinations of extracted and comb honey.

(42) "Tea" means all kinds of tea, green and black, packaged and in bulk.

(43) "Canned vegetables" mean vegetables packed in containers of metal, glass, or any other material, and include but are not limited to beans, carrots, corn, okra, peas, pumpkins, puree of chopped vegetables, rhubarb, sauerkraut, spinach, tomatoes.

(44) "Dehydrated vegetables" mean vegetables or vegetable mixtures which are prepared for consumption by the addition of liquid to restore the product to its original condition.

(45) "Specific wooden products" mean products of wood locally made or imported, and limited specifically to the following: brooms and mops and their constituent parts, matches (including book matches), clothes pins, and toothpicks. Excluded are brooms manufactured by the Territorial Workshop for the Blind.

TABLE A—MAXIMUM PRICES FOR THE ISLAND OF OAHU ONLY

1. Baby food:

Heinz Junior Foods	6½ oz. tin 12¢ (2 for 23¢).
Heinz Strained Foods	4½ oz. tin 10¢ ($1.14 per doz.).

For all other baby food the division factor is .80.

2. Dried beans, peas, packaged & in bulk:	*Cents per pound*
Baby Lima	11
Bayo	10
Black Eye	10
Garbanzo	12
Horse	16
Large Lima, "Fordhook"	14
Large White	10
Red Kidney	11
Red Mexican	10
Small White	10
Peas, Bulk:	
Green Split	13
Yellow Split	12
Whole Green	12

For all other dried beans and peas the division factor is .77.

3. Beverages, bases, concentrates:	*Cents per container*
Kool-aid, assorted	5
Ovaltine, 14 oz. container	87
Ovaltine, 6 oz. container	45
Postum, Instant, 8 oz. container	54
Postum, Instant, 4 oz. container	31

For all other beverages, bases and concentrates, the division factor is .75.

4. Bakers supplies & baking soda:	*Cents per container*
Calumet Baking Powder, 1 lb. container	23
K. C. Baking Powder, 25 oz. container	23
K. C. Baking Powder, 10 oz. container	9
Royal Baking Powder, 12 oz. container	54
Royal Baking Powder, 6 oz. container	28
Arm & Hammer Baking Coda, 1 lb. container	12
Arm & Hammer Baking Soda, ½ lb. container	6

For all other bakers supplies and baking soda the division factor is .80.

5. Cereals—Prepared, ready to eat, breakfast cereals.	*Cents per package*
Bran Flakes, Post, 8 oz. package	14
Post Whole Bran Shredds, 10 oz. package	18
Cheerioats, 7 oz. package	19
Kellogg Corn Flakes, 11 oz. package	16
Kellogg Corn Flakes, 6 oz. package	10
Post Grapenuts, 12 oz. package	18
Post Grapenut Flakes, 12 oz. package	21
Post Grapenut Flakes, 7 oz. package	14
Kix, 7 oz. package	17
Post Assorted Tens, package	33
Post Toasties, 11 oz. package	16
Post Toasties, 6 oz. package	10
Puffed Wheat, Quaker, Regular package	16
Shredded Wheat, NBC, 12 oz. package	16
Wheaties, 8 oz. package	18

For prepared ready to eat cereals, the division factor is .82.

Cooking cereals:	*Cents per package*
Post Grapenut Wheat Meal, 1 lb. package	17
Quaker Rolled Oats, all types, large package	37
Quaker Rolled Oats, all types, 20 oz. package	17
Albers, Quick Oats, and Reg., large package	38
Albers, Quick Oats, and Reg., 20 oz. package	18
Mothers China Oats, large package	46
Cream of Wheat, all Types, 28 oz. package	31
Cream of Wheat, all Types, 14 oz. package	18
Carnation Wheat Flakes, 16 oz. package	18
Pearls of Wheat, large package	24
Sperry Wheat Hearts, 28 oz. package	28
Sperry Wheat Hearts, 14 oz. package	16

For all cooking cereals the division factor is .80.

6. Cocoa, Chocolate:	*Cents per container*
Baker's Breakfast Cocoa, 1 lb. container	23
Baker's Breakfast Cocoa, ½ lb. container	13
Baker's Dot Sweetened Choc., ½ lb. container	27
Baker's Prem Unswtd., ½ lb. container	21
Ghiradelli Ground Chocolate, 1 lb. container	34
Ghiradelli Ground Chocolate, ½ lb. container	20
Guttard Ground Chocolate, 2 lb. container	55
Guttard Ground Chocolate, 1 lb. container	30
Nestles Swt. Milk Cocoa, 1 lb. container	45
Nestles Swt. Milk Cocoa, 8 oz. container	45

For all other cocoa and chocolate the division factor is .80.

7. Mustard, Vinegar, Soy, Catsup, and Tomato Sauce	*Cents per*
Catsup:	*cntainer*
CHB, 14 oz. container	20
Del Monte, 14 oz. container	21
Heinz Ketchup, 14 oz. container	26
Yolo Tomato, 14 oz. container	17
Yolo Tomato, 12 oz. container	15

Mustard:	*Cents per container*
CHB, 8 oz. container	12
French's Prepared, 9 oz. container	14
French's Prepared, 6 oz. container	10
Gulden's, 8½ oz. container	15
Gulden's, 2 oz. container	5
Heinz, 6 oz. container	12
Libby Prepared, 9 oz. container	12
Libby Prepared, 6 oz. container	9
Schilling Sauce, 6 oz. container	12

Soya Sauce:	*Per container*
Blue Label, 1 gal. container	$1.51
Blue abel, 22 oz. container	.36
CHB, 1 gal. container	1.77
CHB, 24 oz. container	.51
Grade AA, 1 gal. container	2.31
Green Label, 1 gal. container	2.15
Green Label, 24 oz. container	.48
Jan-U-Wine 6 Star, 1 gal. container	2.27
Jan-U-Wine 6 Star, 22 oz. container	.52
Jan-U-Wine 2 Star, 1 gal. container	1.44
Jan-U-Wine 2 Star, 22 oz. container	.36
Red Label, 1 gal. container	2.30
Red Label, 24 oz. container	.35
Republican Green Label, 1 gal. container	2.10
Ringer, 1 gal. container	1.75

Tomato Sauce:	*Cents per container*
Del Monte, 8 oz. container	7
Green Bow, 8 oz. container	8
Vinegar:	
CHB, qt. container	20
CHB, pt. container	12
Heinz white or cider, qt. container	26
Heinz white or cider, pt. container	14
Heinz Tarragon, pt. container	30
Heinz Malt, pt. container	21
Lady's Choice, qt. container	22
Mopico, qt. container	19
Wellman, pt. container	13

For all other mustard, vinegar, soy, catsup and tomato sauces, the division factor is .80.

8. Condiments and Sauces:	*Cents per container*
Del Monte Chili Sauce, 12½ oz. container	26
Heinz Chili Sauce, 12 oz. container	37
Libby Chili Sauce, 12 oz. container	29
Ocean Spray Cranberry Sauce, 16 oz. container	20
Exquisite Cranberry Sauce, 16 oz. container	24
Best Foods Horseradish Mustard, 9 oz. container	10
IXL Mushroom Sauce, 7¾ oz. container	16
Trappeys Tobasco Peppers, 3 oz. container	11
Best Foods Relish Spread, Pt. container	37
Best Foods Relish Spread, 8 oz. container	22
Heinz India Relish, "Modern" container	28
B & M Corn Relish, 14 oz. container	23
Heinz Beefsteak Sauce, 8 oz. container	30
A-1 Sauce, 11 oz. container	58
A-1 Sauce, 6 oz. container	36
Heinz Worcestershire Sauce, 12 oz. container	44
Heinz Worcestershire Sauce, 6 oz. container	30
Lea & Perrins Worcestershire Sauce, 10 oz. container	74
Lea & Perrins Worcestershire Sauce, 5 oz. container	40

For all other condiments and sauces the division factor is .75.

9. Charcoal: For all charcoal the division factor is .82.

10. Corn Starch, Edible:	*Cents per package*
Argo, 1 lb. Pkg	11
Kingsford, 1 lb. Pkg	11
Staleys, 1 lb. Pkg	.10

For all other edible corn starches the division factor is .80.

11. Crackers, Biscuits, & Cookies: For all crackers, biscuits and cookies the division factor is .78.

12. Dessert Powders:	*Cents per package*
Jello, all flavors & Jello Pudding, 3 oz. pkg	8
Royal Puddings, gelatins, 3¼ oz. pkg	8

For all other dessert powders the division factor is .80.

13. Dessert Preparations: For all other dessert preparations, specifically, fruit cake packaged or tinned, puddings, mince meats, the division factor is .75.

14. Flour, baker's and family:	*Per container*
Family flour, 48 lb. container	$2.75
	Cents per container
Family flour, 5 lb. container	32

For all other bakers' and family flour the maximum price shall be determined by multiplying invoice cost by 1.2.

15. Prepared Package Flour (Not Including Cake Flour):

Pancake Flour:	*Cents per container*
Albers Flapjack, 20 oz. container	15
Aunt Jemima, 20 oz. container	15
Sperry Pancake Waffle Flour, 28 oz. container	21
Sperry Pancake Waffle Flour, 14 oz. container	12
Buckwheat Flour:	
Aunt Jemima, 20 oz. container	17
Biscuit Flour:	
Bisquick, 40 oz. container	39
Bisquick, 20 oz. container	21
Fishers Biskit Mix, 40 oz. container	39
Cornmeal Flour:	
Albers White Cornmeal, 20 oz. container	13
Albers Yellow Cornmeal, 20 oz. container	13
Sperry's White Cornmeal, 16 oz. container	12
Sperry's Yellow Cornmeal, 16 oz. container	12

For all other prepared package flour (not including cake flour) the division factor is .80.

16. Cake Flour, Prepared Packaged:	*Cents per container*
Cinch White Cake Mix, 17 oz. container	34
Cinch Golden Cake Mix, 17. oz. container	34
Dromedary Mix Gingerbread, 12½ oz. container	25
Gold Medal, Softasilk, 44 oz. container	35
Swans Down, 44 oz. container	40

For all other prepared packaged cake flour the division factor is .75.

17. Canned Fruits:	
Apples:	*Cents per glass*
Comstock Sliced Pie, 22½ oz. glass	28
	Cents per can
Comstock Pie tin, No. 2 can	19
Apple Sauce:	
Bowman's, No. 2 can	15
Hood River, No. 2 can	14
Libby, No. 2 can	20
S & W, No. 2 can	23
V-B (Very Best), No. 2 can	18
Apricots: Dodge, No. 2½ can	25
Cherries:	
Del Monte (Royal Anne), No. 2½ can	45
	Cents per glass
Del Monte (Royal Anne), No. 303 glass	27
Fruit Cocktail:	*Cents per can*
Del Monte, No. 1 can	21
	Cents per container
Exquisite, 16 oz. Container	19
	Cents per can
Libby, No. 2½ can	34
S & W, No. 2½ can	41
S & W, No. 1 can	23
	Cents per container
Stokeley, 16 oz. container	19
Fruit Salad:	*Cents per can*
S & W, No. 2½ can	52
Del Monte, No. 1 can	24
Grapefruit:	
Libby, 46 oz. can	53
Libby, 28 oz. can	20
Oranges: Mandarin, 11 oz. can	12
Peaches:	
FSCC "C" (various brands), No. 2½ can	25
FSCC "D", No. 2½ can	24
Pears:	*Cents per container*
Gale Compote, 32 oz. container	26
	Cents per glass
Del Monte, No. 303 glass	25
Pineapples:	*Cents per can*
Libby, Dole or Del Monte Sliced, No. 2½ can	25
Vitagold Crushed, No. 2½ can	24
Vitagold Crushed, No. 2 can	19
Vitapine Sliced, No. 2½ can	23
Plums:	*Cents per glass*
Del Monte Deluxe, No. 2½ glass	26
Del Monte Deluxe, No. 303 glass	18

For canned apples, applesauce, apricots, Royal Anne cherries, fruit cocktail, grapefruit, oranges, peaches, pears, pineapples, and combinations thereof other than when prepared for diabetics, the division factor is .82. For all other canned fruits and berries, the division factor is .77.

18. Dried Fruits:	*Cents per container*
Prunes "30/40," 1 lb. container	18
Prunes "50/60," 1 lb. container	17
Prunes "60/70," 1 lb. container	15
Prunes "90/100," 1 lb. container	14
	Cents per box
Raisins, 15 oz. box	13

For all other dried fruits the division factor is .80.

19. Canned Juices:

	Cents per container
Apple Cider:	
Martinelli, 1 gal. container	1.10
Martinelli, 1 qt. container	29
Apple Juice:	
Hartman, 12 oz. container	16
Martinelli, 32 oz. container	28
Martinelli, 12 oz. container	12
Signet, 32 oz. container	34
S & W, 12 oz. container	20
Apricot Nectar:	
Apricade S & W, 12 oz. container	13
Table Aid, 12 oz. container	14
Grape Juice:	
Church's, pt. container	22
Keystone, qt. cotnainer	55
Keystone, pt. container	29
S & W, qt. container	48
Tea Garden, 32 oz. container	62
Welch, qt. container	58
Welch, pt. container	31
Welch, jar	9
Grapefruit Juice:	
Libby Natural, 46 oz. container	35
Silver Nip Unswt., 46 oz. container	43
	Cents per can
Silver Nip, No. 2 can	18
	Cents per container
Treesweet Unswt., 46 oz. container	39
Orange Juice:	
Absopure, 47 oz. container	65
Absopure, 12 oz. container	16
Citra Gold, 12 oz. container	17
Libby's, 47 oz. container	60
Libby's, 18 oz. container	24
Libby's, 12 oz. container	16
Sunshine, 18 oz. container	24
Sunshine, 12 oz. container	20
Peach Nectar: S & W, 12 oz. container	13
Pearade: S & W, 12 oz. container	13
Pineapple Juices:	
Libby's, Del Monte, All Brands, 46 oz. container	33
Libby's, Del Monte, All Brands, 18 oz. container	14
Prune Juice:	
Sunsweet, qt. container	27
Sunsweet, 12 oz. container	13
	Cents per can
Vegetable Juices:	
Rolle, 46 oz. can	47
Rolle, No. 2 can	22
V-8 Cocktail, 46 oz. can	36
V-8 Cocktail, No. 2 can	17

For all other canned juices the division factor is .80.

20. Mayonnaise and Salad Dressing:

	Cents per container
Mayonnaise:	
Best Foods, 1 pt. container	35
Best Foods, 1 qt. container	60
Best Foods, 8 oz. container	20
Best Foods, 4 oz. container	11
Durkee, 1 qt. container	62
Durkee, 1 pt. container	36
Durkee, 8 oz. container	21
Kraft, 16 oz. container	38
Kraft, 8 oz. container	22
Salad Dressings:	
Best Foods French Dressing, 8 oz. container	18
Best Foods French Dressing, 4 oz. container	11
Dinner Bell, 16 oz. container	27
Durkee French Dressing, 16 oz. container	31
Durkee French Dressing, 8 oz. container	18
Kraft French Dressing, 8 oz. container	19

20. Mayonnaise and Salad Dressing—Continued.

	Cents per container
Salad Dressings—Continued.	
Kraft Miracle Whip Salad Dressing, 32 oz. container	52
Kraft Miracle Whip Salad Dressing, 16 oz. container	33
Kraft Miracle Whip Salad Dressing, 8 oz. container	19
Kraft Miracle Whip Sandwich Spread, 16 oz. container	33
Kraft Miracle Whip Sandwich Spread, 8 oz. container	19

For all other mayonnaise and salad dressing the division factor is .80.

21. Chicken and Turkey:

Lynden Egg Noodles & Chicken, 16 oz. container	.36
Lynden Egg Noodles & Turkey, 16 oz. container	.36
Lynden Twistee Noodle Dinner, 16 oz. container	.17
Lynden Ravioli Italian Style, 16 oz. container	.23
Lynden Boned Chicken, 3½ oz. container	.53
Lynden Sliced Chicken, 5½ oz. container	.81
Lynden Minced Chicken, 4 oz. container	.44
Lynden Diced Chicken, 4 oz. container	.50
Lynden Boned Turkey, 8 oz. container	1.00
Lynden Chicken a la King, 16 oz. container	.48
Lynden Roast Chicken, 16 oz. container	1.34
Lynden Roast Chicken, 8 oz. container	.73
For all other chicken and turkey the division factor is	.77

22a. Meats—Deviled Ham, Dried Beef, Lamb, Sheep and Ox Tongue, Pork Sausage and Canned Hamburger and Onions, Pigs Feet, Chili Con Carne, Tamales, Ravioli, Enchilada:

	Cents per tin
Deviled Ham, Libby, No. ¼ tin	19
Deviled Ham, Swifts, No. ¼ tin	19
Dried Beef FSCC, 7 oz. tin	48
Dried Beef Armour's Star, 3½ oz. tin	27
Dried Beef Armour's Star, 7 oz. tin	50
Dried Beef Armour's Star, 2½ oz. tin	21
Pigs Feet Armour's Star, 14 oz. tin	31
Pork Sausage FSCC, all brands, 24 oz. tin	69
Sheep Tongue "V. B.", No. 1 tin	10
Sheep Tongue "V. B.", No. ½ tin	5
Tamale, Armour's Star, 16 oz. tin	29
Tamale, Armour's Star, 10½ oz. tin	22

For all other deviled ham, dried beef, lamb, sheep and ox tongue, sausage and canned hamburger and onions, pigs feet, chili con carne, tamale, ravioli, enchilada the division factor is .80.

22b. Meats, Other:

	Per tin
Corned Beef, FSCC, 6 lb. tin	$2.42
	Cents Per tin
Corned Beef, FSCC, 12 oz. tin	35
Deviled or Potted Meats, all brands, No. ½ tin	12
Deviled or Potted Meats, all brands, No. ¼ tin	7
Pork Brains, Swifts, 12 oz. tin	11
Pork Luncheon Meat, Spam, 12 oz. tin	45
Pork Luncheon Meat, Prem, Neet, FSCC, all other, 12 oz. tin	41

22b. Meats, Other—Continued.

	Per tin
Pork Tongue, 6 lb. tin	$3.26
	Cents per tin
Sausage Meat, Armour's Banner, No. 1 tin	21
Vienna Sausage, Armour's Star & Libby's, No. ½ tin	15
Lunch Tongue, Armour's Star, No. 1 tin	48
Lunch Tongue, Armour's Star, No. ½ tin	25
Lunch Tongue, Banner Brand, No. ½ tin	19

For all other meats the maximum price shall be determined by multiplying invoice cost by 1.2.

23. Milk Products:

	Cents per bottle
Avoset Shipping Cream, ½ pt. bottle	34
Avoset Light Cream, ½ pt. bottle	28
	Cents per can
Eagle Condensed Milk	22
Evaporated Milk, all brands, 14½ oz. tin	12
	Per doz. cans
Evaporated Milk, all brands, 14½ oz. tin	$1.38
	Per case of 48 cans
Evaporated Milk, all brands, 14½ oz. tin	$5.28
	Per can
Klim Powdered Milk, 5 lb. can	$3.25
Klim Powdered Milk, 1 lb. can	.77

For all other milk products (not including butter, cheese, powdered, skimmed milk, and fresh milk) the division factor is .80.

24. Nuts:

	Cents per package
Planters' Peanuts, 5 oz. package	18

For all other packaged unsalted nuts, and salted peanuts the division factor is .80. For all unsalted nuts in bulk the division factor is .77. For all salted nuts (not including salted peanuts) the division factor is .70.

25. Olives:

For all olives the division factor is .75.

26. Paper Products:

For the following paper products the division factor is as specified: toilet tissue .82; paper towels .80; paper napkins and picnic supplies .77; and wax paper .80.

27. Paste Products:

	Cents per package
Fontana Paste Products, 8 oz. package	10
	Cents per bag (2 for 35)
Gold Medal elbow, cut and salad macaroni, 1 lb. cel. bag	18
Gold Medal Macaroni & Spaghetti, 1 lb. cel. roll	18
	Cents per bag
Gold Medal Shells, 1 lb. cel. bag	18
	Cents per bag (2 for 59)
Gold Medal Egg Noodles, 1 lb. cel. bag	30
	Cents per bag (2 for 31)
Gold Medal Egg Noodles, 8 oz. cel. bag	16
	Cents per package
Royal Spaghetti, 8 oz. package	9
Royal Macaroni, 8 oz. package	9

For all other paste products the division factor is .80.

28. Pet Food:

	Cents per container
Dog's Food:	
Friskies, Albers, 2 lb. container	28
Friskies, Albers, 12 oz. container	11
Husky Concentrated, 8 oz. container	9
Strong Heart Concentrated, 8 oz. container	9
Bird Seed:	
Robinson Blue Bird, 12 oz. container	13
S & W, 12 oz. container	19
French's, 10 oz. container	13

For all other pet foods the division factor is .80.

29. Pickles:

	Cents per container
CHB Sweet Whole, 21 oz. container	45
CHB Sweet Mixed, 21 oz. container	45
CHB Sweet Dills, 21 oz. container	38
CHB Chow Chow, 21 oz. container	37
CHB Whole Dills, 21 oz. container	31
CHB Chili Peppers, 21 oz. container	31
CHB Sweet Whole, 12 oz. container	29
CHB Sweet Mixed, 12 oz. container	29
CHB Chow Chow, 12 oz. container	29
CHB Chili Pepper, 12 oz. container	24
CHB Pepper Mixed, 12 oz. container	25
Del Monte Chili Pepper, 21 oz. container	34
Del Monte Chow Chow, 21 oz. container	41
Del Monte Sweet Mix, 21 oz. container	47
Del Monte Dill Pickles, 12 oz. container	22
Del Monte Sour & Sour Mixed, 12 oz. container	23
Del Monte Sweet & Sweet Mixed, 12 oz. container	30
Del Monte Chili Peppers, 6 oz. container	17
Del Monte Chow Chow, 6 oz. container	17
Del Monte Dill Pickles, 6 oz. container	17
Del Monte Sour & Sour Mixed, 6 oz. container	17
Del Monte Sweet & Sweet Mixed, 6 oz. container	17
Heinz Sweet Mixed, Jumbo container	50
Heinz Sweet Gherkins & Sweet Mixed, Modern container	30
Heinz Sweet Gherkins & Sweet Mixed, Picnic container	19
Heinz Chow Chow, Modern container	30
Heinz Cucumber, Jumbo container	30
	Cents per jar
Heinz Cucumber, Octagon jar	19
	Cents per container
Libby Sweet & Sweet Mixed, 21 oz. container	46
Libby Dill Pickles, Picnic container	17
Libby Sweet & Sweet Mixed, Picnic container	17
Libby Homemade, Family container	32
	Cents per jar
Trappeys Green Pickled Chili Peppers, 32 oz. jar	32

For all other pickles the division factor is .78.

30. Popcorn. For all popcorn the division factor is .77.

31. Preserves, Jams and Jellies:

	Cents per jar
Apple Butter, Heinz, 17½ oz. jar	27
Apple Butter, Libby, 33 oz. jar	34
Berryland Ass't Preserves, 32 oz. jar	56
CHB Strawberry Preserves, 16 oz. jar	30
Crystal Apricot Preserves, 32 oz. jar	38
Crystal Fig Preserves, 32 oz. jar	38
Crystal Loganberry Preserves, 32 oz. jar	43
Crystal Peach Preserves, 32 oz. jar	38
Crystal Plum Preserves, 32 oz. jar	38
Crystal Youngberry Preserves, 32 oz. jar	43

31. Preserves, Jams and Jellies—Continued.

	Cents per jar
Del Monte Deluxe Plum Jam, 7-8 oz. jar (Buffet)	13
Del Monte Deluxe Raspberry Jam, 7-8 oz. jar (Buffet)	18
Del Monte Deluxe Strawberry Jam, 7-8 oz. jar (Buffet)	18
Gold Coast Black Raspberry Jam, 32 oz. jar	58
Gold Coast Boysenberry Jam, 32 oz. jar	55
Gold Coast Loganberry Jam, 32 oz. jar	56
Gold Coast Red Raspberry Jam, 32 oz. jar	62
Gold Coast Youngberry Jam, 32 oz. jar	55
Mary Ellen Plum Jam, 32 oz. jar	47
Sierra Club Plum & Apple Jam, 32 oz. jar	34
Starr Strawberry Jam, 32 oz. jar	62
Starr Strawberry Jam, 16 oz. jar	33
Skippy Chunk Style Peanut Butter, 1 lb. jar	46
Skippy Creamy Peanut Butter, 1 lb. jar	46
Wellman Orange Marmalade, 32 oz. jar	46
Wellman Orange Marmalade, 16 oz. jar	25

For all other preserves, jams, jellies and peanut butters, the division factor is .78.

32. Rice:

Rice US #3, per lb	$0.09
Rice US #5, per lb	.09
Rice US #5, per 25 lb. bag	2.23
Rice US #5, per 50 lb. bag	4.40
Rice US #5, per 100 lb. bag	8.70

For all other rice the maximum price shall be determined by multiplying invoice cost by 1.2.

33. Salt:

	Cents per package
Aloha, 2 lb. package	8
Arden Shaker, 2 lb. package	8
Arden Shaker, 1½ lb. package	4
Leslie Shaker, 2 lb. package	9
Leslie Shaker, 1½ lb. package	4
Maximum, 2 lb. package	7
Morton, 26 oz. package	9
Snowflake Shaker, 2 lb. package	11

For all other salt the division factor is .80

34. Seafood—Salmon, Sardines, Tuna, Pilchards, Herring & Mackerel:

	Cents per can
Herring (FSCC) Various Brands, No. 1 can	15
Pilchards Various Brands, 16 oz. can	12
Pink "No. 3" Salmon, 16 oz. can	26
Tomato Maine Sardines, Various Brands, 3¼ oz. can	7
Tuna Best Buy Grated, 6 oz. can	37
Tuna, Sun Harbor, Light Meat, 6½ oz. can	42
Tuna, Sun Harbor, Grated Tuna, 6½ oz. can	38

For all other Salmon, Sardines, Tuna, Pilchards, Herring and Mackerel and seafoods not elsewhere specified the maximum price shall be determined by multiplying invoice cost by 1.2.

Oysters, Barracuda, Codfish, Codfish Cakes, Fish Flakes:	Cents per can
Barracuda Sea View, 6 oz. can	33
Coddies, Davis Bros., 10 oz. can	22
Codfish Cakes, Dory Mate, 10 oz. can	20
Fish Flakes, Davis, 7 oz. can	23
Clipper Oysters, 7½ oz. can	46
High Sea Oysters, 7½ oz. can	46
Mississippi Miss Oysters, 7½ oz. can	46

For all other Oysters, Barracuda, Codfish, Codfish Cakes, and Fish Flakes the division factor is .80.

Lobster, crab, shrimp, clam, shadroe, abalone and anchovies:	Cents per can
Lobster Bolero Cuban Rock, 5½ oz. can	60
Lobster Reef Brand, 6 oz. can	45
Shrimp R. C. Broken Wet, 7 oz. can	39
Shrimp High Sea Broken Wet, 7 oz. can	39
Shrimp High Sea Small Wet, 7 oz. can	40
Shrimp Crescent Small Wet, 7 oz. can	41
Shrimp, Buffay Jumbo Wet, 7 oz. can	46

For all other lobster, crab, shrimp, clam, shadroe, abalone and anchovies the division factor is .75.

35. Soap, Bar, Package and Laundry:

	Cents per package
Borene—Granulated, Lge. Pkg	32
Calla Lilly, Granulated, Lge. Pkg	29
	Cents per cake
Crystal White, Reg. Size cake	5
	Cents per bar
Fels-Naphtha, Bar	6
	Cents per package
Ivory Soap Flakes, Large Package	30
Ivory Soap Flakes, Small Package	12
	Cents per bar
Lava, Large Bar	12
Lava, Small Bar	8
	Cents per package
Lux Flakes, Large Package	29
Lux Flakes, Small Package	12
Nu Bora Granulated, Giant Package	66
Nu Bora Granulated, Large Package	25
	Cents per cake
OK Blue Soap, Cake	7
OK Brown Soap, Cake	7
	Cents per package
Oxydol, Giant Package	84
Oxydol, Large Package	30
Oxydol, Small Package	12
	Cents per bar
P&G White Naptha, Cake	5
	Cents per package
Rinso Soap Flakes, Giant package	82
Rinso Soap Flakes, Large package	29
Rinso Soap Flakes, Small package	12
Supersuds, Giant package	81
Supersuds, Large package	28

For all other soap, bar, package and laundry, the division factor is .82.

36. Soap, Toilet:	Cents per cake
Ivory, Large cake	13
	(2 for 25)
Ivory, Medium cake	8
	(3 for 23)
Ivory, Guest cake	6
Lifebuoy, Regular cake	9
	(2 for 17)
Lifebuoy, Guest or small cake	5
Lux, Cake	9
	(3 for 25)
Palmolive, Large or bath	12
Palmolive, Regular cake	9
Swan soap, Large cake	13
	(2 for 25)
Swan soap, Regular cake	8
	(3 for 25)

For all other toilet soap the division factor is .80.

87. Soups, Canned:

Heinz Condensed Soup:

	Cents per can (2 for 37)
Chicken Noodle, No. 1 can	19
	Cents per can (2 for 27)
Tomato, No. 1 can	14
	Cents per can
Vegetable, No. 1 can	16
	Cents per can (2 for 37)
Vegetable-Beef, No. 1 can	19
	Cents per can
Lynden's Soup:	
Chicken-Noodle, No. 1 can	12
Van Camp's Soup:	
Vegetable, No. 300 tall can	15
Tomato, No. 300 tall can	13
Asparagus, No. 1 can	10

Campbell's soups	Old style	New condensed
	Cents per can	*Cents per can*
Chicken, No. 1 can	14½	19½
Chicken Gumbo, No. 1 can	----------	18
Bouillon, No. 1 can	14½	18
Consomme, No 1 can	14½	18
Vegetable-Beef, No. 1 can	12½	18
Beef, No. 1 can	12½	18
Chicken-Noodle, No. 1 can	12½	17½
Vegetable, No. 1 can	13	14½
Pea, No. 1 can	12½	----------
Cream of Potato, No. 1 can	12½	----------
Black Bean, No. 1 can	12½	----------
Scotch Broth, No. 1 can	----------	14½
Assorted, No. 1 can	12½	----------
Asparagus, No. 1 can	12½	----------
Celery, No. 1 can	12½	----------
Clam Chowder, No. 1 can	12½	14½
Mock Turtle, No. 1 can	12½	14½
Oxtail, No. 1 can	12½	14½
Pepper Pot, No. 1 can	12½	14½
Vegetarian Veg., No. 1 can	----------	14½
Consomme Madril., No. 1 can	----------	14½
Tomato, No. 1 can	10	11

For all other canned soups, the division factor is .80.

88. Soups Dehydrated:

Soup Mix:

	Cents per package
Dainty Noodle, 2½ oz. Package	10
Lipton's Continental Noodle, 2½ oz. Package	10
Minute Man, 1 oz. Package	10
Rhapsody Chicken Noodle, 2½ oz. Package	10
West Chicken Noodle, 2½ oz. Package	10

For all other dehydrated soups the division factor is .80

89. Spices and Extracts:

Extracts:

	Cents per jar
Bouillon Cubes, Libby, jar/100	39
	Cents per carton
Coloring, all types, Schillings, carton	16
	Cents per container
Lemon, Schillings, 2 oz. container	41
Lemon, Schillings, 1 oz. container	23
Vanilla, Burnett's, 4 oz. container	83
Vanilla, Burnett's, 2 oz. container	43
Vanilla, Schillings, 4 oz. container	82
Vanilla, Schillings, 2 oz. container	41
Vanilla, Schillings, 1 oz. container	23
Pimentos:	
Sunshine, 7 oz. container	19
Bolero, 14 oz. container	26

89. Spices and Extracts—Continued.

	Cents per container
Pepper:	
Black, Schillings, 4 oz. container	17
Black, Schillings, 2 oz. container	10
White, Schillings, 2¼ oz. container	13
Durkee, Black, 1¾ oz. container	6
Durkee, White, 2 oz. container	7
Enterprise, Black, 2 oz. container	7
	Cents per package
Spices, Miscellaneous:	
Bouquet, Kitchen, 4 oz. pkg	49
	Cents per container
Celery Salt, Schillings, 3 oz. container	15
Cinnamon, Schillings, 2 oz. container	19
Garlic Salt, Schillings, 3 oz. container	15
Nutmeg, Schillings, 2 oz. container	14
Onion Salt, Schillings, 3 oz. container	15

For all other spices and extracts the division factor is .75.

90. Supplies for the Home and Cleansers:

	Cents per container
Babbitt, 13 oz. container	6
Bear Brand Blueing, 10 oz. container	11
	Cents per square
Blue, Magic, Square	1
	Cents per cake
Bon Ami, Cake	11
	Cents per Tin
Bon Ami, Powder Tin	14
	Cents per container
Clorox, ½ gal. container	30
Clorox, Qt. container	17
	Cents per can
Old Dutch, can	11
	Cents per container
Purex, 1 gal. container	54
Purex, ½ gal. container	31
Purex, Qt. container	17
Purex, Pt. container	9
	Cents per cake
Sapolio, Cake	11
	Cents per box
SOS Cleaner, Box of 4	15
	Cents per container
Starch Gloss Argo, 1 lb. container (2 for 25)	13
Starch, Staley Gloss, 1 lb. container (2 for 21)	11
Starch, Elastic Gloss, 12 oz. container	9

For all other supplies for the home and cleansers other than poisonous supplies, the merchandising of which requires a license, the division factor is .82.

91. Sugar:

	Cents per lb.
Granulated White Sugar, All brands	7
	Cents per package
C & H Cubelets, 2 lb. package	23
C & H Cubelets, 1 lb. package	12
C & H Brown Sugar, 1 lb. package	10
C & H Powdered Sugar, 1 lb. package	11

For all other locally produced sugar, the maximum price shall be determined by multiplying the invoice cost by 1.2. For all other imported sugar the division factor is .82.

92. Syrups, Honey and Molasses:

Honey, Locally Produced; Strained and Comb:

1 qt. gl. jar. (48 oz. net wt. or 32 liq. oz.)	$0.65
1 pt. gl. jar. (24 oz. net wt. or 16 liq. oz.)	.38
⅔ pt. gl. jar. (16 oz. net wt. or 12 liq. oz.)	.26
½ pt. gl. jar. (12 oz. net wt. or 8 liq. oz.)	.20
¼ pt. gl. jar. (6 oz. net wt. or 4 liq. oz.)	.10
4¼" Square Combs	.27
Cents per can	
Molasses:	
Green Brer Rabbit, 12 fl. oz. can	20
Gold Brer Rabbit, 12 fl. oz. can	23
Cents per container	
Syrups:	
Karo—Red Label, 24 oz. container	22
Karo—Blue Label, 24 oz. container	21
Log Cabin, 1 gal. container	1.89
Log Cabin, 24 oz. container	42
Cents per glass	
Log Cabin, 12 oz. glass	25
Cents per tin	
Log Cabin, 12 oz. tin	21
Cents per container	
Staley's Golden, 24 oz. container	20

For all other syrups, honey and molasses the division factor is .80.

93. Tea:

	Cents per package
Maxwell House, ½ lb. package	34

For all other tea the division is .80.

94. Canned Vegetables:

	Cents per can
Artichoke Hearts: Sunset in brine, 7½ oz. can	47
Asparagus:	
Crescent Large Nat., No. 1 can	41
Del Monte E. G. Spears, No. 2 can	34
Del Monte All Green Salad Points, 16 oz. can	37
Del Monte All Green Salad Points, Picnic	29
Del Monte E. G. Tips, Picnic	23
Homelike Asp. Spears, No. 2 can	33
Hearts Delight, No. 2 can	30
Libby, No. 2 can	34
Libby, Picnic	27
Sunstrand Tips, No. 2 can	32
Beans:	
Big R Cut Green String, No. 2 can	25
Cents per glass	
Del Monte Whole Green, No. 303 glass	21
Cents per can	
Diamond R Florida Cut, No. 2 can	19
Florida String, No. 2 can	22
Green Flat Cut, No. 2 can	18
Green Pearl Rd. Cut String, No. 2 can	24
Lord Chesterfield, No. 2 can	23
Success Cut String, No. 2 can	20
Beets:	
Deerfield Whole, No. 2 can	17
Cents per glass	
Del Monte Medium Whole, No. 303 glass	19
Del Monte Diced, No. 303 glass	15
Del Monte Sliced, No. 303 glass	17

	Cents per can
Beets—Continued.	
Del Monte Midget Whole, No. 2 can	20
Del Monte Medium Whole, No. 2 can	18
Dodge Sliced, No. 2 can	15
Exquisite, All Types, No. 2 can	14
Stokely, All Types, No. 2 can	14
	Cents per glass
Carrots: Libby, Diced, No. 303 glass	13
	Cents per can
Corn:	
Cross Keys, No. 2 can	16
Del Monte, all kinds, No. 2 can	19
	Cents per glass
Del Monte, all kinds, No. 303 glass	16
	Cents per can
Exquisite, No. 2 can	18
Libby, Whole Kernel and Cream Style, No. 2 can	19
	Cents per glass
Libby, Whole Kernel and Cream Style, No. 303 glass	18
	Cents per can
Maid Rite, C. S., No. 2 can	20
Mrs. Grimes, C. S., No. 2 can	18
Old Grimes Cream, No. 2 can	19
Palace Cream, No. 2 can	18
Stokely, No. 2 can	18
Tastewell (all), No. 2 can	17
Peas: FSCC Various Brands, No. 2 can	18
Pork & Beans: FSCC All Brands, No. 2½ can	23
	Cents per package
Potatoes: Shoe String Brownie, 3½ oz. package	13
	Cents per can
Pumpkin:	
Libby, 32 oz. can	16
Del Monte, No. 2½ can	16
Spinach:	
Exquisite, No. 2½ can	20
Hartford Club, No. 2½ can	25
Pine Cone, No. 2½ can	24
Raiters, No. 2½ can	19
Stew, Beef and Vegetable:	
FSCC, all brands, 30 oz. can	35
FSCC, all brands, 28 oz. can	33
Tomato:	
Cala Ripe Standard, No. 2½ can	18
Del Monte, No. 2½ can	23
Del Monte, No. 2 can	17
Exquisite, No. 2½ can	23
Great Value, No. 2½ can	17
Likewell, No. 2½ can	17
Libby, No. 2½ can	23
Mission Solid Pack, No. 2½ can	17
Mission Solid Pack, No. 2 can	16
Nations Treat, No. 2½ can	17
Premium Standard, No. 2½ can	17
Sea Rock Standard, No. 2½ can	17
	Cents per glass
Stokely, No. 303 glass	13

For all other canned asparagus, beans, beets, carrots, corn, peas, pork and beans, potato, pumpkin, stew, spinach, tomato, and combinations thereof other than when prepared for diabetics, the division factor is .82. For all other canned vegetables the division factor is 77.

45. Dehydrated vegetables: For all dehydrated vegetables the division factor is .80.

46. Wooden products: For all specified wooden products the division factor is .80. This includes toothpicks, clothes-pins, brooms and mops and parts thereof, and matches, including book-matches.

14. Section 41a is added to read as follows:

SEC. 41a. *Table XXVIIIa: Maximum prices at wholesale for certain grocers items.*—(a) *Records to be kept.* Notwithstanding the provisions of section 11 of this MPR 373, every person making sales of the commodities covered by this section 41a shall on and after the date any such commodity becomes subject to this regulation, keep for inspection by the Office of Price Administration for a period of not less than one year, complete and accurate records of each purchase and each sale made by such person, showing the date thereof, name and address of the buyer and seller, the price paid or received, quantity purchased or sold, and all data including sales, freight, and other invoices or memoranda reflecting the charges incurred by the wholesaler in arriving at his "landed cost."

(b) *Reports.* Every person making the kind of sales covered by this section 41a shall make and file with the Office of Price Administration, Hawaii Territorial Office, Honolulu, T. H., the following reports:

(1) Any reports that the Office of Price Administration, Hawaii Territorial Office, may from time to time require.

(2) Every person making sales of commodities covered by this section 41 (a) shall report to the Office of Price Administration, Hawaii Territorial Office, Honolulu, T. H., on Form OPA–G–2, the maximum price for all sales made by him of any such commodity where the maximum price for such sale has been established by the provisions of Table B, hereof, and where such maximum price is higher or lower than the seller's previous maximum price for that commodity; *Provided,* That such report need be made only if the wholesaler has on hand one hundred cases or more of such commodity, except that reports as to spices and extracts shall be made regardless of the quantity on hand.

(c) For commodities imported directly from the mainland, not including commodities purchased from the Federal Surplus Commodities Corporation and commodities received from or via any other Island in the Territory, the wholesaler shall calculate his maximum price for each item (that is, for each kind, brand, grade, and container size) of such commodity covered by this regulation as follows:

(1) The wholesaler shall find his "landed cost" for the item he is pricing by adding the amounts permitted in subdivisions (i) through (vi) set forth below. If any of the amounts, or any part thereof, specified in any subdivision has already been included in another subdivision it may not again be added.

(i) An amount equal to the price which the wholesaler agreed to pay the mainland seller before deducting any cash discount, swell allowance or promotional allowance.

(ii) An amount equal to the transportation charges, if any, actually incurred by the wholesaler for transportation from the mainland point at which the wholesaler received delivery to the mainland port of shipment, including Federal transportation tax, terminal charges, and extra charges for shipment of less than carload lots.

(iii) An amount equal to mainland storage charges and insurance in connection therewith actually incurred by the wholesaler, but charges for storage and insurance in connection therewith in excess of six months shall not be included.

(iv) An amount equal to cartage charges actually incurred by the wholesaler for cartage from warehouse to dock in port of shipment.

(v) An amount equal to charges for ocean freight, war risk and marine insurance actually incurred by the wholesaler; and there may be included in this amount Territorial tolls and tonnage tax as shown on the bill of lading. However, the amount by which any cost of war risk insurance exceeds the rates charged by the War Shipping Administration shall not be included, but the type of coverage is at the discretion of the buyer or seller.

(vi) An amount equal to cartage charges in the port of entry in the Territory of Hawaii from dock to warehouse, computed at a rate not in excess of $1.20 per ton, weight or measurement, provided that the commodity is moved from the dock at the wholesaler's expense.

(2) The wholesaler will then divide this "landed cost" by the division factor specified in Table B, for the item he is pricing: *Provided,* That a wholesaler located in the Island of Oahu shall add to his "landed cost" an amount not more than the applicable markup set forth in Table A, for the item he is pricing, in lieu of using the division factor in Table B for such item, if such item is specifically listed in Table A.

(3) In appropriate cases where special service is rendered, the wholesaler may make application to the Office of Price Administration for an additional markup based upon the cost of the service, and the Territorial Director of the Office of Price Administration for the Territory of Hawaii may approve or disapprove an additional margin.

(4) In an identical item (that is, the same kind, brand, grade, and container size) in the wholesaler's inventory on hand has two or more different landed costs, then the "landed cost" for the item may be determined by calculating a weighted average "landed cost" for the entire inventory of that item on hand. Weighted average "landed cost" shall be calculated as follows: each different "landed cost" shall be multiplied by the number of units having such "landed cost." The products of such multiplication shall be added and the sum thereof divided by the total number of the units for which a weighted average "landed cost" is desired. The quotient or result of such division is the weighted average "landed cost." This provision is permis-

sive and not mandatory. The wholesaler need not average the different landed costs for the identical item, but may use each "landed cost" separately.

(5) These maximum prices contemplate distribution by only one wholesaler in the Territory of Hawaii. In the event that in the course of distribution of any commodity covered by this section after arrival, such commodity moves through the hands of more than one wholesaler, then the wholesaler shall distribute between them the margins set forth in tables annexed hereto. In such event the primary wholesaler making the importations shall furnish the wholesaler purchasing from him a statement of the maximum price determined in accordance with this section.

(6) No extra charge may be added for delivery, except as follows:

(i) *Island of Maui.* For delivery in the Hana section of salt and any item bearing a margin of 9 per cent or less as set forth in table B, a wholesaler may add a hauling charge in an amount not in excess of $5.00 per ton, weight or measurment. The Hana section shall comprise all of the district of Hana and that portion of the district of Makawao lying south of the south boundary of the Ahupuha of Kamaole, County of Maui.

(ii) *Island of Hawaii.* For delivery from the City of Hilo to a retail establishment, or the wholesaler's warehouse, located outside of Zone 1, a wholesaler may add an amount not in excess of the trucking charge actually incurred. Zone 1 shall comprise the area of Puna and South Hilo, as defined by the Survey Department of the Commissioner of Public Lands of the Territory of Hawaii.

(7) In the case of a sale to a buyer who does not have a gross income tax license, the seller may add to the maximum price one and one-quarter per cent (1¼%) of it.

(8) Any maximum prices calculated under this regulation shall be based on the wholesaler's customary unit of sale (that is, per case, per box, per bag, per dozen, or the like). All such calculations resulting in a fraction of a cent shall be reduced to the nearest lower cent if the fraction is less than one-half cent, and shall be increased to the nearest higher cent if the fraction is one-half cent or more.

(d) In the case of purchases from the Federal Surplus Commodities Corporation, or purchases from mainland sellers where the price to be paid to such seller includes delivery to the dock in the Territory of Hawaii, the wholesaler shall calculate his maximum price for each item (that is, for each kind, brand, grade, and container size) of a commodity covered by this regulation as follows:

(1) The wholesaler shall find his "landed cost" for the item he is pricing by adding to the net price paid to the mainland seller or the Federal Surplus Commodities Corporation an amount for cartage from the Federal Surplus Commodities Corporation's warehouse or the dock to the wholesaler's warehouse, computed at a rate not in excess of the amounts set forth in paragraph (c) (1) (vi) above.

(2) The wholesaler will then divide this "landed cost" by the division factor specified in Table B, for the item he is pricing: *Provided,* That a wholesaler located in the Island of Oahu shall add to his "landed cost" an amount not more than the applicable markup set forth in Table A, for the item he is pricing, in lieu of using the division factor in Table B for such item, if such item is specifically listed in Table A.

(3) Subparagraphs (3), (4), (5), (6), (7) and (8) of paragraph (c) above are incorporated in this paragraph (d) and shall have the same force and effect as if fully set forth herein.

(e) For commodities received from or via another Island in the Territory, the wholesaler shall calculate his maximum price for each item (that is, for each kind, brand, grade, and container size) of a commodity covered by this section by adding the amounts permitted in subparagraphs (1) through (4) set forth below. If any of the amounts, or any part thereof, specified in any subparagraph has already been included in another subparagraph, it may not again be added.

(1) An amount equal to the maximum price in the Island from which the item is transshipped, as calculated under paragraph (c) above.

(2) An amount equal to cartage charges for cartage from the warehouse to dock in the Island from which the item is transhipped, calculated at the rates set forth in paragraph (c) (1) (vi) above, whether or not such cartage charges are actually incurred.

(3) An amount equal to charges for ocean freight, war risk and marine insurance actually incurred by the wholesaler for transshipment between the Islands, and there may be included in this amount Territorial tolls and tonnage tax as shown on the bill of lading.

(4) An amount equal to cartage charges in the Island on which the wholesaler is located from dock to warehouse, computed at a rate not in excess of the amounts set forth in paragraph (c) (1) (vi) above, *Provided,* That the commodity is moved from the dock at the wholesaler's expense.

(f) *Definitions.* (1) "Canned fruits and berries" mean fruits and berries preserved by heat and hermetically sealed in containers of metal, glass, or any other material, and include but are not limited to the following: (i) apples, apple sauce, apricots, cherries, figs, fruit cocktails, fruits for salads, peaches, pears, pineapples, and plums; (ii) blackberries, blueberries, boysenberries, cranberries, gooseberries, huckleberries, loganberries, raspberries, strawberries, and youngberries.

(2) "Canned vegetables" mean vegetables packed in containers of metal, glass, or any other material, and include but are not limited to beans, carrots, corn, okra, peas, pumpkins, puree of chopped vegetables, rhubarb, sauerkraut, spinach, tomatoes.

(3) "Canned fish" means all processed fish and sea food in hermetically sealed containers of metal, glass, or any other material, and includes but is not limited to abalone, crab meat, lobster, salmon, sardines, shrimp, canned clam juice and broth. Excluded are fresh, dried, salted, smoked, and frozen fish and sea food.

(4) "Canned juices" mean berry juices, citrus fruit juices, fruit juices and nectar, and vegetable juices packed in containers of metal, glass, or any other material.

(5) "Canned citrus fruit" means oranges, grapefruit, and other citrus fruits preserved in tin, glass, or any other container.

(6) "Canned soups" mean any soups or broths in hermetically sealed containers of metal, glass, or any other material, and include condensed soups and broths.

(7) "Dehydrated soups" mean any commodity intended for the making of soup by the addition of liquid and shall include noodle soup mixes.

(8) "Pickles and olives" mean all kinds of pickles and olives, whether green, ripe, stuffed, oiled, brined, and include pickles and olives packed in vinegar and mustard.

(9) "Condiments and sauces" mean food garnishes, including but not limited to catsup, chili sauce, chutney, meat sauces, mustard, soya, tabasco sauce, tomato sauce, vinegar, worcestershire sauce, and cocktail sauce.

(10) "Breakfast cereals" mean bulk or packaged processed cereal grains used as breakfast foods, both uncooked and ready to eat types. Included in this classification are hominy grits, puffed rice and puffed wheat; excluded are buckwheat flour, corn meal, pancake flour, pearled barley, and rice.

(11) "Preserves, jams, and jellies" mean all preserves, jams, jellies, and marmalade, except bakers' jams and jellies.

(12) "Peanut butter" shall include all spreads of ground peanuts, irrespective of the size of the granules or pieces of peanuts contained therein, including peanut butter chunk.

(13) "Bakers and family flour": (i) "Bakers flour" means flour in bulk and prepared bulk flour from wheat other than flour made from durum wheat for use by commercial, institutional, or governmental users; (ii) "Family flour" means flour in bulk from wheat which is packed and sold for ultimate use in the home.

(14) "Prepared packaged flour" means flour and flour mixes made from buckwheat, corn, potatoes, rice, or wheat, including but not limited to Aunt Jemima, Bisquick, corn meal, Dromedary, Sperry, buckwheat flour, Swansdown, and other ready to use packaged flour.

(15) "Spices and extracts" mean all kinds of spices and extracts, including but not limited to sodium glutunate and mapleline, and extracts in shelf sizes, such as cinnamon, pepper, vanilla, and bouillon cubes.

(16) "Paste products" mean all canned, packaged, and bulk macaroni, shells, noodles, spaghetties, and vermicelli.

(17) "Dried fruits" mean fruits or parts thereof from which the major portion of moisture has been removed by natural or artificial drying, and include but are not limited to apples, apricots, currants, dates, figs, grapes (raisins), nectarines, peaches, pears, and prunes.

(18) "Dried edible beans and peas" mean all bulk or packaged threshed and dried field or garden beans and peas, and lentils used for human consumption.

(19) "Pet foods" mean all kinds of pet foods, packaged, bulk, canned, or dry.

(20) "Beverage bases and concentrates" include Kool-Aid, Ovaltine, Hires Root Beer extracts, and similar products.

(21) "Tea" means all kinds of tea, green and black, packaged and in bulk.

(22) "Cocoa and chocolate in shelf sizes" include, but are not limited to, powdered, cake, cooking chocolate. Excluded is chocolate bar candy coated with chocolate.

(23) "Soap" means bar and packaged laundry and toilet soap in bars, cake, chips, powder, plain, granulated, or liquid form.

(24) "Cleansers and home laundry supplies" shall include Clorox, Old Dutch Cleanser, laundry starch, Drano, bluing, powder and cake cleaners other than soaps, and all other cleansers, and home laundry supplies.

(25) "Salt" includes all table and cooking salt.

(26) "Sugar": (i) "Packaged sugar" means specialty sugars in packages or cartons imported from the mainland. (ii) "Local sugar" means direct-consumption sugar manufactured in the Territory of Hawaii.

(27) "Mayonnaise and salad dressing" means all prepared dressings for salads except cooking and salad oils.

(28) "Dessert powders" shall include all concentrates of fruits or vegetables used in the preparation of gelatinous desserts.

(29) "Fountain supplies" mean all imported supplies sold in bulk to soda fountains, confectioners, luncheon and similar establishments, and shall include crushed strawberries, fruit syrups in bottles, chocolate sauce, vanilla syrup, maraschino cherries, and other similar articles used for preparation on the premises of food and drinks. It shall not include such things as bread, butter, and any commodity included under any other category of this table or covered by specific regulations.

(30) "Bakers supplies" mean all imported supplies sold in bulk to bakeries and similar establishments for use in the preparation of bakery products, and shall include but are not limited to baking powder, coloring matter, mince meats, and yeast. Excluded from this category are flour, sugar, and any other commodity included in any other category of this section or specifically covered by a separate regulation.

(31) "Evaporated milk" means evaporated milk in hermetically sealed containers of metal, glass, or any other material.

(32) "Other milk products" mean any food commodity which is processed or manufactured from cow's milk such as Klim, Avoset, condensed milk and malted milk. Excluded, however, are butter, cheese, powdered skim milk, and fresh milk.

(33) "Packaged nuts" mean all nuts packed in glass, tin or cartons, shelled or unshelled, roasted or unprocessed, and sold in shelf sizes, and include almonds, brazil nuts, macadamia nuts, and peanuts, and all other nuts whether locally grown or imported.

(34) "Bulk nuts" mean all nuts named in (33), which are not customarily sold by the retailer in the original package.

(35) "Syrup and honey:" (i) "Syrups" mean all edible molasses, sorghums, cane, maple, and corn syrups and blends thereof; (ii) "Honey" means imported extracted honey and includes combinations of extracted and comb honey.

(36) "Cooking starch" means corn starch used for cooking.

(37) "Rice" means all grades of white and brown milled rice sold in all types of containers.

(38) "Baby foods" mean all foods prepared in hermetically sealed containers of glass, tin, or other material, especially designed for the nourishment of infants and juniors.

(39) "Crackers" mean all cookies, crackers, and biscuits imported from the mainland or locally produced.

(40) "Specific wooden products" mean products of wood locally made or imported, and limited specifically to the following: brooms and their constituent parts, matches (including book matches), clothes pins, and toothpicks. Excluded are brooms manufactured by the Territorial Workshop for the Blind.

(41) "Popcorn" means corn in tins or bags intended for the purpose of making popcorn.

(42) "Charcoal" means any bagged charred wood, imported or locally produced.

(43) "Dehydrated vegetables" mean vegetables or vegetable mixtures which are prepared for consumption by the addition of liquid to restore the product to its original condition.

(44) "Meats" mean canned meats and meats in combination with other foods, in containers of tin or glass, such as luncheon meats, spreads, sausages and sausage meats, frankfurters, hamburger, loaf goods, brains, tongues, bacon, corned beef, dried beef, sliced dried beef, hash, potted and deviled meats, spaghetti and meat balls, spaghetti sauce with meat, noodles and meat, vegetables and meat, stew, chili con carne, prepared hot tamales, chicken, turkey and other poultry, and similar items which are customarily considered shelf goods, and are not stored under refrigeration.

TABLE A—SPECIFIC MARKUPS FOR CERTAIN GROCERY ITEMS

Kind and type	Maximum wholesale markup over landed cost per case of 48 cans	Notification prices per case	
		Upper	Lower
Campbell's Old Style Soups	(Cents)		
Chicken	51	$6.05	$5.57
Bouillon	51	6.05	5.57
Consomme	51	6.05	5.57
Vegetable	45	5.43	4.99
Pea	44	5.22	4.80
Cream of Potato	44	5.22	4.80
Vegetable-beef	44	5.22	4.80
Beef	44	5.22	4.80
Black bean	44	5.22	4.80
Assorted	44	5.22	4.80
Chicken-noodle	44	5.22	4.80
Asparagus	44	5.22	4.80
Celery	44	5.22	4.80
Clam Chowder	44	5.22	4.80
Mock Turtle	44	5.22	4.80
Oxtail	44	5.22	4.80
Pepper pot	44	5.22	4.80
Tomato	34	4.17	3.84
Campbell's New Formula Condensed Soups			
Chicken	68	8.14	7.49
Vegetable Beef	62	7.51	6.91
Beef	62	7.51	6.91
Bouillon	62	7.51	6.91
Consomme	62	7.51	6.91
Chicken Gumbo	62	7.51	6.91
Chicken Noodle	61	7.30	6.72
Clam Chowder	50	6.05	5.57
Mock Turtle	50	6.05	5.57
Oxtail	50	6.05	5.57
Pepper Pot	50	6.05	5.57
Scotch Broth	50	6.05	5.57
Vegetarian-Vegetable	50	6.05	5.57
Consomme Madrilene	50	6.05	5.57
Vegetable	50	6.05	5.57
Tomato	38	4.59	4.22
Van Camp's Soups			
Vegetable No. 300 tall can	26	3.03	2.78
Tomato No. 300 tall can	22	2.71	2.50
Asparagus	32	3.76	3.46

NOTE: This Table A applies only to wholesalers located on the Island of Oahu. These wholesalers must use these markups if the item being priced is contained herein. If not, they must then use the division factor in Table B.

These markups are for No. 1 cans unless otherwise indicated.

The wholesaler shall notify the Office of Price Administration whenever a sale to a retailer is made at a price above or below the "notification prices per case" set forth below upon Form OPA-G-1.

TABLE B—MARGINS FOR CERTAIN GROCERY ITEMS

	Grocery item	*Division factor*
1.	Canned fruits and berries	0.88
2.	Canned vegetables	.88
3.	Canned fish	.86
4.	Canned juices	.87
5.	Canned citrus fruits	.87
6.	Canned soups	.90
	Dehydrated soups	.86
7.	Pickles and olives	.85
8.	Condiments and sauces	.84
9.	Breakfast cereals	.89
10.	Preserves, jams and jellies	.88
11.	Peanut butter	.88
12.	Bakers and family flour	.91
13.	Prepared package flour	.90
14.	Spices and extracts	.83
15.	Paste products	.86

TABLE B—MARGINS FOR CERTAIN GROCERY ITEMS—Continued

Grocery item	Division factor
16. Dried fruits	.87
17. Dried edible beans and peas	.87
18. Pet foods	.88
19. Beverage bases and concentrates	.83
20. Tea	.85
21. Cocoa and chocolate	.89
22. Soap—bar and package laundry	.88
23. Soap—toilet	.88
24. Cleansers and home laundry supplies	.87
25. Salt	.90
26. Sugar:	
Package	.92
Local	.94
27. Mayonnaise and salad dressing	.84
28. Dessert powders	.88
29. Fountain supplies	.83
30. Bakers supplies	.84
31. Evaporated milk	.93
32. Milk products other than evaporated milk	.86
33. Packaged nuts	.88
34. Bulk nuts	.86
35. Syrup and honey	.88
36. Cooking starch	.89
37. Rice	.94
38. Baby foods	.87
39. Crackers	.89
40. Specific wooden products	.86
41. Popcorn	.83
42. Charcoal	.85
43. Dehydrated vegetables	.86
44. Meats:	
In containers of tin	.89
In containers of glass	.87

NOTE: In the case of sales of beverage bases and concentrates, fountain supplies, and bakers supplies in less than case lots, the division factor in each case shall be 0.77. "Assortment" shall not be considered less than a case lot so long as the buyer is willing to take all of the items in a case containing any element of the assortment. In the case of sales in the Island of Hawaii, the margins named in Table B include delivery with credit for 30 days or less. For cash and carry sales the margin shall be 2 per cent less than the margin specified in Table B for all items for which a margin of 10 per cent or more is specified therein, and shall be 1 per cent less for all items with a margin of 9 per cent or less.

15. Section 43 is added to read as follows:

SEC. 43. *Table XXX: Maximum prices for used washing machines.* (a) Maximum Price Regulation 372,[3] except as otherwise provided herein, governs the sale of used washing machines in the Territory of Hawaii.

(b) On sales of used washing machines in the Territory of Hawaii in order to allow for transportation charges the maximum prices set forth in Maximum Price Regulation 372 may be increased by an amount not in excess of the following:

Wringer type	$10.50
Spinner type	14.00
Small automatic	13.00
Large automatic	15.00

16. Section 44 is added to read as follows:

SEC. 44. *Table XXXI: Maximum prices for power laundry services.* (a) The maximum prices established by Maximum Price Regulation 165,[4] as amended, for the family laundry services specified in paragraph (e) are modified as hereinafter provided. The maximum prices for family laundry services, when sold by power laundries located on the Island of Oahu, shall be the prices set forth in paragraph (e) The maximum prices for all other laundry services rendered by power laundries on the Island of Oahu shall be governed by Maximum Price Regulation 165, as amended, or other applicable regulation. Power laundries in this area shall continue to accept as wearing apparel and flat work, those articles which have customarily been accepted as such. In finished and list price services starch must be supplied where necessary for proper finishing of wearing apparel (including shirts), unless the customer requests no starch.

(b) When used in this section 44 the term:

(1) "Family laundry services" means all laundry services except those supplied on a commercial or institutional basis.

(2) "Power laundries" means all establishments on the Island of Oahu offering laundry services for sale, with the exception of such hand laundries as do not use power machinery to wash laundry.

(c) Within thirty days after the issuance of this regulation, power laundries located on the Island of Oahu and offering family laundry services, shall post each in its own establishment, in a place and manner so that it is plainly visible to the purchasing public, a placard or card containing the maximum prices for the family laundry services set forth in paragraph (e) of this section, and for any other family laundry service if offered. Also within thirty days after the issuance of this regulation, power laundries in this area shall furnish to each customer a statement of the maximum prices of the services offered, with a description of each. In this statement the description of the listed services and their prices shall be exactly as set forth in paragraph (e). Thereafter new customers shall be furnished a similar statement.

(d) A laundry may not refuse to supply any low price laundry service which it supplied in April, 1942, if it supplies or offers to supply any higher price service which includes the same, or substantially the same processes (with or without additional processes) as the low price services.

(e) Price list, a service in which wearing apparel, flat work and specialties are washed and returned finished, ready for use:

Men's shirts, plain	$0.18
Men's shirts, cotton khaki, Army or Navy	.20
Men's shirts, work	.15
Men's shorts	.10
Men's socks, cotton, rayon (per pair)	.05
Men's undershirts	.10
Men's pants, dungarees	.18
Men's pants, khaki	$0.25
Trousers, white sailor	.20
Jumpers, white sailor	.20
Pajamas (per pair)	.20
Handkerchiefs	.03
Nurses' uniforms	.30
Women's slips	.20
Pillow cases	.04
Sheets	.07
Napkins, machine ironed	.03
Table cloths, small, not over 4 sq. yds.	.15
Table cloths, more than 4 sq. yds., but less than 6 sq. yds	.25
Table cloths, 6 yds. and over	.50
Towels, bath	.04
Towels, dish	.03
Towels, hand	.03

NOTE: In the price list of service there may be imposed a minimum charge of fifty-one cents (51¢) for delivery customers. All power laundries must offer at least the same discount to cash and carry customers for all laundry services heretofore granted in April, 1942. No additional charges of any kind whatsoever may be added to the maximum prices listed in this paragraph (e).

This amendment shall become effective as follows:

(a) As to section 14, April 26, 1943.
(b) As to section 15, June 10, 1943.
(c) As to section 19 (j) and (k), May 31, 1943.
(d) As to the tables following section 21 (c) (1) and (d) (1), June 18, 1943.
(e) As to section 21 (e) (3); the table following (4); (5), (6), (7), June 14, 1943.
(f) As to section 31, June 17, 1943.
(g) As to the table following section 35 (a), July 24, 1943.
(h) As to section 41, June 28, 1943.
(i) As to section 41a, June 25, 1943.
(j) As to section 43, July 24, 1943.
(k) As to section 44, July 5, 1943.

(Pub. Laws 321 and 729, 77th Cong.; E.O. 9250, 7 F.R. 7871)

Issued this 19th day of July 1943.

PRENTISS M. BROWN,
Administrator.

[F. R. Doc. 43-11643; Filed, July 20, 1943; 9:19 a. m.]

[3] 8 F.R. 5533.

[4] 7 F.R. 6428, 6966, 8239, 8431, 8798, 8943, 8948, 9197, 9342, 9343, 9785, 9971, 9972, 10480, 10619, 10718, 11010; 8 F.R. 1060, 3324, 4782, 5681, 5755, 5933, 6364, 8506, 8873.

TITLE 46—SHIPPING

Chapter IV—War Shipping Administration

[General Order 2, Supp. 5]

PART 303—CONTRACTS FOR CARRIAGE ON VESSELS OWNED OR CHARTERED BY THE WAR SHIPPING ADMINISTRATION

UNIFORM SUGAR CHARTER FOR CUBAN SUGAR TRANSPORT

Section 303.1 *Uniform sugar charter for transportation of Cuban sugar.* (General Order I, Supplements 4, 4A and 4B) is amended by withdrawing the form of charter party designated as "Warshipsugar, 5/20/42" and prescribing in lieu thereof a new form designated "Warshipsugar (Revised) 8/1/43," and otherwise, to read:

§ 303.1 *Uniform sugar charter.* (a) All charter contracts for the carriage of sugar to U. S. Atlantic and Gulf Ports from ports of Cuba on vessels operated

by or on behalf of the War Shipping Administration shall be in the form set out in paragraph (e) hereof, which form shall be designated "Warshipsugar (Revised) 8/1/43."

(b) Appropriate special provisions may be made from time to time as circumstances require. No such provision shall be made without the prior approval of the War Shipping Administration.

(c) The terms and conditions of such charter party shall become effective with respect to contracts entered into on and after August 1, 1943.

(d) "Warshipsugar (Revised) 8/1/43" shall be printed in type no smaller than six point.

(e) The said "Warshipsugar (Revised) 8/1/43" shall read:

WAR SHIPPING ADMINISTRATION

SUGAR CHARTER PARTY

This charter party, made and concluded the _____ day of _____ between United States of America through the Administrator, War Shipping Administration, Owner/Chartered Owner of the good _____ Vessel _____ of _____ deadweight tons classed _____ at _____ of the measurement of _____ tons net register _____ and _____ Charterer.

Witnesseth, That the said Owner and the said Charterer agree to the chartering of the whole of said Vessel (deck, cabin and necessary room for the crew and storage of provisions, cables and fuel excepted), or sufficient room for the cargo hereinafter described, as follows:

1. *Agreement* The said Vessel shall be tight, staunch, strong, and in every way fitted for the voyage as far as the exercise of due diligence can make her so, except as hereinafter provided as to seaworthiness and latent defects; and shall proceed to _____ _____ or so near thereto as she may safely proceed and always be safely afloat, where the Charterer will provide and the vessel will receive on board a full and complete cargo under deck of _____ of sugar, in bags of about 330 lbs. each. Owner estimates, but does not guarantee that the vessel will carry this amount. (All reference to bags hereafter is to 330 lb. bags. If cargo in any instance is supplied in 250 lb. bags the applicable requirement as to 250 lb. bags shall be determined by dividing the total weight of all cargo in 250 lb. bags by 330 lbs.)

Charterer to pay freight at a rate of _____, vessel to proceed to _____ and there to discharge.

2. *Loading berth.* (a) Vessel to load at not more than two berths or loading places within the jurisdiction of any one port, which will be considered as one port of loading, except that if vessel loads in Manzanillo district, only one sub-port or Manzanillo will be used at the one port rate.

(b) Charterer warrants loading berths to be safe berths at which vessel will always be safely afloat, and that the berths are readily available at all stages and times of tide. This warranty to be in full effect whether the berths are designated by the charterer or some other party of interest to the cargo.

(c) Time for loading shall not be suspended while vessel is shifting between anchorages or loading places within the same port or within the jurisdiction of a port; such shifting to be at the expense of the vessel.

(d) Loading port shall be designated by the War Shipping Administration; and loading berth within port shall be designated by the Charterer always subject to the approval of the War Shipping Administration.

3. *Loading: and time for loading.* (a) Stevedores for loading to be appointed by the vessel, and loading into ship to be at vessel's expense. Charterer to place sugar alongside the vessel in sufficient quantities to permit loading as fast as vessel can load, but not less than at a rate of 7,000 bags during the usual eight-hour daylight working period, Sundays and holidays included; and not less than a total of 11,000 bags during any calendar day. All overtime with respect to loading to be an expense of the vessel; all overtime necessary to place sugar alongside to be for account of charterer. In the event of failure to deliver alongside as contracted, the Charterer shall pay demurrage for any delay caused to the vessel thereby, at the rate named in Clause 5.

(b) Time for loading to begin (unless loading is actually sooner commenced) at the beginning of the next working period after Master or Agent reports Vessel ready to receive cargo, whether in berth or not, Sundays and holidays not excepted, unless Vessel arrives on the evening preceding a Sunday or holiday too late to permit receivers to make necessary arrangements to place sugar alongside for working on Sundays or holidays, but not more than 24 hours to be allowed for this exemption. The working periods for Sunday or holiday shall be considered to be the same time as the working period for any other day, any custom of the port to the contrary notwithstanding

(c) Shore tallymen, if required, to be employed by the vessel at the expense of the vessel.

4. *Freight.* Freight shall be payable as follows: Seventy-five percent (75%) of freight payable in cash on the basis of gross bill of lading weight on arrival of Vessel at discharging berth, to the order of Vessel, Owner, Operator or Agent; and on final discharge of cargo any over or short payment to be adjusted on the gross landed weight as determined by Public Weighers' returns, free of discount or interest, at discharging berth. Bills for demurrage, discharging and wharfage to be settled at time of final settlement of freight.

If, however, cargo is discharged at a United States port for transshipment to a refinery at another United States port, eighty-five per cent (85%) of the freight shall be payable in cash on the basis of gross bill of lading weight on arrival of vessel at discharging berth at the transshipment port, to the order of Vessel, Owner, Operator, or Agent, and on final delivery of cargo to the refinery any over or short payment shall be adjusted on the gross landed weight as determined by Public Weighers.

Full Freight to be considered earned on completion of loading and non-returnable, Vessel and/or cargo lost or not lost; and in the event of loss of Vessel freight is to be paid on gross bill of lading weight.

5. *Demurrage rate.* Any demurrage which may become due hereunder shall be payable as provided in Clause 4 hereof, and at the rate prescribed by applicable Rate Order of the War Shipping Administration.

6. *Discharging berth.* The Vessel shall be discharged at not more than two berths as Charterer may designate, subject to the approval of the War Shipping Administration, where she shall pay not more than the established legal rate of wharfage, and where she may always safely lie afloat and wholly alongside. The Vessel is to leave receiver's berth immediately upon completing delivery, weather and tide permitting. Shifting to be at the expense of the Vessel, time used to count.

7. *Discharging: and time for discharging.* (a) Time for discharging to begin (unless discharging actually sooner commenced) at the beginning of the next working period after Master reports Vessel ready to discharge cargo, whether in berth or not, Sundays and holidays not excepted, unless Vessel arrives on the evening preceding a Sunday or holiday too late to permit receivers to make necessary arrangements for plant and stevedoring personnel to work on Sundays or holidays, but not more than 24 hours to be allowed for this exemption. The working period for Sunday or holiday work shall be considered to be the same time as the working period for any other day for this purpose, any custom of the port to the contrary notwithstanding. Any time used rigging, removing hatches and preparing staging to count as lay time unless done before lay time commences.

8. Cargo to be discharged by the vessel subject to all of the terms and conditions of the uniform stevedoring contract designated as WARSHIPSTEVE. Charterer shall take away as fast as landed but not les than at a rate of 10,500 bags during the usual eight-hour daylight working period, Sundays and holidays included; and not less than 21,000 bags during any calendar day. Overtime expenses for discharging to be for account of the vessel; overtime expenses for taking away to be for the account of the charterer. For failure to take as contracted the charterer shall pay demurrage to the vessel for any delay caused thereby, as provided in Clause 5.

9. *Bills of lading.* Bills of Lading for cargo shipped shall be signed by the Master as requested. Any Bill of Lading signed by the Master or Agent of the Owner shall be without prejudice to the terms, conditions and exceptions of this Charter. The Charterer hereby agrees to indemnify and hold harmless the Owner, the Master, and the Vessel from all consequences or liabilities that may arise from the Charterer or its agents, or the Master, signing bills of lading or other documents inconsistent with this Charter, or from any irregularity in papers supplied by the Charterer or its agents, or from complying with its or its agents' orders.

10. *Both-to-blame collision clause.* If the ship comes into collision with another ship as a result of the negligence of the other ship and any act, neglect or default of the master, mariner, pilot or the servants of the carrier in the navigation or in the management of the ship, the owners of the goods carried hereunder will indemnify the carrier against all loss or liability to the other or noncarrying ship or her owners in so far as such loss or liability represents loss of, or damage to, or any claim whatsoever of the owners of said goods, paid or payable by the other or noncarrying ship or her owners to the owners of said goods and set-off, recouped or recovered by the other or noncarrying ship or her owners as part of their claim against the carrying ship or carrier. The foregoing provisions shall also apply where the owners, operators or those in charge of any ship or ships or objects other than, or in addition to, the colliding ships or objects are at fault in respect of a collision or contact.

11. *General average clause.* General average shall be adjusted, stated, and settled, according to Rules 1 to 15, inclusive, 17 to 22, inclusive, and Rule F of York-Antwerp Rules 1924, at such port or place in the United States as may be selected by the carrier, and as to matters not provided for by these Rules, according to the laws and usages at the port of New York. In such adjustment, disbursements in foreign currencies shall be exchanged into United States money at the rate prevailing on the dates made and allowances for damage to cargo claimed in foreign currency shall be converted at the rate prevailing on the last day of discharge at the port or place of final discharge of such damaged cargo from the ship. Average agreement or bond and such additional security, as may be required by the carrier, must be furnished before delivery of the goods. Such cash deposit as the carrier or his agents may deem sufficient, as additional security for the contribution of the goods and for any salvage and special charges thereon, shall, if required,

be made by the goods, shippers, consignees, or owners of the goods to the carrier before delivery. Such deposit shall, at the option of the carrier, be payable in United States money, and be remitted to the adjuster. When so remitted the deposit shall be held in a special account at the place of adjustment in the name of the adjuster pending settlement of the general average and refunds or credit balances, if any, shall be paid in United States money.

12. *Amended "Jason" clause:* "In the event of accident, danger, damage, or disaster before or after commencement of the voyage resulting from any cause whatsoever, whether due to negligence or not, for which or for the consequence of which the carrier is not responsible by statute, contract, or otherwise, the goods, shippers, consignees, or owners of the goods shall contribute with the carrier in general average to the payment of any sacrifices, losses or expenses of a general average nature that may be made or incurred, and shall pay salvage and special charges incurred in respect of the goods. If a salving ship is owned or operated by the carrier, salvage shall be paid for as fully as if the salving ship or ships belonged to strangers.

13. In any situation whatsoever and wheresoever occurring and whether existing or anticipated before commencement of or during the voyage, which in the judgment of the carrier or master is likely to give rise to risk of capture, seizure, detention, damage, delay or disadvantage to or loss of the ship or any part of her cargo, or to make it unsafe, imprudent, or unlawful for any reason to commence or proceed on or continue the voyage or to enter or discharge the goods at the port of discharge, or to give rise to delay or difficulty in arriving, discharging at or leaving the port of discharge or the usual place of discharge in such port, the carrier may before loading or before the commencement of the voyage, require the shipper or other person entitled thereto to take delivery of the goods at port of shipment and upon their failure to do so, may warehouse the goods at the risk and expense of the goods; or the carrier or master, whether or not proceeding toward or entering or attempting to enter the port of discharge or reaching or attempting to reach the usual place of discharge therein or attempting to discharge the goods there, may discharge the goods into depot, lazaretto, craft or other place; or the ship may proceed or return, directly or indirectly, to or stop at any such port or place whatsoever as the master of the carrier may consider safe or advisable under the circumstances, and discharge the goods, or any part thereof, at any such port or place; or the carrier or the master may retain the cargo on board until the return trip or until such time as the carrier or the master thinks advisable and discharge the goods at any place whatsoever as herein provided or the carrier or the master may discharge and forward the goods by any means at the risk and expense of the goods. The carrier or the master is not required to give notice of discharge of the goods, or the forwarding thereof as herein provided. When the goods are discharged from the ship, as herein provided, they shall be at their own risk and expense; such discharge shall constitute complete delivery and performance under this contract and the carrier shall be freed from any further responsibility. For any service rendered to the goods as herein provided the carrier shall be entitled to a reasonable extra compensation.

14. The carrier, master and ship shall have liberty to comply with any orders or directions as to loading, departure, arrival, routes, ports of call, stoppages, discharge, destination, delivery or otherwise howsoever given by the government of any nation or department thereof or any person acting or purporting to act with the authority of such government or of any department thereof, or by any committee or person having, under the terms of the war risk insurance on the ship, the right to give such orders or directions. Delivery or other disposition of the goods in accordance with such orders or directions shall be a fulfillment of the contract voyage. The ship may carry contraband, explosives, munitions, warlike stores, hazardous cargo, and may sail armed or unarmed and with or without convoy.

15. In addition to all other liberties herein the carrier shall have the right to withhold delivery of, reship to, deposit or discharge the goods at any place whatsoever, surrender or dispose of the goods in accordance with any direction, condition or agreement imposed upon or exacted from the carrier by any government or department thereof or any person purporting to act with the authority of either of them. In any of the above circumstances the goods shall be solely at their risk and expense and all expenses and charges so incurred shall be payable by the owner or consignee thereof and shall be a lien on the goods.

16. *Fire clause.* Neither the carrier nor any corporation owned or employed by, subsidiary to or associated or affiliated with or furnishing wharfage to the carrier shall be liable for any loss or damage to the goods occurring at any time, and even though before loading on or after discharge from the Vessel, by reason of any fire whatsoever, unless such fire shall be caused by its design or neglect.

17. The Vessel in all matters arising under this Charter Party or Bill of Lading issued hereunder shall also be entitled to the like privileges, and rights, and immunities as are contained in sections 3 (6), 4, 11 of the Carriage of Goods by Sea Act of the United States approved April 16, 1936, which, except as may be otherwise specifically provided herein, shall govern before the goods are loaded on and after they are discharged from the vessel and throughout the entire time the goods are in the custody of the vessel.

18. *Limitation of liability.* Any provision of this Charter to the contrary notwithstanding, the Owner shall have the benefit of all limitations of, and exemptions from, liability accorded to the Owner or Chartered Owner of vessels by any statute or rule of law for the time being in force.

19. *Weighing cargo.* Public Weighers' count shall be used in determining outturn of cargo, and if there be any dispute in reference to count, an adjustment of such dispute must be arrived at immediately as the truck passes over the Public Weighers' scale, which must be located near the Government scale, and this adjustment must be made by a representative each of the Shipper, the Vessel, and the Consignee, and the decision arrived at by a majority of these three parties is to be final and binding on all parties hereto. Vessel shall be furnished with as many copies of Public Weighers' certificate as may be required, free of charge.

The Vessel shall be free of all weighing expenses at port of discharge, notwithstanding any custom of the port to the contrary. All arrangements for weighers, samplers and other Customs formalities in connection with the cargo to be made by the Charterer and any delay to the vessel due to their failure to do so shall be at Charterer's expense.

20. *Agents.* Owner to appoint and pay agents at loading and discharging ports.

21. *Strikes.* In the event of a strike or strikes, riot or riots, or any other unavoidable hindrance which may prevent the delivery of cargo, Owner reserves the right to despatch the Vessel with such portion of cargo as may then be on board, or in ballast, if no cargo has been loaded. In either case Charterer not to be liable for dead freight or demurrage or both on cargo which is not loaded up to the time of commencement of such hindrance. Vessel Owner to notify Charterer prior to withdrawal of the Vessel.

22. *Liners.* On mail vessels and on vessels operating on customary scheduled sailings, no demurrage shall be charged at port of loading, but the Owner reserves the right to sail the Vessel without cargo, and the Charterer shall be liable for dead freight if cargo is not tendered in time to enable the Vessel to load and sail on schedule.

23. *Lien.* The Vessel shall have an absolute lien on cargo and upon all subfreight for all amounts due under this charter including freight, dead freight, demurrage and costs (including attorney's fees) of recovering the same, which lien shall continue after delivery of the cargo hereunder.

24. *Lighterage.* Cargo is to be received and delivered alongside the Vessel where she can load and discharge always safely afloat, and proceed and return always safely afloat, within reach of the ship's tackle, and any lighterage in loading or discharging, including lighterage necessary to maintain the rate of placing sugar alongside for loading and for taking away after discharge, is to be at the risk and expense of the cargo.

If such Vessel operating on customary scheduled sailings elects to deliver by lighter instead of at berth designated by the Charterer or his agent, the cargo may be so discharged into lighters at the risk of the cargo but at the expense of the Vessel, and it is mutually understood and agreed that each lighter shall be discharged within five (5) days after same is loaded, and for each and every day's detention of the lighter or lighters beyond the free period, demurrage shall be paid by the cargo at the current rate of the port for each lighter so detained and shall constitute a lien on the goods, but no demurrage shall accrue to the Vessel.

25. *Commission.* Commission upon the gross freight under this Charter is due and payable by the Vessel, upon payment of freights to _____, subject to all of the applicable regulations of the War Shipping Administration relating thereto.

26. *Members of Congress.* No member of or delegate to the Congress, nor Resident Commissioner, shall be admitted to any share or part of this Charter or to any benefit that may arise therefrom, except as provided in Section 116 of the Act approved March 4, 1909.

27. *Approval.* The voyage under this Charter is subject to the approval of the War Shipping Administration and any conditions imposed by said Administration pursuant to the Ship Warrants Act (Public Law 173, 77th Congress).

In witness whereof, the parties hereto have executed this Agreement, in triplicate, as of the day and year first above written.

UNITED STATES OF AMERICA
By: WAR SHIPPING ADMINISTRATION,

Witness the signature of:

By: _____, *Agents.*
By: _____, *Agents.*

(E.O. 9054, 7 F.R. 837)

[SEAL] E. S. LAND,
Administrator,
War Shipping Administration.

JULY 20, 1943.

[F. R. Doc. 43-11686; Filed, July 20, 1943; 4:58 p. m.]

TITLE 49—TRANSPORTATION AND RAILROADS

Chapter I—Interstate Commerce Commission

[Service Order 134–A]

PART 95—CAR SERVICE

ORDER VACATING PROHIBITION AGAINST HOLDING OF CARS OF POTATOES

At a session of the Interstate Commerce Commission, Division 3, held at its office in Washington, D. C., on the 20th day of July 1943.

Upon further consideration of the provisions of Service Order No. 134 of July 1, 1943, and good cause appearing therefor;

It is ordered, That § 95.314 prohibiting the holding of cars of potatoes other than sweet for diversion, reconsignment, or orders is hereby vacated and set aside.

Announcement of vacation of suspension. The Pennsylvania Railroad Company shall publish, file, and post a supplement to each of its tariffs affected hereby, in substantial accordance with the provisions of Rule 9 (k) of the Commission's Tariff Circular No. 20 (§ 141.9 (k) of this chapter) announcing the vacation of the suspension made by Service Order No. 134, stating that the provisions of said tariffs which were in effect prior to the suspension will be applied on and after the effective date of this order.

It is further ordered, That this order shall become effective at 6:00 p. m., July 20, 1943; that a copy of this order and direction shall be served upon The Pennsylvania Railroad Company and upon the Association of American Railroads, Car Service Division, as agent of the railroads subscribing to the car service and per diem agreement under the terms of that agreement; and that notice of this order be given to the general public by depositing a copy in the office of the Secretary of the Commission at Washington, D. C., and by filing it with the Director, Division of the Federal Register, the National Archives.

By the Commission, Division 3.

[SEAL] W. P. BARTEL, *Secretary.*

[F. R. Doc. 43–11704; Filed, July 21, 1943; 11:04 a. m.]

[Service Order 136–A]

PART 97—ROUTING OF TRAFFIC

ORDER VACATING PERMISSION FOR REROUTING OF FREIGHT TRAFFIC

At a Session of the Interstate Commerce Commission, Division 3, held at its office in Washington, D. C., on the 20th day of July, A. D. 1943.

Upon further consideration of the provisions of Service Order No. 136 of July 13, 1943, and good cause appearing therefor:

It is ordered, That § 97.8 permitting rerouting of freight traffic because of flood conditions by the Canadian National Railways and the Grand Trunk Railway is hereby vacated and set aside.

It is further ordered, That this order shall become effective at 6:00 p. m. July 20, 1943; that copies of this order and direction shall be served upon the Canadian National Railways and the Grand Trunk Railway, the Association of American Railroads, Car Service Division, as agent of all railroads subscribing to the car service and per diem agreement under the terms of that agreement; and that notice of this order be given to the general public by depositing a copy thereof in the office of the Secretary of the Commission at Washington, D. C., and by filing it with the Director, Division of the Federal Register.

By the Commission, Division 3.

[SEAL] W. P. BARTEL, *Secretary.*

[F. R. Doc. 43–11705; Filed, July 21, 1943; 11:04 a. m.]

Notices

WAR DEPARTMENT.

[Public Proclamation 18]

CERTAIN LAND IN WESTERN DEFENSE COMMAND MILITARY AREA

DESIGNATION AND ESTABLISHMENT AS TOTAL EXCLUSION AREA

JULY 14, 1943.

Headquarters Western Defense Command and Fourth Army, Office of the Commanding General, Presidio of San Francisco.

Whereas By virtue of orders issued by the War Department on December 11, 1941, that portion of the United States lying within the States of Washington, Oregon, California, Montana, Idaho, Nevada, Utah and Arizona and the Territory of Alaska has been established as the Western Defense Command and designated as a Theatre of Operations under my command; and

Whereas By Executive Order No. 9066, dated February 19, 1942, the President of the United States authorized and directed the Secretary of War and the Military Commanders whom he may from time to time designate, whenever he or any such designated commander deems such action necessary or desirable, to prescribe military areas in such places and of such extent as he or the appropriate Military Commander may determine, from which any or all persons may be excluded, and with respect to which the right of any person to enter, remain in, or leave shall be subject to whatever restrictions the Secretary of War or the appropriate Military Commander may impose in his discretion; and

Whereas The Secretary of War on February 20, 1942, designated the undersigned as the Military Commander to carry out the duties and responsibilities imposed by said Executive Order for that portion of the United States embraced in the Western Defense Command; and

Whereas The Western Defense Command embraces the entire Pacific Coast of the United States which by its geographical location is particularly subject to attack, to attempted invasion by the armed forces of nations with which the United States is now at war, and, in connection therewith, is subject to espionage and acts of sabotage, thereby requiring the adoption of military measures necessary to establish safeguards against such enemy operations:

Now therefore, I, J. L. DeWitt, Lieutenant General, U. S. Army, by virtue of the authority vested in me by the President of the United States and by the Secretary of War and my powers and prerogatives as Commanding General of the Western Defense Command, do hereby declare that:

1. Pursuant to a determination by me of military necessity for such action; and by direction of the Secretary of War, the following described area, within Military Areas Nos. 1 and 2 of the Western Defense Command, as established by Public Proclamations Nos. 1 and 2, dated respectively March 2, 1942 and March 16, 1942, this headquarters, as amended, is hereby designated and established as Total Exclusion Area No. 3:

Beginning at the North East corner of Section 20, T15N, R27E, in Grant County, Washington, thence:

West along the North line of Sections 20, 19, T15N, R27E, 24, 23, 22, T15N, R26E, to the North West corner of Section 22, thence:

South along the West line of said Section 22, to its South West corner, thence:

West along the North line of Section 28, T15N, R26E, to its North West corner, thence:

South along the West line of said Section 28, to its South West corner, thence:

West along the North line of Section 32, in said township, to its North West corner, thence:

South along the West line of said Section 32, to its South West corner, thence:

West along the North line of Section 6, T14N, R26E, to its North West corner, thence:

South along the West line of said Section 6, to its South West corner, thence:

West along the North line of Section 12, T14N, R25E, to its North West corner, thence:

South along the West line of said Section 12, to its South West corner, thence:

West along the North line of Sections 14, 15, 16, 17, 18, T14N, R25E, to the North West corner of said Section 18, thence:

South along the West line of said Section 18, to its South West corner, thence:

West along the North line of Section 24, T14N, R24E, to its North West corner, thence:

South along the West line of said Section 24, to its South West corner, thence:

West along the North line of Section 26, T14N, R24E, to its North West corner, thence:

South along the West line of Sections 26, 35, T14N, R24E, and Section 2, T13N, R24E, to the South West corner of Section 2, thence:

West along the North line of Sections 10, 9, 8, 7, T13N, R24E, to the North West corner of said Section 7, thence:

North along the East line of Section 1, T13N, R23E, to its North East corner, thence:

West along the North line of Sections 1, 2, 3, T13N, R23E, to the North West corner of said Section 3, thence:

South along the West line of said Section 3, to its South West corner, thence:

East along the South line of said Sections 3, 2, 1, to the South East corner of said Section 1, thence:

South along the West line of Sections 7, 18, T13N, R24E, to the South West corner of said Section 18, thence:

East along the South line of Sections 18, 17, 16, 15, T13N, R24E, to the East line of the West half of said Section 15, thence:

South along the West line of the East half of Section 22, T13N, R24E, to the North line of Section 27, in said township, thence:

East along the South line of said Section 22 to its South East corner, thence:

South along the West line of Sections 26, 35, T13N, R24E, Sections 2, 11, 14, 23, 26, 35, T12N, R24E, and Sections 2, 11, 14, T11N, R24E, to the South West corner of Section 14, last mentioned, thence:

East along the South line of said Section 14 to its South East corner, thence:

South along the West line of Section 24, T11N, R24E, to its South West corner, thence:

East along the South line of Section 24, T11N, R24E, and along the South line of Sections 19, 20, 21, 22, 23, T11N, R25E, to the South East corner of said Section 23, thence:

South along the West line of Section 25, T11N, R25E, to its South West corner, thence:

East along the South line of said Section 25 to its South East corner, thence:

South along the West line of Section 31, T11N, R26E, to its South West corner, thence:

East along the South line of said Section 31 to its South East corner, thence:

South along the West line of Section 5, T10N, R26E, to its South West corner, thence:

East along the South line of Sections 5 and 4, T10N, R26E, to the South East corner of said Section 4, thence:

South along the West line of Section 10, T10N, R26E, to its South West corner, thence:

East along the South line of said Section 10 to its South East corner, thence:

South along the West line of Section 14, in said township to its South West corner, thence:

East along the South line of Sections 14, 13, T10N, R26E to the South East corner of said Section 13, thence:

South along the West line of Section 19 to the South West corner of Section 19, T10N, R27E, thence:

East along the South line of said Section 19 to the North or left bank of the Yakima River, thence:

North Easterly and South Easterly, through Sections 19, 20, 17, 16, 9, 4, 3, T10N, R27E along the North or left bank of the Yakima River to the South line of Section 3 in said township and range, thence:

East to the South East corner of said Section 3, thence:

North along the East line of said Section 3 to the center line of the Richland-White Bluffs Highway, thence:

South Easterly through Sections 11, 12, T10N, R27E, Sections 7, 18, 17, T10N, R28E along the center line of said highway to its intersection with the East line of Section 17, T10N, R28E, thence:

South along the West lines of Sections 16, 21, 28, 33, in said township and range and along the West line of Section 4, T9N, R28E to the North or left bank of the Yakima River, thence:

Southerly along the North or left bank of the Yakima River, passing through Sections 4, 5, 9, 16, 15, 22, 23, 24, T9N, R28E, to a point on the North or left bank of the Yakima River on the West line of Section 19, T9N, R29E, thence:

Along the South East end of a peninsula formed by the Yakima and Columbia Rivers in said Section 19 and thence in a general northerly direction along the West or right bank of the Columbia River and passing through Sections 19, 18, T9N, R29E, Sections 13, 14, 11, 2, 1, T9N, R28E, Sections 36, 25, 24, 23, 14, 11, 2, T10N, R28E, Sections 35, 26, 23, 14, 11, 2, T11N, R28E, Sections 35, 26, T12N, R28E, to the North line of said Section 26, thence:

East along the North lines of Sections 26 and 25, T12N, R28E, and along the North line of Section 30, T12N, R29E, to the North West corner of said section, thence:

North along the East line of Section 19, T12N, R29E to the North East corner of said Section 19, thence:

West along the North line of said Section 19 to its North West corner, thence:

North along the East line of Sections 13, 12, 1, T12N, R28E, to the North East corner of said Section 1, thence:

West along the township line common to Townships 12 and 13 North, Range 28 East to the South East corner of Section 36, T13N, R28E, thence:

North along the East line of Sections 36, 25, T13N, R28E, to the North East corner of said Section 25, thence:

West along the North line of said Section 25 to its North West corner, thence:

North along the East line of Section 23, T13N, R28E, to its North East corner, thence:

West along the North line of said Section 23 to its North West corner, thence:

North along the East line of Section 15, T13N, R28E, to its North East corner, thence:

West along the North line of said Section 15 to its North West corner, thence:

North along the East line of Section 9, T13N, R28E, to its North East corner, thence:

West along the North line of said Section 9 to its North West corner, thence:

North along the East line of Section 5, T13N, R28E, to its North East corner, thence:

North along the East line of Section 32, T14N, R28E, to its North East corner, thence:

West along the North line of said Section 32 to its North West corner, thence:

North along the East line of Sections 30, 19, T14N, R28E, to the North East corner of said Section 19, thence:

West along the North line of said Section 19 to its North West corner, thence:

North along the East line of Sections 13, 12, T14N, R27E, to the North East corner of said Section 12, thence:

West along the North line of said Section 12 to its North West corner, thence:

North along the East line of Section 2, T14N, R27E, to its North East corner, thence:

West along the North line of said Section 2 to its North West corner, thence:

North along the East line of Section 34, T15N, R27E to its North East corner, thence:

West along the North line of said Section 34 to its North West corner, thence:

North along the East line of Section 28, T15N, R27E, to its North East corner, thence:

West along the North line of said Section 28 to its North West corner, thence:

North along the East line of Section 20, T15N, R27E, to its North East corner to the "point of beginning".

2. No person shall have the right or shall be permitted to enter, remain in, or leave the above described Total Exclusion Area No. 3, except upon permission by and in accordance with terms and conditions prescribed by the District Engineer, Manhattan District, Office of the Chief of Engineers, United States Army.

3. Any person violating the foregoing restrictions with respect to the Total Exclusion Area herein prescribed, or any of the terms or conditions of entering, remaining in, or departing therefrom, prescribed under authority hereof, will be subject to the criminal penalties provided by the Act of Congress approved March 21, 1942, entitled "An Act to Provide a Penalty for the Violation of Restrictions or Orders With Respect to Persons Entering, Remaining in, Leaving, or Committing any Act in Military Areas or Zones", (56 Stat. 173, 18 USCA, Sec. 97a), as well as to prosecution under applicable state laws against trespassing.

J. L. DEWITT,
Lieutenant General, U. S. Army.
Commanding.

Confirmed:

J. A. ULIO,
Major General,
The Adjutant General.

[F. R. Doc. 43-11691; Filed, July 21, 1943; 9:26 a. m.]

FEDERAL COMMUNICATIONS COMMISSION.

[Docket No. 6517]

WESTERN UNION TELEGRAPH CO. AND POSTAL TELEGRAPH, INC.

ORDER FOR HEARING

In the matter of the application for merger of The Western Union Telegraph Company and Postal Telegraph, Inc.

At a session of the Federal Communications Commission held at its offices in Washington, D. C., on the 16th day of July 1943;

The Commission having under consideration requests from the Governor of the State of California, the Railroad Commission of the State of California, and others, that a public hearing be held on the West Coast for testimony by persons having an interest in the above proceeding and unable to appear at hearing held in Washington, D. C.; and

It appearing that the receipt of testimony from such persons with respect to the issues involved in the proposed merger is desirable in the public interest and will be best conducive to the expeditious and proper dispatch of the Commission's business;

It is ordered, That a public hearing be held beginning at 10:30 a. m., Pacific War Time, on July 28, 1943, in the City of San Francisco, California, at a specific place to be hereafter designated, for the receipt of testimony upon the issues involved in this proceeding from interested persons making a showing of their inability to present such testimony at the hearings herein currently being held in Washington, D. C.:

It is further ordered, That Commissioner Ray C. Wakefield is hereby authorized and designated to preside at such hearing and to invite any State Commission or Commissioner to sit with him at such hearing.

By the Commission.

[SEAL] T. J. SLOWIE,
Secretary.

[F. R. Doc. 43-11693; Filed, July 21, 1943; 10:01 a. m.]

INTERSTATE COMMERCE COMMISSION.

[Special Permit 58 Under Service Order 123]

MISSOURI PACIFIC RAILROAD COMPANY

REICING POTATOES IN TRANSIT

Pursuant to the authority vested in me by paragraph (c) of the first ordering paragraph (§ 95.307) of Service Order No. 123 of May 14, 1943, as amended, permission is granted for:

The Missouri Pacific Railroad Company (Guy A. Thompson, Trustee), or connection, to reice once in transit after the first or initial icing NRC 8181, NRC 5300, NRC 16279, NRC 10214, NRC 6816, NRC 4587, NRC 6561, NRC 15018, NRC 15586, NRC 10099, NRC 6704, NRC 15155, NRC 4443, NRC, 3127, NRC 5513, NRC 5323, NRC 5614, ART 19315, ART 15847, ART 19716, ART 19649, ART 19517, ART 18859, URT 3093, URT 9783, PFE 98495, IC 50473, NP 90136, SFRD 21890 containing potatoes now on hand at St. Louis, consigned to the Food Distribution Administration for reconsignment to Chicago; also for the Missouri-Kansas-Texas Railroad Company, or connection, to reice once in transit after the first or initial icing PFE 18505 and NRC 6797 containing potatoes now on hand at St. Louis, consigned to the Food Distribution Administration for reconsignment to Chicago.

The waybills shall show reference to this special permit.

A copy of this permit has been served upon the Association of American Railroads, Car Service Division, as agent of the railroads subscribing to the car service and per diem agreement under the terms of that agreement; and notice of this permit shall be given to the general public by depositing a copy in the office of the Secretary of the Commission at Washington, D. C., and by filing it with the Director, Division of the Federal Register, The National Archives.

Issued at Washington, D. C. this 10th day of July 1943.

HOMER C. KING,
Director, Bureau of Service.

[F. R. Doc. 43-11697; Filed, July 21, 1943; 11:04 a. m.]

[Special Permit 25 Under Service Order 133]

CHICAGO, BURLINGTON AND QUINCY RAILROAD

REICING OF VEGETABLES IN TRANSIT

Pursuant to the authority vested in me by paragraph (b) of the first ordering paragraph (§ 95.313, 8 F.R. 8554) of Service Order No. 133 of June 19, 1943, permission is granted for:

The Chicago, Burlington & Quincy Railroad Company to initially ice or reice, with both bunker and top or body ice (2,000 pounds of snow ice) PFE 52044 containing vegetables in mixed shipments destined Woodlawn, Nebraska; also for the Chicago, Burlington & Quincy Railroad Company to initially ice or reice, with both bunker and top or body ice (2,000 pounds of snow ice) PFE 92311 containing fruits and vegetables in mixed shipments destined Sioux Falls, South Dakota; also for The Kansas City Southern Railway Company to initially ice or reice, with both bunker and top or body ice (2,000 pounds of snow ice) NRC 12085 containing vegetables destined Camp Crowder, Missouri, all originating beyond or at Kansas City, Missouri.

The waybills shall show reference to this special permit.

A copy of this permit has been served upon the Association of American Railroads, Car Service Division, as agent of the railroads subscribing to the car service and per diem agreement under the terms of that agreement; and notice of this permit shall be given to the general public by depositing a copy in the office of the Secretary of the Commission at Washington, D. C., and by filing it with the Director, Division of the Federal Register, The National Archives.

Issued at Washington, D. C., this 10th day of July 1943.

HOMER C. KING,
Director, Bureau of Service.

[F. R. Doc. 43-11698; Filed, July 21, 1943; 11:04 a. m.]

[Special Permit 26 Under Service Order 133]

SOUTHERN PACIFIC COMPANY, ET AL.

REICING LETTUCE IN TRANSIT

Pursuant to the authority vested in me by paragraph (b) of the first ordering paragraph (§ 95.313, 8 F.R. 8554) of Service Order No. 133 of June 19, 1943, permission is granted for:

The Southern Pacific Company, the Union Pacific Railroad Company, the Chicago and North Western Railway Company (Charles M. Thomson, Trustee), or The Pennsylvania Railroad Company to initially ice or reice, with both bunker and top or body ice, NADX 12609 containing lettuce shipped by Growers Produce Dispatch, Salinas, California, consigned I. Cohen Sons, Pittsburgh, Pennsylvania.

The waybills shall show reference to this special permit.

A copy of this permit has been served upon the Association of American Railroads, Car Service Division, as agent of the railroads subscribing to the car service and per diem agreement under the terms of that agreement; and notice of this permit shall be given to the general public by depositing a copy in the office of the Secretary of the Commission at Washington, D. C., and by filing it with the Director, Division of the Federal Register, The National Archives.

Issued at Washington, D. C., this 10th day of July 1943.

HOMER C. KING,
Director, Bureau of Service.

[F. R. Doc. 43-11699; Filed, July 21, 1943; 11:05 a. m.]

[Special Permit 27 Under Service Order 133]

COMMON CARRIERS BY RAILROAD

REICING FRUITS AND VEGETABLES IN TRANSIT

Pursuant to the authority vested in me by paragraph (b) of the first ordering paragraph (§ 95.313, 8 F.R. 8554) of Service Order No. 133 of June 19, 1943, permission is granted for:

Any common carrier by railroad to initially ice or reice, with both bunker and top or body ice, MDT 8112 containing fruits and vegetables in mixed shipments shipped by Robert L. Berner Company, consigned to New River Grocery Co., Mabscott, West Virginia.

The waybill shall show reference to this special permit.

A copy of this permit has been served upon the Association of American Railroads, Car Service Division, as agent of the railroads subscribing to the car service and per diem agreement under the terms of that agreement; and notice of this permit shall be given to the general public by depositing a copy in the office of the Secretary of the Commission at Washington, D. C., and by filing it with the Director, Division of the Federal Register, The National Archives.

Issued at Washington, D. C., this 10th day of July 1943.

HOMER C. KING,
Director, Bureau of Service.

[F. R. Doc. 43-11700; Filed, July 21, 1943; 11:06 a. m.]

[Special Permit 28 Under Service Order 133]

UNION PACIFIC RAILROAD COMPANY

REICING VEGETABLES IN TRANSIT

Pursuant to the authority vested in me by paragraph (b) of the first ordering paragraph (§ 95.313, 8 F.R. 8554) of Service Order No. 133 of June 19, 1943, permission is granted for:

The Union Pacific Railroad Company to initially ice or reice, with both bunker and top or body ice (2,000 pounds of snow ice) PFE 51235 containing vegetables in mixed shipments destined Fort Riley, Kansas; also for the Chicago, Burlington & Quincy Railroad Company to initially ice or reice, with both bunker and top or body ice (2,000 pounds of snow ice) PFE 41733 containing fruits and vegetables in mixed shipments destined Sioux Falls, South Dakota; also for the Chicago, Burlington & Quincy Railroad Company, or connection, to initially ice or reice, with both bunker and top or body ice (1,000 pounds of snow ice) PFE 96131 containing fruits and vegetables in mixed shipments destined Sergeant Bluffs, Iowa; also for the Missouri Pacific Railroad Company (Guy A. Thompson, Trustee) to initially ice or reice, with both bunker and top or body ice, (1,500 pounds snow ice) PFE 92327 containing fruits and vegetables in mixed shipments destined Great Bend, Kansas, all originating beyond or at Kansas City, Missouri.

The waybills shall show reference to this special permit.

A copy of this permit has been served upon the Association of American Railroads, Car Service Division, as agent of the railroads subscribing to the car service and per diem agreement under the terms of that agreement; and notice of this permit shall be given to the general public by depositing a copy in the office of the Secretary of the Commission at Washington, D. C., and by filing it with the Director, Division of the Federal Register, The National Archives.

Issued at Washington, D. C., this 12th day of July 1943.

HOMER C. KING,
Director, Bureau of Service.

[F. R. Doc. 43-11701; Filed, July 21, 1943; 11:06 a. m.]

[Special Permit 29 Under Service Order 133]

SOUTHERN PACIFIC COMPANY, ET AL.

REICING IN TRANSIT

Pursuant to the authority vested in me by paragraph (b) of the first ordering paragraph (§ 95.313, 8 F.R. 8554) of Service Order No. 133 of June 19, 1943, permission is granted for:

The Southern Pacific Company, the Union Pacific Railroad Company, the Chicago, Milwaukee, St. Paul and Pacific Railroad Company (Henry A. Scandrett, Walter J. Cummings and George I. Haight, Trustees), the Indiana Harbor Belt Railroad Company, The New York, Chicago and St. Louis Railroad Company, or The Delaware, Lackawanna and Western Railroad Company to initially ice or reice, with both bunker and top or body ice, PFE 95797 shipped by Arena Co., Salinas, California, consigned to the Army Quartermaster Market Center, Jersey City, New Jersey.

The waybill shall show reference to this special permit.

A copy of this permit has been served upon the Association of American Railroads, Car Service Division, as agent of the railroads subscribing to the car service and per diem agreement under the terms of that agreement; and notice of this permit shall be given to the general public by depositing a copy in the office of the Secretary of the Commission, at Washington, D. C., and by filing it with the Director, Division of the Federal Register, The National Archives.

Issued at Washington, D. C., this 13th day of July 1943.

HOMER C. KING,
Director, Bureau of Service.

[F. R. Doc. 43-11702; Filed, July 21, 1943; 11:06 a. m.]

[Special Permit 30 Under Service Order 133]

SOUTHERN PACIFIC COMPANY, ET AL.

REICING LETTUCE IN TRANSIT

Pursuant to the authority vested in me by paragraph (b) of the first ordering paragraph (§ 95.313, 8 F.R. 8554) of Service Order No. 133 of June 19, 1943, permission is granted for:

The Southern Pacific Company, the Union Pacific Railroad Company, the St. Louis-San Francisco Railway Company (J. M. Kurn and John G. Lonsdale, Trustees), the Louisville and Nashville Railroad Company, or the Atlantic Coast Line Railroad Company to initially ice or reice, with both bunker and top or body ice, URT 85029 containing lettuce shipped by W & S Packing Company, Salinas, California, consigned to Shapiro Brothers, Thomasville, Georgia; also for the Southern Pacific Company, the Union Pacific Railroad Company, the St. Louis-San Francisco Railway Company (J. M, Kurn and John G. Lonsdale, Trustees), or the Southern Railway Company to initially ice or reice, with both bunker and top or body ice, MDT 19769 containing lettuce from J. C. Thompson Company, Salinas, California, consigned Shapiro Brothers, Greensboro, North Carolina.

The waybills shall show reference to this special permit.

A copy of this permit has been served upon the Association of American Railroads, Car Service Division, as agent of the railroads subscribing to the car service and per diem agreement under the terms of that agreement; and notice of this permit shall be given to the general public by depositing a copy in the office of the Secretary of the Commission at Washington, D. C., and by filing it with the Director, Division of the Federal Register, The National Archives.

Issued at Washington, D. C., this 13th day of July 1943.

HOMER C. KING,
Director, Bureau of Service.

[F. R. Doc. 43-11703; Filed, July 21, 1943; 11:06 a. m.]

OFFICE OF ECONOMIC STABILIZATION.

PACIFIC ELECTRIC RAILWAY COMPANY

EMERGENCY BOARD WAGE RECOMMENDATIONS

JULY 19, 1943.

With reference to the recommendations of the Emergency Board selected from the National Railway Labor Panel on February 20, 1943, to investigate the facts of the dispute between the Pacific Electric Railway Company and certain of its employees respecting wage increases.

Pursuant to Public Law No. 729, 77th Congress, Second Session, October 2, 1942, Executive Order No. 9328 (8 F.R. 4681) and Executive Order No. 9299 (8 F.R. 1669), it is hereby directed that the Emergency Board's recommendations for increasing the hourly rates of pay for motormen and conductors from 77 to 90¢ on double track operations, from 82 to 95¢ on single track operations, and from 87¢ to $1.00 on one-man car operations, are disapproved insofar as the rates exceed, respectively, 80¢, 85¢ and 90¢. The wage recommendations for switchtenders, general yardmasters, and yardmasters are not disapproved.

FRED M. VINSON,
Director,
Office of Economic Stabilization.

OPINION OF THE DIRECTOR

The Emergency Board recommended an increase in the hourly rates of pay for motormen and conductors in passenger service on the Pacific Electric Railway from 77 to 90¢ (82 to 95¢ on single track; 87¢ to $1.00 on one-man cars). The Board recommended increases for switchtenders from 60 to 78½¢ per hour, for general yardmasters from $282.80 to $316 per month, and for yardmasters from $272.80 to $296 per month.

The major transit system of Los Angeles is composed of the Pacific Electric, the Los Angeles Electric Railway Corporation, and the Los Angeles Motor Coach Lines. The Pacific Electric and the Los Angeles Railway each own half of the Motor Coach Company. At present the key rate on the Los Angeles Electric, the bigger of the two railways, is 80¢, and on the Pacific Electric, 77¢. While the Pacific Electric case was before the Emergency Board, the Los Angeles Railway in a nondispute proceeding, which was subject to approval by the War Labor Board, made an application for a 5¢ increase (to 85¢). The regional office referred the application to the National Board. The Emergency Board justified 5¢ of its 13¢ increase on this Los Angeles Railway application. Then after the Emergency Board in this case recommended its 13¢ increase (to 90¢), the Los Angeles Railway amended its application and requested an increase of 10¢ (to 90¢).

The 13¢ increase, as recommended by the Emergency Board, can be broken down into four steps: (1) 3¢ to bring Pacific Electric up to the Los Angeles Railway, (2) 3¢ to give Pacific Electric a differential over Los Angeles, (3) 5¢ to balance the assumed increase for Los Angeles, (4) 2¢ to narrow the difference between freight and passenger service on the Pacific Electric. The first step is sound. The last three steps cannot be justified.

A 3¢ increase on the Pacific Electric will bring its employees to the level of the Los Angeles Railway, which is the larger employer. The resulting 80¢ rate can be regarded as in conformity with the sound and tested going rate for the Los Angeles area. A 3¢ adjustment for the Pacific Electric employees, moreover, roughly approximates the permissible limit under the 15% Little Steel Formula.

The Emergency Board argued for and tried to create a differential in favor of the Pacific Electric over the Los Angeles Railway. The argument was based on the fact that before the Pacific Electric used the same rate for interurban and local service, there had been on the average a 3¢ difference. It was thought that Pacific Electric's competing rate with Los Angeles was its 3¢ higher interurban rate. The record shows, however, that the differential has fluctuated between the two companies. A differential established by governmental action in favor of either company at this time is not justified, in view of the fact that under a relatively free peacetime market, first one company and then the other paid the higher rate.

The Emergency Board predicated 5¢ of the increase on the Los Angeles application. That application is now for 10¢. This Office cannot assume that the National War Labor Board will approve the Los Angeles Railway application to the extent of 5¢, or in fact to any extent.

Lastly, the differential between Pacific Electric's own freight and passenger service has been one of vacillation. On the report before us, it is impossible to establish any proper differential.

This Office can and does approve an 80¢ rate for motormen and conductors engaged in double track operations on the Pacific Electric, an 85¢ one for those engaged in single track operations, and a 90¢ one for those operating one-man cars.

The wage recommendations for switchtenders, general yardmasters, and yardmasters stand in a different light. In the judgment of the Emergency Board these employees are engaged predominantly in work identical with freight service on standard steam roads. The rates recommended for these employees are those for such freight service. These recommendations are not disapproved.

[F. R. Doc. 43-11676; Filed, July 20, 1943; 1:17 p. m.]

SECURITIES AND EXCHANGE COMMISSION.

CHARLES HUGHES & CO., INC.

ORDER REVOKING REGISTRATION

At a regular session of the Securities and Exchange Commission, held at its office in the City of Philadelphia, Pa., on the 19th day of July, A. D. 1943.

In the matter of Charles Hughes & Co., Inc., 32 Broadway, New York, N. Y.

Proceedings having been instituted pursuant to section 15 (b) of the Securities Exchange Act of 1934 to determine whether or not the registration of

Charles Hughes & Co., Inc., as a broker and dealer should be revoked; a hearing having been held after appropriate notice, and the Commission being fully advised and having this day issued its findings and opinion; on the basis of said findings and opinion, and pursuant to section 15 (b) of said Act, *It is ordered*, That the registration of Charles Hughes & Co., Inc., as a broker and dealer be and it hereby is revoked.

By the Commission.

[SEAL] ORVAL L. DUBOIS, *Secretary.*

[F. R. Doc. 43-11687; Filed, July 20, 1943; 5:10 p. m.]

[File Nos. 54-78, 54-40, 59-40, 54-53, 59-49]

CONSOLIDATED ELECTRIC AND GAS CO., ET AL.

NOTICE OF FILING OF PLAN, ORDER FOR HEARING, AND ORDER CONSOLIDATING PROCEEDINGS

At a regular session of the Securities and Exchange Commission held at its office in the City of Philadelphia, Pennsylvania on the 19th day of July, A. D. 1943.

In the matters of Consolidated Electric and Gas Company, File No. 54-78; Consolidated Electric and Gas Company, Applicant, File No. 54-40; Central Public Utility Corporation, Consolidated Electric and Gas Company, Respondents, File No. 59-40; Christopher H. Coughlin, W. T. Crawford, and Rawleigh Warner, voting trustees under voting trust agreement dated August 1, 1932, relating to common stock of Central Public Utility Corporation, Applicants, File No. 54-53; Christopher H. Coughlin, W. T. Crawford, and Rawleigh Warner, voting trustees under voting trust agreement dated August 1, 1932, relating to common stock of Central Public Utility Corporation, Respandents, File No. 59-49.

I

Notice is hereby given that an application has been filed with this Commission, pursuant to the Public Utility Holding Company Act of 1935 ("the Act"), by Consolidated Electric and Gas Company ("Consolidated"), a registered holding company, whereby Consolidated seeks approval, pursuant to section 11 (e) of the Act, of a plan for certain actions designed to enable Consolidated and certain subsidiary companies of Consolidated to comply with the provisions of section 11 (b) of the Act, which plan is set forth in said application. All interested persons are referred to said document which is on file in the office of this Commission for a statement of the transactions therein proposed, which are summarized as follows:

Consolidated is a Delaware corporation and its business is exclusively that of a holding company. It is a registered holding company and is a subsidiary of Central Public Utility Corporation, a registered holding company and a subsidiary of Christopher H. Coughlin, W. T. Crawford, and Rawleigh Warner as Voting Trustees under a Voting Trust Agreement dated August 1, 1932 relating to the common stock of said Central Public Utility Corporation, said Trustees being also a registered public utility holding company.

As of December 31, 1942, Consolidated owned, directly or indirectly, forty-four subsidiary operating companies which, excluding certain interurban bus subsidiaries and subsidiaries operating in Spanish and Philippine jurisdictions, operated in 323 communities in 18 states of the United States and in four foreign countries. In addition to these operating subsidiary companies, Consolidated, as of said date, owned all of the equity securities and $8,959,421 of the $12,277,821 debt securities of The Islands Gas and Electric Company ("Islands"), Islands being also exclusively a holding company and holding securities of certain of the foreign indirect subsidiaries of Consolidated.

As of December 31, 1942 (and as of May 31, 1943), the capitalization of Consolidated was as follows:

Debt securities*	Principal amount outstanding December 31, 1942	Principal amount outstanding May 31, 1943
Federated Utilities, Inc.: First Lien Collateral Trust; 5½% Bonds, due March 1, 1957 (assumed)	$5,024,500	$4,990,500
Southern Cities Utilities Company: Thirty-Year 5% First Lien and Collateral Trust Bonds, Series A, due April 1, 1958 (assumed)	6,979,000	6,979,000
Collateral Trust Bonds: 6% Series, due August 1, 1957	4,194,000	4,194,000
3%-6%, due August 1, 1962: A Series	14,605,000	14,424,500
B Series	1,707,500	1,707,500
Total	$32,510,000	$32,295,500

*Consolidated is also the guarantor of a 6% demand note of Islands in the principal amount of $2,500,000 payable to International General Electric Company, Inc., such guaranty being unconditional and extending to payment both of principal and interest.

Capital Stocks	*Par or Stated Value*
Common—Authorized, Issued and Outstanding, 1,000,000 Shares of $1 Par Value Each	$1,000,000
Class A Non-Cumulative Participating—Entitled to a Preference Dividend of $1.75 a Share and Preference in Liquidation of $25 a Share—Authorized, Issued and Outstanding, 1,480,000 Shares of $1 Par Value Each	1,480,000
Preferred — $6 Cumulative — No Par Value—Authorized, 400,000 Shares; Issued, 183,012 Shares (37 Shares held in Treasury); Outstanding, 182,975 Shares	18,297,300

At December 31, 1942, the dividend arrearages on the Preferred Stock totalled $11,316,981.55.

Consolidated has heretofore filed an application with this Commission (identified by this Commission's File No. 54-40) for approval of a plan for certain actions also designed to enable the Consolidated holding company system to comply with the provisions of section 11 (b) of the Act. It is stated that the present plan contemplates the prior or simultaneous consummation of the earlier plan, hereinabove identified, the application for approval of which is still pending before this Commission. Such prior plan, among other things, provides for the elimination of the preferred stock, Class A stock, and common stock of Consolidated and the issuance and delivery in lieu of such stocks of new common stock of a single class, 94.5% thereof to be distributed ratably to the holders of the presently outstanding preferred stock, and the remaining 5.5% of such new common stock to be distributed to the holders of the outstanding Class A stock of Consolidated.

The plan presently proposed provides for the satisfaction of all of the outstanding funded debt of Consolidated, including the $2,500,000 note of Islands guaranteed by Consolidated, by the delivery to the holders of the securities evidencing such debt of the common stocks of certain operating subsidiary companies of Consolidated and the common stock of certain new holding companies to be created initially as subsidiaries of Consolidated. Such common stocks are to be distributed to all holders of funded debt securities of Consolidated in accordance with the respective principal amounts thereof and without distinction between the different issues of such debt securities. It is stated that the number of shares so to be distributed will be supplied by amendment and that such stocks will be issued in or changed into that number of shares which, consistent with the size and capital of each company, will facilitate distribution. However, no certificates for fractional shares are to be issued, but in lieu thereof it is proposed that scrip certificates representing rights to such fractional shares be issued, such certificates to be exchangeable for full shares within a limited period, when accompanied by other certificates so that all so presented aggregate one or more whole shares, or, if not exchanged within such limited period, exchangeable thereafter for a pro rata share of the cash proceeds from the sale of the shares represented by such scrip.

The operating companies, the common stocks of which are to be distributed among the holders of the debt securities of Consolidated are:

Atlanta Gas Light Company.
Central Illinois Electric and Gas Co.
Central Indiana Gas Company.
Compania Electrica de Santo Domingo, C. por A.
Compagnie d'Eclairage Electrique des Villes de Port-au-Prince et du Cap Haitien.

The outstanding debt securities of the two last named companies (presently owned by Islands) will be converted into common stock prior to such distribution, and any such debt securities not converted will be cancelled.

The new subsidiary holding companies, the common stocks of which are to be distributed among the holders of the debt securities of Consolidated, and the subsidiaries (indented) to be owned by such new subsidiary holding companies, are:

Penn-Maryland Gas Co.:
Athens and Sayre Gas Company.
Bangor Gas Company.
Chambersburg Gas Company.

Penn-Maryland Gas Co.—Continued.
Citizens Gas Company.
Gas Light Company of Waverly (The).
Hagerstown Gas Company.
Jersey Shore Gas Company.
Martinsburg Gas Company.
Portsmouth Gas Company.
Pottsville Gas Company.
Virginia-Carolina Gas Co.:
Asheville Gas Company (The).
Bluefield Gas Company.
Commonwealth Public Service Corporation.
Durham Gas Company (The).
Lynchburg Gas Company.
Raleigh Gas Company (The).
Roanoke Gas Company.
Suffolk Gas Company.
Washington County Gas Company.

The following tabulation, set forth in the application of Consolidated, shows (a) with respect to the operating subsidiaries whose common stocks are to be distributed, the depreciated plant and property per books of each and the adjusted net earnings applicable to the common stocks so to be distributed, and (b) with respect to the operating subsidiaries to be owned by the two new subsidiary holding companies, the depreciated plant and property per books of each and the adjusted earnings applicable to the securities of such operating subsidiaries to be owned by each such new subsidiary holding company:

	Depreciated plant and property less publicly held securities at Dec. 31, 1942	Adjusted earnings [1]	
		1942	1943 estimated
Operating subsidiaries:			
Atlanta Gas Light Co	$7,106,778	$550,037	$620,185
Central Illinois Electric and Gas Co	7,882,538	762,811	729,965
Central Indiana Gas Co	4,026,754	172,818	176,633
Compania Electrica de Santo Domingo, C. por A	3,444,957	330,619	337,549
Compagnie d'Eclairage des Villes de Port-au-Prince et du Cap Haitien	1,402,370	45,983	27,759
Total	23,863,397	1,852,268	1,892,091
New subsidiary holding companies:			
Penn-Maryland Gas Co.:			
Athens and Sayre Gas Company	315,054	14,163	11,427
Bangor Gas Co	136,681	8,799	7,812
Chambersburg Gas Co	215,422	20,887	21,061
Citizens Gas Co	116,158	9,772	7,174
Gas Light Co of Waverly (The)	85,404	6,145	5,913
Hagerstown Gas Co	325,873	16,909	15,823
Jersey Shore Gas Co	86,132	752	217
Martinsburg Gas Co	304,022	Nil	166
Portsmouth Gas Co	409,484	8,245	13,242
Pottsville Gas Co	511,689	22,126	19,044
Total	2,505,919	107,798	101,879
Virginia-Carolina Gas Co.;			
Asheville Gas Co. (The)	863,421	8,970	10,471
Bluefield Gas Co	687,617	Nil	Nil
Commonwealth Public Service Corporation	10,326	Nil	Nil
Durham Gas Co. (The)	1,019,970	8,261	2,024
Lynchburg Gas Co	575,877	22,295	23,112
Raleigh Gas Co. (The)	1,116,761	17,416	18,005
Roanoke Gas Co	1,206,776	65,449	53,774
Suffolk Gas Co	246,984	8,966	9,927
Washington County Gas Co	466,862	2,707	Nil
Total	6,194,594	134,064	117,313
Total	32,563,910	2,094,130	2,111,283

[1] Earnings of each company are adjusted to reflect charges based on capitalization at Dec. 31, 1942, Federal income and excess profits taxes on the basis of separate corporate returns and rates contained in the 1942 Revenue Act, and elimination of material nonrecurring items affecting earnings.

It is stated that the Penn-Maryland Gas Co. will constitute a holding company under the Act and it is intended that such company, within a reasonable time after the consummation of the Plan, will effect the sale, for cash, of the subsidiaries held in such company or will liquidate or distribute its assets to its stockholders. It is stated that Virginia-Carolina Gas Co. will also constitute a holding company under the Act, but that Consolidated believes that the properties to be controlled by Virginia-Carolina Gas Co. will constitute an integrated public-utility system under the Act.

The securities of the following subsidiary operating companies, viz:

Florida Public Utilities Company.
Hoosier Gas Corporation.
Houghton County Electric Light Company.
Iron Range Light and Power Company.
Maine Public Service Company and its subsidiary, Maine and New Brunswick Electrical Power Company, Limited.
Mobile Gas Service Corporation.
Manila Gas Corporation.
Porto Rico Gas & Coke Company.
Union Electrica de Canarias, S. A.

Of these ten companies, six are said not to be public-utility companies, as defined in the Act, and the remaining four operate outside the United States. On the basis of these facts, Consolidated will file an application for an exemption from the provisions of the Act.

The plan presently filed by Consolidated presupposes the consummation of certain transactions prior to the consummation of the plan. These transactions are the following:

(a) Consolidated is now a party to an agreement for the sale by it of its investment in Peoples Gas Company, a Texas Corporation, for approximately $1,246,000. Consolidated proposes to use such proceeds to acquire and retire approximately $1,500,000 principal amount of its assumed Southern Cities Utilities Company bonds (File No. 70–723).

(b) Consolidated proposes to acquire and retire $1,000,000 principal amount of its outstanding debt securities with free cash now in the treasury of Consolidated and with cash to be received by it during the calendar year 1943 out of the earnings of its subsidiaries.

(c) Consolidated will retire through sinking fund operations in the remainder of 1943, $30,000 principal amount of its debt securities.

(d) Islands has outstanding in the hands of the public $783,500 principal amount of its Twenty-five Year 5½% Sinking Fund Secured Gold Bonds, Series A, due March 1, 1953, which it proposes to redeem and retire.

(e) The Salem Gas Light Company, a subsidiary company of Consolidated, expects to effect the sale of all of its property for a very nominal consideration in cash and the assumption by the purchaser of its outstanding liabilities.

(f) Islands now owns a substantial amount of debt securities of Compania Electrica de Santo Domingo, C. por A., and Compagnie d'Eclairage Electrique des Villes de Port-Au-Prince et du Cap Haitien. Since the plan provides that only common stocks of these operating subsidiaries be distributed, it will be necessary to issue common stocks in exchange for these debt securities.

(g) Islands will be eliminated, either by way of total liquidation or merger with and into Consolidated, with the assumption by Consolidated of the outstanding 6% Demand Note in the principal amount of $2,500,000 of Islands payable to International General Electric Company, Inc.

II

As hereinabove stated, an earlier plan was filed with this Commission by Consolidated, pursuant to section 11 (e) of the Act to enable the holding company system of that company to comply with section 11 (b) of the Act, which plan (identified by the Commission's File No. 54–40) was summarized in a notice of filing and order for hearing issued by this Commission on December 27, 1941 (Holding Company Act Release No. 3225).

By the notice and order for hearing last mentioned, this Commission also (a) will be placed in a new holding company which will be named "Consolidated Stockholders Liquidating Co." ("Liquidating Company") and the stock of the Liquidating Company will be distributed to the new common stockholders of Consolidated. It is stated that the Liquidating Company will constitute a holding company under the Act, but it is intended that such company, within a reasonable time after the consummation of the plan, will either effect the sale, for cash, of the subsidiaries held in such holding company or will liquidate and distribute its assets to its stockholders.

The remaining subsidiaries of Consolidated will then be as follows:

Carolina Coach Company, and its subsidiary, Carolina Coach Company of Virginia.
Lynchburg Transit Company.
Roanoke Railway and Electric Company.
Safety Motor Transit Corporation.
Southern Cities Ice Company.
Gas y Electricidad, S. A.

instituted proceedings with respect to Consolidated and with respect to its immediate parent, Central Public Utility Corporation, under sections 11 (b) (1) and 11 (b) (2) of the Act and set a date for hearing in regard thereto, and (b) consolidated said proceedings with the proceedings upon the application of Consolidated for approval of said earlier plan filed pursuant to section 11 (e) of the Act (File No. 54–40):

Thereafter Christopher H. Coughlin, W. T. Crawford, and Rawleigh Warner, Voting Trustees under a Voting Trust Agreement dated August 1, 1932, relating to the common stock of Central Public Utility Corporation (said Trustees having registered as a holding company) filed an application or declaration with the Commission seeking authorization for the delivery by such Trustees of the common stock of Central Public Utility Corporation to the record holders of the voting trust certificates issued therefor pursuant to said trust agreement, or, if such authorization should be denied, for approval by the Commission of a plan pursuant to section 11 (e) of the Act, providing, among other things, for the surrender by such voting trustees of the common stock of Central Public Utility Corporation to that corporation for cancellation, the removal of the agent and depository under said trust agreement and the termination of said agreement (said application or declaration being designated by the Commission's File No. 54–43).

On June 15, 1942 (Holding Company Act Release No. 3615) the Commission issued its notice of filing of the application or declaration last mentioned, its order reconvening the hearings upon the section 11 (e) application of Consolidated theretofore instituted, as above mentioned, and the hearings upon said proceedings so instituted by the Commission pursuant to sections 11 (b) (1) and 11 (b) (2) of the Act in regard to Central Public Utility Corporation and Consolidated, and instituting a proceeding pursuant to said sections of the Act last mentioned in respect to said named Trustees, as such, and consolidating all of said several proceedings for purposes of hearing, subject to certain reservations relative to future severance of such proceedings as in said order set forth.

Public hearings have been held, after appropriate notice, and from time to time, upon the said applications, declarations and proceedings so consolidated.

III

It appearing to the Commission that common questions of law and of fact are involved in that application of Consolidated pursuant to section 11 (e) of the Act most recently filed of the several proceedings hereinabove mentioned, said application being identified by the Commission's File No. 54–78, in the proceedings upon the application of Consolidated, hereinabove mentioned and identified by the Commission's File No. 54–40, in the proceedings instituted by the Commission in respect of Central Public Utility Corporation and Consolidated, hereinabove mentioned and identified by the Commission's File No. 59–40, in the proceedings upon the application of Christopher H. Coughlin, and others, as Voting Trustees, hereinabove mentioned and identified by the Commission's File No. 54–53, and in the proceedings instituted by the Commission pursuant to sections 11 (b) (1) and 11 (b) (2) of the Act in respect of said Christopher H. Coughlin, and others, as Trustees, hereinabove mentioned and identified by the Commission's File No. 59–49;

It is ordered, That the said several proceedings listed in the preceding paragraph hereof and in the caption of this notice and order be, and the same are hereby, consolidated for hearing, and for all other purposes,

Provided, That the Commission reserves jurisdiction hereafter to sever for hearing, in whole or in part, or for disposition, in whole or in part, any issues presented by said several proceedings, applications and declarations so consolidated.

It is further ordered, That a hearing on said matters so consolidated be held on the 3rd day of August, 1943 at 10 a. m., e. w. t., in the offices of the Securities and Exchange Commission, 18th and Locust Streets, Philadelphia, Pennsylvania. On such day the hearing room clerk in Room 318 will advise as to the room in which such hearing will be held.

It is further ordered, That Willis E. Monty or any other officer or officers of the Commission designated by it for that purpose shall preside at such hearing. The officer so designated to preside at such hearing is hereby authorized to exercise all powers granted to the Commission under section 18 (c) of the Act and to a Trial Examiner under the Commission's Rules of Practice.

It is further ordered, That any other person desiring to be heard in connection with these proceedings or proposing to intervene therein shall file with the Secretary of the Commission on or before July 29th, 1943, his request or application therefor as provided by Rule XVII of the Commission's Rules of Practice.

It is further ordered, That the Secretary of the Commission shall serve notice of the hearing hereby convened by mailing a copy of this order to all parties to the several proceedings hereby consolidated and that notice of said hearings be given to all other persons by publication of this order in the FEDERAL REGISTER.

It is further ordered, That, without limiting the scope of the issues presented in said several proceedings and otherwise to be considered, particular attention shall be directed at the hearing to the following matters and questions:

1. Whether the proposed allocation of common stock of subsidiary companies of Consolidated among the holders of the debt securities of Consolidated is fair and equitable to persons affected thereby, and particularly (a) whether said proposed allocation is fair and equitable as among the holders of such debt securities and (b) as between the holders of such debt securities and the holders of the several classes of stock of Consolidated;

2. Whether the creation of the new subholding companies as proposed in the plan of Consolidated will be detrimental to the carrying out of section 11 of the Act, and whether the acquisition by such new subsidiary holding companies of the securities of operating companies as proposed in said plan will meet the requirements of section 10 (c) (2) of the Act;

3. Whether the plan for which approval is presently sought, by that application designated under the Commission's File No. 54–78, is necessary to effectuate the provisions of section 11 (b) of the Act with respect to the holding company system of which Consolidated is a part;

4. In what respect, if any, the proposed plan should be modified or amended in order that the same may conform to the provisions of section 11 (b) of the Act and be fair and equitable to the persons affected thereby, and what terms and conditions, if any, should be imposed in any order approving such plan, if such order be entered, in the public interest or for the protection of investors or consumers, and

5. The several issues summarized and set forth in the notices of and orders for hearing heretofore entered in the several proceedings hereby consolidated.

By the Commission.

[SEAL] ORVAL L. DUBOIS,
Secretary.

[F. R. Doc. 43–11688; Filed, July 20, 1943; 5:10 p. m.]