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U.S. DEPARTMENT OF COMMERCE
NATIONAL BUREAU OF STANDARDS
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Letter
Circular
LC 824
(Supersedes
LC 643)

STRUCTURAL CLAY PRODUCTS, STONE, AND MASONRY

Publications by Members of the Staff of the National Bureau of Standards, together with a list of Federal Specifications.

CONTENTS

GENERAL INFORMATION

Some of the publications in this list have appeared in the regular series of publications of the Bureau and others in various scientific and technical journals. Unless specifically stated, papers are not obtainable from the National Bureau of Standards.

Where the price is stated, the publication can be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D.C. The prices quoted are for delivery to addresses in the United States and its territories and possessions and in certain countries which extend the franking privilege. In the case of all other countries, one-third the cost of the publication should be added to cover postage. Remittances should be made either by coupons (obtainable from the Superintendent of Documents in sets of 20 for $1.00 and good until used), or by check or money order payable to the "Superintendent of Documents, Government Printing Office" and sent to him with order. Letter Circulars are available, without charge, from the Bureau. Publications

marked "OP" are out of print, but, in general, may be consulted at technical libraries.

For papers in other scientific or technical journals, the name of the journal or of the organization publishing the article is given in abbreviated form with the volume number (underscored), page, and year of publication, in the order named.

Serial letters are used to designate the several series of Bureau publications:

S = "Scientific Paper." S1 to S329 are "Reprints" from the "Bulletin of the Bureau of Standards." S330 to S572 were published as "Scientific Papers of the Bureau of Standards." This series was superseded by the "Bureau of Standards Journal of Research" in 1928.

T = "Technologic Paper." T1 to T370. This series was superseded by the "Bureau of Standards Journal of Research" in 1928.

RP = "Research Paper." These are reprints of articles appearing in the "Bureau of Standards Journal of Research" and the "Journal of Research of the National Bureau of Standards," the latter being the title of this periodical since July 1934 (volume 13, number 1).

BH = "Building and Housing" publication.

BMS = "Building Materials and Structures" publication.

C = "Circular."

LC = "Letter Circular."

R = "Simplified Practice Recommendation."

Circular C24 and supplements, the complete list of the Bureau's publications (1901-1936), is sold by the Superintendent of Documents for 55 cents. Announcement of new publications is made each month in the Technical News Bulletin which is obtainable by subscription at 50 cents per year.

PART I - SCIENTIFIC PAPERS

	Series	Price
Transmission and absorption of sound by some building materials. E. A. Eckhardt and V.L. Chrisler. Sci.Pap.BS 21, 37(1926-27).	S526	OP

	Series	Price
Transmission of sound through building materials. V. L. Chrisler. Sci. Pap. BS 22, 227 (1927-28)	S552	OP

PART II - TECHNOLOGIC PAPERS

The effect of overfiring upon the structure of clays A. V. Bleininger and E.T. Montgomery. Tech. Pap. BS. 3, (1913).	T22	OP
Durability of stucco and plaster construction. R. J. Wig, J. C. Pearson and W.E. Emley. Tech. Pap. BS 7, (1916-17).	T70	OP
Manufacture and properties of sand-lime brick. W.E. Emley. Tech. Pap. BS 9, (1916-17).	T85	OP
Compressive strength of large brick piers. J.C. Bragg. Tech. Pap. BS 11, (1918-19)	T111	OP
Tests of hollow building tiles. B. D. Hathcock and E. Skillman. Tech. Pap. BS 11, (1919).	T120	OP
Physical and chemical tests of the commercial marbles of the United States. D.W.Kessler. Tech. Pap. BS 12, (1919).	T123	OP
Heat insulating properties of building materials. W. A. Hull. Tech. Pap. BS 12, (1919)	T130	OP
Measurement of plasticity of mortars and plasters. W. E. Emley. Tech. Pap. BS 13, (1919).	T169	OP
Fire tests of building columns. S. H. Ingberg, H. K. Griffin, W.C. Robinson and R.E.Wilson. Tech. Pap. BS 15, (1921).	T184	75¢
Tests of a hollow tile and concrete floor slab reinforced in two directions. W.A.Slater, A. Hagener and G.P. Anthos. Tech. Pap. BS 16, 727 (1921-22).	T220	25¢
Loading tests of a hollow tile and reinforced concrete floor of Arlington Building, Washington, D.C. L.J. Larson and S. N. Petrenko. Tech. Pap. BS 17, 405 (1922-24)	T236	OP
Some compressive tests of hollow tile walls. H. L. Whittemore and B.D. Hathcock. Tech. Pap. BS 17, 513 (1922-24).	T238	OP
Exposure tests on colorless waterproofing materials. D.W. Kessler. Tech. Pap. BS 18, 1 (1924-25).	T248	OP

PART II - TECHNOLOGIC PAPERS (Continued)

	Series	Price
Equalizer apparatus for transverse tests of bricks. H.L. Whittemore. Tech. Pap. BS 18, 107 (1924-25).	T251	OP
Compressive strength of sand-lime brick walls. H. L. Whittemore and A.H. Stang. Tech. Pap. BS 19, 57 (1924-25).	T276	10¢
Tests of hollow tile and concrete slabs reinforced in one direction. D.E.Parsons and A.H. Stang. Tech. Pap. BS 19, 465 (1924-25).	T291	OP
Permeability of stone. D. W. Kessler. Tech. Pap. BS 20, 155 (1925-26).	T305	10¢
Durability of cement drain tile and concrete in alkali soils; fourth progress report (1923). G. M. Williams and I. Furlong. Tech. Pap. BS 20, 191 (1925-26).	T307	OP
Cement-lime mortars (with bibliography). H.V. Johnson. Tech. Pap. BS 20, 241 (1925-26).	T308	OP
Compressive and transverse strength of hollow-tile walls. A.H. Stang, D.E. Parsons and H. D. Foster. Tech. Pap. BS 20, 317 (1925-26).	T311	15¢
A portable apparatus for transverse tests of brick. A.H. Stang. Tech. Pap BS 21, 347 (1925-26).	T341	OP
Physical properties of the principal commercial limestones used for building construction in the United States. D.W. Kessler and W.H. Sligh. Tech. Pap. BS 21, 497 (1926-27).	T349	OP
A study of problems relating to the maintenance of interior marble. D.W.Kessler. Tech. Pap. BS 21, 591 (1926-27).	T350	35¢
Strength of interlocking-rib tile walls. A.H. Stang, D. E. Parsons and A.B. McDaniel. Tech. Pap. BS 22, 389 (1927-28).	T366	OP
Cause and prevention of kiln and dry-house scum and of efflorescence on face-brick walls. L.A. Palmer. Tech. Pap. BS 22, 579 (1927-28).	T370	OP

PART III - RESEARCH PAPERS	Series	Price
Studies of machines for extruding clay columns. Augers, spacers, and dies for brick machines. Paul C. Grunwell. BS J Research 1, 1023(1928).	RP36	15¢
Fire resistance of hollow load-bearing wall tile. S. H. Ingberg and H. D. Foster. BS J. Research 2, 1(1929).	RP37	75¢
Transmission of sound through wall and floor structures. V. L. Chrisler and W.F. Snyder. BS J. Research 2, 541(1929).	RP48	OP
The compressive and transverse strength of brick. J.W. McBurney. BS J. Research 2, 821(1929).	RP59	OP
Some absorption properties of clay bricks. L. A. Palmer. BS J. Research 3, 105(1929).	RP88	OP
Compressive strength of clay brick walls. A. H. Stang, D. E. Parsons and J. W. McBurney. BS J. Research 3, 507(1929).	RP108	OP
Tests of composite beams and slabs of hollow tile and concrete. D. E. Parsons and A. H. Stang. BS J. Research 4, 815(1930).	RP181	OP
Methods of measuring strains between glazes and ceramic bodies. H. G. Schurecht and G. R. Pole. BS J. Research 5, 97(1930)	RP189	OP
Moisutre expansion of glazes and other ceramic finishes. H. G. Schurecht and G. R. Pole. BS J. Research 6, 457(1931).	RP288	OP
Durability and strength of bond between mortar and brick. L. A. Palmer and J. V. Hall, Jr. BS J. Research 6, 473(1931).	RP290	OP
Heat transfer through building walls. M. S. Van Dusen and J. L. Finck. BS J. Research 6, 493(1931).	RP291	OP
Factors affecting the strength of masonry of hollow units. D.E. Parsons. BS J. Research 6, 857(1931).	RP310	5¢
Volume changes in brick masonry materials. L. A. Palmer. BS J. Research 6, 1003(1931)	RP321	OP

PART III - RESEARCH PAPERS	Series	Price
The physical properties of cast stone. J. Tucker, Jr., G.W. Walker and J. A. Swenson. BS J. Research 7, 1067(1931).	RP389	5¢
Tests of integral and surface waterproofings for concrete. C. H. Jumper. BS J. Research, 7, 1147(1931).	RP394	OP
Physical properties and weathering characteristics of slate. D. W. Kessler and W. H. Sligh. BS J. Research 9, 377(1932).	RP477	OP
Shear tests of reinforced brick masonry beams. D. E. Parsons, A. H. Stang and J. W. McBurney. BS J. Research 9, 749(1932).	RP504	OP
Compressive strength of steel columns incased in brick walls. A. L. Harris, A. H. Stang and J. W. McBurney. BS J. Research 10, 123(1933).	RP520	5¢
Fire tests of columns protected with gypsum. N. D. Mitchell. BS J. Research 10, 737 (1933).	RP563	5¢
Wear resistance of natural stone floorings. D. W. Kessler. BS J. Research 11, 635(1933).	RP612	OP
Wear of dies for extruding plastic clay. R. T. Stull. BS J. Research 12, 501(1934).	RP675	5¢
A study of the properties of mortars and bricks and their relation to bond. L. A. Palmer and D. A. Parsons. BS J. Research 12, 609(1934).	RP683	5¢
Investigation of commercial masonry cements, J. S. Rogers and R. L. Blaine. J. Research NBS, 13, 811 (1934).	RP746	OP
Experiments on exterior waterproofing materials for masonry. Daniel W. Kessler. J. Research NBS 14, 317 (1935).	RP771	5¢
Performance of a hollow-ware extrusion machine with different combinations of augers, spacers, and dies. P. V. Johnson and R. T. Stull. J. Research NBS 14, 711(1935).	RP798	5¢

PART III - RESEARCH PAPERS

	Series	Price
Action of "hypo" solution on stone tanks. Daniel W. Kessler. J. Research NBS 16, 161(1936).	RP864	OP
Differences in limes as reflected in certain properties of masonry mortars. Lansing S. Wells, Dana L. Bishop and David Watstein. J. Research NBS 17, 895(1936).	RP952	OP
Compressive strength of structural tile masonry. Douglas E. Parsons and David Watstein. J. Research NBS 18, 215(1937).	RP972	10¢
Accelerated weathering tests of mineral-surfaced asphalt shingles. Hubert R. Snoke and Braxton E. Gallup. J. Research NBS 19, 669 (1937).	RP1002	10¢
The wick test for efflorescence of building brick. J. W. McBurney and D. E. Parsons. J. Research NBS 19, No. 1, 105 (July 1937). Also Proc. A.S.T.M. 37, Pt. II, 332 (1937).	RP1015	5¢
Hydration of magnesia in dolomitic hydrated limes and putties. L. S. Wells and K. Taylor. J. Research NBS 19, 215(1937).	RP1022	OP
Strength, water absorption and resistance to freezing and thawing of sand-lime brick J.W. McBurney and A. R. Eberle. J. Research NBS 20, 67(1938).	RP1065	5¢
Relation between moisture content and flow-point pressure of plastic clay. Ray T. Stull and Paul V. Johnson. J. Research NBS 22, 329 (1939).	RP1186	5¢
Properties of air-setting refractory-bonding mortars of the wet type. R.A. Heindl and W. L. Pendergast. J. Research NBS 23, 7(1939).	RP1219	OP
Particle size and plasticity of lime. D. L. Bishop J. Research NBS 23, 285(1939).	RP1232	5¢
Physical, mineralogical and durability studies on the building and monumental granites of the U.S. D. W. Kessler, H. Insley and W. H. Sligh. J. Research NBS 25, 161(1940).	RP1320	15¢

PART III - RESEARCH PAPERS

	Series	Price
Length changes and endothermic and exothermic effects during heating of flint and aluminous clays. Raymond A. Heindl and Lewis E. Mong. J. Research NBS 23, (1939).	RP1243	5¢
A portable apparatus for determining the relative wear resistance of concrete floors. L. Schuman and John Tucker, Jr. J. Research NBS 23, (1939).	RP1252	OP
Application of vibrators for measuring mortar consistency and fabricating mortar cubes. R. L. Blaine and J. Tucker, Jr., J. Research NBS 24, (1940).	RP1273	10¢
Some properties of the pore structure in bricks and their relation to frost action. R. T. Stull and P. V. Johnson. J. Research NBS 25, (1940).	RP1349	10¢
Thermal expansion of clay building brick. C. W. Ross. J. Research NBS 27, (1941).	RP1414	10¢
Some properties of the dry air-setting type of refractory bonding mortar. Raymond A. Heindl and Wm. L. Pendergast. J. Research NBS, 28,(1942).	RP1461	15¢
Some properties of heat-setting refractory mortars. R. A. Heindl and Wm. L. Pendergast. J. Research NBS, 30, (1943).	RP1534	5¢
Function of carbon dioxide in producing efflorescence on plaster and cement products. D. L. Bishop. J. Research NBS 30, (1943).	RP1538	5¢
Ten-year tests of commercial masonry cements. R. L. Blaine. J. Research NBS 31, (1943).	RP1548	5¢
Thermal expansion of concrete aggregate materials. Walter H. Johnson and Willard H. Parsons. J. Research NBS 32, (1944).	RP1578	10¢
Lapped bar splices in concrete beams. Ralph W. Kluge and Edward C. Tuma. J. Research NBS 35, (1945).	RP1669	10¢

PART IV - CIRCULARS

	Series	Price
Properties and manufacture of concrete building units.	C304	OP
Thermal insulation of buildings.	C376	5¢
Low cost glazes for structural clay products	C426	10¢

PART V - LETTER CIRCULARS

(Free on application to Bureau)

Publications by the National Bureau of Standards on sand-lime brick	LC146
The fire resistance of brick walls - brick made of clay or shale.	LC228
The fire resistance of brick walls - walls made of concrete or sand-lime brick.	LC229
Specifications for portable testing machine for making transverse tests of building bricks.	LC266
Policy of the National Bureau of Standards with regard to tests for agencies outside the Bureau.	LC544
Building materials, building standards, home building; Publications of the National Bureau of Standards (list).	LC592
Cement: Publication by members of the staff of the National Bureau of Standards, together with a list of Federal Specifications.	LC641
Concrete and reinforced concrete: Publications by members of the staff of the National Bureau of Standards together with a list of Federal Specifications.	LC642
List of publications relating to fire resistance and fire prevention	LC661
Sound absorption coefficients of the more common acoustic materials.	LC714
Classification of acoustic materials.	LC715

PART V - LETTER CIRCULARS

	Series
Dampness in masonry walls above grade.	LC721
Painting exterior walls of porous masonry.	LC747
Finishes for concrete floors.	LC758
The care of floors.	LC764
Thermal insulation of dwelling houses.	LC774
Acoustics publications by members of the staff of the National Bureau of Standards.	LC778
List of published material relating to building regulation.	LC804
List of published material relating to home building and maintenance.	LC805
Standards and specifications for building and construction materials, fixtures, supplies and equipment.	LC808
Publications relating to building codes and construction practice, home building, building material specifications, home maintenance.	LC811
Dampness in basements and ground floors.	LC813

PART VI - BUILDING AND HOUSING

		Price
Recommended minimum requirements for masonry wall construction. BH6 (1924).	BH6	OP
Recommended minimum requirements for fire resistance in buildings. BH14 (1930).	BH14	10¢
Care and repair of the home. BH15 (1931).	BH15	20¢
Recommended minimum requirements for small dwelling construction. BH18 (1932).	BH18	15¢

PART VII - BUILDING MATERIALS AND STRUCTURES

	Series	Price
Structural properties of six masonry wall constructions. H.L. Whittemore, A.H. Stang, and D.E. Parsons. (1938).	BMS5	15¢
Structural properties of a "Tilecrete" floor construction sponsored by Tilecrete Floors, Inc., H. L. Whittemore, A. H. Stang, and C. C. Fishburn. (1939).	BMS16	10¢
Sound insulation of wall and floor constructions. V. L. Chrisler. (1939).	BMS17	20¢
Structural properties of a concrete-block cavity-wall construction sponsored by the National Concrete Masonry Association. H. L. Whittemore, A. H. Stang, and D. E. Parsons (1939).	BMS21	10¢
Structural properties of "Dun-Ti-Stone" Wall construction sponsored by the W. E. Dunn Manufacturing Company. H. L. Whittemore, A. H. Stang, and D. E. Parsons. (1939).	BMS22	10¢
Structural properties of a brick cavity-wall construction sponsored by the Brick Manufacturers Association of New York, Inc. H. L. Whittemore, A. H. Stang, and D. E. Parsons. (1939).	BMS23	10¢
Structural properties of a reinforced brick construction and a brick-tile cavity-wall construction sponsored by the Structural Clay Products Institute. H. L. Whittemore, A. H. Stang, and C. C. Fishburn. (1939).	BMS24	15¢
Structural properties of two brick-concrete-block wall constructions and a concrete-block wall construction sponsored by the National Concrete Masonry Association. H. L. Whittemore, A. H. Stang, and D. E. Parsons. (1939).	BMS32	15¢
Plastic calking materials. J.J. Tregoning, K. A. Milliken, A. Hockman, W. H. Sligh, and D. W. Kessler. (1940).	BMS33	15¢

	Series	Price
Structural properties of two "Dunstone" wall constructions sponsored by the W. E. Dunn Manufacturing Co. H. L. Whittemore, A. H. Stang, and D. E. Parsons. (1940).	BMS38	10¢
Structural properties of a wall construction of "Pfeifer Units" sponsored by the Wisconsin Units Company. H. L. Whittemore, A. H. Stang, and D. E. Parsons. (1940).	BMS39	10¢
Effect of heating and cooling on the permeability of masonry walls. C. C. Fishburn and P. H. Petersen. (1940).	BMS41	OP
Structural properties of a masonry wall construction of "Munlock Dry Wall Brick". H. L. Whittemore, A. H. Stang and D. E. Parsons. (1940).	BMS53	10¢
Effect of wetting and drying on the permeability of masonry walls. C. C. Fishburn. (1940).	BMS55	10¢
Strength, absorption, and resistance to laboratory freezing and thawing of building bricks produced in the United States. John W. McBurney and Joseph C. Richmond. Nov. 1940.	BMS60	15¢
Structural properties of two non-reinforced monolithic concrete wall constructions. Herbert L. Whittemore, Ambrose H. Stang and Douglas E. Parsons. (1940).	BMS61	10¢
Structural properties of a precast joist concrete floor construction sponsored by the Portland Cement Association. Herbert L. Whittemore, Ambrose H. Stang and Douglas E. Parsons. (1940).	BMS62	10¢
Moisture condensation in building walls. Harold W. Worley.	BMS63	10¢
Effect of outdoor exposure on the water permeability of masonry walls. Cyrus C. Fishburn, Douglas E. Parsons and Perry H. Petersen. (1941).	BMS76	15¢
Structural heat-transfer, and water permeability properties of five earth-wall constructions. Herbert L. Whittemore, Ambrose H. Stang, Elbert Hubbell and Richard S. Dill. (1942).	BMS78	20¢

	Series	Price
Water permeability of walls built of masonry units. (1942).	BMS82	20¢
Structural heat-transfer and water-permeability properties of "Speed-Brik" wall construction. M. H. Peck, V. B. Phelan, R. S. Dill, and P. H. Petersen. (1942).	BMS86	15¢
A method for developing specifications for building construction. (Report of Sub-committee on Specifications, Central Housing Committee on Research, Design, and Construction. (1942).	BMS87	10¢
Recommended building code requirements for new dwelling construction with special reference to war housing. (Report of Sub-committee on Building Codes, Central Housing Committee on Research, Design, and Construction). (1942).	BMS88	20¢
Water permeability and weathering resistance of stucco-faced gunite-faced, and "Knap Concrete-Unit" walls. C. C. Fishburn. (1942).	BMS94	10¢
Tests of cement-water paints and other water-proofings for unit-masonry walls. C. C. Fishburn and D.E. Parsons. (1943).	BMS95	15¢
Properties of a porous concrete of cement and uniform-sized gravel. P.H. Petersen (1943).	BMS96	10¢
Physical properties of terrazzo aggregates. D.W. Kessler, A. Hockman and R.E. Anderson (1943).	BMS98	15¢
Relative slipperiness of floor and deck surfaces. Percy A. Sigler (1943)	BMS100	10¢
Strength and resistance of corrosion of ties for cavity walls. C. C. Fishburn (1943).	BMS101	10¢
PART VIII - MISCELLANEOUS PUBLICATIONS		
American Standard building code requirements for masonry (1944).	M174	10¢

PART IX - SIMPLIFIED PRACTICE RECOMMENDATIONS

	Series	Price
Vitrified paving brick	R1-40	5¢
Metal lath. (Expanded and sheet).	R3-44	5¢
Face brick and common brick.	R7	5¢
Hollow building tile.	R12	*
Structural slate (for plumbing and sanitary purposes).	R13-28	10¢
Roofing slate.	R14-28	*
Blackboard slate.	R15-35	OP
Concrete building units.	R32-38	5¢
Sand-lime brick.	R38-37	5¢
Steel reinforcing spirals.	R53-32	5¢
Clay tiles for floors and walls.	R61-44	10¢
Clay sewer pipe and fittings.	R211-45	10¢

*Available in mimeograph form only, free of charge.

PART X - FEDERAL SPECIFICATIONS

The specifications listed below are issued by the Federal Specifications Executive Committee, Procurement Division, Federal Warehouse, Washington, D.C. Copies may be secured from the Superintendent of Documents, Government Printing Office, this city, at the prices indicated.

HH-M-611a	5¢	Mortar; air-setting, refractory, bonding (wet-type).
HH-R-191	5¢	Cement; fire-clay.
QQ-B-71a	5¢	Bars, reinforcement, (for) concrete.
QQ-B-101c	5¢	Bases, Metal; (for) plaster and stucco construction.
SS-B-656	5¢	Brick; building (common), clay.
SS-B-663	5¢	Brick; concrete.
SS-B-671a	5¢	Brick; paving.
SS-B-681	5¢	Brick; sand-lime.
SS-B-691	5¢	Brick; sewer, clay.

SS-C-158b	15¢	Cements, Hydraulic; General specifications (Methods for sampling, inspection, and testing).
SS-C-161	5¢	Cement; Keene's.
SS-C-181b	5¢	Cement; masonry.
SS-C-192	5¢	Cements; Portland.
SS-C-621	5¢	Concrete-Units; masonry, hollow.
SS-G-901	5¢	Gypsum; calcined.
SS-L-351	5¢	Lime; hydrated (for) structural purposes.
SS-L-361	5¢	Lime; hydraulic, hydrated.
SS-P-351	5¢	Pipe; asbestos-cement.
SS-P-361a	5¢	Pipe; clay, sewer.
SS-P-371	5¢	Pipe; concrete; non-pressure, non-reinforced and reinforced.
SS-P-401	5¢	Plaster; gypsum.
SS-P-431a	5¢	Plaster-Board; gypsum.
SS-Q-351	5¢	Quicklime (for) structural purposes.
SS-S-284	5¢	Sheets (corrugated) and shapes; cement-asbestos.
SS-S-291a	5¢	Shingles; roofing, cement-asbestos.
SS-S-364	5¢	Siding; cement-asbestos.
SS-S-451	5¢	Slate; roofing.
SS-T-310	5¢	Tile; drain, clay.
SS-T-316	5¢	Tile; partition, gypsum.
SS-T-321	5¢	Tile; structural, clay, floor.
SS-T-341a	5¢	Tile; structural, clay, load-bearing, wall.
SS-T-351a	5¢	Tile; structural, clay, non-load-bearing.
SS-W-51a	5¢	Wall-Board, Gypsum.
TT-C-598	5¢	Compound Calking; plastic (for masonry and other structures).

PART XI - OUTSIDE PUBLICATIONS

The articles listed below are not for distribution or sale by the Government, but may be consulted at most large libraries or in some cases may be purchased directly from the publishers.

The Relation between the porosity and crushing strength of clay products. A. V. Bleininger. Trans. Am. Ceram. Soc. (American Ceramic Society, 2525 N. High St., Columbus, Ohio), 12, 564 (1910).

Tests for sewer pipe. R. J. Wig. Proc. Am. Soc. Testing Materials (American Society for Testing Materials, 1916 Race St., Philadelphia 3, Pa.), 11, 654 (1911).

The relation between the crushing strength and porosity of clay products. G. H. Brown. Trans. Am. Ceram. Soc., 14, 292 (1912).

Use of the strain gage in the testing of materials. W. A. Slater and H. F. Moore. Proc. Am. Soc. Testing Materials, 13, 1019. (1913).

Some comparative corrosion tests of plastered metal lath. J. C. Pearson. Proc. Am. Concrete Inst. (American Concrete Institute, 7400 Second Blvd., Detroit, Mich.), 10, 445 (1914).

Properties of cement-lime-sand mortars. W. E. Emley. Proc. Am. Soc. Testing Materials, 17, Part II, 261 (1917).

Tests of stucco. J. C. Pearson. Proc. Am. Concrete Inst., 14, 109 (1918).

Compressive strength of cement-lime mortars. F. A. Kirkpatrick and W. B. Orange. J. Am. Ceram. Soc., 2, 44 (1919).

New developments in surface treated concrete and stucco. J. C. Pearson and J. J. Earley. Proc. Am. Concrete Inst., 16, 70 (1920).

Possibilities of terra cotta castings. R. F. Geller. J. Am. Ceram. Soc., 4, 883 (1921).

Shrinkage of cement mortars and its importance in stucco construction. J. C. Pearson. Proc. Am. Concrete Inst., 17, 133 (1921).

Preliminary report of exposure tests on colorless waterproofing materials. D. W. Kessler. J. Am. Inst. Architects (American Institute of Architects, 1741 New York Ave., N.W., Washington, D.C.

Effectiveness of different methods of making absorption determinations as applied to hollow building tile. H. D. Foster. J. Am. Ceram. Soc. 5, 788(1922).

Effect of grog additions on fire resistance of hollow tile. H. D. Foster. J. Am. Ceram. Soc., 6, 748(1923).

Capping for compression specimens. H. D. Foster. J. Am. Ceram. Soc., 6, 623(1923).

Sulphur impregnated sandstone. D. W. Kessler. Stone (Stone Publishing Company, Inc., 353 Fifth Ave., New York, N.Y.), 44, June 1923.

SS-C-158b	15¢	Cements, Hydraulic; General specifications (Methods for sampling, inspection, and testing).
SS-C-161	5¢	Cement; Keene's.
SS-C-181b	5¢	Cement; masonry.
SS-C-192	5¢	Cements; Portland.
SS-C-621	5¢	Concrete-Units; masonry, hollow.
SS-G-901	5¢	Gypsum; calcined.
SS-L-351	5¢	Lime; hydrated (for) structural purposes.
SS-L-361	5¢	Lime; hydraulic, hydrated.
SS-P-351	5¢	Pipe; asbestos-cement.
SS-P-361a	5¢	Pipe; clay, sewer.
SS-P-371	5¢	Pipe; concrete; non-pressure, non-reinforced and reinforced.
SS-P-401	5¢	Plaster; gypsum.
SS-P-431a	5¢	Plaster-Board; gypsum.
SS-Q-351	5¢	Quicklime (for) structural purposes.
SS-S-284	5¢	Sheets (corrugated) and shapes; cement-asbestos.
SS-S-291a	5¢	Shingles; roofing, cement-asbestos.
SS-S-364	5¢	Siding; cement-asbestos.
SS-S-451	5¢	Slate; roofing.
SS-T-310	5¢	Tile; drain, clay.
SS-T-316	5¢	Tile; partition, gypsum.
SS-T-321	5¢	Tile; structural, clay, floor.
SS-T-341a	5¢	Tile; structural, clay, load-bearing, wall.
SS-T-351a	5¢	Tile; structural, clay, non-load-bearing.
SS-W-51a	5¢	Wall-Board, Gypsum.
TT-C-598	5¢	Compound Calking; plastic (for masonry and other structures).

PART XI - OUTSIDE PUBLICATIONS

The articles listed below are not for distribution or sale by the Government, but may be consulted at most large libraries or in some cases may be purchased directly from the publishers.

The Relation between the porosity and crushing strength of clay products. A. V. Bleininger. Trans. Am. Ceram. Soc. (American Ceramic Society, 2525 N. High St., Columbus, Ohio), 12, 564 (1910).

Tests for sewer pipe. R. J. Wig. Proc. Am. Soc. Testing Materials (American Society for Testing Materials, 1916 Race St., Philadelphia 3, Pa.), 11, 854 (1911).

The relation between the crushing strength and porosity of clay products. G. H. Brown. Trans. Am. Ceram. Soc., 14, 292 (1912).

Use of the strain gage in the testing of materials. W. A. Slater and H. F. Moore. Proc. Am. Soc. Testing Materials, 13, 1019. (1913).

Some comparative corrosion tests of plastered metal lath. J. C. Pearson. Proc. Am. Concrete Inst. (American Concrete Institute, 7400 Second Blvd., Detroit, Mich.), 10, 445 (1914).

Properties of cement-lime-sand mortars. W. E. Emley. Proc. Am. Soc. Testing Materials, 17, Part II, 261 (1917).

Tests of stucco. J. C. Pearson. Proc. Am. Concrete Inst., 14, 109 (1918).

Compressive strength of cement-lime mortars. F. A. Kirkpatrick and W. B. Orange. J. Am. Ceram. Soc., 2, 44 (1919).

New developments in surface treated concrete and stucco. J. C. Pearson and J. J. Earley. Proc. Am. Concrete Inst., 16, 70 (1920).

Possibilities of terra cotta castings. R. F. Geller. J. Am. Ceram. Soc., 4, 883 (1921).

Shrinkage of cement mortars and its importance in stucco construction. J. C. Pearson. Proc. Am. Concrete Inst., 17, 133 (1921).

Preliminary report of exposure tests on colorless waterproofing materials. D. W. Kessler. J. Am. Inst. Architects (American Institute of Architects, 1741 New York Ave., N.W., Washington, D.C.

Effectiveness of different methods of making absorption determinations as applied to hollow building tile. H. D. Foster. J. Am. Ceram. Soc. 5, 788(1922).

Effect of grog additions on fire resistance of hollow tile. H. D. Foster. J. Am. Ceram. Soc., 6, 748(1923).

Capping for compression specimens. H. D. Foster. J. Am. Ceram. Soc., 6, 623(1923).

Sulphur impregnated sandstone. D. W. Kessler. Stone (Stone Publishing Company, Inc., 353 Fifth Ave., New York, N.Y.), 44, June 1923.

Factors affecting brick masonry strength. S. H. Ingberg. Proc. Am. Soc. Testing Materials (American Society for Testing Materials, 1916 Race St., Philadelphia 3, Pa.), 24, Part II, 909 (1924).

Stucco investigations of the Bureau of Standards. J. C. Pearson. Proc. of Building Officials Conference, 10, 143 (1924).

Strength absorption and freezing resistance of hollow building tile. H. D. Foster. J. Am. Ceram. Soc., 7, 189 (1924).

Properties of gypsum tile. J. M. Porter. Proc. Am. Soc. Testing Materials, 24, Part II, 901 (1924).

The fire resistance of gypsum partitions. S. H. Ingberg. Proc. Am. Soc. Testing Materials, 25, Part II, 299 (1925).

Determining the weather resistance of stone. D. W. Kessler Stone, 46, 351, June 1925.

Comments on the permeability of stone. D. W. Kessler. Stone, 46, July 1925.

A study of practical problems for the marble industry. D. W. Kessler. Stone, 46, August 1925.

Resistance of marble to various salt solutions. D. W. Kessler. Through the Ages (National Association of Marble Dealers, Cleveland, Ohio), 3, February 1926.

Cleaning materials for marble. D. W. Kessler. Through the Ages, 3, Part I, March 1926; Part II, April 1926; 4, Part III, June 1926; Part IV, August 1926.

Steam cleaning a stone building. H. H. Dutton. Am. Architect (Hearst Magazine, Inc., 572 Madison Ave., New York, N.Y.), June 20, 1926.

Discussion of specification requirements for common brick. C. O. Christiansen. Am. Architect, 130, 23, July 5, 1926.

Removal of stains from marble. D. W. Kessler. Through the Ages, 4, September 1926; Arch. and Bldg. (Architecture and Building, Wm. T. Comstock Co., 28 Warren St., New York, N.Y.), October 1926.

Comparative tests on brick masonry at the Bureau of Standards. J. W. McBurney. Bricklayer, Mason and Plasterer, 29, 225, October 1926.

Bases for specification and building code requirements for building bricks. S. H. Ingberg. Proc. 23d Annual Meeting of Sand-Lime Brick Assoc. (Saginaw, Mich.), 78(1927).

Removal of stains from marble. D. W. Kessler. Through the Ages, 4, January 1927.

Development of steam cleaning process. H. H. Dutton, Stone, 48, 225, April 1927, and 288, May 1927.

Effect of workmanship on the strength of brick masonry. J. W. McBurney. Am. Architect, 132, 613, November 5, 1927.

The strength of solid and of hollow walls of brick. A. H. Stang. Ceram. Age (Ceramic Age, The Ceramic Publishing Co., 425 Parker Street, Newark, N.J.), 198, December 1927.

Adhesion of plaster and stucco to hollow building tile. J. A. Murray and H. D. Foster. Am. Architect, 132, 839, December 20, 1927.

Effect of strength of brick on comparative strength of brick masonry. J. W. McBurney. Proc. Am. Soc. Testing Materials (American Society for Testing Materials, 1916 Race St., Philadelphia 3, Pa.), 28, Part II, 605(1928).

The development of an apparatus for wear tests on flooring materials. D. W. Kessler. Proc. Am. Soc. Testing Materials, 28, Part II, 855(1928).

Wet walls and efflorescence. L. A. Palmer. Am. Face Brick Assn. (American Face Brick Association, 205 W. Wacker Drive, Chicago, Illinois), (1928).

Bond between concrete and hollow tile. J. C. Oleinik. Eng. and Contr. (Engineering and Contracting, Gillette Publishing Co., 401 W. Madison St., Chicago, Ill.), 67, 19, January 1928.

Strength of brick in tension. J. W. McBurney. J. Am. Ceram. Soc. (American Ceramic Society, 2525 N. High St., Columbus, Ohio), II, 114, February 1928.

New Construction data on brick walls. A. H. Stang. Am. Contractor, July 30, 1928.

The water absorption and penetrability of brick. J. W. McBurney. Proc. Am. Soc. Testing Materials, 29, Part II, 711(1929).

Tests of elastic caulking compounds. H. H. Dutton. Proc. Am. Soc. Testing Materials, 29, Part II, 954(1929).

The physical properties of commercial cast stone. J. Tucker, Jr. and G. W. Walker. Proc. Am. Concrete Inst. (American Concrete Institute, 7400 Second Blvd., Detroit, Mich.), 25, 501 (1929).

The compressive and transverse strength of brick. J. W. McBurney. J. Am. Ceram. Soc., 12, 217, April 1929; also BS J. Research 2, 821(1929) RP59.

Some results of freezing and thawing tests made with clay brick. L. A. Palmer and J. V. Hall. Proc. Am. Soc. Testing Materials, 30, Part II, 767(1930).

The resistance of stone to frost action. D. W. Kessler Proc. New Inter. Assn. Testing Materials (New International Association for Testing Materials, Leonhardstrasse 27, Zurich, Switzerland), Group B, 37(1930).

Tests for weathering characteristics. D. W. Kessler. Rock Products (Tradepress Publishing Corp., 205 W. Wacker Drive, Chicago, Ill.), 33, (1930).

The relation of Brinell hardness and transverse strength to the compressive strength of building brick. J. W. McBurney. J. Am. Ceram. Soc., 9, 823, November 1930.

Specifications for hollow masonry units. D. E. Parsons. Proc. Am. Soc. Testing Materials, 31, Part II, 595(1931).

The weathering of structural clay products: A review. J. W. McBurney. Proc. Am. Soc. Testing Materials, 31, Part II, 745(1931).

Weathering test procedures for stone. D. W. Kessler. Proc. Am. Soc. Testing Materials (American Society for Testing Materials, 1916 Race St., Philadelphia 3, Pa.) 31, Part II, 799(1931).

Bibliography on weathering of natural stone. D. W. Kessler. Proc. Am. Soc. Testing Materials, 31, Part II, 804(1931).

Bibliography on the weathering of structural clay products. D. E. Parsons. Proc. Am. Soc. Testing Materials, 31, Part II, 825(1931).

Weathering of stone. D. W. Kessler. Am. Architect (Hearst Magazine, Inc., 572 Madison Ave., New York, N.Y.), 28, February 1931.

Water penetration through brick-mortar assemblages. L. A. Palmer. J. Clay Products Inst. (Clay Products Institute of America), 1, 19, September 1931.

The use of clay products in sound insulation. V. L. Chrisler. J. Clay Products Inst., 1, 31, September 1931.

Volume changes in brick masonry materials. L. A. Palmer. J. Am. Ceram. Soc. (American Ceramic Society, 2525 North High St., Columbus, Ohio), 14, 541, August1931; also BS J. Research 6, 1003(1931) RP321.

The physical properties of cast stone. J. Tucker, Jr., G. W. Walker and J. Arthur Swenson. Proc. Am. Concrete Inst. (American Concrete Institute, 7400 Second Blvd., Detroit, Mich.), 28, 243 (1931); also BS J. Research 7, 1067(1931) RP389.

The transmission of water through brick masonry. L. A. Palmer. Architectural Forum (521 Fifth Ave., New York, N. Y.), 56, 103, January 1932.

The color range of common brick. J. W. McBurney. J. Clay Products Inst., 1, 31, June 1932.

The rate of stiffening of mortars on a porous base. L. A. Palmer and D. A. Parsons. Rock Products (Tradepress Publishing Corp., 205 W. Wacker Drive, Chicago, Illinois), 35, 18, September 10, 1932.

Discussion of "Development in reinforced brick masonry." J. W. McBurney. Proc. Am. Soc. Civil Engr. (American Society of Civil Engineers, 33 W. 39th St., New York, N. Y.), 59, 1344, October 1933.

The strength, water absorption, and weather resistance of building bricks produced in the United States. J. W. McBurney and C. E. Lovewell. Proc. Am. Soc. Testing Materials, 33, Part II, 636 (1933).

Permeability tests of 8 inch Wallettes. L. A. Palmer and D. A. Parsons. Proc. Am. Soc. Testing Materials (American Society for Testing Materials, 1916 Race St., Philadelphia 3, Pa.), 34, Part II, 419(1934).

Size and weight of building brick produced in the United States - J. W. McBurney. Industrial Standardization, 10, (Jan. 1935).

Comparison of natural weathering with laboratory tests of clay brick. D. E. Parsons. Proc. Am. Soc. Testing Materials, 35, Part 1, Appendix II, 252(1935).

The relation of freezing and thawing resistance to physical properties of clay and shale building brick. J. W. McBurney. Proc. Am. Soc. Testing Materials, 35, Part 1, Appendix I, 247 (1935).

A test procedure for plastic caulking materials. D. W. Kessler. Proc. Am. Soc. Testing Materials, 35, Part II, 581 (1935).

Water absorption of building brick. J. W. McBurney. Proc. Am. Soc. Testing Materials, 36, Part 1, 260 (1936).

Transverse and compressive strength of bricks. J. W. McBurney. Proc. International Assn. Testing Materials, London Congress, 388 (April 19-24, 1937).

Locating the causes of rain penetration of brick walls - D. E. Parsons. Building Economy and Modern Builder (2121 Guarantee Title Bldg., Cleveland, Ohio) 12, 5 (July, 1937).

The wick test for efflorescence of building brick - J. W. McBurney and D. E. Parsons. Proc. Am. Soc. Testing Materials, 1916 Race St., Philadelphia 3, Pa.), 37, Pt. II, 332 (1937).

Brick laying to avoid leaks. D. E. Parsons. Am. Builder (105 West Adams St., Chicago, Ill.) 59, 76 (Sept. 1937).

A further study of the water penetrability of clay and shale building brick - J. W. McBurney and A. R. Eberle, J. Am. Ceram. Soc. (2525 N. High St., Columbus, Ohio), 17, No. 5, 210 (May 1938).

The freezing and thawing test for building brick - J. W. McBurney and A. R. Eberle. Proc. Am. Soc. Testing Materials, 38, Pt. II, 470(1938).

Comparison of standard tests on building brick by two laboratories, W. J. Krefeld and J. W. McBurney. Bul. A.S.T.M. No. 96, 7 (Jan. 1939).

Plastic Calking Materials. D. W. Kessler. Review of Society of Residential Appraisers, (333 N. Michigan Ave., Chicago, Ill.), 5, no. 2, Feb. 1939.

Watertightness and transverse strength of masonry walls - D. E. Parsons. (Reprint of address delivered at Annual Meeting of Structural Clay Products Institute, 1427 Eye Street, NW, Washington, D.C.), Oct. 5, 1939.

An apparatus for determining Young's modulus of building materials by the dynamic method. F. B. Hornibrook. Bul. A.S.T.M., December 1939.

Exterior paint investigation for masonry wall structures - Clara Sentel. National Paint Bulletin (Franconia, Alexandria, Va.), 4, no. 5, 10 (May 1940).

Relation of water absorption and strength of brick to abrasive resistance. J. W. McBurney, R. H. Brink, and A. R. Eberle. Proc. Am. Soc. for Testing Materials, 1916 Race St., Philadelphia 3, Pa.), 40, (1940).

Watertight masonry walls. C. C. Fishburn. Operative Builder and Contractor (919 N. Michigan Ave., Chicago, Ill.) no. 5, 26 (Sept. 1940).

Effect of water content and mixing time on properties of air-setting refractory mortars containing sodium silicate. R. A. Heindl and W. L. Pendergast. Bul. Am. Ceramic Soc. (2525 N. High St., Columbus, Ohio) 19, 430 (Nov. 1940).

Outdoor exposure test of paints for masonry walls. Clara Sentel. Circular No. 609, Natl. Paint, Varnish and Lacquer Assn. (1500 Rhode Island Ave., N.W., Washington, D.C.) (January 1941).

Statistical theory of the effect of dimension and of method of loading upon the modulus of rupture of beams. John Tucker, Jr., Proc. Am. Soc. Test. Materials 41, 1 (1941).

Effect of freezing and thawing temperature in freezing-and-thawing tests of brick. J. C. Richmond and J. W. McBurney. Bul. Am. Soc. for Testing Materials, 41, 62 (1941).

Saturation coefficient values for brick by the absorption-boiling and the absorption-porosity methods. R. T. Stull and P. V. Johnson. Bul. Am. Soc. for Testing Materials (1916 Race St., Philadelphia 3, Pa.), No. 109, 17 (Mar. 1941).

Relation between air and water permeabilities of building brick. R. T. Still and P. V. Johnson. J. Am. Ceram. Soc. (2525 N. High St., Columbus, Ohio), 20, 443 (Dec. 1941).

Relations between results of laboratory freezing and thawing and several physical properties of certain soft-mud bricks. J. W. McBurney. Proc. Am. Soc. for Testing Materials 42, 837 (1942).

An improved gas-expansion volumenometer. J. C. Richmond, J. B. Petersen and W. H. Herschel. J. Am. Ceram. Soc. 26, 127 (Apr. 1943).

Applying membrane waterproofing to plain concrete wall footings. Jos. DiStasio and C. C. Fishburn. J. Am. Concrete Inst., 15, 323 (Feb. 1944).

The effect of certain variations in consistency and curing conditions on the compressive strengths of cement-lime mortars. G. J. Fink. Proc. Am. Soc. Testing Materials 44, 780 (1944).

Factors affecting the thermal expansion of concrete aggregate materials. Willard H. Parsons and Walter H. Johnson. J. Am. Concrete Inst. (7400 Second Blvd., Detroit 2, Mich.) 15, 457 (April 1944).

Effect of type of bar on width of cracks in reinforced concrete subjected to tension. D. Watstein and Norman A. Seese, Jr., J. Am. Concrete Inst. 16, 293 (Feb. 1945).

Properties of highly hydrated dolomitic masonry limes and certain of their cement-lime mortars. G. J. Fink and Emil Trattner. Preprint A1, Am. Soc. Testing Materials (June 1945).