

FOURTEENTH ANNUAL REPORT
OF THE
UNITED STATES EMPLOYEES'
COMPENSATION COMMISSION

JULY 1, 1929, TO JUNE 30, 1930



COMMISSIONERS

BESSIE P. BRUEGGEMAN, Chairman
HARRY BASSETT — JOHN M. MORIN



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FEDERAL EMPLOYEES' COMPENSATION ACT

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FOURTEENTH ANNUAL REPORT OF THE UNITED STATES EMPLOYEES' COMPENSATION COMMISSION

OCTOBER 15, 1930.

To the Senate and House of Representatives:

Report of the operations of the United States Employees' Compensation Commission for the fiscal year ended June 30, 1930, is herewith submitted, in conformity with the act of September 7, 1916.

I. JURISDICTION OF THE COMMISSION

The United States Employees' Compensation Commission, created by an act approved September 7, 1916, providing compensation for civil employees of the United States injured in the performance of their duties, is charged with the administration of three laws, which provide protection in the form of workmen's compensation benefits to approximately 1,000,000 employees.

The commission, which is composed of three members appointed by the President, by and with the consent of the Senate, has jurisdiction over the following laws:

1. United States employees' compensation act, approved September 7, 1916, entitled "An act to provide compensation for employees of the United States suffering injuries while in the performance of their duties, and for other purposes."

2. The longshoremen's and harbor workers' compensation act, approved March 4, 1927, entitled "An act to provide compensation for disability or death resulting from injury to employees in certain maritime employments, and for other purposes."

3. The District of Columbia workmen's compensation act, approved May 17, 1928, entitled "An act to provide compensation for disability or death resulting from injury to employees in certain employments in the District of Columbia, and for other purposes."

A brief history of these laws and amendments thereto and a description of the administrative organization of the commission appears in the twelfth and thirteenth annual reports of the commission covering the last two fiscal years, and therefore is not repeated in this report.

Each of these laws presents different administrative problems due to the fact that the employees covered by the different laws are entirely unrelated. The law providing compensation for Federal

employees is limited exclusively to employees of a single employer, the United States; the longshoremen's and harbor workers' compensation law relates to selected classes of employment in maritime jurisdiction on the navigable waters of the United States; the District of Columbia workmen's compensation law is in all respects comparable to a State compensation law. In view of this it is not practicable to refer to the problems and work of the commission under a general heading, and this subject will be covered in connection with the operations under each law.

II. OPERATIONS UNDER UNITED STATES EMPLOYEES' COMPENSATION ACT

1. COVERAGE

This act, approved September 7, 1916, with subsequent amendments, provides compensation for civil employees of the United States injured while in the performance of official duties; employees of the District of Columbia, exclusive of members of the police and fire departments; and officers and enlisted men of the Naval Reserve injured in the line of duty on authorized training duty. The classification "civil employee of the United States" has been held to include all employees of the Federal Government, regardless of civil-service status, including temporary and casual laborers, employees engaged in work under certain cooperative agreements between the Federal Government and the States, and direct employees of the Inland Waterways Corporation and the United States Shipping Board Merchant Fleet Corporation. Approximately 600,000 employees are subject to the benefits of this law.

Until February, 1930, seamen on vessels owned by the United States Shipping Board Merchant Fleet Corporation and operated by managing operators were considered to be entitled to the benefits of this act in conformity with an opinion of the Attorney General dated January 17, 1925 (34 Opin. 363). Information was received by the commission about February 1, 1930, that the United States Shipping Board Merchant Fleet Corporation had, on July 1, 1929, entered into a contract with certain private insurance companies to purchase indemnity insurance against claims arising out of the personal injury of seamen on vessels operated by its managing operators. Following the receipt of this information the commission suspended action on new claims filed by or on behalf of these employees and requested a decision from the Comptroller General of the United States as to whether it was authorized to use funds under its control for the payment of these claims. In a decision dated September 10, 1930, the Comptroller General advised the commission that it was not authorized to entertain, settle, or pay claims of this character.

In a subsequent decision dated September 30, 1930, the Comptroller General held that the decision of September 10, 1930, applied only to cases upon which an award had not been made prior to February 1, 1930, and that awards made prior to that date, if otherwise correct, would not be questioned. The decision of the Comptroller General, dated September 10, 1930, follows:

COMPTROLLER GENERAL OF THE UNITED STATES,
Washington, September 10, 1930.

CHAIRMAN UNITED STATES EMPLOYEES' COMPENSATION COMMISSION.

MADAM: Consideration has been given to your letter of May 3, 1930, as follows:

"In the administration of the Federal employees' compensation act this commission is confronted with a question, affecting the use of the appropriation to pay compensation to beneficiaries of said act, arising in connection with claims for injury made by members of the crews of vessels, operated by the United States Shipping Board Merchant Fleet Corporation, and the beneficiaries of such as die as a result of injury, sustained in the course of their employment on such vessels.

"In an opinion dated March 11, 1924 (34 Opin. 120), the Attorney General advised the President that seamen serving on board vessels of the Emergency Fleet Corporation, operated by agents under the MO 4 and similar agreements, are employees of the agent and not employees of the Fleet Corporation or of the United States within the meaning of the compensation act and are not entitled to compensation through this commission.

"Subsequently, under date of January 17, 1925 (34 Opin. 363), the Attorney General advised the President that seamen employed on Shipping Board vessels, operated under the MO 4 form of agreement then in use, were employees of the United States and as such entitled to the benefits of the Federal employees' compensation act, and that the opinion of March 11, 1924, so far as it was in conflict with the views then expressed, was to be deemed overruled.

"In accordance with this latter opinion this commission has acted upon claims coming within the limits stated by the Attorney General and, in case of allowance to an injured seaman or the beneficiaries of one dying as the result of injury, has made payment of compensation from the employees' compensation fund in the same manner and to the same extent as in the case of employees under the departments and other Government establishments, the latter being clearly employees of the United States within the meaning of the compensation act.

"More than two years ago there was organized by the United States Shipping Board, and the United States Shipping Board Merchant Fleet Corporation, a corporation under the laws of Delaware under the name 'United States Protection and Indemnity Agency (Inc.)' for the purpose of investigation, settlement, and payment of claims of a protection and indemnity nature. This commission has been advised that the agency referred to had a contract with the United States Shipping Board to act as agent for the board in the investigation and negotiation of settlements of claims of certain kinds, including personal-injury claims. During the month of February, 1930, information came to this commission that the United States Protection and Indemnity Agency (Inc.) has been sold or transferred to private persons not connected with the Government. No information has been obtained by this commission concerning the details of such sale, whether made by transfer of the capital stock or other-

wise by the United States Shipping Board to other parties, nor what money or other property of the said agency was owned or transferred, nor what is the capital stock or assets of such agency said to be owned by persons not now officers or agents of the United States or of the Fleet Corporation.

"In view of the fact, ascertained since February 1, 1930, that the sale or transfer of the United States protection & Indemnity Agency (Inc.) was made by the United States Shipping Board or the Merchant Fleet Corporation by contract effective July 1, 1929, this commission has taken no action to allow or pay claims of members of the crews of the Merchant Fleet Corporation vessels or the beneficiaries of such members as have died of injury, and all such claims received since February, 1930, are now pending before this commission.

"To take effect July 1, 1929, a contract with seven insurance companies was entered into by officers of the Merchant Fleet Corporation, acting for the United States, by which the insurance carriers agreed for a premium to insure the vessels of the Merchant Fleet Corporation as stated in the contract, a copy of which was furnished to this commission by the Merchant Fleet Corporation and is inclosed. It will be noticed in paragraphs marked 'Fifth' and 'Sixth' the insurance carriers agree to buy the good will of the United States Protection & Indemnity Agency (Inc.), including office equipment, for the sum of \$10,000, and the United States agrees to transfer the good will, office equipment, and trade name, including a lease of certain office space at 45 Broadway, New York City.

"While the commission recognizes that, under the opinion of the Attorney General referred to, this commission is authorized to treat the crews of Merchant Fleet Corporation vessels operating under the form of agreement referred to as employees of the United States and to settle and pay from its appropriation their claims for compensation, it is in doubt, in view of the contract of insurance entered into on behalf of the United States, as owner, with the seven insurance companies named, and effective July 1, 1929, which classes of claims must be paid by the insurance carriers and which claims are authorized to be paid by this commission. In the contract of insurance referred to there is a paragraph reading as follows:

"'Fourth. The protection afforded by this agreement and the policy issued hereunder shall be warranted free of (1) liability of vessels for injury to or death of stevedores, or others not employees of assured, caused during the loading or discharging of cargo within the States of Texas, Louisiana, Mississippi, and/or Alabama; (2) claims for owner's collision liability; (3) claims for loss or damage resulting from personal injury to any member of the crew arising from hostilities and warlike operations; and (4) any claims of masters, officers, or members of crews which they as civilian employees of the Government may make under the United States employees' compensation laws.'

"If taken literally, the last provision (4) of this paragraph would free the insurance carriers of liability in the event a master, officer, or member of a crew should in fact make a claim under the employees' compensation law regardless of the question whether or not such claim is allowed, and also regardless of the question whether the vessel or the Merchant Fleet Corporation is liable to a suit for damages for negligence or other suit authorized to be brought by a seaman against a vessel or its owner.

"Although, since the opinion of the Attorney General of January 17, 1925, as well as prior thereto, this commission has treated the crews of vessels operated by the Merchant Fleet Corporation as employees of the United States within the meaning of the compensation law, the courts have entertained suits for damages by such seamen against the Merchant Fleet Corporation and ren-

dered judgments, which have been paid by the said corporation. The latter also has made settlements and payments on such claims without suit, and the practice developed by which, when the Fleet Corporation settled and paid such claims, it took a release from the claimants of any rights under the compensation law, and when voluntarily or by inducement claimants filed claim for compensation with this commission the Fleet Corporation and this commission, before it allowed the claim, required a release of any claim against the Fleet Corporation. (See the discussion by the Attorney General in 34 Opin. 122, of the act of December 24, 1919, 41 Stat. 377.)

"In view of this recognition of the election a member of the crew has to assert a claim for damages against the Fleet Corporation, or to take compensation through this commission, an election which no other employees of the United States have—the latter being entitled only to compensation with no right of suit against the United States—this commission believes that the action of the Merchant Fleet Corporation in effecting insurance through private insurance companies and the payment of substantial premiums therefor has so changed the situation, in reference to claims for damages and claims for compensation, as to make it doubtful in the public interest whether this commission lawfully can continue to allow and pay claims for compensation by seamen or their beneficiaries. The insurance carriers which entered into the contract with the Merchant Fleet Corporation, or their agents, are the ones who are first informed of the injuries incurred and decide whether there is liability under their insurance contract to the injured persons. If they decide there is none they then secure from claimants the execution of claims to be sent to this commission. If they decide there is liability they send in a claim if the injured is willing to accept compensation instead of asserting a claim for damages against the Fleet Corporation.

"It is recognized by this commission that whether the Merchant Fleet Corporation or its insurance carriers are liable to respond in damages for an injury to a seaman on a Merchant Fleet Corporation vessel, is a question that can be determined only by a suit at law and the final judgment may be long delayed. This commission is unwilling to act upon claims of seamen for the benefits of the compensation law which it administers unless the evidence at the place of injury and at the time, or as soon as possible after the injury occurs, is secured by agents representing the United States and not the insurance carriers. Nor can this commission undertake to allow claims of such seamen upon its own determination from such evidence as it may obtain that there is no liability on the part of the insurance carriers. If it should be called on to make such determination there should be provision, in any insurance contract or policy the Merchant Fleet Corporation has with private insurance carriers, that the United States be subrogated to any right of action there may be for damages, such right to be enforced by this commission, or other proper agency of the Government, through proceedings in court against the insurance carriers.

"This commission is unwilling to receive and allow as claims for compensation those cases for which the insurance carriers or their agent, the United States Protection & Indemnity Agency (Inc.), may determine they have no liability to respond in damages under the contract or policy of insurance, and with only the evidence as to injury and without evidence independently secured as to the facts from which this commission may determine that the case is one for which the insurance carriers are not liable under their contract.

"The claims now pending before this commission, and they involve many beneficiaries who are in need, have been presented by the insurance carriers or their agents, who have received them from the claimants or prepared them

for the claimants, the commission having no independent report or evidence furnished by the employer—the Merchant Fleet Corporation or its agents.

"In view of the facts stated the commission requests your decision, as early as may be convenient, of the question whether it is now authorized to settle and pay claims for compensation, for injuries sustained while in the performance of duty, made by members of the crew of Merchant Fleet Corporation vessels, without regard to the contract made by that corporation with the insurance carriers, in the same manner that it would have settled claims for injuries sustained prior to the effective date of said contract, under the practice to pay compensation if the claimant elected to receive it rather than assert a claim for damages against the Fleet Corporation."

It is understood your request for decision relates only to the class of persons mentioned in the first paragraph of your submission and this decision is to be regarded as applicable to such class of persons only.

This office is in receipt of a letter, dated June 10, 1930, from the president of the United States Shipping Board Merchant Fleet Corporation, as follows:

"This will acknowledge receipt of your letter of May 29, in which you stated you had received a letter from the United States Employees' Compensation Commission requesting a decision upon certain questions involving the right of the commission to pay claims filed by members of crews of vessels operated by the Merchant Fleet Corporation, who also may or may not be affected by the agreement entered into between the Fleet Corporation and insurance companies providing for the investigation, settlement, and payment of claims of a protection and indemnity nature. You request that there be furnished your office our views on the several questions presented, together with any additional facts of record or comments which we may desire to submit relative thereto.

"We do not quite understand the reference to the 'legality of said contracts between the United States Shipping Board Merchant Fleet Corporation, represented by an agency corporation entitled "United States Protection and Indemnity Agency (Inc.)" and seven insurance companies, which purport to obligate funds appropriated under the United States Shipping Board.' The Merchant Fleet Corporation is merely purchasing protection and indemnity insurance from the Marine Office of America, which employs its United States Protection & Indemnity Agency in the investigation and settling of claims on behalf of the Marine Office of America, the insurer. Neither the Marine Office of America nor the Protection & Indemnity Agency has any right to obligate funds appropriated under the United States Shipping Board; in fact, the United States Shipping Board or Merchant Fleet Corporation has no connection with either one of these institutions except to pay premiums for the carrying of protection and indemnity insurance against losses in the same manner as any other steamship owner obtains insurance from this or any other like insurer.

"There is no question of the responsibility of the insurance company, and there is no question that the premium rate of 84 cents per ton is an equitable and fair rate. If the losses exceed the premiums, there is no redress against the Fleet Corporation.

"The only question which has arisen and one which was thoroughly considered at the time the Fleet Corporation decided to purchase its protection and indemnity insurance in the market rather than to carry on a business of its own covering protection and indemnity insurance, is with reference to those claims which seamen present to the United States Compensation Commission. The Attorney General ruled that these seamen had a right to go to the commission, which could not be taken away from them, and the 84-cent rate was arrived at with due consideration to the approximate number of such cases based on the amount of claims

paid by the commission in past years, which it was felt would continue in the same ratio. However, on this subject I can do no better than to furnish you copies of correspondence recently had with the commission, which are attached hereto. There is also attached a letter addressed to the Marine Office of America limiting these claims.

"As stated in the correspondence with the commission, if any way could be found that the commission could escape the responsibility to the seamen our problem would be very much simplified, although under the present arrangement the Government is fully protected since we have agreed with the Protection & Indemnity Agency that if the commission paid claims in any one year beyond the stipulated amount, then, in such case, the Protection and Indemnity Agency would credit the Fleet Corporation with the excess."

In the later opinion of the Attorney General, hereinbefore cited, there was, by implication, recognized a concurrent jurisdiction in the United States Shipping Board Emergency (Merchant) Fleet Corporation and the United States Employees' Compensation Commission to settle liability claims for injury to members of crews of vessels operated by the corporation, the point being stressed, however, that dual payments should not be made. (See also the act of December 24, 1919, 41 Stat. 377.) The courts have recognized that although all the stock of the corporation was owned by the United States, it was subject to suit by an injured seaman employed on a vessel operated by the corporation. There appears no court case deciding that such a seaman has two remedies, to wit, against the corporation and also before the Employees' Compensation Commission under the employees' compensation act of September 7, 1916 (39 Stat. 742), as amended, with a right of election in the seaman as to which remedy he would pursue. In the case of *Lindgren, Administrator, v. United States et al.*, 281 U. S. 38, 48, decided by the Supreme Court of the United States February 24, 1930, involving a suit against the United States by an administrator of a seaman who had been killed while employed on a Government-owned vessel, the court denied the claim of the administrator under the terms of the merchant marine act, and concluded as follows:

"* * * Nor do we consider or determine the effect of the Federal employees' compensation act, upon which, although incidentally referred to in argument, neither the administrator nor the United States here relies."

However, in the case of *United States Shipping Board Emergency Fleet Corporation et al. v. Lustgarten*, decided by the Supreme Court of the United States, January 6, 1930 (280 U. S. 320), subsequent to the opinions of the Attorney General mentioned in your submission, involving an action at law brought in a United States district court to recover damages for injuries alleged to have been sustained by a seaman while employed on the steamship *Coelleda*, a merchant vessel owned by the United States and operated for it by the Navigation Co. as agent, pursuant to an agreement consummated through the Emergency (Merchant) Fleet Corporation, the court, in denying the claim, as well as three other claims, concluded as follows (quoting from the syllabus):

"The suits in admiralty act provides the exclusive remedy against the United States or the Fleet Corporation for maritime causes of action arising out of the possession and operation of merchant vessels and precludes suits against the United States under the Tucker Act and actions at law in State or Federal Courts against the Fleet Corporation or other agents, for the enforcement of such causes of action."

While the employees' compensation act was not mentioned nor considered, the conclusion seems justified that the remedy thus available to a member of a crew of a merchant vessel owned by the United States and operated by or for

the Merchant Fleet Corporation, to recover for injury sustained during employment, is also exclusive of any right or remedy under the employees' compensation act.

Whether there would be members of crews of the Merchant Fleet Corporation vessels who could not invoke the remedies provided under the suits in admiralty act, but who might be brought within the terms of the employees' compensation act, is not clear. But it would seem that all such members of crews should be considered alike in this connection. While the Attorney General held that seamen of such vessels were employees of the United States within the meaning of the employees' compensation act, his opinion was rendered at a time before judicial determination had so firmly established the relationship between the Merchant Fleet Corporation and the members of the crews of its vessels as being substantially the same as that existing between any private **shipping corporations and the crews of their vessels**, under the merchant marine act and the suits in admiralty act.

With respect to insurance, liability or otherwise, this office had in the past held to the view that the Merchant Fleet Corporation should be considered as any other governmental agency, and in letter to the vice president and general manager, dated June 2, 1928, A-5789, stated as follows:

"The question raised by this office in connection with the insurance carried on automobiles of the Fleet Corporation was not directed to the manner of payment alone but to the practice of insuring the property of the corporation. It long has been the established policy of the Government not to carry insurance on public property, and any change in such policy should be made by Congress when and where deemed advisable. The automobiles of the Merchant Fleet Corporation must be regarded as public property belonging to the United States and, as such, subject to the policy of the Government in that respect. Therefore, unless specific statutory authority is given the Fleet Corporation to insure its automobiles there would appear to be no authority to charge public funds for the insurance premiums therefor.

"It is noted in this connection that the Merchant Fleet Corporation and/or the United States Lines now carry insurance of almost every description including fire, theft, loss of rent, plate glass, loss and damage, public liability, safe burglary, employees' compensation, fidelity bonds on employees and agents, etc., for which the expenditures aggregate large sums of money not estimated for in the Budget and not specifically provided for in the appropriations made for the corporation. The insurance fund provided by section 10 of the merchant marine act of June 5, 1920 (41 Stat. 919), covers only marine risks and does not constitute authority in the Fleet Corporation to insure all of its public property against hazards and risks of every description. The practice of insuring such property other than that specifically authorized should accordingly be discontinued."

Since the date of that letter, and for the fiscal years 1930 and 1931, the Congress has provided, under the appropriation heading "United States Shipping Board shipping fund" the following items:

"* * * * for the payment of premiums for liability, fire, theft, property damage, and collision insurance and for other forms of insurance, including schedule and fidelity bonds, commonly carried by commercial corporations engaged in the same or a similar business * * *."

See acts of February 20, 1929 (45 Stat. 1244), and April 19, 1930 (Public, No. 158, p. 17). See also hearings on the Independent Offices Appropriation Bill for 1930, page 428, wherein it is made clear that the specific authority for pur-

chasing insurance added in the appropriation act, was because of the views expressed by this office. For instance, the following is quoted:

"Mr. WASON. Perhaps the Comptroller feels that the United States can insure its own accidents cheaper than they can buy insurance.

"General DALTON. Well, I differ with him on that policy, or its application to a commercial concern as large as ours, doing business all over the world, and according to commercial practice."

Under the specific items in the appropriation acts above quoted, there the Merchant Fleet Corporation has entered into liability-insurance contracts with private insurance concerns whereby the corporation and the United States will be insured against the claims by or on behalf of seamen injured or killed while employed on vessels operated by the corporation. And there would appear to be no necessity or justification for making an exception of any class of seamen employed on such vessels.

In the insurance contract now in force there has been, apparently, an attempt to save to the seamen the privilege or election of making application to the Employees' Compensation Commission if desired. It is understood, however, that in practice only those seamen whose claims are not covered by the insurance contracts, or those who would otherwise benefit to a greater extent, are required or permitted to file claims with the commission, and after it has become impracticable for the commission to conduct its own independent investigation of the facts and circumstances in the case. This in effect would make the commission subservient to and dependent upon the functioning in the first instance of private insurance companies, a situation repugnant to the recognized procedure of Government activities and which may not be countenanced.

Accordingly, in view of the latest rulings of the Supreme Court of the United States above cited, the form of agreement for "operation" of ships and the specific provisions contained in the annual appropriation acts for the purchase of all forms of insurance by the Merchant Fleet Corporation, it is only reasonable to conclude that, under existing law, the Employees' Compensation Commission may not entertain, settle, or pay any claims under the employees' compensation act by or on behalf of members of the crews of vessels owned or operated by the United States Shipping Board Merchant Fleet Corporation, or the beneficiaries of such who die as a result of such injuries sustained in the course of their employment on such vessels.

The inclosures with your letter are returned herewith.

Respectfully,

(Signed) J. R. McCARL,
Comptroller General of the United States.

2. ADMINISTRATIVE PROCEDURE

All work in connection with the adjustment of claims filed under the provisions of this law, with the exception of field investigations, is performed under the direction of the commission in its office in Washington. Employees of the Federal Government are stationed in every State and in foreign lands, and it is obvious, therefore, that the adjustment of claims by a central office must be effected almost exclusively by correspondence. Under regulations promulgated by the commission, officers in the Government establishments act as local agents of the commission in the matter of reporting injuries, arranging

ing for prompt medical treatment, advising and assisting injured employees, and performing other duties required by the law and regulations. Printed regulations of the commission concerning the duties of employees, official superiors, medical officers, and others, have been given wide distribution, and the procedure under this law is familiar to practically all supervisory officials in the Government service. The cooperation and assistance of these officials has been exceedingly helpful to the commission, and has not only expedited the settlement of claims of injured employees and thus enabled them to receive prompt relief at a time when it is most urgently needed but it has also made it possible to administer this law from a central office, thus avoiding the necessity of establishing administrative offices in the field.

The importance of field investigations has been referred to frequently in previous reports of the commission. The need for personal investigation of compensation claims becomes more pressing each year, particularly in cases of partial disability. Under the provisions of the compensation act a partially disabled employee is entitled to compensation indefinitely at the rate of 66 $\frac{2}{3}$ per cent of the difference between his monthly wage at the time of injury and his monthly wage-earning capacity after partial disability begins. Measuring loss in wage-earning capacity caused by disability resulting from an injury presents one of the most difficult questions with which the commission must deal, and frequent personal investigation of these cases is of great value. The need for personal investigation arises also in other cases of prolonged disability, cases which involve questions of dependency of parents and other relatives of deceased employees and cases of a doubtful character in which the evidence is incomplete or unconvincing.

Unsettled industrial conditions producing extensive unemployment result in an increased number of applications for compensation in cases of permanent partial disability. Employees in private employment who at some previous time suffered permanent disabilities while in the employ of the Government, when thrown out of employment and forced to compete for jobs with able-bodied workers, generally attribute their difficulty in securing employment, at least in part, to their physical handicap. While under normal conditions many of these employees may establish an actual earning capacity which does not entitle them to receive compensation, they are placed at a distinct disadvantage in times of stress in securing employment at jobs which they are capable of performing. The commission must give recognition to this condition and, if the facts warrant, make an award of compensation which in its judgment is representative of the loss in wage-earning capacity due to disability resulting from injury.

3. INJURIES REPORTED AND CLAIMS RECEIVED

Table No. 1 gives a complete record to date of all injuries reported and all claims filed with the commission since its organization. These figures are given for calendar years for the whole period and by months since December, 1928. During the year ended December 31, 1929, the number of injuries reported reached the highest peak during any year in the history of the commission, with the exception of the year ended December 31, 1919. The number of injuries reported decreased from 25,813 in 1919 to 17,922 in 1923, and has since increased to 25,690 in 1929. During the year 1929 the number of injuries reported increased 3,501, or nearly 16 per cent over the number reported during the preceding year. As may be expected a corresponding increase occurred in the number of claims filed since the percentage of injuries resulting in claims has remained fairly constant at about 36.6 per cent during the last four years. The number of claims filed decreased from 13,924 in 1919, the largest number in any year to date, to a record low mark of 6,702 in 1923, and has since increased to 9,337 in 1929. The number of claims received in 1929 was 1,150 greater than in 1928, an increase of 14.05 per cent. The record for the first half of 1930 indicates a further increase during this year. The number of injuries reported during the six months ended June 30, 1930, is 12 per cent greater than the number reported during the corresponding period in 1929, while during the same period the number of claims received increased 11 per cent over the number received during the corresponding period in the preceding year.

TABLE 1.—REPORT OF INJURIES AND CLAIMS RECEIVED SEPTEMBER 7, 1916, TO SEPTEMBER 30, 1930

Period covered	Injuries reported	Per cent increase over previous year	Claims received on account of loss of wages and death			Per cent increase over previous year
			Disability	Death	Total	
Sept. 7, 1916, to Dec. 31, 1917	16,076	-----	6,429	227	6,656	-----
Year ending Dec. 31—						
1918	24,118	50.00	12,183	438	12,621	89.60
1919	25,813	7.00	13,425	499	13,924	10.30
1920	20,080	1 22.21	10,505	427	10,932	1 21.50
1921	18,390	1 8.40	7,857	310	8,167	1 25.30
1922	18,259	1 7.71	6,804	282	7,086	1 13.20
1923	17,992	1 1.46	6,466	236	6,702	1 5.40
1924	20,538	14.15	6,890	224	7,114	6.15
1925	20,691	1 7.74	6,987	274	7,261	2.07
1926	19,527	1 5.63	6,830	274	7,104	1 2.16
1927	20,547	5.22	7,272	285	7,557	6.38
1928	22,189	7.99	7,928	259	8,187	8.34
1929						
January	2,011	7.42	686	15	701	1 1.41
February	1,801	6.76	650	18	668	18.23
March	1,968	6.67	731	29	760	19.12
April	1,908	20.76	644	26	670	11.85
May	1,855	8.48	682	25	707	11.51
June	1,850	6.14	618	16	634	11.23
July	2,131	21.98	660	24	684	2.86

¹ Decrease.

TABLE 1.—REPORT OF INJURIES AND CLAIMS RECEIVED SEPTEMBER 7, 1916, TO SEPTEMBER 30, 1930—Continued

Period covered	Injuries reported	Per cent increase over previous year	Claims received on account of loss of wages and death			Per cent increase over previous year
			Disability	Death	Total	
1929						
August	2,474	13.02	832	17	849	14.73
September	2,519	34.08	841	28	869	16.80
October	2,702	20.68	1,080	31	1,111	25.40
November	2,276	13.35	877	16	893	13.61
December	2,195	29.80	773	18	791	21.88
Total for year ending Dec. 31, 1929	25,690	15.78	9,074	263	9,337	14.05
1930						
January	2,404	19.54	868	18	886	26.39
February	1,997	10.88	781	19	800	19.76
March	2,221	12.86	778	20	798	5.00
April	1,994	4.51	681	16	697	4.05
May	2,007	8.19	657	15	672	1 4.95
June	2,174	17.51	712	16	728	14.83
Total to June 30, 1930	12,797	12.32	4,477	104	4,581	10.65
July	2,192	2.86	761	16	777	13.60
August	2,441	1 1.33	745	22	767	1 9.66
September	2,405	1 4.53	—	—	—	—

¹ Decrease.

In Table No. 2 the number of injuries reported is given by 6-month periods for the last four years and is tabulated for the principal administrative units in the executive departments and the larger independent establishments. This table shows the departments and establishments in which there has been a considerable increase in the number of injuries reported within the last four years. These increases are noticeable in the following departments: Agriculture, Interior, Post Office, Treasury, War, and the government of the District of Columbia. The reduction in the number of injuries reported during the period between the years 1919 and 1923 followed a reduction in the number of Federal employees resulting from the curtailment of certain governmental activities following the close of the World War. The subsequent increase in the number of injuries reported and claims received is attributed to the expansion in governmental activities during recent years, thus increasing the number of employees subject to the benefits of the compensation act, an increase in the number of employees who file claims for disabilities of short duration, and a better knowledge of the compensation law among all employees. The extent of the increase in the number of employees can not be determined with exactness, since a large number of employees entitled to claim the benefits of this law are not in the classified civil service and therefore are not included in the reports compiled by the Civil Service Commission. The last annual report of the Civil Service Commission shows a decrease in the number of employees in the Federal executive civil service from 917,760 in 1918 to 479,646 in 1923, and a subsequent increase to 587,665 in 1929.

TABLE 2.—INJURIES REPORTED BY ESTABLISHMENTS FOR 6-MONTH PERIODS JULY 1, 1926, TO JUNE 30, 1930

Establishments	July to December, inclusive, 1926	January to June, inclusive, 1927	July to December, inclusive, 1927	January to June, inclusive, 1928	July to December, inclusive, 1928	January to June, inclusive, 1929	July to December, inclusive, 1929	January to June, inclusive, 1930
War:								
Arsenals and armory-----	167	157	150	232	294	312	304	408
Other ordnance-----	41	48	59	40	111	90	178	141
Engineer-----	1,827	1,103	1,790	1,101	1,775	1,233	2,155	1,645
Quartermaster-----	241	223	267	243	263	365	379	336
Other War-----	399	377	446	535	619	573	681	513
Total War Department-----	2,675	1,908	2,712	2,151	3,062	2,573	3,697	3,043
Navy:								
Yards-----	690	668	639	665	796	853	839	759
All other Navy-----	250	213	203	198	251	209	257	240
Total Navy Department-----	940	881	842	863	1,047	1,062	1,096	999
Post Office:								
City mail service (clerical and supervisory)-----	768	833	879	957	835	956	936	1,132
City mail service (letter carriers)-----	1,581	2,076	1,822	2,247	1,855	2,434	2,099	2,722
Railway Mail Service-----	551	599	512	577	578	602	536	648
Rural Free Delivery-----	81	172	89	170	105	174	118	189
Air mail service-----	31	33	11	2	1			
All other-----	864	927	963	1,002	946	888	943	886
Total Post Office Department-----	3,876	4,640	4,276	4,955	4,320	5,054	4,632	5,577
Interior:								
National Park Service-----	117	43	101	61	146	53	190	89
Reclamation Service-----	118	128	183	143	156	127	123	142
All other Interior-----	118	92	138	117	172	164	260	194
Total Interior Department-----	353	263	422	321	474	344	573	425
Treasury:								
Custodian-----	68	89	101	98	82	113	94	114
Custos-----	132	136	114	145	133	151	172	217
Engraving and Printing-----	50	80	58	78	55	50	64	43
Prohibition enforcement-----	49	46	75	85	75	88	126	155
Public Health Service-----	17	31	23	28	26	27	24	35
All other Treasury-----	115	115	137	156	110	157	135	140
Total, Treasury Department-----	431	497	508	590	481	586	615	704
Commerce:								
Animal Industry-----	133	122	144	123	125	143	116	134
Forest Service-----	891	275	703	262	902	331	1,330	435
Public Roads and Rural Engineering-----	77	33	64	44	80	48	88	59
All other Agriculture-----	164	166	280	182	243	220	1,034	337
Total, Agriculture Department-----	1,265	596	1,191	611	1,350	742	2,577	965
Labor:								
Government Printing Office-----	47	33	43	49	49	62	51	50
Other legislative establishments-----	22	22	20	20	15	20	22	28
Department of State-----	12	19	15	14	13	11	16	17
Department of Justice-----	7	3	4	5	12	7	3	12
All other-----	8	8	5	7	6	11	8	16
Miscellaneous:								
Public Buildings and Public Parks-----	(1)	(1)	21	83	94	83	87	96
Shipping Board—Merchant Fleet Corporation-----	259	249	171	191	189	151	165	77
District government-----	179	176	186	188	262	249	291	253
Veterans' Bureau-----	152	170	156	151	135	171	158	216
All other-----	32	46	39	34	29	40	38	47
Total miscellaneous-----	622	641	573	647	709	694	739	689
Grand total-----	10,484	9,713	10,834	10,436	11,753	11,393	14,297	12,797

¹ Transferred to War, Engineer.

4. CASES DISPOSED OF

With the exception of fatal and permanent total disability cases, the tables which follow in this report include only cases in which it appears from information now available that final payment of compensation has been made. No attempt is made to present a statistical analysis of cases reported to the commission during calendar year 1929, or active cases reported during prior years in which compensation is being paid currently. Table 3 contains a summary of tabulated cases for calendar year 1929, which caused loss of time. The total number of cases, 16,647, is approximately 2,500 greater than the number tabulated for 1928, and 3,500 greater than for 1927. This total for 1929 includes 257 cases which resulted in death, 46 cases which have been classified as permanent total disabilities, 279 cases that were closed as permanent partial disabilities, and 16,065 cases which have been paid and closed as temporary total disabilities.

In addition to the 16,647 cases listed in Table 3, 7,096 cases of injury were reported which resulted in no loss of time, and 1,297 cases were disapproved by the commission, thus making a total of 25,040 cases disposed of by the commission during the year. This number compares favorably with the number of new cases reported, 25,690, as shown in Table 1. The cases disapproved by the commission are listed below together with the reason for disapproval.

Reason for disapproval	Nonfatal	Fatal	Total
Disability not due to injury	782	43	825
Injury not sustained while in performance of duty	176	17	193
Claim not filed within statutory limit	117	1	118
Claimant not civil employee	29	6	35
Admiralty cases settled by United States Shipping Board	18	2	20
Injury due to willful misconduct	6	1	7
Infoxication proximate cause of injury	6	0	6
Miscellaneous and incomplete	93	0	93
Total	1,227	70	1,297

TABLE 3.—NUMBER OF INJURIES CAUSING LOSS OF TIME, BY EXTENT OF DISABILITY, FOR EACH DEPARTMENT AND IMPORTANT BUREAU OR ESTABLISHMENT, CALENDAR YEAR, 1929

Establishment	Total number of injuries	Number of injuries resulting in infection	Number of injuries resulting in—									
			Death	Perma-	Perma-	Temporary total disability, with duration of—						
						Total	1 to 3 days	4 to 7 days	8 to 14 days	15 to 21 days	22 to 28 days	Over 28 days
Agriculture:												
Animal Industry	127	17	1	4	1	125	35	33	25	10	3	19
Forest Service	1,246	159	16	4	9	1,217	191	280	308	182	70	1,186
Public Roads and Rural Engineering	62	7	1	1		60	4	12	20	8	4	12
Plant Quarantine and Control Administration	406	88	2	1		403	124	88	100	40	21	30
All other	192	21	4	1	4	183	36	46	33	23	17	28
Total Agriculture	2,033	292	24	6	15	1,988	390	459	486	263	115	275
Commerce:												
Census Bureau	12					12	4	2	3			3
Lighthouse Bureau	155	18	5	1	3	146	31	18	24	16	15	1,42
Standards Bureau	21	3	1			20	1	9	5	2	2	1
All other	87	4	5	1	1	80	23	14	18	3	7	15
Total Commerce	275	25	11	2	4	258	59	43	50	21	24	61
Government Printing Office	34	2		1	1	31	6	3	4	3		15
Interior:												
Indian Affairs	183	15	14		17	162	14	17	36	17	13	1,65
National Park Service	137	14	3		5	129	26	31	24	10	10	28
Reclamation Service	125	12	13	1	2	116	31	20	18	19	11	17
All other	93	11	3		2	88	23	25	9	5	6	20
Total Interior	538	52	13	1	29	495	94	93	87	51	40	130
Labor	75	5	5			70	13	18	16	4	7	12

NOTE.—The small figures indicate additional awards.

TABLE 3.—NUMBER OF INJURIES CAUSING LOSS OF TIME, BY EXTENT OF DISABILITY, FOR EACH DEPARTMENT AND IMPORTANT BUREAU OR ESTABLISHMENT, CALENDAR YEAR 1929—Continued

Establishment	Total number of injuries	Number of injuries resulting in infection	Number of injuries resulting in—									
			Death	Permanent total disability	Permanent partial disability	Temporary total disability, with duration of—						
						Total	1 to 3 days	4 to 7 days	8 to 14 days	15 to 21 days	22 to 28 days	Over 28 days
Navy:												
Yards—												
Boston	152	13	1	1	2	148	15	22	28	14	13	56
Bremerton	172	11	2	1	5	164	52	32	29	12	10	29
Charleston	11	1	1			10	1	2	3		2	2
Mare Island	177	10		1	2 4	172	21	24	31	22	14	60
New York	214	17	2		6	206	33	55	41	28	9	1 40
Norfolk	320	16	2	1	2 6	311	59	83	68	27	24	1 50
Pearl Harbor	119	12			4	115	38	29	31	7	2	8
Philadelphia	193	13	3	2	2 3	185	30	33	1 29	17	15	61
Portsmouth	68	12	1		2	65	3	14	18	6	2	22
Washington	98	4	1		5	92	13	8	18	14	10	1 29
Total yards	1,524	109	13	6	37	1,468	265	302	296	147	101	357
Other Navy—												
Cavite	97	7	1		5	91	24	26	19	10	4	8
Hampton Roads Operating Base	47	2				47	23	5	7	4		8
Indianhead Powder Factory	22	1	1		2	19	2	5	3	3	2	4
Naval Aircraft Factory, Philadelphia	15	3		1		14	2	3	1			8
Naval Reserve	23	1	1 8		2	13	1	1	1	4		6
Newport	30	1			1	29	8	5	4	5	2	1 5
South Brooklyn supply depot	6	1				6	1	1			1	3
All other	186	22	3	1	16	166	27	30	32	20	18	2 39
Total other Navy	426	38	13	2	26	385	88	76	67	46	27	81
Total Navy Department	1,950	147	26	8	63	1,853	353	378	364	193	128	444
Post Office:												
City Mail Service (clerical and supervisory)	955	78	5	1	9	940	327	219	159	54	27	2 154
City Mail Service (letter carriers)	3,006	129	12	3	2 23	2,968	838	654	526	271	147	6 532
Railway Mail Service	814	69	8		1 5	801	107	147	218	99	51	3 179
Rural Free Delivery	214	11	1 14	2	6	192	17	27	30	21	24	1 73
All other	1,343	62	1	1	1 8	1,333	405	319	255	127	55	2 172
Total Post Office	6,332	349	40	7	51	6,234	1,694	1,366	1,188	572	304	1,110

Treasury:														
Custodian	127	18	3	1	2	121	27	19	25	12	11	1	27	
Customs	196	17	4		2	190	52	32	33	24	12	12	37	
Engraving and Printing	98	11			2 1	97	7	30	20	10	6	6	24	
Internal Revenue	41	3	1	1		39	11	8	7	3	2	2	8	
Prohibition Enforcement	102	8	1 11			1 90	16	16	11	12	8	8	27	
Public Health Service	34	2	1			1 1 31	3	2	9	3	2	2	12	
All other	120	11	1 1		2	118	37	24	25	14	5	5	13	
Total Treasury	718	70	21	2	9	686	153	131	130	78	46	46	148	
War:														
Ordnance—														
Arsenals and armory	247	21	4			4 12	231	62	56	43	21	13	1	36
Other ordnance	162	8	4			2	156	42	32	38	13	10	10	21
Total Ordnance	409	29	8			14	387	104	88	81	34	23	57	
Engineer	1,870	162	2 73	10	5 35	1,752	351	339	352	215	110	2	385	
Quartermaster	480	52	1 3	2	8 22	453	94	82	73	53	28	28	123	
Other War—														
Air Service	113	11	1			3	109	27	25	22	12	7	16	
Mississippi-Warrior Service	688	32	4	1		11	672	127	100	148	104	57	136	
All other	208	20	5	1	1 9	193	24	36	36	27	27	21	58	
Total other War	1,009	63	10	2	23	974	178	161	197	143	85	85	210	
Total War Department	3,768	306	94	14	94	3,566	727	670	703	445	246	246	775	
Miscellaneous:														
District government	290	21				1	289	59	74	67	33	13	43	
Public Buildings, and Public Parks	139	4					139	32	41	31	15	6	14	
Shipping Board—Merchant Fleet Corporation	212	22	16	3	1 7	186	29	25	41	18	7	7	66	
Veterans' Bureau	204	17	2	2	5	195	36	44	33	16	14	3	152	
All other	80	4	5			75	27	9	11	10	3	3	15	
Total miscellaneous	925	68	23	5	13	884	183	193	183	92	43	43	190	
Grand total	16,647	1,316	257	46	279	16,065	3,672	3,354	3,210	1,722	953	3,154		

NOTE.—The small figures indicate additional awards.

5. DURATION OF DISABILITY AND AMOUNT OF AWARDS IN TEMPORARY TOTAL DISABILITY CASES

Cases closed during the calendar year 1929 included 16,065 classified as temporary total disabilities. In 508 cases no claim was filed by the injured employee, in 3,672 cases the period of disability did not extend beyond the 3-day waiting period for which no compensation is payable, and in 4,576 cases the injured employees' absence was covered by leave with pay. Compensation amounting to \$656,731 was paid upon 7,309 cases covering 281,388 days of disability, 22,552 days of which were covered by leave.

An increase in the percentage of cases covered by leave and those in which disability does not last more than three days has been noted since 1922. Considerable fluctuation exists from year to year in the number that fail to file claims, but the 1929 figure is approximately that of 1922. In 1922 compensation was awarded in 5,911 cases or 51 per cent of all temporary total disability cases. In 1929 compensation was awarded in 7,309 cases, representing only 45.5 per cent of the total. The average duration of disability in compensated cases was 46 days in 1922, 51 days in 1923, 42 days in 1928, and 38 days in 1929.

Table No. 4 classifies closed temporary total disability cases for each department. The greatest number of temporary total cases closed during the year originated in the Post Office Department. This service accounted for 6,234 cases, or approximately 39 per cent of the total. This is followed by 3,566 in the War Department, 1,988 in the Department of Agriculture, and 1,853 in the Navy Department. In all governmental units approximately 20 per cent of the cases causing temporary total disability have a duration of disability not to exceed three days, with the exception of the Post Office Department, where 27.2 per cent of the cases have a duration of three days or less. The proportion of those failing to file claims varies from a negligible number in the Treasury Department to 7.2 per cent in the Department of Agriculture. During the year 508 disabled employees failed to file claims for losses amounting to 4,441 days, excluding 618 days taken as leave. This means a monetary loss of over \$8,000 to the employees on temporary total cases only.

Approximately 21 per cent of the temporary total disability cases originating in the Treasury Department were entitled to compensation for loss of time. In the Commerce Department and in the Post Office Department about one-third of the cases were entitled to compensation. In the Department of Agriculture, Interior Department, Navy Department, and War Department approximately 60 per cent of all temporary total cases were entitled to compensation.

TABLE 4.—TABULATABLE ACCIDENTS CAUSING TEMPORARY TOTAL DISABILITY FOR EACH DEPARTMENT AND IMPORTANT BUREAU OR ESTABLISHMENT, NUMBER OF INJURIES, DURATION OF DISABILITY, AND COMPENSATION AWARD, CLOSED CASES, CALENDAR YEAR 1929

Establishment	All cases				Compensated cases					Noncompensated cases									
	Number	Days duration (including leave)	Days leave	Average days duration	Number	Days duration (including leave)	Days leave	Award	Average		Covered by leave			No claim filed		3 days and under			
									Duration	Award	Number	Days duration (including leave)	Days leave	Number	Days duration (including leave)	Days leave	Number	Days duration (including leave)	Days leave
Agriculture:																			
Animal Industry-----	125	2,106	1,153	17	18	1,250	308	\$2,759	69	\$153	72	786	780	-----	35	70	65		
Forest Service-----	1,217	22,740	1,153	19	1 827	20,638	380	46,744	25	57	68	724	712	131	982	11	191	396	50
Public Roads and Rural Engineering-----	60	1,434	233	24	37	1,236	64	3,064	33	83	17	172	165	2	22	1	4	4	3
Plant Quarantine and Control Administration-----	403	4,543	176	11	265	4,147	55	6,615	16	25	10	109	106	4	20	-----	124	267	15
All other-----	183	3,576	1,600	19	53	2,115	237	3,829	40	72	88	1,312	1,309	6	78	-----	36	71	54
Total Agriculture-----	1,988	34,399	4,315	17	1,200	29,386	1,044	63,011	24	53	255	3,103	3,072	143	1,102	12	390	808	187
Commerce:																			
Census Bureau-----	12	185	138	15	3	89	44	117	30	39	5	90	90	-----	4	6	4		
Lighthouse Bureau-----	146	4,476	1,225	31	1 70	3,438	256	7,344	49	105	40	937	934	5	39	1	31	62	34
Standards Bureau-----	20	258	167	13	2	93	2	192	46	96	17	164	164	-----	1	1	1		
All other-----	80	1,270	881	16	17	423	60	767	25	45	40	802	799	-----	23	45	22		
Total Commerce-----	258	6,189	2,411	24	92	4,043	362	8,420	44	92	102	1,993	1,987	5	39	1	59	114	61
Government Printing Office-----	31	1,030	133	33	22	902	104	2,565	45	117	3	23	23	-----	-----	6	15	6	
Interior:																			
Indian Affairs-----	162	7,182	895	44	1 115	6,542	361	13,477	57	117	25	531	531	8	78	-----	14	31	3
National Park Service-----	129	2,523	240	20	86	2,234	18	5,645	26	66	13	215	215	4	27	-----	26	47	7
Reclamation Service-----	116	2,537	70	22	71	2,336	16	5,181	33	73	5	48	48	9	91	-----	31	62	6
All other-----	88	1,726	641	20	26	1,186	114	2,618	46	101	38	492	489	1	4	-----	23	44	38
Total Interior-----	495	13,968	1,846	28	298	12,298	509	26,921	41	90	81	1,286	1,283	22	200	-----	94	184	54
Labor-----	70	1,694	1,095	24	10	894	328	1,521	89	152	45	682	682	2	93	65	13	25	20

NOTE.—The small figures indicate the number of additional awards.

TABLE 4.—TABULATABLE ACCIDENTS CAUSING TEMPORARY TOTAL DISABILITY FOR EACH DEPARTMENT AND IMPORTANT BUREAU OR ESTABLISHMENT, NUMBER OF INJURIES, DURATION OF DISABILITY, AND COMPENSATION AWARD, CLOSED CASES, ETC.—Continued

Establishment	All cases				Compensated cases				Noncompensated cases										
	Number	Days duration (including leave)	Days leave	Average days duration	Number	Days duration (including leave)	Days leave	Award	Average		Covered by leave		No claim filed		3 days and under				
									Duration	Award	Number	Days duration (including leave)	Days leave	Number	Days duration (including leave)	Days leave			
Navy Yards—																			
Boston, Mass.	148	4,616	609	31	106	4,349	402	\$11,957	41	\$113	22	203	195	5	33	1	15	31	11
Bremerton, Wash.	164	3,194	362	19	79	2,844	114	8,055	36	102	29	206	195	4	21	—	52	123	53
Charleston, S. C.	10	191	82	19	4	147	38	262	37	65	5	41	41	—	—	1	3	3	3
Mare Island, Calif.	172	5,118	548	30	128	4,876	339	12,965	38	101	21	187	178	2	9	—	21	46	31
New York, N. Y.	206	4,068	581	20	129	3,646	224	10,516	28	82	41	322	308	3	18	4	33	82	45
Norfolk, Va.	311	5,925	1,161	19	151	5,028	433	13,233	33	88	85	661	627	16	99	14	59	137	87
Pearl Harbor, T. H.	115	1,342	316	12	45	1,031	78	2,563	23	57	31	216	213	1	16	—	38	79	25
Philadelphia, Pa.	185	5,221	586	28	125	4,918	323	13,149	39	105	29	234	227	1	14	8	30	55	28
Portsmouth, N. H.	65	2,159	290	33	41	1,994	140	5,791	49	141	21	157	148	—	—	3	8	2	2
Washington, D. C.	92	2,576	265	28	159	2,381	113	6,171	40	105	16	129	126	4	40	8	13	26	18
Total Navy yards	1,468	34,410	4,800	23	867	31,214	2,204	84,712	36	98	300	2,356	2,258	36	250	35	265	590	303
Other Navy—																			
Cavite, P. I., Naval Station—	91	1,241	105	14	58	1,114	54	1,292	19	22	5	41	35	4	23	—	24	63	16
Hampton Roads Operating Base	47	922	331	20	10	709	146	1,837	71	184	12	154	154	2	13	—	23	46	31
Indianhead Powder Factory—	19	641	88	34	14	620	74	1,612	44	115	3	16	11	—	—	2	5	3	3
Philadelphia Naval Aircraft Factory	14	628	100	44	8	599	80	1,401	75	125	3	19	16	1	6	—	2	4	4
Naval Reserve	13	577	88	44	9	537	82	1,158	60	129	1	6	6	2	32	1	2	—	2
Newport	29	714	151	25	13	639	94	1,463	49	113	7	49	44	1	9	5	8	17	8
South Brooklyn Supply Depot	6	1,168	15	195	4	1,160	10	3,858	290	965	1	5	5	—	—	1	3	—	—
All other	166	4,099	942	25	92	3,395	345	7,914	37	86	42	570	560	5	77	1	27	57	36
Total other Navy	385	9,990	1,820	26	208	8,773	885	20,535	42	99	74	860	831	15	160	6	88	197	98
Total Navy Department	1,853	44,400	6,620	24	1,075	39,987	3,089	105,247	37	98	374	3,216	3,089	51	410	41	353	787	401

Post office:																								
City Mail Service (clerical and supervisory)-----	940	15,250	7,199	16	2,206	9,224	1,525	23,877	45	116	386	5,226	5,199	21	167	10	327	633	465					
City Mail Service (letter carriers)-----	2,968	58,251	19,640	20	1,041	42,449	5,192	112,663	41	108	1,028	13,292	13,188	61	744	208	838	1,766	1,052					
Railway Mail Service-----	801	20,031	10,265	25	3,209	11,741	2,209	32,049	56	153	471	7,788	7,750	14	277	153	107	225	153					
Rural Free Delivery-----	192	7,646	3,561	40	174	5,282	1,292	13,265	71	179	99	2,240	2,235	2	88	-----	17	36	34					
All other-----	1,333	21,954	8,240	16	2,371	14,781	1,666	34,538	40	93	534	5,978	5,926	23	346	68	405	849	580					
Total Post Office-----	6,234	123,132	48,905	20	1,901	83,477	11,884	216,392	44	138	2,518	34,524	34,298	121	1,622	439	1,694	3,509	2,284					
Treasury:																								
Custodian-----	121	3,707	1,751	31	119	2,246	339	3,954	118	208	74	1,376	1,368	1	38	-----	27	47	44					
Customs-----	190	3,416	2,376	18	33	1,236	254	2,676	37	81	104	2,078	2,067	1	5	-----	52	97	55					
Engraving and Printing-----	97	3,634	540	37	49	3,283	207	8,476	67	173	39	315	315	2	16	-----	7	20	18					
Internal Revenue-----	39	917	565	24	5	520	168	1,133	104	227	23	377	377	-----	-----	-----	11	20	20					
Prohibition Enforcement-----	90	2,817	1,725	31	14	1,512	426	3,859	108	276	60	1,274	1,274	-----	-----	-----	16	31	25					
Public Health Service-----	31	1,165	581	38	10	749	167	1,633	75	163	18	411	411	-----	-----	-----	3	5	3					
All other-----	118	2,423	1,072	21	13	1,410	81	3,454	108	266	68	934	931	-----	-----	-----	37	79	60					
Total Treasury-----	686	18,079	8,610	26	143	10,956	1,642	25,185	77	176	386	6,765	6,743	4	59	-----	153	299	225					
War:																								
Ordnance-----																								
Arsenals and armory-----	231	4,251	308	18	132	3,889	53	8,731	29	66	34	228	209	3	17	1	62	117	45					
Other ordnance-----	156	2,438	223	16	92	2,155	48	3,815	23	41	19	167	152	3	33	-----	42	83	23					
Total Ordnance-----	387	6,689	531	17	224	6,044	101	12,546	27	56	53	395	361	6	50	1	104	200	68					
Engineers-----	1,752	45,299	4,530	26	1,081	40,249	968	85,513	37	79	227	3,415	3,375	93	961	50	351	674	137					
Quartermaster-----	453	12,399	3,330	27	20	9,624	766	21,086	46	102	139	2,494	2,476	13	114	-----	94	167	88					
Other War-----																								
Air Service-----	109	1,546	1,124	14	16	432	35	920	27	58	65	1,054	1,052	1	4	-----	27	56	37					
Mississippi River Service-----	672	16,468	158	25	516	15,920	30	29,716	31	58	8	128	124	21	177	-----	127	243	4					
All other-----	193	8,193	869	42	126	7,590	337	16,087	60	128	39	512	506	4	43	1	24	48	25					
Total other War-----	974	26,207	2,151	27	658	23,942	402	46,723	36	71	112	1,694	1,682	26	224	1	178	347	66					
Total War Department-----	3,566	90,594	10,542	25	2,170	79,859	2,237	165,868	146	308	531	7,998	7,894	138	1,349	52	727	1,388	359					
Miscellaneous:																								
District government-----	289	5,610	1,141	19	161	4,627	323	9,109	29	57	62	804	768	7	56	2	59	123	48					
Public Buildings and Public Parks-----	139	2,214	1,144	16	34	1,114	90	2,217	33	65	72	1,027	1,000	1	4	-----	32	69	54					
Shipping Board—Merchant Fleet Corporation-----	186	7,823	462	42	136	7,542	336	15,912	55	117	10	123	117	11	103	1	29	55	8					
Veterans' Bureau-----	195	7,237	2,226	37	158	5,543	574	13,052	96	225	98	1,612	1,606	3	22	5	36	60	41					
All other-----	75	1,508	859	20	9	670	30	1,311	74	146	39	788	783	-----	-----	-----	27	50	46					
Total miscellaneous-----	884	24,392	5,832	28	398	19,496	1,353	41,601	49	105	281	4,354	4,274	22	185	8	183	357	197					
Grand total-----	16,065	357,877	90,309	22	7,309	281,388	22,552	656,731	38	90	4,576	63,944	63,345	508	5,059	618	3,672	7,486	3,794					

NOTE.—The small figures indicate the number of additional awards.

The temporary-total cases closed during 1929, and during the whole experience of the commission are distributed in Table 5 according to the length of the disability period. In 1929 approximately 23 per cent of the cases had a duration of disability not to exceed 3 days, 44 per cent did not exceed 1 week, 64 per cent did not exceed 2 weeks, 75 per cent did not exceed 3 weeks, and cases having a duration in excess of 7 weeks were only 10 per cent. The 1929 experience differs from the whole experience in that it has a larger proportion of cases in the shorter periods of disability.

In the distribution of 176,811 temporary total cases closed since September 7, 1916, 19.6 per cent disability was for 3 days or less, and 41 per cent for 1 week or less. Only 1.21 per cent of these cases had a duration exceeding 6 months.

TABLE 5.—NUMERICAL AND PERCENTAGE DISTRIBUTION OF TEMPORARY TOTAL CASES ACCORDING TO THE NUMBER OF WEEKS DISABLED, 1929, AND FROM SEPTEMBER 7, 1916, TO DECEMBER 31, 1929

Period of disability	Sept. 7, 1916, to Dec. 31, 1929			1929				
	Number of cases	Per cent of total number of cases	Cumulative per cent	Number of cases	Duration	Award	Per cent of total number of cases	Cumulative per cent
1 to 3 days.....	34,719	19.64	19.64	3,672	7,486	-----	22.86	22.86
4 to 7 days.....	37,582	21.26	40.90	3,354	18,138	\$7,471	20.88	43.74
8 to 14 days.....	37,727	21.33	62.23	3,210	34,169	31,998	19.98	63.72
15 to 21 days.....	20,023	11.33	73.55	1,722	30,513	40,202	10.72	74.44
22 to 28 days.....	11,432	6.47	80.02	953	23,674	34,861	5.93	80.37
29 to 35 days.....	8,394	4.75	84.77	718	22,850	37,214	4.47	84.84
36 to 42 days.....	5,592	3.16	87.93	453	17,690	30,127	2.82	87.66
43 to 49 days.....	4,291	2.43	90.36	357	16,545	32,112	2.22	89.88
50 to 56 days.....	3,153	1.78	92.14	306	16,302	31,612	1.91	91.79
57 to 63 days.....	2,524	1.43	93.57	237	14,342	27,902	1.48	93.27
64 to 70 days.....	1,792	1.01	94.58	162	10,947	22,579	1.01	94.28
71 to 77 days.....	1,338	.76	95.34	133	10,134	22,028	.83	95.11
78 to 84 days.....	1,039	.62	95.96	102	8,419	18,545	.63	95.74
85 to 91 days.....	912	.52	96.48	94	8,442	19,974	.59	96.33
92 to 98 days.....	666	.38	96.86	75	7,295	16,255	.47	96.80
99 to 105 days.....	562	.32	97.18	63	6,545	15,576	.39	97.19
106 to 112 days.....	463	.26	97.44	50	5,358	12,442	.31	97.50
113 to 119 days.....	395	.22	97.66	41	4,742	12,698	.26	97.76
120 to 126 days.....	389	.22	97.88	23	2,932	7,192	.14	97.90
127 to 133 days.....	318	.18	98.06	27	3,499	8,688	.17	98.07
134 to 140 days.....	298	.17	98.23	31	4,151	10,227	.19	98.26
141 to 147 days.....	228	.13	98.36	17	2,589	6,426	.11	98.37
148 to 154 days.....	201	.11	98.47	18	2,712	6,703	.11	98.48
155 to 161 days.....	174	.10	98.57	21	3,315	8,632	.13	98.61
162 to 168 days.....	162	.09	98.66	19	3,138	8,478	.12	98.73
169 to 175 days.....	128	.07	98.73	6	1,030	2,885	.04	98.77
176 to 182 days.....	106	.06	98.79	7	1,431	3,953	.04	98.81
183 to 365 days.....	1,482	.83	99.62	145	36,591	95,995	.90	99.71
366 to 547 days.....	340	.19	99.81	26	11,789	30,841	.16	99.87
548 to 730 days.....	136	.08	99.89	6	3,859	9,221	.04	99.91
Over 730 days.....	195	.11	100.00	17	17,250	43,924	.11	100.00
Total.....	176,811	100.00	-----	16,065	357,877	656,731	100.00	-----

Table 6 is included to show how the temporary total cases vary over a period of eight years when distributed according to length of the disability period. In 1922 about 18 per cent of the closed cases were unable to report for work for a period which did not exceed three days; in 1929 about 23 per cent of the cases come under the 3-day classification. In 1922, 36.7 per cent of the cases were out

for one week or less; in 1929, 43.7 per cent of the cases come under the 1-week group. The proportion of cases in these shorter-duration classes has been increasing somewhat regularly during this 8-year period.

In 1922, 10.5 per cent of the cases had a duration exceeding eight weeks; in 1929, 8.2 per cent had a duration of disability longer than eight weeks. During the period included in Table 6 the average duration of disability has been reduced approximately one week.

TABLE 6.—PERCENTAGE DISTRIBUTION OF CLOSED TEMPORARY TOTAL CASES ACCORDING TO LENGTH OF DISABILITY, 1922-1929

Duration (days)	1922	1923	1924	1925	1926	1927	1928	1929
1 to 3	17.96	18.90	20.90	22.18	22.05	21.13	22.19	22.86
4 to 7	18.74	19.59	21.87	20.82	22.73	21.51	21.48	20.88
8 to 14	20.50	20.94	21.62	21.28	20.88	20.48	20.57	19.98
15 to 21	11.69	11.31	10.60	10.44	10.39	10.65	10.46	10.72
22 to 28	6.66	6.27	6.56	6.06	5.62	6.16	5.84	5.93
29 to 35	5.23	5.27	4.49	3.99	4.34	4.49	4.26	4.47
36 to 42	3.68	3.13	2.89	2.99	2.97	3.06	3.29	2.82
43 to 49	3.02	2.59	2.04	2.40	2.26	2.42	2.27	2.22
50 to 56	2.00	2.00	1.72	1.60	1.59	1.79	1.77	1.91
57 plus	10.52	10.00	7.31	8.24	7.17	8.31	7.87	8.21
Average duration	28.00	29.60	22.90	24.40	20.60	23.00	23.20	22.30

6. PERMANENT PARTIAL DISABILITIES

The Federal employees' compensation law does not provide a schedule of awards for permanent partial disability, and compensation is payable in these cases as long as the disability causes a loss in the injured employee's wage-earning capacity, as established by his wage at time of injury. During the calendar year 1929, 279 permanent partial-disability cases were closed, some of which may be reopened at a future date if it develops that the disability causes a loss in earning power. Therefore, with the exception of cases closed on account of the death of the beneficiary, or by the payment of a lump sum, the closure is tentative and accordingly the duration of disability and the amount of the compensation award shown in Table 7 can not be accepted as representing the final experience in these cases. The cases tabulated in this table are divided into two classifications—dismemberments and loss of function. In the dismemberment group, 156 cases were closed in 1929. Of this number, 24 cases were closed without payment of compensation, while in 123 cases compensation was paid amounting to \$62,705 for 22,207 days of disability. Of the 123 cases of loss of function, classified as closed in this tabulation, 6 cases were closed without payment of compensation, and in 117 cases compensation was awarded for 53,511 days of disability, amounting to \$142,531. Eight cases included in this table were closed by lump-sum settlements amounting to \$15,058. The number of permanent partial-disability cases closed in 1929, together with the number of

days' duration and the total amount of compensation paid, is classified according to departments and establishments.

On December 31, 1929, there were 950 cases classified as permanent partial-disability in which compensation was being paid and which are not included in Table 7. In 5 of these cases compensation has been paid since 1916, in 26 others since 1917, in 70 additional cases since 1918, and in 110 still additional since 1919. While accurate data have not been compiled for previous years showing the number of these cases on the pay roll at any one time, the cumulative number will continue to increase annually for a number of years, since in a number of cases compensation may be payable during the life of the beneficiary. The following tabulation shows the number of cases on the pay roll at the end of 1929 and the year each case began to draw compensation for disability:

Year disabled	Number of cases	Cumulative number on pay roll	Year disabled	Number of cases	Cumulative number on pay roll
1916	5	5	1923	66	477
1917	26	31	1924	75	552
1918	70	101	1925	88	640
1919	110	211	1926	87	727
1920	77	288	1927	101	828
1921	64	352	1928	76	904
1922	59	411	1929	46	950

TABLE 7.—NUMBER OF PERMANENT PARTIAL DISABILITIES FOR EACH DEPARTMENT, IMPORTANT BUREAU OR ESTABLISHMENT, DURATION OF DISABILITY, AND COMPENSATION AWARDS, CLOSED DURING THE CALENDAR YEAR 1929

DISMEMBERMENTS ONLY

Establishment	All cases			Compensated cases					Noncompensated cases	
	Number	Days duration	Average duration	Number	Days duration	Award	Average		Number	Duration
							Duration	Award		
Agriculture:										
Forest Service	3	214	71	3	214	\$561	71	\$187		
Plant Quarantine and Control Administration	1	8	8	1	8		8	8		
All other	3	76	25	1	53	169	53	169	2	23
Total Agriculture	7	298	43	5	275	738	55	148	2	23
Commerce:										
Lighthouse Bureau	2	66	33	2	66	124	33	62		
Fisheries Bureau	1	126	126	1	126	143	126	143		
Total Commerce	3	192	64	3	192	267	64	89		
Government Printing Office	1	2	2						1	2
Interior:										
Indian Affairs	11	1,269	115	10	1,246	3,771	125	377	1	23
National Park Service	4	183	46	3	136	351	45	117	1	47
Reclamation Service	5	807	161	1 5	807	1,658	161	332		
St. Elizabeths Hospital	1	13	13						1	13
Total Interior	21	2,272	108	18	2,189	5,780	122	321	3	83

NOTE.—Small figures indicate additional awards.

TABLE 7.—NUMBER OF PERMANENT PARTIAL DISABILITIES FOR EACH DEPARTMENT, IMPORTANT BUREAU OR ESTABLISHMENT, DURATION OF DISABILITY, AND COMPENSATION AWARDS, CLOSED DURING THE CALENDAR YEAR 1929—Con.

DISMEMBERMENTS ONLY—continued

Establishment	All cases			Compensated cases				Noncompensated cases		
	Number	Days duration	Average duration	Number	Days duration	Award	Average Duration		Number	Duration
								Award		
Navy: Yards—										
Boston	1	77	77	1	77	\$264	77	\$264		
Bremerton	5	270	52	5	270	891	52	178		
Mare Island	2	586	293	12	586	2,154	293	1,077		
New York	3	130	43	3	130	470	43	157		
Norfolk	4	1,655	414	1 ^a 4	1,655	5,522	414	1,380		
Pearl Harbor	3	341	114	2	336	653	168	327	1	5
Philadelphia	1	176	176	1	176	536	176	536		
Portsmouth	2	82	41	2	82	239	41	120		
Washington	4	151	38	3	141	501	47	167	1	10
Total yards	25	3,468	139	23	3,453	11,230	150	488	2	15
Other Navy—										
Cavite	2	105	53	2	105	171	53	86		
Hampton Roads Operating Base	1	198	198	1	198	352	198	176		
Indianhead Powder Factory	1	2	2						1	2
All other	11	600	55	8	546	1,295	68	162	3	54
Total other Navy	15	905	60	11	849	1,818	77	156	4	56
Total Navy Department	40	4,373	109	34	4,302	13,048	126	384	6	71
Post office:										
City Mail Service (clerical and supervisory)	4	716	179	4	716	2,189	179	547		
City Mail Service (letter carriers)	6	3,579	596	16	3,579	11,629	596	1,938		
Railway Mail Service	2	137	69	11	92	227	92	227	1	45
Rural Free Delivery	1	83	83	1	83	111	83	111		
All other	7	1,210	173	6	1,194	3,794	199	632	1	16
Total Post Office	20	5,725	286	18	5,664	17,950	315	997	2	61
Treasury:										
Custodian	1	90	90	1	90	193	90	193		
Customs	1	424	424	1	424	1,239	424	1,239		
Public Health Service	1	15	15						1	15
All other	2	122	61	1	100	330	100	330	1	22
Total Treasury	5	651	130	3	614	1,762	205	587	2	37
War:										
Ordnance—										
Arsenals and armory	7	2,252	322	3 ^b 7	2,252	5,867	322	838		
Other ordnance	2	107	54	2	107	242	54	121		
Total Ordnance	9	2,359	262	9	2,359	6,109	262	679		
Engineer	23	2,897	126	4 ^b 22	2,855	9,791	130	445	1	42
Quartermaster	9	1,329	148	4 ^b 7	1,257	2,068	179	295	2	72
Other War—										
Air Service	1	17	17						1	17
Mississippi - Warrior Service	8	1,205	151	8	1,205	2,371	151	296		
Other War	4	1,170	292	13	1,142	2,405	381	802	1	28
Total other War	13	2,392	184	11	2,347	4,776	213	434	2	45
Total War Department	54	8,977	166	49	8,818	22,744	180	464	5	159

^a Lump-sum settlement, \$720.^b 3 lump-sum settlements, \$3,645.

NOTE.—Small figures indicate additional awards.

TABLE 7.—NUMBER OF PERMANENT PARTIAL DISABILITIES FOR EACH DEPARTMENT, IMPORTANT BUREAU OR ESTABLISHMENT, DURATION OF DISABILITY, AND COMPENSATION AWARDS, CLOSED DURING THE CALENDAR YEAR 1929—Con.

DISMEMBERMENTS ONLY—continued

Establishment	All cases			Compensated cases				Noncompensated cases		
	Number	Days duration	Average duration	Number	Days duration	Award	Average		Number	Duration
							Duration	Award		
Miscellaneous:										
Shipping Board—Merchant Fleet Corporation	2	153	77	1	153	\$416	77	\$208	3	88
Veterans' Bureau	3	88	29							
Total miscellaneous	5	241	48	2	153	416	77	208	3	88
Grand total	156	22,731	146	132	22,207	62,705	168	475	24	524
LOSS OF FUNCTION ONLY										
Agriculture:										
Forest Service	6	885	148	6	885	3,658	148	610		
All other	2	2,000	1,000	2	2,000	5,237	1,000	2,619		
Total Agriculture	8	2,885	361	8	2,885	8,895	361	1,112		
Commerce:										
Lighthouse Bureau	1	83	83	1	83	99	83	99		
Interior:										
Indian Service	6	558	93	6	558	1,140	93	190		
National Park Service	1	83	83	1	83	270	83	270		
Reclamation Service		532		(1)	532	1,595				
Education Bureau	1	363	363	1	363	987	363	987		
Total Interior	8	1,536	192	8	1,536	3,992	192	499		
Navy:										
Yards—										
Boston	1	306	306	1	306	935	306	935		
Charleston		52		(1)	52	210				
Mare Island	2	1,170	585	1	1,170	2,753	585	1,377		
New York	3	1,198	399	3	1,198	3,151	399	1,050		
Norfolk	2	744	372	1	744	2,829	372	1,415		
Pearl Harbor	1	98	98	1	98	424	98	424		
Philadelphia	2	1,292	646	2	1,292	4,346	646	2,173		
Washington	1	80	80	1	80	295	80	295		
Total yards	12	4,940	412	12	4,940	14,943	412	1,245		
Other Navy—										
Cavite	3	316	105	3	316	451	105	150		
Indianhead Powder Factory	1	525	525	1	525	1,083	525	1,083		
Naval Reserve	2	735	368	2	735	1,640	368	820		
Newport	1	269	269	1	269	745	269	745		
All other	4	2,688	672	4	2,688	7,864	672	1,966		
Total other Navy	11	4,533	412	11	4,533	11,783	412	1,071		
Total Navy Department	23	9,473	412	23	9,473	26,726	412	1,162		
Post Office:										
City Mail Service (clerical and supervisory)	5	2,258	452	5	2,258	5,489	452	1,098		
City Mail Service (letter carriers)	17	7,101	418	1	17	20,037	418	1,178		
Railway Mail Service	3	281	94	3	281	452	94	151		
Rural Free Delivery	5	1,734	347	4	1,689	5,341	422	1,335	1	45
All other	1	993	993	1	993	3,133	993	3,133		
Total Post Office	31	12,367	399	30	12,322	34,452	411	1,148	1	45

^c Lump-sum settlement, \$1,891.^d Lump-sum settlement, \$759.

NOTE.—Small figures indicate additional award.

TABLE 7.—NUMBER OF PERMANENT PARTIAL DISABILITIES FOR EACH DEPARTMENT, IMPORTANT BUREAU OR ESTABLISHMENT, DURATION OF DISABILITY, AND COMPENSATION AWARDS, CLOSED DURING THE CALENDAR YEAR 1929—Con.

LOSS OF FUNCTION ONLY—continued

Establishment	All cases			Compensated cases				Noncompensated cases		
	Number	Days duration	Average duration	Number	Days duration	Award	Average		Number	Duration
							Duration	Award		
Treasury:										
Custodian.....	1	1,624	1,624	1	1,624	\$2,367	1,624	\$2,367	-----	-----
Customs.....	1	716	716	1	716	2,280	716	2,280	-----	-----
Engraving and Printing.....	1	464	464	2	464	1,330	464	1,330	-----	-----
Prohibition Enforcement.....	1	22	22	(1)	1,583	3,071	-----	-----	1	22
Public Health Service.....	1,583	-----	-----							
Total Treasury.....	4	4,409	1,102	3	4,387	9,048	1,462	3,016	1	22
War:										
Ordnance—arsenals.....	5	1,868	374	14	1,857	4,419	464	1,105	1	11
Engineers.....	12	4,245	354	12	4,245	12,207	354	1,017	-----	-----
Quartermaster.....	13	10,871	836	12	10,831	27,933	903	2,328	1	40
Other War—										
Air Service.....	2	1,022	511	1	973	2,568	973	2,568	1	49
Mississippi -Warrior Service.....	3	995	332	3	995	2,189	332	730	-----	-----
All other.....	5	1,199	240	5	1,199	2,655	240	531	-----	-----
Total other War.....	10	3,216	322	9	3,167	7,412	352	824	1	49
Total War Department.....	40	20,200	504	37	20,100	51,971	543	1,405	3	100
Miscellaneous:										
District government.....	1	60	60	-----	-----	-----	-----	-----	1	60
Shipping Board—Merchant Fleet Corporation.....	5	2,157	431	5	2,157	6,271	431	1,254	-----	-----
Veterans' Bureau.....	2	568	284	2	568	1,077	284	539	-----	-----
Total miscellaneous.....	8	2,785	348	7	2,725	7,348	389	1,050	1	60
Grand total.....	123	53,738	437	117	53,511	142,531	457	1,218	6	227

* Lump-sum settlement, \$1,990.

† Lump-sum settlement, \$6,044.

NOTE.—Small figures indicate additional awards.

Table 8 shows for permanent partial disabilities, the number of cases, the duration of disability, and the amount of the award for the calendar year 1929, and for the whole experience of the commission classified according to the location of the injury. The material contained in this tabulation, which heretofore has been published in the annual reports of the commission in two different tables, is combined in one table in this report for purposes of simplicity and economy of space.

The greater duration of disability in cases included in this table for the year 1929, as compared with the cumulative experience of the commission, is accounted for by the practice followed in computing duration of disability. In computing the average days' duration, the number of days of disability in cases where lump-sum settlement was made is only carried to the date of the lump-sum award.

As such awards in previous years were much more numerous than has been the case in the last two years, the effect is to increase the average duration for the cases which arose in 1929.

In 1929 dismemberments of the eye in 16 cases had an average duration of disability of 221 days, while since September 7, 1916, 185 dismemberments of the eye have an average duration of 163 days. Dismemberments of the right index finger at the distal phalanx is represented in 1929 by nine cases with an average loss of time of 48 days. During the whole experience of the commission, 202 such dismemberments had an average duration of 38 days. In 1929 eye injuries resulted in the loss of use of one or partial loss of use of both eyes, with an average loss of time of 189 days. Since 1916, in 391 similar injuries the average duration was 135 days. In 1929 10 cases resulting in loss of use of a leg had an average duration of 423 days, while 154 similar injuries during the past 14 years had an average duration of 514 days. This table also shows that 634 cases of permanent partial disability out of a total of 5,240 cases closed since September 7, 1916, have been settled by the payment of lump-sum awards amounting to the sum of \$1,563,734, an average award of \$2,466.

TABLE 8.—PERMANENT PARTIAL DISABILITIES, DURATION AND AWARDS, BY LOCATION OF INJURY, CALENDAR YEAR 1929, AND SEPTEMBER 7, 1916, TO DECEMBER 31, 1929. FEDERAL ACT

18244-30-3

DISMEMBERSMENTS

	Calendar year of 1929			Sept. 7, 1916, to Dec. 31, 1929									
	Number of cases	Duration in days	Award	Total number of cases	Number of non-compensated cases	Number with infection	Total award	Average duration	All cases award	Lump-sum settlements			
										Number	Amount		
Eye	16	3,530	\$8,819	185	17	55	\$170,180	163	\$920	1,084	38	\$116,583	
Ear, external				1	1			28					
Breast	1	28		7	3	1	9,759	510	1,394	5,326	1	1,879	
Kidney				1			3,728	103	3,728		1	3,636	
Testicle	2	93	59	8	2	3	1,347	99	168	142			
Arm, right	1	83	111	7		3	15,313	457	2,188	3,899	2	8,776	
Arm, left				13	2	5	38,897	787	2,992	1,419	3	18,188	
Forearm, right	1	91	162	10	2	1	13,116	290	1,312	258	2	8,450	
Forearm, left				8	1	3	14,329	542	1,791	3,289	1	6,242	
Hand, n. o. c., right				19	2	3	29,450	223	1,550	1,610	4	21,793	
Hand, n. o. c., left	1	328	430	11	1		16,714	305	1,519		2	10,553	
Metacarpal, 1, right				2		1	527	129	264	174			
Metacarpal, 1, left				2		2	3,419	557	1,710	1,710	1	941	
Thumb, n. o. c., right				4		2	422	61	106	154			
Thumb, n. o. c., left				8		2	588	47	74	82			
Thumb, distal phalanx, right	4	230	453	112	19	29	17,974	52	159	321	8	7,074	
Thumb, distal phalanx, left	2	136	327	109	22	19	11,335	39	104	183	3	4,325	
Thumb, proximal phalanx, right	1	45	56	27	3	3	16,699	81	618	633	4	12,274	
Thumb, proximal phalanx, left	3	188	441	22	5	4	3,131	91	142	139	1	410	
Index finger, n. o. c., right				13	1	2	3,384	101	260	318	2	2,578	
Index finger, n. o. c., left				9	2	5	2,653	53	295	495	1	2,012	
Index finger, distal phalanx, right	9	434	954	202	42	28	13,465	38	67	112	1	371	
Index finger, distal phalanx, left	7	278	642	152	33	26	10,219	32	67	124	3	2,066	
Index finger, middle phalanx, right	1	48	106	53	13	12	5,422	49	102	135	3	1,785	
Index finger, middle phalanx, left	1	37	77	42	7	10	5,636	64	134	124	1	1,000	
Index finger, proximal phalanx, right				49	6	21	11,060	84	226	414	3	3,318	
Index finger, proximal phalanx, left	3	237	692	43	4	10	11,704	77	272	263	3	4,668	
Middle finger, n. o. c., right	2	168	364	23	5	19	6,158	123	268	284	2	1,817	
Middle finger, n. o. c., left				54	122	8		1,665	56	208	149	1	862
Middle finger, distal phalanx, right	(1)	628	1,233	202	47	20	12,998	38	64	179	2	688	
Middle finger, distal phalanx, left	4	136	215	151	48	11	7,591	30	50	79	1	387	
Middle finger, middle phalanx, right	2	80	117	38	9	9	6,965	71	183	146	3	2,027	
Middle finger, middle phalanx, left	2	100	290	30	4	2	7,960	59	265	463	3	4,166	
Middle finger, proximal phalanx, right	2	242	631	23	3	12	9,835	163	428	688	2	2,033	
Middle finger, proximal phalanx, left	2	602	2,140	21	2	11	6,266	102	298	352	1	1,450	

NOTE—Small figures indicate additional award.

TABLE 8.—PERMANENT PARTIAL DISABILITIES, DURATION AND AWARDS, BY LOCATION OF INJURY, CALENDAR YEAR 1929, AND SEPTEMBER 7, 1916, TO DECEMBER 31, 1929. FEDERAL ACT—Continued

DISMEMBERMENTS—continued

	Calendar year of 1929			Sept. 7, 1916, to Dec. 31, 1929						Lump-sum settlements		
	Number of cases	Duration in days	Award	Total number of cases	Number of non-compensated cases	Number with infection	Total award	Average duration	All cases award	Average award in cases with infection	Number	Amount
Ring finger, n. o. c., right				8	4	2	\$1,464	120	\$183	\$549		
Ring finger, n. o. c., left				9	2	5	1,166	78	130	145		
Ring finger, distal phalanx, right	10	584	\$1,218	105	17	22	7,294	43	69	100		
Ring finger, distal phalanx, left	2	181	445	89	20	13	5,196	36	58	132		
Ring finger, middle phalanx, right				13	3	3	2,370	88	182	665		
Ring finger, middle phalanx, left	2	36	76	19	5		3,408	56	179		1	\$1,367
Ring finger, proximal phalanx, right				19	2	9	9,484	93	499	453	3	5,680
Ring finger, proximal phalanx, left				16	2	3	4,949	102	309	1,122	1	1,745
Little finger, n. o. c., right				12	4	4	890	48	74	148		
Little finger, n. o. c., left				10	2	2	3,419	104	342	1,010	1	333
Little finger, distal phalanx, right	8	331	961	91	24	10	5,159	35	57	90	1	430
Little finger, distal phalanx, left	3	88	194	78	25	6	2,954	23	38	117		
Little finger, middle phalanx, right	3	76	152	35	8	7	3,929	48	112	134	3	1,188
Little finger, middle phalanx, left	2	337	653	28	5	6	4,420	43	158	161	2	2,269
Little finger, proximal phalanx, right	2	142	521	35	6	7	5,939	68	170	124	3	1,881
Little finger, proximal phalanx, left	5	300	1,583	33	3	4	4,102	46	124	159	3	1,378
Thumb and 1 finger, right	3	708	3,219	23	4	4	12,659	75	550	992	4	8,667
Thumb and 1 finger, left	(1)	624	1,691	12	1	1	9,512	150	793	1,748	3	5,757
Thumb and 2 or more fingers, left	3	70	63	18	3	3	10,648	61	592	113	2	8,697
Thumb and 2 or more fingers, right	1	671	1,452	13	1	1	14,040	119	1,080	5,072	3	11,020
2 fingers, right	3	211	420	134	17	12	46,786	68	349	346	18	28,254
2 fingers, left	4	394	667	100	11	15	23,830	88	238	203	6	7,373
2 fingers, including metacarpals, left				1			239	127	230	230		
3 fingers, right	1	600	2,286	48	7	6	52,622	229	1,096	554	8	29,555
3 fingers, left				26	5	4	16,235	147	624	458	3	9,393
4 fingers, right				14			9,632	123	688		2	6,919
4 fingers, left				15		1	4,848	150	323	42		
Thigh	3	2,559	7,152	24	1	14	65,765	611	2,740	3,442	6	34,192
Leg	3	2,063	6,468	55	3	22	121,739	582	2,213	2,207	10	53,910
Foot, n. o. c.	2	958	2,593	16		8	27,867	427	1,742	1,736	3	13,223
Oscalciis				1			858	436	858			
Tarsals				1			712	327	712	712		
Metatarsals	2	2,635	6,484	10	1	6	10,850	481	1,085	1,219		
Great toe	2	106	251	58	2	22	17,115	109	295	334	6	5,183
Lesser toe	10	967	2,634	109	7	33	17,725	83	214	168	1	607
2 or more lesser toes	1	328	755	34		16	18,108	188	533	687	3	5,021

Great toe and lesser toe or toes	1	66	2,326	34	2	14	13,767	136	405	620	3	4,513
Miscellaneous				3			20,522	330	6,841		2	18,380
Total	156	22,731	62,705	2,964	503	621	1,072,131				204	519,287

PERMANENT PARTIAL DISABILITY OTHER THAN DISMEMBERMENTS

Brain	2	1,172	3,949	9			14,815	651	1,646		1	467
Eye or eyes	19	3,586	9,666	391	47	81	302,723	135	774	1,102	64	191,501
Ear or ears, inner	1	341	1,012	19	5	2	11,586	249	610	295	2	1,123
Jaw				3		2	767	132	256	110		
Skull	2	333	722	19	1		34,663	551	1,824		4	10,169
Head, general				2			5,790	1,327	2,895			
Nose				2		1	2,081	193	1,040	353	1	1,322
Face, n. o. c.				2			135	39	68			
Esophagus				1			941	493	941			
Neck	2	2,194	4,950	4			5,839	660	1,460			
Vertebræ, lumbar	2	1,712	4,373	17	1		34,897	592	5,053		3	11,888
Vertebræ, other				12	1	1	29,738	552	2,478	960	3	14,726
Sacrum or coccyx				1			312	148	312			
Spinal process or processes				3		1	4,975	724	1,658	2,882		
Ribs				1			3,069	1,431	3,069			
Thorax	1	1,663	5,358	33		1	50,198	534	1,521	173	5	10,452
Abdominal viscera				2			4,446	834	2,223		1	862
Pelvis, n. o. c.	2	2,292	5,588	23			39,241	504	1,706		5	12,389
Anus, rectum, or perineum				1			201	121	201			
Penis				2	1	1	211	78	106	211		
Testicles				4	1	1	334	50	84	40		
Hernia	2	546	1,403	13		4	32,251	662	2,481	2,023	5	14,824
Sacro-iliac joint	1	1,944	5,190	22	1		59,852	728	2,708		8	23,383
Urethra				1			584	273	584			
Seapula				5			4,340	324	868		1	1,177
Clavicle, right	1	510	1,126	15	1		17,180	400	1,145		1	3,344
Clavicle, left	2	252	607	5			1,194	109	239			
Shoulder, general, right	1	808	6,044	22			31,356	436	1,425		5	12,965
Shoulder, joint, right				32	3		39,561	389	1,236		7	15,004
Shoulder, general, left				12		1	14,493	375	1,208	151	2	4,072
Shoulder, joint, left				17			21,363	291	1,257		4	11,016
Arm, upper, right	(2)	391	1,303	20	2	3	33,651	468	1,683	5,094	5	14,518
Arm, upper, left		716	2,280	14		1	24,730	432	1,766	3,887	4	10,067
Elbow, right				39	1	5	64,254	290	1,648	646	17	42,154
Elbow, left	1	118	1,891	16	2	1	18,924	365	1,183		2	6,390
Forearm, right	4	1,874	4,401	47	2	1	42,362	288	901	407	8	15,890
Forearm, left	2	2,429	7,139	32		14	62,829	390	1,963	2,199	9	34,231
Wrist, right	3	634	1,704	59	4	5	45,002	236	763	298	12	17,912
Wrist, left	1	1,188	3,016	21	3	5	25,106	319	1,196	1,992	4	11,073
Arms, or 1 arm and 1 hand				3			607	109	202			
Arm and leg				3			2,562	458	854			
Colles' fracture, right				10	1		9,402	181	940		4	5,559
Colles' fracture, left				5			6,259	855	1,252		1	1,065

NOTE.—Small figures denote additional awards.

TABLE 8.—PERMANENT PARTIAL DISABILITIES, DURATION AND AWARDS, BY LOCATION OF INJURY, CALENDAR YEAR 1929, AND SEPTEMBER 7, 1916, TO DECEMBER 31, 1929. FEDERAL ACT—Continued

PERMANENT PARTIAL DISABILITY OTHER THAN DISMEMBERMENTS—continued

	Calendar year of 1929			Sept. 7, 1916, to Dec. 31, 1929								
	Number of cases	Duration in days	Award	Total number of cases	Number of non-compensated cases	Number with infection	Total award	Average duration	All cases award	Average award in cases with infection	Lump-sum settlements	
										Number	Amount	
Hand, n. o. c., right	2	752	\$2,277	26	5	15	\$27,497	207	\$1,058	\$672	6	\$15,902
Hand, n. o. c., left	1	227	553	13	1	10	14,643	330	1,126	1,220	5	6,864
Hand, back of, right				5	1		566	69	113			
Hand, back of, left				2		1	972	149	486	93		
Palm, right	1	221	1,990	14	1	10	18,365	260	1,312	1,409	5	11,710
Palm, left				7	1	4	9,122	237	1,303	1,601	3	5,488
Hands, n. o. c.				4		1	21,943	827	5,486	957	3	11,046
Carpal, right	1	306	935	5			2,354	189	471			
Carpal, left				4			5,916	511	1,479		2	1,758
Metacarpal, right				12	1	3	3,853	191	321	138		
Metacarpal, left				12	3	2	7,575	148	631	154	2	3,604
Thumb, n. o. c., right	1	16	20	25	1	13	11,372	187	455	714	3	2,590
Thumb, n. o. c., left	2	1,487	3,135	29	2	18	9,749	137	336	501	1	1,818
Thumb, distal phalanx, right	1	89	16	7	1	4	1,418	70	203	47	1	661
Thumb, distal phalanx, left				7		3	1,443	60	206	391	1	704
Thumb, proximal phalanx, right				7	3	1	782	35	112	49	1	365
Thumb, proximal phalanx, left				7	1	1	1,858	66	265		1	761
Index finger, n. o. c., right				48	4	24	12,950	96	270	214	7	6,085
Index finger, n. o. c., left	1	56	108	17	1	10	6,059	70	356	554	3	4,214
Index finger, distal phalanx, right	1	42	87	21	4	13	1,389	42	66	76		
Index finger, distal phalanx, left	1	132	246	8		6	633	46	79	51		
Index finger, middle phalanx, right				6	1	1	512	34	85	76		
Index finger, middle phalanx, left				12	3	6	3,495	53	291	269	3	2,324
Index finger, proximal phalanx, right	1	11		10	3	3	1,943	100	194	238	1	470
Index finger, proximal phalanx, left				11	1	2	2,483	119	226	75	1	759
Middle finger, n. o. c., right	1	30	759	11			2,414	64	115	159		
Middle finger, n. o. c., left	1	28	100	21	1	12	67	28	22			
Middle finger, n. o. c., right				15	2	9	2,031	52	135	160	1	812
Middle finger, distal phalanx, right				14	1	5	2,497	58	178	135	2	1,127
Middle finger, distal phalanx, left	1	236	523	6	1	3	688	60	115	177		
Middle finger, middle phalanx, right	1	58	149	8	2	3	379	29	47	87		
Middle finger, middle phalanx, left				3	1							
Middle finger, proximal phalanx, right				5	1	2	280	45	56	70		
Middle finger, proximal phalanx, left				1			197	103	197			
Ring finger, n. o. c., right				11	1	5	728	49	66	102		
Ring finger, n. o. c., left				6	1	3	2,348	88	391	696	1	1,307

Ring finger, distal phalanx, right			5	1	268	31	54	48	
Ring finger, distal phalanx, left	1	26	6	3	382	44	64	76	
Ring finger, middle phalanx, right			7		980	67	140	170	
Ring finger, middle phalanx, left			2		1,351	224	675	768	1
Ring finger, proximal phalanx, right	1	44	5	1	631	63	126	300	555
Ring finger, proximal phalanx, left			3		919	161	306	65	231
Little finger, n. o. c., right			12	2	4,032	71	336	317	2
Little finger, n. o. c., left			12	2	2,125	86	177	97	2,128
Little finger, distal phalanx, right	1	27	5	2	439	47	88	46	
Little finger, distal phalanx, left			4		134	20	34		
Little finger, middle phalanx, right			2		123	32	61		
Little finger, middle phalanx, left			3	1	4,885	230	1,628	2	3,179
Little finger, proximal phalanx, right	2	87	10	2	2,441	69	244	367	2
Little finger, proximal phalanx, left			6	2	225	33	38	30	1,187
Thumb and 1 finger, right			6	2	2,060	90	343		1
Thumb and 1 finger, left			2		214	61	107	58	1,230
Thumb and 2 or more fingers, right			3		5,867	295	1,956	2,648	2
Thumb and 2 or more fingers, left			1		189	94	189	189	
2 fingers, right			30	3	15,085	126	503	717	6
2 fingers, left	2	236	14		9,326	142	666	1,176	8,372
3 fingers, right	2	319	7		3,981	106	569	939	3
3 fingers, left	3	2,964	9		11,071	571	1,230	1,595	2,695
4 fingers, right			3		1,740	87	580	1,608	1
4 fingers, left			1		32	31	32	32	674
Hip	1	394	1,520	17	24,998	504	1,470	1,089	3
Hip joint	5	3,844	7,435	44	74,474	590	1,693	8,263	17,319
Thigh	5	4,075	9,795	111	168,635	437	1,519	1,840	21
Patella			21		28,080	270	1,337	2,130	15,627
Knee	2	1,068	3,694	76	107,037	436	1,408	1,428	41,499
Leg	10	4,247	10,558	154	231,547	514	1,504	2,484	36
Ankle	2	2,250	5,110	94	137,001	456	1,457	1,483	76,587
Foot, n. o. c.	1	758	2,924	21	15,365	272	732	1,104	22
Foot, top of			5		2,501	277	500	269	45,288
Foot, sole of			1		466	228	466		2,182
Oscalci (heel)	5	2,101	4,555	42	76,543	486	1,822	3,898	9
Tarsals	1	471	1,048	13	34,867	613	2,682	2,887	5
Metatarsals	1	322	762	26	22,342	338	859	880	16,584
Feet			4		7,354	505	1,839		3,572
Great toe, n. o. c.	2	89	128	9	3,962	165	440	22	1
Great toe, 1 phalanx			6		384	32	64	80	4,448
Great toe and lesser toe			1		600	276	600		483
Malleolus	1	56	47	12	13,609	476	1,134		2,568
Astragalus	2	316	975	9	8,367	413	930	1,040	
Pott's fracture			15		32,706	662	2,180	2,449	6
Broken or fallen arch			6		1,559	160	260		11,259
Ears (disfigurement)	1	41	107	1	107	41	107	107	
Nose (disfigurement)	1	45		2	22	29	11		
SPECIAL CASES									
Amputation index finger through proximal phalanx, partial loss of use of 3 fingers, right	1	973	2,568	1	2,568	973	2,568	2,568	

TABLE 8.—PERMANENT PARTIAL DISABILITIES, DURATION AND AWARDS, BY LOCATION OF INJURY, CALENDAR YEAR 1929, AND SEPTEMBER 7, 1916, TO DECEMBER 31, 1929. FEDERAL ACT—Continued

PERMANENT PARTIAL DISABILITY OTHER THAN DISMEMBERMENTS—continued

	Calendar year of 1929			Sept. 7, 1916, to Dec. 31, 1929								
	Number of cases	Duration in days	Award	Total number of cases	Number of non-compensated cases	Number with infection	Total award	Average duration	All cases award	Average award in cases with infection	Lump-sum settlements	
											Number	Amount
SPECIAL CASES—continued												
Amputation little finger, middle phalanx, partial loss of use (stiffness) all other fingers right hand	1	183	\$591	1	—	—	\$591	183	\$591	—	—	—
Amputation 4 fingers, left; thumb and 2 fingers, middle phalanx 3d, and distal phalanx, 4th finger, right; conductive deafness, left ear	1	359	1,156	1	—	—	1,156	359	1,156	—	—	—
Left little finger amputated at middle phalanx; left thumb amputated 1st phalanx; tendons cut on remaining 3 fingers, causing stiffness and partial ankylosis	1	—	49	51	1	1	142,302	372	49	\$4,337	17	\$99,039
Other cases listed in previous annual reports	—	—	—	—	—	—	—	—	—	—	—	—
Total other than dismemberment injuries	123	53,738	142,531	2,276	166	475	2,493,004	—	—	—	430	1,044,447
Total permanent partial injuries	279	76,469	205,236	5,240	669	1,096	3,565,135	—	—	—	634	1,563,734

7. PERMANENT TOTAL DISABILITIES

Although the Federal employees' compensation law does not provide specifically for awards for permanent total disabilities, a survey is made each year in order to place in this group those injured employees whose physical examination indicates that the probability of their recovery and return to a wage-earning capacity is remote. In the absence of a change in condition or election to accept the benefits of the civil service retirement law, these beneficiaries will be carried on the compensation roll for life.

The following table is self-explanatory. It shows that 587 cases have been classified since the passage of the act as having a permanent total disability. During 1929, 46 new cases were added, making 315 permanent total disabilities out of every 100,000 injuries which have been reported to the commission since September 7, 1916. These 46 cases have already a total duration of 17,868 days, and the total estimated cost of compensation payable is \$996,719.

Year in which cases were classified as permanent total disability	Number of cases classified as permanent total disability	Cumulative number of cases classified as permanent total disability	Cumulative number of cases per 100,000 injuries
1921		170	216
1922	51	221	242
1923	34	255	244
1924	99	354	306
1925	56	410	316
1926	43	453	318
1927	43	496	318
1928	45	541	317
1929	46	587	315

At the close of the calendar year 1926, 327 of these cases were upon the pay roll of the commission. On December 31, 1929, 343 cases were being paid \$25,463 per annum, or an average of about \$891 annually for each injured employee.

The death rate among those classified as having a permanent total disability is much higher than that for the general population of the same age. In 1927, 18 deaths occurred among 370 active cases. This is a crude death rate of 48.6 annually, which is more than three times as high as the normal rate at age 50, the average age of the whole group at that time.

8. NATURE AND LOCATION OF INJURY AND DURATION OF DISABILITY

Table 9 classifies 16,344 nonfatal injuries causing loss of time according to the nature of the injury, the location of the injury, and the length of disability. The location in amputation cases is de-

scribed rather carefully, while locations of other types of injuries are grouped under general headings. The duration is given for three days and under, then by weeks until the end of the seventh week, and then by convenient duration periods after that time.

This table, which includes only closed cases, does not reflect the final experience in the matter of duration of disability, since cases involving permanent partial disability may again become active at some subsequent date.

A comparison may be made from this table of the relative duration of disability in specific injuries. It will be observed that more than half of the injuries described as a "foreign body in the eye" and about one-third of the punctures cause a loss of time not to exceed three days. On the other hand, only 4.5 per cent of injuries described as fractures have a duration of disability for three days or less, while 14.5 per cent of the dislocations have a similar period of disability. This table likewise indicates that the duration for sprains and burns is generally longer than for cuts and bruises.

TABLE 9.—DISTRIBUTION OF INJURIES BY DURATION OF DISABILITY ACCORDING TO NATURE, AND LOCATION OF THE INJURY
 [Federal act 1929]

Nature and location	Total number of injuries	Duration in days													
		1 to 3	4 to 7	8 to 14	15 to 21	22 to 28	29 to 35	36 to 42	43 to 49	50 to 69	70 to 98	99 to 147	148 to 547	548 to 730	Over 730
AMPUTATIONS															
Penis	1									1					
Hand	1														1
Thumb, distal phalanx	4			1							1	1	1		1
Thumb, proximal phalanx	2										1				1
Index finger, distal phalanx	11	1	1		2	2				1	1	2	1	1	
Index finger, middle phalanx	2						1			1	1				
Index finger, proximal phalanx	4							1				2			1
Middle finger, distal phalanx	11		1			1	2	2		2	2	1			
Middle finger, middle phalanx	2					1					1				
Middle finger, proximal phalanx	1														1
Ring finger, distal phalanx	5			1								3	1		
Little finger, distal phalanx	10				1		2	2	3		2				
Little finger, middle phalanx	2					1			1						
Little finger, proximal phalanx	2						1				1				
Thumb and 1 or more fingers	1		1						2	1	1				
2 fingers	5									1	1			1	
Lesser toe	3						1			1	1				
Great toe	1									1					
Metatarsals	1														1
Total	69	1	2	3	5	6	5	6	13	13	6	7	1		1
BRUISES															
Eye	163	56	44	36	4	4	3	6	4						
Head	121	47	35	27	6		2				1		3	3	1
Face and neck	126	58	34	18	5	4	3	2			1		1		1
Upper trunk	539	120	140	127	63	29	16	6	6	12	9	5	4	1	1
Abdominal region	257	52	49	63	28	18	14	5	6	12	7	3			
Arms, shoulder	525	154	126	116	52	28	14	7	4	9	7	4	2	1	1
Hands	357	116	68	78	33	20	6	17	5	5	4	2	2	1	
Fingers	627	135	147	166	76	43	20	4	7	15	5	7	1	1	1
Legs	1,286	320	260	257	154	93	51	31	28	39	15	25	7	4	2
Feet	974	290	258	210	92	39	36	12	5	16	6	5	4	1	
Miscellaneous	161	18	30	38	30	18	9	6	3	4	4		1		
Total	5,136	1,366	1,191	1,136	543	296	174	96	68	112	60	54	25	10	5

TABLE 9.—DISTRIBUTION OF INJURIES BY DURATION OF DISABILITY ACCORDING TO NATURE, AND LOCATION OF THE INJURY—Continued

[Federal act 1929]

Nature and location	Total number of injuries	Duration in days												
		1 to 3	4 to 7	8 to 14	15 to 21	22 to 28	29 to 35	36 to 42	43 to 49	50 to 69	70 to 98	99 to 147	148 to 547	548 to 730
BURNS														
Eyes	78	36	21	11	3	2	1	1		2		1		
Face and neck	64	18	14	16	7	1	1	3		1	3			
Upper trunk	10		1	2	4		2				1			
Abdominal region	3	1			1	1								
Arms, shoulder	57	10	11	12	11	3	5	1	2	1			1	
Hands	59	10	11	15	10	8	3				2			
Fingers	32	8	5	7	5	4		1			1		1	
Legs	62	6	5	22	8	6	3	4	1	2	1	3	1	
Feet	64	5	14	13	11	6	6	1	2	3	1	1	1	
Miscellaneous	28	1	1	4	6	1		4	2	2	5	2		
Total	457	95	83	102	65	32	22	15	7	11	9	10	4	2
CONCUSSION														
Brain	57	2	6	3	10	4	4	3	3	11	4	3	3	1
CUTS														
Eyes	71	13	23	13	6	4	3	2		3	1	3		
Head	196	63	52	46	14	10	1	2		6	1	1		
Face and neck	212	74	56	53	16	7	5				1			
Upper trunk	11	8		1	2									
Abdominal region	15		6	3	1	2				1	2			
Arms, shoulders	173	45	34	43	28	10	6	1		2		2	2	
Hands	276	65	61	69	40	21	6	5	3	2	3		1	
Fingers	677	156	140	160	78	44	28	16	10	19	8	10		1
Legs	457	115	95	108	60	29	20	6	6	6	7	4	1	
Feet	270	47	45	77	48	20	17	5	3	3	2	2	1	
Miscellaneous	14	3	3	3	2		1			2				
Total	2,372	589	515	576	295	147	87	37	22	44	25	20	13	1
DISLOCATION														
Upper trunk	3			1			1			1				
Sacro illiac joint	1													1
Arms, shoulder	59	9	6	7	8	5	5	4	3	2	3	6		1
Hands	9			8	1									
Fingers	21	6	5		4	1			3	1		1		
Legs	22	3	6	1	1	3	2	2	1	1	3		1	
Feet	7		2		1									
Total	122	18	19	17	15	8	9	7	9	4	6	7	1	1

FRACTURE												
Jaw	17	1	1	1	2	1	1	1	4	4	1	1
Teeth	25	13	4	4	1	2	4	2	1	2	3	1
Skull	37		1	2	3	2	1	1	2	4	5	2
Nose	19	6	6	1	2							
Spine (vertebrae)	80	13	1	42	2	1	3	2	1	2	5	1
Ribs (sternum)	158		22		40	29	25	10	5	16	4	1
Pelvis sacrum, coccyx									2	2	1	1
Shoulder, scapula, clavicle	62	1			3		3	2	1	2	9	1
Arm	286	9	12	15	14	23	36	25	28	51	32	22
Hands	92	1	5	7	14	9	15	17	6	8	5	2
Fingers	245	13	20	35	41	34	30	22	4	25	13	7
Legs	319	2	3	2	18	11	15	21	16	52	55	63
Feet	177	5	6	7	15	16	16	16	19	40	13	12
Toes	314	19	22	49	58	42	44	29	12	20	10	5
Miscellaneous		2					1			1		
Total	1,860	83	107	166	212	174	202	154	105	235	154	144
PUNCTURES												
Eyes	102	31	25	11	8	8	2	6	3	1	1	3
Head	8	4	2		1		1					1
Face and neck	25	14	4	2	2	3						
Upper trunk	8	4			1	1				1		1
Abdominal region	15	2	1	1	2	3	1	1	1	2		
Arms, shoulders	66	17	22	14	6	3	2	1	1			
Hands	130	36	35	31	14	6	4	2		2		
Fingers	209	62	45	52	17	5	10	5	2	5	3	2
Legs	128	43	34	22	13	2	4	1	3	2	1	2
Feet	290	116	83	64	15	2	4	3	1	1		
Miscellaneous	7	2	2	1	1							1
Total	988	331	253	198	79	34	27	20	11	14	7	8
SPRAINS												
Face and neck	25	5	4	8	1		1	1	2	1	1	1
Upper trunk	1,095	239	299	244	122	53	33	24	15	26	21	5
Abdominal region	1,057	113	117	109	50	56	71	62	85	195	111	56
Arms, shoulders	628	150	168	154	70	35	13	6	6	15	2	6
Hands	47	15	13	12	5	2						
Fingers	72	25	27	13	2	2	1		1	1		
Legs	1,358	281	313	314	176	88	58	22	21	38	18	21
Feet	152	47	36	27	18	9	4	3	1	1	4	1
Miscellaneous	6		1	2			1	1				1
Total	4,440	875	978	883	444	245	182	119	131	277	153	93
MISCELLANEOUS INJURIES												
Eyes (foreign body)	396	211	103	48	13	6	5	2	2	3		2
Other	447	103	100	91	51	18	16	10	6	15	7	12
Total	843	314	203	139	64	24	21	12	8	18	7	12
Grand total	16,344	3,674	3,357	3,223	1,732	970	733	469	377	739	431	358
											61	37

9. FATAL CASES

The Federal act provides compensation for specified dependent relatives of an employee whose death results within six years from an injury received while in performance of duty. These relatives—the widow, the dependent widower, children under 18 years of age, dependent parents, and certain other dependent relatives—are entitled to a fixed per cent of the monthly pay of the injured employee, not to exceed a total of 66½ per cent of the monthly pay the employee was receiving at time of injury. The maximum pay for compensation is \$175 per month. The award to a widow continues until she dies or remarries; to children until they become 18, die or marry, or if over 18 and incapable of self-support, until they become capable of self-support; and in other cases is limited to eight years, unless terminated sooner by death, marriage, or cessation of dependency.

A summary of the death cases acted upon by the commission in 1929, is given in Table 10. Out of 257 deaths included also in Table 5, 208 had dependents to whom compensation was payable. In 1924 the number of death cases with dependents in which compensation was awarded was 158, as compared with 201 in 1925, 177 in 1926, 198 in 1927, and 169 in 1928. The average monthly award has increased from \$39.11 in 1924 to \$60.58 in 1929, an increase of 55 per cent. This is accounted for by the increase in compensation rates authorized by the amendment of February 12, 1927, to the compensation law, and the increase in wage levels during this period.

It is not possible to compare either the estimated cost of the award or the total cost for 1929 with those of previous years because of the change in the manner of computing these costs. In previous years they were computed as lump-sum settlements, that is, the most probable present cash value of each award was taken as the valuation. For 1929 the estimated valuation is based on the amount paid and estimated to be paid and represents the probable total cost of awards made in fatal cases arising during the year. No deductions were made for the purpose of determining the present worth at a discount of 4 per cent compounded annually. Only the probability of death and of becoming 18 in the case of children, and the probability of death in the case of widows and other dependent relatives were taken into consideration. The total probable cost of awards made in 208 cases during 1929 is \$3,099,337, or an average valuation of about \$14,900 each.

TABLE 10.—NUMBER OF DEATHS AND VALUE OF AWARDS, CALENDAR YEAR, 1929 *

Establishment	Number of fatal cases	Number with dependents	Total monthly award	Estimated cost of award	Amount of burial award	Compensation before death	Medical and travel expense	Total probable cost
Agriculture:								
Animal Industry	1	1	\$116.67	\$21,331	\$200	-----	-----	\$21,531
Forest Service	16	111	698.34	169,121	2,256	\$601	\$1,660	173,638
Public Roads and Rural Engineering	1	1	43.75	3,060	200	334	2,311	5,905
Plant Quarantine and Control Administration	2	2	59.92	13,919	400	-----	1,715	16,034
All other	4	4	275.42	72,182	654	792	1,163	74,791
Total Agriculture	24	19	1,194.10	279,613	3,710	1,727	6,849	291,899
Commerce:								
Lighthouse Bureau	5	2	70.41	18,130	800	-----	117	19,047
Standards Bureau	1	1	40.25	4,574	200	-----	150	4,924
All other	5	4	219.98	49,086	525	-----	8	49,619
Total Commerce	11	7	330.64	71,790	1,525	-----	275	73,590
Interior:								
Indian Affairs	4	14	237.46	60,681	502	-----	1,385	62,568
National Park Service	3	2	166.00	58,536	400	-----	50	58,986
Reclamation Service	3	12	172.25	42,197	600	-----	239	43,036
All other	3	2	62.25	3,786	600	-----	272	4,658
Total Interior	13	10	637.96	165,200	2,102	-----	1,946	169,248
Labor	5	3	213.75	77,988	1,000	-----	238	79,226
Navy:								
Yards								
Boston	1	1	74.59	26,660	-----	110	1	26,771
Bremerton	2	2	166.26	40,045	400	-----	-----	40,445
Charleston	1	1	76.99	21,951	200	-----	129	22,280
New York	2	2	166.33	56,151	400	338	291	57,180
Norfolk	2	2	89.20	18,323	400	443	-----	19,166
Philadelphia	3	3	187.24	41,536	600	18	190	42,344
Portsmouth	1	1	84.86	26,102	200	-----	3	26,305
Washington	1	-----	-----	-----	200	-----	98	298
Total yards	13	12	845.47	230,768	2,400	909	712	234,789
Other Navy								
Cavite	1	1	25.04	4,823	149	-----	3	4,975
Indianhead Powder Factory	1	1	78.75	27,760	129	-----	-----	27,889
Naval Reserve	8	13	280.00	86,942	-----	-----	-----	86,942
All other	3	3	168.01	50,894	229	-----	39	51,162
Total other Navy	13	8	551.80	170,419	507	-----	42	170,968
Total Navy Department	26	20	1,397.27	401,187	2,907	909	754	405,757
Post Office:								
City Mail Service (clerical and supervisory)	5	3	164.92	28,588	700	1,911	1,132	32,331
City Mail Service (letter carriers)	12	10	42.76	241,454	2,200	152	1,064	244,870
Railway Mail Service	8	6	472.06	107,439	1,398	692	1,015	110,544
Rural Free Delivery	14	14	1,116.28	243,661	2,635	7,740	5,887	259,923
All other	1	1	91.66	28,359	200	-----	-----	28,559
Total Post Office	40	34	2,687.68	649,501	7,133	10,495	9,098	676,227
Treasury:								
Custodian	3	3	151.75	33,651	600	377	402	35,030
Customs	4	4	344.17	88,527	800	-----	366	89,693
Internal Revenue	1	1	61.25	12,289	200	-----	-----	12,489
Prohibition Enforcement	11	11	815.26	238,453	2,200	-----	1,295	241,948
Public Health Service	1	1	76.50	12,999	200	378	-----	13,577
All other	1	(1)	17.50	1,329	200	2,175	450	4,154
Total Treasury	21	20	1,466.43	387,248	4,200	2,930	2,513	396,891

NOTE.—The small figures indicate additional awards.

TABLE 10.—NUMBER OF DEATHS AND VALUE OF AWARDS, CALENDAR YEAR, 1929—Continued

Establishment	Number of fatal cases	Number with dependents	Total monthly award	Estimated cost of award	Amount of burial award	Compensation before death	Medical and travel expense	Total probable expense
War:								
Ordnance—								
Arsenals and armory-----	4	4	\$255.63	\$60,571	\$800	-----	\$294	\$61,665
Other ordnance-----	4	3	131.03	34,437	80	-----	11	34,528
Total Ordnance-----	8	7	386.66	95,008	880	-----	305	96,193
Engineer-----	73	259	2,466.05	529,348	9,240	\$286	2,123	540,997
Quartermaster-----	3	12	133.00	37,724	305	214	599	38,842
Air Service-----	1	1	61.25	22,307	200	-----	-----	22,507
Mississippi Warrior Service-----	4	3	106.88	18,538	688	1,170	167	20,563
All other-----	5	5	326.75	93,023	800	-----	399	94,222
Total-----	10	9	494.88	133,568	1,688	1,170	566	137,292
Total War Department-----	94	77	3,480.59	795,948	12,113	1,670	3,593	813,324
Miscellaneous:								
Shipping Board—Merchant Fleet Corporation-----	16	13	495.68	95,117	950	782	722	97,571
Veterans' Bureau-----	2	1	57.75	13,157	400	-----	175	13,732
All other-----	5	4	275.00	80,511	821	-----	540	81,872
Total miscellaneous-----	23	18	828.43	188,785	2,171	782	1,437	193,175
Grand total ^a -----	257	208	12,236.85	3,017,260	36,861	18,513	26,703	3,099,337

NOTE.—The small figures indicate additional awards.

^a Additional awards were made during 1929 in 10 death cases listed in previous annual reports involving monthly payments amounting to \$203.46, and a future liability of \$20,004. The data concerning these cases are included in Table 11, and as they represent about the normal number of additional awards annually, the amounts are included in the computation of the averages and rates submitted.

The distribution of death cases in 1929 among the various Government departments and establishments is not greatly different than in 1928. Some increases are noted in the Forest Service, in the Rural Mail Delivery Service, in the city carriers' service, and in the Engineer service of the War Department. Decreases are noted in the number of death cases in the Norfolk Navy Yard, in the Prohibition Unit, and in the United States Shipping Board Merchant Fleet Corporation. Fluctuation in the number of employees may account for some of these increases and decreases.

The number of awards each year is about twice the number of terminations, and this rate still continues. The indications are that the cumulative number of active death cases will continue to increase for many more years. The number of cases in which compensation was being paid on September 1, 1930, was 2,160.

The following statement shows the number of active death cases at the beginning of each year since 1924, the number of awards each year, the number of cessations, and the number of active cases at the end of each year. This number increased from 1,611 at the end of 1924 to 2,074 at the end of 1929. When this approximately 30 per cent increase in the number of active death cases is considered in connection with the increase in the average monthly award referred

to on page 40 of this report the reason for the annual increase in the cost of compensation payments in this class of cases is apparent.

FATAL CASES

Year	Active death cases at beginning of each year	Awards during the year	Cessations during the year	Active death cases at end of year	Year	Active death cases at beginning of each year	Awards during the year	Cessations during the year	Active death cases at end of year
1924-----	1,581	150	128	1,611	1927-----	1,792	198	130	1,860
1925-----	1,611	201	83	1,729	1928-----	1,860	169	83	1,946
1926-----	1,729	177	114	1,792	1929-----	1,946	208	80	2,074

Table 11 classifies the dependents in the 208 death cases shown in Table 8. Monthly awards totaling \$7,606, or an average of \$50.71 per month, were made to 150 widows, with an average age of 40. The probable compensation liability as far as awards made to widows in 1929 are concerned is \$2,574,688. Awards were made to 127 sons and to 116 daughters under 18 years of age, to 20 dependent fathers, and to 53 dependent mothers. In 1929 awards were made on account of 482 dependents in cases where death resulted from an injury received while on duty in the Government service.

The average age of the 243 children to whom awards were made is 9 years, and their awards increased the annual cost of awards for death by \$39,571. The probable liability of the Government in these cases is \$340,551. In some cases the termination of an award to one beneficiary may result in an increased award to another beneficiary, and thus the ultimate cost of these awards may differ somewhat from the figures submitted at any given time.

TABLE 11.—SUMMARY OF AWARDS, ON ACCOUNT OF DEATH, BY RELATIONSHIP OF DEPENDENTS, CALENDAR YEAR, 1929

	Number of dependents	Average age	Monthly compensation	Estimated valuation	Average	
					Monthly compensation	Value of awards
Widows-----	150	40	\$7,606.05	\$2,574,688	\$50.71	\$17,165
Children:						
Sons under 18 years of age-----	127	9	1,745.23	175,245	13.74	1,379
Daughters under 18 years of age-----	116	9	1,552.38	165,306	13.38	1,425
Dependents over 18 years of age and incapable of self-support-----	4	41	76.68	20,113	19.17	5,028
Brothers under 18 years of age-----	6	7	26.25	2,319	4.38	387
Sisters under 18 years of age-----	2	14	10.73	83	5.36	42
Fathers-----	20	59	261.08	14,052	13.05	703
Mothers-----	53	56	881.25	58,625	16.63	1,106
Grandchildren-----	3	5	60.70	5,786	20.23	1,929
Grandmothers-----	1	64	16.50	1,043	16.50	1,043
Total-----	482		12,236.85	3,017,260		

The following tabulation shows that awards have been made to 6,202 dependents in death cases since September 7, 1916. The number at the end of 1918 was 767 and at the end of 1926 was 4,929. Awards have been made to 1,934 widows, 304 of whom remarried,

127 died, and either lump-sum or third-party settlements were made in the case of 19. On December 31, 1929, 1,484 widows and 1,906 children under 18 years of age were still on the roll of the commission.

NUMBER OF BENEFICIARIES AWARDED COMPENSATION, AND NUMBER ON ROLLS
DECEMBER 31, 1929

	Number of de- pendents granted an award	Number of cess- tions	On rolls Dec. 31, 1929
Widows	1,934	450	1,484
Children under 18 years of age	3,068	1,162	1,906
Dependents over 18 years of age and incapable of self-support	66	37	29
Brothers and sisters under 18 years of age	146	108	38
Fathers	309	200	109
Mothers	642	389	253
Grandparents	17	10	7
Grandchildren under 18 years of age	20	17	3
Total	6,202	2,373	3,829

10. REMARRIAGE OF WIDOWS

Table 12 contains a summary of the remarriages and deaths occurring among 1,915 widows who have been granted an award of compensation under the Federal employees' compensation act. Remarriage rates are computed by 5-year age groups, and for each year of widowhood, and tabulated to the nearest month. Since the law does not limit either the total amount or the period of compensation, this table contains a complete record to date of all widows who were granted an award between September 7, 1916, and December 31, 1929, excepting in the case of 19 widows who were either given lump-sum settlements, or who recovered damages from a third party responsible for the death of the husband.

The number of remarriages decreases proportionately with the age of the widow at the beginning of widowhood. A few remarriages occurred during the first year of widowhood—3 during the fourth month, 2 during the fifth, 4 during the sixth, 5 during the seventh, 5 during the eighth, and 6 more before the end of the year. Of those occurring before the sixth month, 2 were in the 25 to 30 age group, 1 in the 31 to 35 group, and 2 in the 35 to 40 group. The average duration of widowhood for the 25 remarriages occurring during the first year of widowhood is 7.2 months. The remarriage rate increases to about the end of the second year of widowhood and then decreases. During each of the second and third years of widowhood the remarriage rate is about 4 per 100 years of exposure. During each of the fourth, fifth, and sixth years it is about 3 and during each of the seventh and eighth years approximately 2.

Only 7 remarriages occurred among 604 widows who had passed the age of 45 at the beginning of widowhood. Since the average duration of widowhood for this group is 6.4 years, the remarriage rate is less than one-fifth of 1 per cent.

Of 1,399 widows who had passed the age of 30 at the beginning of widowhood, 113 remarried, and 112 others died during the exposure included in this tabulation.

Of the 1,915 widows included, 304 remarried and 127 died during the experience of the commission. The combined exposure is 11,478.33 years. This is a remarriage rate of 2.65 for the whole group—12.81 for those under 21 years of age at the beginning of widowhood, 7.97 for the 21 to 25 age group, 5.65 for the 26 to 30 group, 2.83 for the 31 to 35 group, 2.03 for the 36 to 40 group, 1.41 for the 41 to 45 group, and less than 1 for the remaining age groups. The average length of exposure for the whole group is six years.

TABLE 12.—REMARRIAGE AND DEATH OF WIDOWS, BY AGE OF WIDOW AT TIME OF WIDOWHOOD, AND DURATION OF WIDOWHOOD, SEPTEMBER 7, 1916, TO DECEMBER 31, 1929

Age at beginning of widowhood	Total experience				First year				Second year			
	Number	Number re-married	Number of deaths	Remarriage rate	Number	Number re-married	Number of deaths	Remarriage rate	Number	Number re-married	Number of deaths	Remarriage rate
All widows.....												
1,915	304	127	2.65		1,915	25	19	1.35	1,777	67	17	4.0
Under 21 years.....	54	31	12.81		54	3	5.64		51	11	24.67	
21 to 25 years.....	195	76	5	7.97	195	6	3.20		179	12	7.27	
26 to 30 years.....	267	84	10	5.65	267	5	3.94		246	17	7.42	
31 to 35 years.....	288	52	7	2.83	288	4	2.43		269	11	1	4.29
36 to 40 years.....	265	33	9	2.03	265	4	2.157		242	9	2	4.05
41 to 45 years.....	242	21	12	1.41	242	2	.86		224	4	1	1.88
46 to 50 years.....	203	4	20	.30	203	4			193	2	3	1.08
51 to 55 years.....	171	2	21	.19	171	1	3	.61	157	4		
56 to 60 years.....	108	1	14	.14	108	2			100	1	2	1.02
61 and over.....	122	29			122	2			116	3		
Third year												
All widows.....	1,574	60	17	4.08	1,379	42	12	3.30	1,200	34	11	3.02
Under 21 years.....	40	7	20.05		30	1	3.49		26	5	22.73	
21 to 25 years.....	155	16	11.45		124	9	8.16		104	15	16.53	
26 to 30 years.....	209	15	4	7.73	178	15	9.36		148	6	1	4.22
31 to 35 years.....	244	11		4.81	217	11	1	5.55	186	4		2.25
36 to 40 years.....	208	5		2.53	190	5	1	2.77	169	1	1	.62
41 to 45 years.....	203	5	3	2.58	183	1	2	.59	164	2	2	1.32
46 to 50 years.....	174	1	1	.61	157	2			139	1		.75
51 to 55 years.....	140		1		124		2		108		2	
56 to 60 years.....	92		2		81		2		76		2	
61 and over.....	109		6		95		4		80		3	
Sixth year												
All widows.....	1,061	28	13	2.91	916	19	12	2.27	779	15	4	2.11
Under 21 years.....	19	2		13.56	13				9	1		11.88
21 to 25 years.....	82	9	1	12.86	62	3		5.50	50	4	1	9.06
26 to 30 years.....	137	7	1	5.55	118	7		6.47	100	6		6.53
31 to 35 years.....	166	5	1	3.25	148	4	1	2.91	128			
36 to 40 years.....	152	3	1	2.11	135	2		1.60	117	2		1.87
41 to 45 years.....	142	2	1	1.54	123	2		1.72	110	2	1	2.16
46 to 50 years.....	127		2		111		3		92		1	
51 to 55 years.....	97		2		84	1	2	1.27	72		1	
56 to 60 years.....	69		3		60		3		50			
61 and over.....	70		1		62		3		51			

TABLE 12.—REMARRIAGE AND DEATH OF WIDOWS, BY AGE OF WIDOW AT TIME OF WIDOWHOOD, AND DURATION OF WIDOWHOOD, SEPTEMBER 7, 1916, TO DECEMBER 31, 1929—Continued

Age at beginning of widowhood	Ninth year				Tenth year				Eleventh year			
	Number	Number re-married	Number of deaths	Remarriage rate	Number	Number re-married	Number of deaths	Remarriage rate	Number	Number re-married	Number of deaths	Remarriage rate
All widows												
All widows	656	7	9	1.18	537	2	3	0.44	383	4	6	1.29
Under 21 years	8				8				6	1		18.18
21 to 25 years	42	1	1	2.56	33				26	1		6.09
26 to 30 years	82	5	1	7.09	61	1		1.98	45			
31 to 35 years	112		1		94	1		1.19	76	1		1.61
36 to 40 years	99	1		1.10	85		1		50		1	
41 to 45 years	84				67				46	1	0	2.90
46 to 50 years	75		2		62				46		1	
51 to 55 years	64		1		55				43		2	
56 to 60 years	44		1		33		1		21			
61 and over	46		2		39		1		24		2	
Twelfth year												
All widows	242	1	2	0.67	80		2		15			
Under 21 years	5				2							
21 to 25 years	10				4							
26 to 30 years	27				2							
31 to 35 years	50				14				6			
36 to 40 years	38	1		4.62	10				3			
41 to 45 years	26				11				1			
46 to 50 years	30				14		1		3			
51 to 55 years	28				10		1					
56 to 60 years	13				6							
61 and over	15		2		7				2			

11. MEDICAL AND SURGICAL CARE AND TREATMENT

Civil employees of the United States injured in performance of their duties are entitled to reasonable medical and hospital services and supplies needed as a result of the injury. The law further provides that where practicable such services shall be furnished by United States medical officers and hospitals. For this purpose 25 hospitals and 141 dispensaries of the Public Health Service are available without charge to the compensation fund and to a limited extent naval, military, veterans, and Indian Service hospitals also. The Veterans' Administration, by special arrangement with the director in each case, furnishes treatment to beneficiaries without charge to the compensation fund where Public Health Service facilities are unavailable or impracticable. The Army and Navy hospitals generally only admit their own civilian employees and are reimbursed from the compensation fund on a cost basis.

Numerous other forms of Government medical relief have come into existence in the past few years and are incidentally used by injured employees. Most of the departments and several bureaus in Washington have established dispensaries for medical treatment, and these facilities are used by injured employees for emergency relief. Again, the Post Office Department has inaugurated a widespread

relief station system in its larger post offices, employing physicians and nurses to furnish medical attention to employees. The Office of Education, Department of the Interior, and the Alaska Railroad have physicians and hospitals in Alaska, and the Reclamation Service and various other bureaus employ physicians in the field.

In places where the Public Health Service has no medical facilities available, treatment is furnished through private physicians designated by the commission. On September 30, 1930, the number of designated physicians throughout the United States was 3,208. These physicians are of well-established local reputation and some are of national and international repute.

The expenditure from the compensation fund for medical treatment and supplies during the fiscal year ended June 30, 1930, classified by object of expenditure, follows:

Physician or surgeon-----	\$308, 937. 85
Hospital-----	235, 665. 39
Appliances-----	13, 192. 80
Nurse-----	16, 707. 44
Transportation-----	34, 078. 86
Miscellaneous-----	19, 764. 85
Grand total-----	628, 347. 19

In addition to the services for which payments were made by the commission, the Public Health Service furnished service as follows: 51,770 hospital days, 185,763 out-patient treatments, and 11,854 complete medical surveys during the last fiscal year. The cost of this service if obtained from private physicians and hospitals is estimated at approximately \$800,000.

The following table shows that during the calendar year 1929 expense was incurred for medical treatment furnished 11,801 injured employees, of whom 7,772 were not entitled to compensation for loss of time. The total cost of medical service in these cases was \$529,144, or 16 per cent more than the amount expended for similar service in 1928. This amount does not include the value of medical services furnished by United States medical officers and hospitals for which no charge is made against the compensation fund, nor does it include the cost of medical treatment in permanent total disabilities and other long-continuing cases upon which further payments will be made. This table also shows the number of closed cases in which expense for medical service was paid by the commission, as well as the average cost per case for all cases and for non-fatal cases. For all cases the average cost has increased from \$23.95 in 1919 to \$43.15 in 1929. For nonfatal cases the increase is from \$22.81 to \$41.59. The total cost to the commission for treatment of 115,989 cases since the passage of the act is \$4,587,793.

Year	Total number of cases, including no time lost	Number of cases upon which there were medical payments	Per cent of all cases upon which there were medical payments	Average medical expense in cases in which there was payment for medical treatment	
				Fatal and nonfatal cases combined	Nonfatal cases only
1919	24,465	9,553	39.0	\$23.95	\$22.81
1920	20,736	9,504	45.8	32.68	31.47
1921	16,842	7,852	45.0	40.18	38.11
1922	17,465	8,828	50.5	40.71	37.85
1923	19,694	10,077	51.2	45.85	44.44
1924	17,764	8,636	48.8	39.27	35.02
1925	21,795	10,377	47.6	40.10	38.34
1926	19,468	8,889	45.7	37.96	34.80
1927	20,074	9,362	46.6	39.61	38.16
1928	21,936	10,821	49.3	39.98	38.92
1929	25,159	11,801	46.9	43.15	41.29

Table 13 gives a summary of the cost of medical care for the calendar year 1929, as well as the cumulative experience since September 7, 1916.

TABLE 13.—SUMMARY OF MEDICAL PAYMENTS ON TABULATED CASES, CALENDAR YEAR 1929, AND CUMULATIVE EXPERIENCE FROM SEPTEMBER 7, 1916, TO DECEMBER 31, 1929

	1929			Sept. 17, 1916, to Dec. 31, 1929		
	Number of cases including no time lost	Number of cases with medical payments	Total amount of payments	Number of all cases including no time lost	Number of cases with medical payments	Total amount of payments
Compensated cases:						
Temporary total disability	7,309	3,441	\$282,388	90,481	44,138	\$2,357,953
Permanent partial disability	249	202	59,147	4,569	3,050	539,272
Total	7,558	3,643	341,535	95,050	47,188	2,897,225
Noncompensated cases:						
Covered by leave:						
Temporary total disability	4,576	1,919	76,326	39,868	14,420	460,633
Permanent partial disability	28	13	860	432	227	27,423
Total covered by leave	4,604	1,932	77,186	40,300	14,647	488,056
No claim filed						
Temporary total disability	508	253	4,671	11,517	2,574	41,436
Permanent partial disability				94	22	1,216
Total no claim filed	508	253	4,671	11,611	2,596	42,652
No time lost	7,284	4,243	38,678	65,098	33,120	292,223
Three days and under:						
Temporary total disability	3,672	1,344	13,881	34,945	10,437	100,059
Permanent partial disability	2			69	30	1,015
Total 3 days and under	3,674	1,344	13,881	35,014	10,467	101,074
Total noncompensated cases	16,070	7,772	134,416	152,023	60,830	924,005
Fatal	258	117	26,703	3,950	1,281	260,790
Permanent total disability	46	45	21,841	587	468	271,088
All other medical payments	1,297	227	4,835	8,897	6,222	230,685
Grand total	25,229	11,804	529,330	260,507	115,989	4,583,793

12. THIRD-PARTY LIABILITY FOR INJURY

Under the provisions of sections 26 and 27 of the compensation act whenever an injury is sustained or death is caused under circumstances creating a liability on some person other than the United States to pay damages therefor, it is provided that the commission may require a beneficiary either to assign his right of action to the United States or to prosecute the action in his own name. When a settlement is made or a judgment collected under these provisions of the act, the amount of money expended by the commission for compensation, including expenditures on account of medical and hospital treatment, is deducted and any surplus is paid to the beneficiary and is credited against future payments of compensation by the commission on account of the same injury.

In Table 14 the financial data concerning third-party cases are shown. In 21 settlements involving 19 fatal cases, and 2 permanent total disability cases, recoveries were made amounting to \$137,306. After deducting attorney fees and other costs of settlement the net recoveries amounted to \$90,850, of which the sum of \$23,567 was paid to the commission as a refund of payments made by it in these cases. The compensation liability in these cases, exclusive of future medical expenses in the two cases classified as permanent total disability which can not be estimated, is \$405,518, and the amount of the net recovery, \$90,850, may be considered as an offset or credit against this liability. In 407 nonfatal cases the recoveries amounted to \$278,678, of which amount the net recovery is \$214,824. The sum of \$46,535 representing payments made by the commission on these cases, was refunded and placed to the credit of the compensation fund. As the full compensation liability based on present information is estimated to be only \$79,448, in these cases the net recovery exceeds the value of benefits payable by the commission. The estimated cost of these cases can not be accurately determined since in a limited number of cases there may be a recurrence of disability for which additional compensation may be payable. The third-party settlements tabulated on the report, therefore, resulted in a saving to the Government of \$90,850, in fatal and permanent total disability cases, and \$79,448 in other cases, or a total of \$170,298. Of the amount saved, \$70,102 represents the refund from the beneficiaries and \$100,196 represents a credit against future installments of compensation.

TABLE 14.—BENEFITS PAID AND ESTIMATED AND DAMAGES RECOVERED BY EMPLOYEES DURING 1929, IN CASES IN WHICH INJURY WAS DUE TO NEGLIGENCE OF THIRD PARTY

	Total number of third party cases	Court costs paid	Recoveries				Refund received by commission	
			Number of cases	Amount recovered		Benefits paid and estimated		
				Gross	Net			
Fatal and permanent total disabilities	96	\$4,772	21	\$137,306	^a \$90,850	\$405,518	\$23,567	
Nonfatal	2,451	4,599	407	278,678	214,824	^a 79,448	46,535	
Grand total	2,547	9,371	428	415,984	305,674	484,966	70,102	

^a Net credit to the Government amounting to \$170,298.

Table 15 summarizes the disposition of third-party cases for the calendar year 1929. At the beginning of the year 756 cases were pending settlement. During the year 1,791 new cases were examined. A total of 1,227 cases were closed as not involving third-party liability, while 19 fatal cases, 2 permanent total disability cases, and 407 nonfatal cases were settled by recovery of damages from the third party. At the close of 1929, 892 third-party cases were still pending, a majority of which were in the hands of attorneys selected by the commission to handle claims of injured employees.

TABLE 15.—NUMBER OF PENDING AND CLOSED CASES IN EACH ESTABLISHMENT IN WHICH INJURY WAS DUE TO NEGLIGENCE OF THIRD PARTY, CALENDAR YEAR 1929

Establishment	Cases pending Jan. 1, 1929	New cases received, 1929	Cases closed during calendar year 1929				Pending cases Dec. 31, 1929	
			No liability found	Closed for other reasons	Completed cases where recovery was made		Fatal	Non-fatal
					Fatal and permanent total	Non-fatal		
Agriculture	51	94	23	55	4	15	5	43
Interior	11	19	7	13			2	8
Navy	3	22	5	6		5	3	6
Post office:								
City Mail Service	392	1,084	126	607	1	216	10	516
Railway Mail Service	109	226	29	71	7	124	5	99
Rural Delivery Service	22	59	11	27	2	10	3	28
Other employees	35	66	10	29	2	12	1	47
Total Post Office	558	1,435	176	734	12	362	19	690
Treasury	48	116	17	81	1	11	12	42
War	43	23	9	28	2	4	6	17
Other establishments	42	82	15	58	2	10	6	33
Grand total	756	1,791	252	975	21	407	53	839

13. LUMP-SUM SETTLEMENTS

It will be noted upon referring to the financial table on page 55 that the total awards for lump-sum settlements have steadily decreased over the last four fiscal years, despite an increase in the rates of compensation authorized by the amendment to the law in 1927. In the last fiscal year, 1930, the total amount expended for lump-sum settlements was \$26,409, as compared with \$147,019 in the fiscal year 1926. Included in the amount for 1930 was \$3,820 covering awards made under the administrative authority of the Governor of the Panama Canal to employees in that service and \$1,756 covering awards made to employees of the Alaska Railroad under the administrative authority of the Superintendent of the Alaska Railroad. Awards made to Federal employees in these services are not under the jurisdiction of the commission, but are a charge against the compensation fund in accordance with the provisions of the law.

The commission has learned from experience that in the great majority of cases injured workmen have not sufficient experience to wisely use large sums of money. There is great danger that if such sums are granted they may be lost. It is considered that the safest and most effective means of affording relief to disabled employees is the payment of compensation in periodic installments. Accordingly, the commission's practice is to make lump-sum settlements only in very exceptional cases, where it is clearly demonstrated that such settlement will be for the best interest of the claimant.

14. CAUSES OF INJURY

Table 16 shows that of the 16,647 cases tabulated in this report 833, or 5 per cent, arose out of mechanical causes and 15,814, or 95 per cent, were the result of nonmechanical causes. Mechanical causes were responsible for 14 fatal cases, 6 permanent total disability cases, and 84 permanent partial disability cases. The largest number of injuries in this group is found under the classification "metal-working machines." Injuries from this source resulted in 1 permanent total disability and 21 permanent partial disability cases. Hoisting apparatus and conveyors accounted for the largest number of fatal cases and woodworking machinery caused the greatest number of permanent partial disability cases.

Of the injuries resulting from nonmechanical causes 1,737, or 10.4 per cent, were caused by vehicles, of which 967 were automobiles. Falls of persons caused 2,814 injuries or 16.9 per cent of all injuries included in this group. Falling objects caused 1,742 injuries or 10.5 per cent, hand tools 1,104 injuries or 6.6 per cent, and objects handled 3,516 injuries or 21.1 per cent of the total number of injuries resulting from nonmechanical causes.

Only a few of the Government establishments have adopted a program for organized accident-prevention work. It is the opinion of the commission that this presents a field in which much may be accomplished not only in the matter of saving money paid for compensation but in the conservation of the life and earning power of men and women in the Federal service. It is believed that a well directed and sustained accident-prevention program will result in a reduction in the number of compensable accidents to Federal employees.

TABLE 16.—CAUSE OF INJURY BY EXTENT OF DISABILITY CALENDAR YEAR 1929

MECHANICAL

Cause	All cases	Death	Permanent total disability	Permanent partial disability	Temporary total disability
Prime movers	24	4	1	5	14
Power transmission apparatus	31			5	26
Metal-working machinery:					
Abrasive wheels	66			2	64
Portable power tools	96		1	4	91
All other	136			15	121
Wood-working machinery	99	1		26	72
Paper-products machines	34			2	32
Textile machines	18				18
Laundry machines	8			1	7
Food-products machines	12			4	8
Munition-work machines	4				4
Hoisting apparatus and conveyors:					
Elevators, controlled	26			1	25
Derricks and jib cranes	70	2	1	4	63
Blocks and tackles, windlasses, capstans, and winches	62	1		4	57
All other	75	4	2	6	63
Miscellaneous machinery	72	2	1	5	64
Total machinery	833	14	6	84	729

NONMECHANICAL

Automobiles	967	24	1	16	926
Other vehicles	770	93	2	18	657
Pressure equipment	45	2		1	42
Explosive substances	75	11		3	61
Electricity	24	1		3	20
Conflagration and flames	134	13		2	119
Hot substances	187			2	185
Dusts, gas, and chemicals	400	6	1		393
Falls of persons:					
On stairs and steps	693	5	2	3	683
On same level	920	2	3	6	909
Stumbling over objects	596	1		1	594
All other falls	1,605	23	15	14	1,553
Falling objects	1,742	9	5	16	1,712
Handling objects:					
Heavy objects	1,574	2	4	2	1,566
All other	1,942	2	1	42	1,897
Hand tools:					
Glancing and slipping	799			16	783
All other	305	1	1	17	286
Stepping in or on objects:					
Nails	228				228
All other	140			3	137
Striking against objects	864	3		9	852
Struck by objects	340			8	332
Miscellaneous	1,464	45	5	13	1,401
Total nonmechanical	15,814	243	40	195	15,336
General total	16,647	257	46	279	16,065

15. SUMMARY OF TABULATED CASES CALENDAR YEAR 1929

A final summary of the operations under the Federal employees compensation act is given in Table 17. This tabulation includes the number of cases, the duration of disability, the cost or the evaluation of the awards, and certain other expenditures, classified as to type of disability. These 16,390 nonfatal cases have already lost 452,214 days from work. This is equivalent to an entire working year for 1,500 employees.

The cost of all nonfatal cases closed during the year, and the valuation of the fatal cases acted upon during the year, including all awards and the cost of medical attention, amounts to \$5,559,667. Of this amount 11.8 per cent was for awards in temporary total cases; 3.7 per cent for awards in permanent partial cases; 17.9 per cent the valuation of permanent total cases; 55.3 per cent the valuation of fatal cases; and 11.3 per cent the cost of medical care. For reasons explained earlier in this report the valuations are not comparable with those made for previous years. The figures submitted in Table 17 show how much actually has been paid, and the probable future cost of all cases listed.

TABLE 17.—SUMMARY OF AWARDS AND VALUATIONS, JANUARY 1 TO DECEMBER 31, 1929

	Number of cases	Days' duration including leave	Days' leave	Average days' duration	Amount of award	Average award	Per cent of total award
Temporary total disabilities:							
Compensated-----	7,309	281,388	22,552	38.5	\$656,731	\$89.85	-----
Noncompensated-----	8,756	76,489	67,757	8.7	-----	-----	-----
Total-----	16,065	357,877	90,309	22.3	656,731	40.88	11.81
Permanent partial disabilities:							
Dismemberments-----	¹ 156	22,731	1,404	145.7	62,705	401.96	-----
Loss of function-----	² 123	53,738	1,697	436.9	142,531	1,158.79	-----
Total-----	279	76,469	3,101	274.1	205,236	735.61	3.69
Permanent total disabilities-----	46	³ 17,868	239	388.4	⁴ 996,719	21,667.80	17.93
Deaths-----	258	-----	-----	-----	⁴ 3,017,260	11,694.81	-----
Burials-----	⁵ 202	-----	-----	-----	36,861	182.48	55.27
Award before death-----	⁵ 30	-----	-----	-----	18,513	617.10	
Medical cost (fiscal year, 1929)-----	⁵ 11,801	-----	-----	-----	628,347	53.25	11.30
Grand total-----	16,648	452,214	-----	-----	5,559,667	333.95	100.00

¹ Includes 24 noncompensated cases with duration of 524 days.

² Includes 6 noncompensated cases with duration of 227 days.

³ Duration to Dec. 31, 1929.

⁴ Estimated total cost.

⁵ Not included in total.

The following statement compares the distribution of cases tabulated for 1929, classified according to degree of disability, with the experiences for all cases reported under this law:

During the calendar year 1929, 96.5 per cent of all injuries involving loss of time were classified as temporary total disability as compared with a rate of 94.8 for this class of injuries since 1916. During 1929, 1.5 per cent of all injuries were fatal while the rate of the past 14 years is 2.1 per cent.

A study of the previous annual reports of the commission shows that the percentage of injury cases classified as fatal has declined for a number of years as has the percentage of those cases which are rated as permanent disability. The temporary total disability cases have been increasing proportionately for a number of years. Since 1921, the proportion of fatal cases has decreased from 3.1 per cent of the total to 1.5 per cent, and the proportion of permanent disability cases from 5 per cent to 2 per cent. The proportion of temporary disability cases has increased during this period from 91.9 per cent to 96.5 per cent of all injuries causing loss of time.

This tabulation summarizes also the duration of disability to the close of the calendar year 1929, the amount paid in compensation as well as the estimated future cost on fatal and permanent disability cases, making a total probable cost amounting to \$5,586,370, including \$628,347, representing the expense for medical care in closed cases. This total does not represent the expenditure for a single year but does represent the total liabilities upon the injury cases closed or classified during the calendar year 1929.

Injury	Calendar year, 1929				Sept. 7, 1916, to Dec. 31, 1929	
	Number of cases	Number per 100,000 injuries	Days' duration	Award	Number of cases	Number per 100,000 injuries
Fatal	257	1,544			1 \$3,099,337	2,116
Permanent total	46	276	17,868	¹ 996,719	587	315
Dismemberments	156	937	22,731	62,705	2,964	1,589
Other permanent partial	123	739	53,738	142,531	2,276	1,220
Temporary total	16,065	96,504	357,877	656,731	176,811	94,760
Total	16,647	100,000	452,214	² 5,586,370	186,587	100,000

¹ Probable future cost.

² Includes \$628,347, cost of medical care.

16. COST OF THE COMPENSATION LAW

The following statements show the net amount of money disbursed by this commission for the fiscal years July 1, 1925, to June 30, 1930, inclusive, and appropriations and expenditures since 1916.

TABLE 18.—COMPARATIVE STATEMENT OF COSTS OF FEDERAL COMPENSATION ACT JULY 1, 1925 TO JUNE 30, 1930

	Fiscal year 1926	Fiscal year 1927	Fiscal year 1928	Fiscal year 1929	Fiscal year 1930
Salaries and expenses:					
Salaries.....	\$133,556.10	\$132,381.05	\$137,517.96	\$152,746.59	\$159,110.89
Furniture and equipment.....	1,626.09	1,824.29	1,643.31	2,791.47	3,722.59
Books, stationery, and supplies.....	2,113.05	1,819.58	1,950.22	1,818.70	2,164.66
Printing and binding.....	3,427.41	2,965.70	3,621.34	6,802.23	4,430.76
Travel expenses.....	4,960.31	6,212.20	7,200.72	8,356.60	9,141.00
Miscellaneous.....	860.22	669.91	590.50	1,315.17	1,576.83
Medical examinations and travel expenses (sec. 21).....	696.45				
Rent.....				15,600.00	16,332.28
Total.....	147,239.63	145,872.73	152,524.05	189,430.76	196,479.01
Employees' compensation fund:					
Injury compensation.....	1,194,450.41	1,211,140.51	1,564,631.66	1,702,882.58	1,945,561.05
Lump-sum awards (injury).....	140,458.54	83,956.59	62,918.81	38,936.85	20,400.49
Medical treatment and supplies.....	401,868.52	413,301.62	474,711.89	539,325.89	593,836.69
Transportation (sec. 9).....	22,840.84	23,282.78	25,735.06	30,562.30	34,510.50
Death compensation.....	785,084.52	860,822.31	1,188,462.16	1,200,620.04	1,357,078.78
Lump-sum awards (death).....	6,560.30	662.64	11,711.44	5,395.50	6,008.35
Burial expenses.....	21,630.58	16,283.00	34,902.62	32,740.00	40,021.19
Embalming and transportation (sec. 11).....	6,280.73	5,550.43	3,438.45	3,739.86	5,261.05
Court costs.....	2,204.73	1,581.94	3,878.32	Cr. 1,803.64	2,492.78
Total.....	2,581,379.17	2,616,581.82	3,370,390.41	2,552,399.38	2,4005,170.88

¹ Salaries and expenses for the fiscal year 1929 include outstanding obligations.

² Includes \$91,514 properly chargeable to fiscal year 1929 and paid after July 1 from appropriation for fiscal year 1930.

TABLE 19.—APPROPRIATIONS AND EXPENDITURES SINCE 1916

	Salaries and expenses		Compensation fund	
	Total appropriations	Net expenditures, including estimated outstanding liabilities at the end of fiscal year	Total appropriations ¹	Net expenditures
Mar. 26 to June 30, 1917.....	\$50,000.00	\$27,394.79	\$500,000.00	\$122,806.07
Fiscal year ending June 30—				
1918.....	287,000.00	79,421.86	500,000.00	706,257.92
1919.....	145,810.17	129,149.28	31,300,000.00	1,399,757.13
1920.....	144,656.02	140,898.09	2,100,000.00	2,087,365.58
1921.....	171,940.00	166,627.75	2,500,000.00	2,303,346.69
1922.....	160,751.66	156,860.75	2,400,000.00	2,627,170.08
1923.....	159,740.00	156,729.89	2,975,000.00	2,726,530.83
1924.....	149,080.00	147,844.00	2,300,000.00	2,333,526.82
1925.....	152,100.00	148,202.66	2,500,000.00	2,463,162.77
1926.....	153,900.00	147,239.63	2,375,000.00	2,581,379.17
1927.....	144,540.00	145,872.73	2,600,000.00	2,616,581.82
1928.....	148,240.00	146,601.05	3,250,000.00	3,370,390.41
1929.....	555,010.00	189,430.76	3,550,000.00	3,552,399.38
1930.....	540,326.00	196,479.01	4,000,000.00	4,005,170.88

¹ Prior to 1924 appropriations for compensation were continuing.

² Includes \$7,000 allotted from President's fund for expenses in France.

³ Includes \$50,000 allotted from President's fund.

⁴ Includes deficiency appropriations of \$1,900 available for expenditures during fiscal year 1927.

⁵ Separate appropriation for administration of Federal act not made. Appropriation shown was made covering administration of the three compensation acts administered by the commission.

17. CHANGES IN LEGISLATION RECOMMENDED

Section 10, paragraph (g) of the Federal employees' compensation act provides that the award to a dependent parent, or parents, shall be paid for a period of eight years from the time of death of

the deceased employee, unless terminated sooner by death or re-marriage, or cessation of dependency. The commission recommends consideration of an amendment to this section of the law to provide that such awards shall continue as long as dependency exists or until death or marriage. If parents are dependent for support at the time of the death of the son or daughter they are usually in greater need of assistance eight years later. As was said in one of the earlier reports of the commission making this same recommendation—

If the dependency of the parent is the reason for the payment of compensation, it is clear that the reason is likely to be very much stronger when the parent has advanced in age eight years than it was at the time of the injury and death of the son or daughter upon whom the parent was dependent. In the natural course of events it would be expected that the ability of the parent for self-support would speedily decrease with age. It is a natural expectation of parents that their children will provide or assist in providing for them in their old age, when their earning power has greatly decreased or gone altogether, and to deprive parents of compensation at the end of an 8-year period would be to leave them in a worse condition than at the beginning of the period when the law first imposes the obligation upon the United States of making payments to them.

A number of cases of distress and hardship have come to the attention of the commission upon termination of the award at expiration of the statutory 8-year period. Some of these dependent parents have written the commission that the discontinuance of compensation payments which had been received for a period of eight years would compel them to apply for relief to charitable organizations since they were unable on account of age and infirmities to obtain employment or make other arrangements for the necessities of life. Some of these parents are of an advanced age at the time the 8-year period expires, and it appears unduly harsh to terminate the compensation award at such time.

On December 31, 1929, there were on the rolls 362 parents receiving an award for dependency, the average award being approximately \$15.28 per month, and the average age was 59 years. On December 31, 1928, the number was 339, and on December 31, 1927, the number was 379. Each month a few of these awards terminate because the 8-year period has ended, and some new cases are added. From September 7, 1916, when the act went into effect, to December 31, 1929, 589 awards have been terminated on account of the 8-year expiration. It is believed that in such cases where the parents are still alive and the conditions of dependency under the former award still exist an amendment to the law removing the 8-year limit should also authorize the commission to restore such cases to the roll, not retroactively but effective from the date of the approval of such amendment.

III. LONGSHOREMEN'S AND HARBOR WORKERS' COMPENSATION ACT

1. SCOPE OF THE ACT

The longshoremen's and harbor workers' compensation act approved March 4, 1927, provides compensation for employees of private employers while engaged in work which is in whole or in part in maritime jurisdiction upon the navigable waters of the United States, including any dry dock. The master and members of the crew of any vessel are specifically excluded from the benefits of this law, as are employees hired by the master of small vessels under 18 tons net. The largest class of employees subject to this law are longshoremen who, in the course of their employment loading and unloading vessels, are in maritime jurisdiction and who, therefore, are at times outside the scope of State compensation laws. The law also extends to all mechanics and ship repairmen, delivery men, solicitors, and inspectors, exclusive of employees of the Federal or State Government, who sustain injuries in the course of their employment upon the navigable waters of the United States. Attempts made by the commission to secure accurate information relative to the number of employees coming within the scope of this law have been unsuccessful due to the fact that employment in the stevedoring industry is for the most part irregular. Many employers have relatively few regular employees and supplement their regular working force when the occasion demands from employees who have no regular employment. It is the opinion of the commission that a conservative estimate of the number of employees who at times are engaged in employments covered by this law is in excess of 300,000.

2. ADMINISTRATIVE PROCEDURE

The procedure established for the administration of this law differs radically from that under the United States employees' compensation law and is in many respects similar to the procedure under State compensation laws. Like all State compensation laws this law provides for a review of the decision of the administrative officer upon a claim on questions of law, whereas the decision of the commission upon cases arising under the law applicable to Federal employees is final and not subject to review. The procedure under the longshoremen's and harbor workers' compensation law, however, differs from State compensation laws in that it does not specifically provide for review of decisions of deputy commissioners by the commission, which is a superior administrative body charged with entire responsibility for proper administration of the law.

The procedure established by this law requires the commission to establish compensation districts, each district to be in charge of a deputy commissioner appointed by the commission, who is charged with the duty of making decisions upon claims arising in the district under his jurisdiction. Review of the decision of the deputy commissioner may be had in the Federal district court upon questions of law. The commission is required to promulgate rules and regulations establishing the procedure to be followed in the local administration of the law in the compensation districts, and to exercise such administrative supervision and control as may be necessary in order to effectively discharge its responsibility for the proper administration of the law.

3. SECURITY FOR PAYMENT OF COMPENSATION

This law requires employers subject to the law to secure the payment of compensation provided by the law, either by qualifying as a self-insurer under conditions established by the commission or by securing insurance with an insurance company authorized by the commission to write insurance under this law. The requirements for self-insurance as established by the commission require a minimum indemnity bond of \$10,000, or a deposit of acceptable securities in the amount of \$10,000.

During the year 26 insurance companies were granted authority to write insurance under the longshoremen's act, 2 companies previously so authorized discontinued writing such insurance, and at the end of the fiscal year there were 168 companies having authority to write such insurance.

During the year 44 employers were granted authority to act as self-insurers, 32 employers previously authorized surrendered such privilege because of taking insurance policies, discontinuing operations under the act, or for other reasons, and at the end of the fiscal year there were 382 employers privileged to act as self-insurers under the longshoremen's act.

4. PREMIUM RATES

Since the longshoremen's act took effect, July 1, 1927, the commission has taken the position that it did not have specific authority to make rates or to control the rates made by insurance companies. No authority is found in the law, and to exercise adequate control would require a large force of experienced people.

It was found that practically all the insurance companies writing any volume of casualty business were members of the National Council on Compensation Insurance and that council was recognized by

many State authorities having to do with workmen's compensation laws. This commission has received the cooperation of the national council and its assistance in many ways, and it is believed that the difficulties, relating mostly to minimum premiums, can be settled satisfactorily.

In States having workmen's compensation laws and in which classifications of risks have been established under the State laws, the making of rates for the additional longshoremen's risks is readily accomplished by the addition of a percentage of the rate for coverage under the State law, and the resulting rates are assumed to be uniformly applied. In States having no workmen's compensation laws, however, the rate situation lacks this basis of uniformity, and diversity of rates is more apt to arise. A case in Florida of such apparently unwarranted diversity of rates was called to the attention of the commission, one employer complaining that he had been charged a rate of \$9.34 per \$100 of pay roll, whereas another had been given a rate of \$7.50 for a substantially similar risk. Attention was called to the fact that while the commission had no authority to control rates directly, it nevertheless could prevent discriminatory rates by the exercise of its power to authorize insurance companies and to revoke such authorization. By investigation and correspondence with the insurance companies involved, the rates complained of by a correct classification were reduced to \$2.76 and \$2.206, respectively, there being apparently a difference in the experience of the two concerns justifying some variation in premium.

5. INJURIES REPORTED

Injuries reported under the law during the fiscal year ended June 30, 1930, numbered 39,850. This represents an increase of 1,981 cases or approximately 5 $\frac{1}{4}$ per cent over the number of injuries reported during the fiscal year 1929, and an increase of 7,862 cases or nearly 25 per cent over the number reported during the fiscal year 1928, the first year the act was in effect. The largest number of cases, 13,639, were reported in the second compensation district which includes the port of New York. Approximately one-third of all cases under this law are reported to the office of the second compensation district at New York City. The seventh compensation district through the office at New Orleans reported the next largest number of injuries, 4,294, and the first compensation district through the office at Boston reported 4,036 injuries. The office of the first compensation district at Boston reported the largest percentage increase in the number of injuries reported during 1929, with an increase of 26.5 per cent. This is closely followed by the district

offices at New Orleans and Savannah, with increase of 24.9 per cent and 21.6 per cent, respectively, in the seventh and sixth districts. The fifth district, with headquarters at Norfolk, and the thirteenth district with headquarters at San Francisco, each reported increases of approximately 6 per cent. The number of injuries reported decreased 15.9 per cent in the fourth district, the headquarters of which is Baltimore, and 15.6 per cent in the eighth district with headquarters at Galveston.

Included in the 39,850 injuries reported during the fiscal year, 1930, were 210 fatal cases as compared with 183 fatal cases during the fiscal year 1929 and 178 fatal cases during the fiscal year 1928. The number reported during 1930 is an increase of approximately 13 per cent over 1929, although the total number of all cases reported increased only 5 per cent during the same period.

The following tabulation gives a summary of the number of injuries reported, the number of cases reopened, disposed of, and incomplete at the end of the year:

	Nonfatal	Fatal	Total
Incomplete July 1, 1929.....	3,735	217	3,952
Reopened during the year.....	1,390	13	1,403
New cases reported.....	39,640	210	39,850
 Total for the year.....	44,765	440	45,205
Disposed of during the year.....	40,997	96	41,093
 Incomplete June 30, 1930.....	3,768	344	14,112

¹ Compensation being paid on 2,315 nonfatal and 227 fatal cases.

Table 20 shows the number of cases reported and disposed of in each compensation district during the fiscal year 1930, and a summary of the totals for the prior years. Of 40,997 nonfatal cases disposed of during 1930, there were 18,729 cases which caused no loss in time and 6,358 cases in which the duration of disability did not exceed seven days. Compensation was paid in 14,382 cases or 35 per cent of all nonfatal cases disposed of during the year. This is a slight increase over the percentage of compensated cases in 1929, which was approximately 32 per cent. Of 96 fatal cases closed during 1929, there were 24 cases in which the deputy commissioner determined that there was no person entitled to compensation on account of the death of the employee. In each of these cases \$1,000 was deposited in the Treasury of the United States to the credit of the trust fund created by section 44 of the act.

TABLE 20.—NUMBER OF INJURIES REPORTED AND DISPOSITION OF CASES, BY COMPENSATION DISTRICTS, JULY 1, 1929, TO JUNE 30, 1930

[Longshoremen's and harbor worker's compensation act]

District	Injuries reported			Disposition of cases, nonfatal			
	Total	Fatal	Nonfatal	No time lost	7 days and under	No jurisdiction, etc.	Compensation paid
1. Boston.....	4,036	12	4,024	2,847	217	31	962
2. New York.....	13,639	65	13,574	6,728	1,776	770	4,468
3. Philadelphia.....	1,942	16	1,926	766	353	31	958
4. Baltimore.....	1,924	14	1,910	835	229	82	888
5. Norfolk.....	1,497	6	1,491	685	263	38	552
6. Savannah.....	1,521	13	1,508	255	378	70	871
7. New Orleans.....	4,294	16	4,278	1,881	943	156	1,382
8. Galveston.....	2,335	4	2,331	960	536	16	967
9. Cleveland.....	968	8	960	450	225	17	366
10. Chicago.....	421	7	414	129	88	35	170
11. Louisville.....	85	11	74	27	11	18	34
12. St. Louis.....	22	1	21	1	2	16	3
13. San Francisco.....	3,450	18	3,432	1,569	632	156	1,221
14. Seattle.....	3,716	19	3,697	1,596	705	92	1,540
Total 1929-30.....	39,850	210	39,640	18,729	6,358	1,528	14,382
Total 1928-29.....	38,052	183	37,869	16,498	6,449	1,412	14,556
Total 1927-28.....	31,988	178	31,810	11,034	4,958	1,279	11,212

District	Disposition of cases, fatal				Incomplete cases, June 30, 1930			
	No jurisdiction, etc.	\$1,000 paid	Lump-sum settlement	Compensation paid	Compensation being paid		Pending	
					Fatal	Non-fatal	Fatal	Non-fatal
1. Boston.....	4	1			17	140	5	65
2. New York.....	16	10	7		58	1,042	36	594
3. Philadelphia.....	7	0			17	128	7	60
4. Baltimore.....	3	1			21	111	6	40
5. Norfolk.....	2	1			9	55	3	113
6. Savannah.....	8	2		1	11	60	7	128
7. New Orleans.....	4	1			25	139	13	206
8. Galveston.....	1	1			7	79	3	51
9. Cleveland.....	2	2	1		5	34	6	64
10. Chicago.....	0	1			8	36	3	24
11. Louisville.....	2	0	1		11	3	4	3
12. St. Louis.....	1	0			2	0	0	0
13. San Francisco.....	7	2	1		11	236	9	103
14. Seattle.....	3	2	1		25	252	15	125
Total 1929-30.....	60	24	11	1	227	2,315	117	1,453
Total 1928-29.....	80	24	6	3	121	2,054	96	1,681
Total 1927-28.....	39	6	1	0	55	1,504	77	1,823

6. HEARINGS

The law provides for hearings before a deputy commissioner upon his own initiation or the application of any interested party to a claim for compensation. Hearings held by deputy commissioners during fiscal year 1930 numbered 1,128, of which 895 involved compensation payments. The number of hearings in 1930 represents an increase of 42 per cent over the number held in the fiscal year 1929. The hearings are stenographically reported and the expense of reporting service is paid from the administrative appropriation of the commission. The cost of contract reporting

service in reporting hearings held during 1930 amounted to \$14,043. The following tabulation shows the number of hearings held in each compensation district during the fiscal year 1930.

Compensation district	Number held	Involving compensation payments	Involving medical care and bills	Involving other questions
1	43	43		
2	88	86		2
3	86	84		2
4	72	51		21
5	29	24	1	4
6	36	29		7
7	37	9	1	27
8	14	14		
9	90	90		
10	27	26		1
11	4	4		
12	1	1		
13	355	188	13	154
14	246	246		
Total	1,128	895	15	218

7. REVIEW OF CASES BY THE COURTS

On July 1, 1929, at the beginning of the fiscal year, there were 37 cases pending in United States district courts wherein the plaintiff asked a review by the court of a compensation order issued by a deputy commissioner. During the fiscal year ended June 30, 1930, there were 61 new cases filed and 48 cases disposed of, 23 of them being by formal opinions which have been published. On June 30, 1930, there remained pending and undecided in the district courts 50 cases.

During the fiscal year five cases taken on appeal to the United States circuit courts of appeals were decided, in each case by formal opinion which has been published. On June 30, 1930, there were two cases pending and undecided in circuit courts of appeals.

The authority for judicial review under section 21 (b) is confined to questions of law, the court having power to suspend or set aside a compensation order, in whole or in part, "if not in accordance with law," and also to stay the payment of compensation under specific statutory procedure where irreparable damage otherwise would result to the employer.

Some outstanding results of court action during the 2-year period July 1, 1928, to June 30, 1930, under the longshoremen's act may be mentioned:

CONSTITUTIONALITY

On October 22, 1928, the Supreme Court of the United States denied the application for the writ of certiorari to the Court of Appeals of New York in the case of *Joseph Chernik v. Clyde Steam-*

ship Co. (278 U. S. 637). The application having been based upon the alleged unconstitutionality of the longshoremen's act, its denial may be regarded as inferentially upholding the constitutionality of the act. In the first case decided under the longshoremen's act, *Obrecht-Lynch Corporation v. Clark*, Judge Coleman in an extended opinion rendered January 2, 1929, pronounced the act constitutional (30 Fed. (2d) 144). Although the question of constitutionality has been frequently raised in the pleadings in other cases, the decisions of the courts have thus far tacitly upheld the constitutionality of the act, filing no written opinion, except in the case of *Benson v. Crowell* arising in Alabama in which Judge Ervin while upholding the constitutionality of the act deemed it necessary to construe section 21 as providing for trial de novo in order to do so (33 Fed. (2d) 306).

In the case of *Nogueira v. New York, New Haven & Hartford Railroad Co.* (281 U. S. 128, 136) in affirming the judgment of the circuit court of appeals denying recovery under the Federal employers' liability act for an injury incurred while loading a car float on navigable waters of the United States because of the exclusive remedy provided by the longshoremen's act, the Supreme Court through Chief Justice Hughes on April 14, 1930, referred to "the clear and constitutional requirements" of the latter act. There seems to be little room for doubt as to the action of the Supreme Court whenever the constitutionality of the longshoremen's act may be before it for direct decision.

TRIAL DE NOVO

Although repeatedly sought, the courts have uniformly refused to grant a trial de novo, except in the case of *Benson v. Crowell*, above referred to, which is now pending on appeal to the circuit court of appeals in the fifth circuit on this point among others. The court of appeals of the fourth circuit, in an opinion by Judge Parker rendered June 10, 1930, in the case of *Wheeling Corrugating Co. v. McManigal et al.* (41 Fed. (2d) 593), adverted to the view stated by Judge Ervin in the *Benson* case and expressed disagreement with it, following with a clearly reasoned opinion reaching the contrary conclusion. The circuit court of appeals for the ninth circuit in an opinion filed May 19, 1930, in the case of *Northwestern Stevedoring Co. et al. v. William A. Marshall et al.* (41 Fed. (2d) 28), clearly held that there is no right to a trial de novo before the United States district court. The following is quoted from the opinion of the court:

Looking to the longshoremen's and harbor workers' compensation act as a whole, and section 21 in particular, it appears that the construction contended for by the appellee is correct, and that the act does not contemplate the hear-

ing of a case determined by a commissioner *de novo* in the district court, but merely a review of the proceedings before him to determine whether there was some competent evidence to support the finding of fact made and whether he acted within the jurisdiction conferred upon him by the act and in accordance with its provisions. As to questions of fact, the findings of the commissioner are to be final, if supported by some competent evidence. *Obrecht-Lynch Corporation v. Clark* (30 Fed. (2d) 144); *Joyce v. United States Commissioner* (33 Fed. (2d) 218); *W. J. McCahan Sugar Refining & Molasses Co. v. Norton* (34 Fed. (2d) 499); *Merchants & Miners' Transportation Co. v. Norton* (32 Fed. (2d) 513).

NECESSITY FOR FINDINGS OF FACT

The finality of findings of fact and the lack of authority in the courts to try *de novo* questions of fact are but different aspects of the same thing, from which follows the necessity for properly formulated findings of fact in every case sufficient to show the jurisdiction of the deputy commissioner and to support his compensation order, whether it be an award of compensation or a rejection of the claim. In the regulations promulgated by the commission in the form of instructions to deputy commissioners under date of September 28 and December 10, 1927, provision was made for such findings of fact, and in the case of *Howard v. Monahan* (33 Fed. (2d) 220), the court set aside the compensation order because of the failure of the deputy comissioner to comply with these regulations and remanded the case to the deputy commissioner with instructions to make and file findings of fact in accordance with law and to make a compensation order in accordance with such findings. This action was taken by the court notwithstanding the opinion, expressed after examination of the transcript, that the evidence before the deputy commissioner was ample to justify his rejection of the claim. The opinion of the court in this case is important as showing the recognition by the courts that regulations made by the commission under the longshoremen's act have the force and effect of law and are binding upon the deputy commissioners, the commission, and the courts, no less than upon all parties whose interests may be affected by the law.

STAY OF PAYMENTS

The action of the courts has not been uniform. In most cases, however, the stay has been denied and the spirit and purpose of the law in that regard has been given practical effect. One judge is reported to have announced the position (although no formal opinion to that effect appears to have been filed) that he would not grant such stay unless there should be shown something other than mere payment of money by an employer which he might not be able to recover in the event of reversal. And the same rule has apparently

been tacitly followed by some other judges. In some cases the stay has been granted upon grounds other than those provided for in section 21 (b), and apparently without compliance with the strict procedure prescribed in that section. In none of these cases, however, did the facts suggest that an appeal on this ground would be wise. If a stay should be granted in a clearly meritorious case, otherwise than in strict compliance with the law or on the sole ground that inability of the beneficiary to repay weekly payments of compensation would be "irreparable damage," an appeal no doubt will be taken.

DEPUTY COMMISSIONER ONLY NECESSARY PARTY DEFENDANT IN REVIEW
PROCEEDINGS UNDER SECTION 21 (B)

In *Wellgeng v. Marshall* (32 Fed. (2d) 922), the court held that the deputy commissioner is the only necessary party defendant to the statutory proceeding provided in section 21 (b) for the review of a compensation order if not in accordance with law. No court has however, denied the application of any interested party to intervene in such proceedings for the purpose of defending his own interests under the compensation order attacked, and in many cases such interested parties have been included as proper parties defendant in the bill. The provision that such statutory proceeding must be begun within 30 days after the filing of the compensation order has been held to be jurisdictional, and in *American Employers Insurance Co. et al. v. Monahan et al.*, equity, No. 3237, in the United States District Court for the District of Massachusetts final decree was entered on April 14, 1930, dismissing the bill because not filed within 30 days after the date of filing of the compensation order.

LONGSHOREMEN'S ACT TO BE LIBERALLY CONSTRUED

It is now very generally conceded that the provisions of the longshoremen's act should receive a liberal interpretation in favor of the injured employee, and a number of judges have incorporated this view expressly in opinions rendered by them in proceedings arising under section 21(b). *Zurich General Accident and Liability Insurance Co. et al. v. Marshall*, opinion by Judge Neterer, 1930 A. M. C., 1092; *Northwestern Stevedoring Co. et al. v. Marshall et al.*, opinion by Judge Kerrigan (41 Fed. (2d) 28); *Joyce v. Deputy Commissioner*, opinion by Judge Peters (33 Fed. (2d) 218).

NEW YORK DECISIONS NOT CONCLUSIVE AS TO LONGSHOREMEN'S ACT

The longshoremen's act having been in large measure patterned upon the New York State workmen's compensation law and having

many provisions in similar or substantially identical terms, decisions of the New York State courts have from time to time been cited to the Federal courts in cases involving correlative provisions of the longshoremen's act. While it has been held by at least one United States district court that the decisions of the New York State courts in such cases are controlling upon the Federal courts in construing the corresponding provisions of the longshoremen's act (the Wheeler Taylor case, April, 1929, 32 Fed. (2d) 300), the opinion more recently expressed by several Federal courts is that while such decisions are entitled to attention and respect they are not binding upon the Federal courts. *Steamship Terminal Operating Corporation v. Locke*, April 24, 1930, not yet reported; *Baltimore and Philadelphia Steamboat Co. et al. v. Norton et al.*, April 28, 1930 (40 Fed. (2d) 530).

PERMANENT PARTIAL DISABILITY, PARTIAL LOSS, OR LOSS OF USE OF A
MEMBER

The decision rendered April 12, 1929, in *Texas Employers' Insurance Association v. Sheppeard* (32 Fed. (2d) 300) (the Wheeler Taylor case), had the effect of giving the employee in that case less compensation for the combined temporary total and permanent partial disability than he would have been entitled to receive for the temporary total disability alone, and thus left the remaining permanent partial disability wholly uncompensated. This decision was not appealed from and was followed thereafter by deputy commissioners in awarding compensation in similar cases. In the case of *Baltimore and Philadelphia Steamboat Co. et al. v. Norton et al.* (the Gube case), a compensation order issued prior to the decision in the Wheeler Taylor case was attacked on the ground that the principle stated in that case was not followed. In that compensation order the deputy commissioner had awarded to the injured man compensation based upon both the temporary total disability and the permanent partial disability, in accordance with the rule stated in the commission's opinion No. 34 promulgated January 3, 1929. In an opinion filed April 28, 1930 (40 Fed. (2d) 530), the court discussed the opinion in the Wheeler Taylor case, disagreed with the conclusions reached therein, and in a carefully reasoned opinion sustained the award as made. In a later opinion filed June 18, 1930, upon a motion for reargument, the court adhered to its previous opinion in the Gube case. As an appeal has been noted by the circuit court of appeals upon this important question may be expected.

PREEXISTING LATENT DISABILITY

The principle that previous disability, or a tendency to disability existing at the time of injury, does not diminish an employee's right to compensation for the disability resulting from and following such injury, has been clearly recognized in the case of *Grays' Harbor Stevedoring Co. et al. v. Marshall et al.* (the Forsman case) (36 Fed. (2d) 814), and in the case of *Northwestern Stevedoring Co. et al. v. Marshall et al.* (the Matheson case) (41 Fed. (2d) 28). In the latter case the decision of the district court sustaining the compensation order was taken to the Circuit Court of Appeals for the Ninth Circuit and there affirmed (May 19, 1930). A similar view was expressed by the court in *Jarka Corporation of Philadelphia v. Norton* (No. 5577, E. D. of Pa.) in an opinion filed January 23, 1930, not reported.

SUBMISSION TO OPERATION AS CONDITION TO RECEIVING COMPENSATION

It is frequently urged that an injured workman who refuses to submit to a surgical operation recommended by competent medical experts for the relief of his disability is not entitled to compensation on account of such disability during such refusal. No court has yet sustained this contention or denied an injured workman compensation because of his refusal to submit to a surgical operation, and in *Baltimore and Carolina Steamship Co. et al. v. Norton et al.* (the George Anderson case) (40 Fed. (2d) 271), the United States District Court for the Eastern District of Pennsylvania, in sustaining a compensation order which awarded compensation notwithstanding refusal to submit to an operation, stated that there is nothing in the act which authorizes the withholding of compensation until a claimant has submitted to an operation designed to remove his disability and expressed the opinion that the court has no right by withholding from such a man his sole means of obtaining the necessities of life to compel him to submit himself to a major operation even though the physician who recommends it is enthusiastic about the result.

No court decision has been rendered, nor ruling made by the commission, concerning minor operations.

PARTIAL DEPENDENCY

In the case of *Pocahontas Fuel Co. (Inc.) et al. v. Monahan et al.* (the King case) the Circuit Court of Appeals for the First Circuit in an opinion filed May 17, 1930 (41 Fed. (2d) 48), recognized the general rule and established under the longshoremen's act the principle that partial dependency of a parent is sufficient to support an award of compensation to such parent under section 9 (d).

COMMUTATION OF COMPENSATION TO ALIENS

In Steamship Terminal Operating Corporation *v.* Locke (the Tony Bannano case) not yet reported, the United States District Court for the Eastern District of New York held that the provision in section 9 (g) for the commutation of compensation to an alien nonresident or about to become a nonresident of the United States or Canada does not relate to an injured employee himself but only to the beneficiaries under the act in case of his death.

AVERAGE WEEKLY WAGE

The act provides that the "average weekly wage" of the injured man at the time of injury shall be the basis of the compensation to be awarded, and in section 10 prescribes the rule for determining this average weekly wage. At substantially all important ports except those on the Pacific coast there have existed for some time wage agreements between the stevedoring employers and the longshoremen's unions. By agreement between the parties, and in the absence of evidence submitted to the contrary, the average weekly wage provided in these agreements has afforded a convenient and equitable basis which has been used in compensation orders. At the Pacific coast ports there have been no such wage agreements, with the result that in the absence of a stipulation between the parties recognized by the deputy commissioner as fair and equitable, it has been necessary to determine the average weekly wage for purposes of awarding compensation under the rule provided in section 10. In the case of Gunther *v.* Pillsbury et al., which arose out of the death of Richard W. Gunther on August 16, 1927, shortly after the longshoremen's act went into effect, the method of determining the weekly wage employed by the deputy commissioner was attacked. The award of the deputy commissioner was upheld in the district court and the claimant, widow of the deceased, appealed. In a decision by the circuit court of appeals for the ninth circuit, filed May 19, 1930 (41 Fed. (2d) 151), the court reversed the action of the lower court and remanded the case for further proceedings in accordance with the interpretation of section 10 announced in that opinion. Under this interpretation the method prescribed in section 10 (b) and (d) is to be used whenever the injured employee is found not to have worked as a longshoreman during substantially the whole of the year immediately preceding the injury, if any other longshoreman at the same or a neighboring port is found to have worked substantially the whole of such immediately preceding year. As there are at all large ports some longshoremen who work substantially the whole of every year and earn in excess of \$1,950 a year, the practical

effect of this decision will probably be to give compensation generally at the maximum rate of \$25 a week fixed in the act to injured longshoremen at all large ports at which there is no wage agreement such as above referred to which might result in the payment of compensation at a lower rate. See also Baltimore and Carolina Steamship Co. et al. v. Norton et al. (40 Fed. (2d) 271).

8. WORK OF THE SAFETY DIVISION

During the year progress has been made in the work assigned to the commission by section 41 of the longshoremen's act, in the making of studies and investigations with respect to safety provisions and the causes of injuries and recommendations have been made by employers as to the means of preventing such injuries. The field for safety work in connection with the operations of maritime employees is large and important. The commission with the funds available has not been able to do the work in this field as rapidly as would be desirable. There is but one safety engineer employed by the commission and he is required to divide his time among the principal ports of the country on the Atlantic, Pacific, and Gulf coasts.

REVIEW OF CONDITIONS

But little organized effort had been made by employers having employees in maritime employment upon the navigable waters of the United States to control or prevent accidents. The enactment of the longshoremen's and harbor workers' compensation act brought the subject more clearly to their attention. The actual experience had been such that when this compensation law was enacted rates for insurance were established for stevedoring work at from 12 to 20 per cent of the pay roll thus placing this work in the extra hazardous class. Insurance rates for ship repair work were also high. The attitude of the greater number of employers of longshoremen was that the hazards were an inherent part of the industry and that only small results could be expected from accident-prevention work. A minority of employers, however, believed that the reduction in accidents that had been obtained in other industries was possible in maritime work if the same or similar methods were used.

After the appointment of a safety engineer it was found on investigation that very few ports in the country were doing safety work through the employment of engineers by organizations of employers. In some ports a few employers had their own safety organizations. The cost of insuring the payment of compensation to longshoremen and others was arousing interest in the possibilities of accident prevention as a means of reducing insurance cost. Some stevedoring concerns as well as steamship lines were seeking a reduction in cost by applying to become self-insurers under the law.

SURVEY BY SAFETY ENGINEER

A survey of the stevedoring industry in the different ports developed the main points wherein the commission, through investigation and recommendation, could be of service to the employers in accident prevention work. These points related to accurate information of the causes of injury and of modern accident prevention methods, a decided difference of opinion as to what constituted the safest methods of working, and the fact that there were but few organizations through which cooperative prevention work could be carried on. Due to the character of the work of longshoremen, the two last-named points tended to retard the progress of safety work.

The work of repairing and servicing vessels upon the navigable waters is maritime employment and the employees engaged therein come within the benefits of the longshoremen's act. Such operations, however, are usually carried on by corporations having large operations on shore and many of them having accident prevention or safety departments. For this reason the work of the commission's safety engineer has been confined almost exclusively to the men engaged in loading and unloading vessels.

WORK DONE BY THE ENGINEER

The commission adopted a program which seemed best fitted to bring the facts as to accident-prevention work to the attention of the industry and to effect cooperation as fully as possible with whatever work was considered desirable. A classification code for causes of accidents was developed using the standard practice as a base but changing the details to fit stevedoring operations and to be readily understood by the workmen. Through the statistical division of the commission all lost-time accidents reported are classified as to cause and the statistical tables are published in the commission's annual reports. In addition this information is compiled for each principal port, giving both cause of accident and the time lost through each cause. This information is in sufficient detail to show where preventive measures are most needed. The publication of this information will furnish a basis to judge the progress of the work from year to year.

Possibilities of scientific accident-prevention work and the need for the service of trained safety engineers giving their entire time to this work as shown by results in both the marine and other industries have been brought to the attention of employers engaged in loading and unloading vessels.

The success of an accident-prevention program depends in large measure upon the training of the workmen in the best working

methods and safe working habits. This training work can be given only by the foremen. The conditions surrounding the employment of longshoremen, where men are engaged to load or discharge a single vessel and often work for several employers during a month, make the training of workmen very difficult if attempted by a common organization. To overcome this, cooperative work by the employers of a port is needed. To promote such cooperation the commission has recommended the establishment of port safety committees to provide the necessary organization to carry out the work and for the development and adoption of port safety rules as a basis for uniform working practices. The inclusion of representatives of shipowners, stevedores, and longshoremen in these committees has been recommended to insure the fullest cooperation in carrying out the program decided upon. Twenty-three port safety committees have been organized and nine port or regional safety codes have been completed and adopted since this work was undertaken. The commission's safety engineer has furnished information and served in a consulting capacity to the committees engaged in this work.

The interest aroused by port safety codes created a demand from many employers in the industry for a uniform safety code that would be national in scope. To assist in this movement the commission has published a comparison of safety codes for stevedoring operations as such codes have been adopted in the various ports. This publication makes it possible to conveniently compare the form and substance of the rules already adopted in the various ports and the publication is a part of the cooperative work the commission is doing to advance the cause of uniform rules for safety.

Another work assigned to the safety engineer has been the presentation of the commission's program of aiding the industry in safety work by his addressing meetings of steamship owners, stevedores, and longshoremen, and assisting in planning a local safety program for committees or associations. He visits all principal ports at least once a year and as close contact as possible has been maintained with the industry for the purpose of understanding its problems and its attitude toward the safety movement.

ATTITUDE OF EMPLOYERS

Although many employers at first had little confidence that accident prevention work in the loading and unloading of vessels was practical the majority of employers at the present time are taking a real interest in accident prevention. The readiness with which the port safety committees have been formed, the work which the committees have done in formulating safety codes, and the inclusion of

safety topics in the program of marine conventions all evidence the increased interest in support of the movement. Practically all trade associations favor the work.

PROPOSED LEGISLATION

The commission has discussed elsewhere in this report the "longshoremen ship safety bill" introduced in Congress in June, 1929, and the reasons why the commission was not in favor of the passage of the bill. The bill proposed to establish a statutory safety code for equipment of vessels used in stevedoring operations and place the enforcement of its provisions in the commission. A substitute bill, it is understood, was prepared by marine safety committees on the Pacific coast. This substitute would provide for an administrative safety code to be developed jointly by the industry and the commission and that the administration of such code when prescribed by the commission should be vested in it. The commission does not advocate legislation upon the subject and does not believe the time has come for any national safety code other than that voluntarily adopted by the industry.

RESULTS OF WORK

An accurate estimate of the results of the safety work done by the commission is impossible. No information exists as to the number of hours worked by longshoremen in the various districts and ports. It is difficult even to make a fair estimate of the number of men who earn all or a portion of their living as longshoremen. The available tonnage figures are of little assistance as they do not show whether cargo was handled once or several times, or whether moved by man power or machinery, all of which factors have a direct bearing upon the exposure of the men to the hazards of the work. There can be made only a rough comparison based upon the total number of accidents occurring, the trend of rates for compensation insurance, and the reports of companies and associations that have kept accurate records. A comparison of the total number of accidents coming within the longshoremen's act reported for the fiscal years 1929 and 1930 shows that for the latter year there was an increase of 2.7 per cent in the number of reports showing no loss of time by the injured, and a decrease of 1.5 per cent in the accidents causing loss of time. This slight reduction was accompanied by considerable variation of the experience in the different compensation districts, some showing increases and others substantial decreases. Texas ports lead with a decrease of 16 per cent in lost-time accidents.

Accident prevention work has resulted in the case of some employers in reducing the lost-time accidents from 25 to 50 per cent

based upon actual man-hours worked. An improvement in conditions was shown by a reduction in the insurance rate in one State from \$14.44 to \$11.11 per \$100 of pay roll, a reduction of 20 per cent. This reduction is believed to be the direct result of accident-prevention work.

In various ports employers have found that through safety work substantial savings have been possible in the cost of compensation paid and the expense for medical benefits under the longshoremen's act. Their number is not large enough to greatly influence the total experience of the ports as a whole where organized safety work is not being done. Such employers are mostly self-insurers so that their good experience does not affect the rate for insurance.

It appears that where active safety prevention work has been carried on either by organizations of employers or individual employers it has resulted in a decrease in injuries and therefore a decrease in cost of insurance or of compensation paid. Where such work has not been attempted the tendency is for accidents to increase in number. The results obtained indicate that at least half the accidents can be prevented without loss of efficiency and without unreasonable expenditure.

RECOMMENDATIONS

The commission is required from time to time to make to employers and carriers recommendations as to the best means of preventing injuries. It submits as recommendations that the employers at the several ports give serious consideration to the employment of trained safety engineers to put into effect well considered safety programs; that all employers adopt the safe practices set out in their particular safety rules in order that longshoremen may work according to one standard on all ships; that employers support the movement for a voluntary national stevedoring safety code to cover all common operations; and that the possibilities of accident prevention for savings in operating costs and for improvement in labor relations be given full consideration.

It is not possible for the commission to provide the services of safety engineers in all the 13 compensation districts, nor is it believed desirable that the views of the commission as to the best methods of carrying on the work in the several districts should be forced upon the industry. The commission believes that good progress is being made by the voluntary action of a large majority of employers, and that the advantage is apparent, of eliminating the waste of life and money through accidents that are preventable, and that the work will progress in line with the general safety movement.

in industry throughout the country. The commission will aid in every way possible and is ready to serve as a neutral agency in the coordination of maritime safety work throughout the country, realizing as it does the decided advantage of uniform practices and procedures in the stevedoring industry.

9. AMENDMENTS TO THE LAW

During the past year there have been no amendments to the longshoremen's act. No recommendations of amendments were submitted by the commission during that time. In its annual report for 1929 the commission mentioned and renewed the recommendations made in its 1928 report, at the same time taking the position that it would not advocate changes in the law calculated to increase the benefits and widen the list of beneficiaries, but that it would await the introduction of such measures at the suggestion of the employers and employees interested, and would then furnish to the committees of Congress all the information in its possession upon such subjects.

At the request of certain ship owners a bill (H. R. 10292, 71st Cong.) was introduced to amend section 4 (a), section 5, and section 33 (a) of the act. The purpose of these proposed amendments apparently was to require a ship which arranges for the handling of its cargo by a stevedoring contractor to secure the payment of compensation as an employer of the longshoremen employed in handling such cargo, and to give to it accordingly the status of an employer with the consequent immunity from third-party suits which exists in respect to a ship which handles its own cargo by the direct employment of longshoremen.

In reporting upon this measure at the request of the committee the commission pointed out the effect which the bill would probably have upon the rights and interests of longshoremen on the one hand and of ship owners on the other, and recommended that before action should be taken thereon all interested parties be afforded opportunity to be heard. In view of the effect which the bill, if enacted, would have upon the existing benefits and obligations of such interested parties, the commission refrained from making any other recommendation upon the measure. No hearings upon the bill have yet been had by the committee.

In connection with the subject of amendments needed to perfect the longshoremen's act the commission made recommendations in its reports for the fiscal years 1928 and 1929. Further experience has shown the need for certain amendments which may be stated as follows:

The decisions of the courts with reference to permanent partial disability provided for in section 8 (c) makes it advisable that sub-

section (22) thereof be amended to make more definite the allowance in this class of injuries. This can be done if that subsection (22) be changed to read substantially as follows:

(22) In any case in which there shall be a loss or loss of use of more than one member or parts of more than one member set forth in paragraphs (1) to (19) of this subdivision of section 8, but not amounting to permanent total disability, the award of compensation shall be for the loss or loss of use of each such member or part thereof, which awards shall run consecutively.

Compensation under the schedule, in paragraphs (1) to (19) of this subdivision of section 8, for permanent partial disability shall be in addition to compensation allowed for temporary total disability under section 8 (b), and the awards for temporary total and permanent partial disability shall run consecutively.

As pointed out in prior reports the authority of a deputy commissioner to reopen the settlement of a case, made by him by the issuing of a compensation order, is insufficient in the opinion of the commission. Section 22 of the longshoremen's act provides for a reconsideration or review by him of his action with less authority to do justice to the parties than is contained in any provision for a similar purpose in any State compensation law. A review now authorized "during the term of an award" is not sufficient in the interest of justice and the commission believes that section 22 should be amended to read substantially as follows:

SEC. 22. Upon his own initiative, or upon the application of any party in interest, on the ground of a change in conditions, the deputy commissioner may at any time review a compensation order in accordance with the procedure prescribed in respect of claims in section 19, and in accordance with such section issue a new compensation order which may terminate, continue, increase, or decrease such compensation, but such new order shall not affect any compensation paid or due under authority of the prior order. The power and jurisdiction of the deputy commissioner over each case shall be continuing, with authority, and after a hearing if applied for, to make such modification or change by a new compensation order whenever he may determine the interests of justice requires a modification of an order formerly issued, except that when an application has been made pursuant to section 21 (b) to the proper court for review of a compensation order, no modification of such order shall be made by the deputy commissioner while the case is pending in court except in compliance with a decree or other order of the court requiring such action.

Another cause for complaint regarding the working of the law relates to the provision in section 33 (b) that acceptance of compensation shall operate as an assignment to the employer of all the right of the person entitled to compensation to recover damages against a third person. It is contended that this automatic assignment by operation of the law is not understood by injured employees, with the result that they frequently accept a small amount of compensation without understanding their rights and the effect of such acceptance. It is believed that the assignment of this right of action

against a third party might properly be contingent upon the acceptance of compensation under an award in a compensation order issued by the deputy commissioner, thus giving opportunity to the injured person, or to the beneficiaries in case of death, to consider the acceptance of compensation from the employer with the resulting loss of right to bring a suit for damages against the third party, or a refusal of compensation and then pursue the remedy against the third party alleged to be liable for the injury.

LONGSHOREMEN'S SHIP SAFETY BILL

There was introduced a bill (S. 1574, 71st Cong., 1st sess.) "to secure safe working conditions on board vessels for those employed in loading and unloading cargo, and for other purposes," which was proposed to be referred to as the "longshoremen's ship safety act." This bill, of which the commission had no knowledge until after it was introduced and printed, proposed to place upon the commission duties in connection with the inspection of vessels with respect to compliance with requirements in the bill relative to the construction and equipment of vessels for the purpose of safeguarding those loading or unloading cargo, whether members of the crew or others.

The duties so sought to be imposed upon the commission were foreign to its present work in administering compensation laws, and were in a field already committed and properly belonging to other departments of the Government. The commission therefore in reporting upon the bill at the request of the committee recommended against the passage of the measure so far as it proposed to place upon the commission any duties with reference to the inspection of vessels or of their equipment or apparatus.

The commission has not advocated the passage of any legislation by Congress when the purpose was to place upon it new duties and responsibilities with the resulting necessity for extra appropriations from the Treasury to meet the cost of administration.

In addition to this reason, the commission does not advocate any such legislation, for it feels that it should remain neutral with reference to proposals for legislation put forward by one group of the shipping or other industries. In the case of the proposed uniform safety code for the handling of cargo there is objection, not only from those who prefer that authority be given by law to this commission to establish from time to time a code by regulation rather than to have an inflexible statutory code, but as well from a large number of those engaged in the shipping industry to having any code established at this time, except such as may be voluntarily

adopted by the vessel owners, the stevedoring interests, and the longshoremen's organizations at the various ports.

For the present at least this commission considers it a duty to maintain a neutral position, offering such cooperation as it may be able to give to promote an agreement between the several ports of the country. It has published and distributed a compilation of the safety rules of the shipping industry in the several ports for the information of those concerned and as a step in the work of coordination.

Legislation upon the subject will come when the public demand therefor has grown to the point of convincing Congress of the need and of the best form for legislation. The interest of the commission in the subject of safety continues and it will make studies and investigations and from time to time make to Congress, employers, and carriers such recommendations as it may deem proper as to the best means of preventing injuries the payment of compensation for which is provided in the longshoremen's act.

INTERSTATE FLYERS

There has been introduced in Congress a bill to make the longshoremen's act applicable to interstate flyers. At the request of the House Committee on the Judiciary the commission submitted a report on the bill (H. R. 141, 71st Cong., 1st sess.), but stated on information from the Bureau of the Budget that the expenditures contemplated would not at this time be in accord with the financial program of the President. If the bill becomes a law, it is assumed that regulations regarding insurance and self-insurance and the duties of deputy commissioners thereunder will be required to be drafted before the law can be operative.

10. EXPENSE OF ADMINISTRATION

The appropriation for administrative expenses of the commission covers the cost of administration of three laws and, therefore, the cost of administration for this law can not be determined with exactness. A number of employees in the office of the commission have duties connected with the administration of each law and the proportion of the salaries paid to these employees which is chargeable to the longshoremen's and harbor workers' compensation act can only be approximated. The following statement of administrative expense for fiscal year 1930 includes all items of expense attributable directly to the administration of this law:

Salaries, Washington, D. C.	\$50,780.00
Salaries, field service	163,698.13

Stationery and supplies	\$2,099.21
Telegraph, telephone, and postage	3,634.03
Medical examinations	16,469.47
Travel expenses	19,512.70
Contract reporting service	14,043.32
Rents	15,274.41
Repairs to equipment	135.97
Special and miscellaneous current expenses	386.50
Furniture and equipment	2,114.37
Printing and binding	2,562.55
 Total	 290,710.66

11. TRUST FUND ACCOUNT

The fund created under provisions of section 44 of the act is available for the maintenance of employees permanently disabled as a result of injuries sustained in employments covered by the act, while receiving vocational training under the direction of the commission, for the furnishing of prosthetic appliances and for the payment of compensation in cases in which permanent total disability results after an injury which in itself would only cause permanent partial disability.

During the fiscal year 1930 the sum of \$29,000 was deposited to the credit of this fund, while during the same period expenditures amounted to \$1,915. During this year the sum of \$49,946.80 deposited to the credit of this fund was invested in Liberty loan bonds by the Treasurer of the United States on the advice of the commission that this amount was not needed for current requirements. The following statement indicates the condition of this fund as of June 30, 1930.

RECEIPTS

Balance, July 1, 1929	\$25,559.71
Receipts during fiscal year 1930, payments of \$1,000 each	29,000.00
Interest on fund invested	848.91
 Total	 55,408.62

DISBURSEMENTS

Maintenance payments, sec. 8 (g)	717.50
Prosthetic appliances, sec. 39 (c)	1,198.00
Investment, \$49,600 Liberty loan bonds, purchased at	49,946.80
 Total	 51,862.30
Balance, June 30, 1930	3,546.32

12. OCCUPATIONAL DISTRIBUTION OF INJURIES CAUSING LOSS OF TIME

The number of nonfatal cases involving loss of time in which final payment of compensation had been made, and the number of fatal cases granted compensation during the fiscal year 1930, the duration of disability and the amount of compensation paid in nonfatal cases, and the weekly rate of compensation and the total estimated cost of fatal cases, classified according to the occupation of the injured employee, are given in Table 21. Of 19,610 cases tabulated in this report, 5,773 caused a disability of seven days or less, 12,649 caused sufficient temporary total disability to entitle the injured employee to compensation, 1,056 caused permanent partial disability, and 132 were fatal cases.

The duration of disability in the 12,649 compensated temporary total disability cases amounts to 579,980 days for which \$1,366,107 was paid in compensation. This is an average duration of 45.9 days and an average of \$108.01 in compensation paid for injuries of this type. Among longshoremen 10,016 injuries had an average duration of 46.2 days and an average payment of compensation of \$107.33. Among repair men 2,077 injuries had an average duration of 44.1 days and an average payment of compensation of \$114.63 for each injury causing temporary total disability.

The duration of disability in 1,056 cases of permanent partial disability closed during the year amounts to 301,681 days for which \$836,461 in compensation was paid. This is an average duration of 286 days and an average compensation payment of \$792.10 per injury. Among longshoremen 777 injuries of this type had an average duration of 289 days and an average compensation payment of \$783.78. Among repair men 230 injuries causing permanent partial disability had an average duration of 264 days and an average compensation payment of \$817.77 per injury.

Of the 19,478 nonfatal injuries closed during the year, 14,281 were among longshoremen, exclusive of foremen and supervisors. Apprentices, helpers, and handymen on repairing jobs account for 1,016 nonfatal injuries; carpenters, shipfitters, and shipwrights account for 515, boilermakers for 465, machinists for 391, and laborers not on longshoring jobs for 618 nonfatal injuries. Compensation paid in these cases amounted to \$2,202,568.

Of the 132 fatal cases within the jurisdiction of the law there were 109 cases in which compensation was awarded to dependents of the injured employee. The awards in these cases total \$1,421.54 weekly, and it is estimated that the compensation which may ultimately be paid in these fatal cases will amount to \$721,396. Payments of \$1,000 each were made in 23 fatal cases in which it was determined that no person was entitled to compensation. Long-

shoremen and their foremen and supervisors account for 80 fatal cases, in 63 of which there were dependents, entitled to compensation. Repair men account for 41 fatal cases, in 37 of which there were dependents entitled to compensation. Concerning ourselves only with cases included in this tabulation, the longshoremen had 5.5 fatal cases for each 10,000 injuries, the repair men had 9.8 fatal cases, and the miscellaneous group had 13.6 fatal cases for each 10,000 injuries.

At the close of the fiscal year 1930, there were 306 fatal cases carried on the dockets in the district offices in which compensation was being paid or which were awaiting action. Compensation paid in these cases to June 30, 1930, amounted to \$308,698 and the estimated amount to be paid is \$1,642,373, making a total probable cost of \$1,951,071. There were also pending on that date 3,113 nonfatal cases in which compensation had been paid in the amount of \$1,410,486, and in which the compensation to be paid is estimated to be \$1,600,960, making a total probable cost of \$3,011,446. The total compensation paid and to be paid in these 3,419 cases, it is estimated, will amount to \$4,962,517. The total amount of compensation paid and estimated to be paid under the longshoremen's and harbor workers' act since it became effective July 1, 1927, is estimated to be \$9,753,184.

TABLE 21.—NUMBER OF INJURIES, BY EXTENT OF DISABILITY, FOR EACH IMPORTANT OCCUPATION, FISCAL YEAR 1929
 [Longshoremen's and Harbor Workers' Act]

Occupation	All cases, number	Nonfatal cases, closed									Fatal cases							
		Total number cases	Total amount compensation	Temporary total disabilities			Permanent partial disabilities—Compensated cases			Total number cases	Number with dependent	Amount weekly compensation	Total estimated costs					
				Total number cases	Compensated cases		Number	Days' duration	Amount compensation									
					Number	Days' duration												
Longshoremen:																		
Longshoremen	14,359	14,281	\$1,657,885	13,518	9,922	458,346	\$1,061,804	763	220,728	\$596,081	78	62	\$800.98	\$415,146				
Foremen and supervisors	185	183	25,075	169	94	4,381	12,159	14	4,133	12,916	2	1	16.88	8,700				
Total	14,544	14,464	1,682,960	13,687	10,016	462,727	1,073,963	777	224,861	608,997	80	63	817.86	423,846				
Repair men:																		
Apprentices and helpers (trades)	597	592	25,167	580	292	10,360	18,289	12	2,482	6,878	5	4	41.56	22,233				
Helpers and handy men, general repair work	432	424	21,273	409	203	7,543	14,701	15	2,593	6,572	8	8	91.69	48,559				
Blacksmiths	4	4	75	3					1	33								
Boilermakers	467	465	20,024	454	164	5,620	15,276	11	5,472	14,748	2	2	21.51	11,468				
Calkers and chippers, iron (boiler scaler)	138	138	16,797	129	65	3,373	10,355	9	1,818	6,442								
Calkers, wood	23	23	1,417	22	14	424	1,212	1	58	207								
Carpenters, shipfitters, shipwrights	520	515	90,988	470	297	16,806	52,460	45	11,448	38,528	5	5	81.52	37,500				
Divers	4	4	352	3	1	26	67	1	80	285								
Electricians	34	34	4,606	33	15	1,123	3,646	1	273	960								
Drillers	48	47	4,613	44	24	1,251	3,446	3	480	1,167	1	1	8.95	7,500				
Foremen and supervisors	51	48	6,486	45	28	1,099	3,303	3	892	3,183	3	3	50.64	22,500				
Iron and steel workers (n. o. c.)	184	184	22,122	169	89	4,232	11,681	15	3,237	10,441								
Machinists	394	391	46,713	362	207	8,175	23,229	29	7,158	23,484	3	3	52.10	22,500				
Mechanics (n. o. c.)	19	19	795	18	10	310	720	1	28	75								
Paint scalers, machine	62	62	10,408	57	35	1,367	3,482	5	1,174	6,926								
Paint scalers, hand	26	26	1,373	25	17	612	1,285	1	52	88								
Painters, enamelters	138	136	23,346	129	86	4,218	10,231	7	5,699	13,115	2			2,400				
Plumbers and steamfitters (pipefitter)	135	134	13,604	123	68	3,234	8,691	11	1,575	4,913	1	1	12.12	7,500				
Riggers	179	177	20,915	163	101	4,180	10,419	14	3,607	10,496	2	2	25.05	15,000				
Rivet heaters (passers) and rivet holders	92	92	10,811	88	45	1,600	3,354	4	2,449	7,457								
Riveters (bolters and bolters-up, reamers)	194	194	25,203	178	87	5,055	14,068	16	3,603	11,135								
Sheet metal workers	18	18	1,339	17	11	373	967	1	104	372								
Tinsmiths and coppersmiths	8	8	129	8	3	72	129											

TABLE 21.—NUMBER OF INJURIES, BY EXTENT OF DISABILITY, FOR EACH IMPORTANT OCCUPATION, FISCAL YEAR 1929—Continued

Occupation	All cases, number	Nonfatal cases, closed									Fatal cases							
		Total number cases	Total amount compensation	Temporary total disabilities			Permanent partial disabilities—Compensated cases			Total number cases	Number with dependent	Amount weekly compensation	Total estimated costs					
				Total number cases	Compensated cases		Number	Days' duration	Amount compensation									
					Number	Days' duration												
Welders and burners	169	166	\$21,364	155	85	3,865	\$10,956	11	3,128	\$10,418	3	2	\$49.38	\$16,200				
Repairmen (n. o. c.)	236	230	26,232	217	130	6,738	16,111	13	3,291	10,121	6	6	91.09	38,728				
Total	4,172	4,131	426,164	3,901	2,077	91,656	238,078	230	60,734	188,086	41	37	525.61	252,088				
Supplymen (includes chauffeurs, deliverymen, teamsters, etc., delivering supplies on board vessels)	14	14	1,691	14	9	662	1,691											
Inspectors:																		
Clerks, weighers, checkers, etc.	60	60	5,026	59	32	1,475	4,176	1	297	850								
Inspectors	10	10	1,073	9	6	148	353	1	328	720								
Total	70	70	6,099	68	38	1,623	4,529	2	625	1,570								
Miscellaneous:																		
Coopers	12	12	4,130	10	4	639	2,185	2	681	1,945								
Engineers (winch operators)	68	66	13,175	60	36	2,052	5,053	6	2,555	8,122	2	2	7.48	4,845				
Firemen	12	12	1,284	10	3	59	76	2	490	1,208								
Laborers (not longshoremen)	623	618	55,935	587	409	17,771	33,895	31	9,889	22,040	5	5	54.03	28,834				
Pile drivers	1										1			1,200				
Salesmen and sales agents	9	9	520	9	5	193	520											
Watchmen	47	44	4,168	41	32	1,344	2,637	3	792	1,531	3	2	16.56	10,583				
Miscellaneous	38	38	6,442	35	20	1,254	3,480	2	1,054	2,962								
Total	810	799	85,654	752	509	23,312	47,846	47	15,461	37,808	11	9	78.07	45,462				
Grand total	19,610	19,478	2,202,568	18,422	12,649	579,980	1,366,107	1,056	301,681	836,461	132	109	1,421.54	721,396				

13. CAUSES OF INJURIES

In classifying the injuries by general causes, separate tables for the first time have been prepared for longshoremen and for repairmen and miscellaneous groups. The principal value of this type of classification is in showing where accident prevention work needs to be applied. The character of the longshoremen's work is sufficiently different from the other employments, and the volume of their accidents is so large that it is desirable to publish this information separately.

In Table 23 accidents to ship repairmen and miscellaneous groups are classified in a similar manner. Information on the total man hours worked by these groups is lacking, so that it is not possible to compute frequency and severity rates which would allow of comparison with other industries. The only comparisons possible are with similar figures of these same groups for former years. In doing this, it is necessary to take into account the varying volume of business from year to year, the fact that settlement of cases under the longshoremen's act has not yet reached its maximum, and that with each year more complete reporting of injuries is being attained. With this in mind, we find that for longshoremen for the year ending June 30, 1929, there were 11,186 nonfatal compensated cases, with a loss of time of 561,415 days, in addition to which there were 88 fatalities. For the present year the number of compensated cases was reduced to 10,793 nonfatal—a reduction of 3.5 per cent—while the seriousness as shown by the days lost was 687,588 days, or an increase of 22 per cent in time lost.

For the repairmen and miscellaneous groups, both the number of these injuries and the days lost increased from 4,104 to 5,014 non-fatal, compensable accidents, with lost time rising from 113,976 days to 202,481 days. The fatalities increased from 33 to 52 during the last year.

The principal hazards of the two employment groups are clearly shown by Tables 22 and 23. Comparing the sources of longshoremen's injuries, 27.6 per cent came from being struck by falling objects, 25.7 per cent from being injured through handling materials by hand, 20.5 per cent were struck by moving objects, and 13.3 per cent were injured through falls. These four classifications account for 87 per cent of all injuries reported, and by adding injuries from hand tools, 4.2 per cent, and from flying objects, 1.6 per cent, we reach a total of 93 per cent. While not the most numerous, falls caused the most serious disabilities, averaging 64 days each, and caused 41 of the 80 fatalities. Temporary disabilities from injuries due to falling and moving objects each averaged 53 days, while those from handling materials averaged only 39 days.

The same six general classes of accidents were the principal source of injury to the ship repair group, but their relative importance is changed. Falls of persons ranks first, with 20.5 per cent of all

temporary disabilities, and cause 35 of the total of 52 fatalities. Flying objects, principally from the scaling, calking, and riveting operations, caused 16.8 per cent of the injuries, handling materials, 15.8 per cent, falling objects, 12.2 per cent, and hand tools, 6.4 per cent, while moving objects, principally slings, either loaded or empty, caused but 4.4 per cent of disabling injuries. These six classifications comprise 76 per cent of the compensated injuries.

The seriousness of these nonfatal injuries in days lost agrees closely with the experience of the longshoremen. Falls of persons caused the greatest loss of time, averaging 56 days. Injuries from moving objects average 55 days, from falling objects, 54 days, from handling material, 38 days, from hand tools, 29 days, while those caused by flying objects, principally eye injuries, averaged 17 days.

Analyzing the tables in the light of the studies which have been made, and with the purpose of suggesting methods for the prevention of a recurrence of similar accidents brings out certain conditions which it is impossible to show in tabulated form.

In Table 22 the 6 general causes of 93 per cent of the injuries to longshoremen, in the order of their relative frequency, are, struck by falling objects, handling objects by hand, struck by moving objects, falls of persons, hand tools, and striking against objects.

Of the injuries from falling objects, 34 per cent are directly attributed to the operation of moving cargo overside, to or from vessels, with winch or crane. Over two-thirds of these were caused by cargo falling from the drafts handled. While an improper type of sling for the material being handled accounts for a small number of these, most of the injuries come from the hoisting of improperly-built loads, speeding hoisting operations beyond the control of the winch driver, winches in poor repair, and the failure to give or heed warning signals. Hatch beams and covers are unshipped by hoisting operations through the failure to remove or bolt beams. Many companies have practically eliminated this type of accident through better supervision.

There are two main contributing causes to the injuries from objects falling from piled material. Lack of proper illumination in the ship's hold increases the danger from this source, both in loading and unloading operations. In discharging cargo which has been improperly stowed or which has shifted during the voyage, there are dangers which it is difficult to guard against.

The third principal source of falling objects is from haulage equipment which is used in dimly lighted, confined spaces, and over rough between decks. The jarring which the loads receive on being hauled through side ports or bulkhead doors, the presence of litter on the decks, and the rapid turning of the trucks all tend to dislodge the cargo hauled. Failure to check the supply of cargo on congested conveyors and slides generally results in serious injuries. Lack of attention and skill upon the part of the men is responsible for

many of this type of accidents. Increased supervision and training of the longshoremen are the best remedies.

Injuries received while handling cargo by hand comprise the second largest general group. These can be avoided mainly through the skill and alertness of the longshoremen. Aside from the personal element of the workmen, poor lighting is probably the greatest factor contributing to this class of injuries. When men are subjected to bright or glaring light and to dimly lighted places in rapid succession, the effect upon accident frequency is especially marked. Failure of the eyes to properly adjust themselves to the light is probably the largest single factor in causation of the 1,344 injuries where longshoremen were caught between the objects handled and other objects.

Strains and sprains from heavy lifting are a serious source of disability. Since the stevedore must handle the cargo as it comes to him, there seems to be little that he can do except use the greatest possible care in picking his men for this type of work and to prevent improper methods of lifting.

Hand-tool injuries may well be considered here, though they are fifth in frequency. The cause of these injuries is almost entirely within the control of the men who use them. Dull, broken, or improper tools are responsible for most of these accidents. Where a constant effort has been made to keep hand tools in proper repair, this type of injury has been greatly reduced.

Moving objects are the third greatest source of injuries to longshoremen. It is to be expected that the greater portion of these would come from overside hoisting operations. In Table 22, 72 per cent of the injuries from moving objects originated in overside operations. Men being struck by drafts in motion and by empty slings and cargo hooks furnished the greatest proportion of casualties. Loads not under the proper control of the winch driver and the failure to give and obey signals were important sources of accidents. The indifference of both the longshoremen and their foremen to the dangers of constantly repeated hazards is probably the largest factor in these injuries.

Closely related are the injuries incurred in hooking on and steady-ing drafts and in landing them. Here, however, the lack of skill and agility on the part of the workmen and the faulty winches are the main element of danger. Requiring men to stand and to work in the least exposed positions practicable and promptly to respond to all signals will do the most to prevent this type of injuries.

Hand trucks come second as a source of injury from moving objects and are one of the big hazards of side-port operations, where it is necessary to have a continuous line of truckers to move the cargo. Here the effect of different intensities of light on the eyes is important, as the men go from the dock shed across the apron and gang-

plank and into the vessel. If lights of 100 watts or greater intensity are used in the between decks, they should be so placed that the truckers will not be obliged to look directly at the filament in the course of their work and become temporarily blinded. Gangplanks steep enough to prevent continuous control of loaded trucks are also hazardous, and types of escalators which will carry the truck over the difference in elevation have been found effective in making this operation safe and effective. Hands and feet can be kept from under rollers and dollies if some type of handle in which a hand hook can be inserted is provided.

Falls of persons as a general causation is fourth, both in the number of injuries and in the days lost through them. The average days lost per accident, 64 days, and the number of fatalities, 42, are considerably above the average for the longshoreman group. Falls on the level, without other reason given than slippery footing, objects to stumble over, and other things which constitute "poor house-keeping," are the greatest single group.

Falls into holes between the cargo come next in number. These are difficult to guard against, and provision for better lighting is the most practical remedy. Falling into open hatches and manholes is still an important cause of serious falls. Here, again, poor vision plays an important part. Providing light and safety lines or hand-rails where possible are the best preventives.

Although many companies have given special attention to the maintenance of their hatch covers, the falls through broken or ill-fitting hatches remains constant. Falls from ladders, gangplanks, and stairs, however, have been greatly reduced through improved construction and maintenance.

There are usually two distinct elements which contribute to a fall—a personal ineffectiveness and encountering some physical condition. It is generally easier to remove or guard the physical condition.

The sixth largest number of injuries come from men striking against fixed objects; sharp projections, stanchions, beams, and stowed cargo furnish most of these. Here, again, better lighting should make such accidents avoidable even though the work must be done in confined spaces.

A résumé of this analysis shows that a few types of operation are responsible for more than 90 per cent of the lost-time injuries. A small percentage can be traced to mechanical imperfections, more especially to faulty winches. Improved lighting of the between decks and holes will remove a contributory cause, the extent of which can not be accurately measured, but which is evidently important enough to receive consideration. The selection of the proper type of gear for a job is important if accidents are to be avoided. The greatest improvement, however, will come through better discipline

on the job, which can be secured only through improvement in the supervision of the work.

The conditions of employment in stevedoring and ship repairing make the carrying on of organized accident-prevention work more difficult than those in other industries where work is more continuous. The demand for the rapid completion of a job often requires employment of unskilled and physically unfit labor, while the short duration of the job makes any extensive training of temporary employees impracticable. However, individual companies in both industries have succeeded through organized effort on the job in reducing accident frequency 50 per cent or more. The good work of these larger operators have prevented the number of accidents increasing to a staggering total. Their methods are recommended to companies which have not seriously undertaken safety work.

Table 23 shows that falls of persons constitute the greatest hazard to repair men, both in frequency and severity. Slipping and stumbling over objects on the level was the most frequent cause and was responsible for 30 per cent of all the falls. Orderly piling of material and scrap is often difficult on a repairing job, but where possible it will prevent accidents of this type. Better lighting of working and traveling places below deck and at night will also assist men in avoiding this type of falls.

Falls from scaffolds and staging caused 23 per cent of the injuries. This is not exceedingly high when the amount of work done from scaffolds and temporary staging is considered. Giving the maximum protection by way of handrails, toe boards, and life lines will reduce the frequency of this class of falls.

Falls in hatches, manholes, and other openings caused 16 per cent of the falls. Here, lack of proper illumination is probably the greatest contributing factor which is within the control of the employer.

Falls from ladders make up 15 per cent of the falls. This class, in general, is due, mostly, to unsafe or improperly secured ladders and to the carrying of material or tools by the man who is climbing. The remedies are closer inspection of ladders used, rules for properly securing them before using, and the hoisting of all objects which interfere with the safe use of the ladder.

Flying objects were second-largest source of injuries to repair men. Since these are largely injuries to the eyes from chips and scale, the remedy lies in the compulsory use of goggles on the jobs where these hazards exist. The experience of the larger shipbuilding companies shows that this remedy is both practicable and effective.

The prevention of the hazards from moving and flying objects in relation to longshoremen is applicable to the similar work of the repair men. In the whole field of accident prevention the greatest burden rests upon the foremen who direct the work.

TABLE 22.—NUMBER OF INJURIES INVOLVING LOSS OF TIME, BY EXTENT OF DISABILITY, IN GENERAL GROUPS OF CAUSATION, FISCAL YEAR 1930

LONGSHOREMEN

Cause	All cases, number	Nonfatal cases									Fatal cases			
		Total number of cases	Total duration (days)	Total amount of compensation	Temporary total disabilities			Permanent partial disabilities			Total number of cases	Total estimated cost		
					Total number of cases	Compensated cases		Number	Duration (days)	Compensation				
						Number	Duration (days)							
Vehicles:														
Plant trucks and trucks on tracks	2	2	37	\$30	2	2	37	\$30						
Automobiles, jitneys, tractors and trailers—														
Riding on	11	10	303	636	10	9	299	636				1		
Run over by	6	6	263	636	4	1	63	151						
Other injury from	40	40	1,662	3,886	38	25	785	1,528	2	188	\$485			
Watercraft, capsizing, etc.	1	1	53	150	1	1	53	150	2	825	2,358			
All other	1	1	4		1									
Total	61	60	2,322	5,338	56	38	1,237	2,495	4	1,013	2,843	1		
Explosive substances	2	2	1,665	5,895	1	1	39	88	1	1,626	5,807	7,500		
Conflagrations and flames:														
In cargo	3	3	36	60	3	1	28	60						
In fuel bunkers	2	2	71	188	2	2	71	188						
Electric flash	2	2	8		2									
All other	2	2	8		2									
Total	9	9	123	248	9	3	99	248						
Hot substances:														
Water and other fluids	3	3	32	36	3	2	28	36						
Steam	7	7	222	607	7	5	214	607						
Metal (not molten)	7	7	93	107	7	5	85	107						
All other	2	2	38	42	2	2	38	42						
Total	19	19	385	792	19	14	365	792						

Dust, gases, and chemicals:

Handling or contact with—

Calcium, lime, plaster	4	4	144	389	4	2	136	389				
Cement	18	18	258	394	18	12	234	394				
Coal oil, kerosene	1	1	4		1							
Creosote	1	1	4		1							
Lye	1	1	26	22	1	1	26	22				
Potash	2	2	34	41	2	2	34	41				
Soda (sal soda and caustic)	16	16	242	423	16	9	214	423				
Sulphur	8	8	45	15	8	2	21	15				
All other acids	10	10	293	745	10	8	285	745				
All other substances	58	58	1,836	3,344	57	42	1,551	2,829	1	225	515	
Total	11	19	2,886	5,373	118	78	2,501	4,858	1	225	515	

Inhalation of fumes—

Cement	1	1	70	105	1	1	70	105				
Cyanides, cyanogen compound HGN	6	6	283	735	6	6	283	735				
Sulphur	8	7	348	753	7	4	336	753			1	2,599
All other substances	16	15	593	1,362	15	4	549	1,362			1	7,500
Total	31	29	1,294	2,955	29	15	1,238	2,955			2	10,099

Falls of persons:

From—

Elevations, other	111	110	9,588	24,830	101	85	6,017	14,943	9	3,507	9,887	1	7,500
Ship's rigging and other overhead gear	4	4	1,139	3,188	3	3	375	1,004	1	764	2,184		
Craft to water or dock	97	76	5,744	16,431	71	54	3,276	9,238	5	2,400	7,193	21	100,822
Log boom or timber, to water	2	2	23	40	2	1	19	40					
Gang planks	32	31	2,470	6,036	28	18	1,238	2,534	3	1,192	3,502	1	7,500
Runways and platforms	42	42	4,039	10,701	37	30	1,951	5,316	5	2,060	5,385		
Piles of materials	84	84	7,391	21,136	77	63	3,528	9,020	7	3,807	12,116		
Elevators, from or with	4	4	345	784	4	3	341	784					
Total	376	353	30,739	83,146	323	257	16,745	42,879	30	13,730	40,267	23	115,822

Into—

Open hatches, manholes	163	153	17,974	48,708	140	117	9,246	22,070	13	8,636	26,638	10	49,907
Holes, traps, cracks, etc	67	67	3,089	7,409	66	56	2,804	6,535	1	245	874		
Total	230	220	21,063	56,117	206	173	12,050	28,605	14	8,881	27,512	10	49,907

Through—

Grills or platforms	2	2	124	245	2	2	124	245					
Poorly covered hatches	47	45	4,354	11,778	41	31	2,943	7,383	4	1,371	4,395	2	8,700
Total	49	47	4,478	12,023	43	33	3,067	7,628	4	1,371	4,395	2	8,700

Other falls—

Slipping or falling between cargo	248	248	19,757	48,036	234	180	9,146	22,914	14	10,395	25,122		
Account hand tool slipping	52	52	3,353	8,507	50	39	2,238	5,447	2	1,071	3,060		
Stairs and steps	11	11	294	651	11	8	282	651					
Ladders	91	88	7,858	20,230	81	67	5,310	13,474	7	2,492	6,756	3	22,500

TABLE 22.—NUMBER OF INJURIES INVOLVING LOSS OF TIME, BY EXTENT OF DISABILITY, IN GENERAL GROUPS OF CAUSATION, FISCAL YEAR 1930—Continued

Cause	All cases, number	Nonfatal cases									Fatal cases		
		Total number of cases	Total duration (days)	Total amount of compensation	Temporary total disabilities			Permanent partial disabilities			Number	Duration (days)	Compensation
					Total number of cases	Compensated cases		Number	Duration (days)	Compensation			
						Number	Duration (days)					Total estimated cost	
Falls of persons—Continued.													
Other falls—Continued.													
Scaffolds and staging	21	21	875	\$1,889	21	15	851	\$1,889					
On level, falling or stumbling	460	460	25,072	66,154	443	318	17,007	43,132	17	7,565	\$23,022		
On grade (incline)	39	39	1,409	3,095	38	30	1,230	2,843	1	147	252		
Stumbling over truck handle	3	3	104	216	3	3	104	216					
Falls while carrying or handling cargo or objects	62	61	4,689	12,677	54	41	2,425	6,391	7	2,212	6,286	1	7,500
All other falls	289	287	12,903	30,625	277	211	9,920	23,464	10	2,719	7,161	2	3,987
Total	1,276	1,270	76,314	192,080	1,212	912	48,513	120,421	58	26,601	71,659	6	33,987
Moving objects, struck by:													
Sling loads in motion, tubs and buckets (coal grab)	740	731	53,878	134,483	673	542	33,551	80,848	58	19,803	53,635	9	49,596
Sling loads and miscellaneous objects, landing	358	357	19,256	48,483	330	257	13,873	36,481	27	5,091	12,002	1	1,297
Empty slings, hooks, etc.	173	172	6,566	14,821	167	112	5,102	11,575	5	1,244	3,246	1	7,500
Fall lines, bull lines, moving lines	81	81	4,772	12,552	73	51	1,716	3,388	8	2,968	9,164		
Swinging booms, etc. (boom falling)	27	27	2,103	5,750	24	18	1,050	2,547	3	1,029	3,203		
Objects set in motion by lines or slings	47	47	4,529	10,909	42	36	2,575	5,585	5	1,930	5,324		
Hand truck, struck or run over by	420	419	13,403	29,109	408	278	10,528	22,546	11	2,355	6,563	1	1,200
Power trucks, struck or run over by	19	19	385	782	19	10	349	782					
Rollers and dollies	94	94	3,663	8,421	86	58	2,456	5,352	8	1,095	3,069		
Struck by or caught while steadyng (or landing sling load, or adjusting sling)	378	378	23,427	59,604	329	263	12,453	29,410	49	10,710	30,194		
Struck by cargo hook, wire fall, etc.	336	336	12,078	27,814	317	212	8,003	17,713	19	3,655	10,101		
Struck by miscellaneous rolling object	146	146	7,182	18,174	138	117	5,314	12,854	8	1,784	5,320		
Caught in loop or bight	23	23	1,888	4,956	17	11	949	2,582	6	915	2,374		
Caught by closing door	9	9	541	1,295	5	4	147	322	4	390	973		
All other	125	125	4,860	10,941	121	97	3,717	7,953	4	1,047	2,988		
Total	2,976	2,964	158,531	388,094	2,749	2,066	101,783	239,938	215	54,016	148,156	12	59,596

Flying objects:													
From cargo handled	50	50	1,087	2,365	48	19	715	1,635	2	256	730		
From chipping and caulking	4	4	253	672	3	2	28	32	1	221	640		
From scaling paint, etc.	1	1	21	37	1	1	21	37					
Breaking and whipping of lines	16	16	1,037	2,512	14	11	696	1,592	2	329	920		
Splinters and fragments	10	10	250	539	10	6	234	539					
Objects thrown	40	39	1,158	2,521	38	28	1,061	2,358	1	57	163	1	7,428
All other	113	112	2,446	5,229	111	46	1,320	2,749	1	866	2,480	1	7,500
Total	234	232	6,252	13,875	225	113	4,075	8,942	7	1,729	4,933	2	14,928
Falling objects:													
Cargo from pile (not collapse of pile or hand handling)	826	826	42,520	102,981	773	615	29,829	70,225	53	12,059	32,756		
Bulk cargo from returning boxes, tubs, net slings, etc.	20	20	770	1,976	20	13	742	1,976					
Material from sling loads	808	801	46,018	114,905	737	575	27,655	62,296	64	17,715	52,609	7	43,619
Material from tub or bucket	52	52	1,748	4,025	52	40	1,700	4,025					
Material from chutes, conveyors, and slides	81	79	2,564	4,860	76	55	1,930	3,675	3	550	1,185	2	14,075
Sling loads falling, defective gear (sling broke)	29	26	3,540	7,718	22	17	2,049	5,537	4	1,471	2,181	3	14,797
Gear or tackle	67	66	2,960	6,890	63	40	2,274	5,200	3	594	1,690	1	1,200
Objects set in motion by sling, lines, hooks, etc	67	65	7,048	19,107	56	41	4,005	10,838	9	2,983	8,269	2	14,936
Sling loads, tipping or spreading	24	24	1,404	3,591	20	12	872	2,125	4	500	1,466		
Hatch beams and hatch covers	230	229	11,400	25,769	214	164	6,677	14,085	15	4,523	11,684	1	1,200
Hand tools	8	8	428	991	8	6	420	991					
Rivets, bolts, etc.	8	8	273	713	8	6	265	713					
Collapse of piles, stacked, stored, etc.	45	45	1,706	3,740	45	34	1,662	3,740					
Boxes and crates	18	18	643	1,758	18	13	623	1,758					
Sacks and bales	70	70	5,902	15,914	66	56	3,837	9,566	4	2,025	6,348		
Lumber	57	56	2,768	6,379	53	39	1,931	4,576	3	781	1,803	1	7,500
Coal, iron, ore, grain, etc.	22	21	1,868	4,711	19	11	896	2,248	2	940	2,463	1	7,500
From scaffolds and stagings	5	5	247	652	5	4	243	652					
Objects from haulage equipment, boxes, crates, etc.	250	250	11,593	26,464	237	173	7,089	14,543	13	4,248	11,921		
Struck by falling truck handle	61	61	3,297	7,864	57	40	2,235	5,125	4	994	2,739		
Barrel, casting, cylinder, drum, etc., tipping over	72	72	3,155	7,934	67	50	2,271	5,501	5	816	2,433		
Strongback	47	47	2,357	5,439	42	39	1,868	4,495	5	477	944	1	2,586
Heavy cargo slipped from rollers	45	44	2,356	5,454	40	35	1,745	3,765	4	591	1,680		
All other	1,100	1,100	53,713	112,599	1,073	815	35,414	76,541	27	17,267	36,058		
Total	4,012	3,993	210,278	492,434	3,771	2,893	138,232	314,196	222	68,534	178,238	19	107,413
Handling objects:													
With projecting nails, splinters, wires, etc.	334	334	8,535	15,611	324	183	4,094	7,203	10	3,877	8,408		
Sharp corners, edges, etc.	218	218	5,765	11,596	213	134	3,527	6,627	5	1,922	4,969		
Caught between objects handled and other objects	1,344	1,344	55,012	125,397	1,239	924	34,288	74,778	105	19,464	50,619		
Dropped while handling	493	492	20,831	47,795	468	355	16,096	37,549	24	4,283	10,246	1	7,244
Dropped by fellow workmen	66	66	2,246	5,081	64	50	1,903	4,260	2	287	821		
Strain or sprain from handling heavy objects	868	868	37,698	93,717	858	661	31,456	76,855	10	5,454	16,862		
Strain or sprain, insecure footing	66	66	1,774	4,053	66	54	1,726	4,053					
Caught by material rolled or pushed by hand	87	87	3,782	9,264	85	74	3,343	8,136	2	395	1,128		

TABLE 22.—NUMBER OF INJURIES INVOLVING LOSS OF TIME, BY EXTENT OF DISABILITY, IN GENERAL GROUPS OF CAUSATION, FISCAL YEAR 1930—Continued

Cause	All cases, number	Nonfatal cases									Fatal cases	
		Total number of cases	Total duration (days)	Total amount of compensation	Temporary total disabilities			Permanent partial disabilities			Total number of cases	Total estimated cost
					Total number of cases	Compensated cases		Number	Duration (days)	Compensation		
						Number	Duration (days)					
Handling objects—Continued.												
Struck by object handled (not thrown) by fellow workman	42	42	1,961	\$4,333	38	32	1,241	\$2,405	4	696	\$1,925	
Friction burns from lines, etc.	9	9	175	331	9	6	163	331				
Objects rolled by hand	29	29	623	1,292	28	17	518	1,118	1	61	174	
All other	178	177	8,269	19,631	164	125	5,666	12,566	13	2,447	7,065	1 \$7,500
Total.	3,734	3,732	146,671	338,101	3,556	2,615	104,021	235,881	176	38,886	102,220	2 14,744
Hand tools:												
Injured by own hand tool	459	459	9,374	18,865	445	242	7,180	14,968	14	1,382	3,897	
Injured by others' tools	131	131	2,822	5,271	128	68	2,293	4,626	3	289	645	
Hand tool struck by moving object	2	2	62	150	2	1	58	150				
Defective, breaking, or improvised hand tool	11	11	596	1,525	10	10	547	1,405	1	49	120	
All other	8	8	267	543	8	7	263	543				
Total.	611	611	13,121	26,354	593	328	10,341	21,692	18	1,720	4,662	
Stepping in or on objects:												
Nails	96	96	1,068	1,354	96	45	864	1,354				
All other sharp objects	14	14	138	105	14	7	110	105				
Kneeling on objects	1	1	141	320								
Rolling objects	4	4	105	249	4	3	101	249				
Into holes, cracks, traps, etc.	59	59	2,883	6,280	58	39	1,742	3,971	1	1,065	2,309	
Slipping or jumping on objects (not falls)	22	22	764	1,929	22	12	724	1,929				
All other	14	14	324	655	14	12	316	655				
Total.	210	210	5,423	10,892	208	118	3,857	8,263	2	1,206	2,629	

Striking against objects:												
Nails, screws, etc.	23	23	222	265	23	8	162	265	3	807	2,108	
Splinters and sharp projections	114	114	3,044	6,381	111	62	2,041	4,273				
Piles of material	17	17	378	744	17	12	358	744				
Beams, stanchions, and other fixed objects	184	184	6,783	16,599	177	124	5,036	11,972	7	1,535	4,627	
Fellow employee	4	4	184	570	4	3	180	570				
All other	46	46	1,522	3,885	46	26	1,442	3,885				
Total	388	388	12,133	28,444	378	235	9,219	21,709	10	2,342	6,735	
Miscellaneous:												
Objects	4	4	73	186	4	2	65	186				
Fellow employee	4	4	154	382	4	3	150	382				
Doors, ports, etc.	4	4	71	149	4	3	67	149				
Ropes, hose, wire, etc.	36	36	1,242	3,194	33	24	812	1,919	3	394	1,275	
Water	1	1	21	36	1	1	21	36				
Draft animals	1	1	54	123	1	1	54	123				
Insects	13	13	145	225	13	5	113	225				
Snakes	2	2	8	2								
Elements	1	1	71	223	1	1	71	223				
Clothing, boots, shoes, etc.	3	3	391	1,049	2	1	14	24	1	373	1,025	
Unnatural positions	6	6	179	442	6	5	175	442				
Extreme strain and overwork	1	1	4	1								
Cold	11	11	221	375	11	10	217	375				
Heat	15	15	60	15								
Jumping to avoid injury	31	31	1,694	4,009	30	25	1,418	3,277	1	256	732	
Cause not stated	20	20	622	1,372	19	14	517	1,128	1	85	244	
All other	6	6	58	68	6	2	42	68				
Total	159	159	5,068	11,833	153	97	3,736	8,557	6	1,108	3,276	
Machinery (operating, adjusting, cleaning, oiling, repairing, etc.):												
Winches, donkey engines, etc.	24	24	1,849	4,702	23	17	1,220	2,974	1	605	1,728	
Cranes and derricks	6	5	244	629	4	2	57	119	1	179	510	1 1,150
Caught between line and drum	8	8	1,124	2,985	3	3	141	363	5	983	2,622	
Conveyors	4	4	101	143	4	3	97	143				
Elevators	2	2	55	114	2	1	51	114				
Abrasives wheels	1	1	53	102					1	53	102	
Unguarded machinery (n. o. c.)	1	1	53	188					1	53	188	
All other	2	2	47	103	2	1	43	103				
Total	48	47	3,526	8,966	38	27	1,609	3,816	9	1,873	5,150	1 1,150
Grand total	14,544	14,464	702,272	1,682,960	13,687	10,016	462,727	1,073,963	777	224,861	608,997	80 423,846

TABLE 23.—NUMBER OF INJURIES INVOLVING LOSS OF TIME, BY EXTENT OF DISABILITY, IN GENERAL GROUPS OF CAUSATION, FISCAL YEAR 1930

REPAIR

Cause	All cases, number	Nonfatal cases								Fatal cases		
		Total number cases	Total duration (days)	Total amount compensation	Temporary total disabilities			Permanent partial disabilities, compensated cases		Total number cases	Total estimated cost	
					Total number cases	Compensated cases		Number	Duration (days)	Amount compensation		
						Number	Duration (days)					
Vehicles:												
Cars and engines (railroad)	1	1	50	\$179	1	1	50	\$179				
Plant trucks and trucks on tracks	3	3	98	112	3	3	98	112				
Automobiles, jitneys, tractors, and trailers—												
Riding on	3	3	428	1,432	2	2	126	352	1	302	\$1,080	
Run over by	2	2	1,712	2,856	1				1	1,708	2,856	
Other injury from	3	3	79	234	2				1	71	234	
Watercraft, capsizing, etc.	4	4	99	223	3	3	46	73	1	53	150	
Total	16	16	2,466	5,036	12	9	320	716	4	2,134	4,320	
Pressure equipment:												
Pipes, gauges, and valves	1	1	17	22	1	1	17	22				
Air pressure apparatus	19	19	1,246	4,152	16	8	272	790	3	942	3,362	
Gas-pressure apparatus	2	2	21	36	2	1	17	36				
Diving apparatus	1	1	4		1							
All other pressure equipment	5	5	880	2,256	5	3	881	2,256				
Total	28	28	2,177	6,466	25	13	1,187	3,104	3	942	3,362	
Explosive substances:												
Vapors	9	2	497	1,129	2	2	497	1,129				
All other explosives	15	11	832	2,766	8	5	154	417	3	666	2,349	
Total	24	13	1,329	3,895	10	7	651	1,546	3	666	2,349	
Electricity:												
Transmission wires	5	4	31	43	4	1	19	43			1	
Motors and generators	1	1	12	18	1	1	12	18			1,200	
All other	8	8	351	1,027	8	6	343	1,027				
Total	14	13	394	1,088	13	8	374	1,088			1,200	

Conflagrations and flames:

TABLE 23.—NUMBER OF INJURIES INVOLVING LOSS OF TIME, BY EXTENT OF DISABILITY, IN GENERAL GROUPS OF CAUSATION, FISCAL YEAR 1930—Continued

Cause	All cases, number	Nonfatal cases								Fatal cases				
		Total number cases	Total duration (days)	Total amount compensation	Temporary total disabilities			Permanent partial disabilities, compensated cases			Total number cases	Total estimated cost		
					Total number cases	Compensated cases		Number	Duration (days)	Amount compensation				
						Number	Duration (days)							
Falls of persons—Continued.														
Through grills or platform.	3	3	68	\$136	3	2	64	\$136						
Through poorly covered hatches.	5	5	93	173	5	4	89	173						
Total	8	8	161	309	8	6	153	309						
Other falls—														
Slipping or falling between cargo.	17	17	530	990	17	13	514	990						
Account handtool slipping.	24	24	730	1,992	24	17	702	1,992						
Stairs and steps.	41	41	1,425	3,441	40	25	1,099	2,930	1	266	\$511			
Ladders.	113	113	10,847	27,389	103	73	3,624	9,493	10	7,103	17,896			
Scaffolds and staging.	167	161	10,613	29,228	152	117	7,329	20,103	9	3,144	9,125	6		
On level, falling or stumbling.	213	213	6,613	16,156	205	145	5,582	13,535	8	791	2,621	\$38,700		
On grade (incline).	9	9	223	434	9	6	211	434				1		
Stumbling over truck handle.	3	2	151	432	2	2	151	432						
Falls while carrying or handling cargo or objects.	22	22	2,260	6,689	18	14	892	2,460	4	1,352	4,229			
All other falls.	121	121	7,164	17,068	118	79	2,970	6,340	3	4,038	10,728			
Total	730	723	40,556	103,819	688	491	23,074	58,709	35	16,694	45,110	7		
Moving objects struck by:														
Sling loads in motion, tubs and buckets (coal grab).	56	55	3,376	8,740	51	41	2,289	5,542	4	1,047	3,198	1		
Sling loads and miscellaneous objects, landing.	14	14	826	1,839	13	8	754	1,710	1	52	129			
Empty slings, hooks, etc.	12	12	885	2,569	12	11	881	2,569						
Fall lines, bull lines, moving lines.	10	10	261	637	10	6	245	637						
Swinging booms, etc. (boom falling).	7	6	346	943	5	2	71	193	1	263	750	1		
Hand truck, struck or run over by.	44	44	795	993	44	34	755	993						
Power trucks, struck or run over by.	1	1	14	23	1	1	14	23						
Rollers and dollies.	4	4	939	2,539	3	2	89	285	1	757	2,254			
Struck by or caught while steadyng (or landing sling load, or adjusting sling).	7	7	698	1,817	4	3	117	197	3	577	1,620			

Struck by cargo hook, wire fall, etc.	23	23	1,204	2,340	22	17	456	874	1	728	1,466	
Struck by miscellaneous rolling object	6	6	240	733	6	4	232	733				
Caught in loop or bight	6	6	215	442	4	1	12	16	2	191	426	
Caught by closing door	11	11	1,627	5,686	9	5	920	3,222	2	691	2,464	
All other	24	24	819	1,887	23	18	738	1,708	1	61	179	
Total	225	223	12,156	31,188	207	153	7,573	18,702	16	4,367	12,486	2
Flying objects:												
From cargo handled	18	18	121	115	18	4	65	115				
From grinding wheels	7	7	56	55	7	2	36	55				
From shipping and calking	298	298	3,251	6,645	293	51	1,254	3,064	5	1,029	3,581	
From scaling paint, etc.	43	43	1,562	7,262	37	15	310	478	6	1,164	6,784	
Breaking and whipping of lines	5	5	75	105	5	4	71	105				
Splinters and fragments	64	64	5,978	18,694	57	17	427	873	7	5,391	17,821	
Objects thrown	16	16	339	647	15	8	243	485	1	68	162	
All others	398	398	4,134	6,813	391	64	1,448	2,916	7	1,382	3,897	
Total	848	848	15,516	40,336	827	165	3,854	8,091	26	9,034	32,245	
Falling objects:												
Cargo from pile (not collapse or pile or hand handling)	23	23	757	1,696	22	17	667	1,496	1	70	200	
Material from sling loads	44	43	1,517	2,992	41	30	1,165	2,298	2	308	694	1
Material from tub or bucket	6	6	343	770	5	4	121	230	1	218	540	
Material from chutes, conveyors, and slides	3	3	75	191	3	1	67	191				
Sling loads falling, defective gear (sling broke)	9	9	1,623	5,414	8	6	344	875	1	1,271	4,639	
Gear or tackle	14	14	945	2,709	12	11	343	689	2	598	2,020	
Objects set in motion by sling, lines, hooks, etc.	3	3	172	502	5	2	168	502				
Sling loads, tipping or spreading	1	1	28	50	1	1	28	50				
Hatch beams and hatch covers	28	27	1,736	5,366	24	16	401	713	3	1,303	4,653	1
Hand tools	16	16	280	572	16	8	248	572				
Rivets, bolts, etc.	32	32	1,285	2,933	29	16	658	1,395	3	575	1,638	
Collapse of piles, stacked, stored, etc.	7	7	353	462	7	5	345	462				
Lumber	3	3	987	2,177	2	2	194	514	1	793	1,663	
Coal, iron, ore, grain, etc.	1	1	19	28	1	1	19	28				
From scaffolds and stagings	27	27	817	1,534	24	13	275	317	3	538	1,217	
Objects, from haulage equipment, boxes, crates, etc.	15	15	385	713	15	9	361	713				
Struck by falling truck handle	2	2	60	84	2	2	60	84				
Barrel, casting, cylinder, drum, etc., tipping over	15	15	730	1,659	15	12	718	1,659				
Strongback	3	3	585	1,523	2	1	56	123	1	525	1,400	
All other	366	365	20,695	51,438	333	233	13,571	31,313	32	6,724	20,125	1
Total	618	615	33,392	82,813	565	390	19,769	44,224	50	12,923	38,589	3
Handling objects:												
With projecting nails, splinters, wires, etc.	49	49	1,216	2,785	48	26	559	1,171	1	569	1,614	
Sharp corners, edges, etc.	36	36	1,408	3,271	32	20	710	1,598	4	650	1,673	
Caught between objects handled, etc.	182	182	8,205	19,706	157	122	4,357	9,494	25	3,708	10,212	
Dropped while handling	143	143	5,164	12,334	135	95	3,631	8,490	8	1,373	3,844	
Dropped by fellow workmen	34	34	1,419	3,699	34	25	1,383	3,699				

TABLE 23.—NUMBER OF INJURIES INVOLVING LOSS OF TIME, BY EXTENT OF DISABILITY, IN GENERAL GROUPS OF CAUSATION, FISCAL YEAR 1930—Continued

Cause	n	All cases, ber	Nonfatal cases									Fatal cases			
			Total number cases	Total duration (days)	Total amount compensation	Temporary total disabilities			Permanent partial disabilities, compensated cases			Total number cases	Total estimated cost		
						Total cases	Compensated cases		Number	Duration (days)	Amount compensation				
							Number	Duration (days)							
Handling objects—Continued.															
Strain or sprain from handling heavy objects	261	261	9,909	\$25,487	259	167	8,991	\$24,035	2	550	\$1,452				
Strain or sprain, insecure footing	14	14	1,496	4,431	13	11	682	2,074	1	806	2,357				
Caught by material rolled or pushed by hand	5	5	176	393	5	5	176	393							
Struck by object handled (not thrown) by fellow workman	24	24	816	2,257	23	12	499	1,417	1	273	840				
Friction burns from lines, etc.	2	2	41	82	2	1	37	82							
Objects rolled by hand	4	4	63	147	4	2	55	147							
All other	47	47	1,165	2,268	45	28	824	1,504	2	273	764				
Total	801	801	31,078	76,860	757	514	21,904	54,104	44	8,202	22,756				
Hand tools:															
Injured by own hand tool	251	251	5,997	14,816	231	135	3,803	9,097	20	1,810	5,719				
Injured by others' tool	44	44	2,011	5,598	38	20	910	2,759	6	1,029	2,839				
Breaking defective or improvised hand tool	14	14	1,012	3,161	11	7	209	548	3	787	2,613				
All others	15	15	323	461	14	6	210	346	1	81	115				
Total	324	324	9,343	24,036	294	168	5,132	12,750	30	3,707	11,286				
Stepping in or on objects:															
Nails	98	98	961	1,159	98	39	725	1,159							
All other sharp objects	9	9	121	257	9	4	101	257							
Kneeling on objects	2	2	62	193	2	1	58	193							
Rolling objects	3	3	144	431	3	3	144	431							
Into holes, traps, cracks, etc.	20	20	346	663	20	9	302	663							
Slipping or jumping on objects (not falls)	13	13	241	522	13	8	221	522							
All other	7	7	90	123	7	5	82	123							
Total	152	152	1,965	3,348	152	69	1,633	3,348							

Striking against objects:												
Nails, screws, etc.	24	24	320	588	22	11	211	407	2	65	181	
Splinters and sharp projections	51	51	1,258	3,062	50	31	1,073	2,672	1	109	390	
Piles of material	5	5	56	60	5	4	52	60				
Beams, stanchions, and other fixed objects	84	84	3,446	9,469	80	46	2,899	8,073	4	411	1,396	
Fellow employee	4	4	44	36	4	2	36	36				
All other	40	40	1,340	3,526	38	27	1,006	2,677	2	290	849	
Total	208	208	6,464	16,741	199	121	5,277	13,925	9	875	2,816	
Miscellaneous:												
Ropes, hose, wire, etc.	13	13	318	642	11	5	117	247	2	177	395	
Water	1	1	28	65	1	1	28	65				
Weapons	1	1	48	150					1	48	150	
Clothing, boots, shoes, etc.	2	2	126	401					2	126	401	
Unnatural position	19	19	1,770	5,453	18	12	1,141	3,592	1	605	1,861	
Cold	1	1	14	17	1	1	14	17				
Heat	13	13	77	63	13	2	33	63				
Noise and vibration	1	1	32	81	1	1	32	81				
Jumping to avoid injury	9	9	911	2,497	9	6	899	2,497				
Cause not stated	13	13	241	580	13	8	221	580				
All other	10	10	64	53	10	2	32	53				
Total	83	83	3,629	10,002	77	38	2,517	7,159	6	956	2,807	
Machinery (operating, adjusting, cleaning, oiling, repairing, etc.):												
Winches, donkey engines, etc.	17	14	1,959	6,238	8	6	209	462	6	1,742	5,776	3 19,857
Cranes and derricks	4	2	25	40	2	1	21	40				2 15,000
Caught between line and drum	1											1 1,836
Internal combustion engines	4	4	480	1,528	2	2	185	639	2	295	889	
Shop machinery	4	4	128	320	4	2	120	320				
Power transmission apparatus	47	47	1,860	4,366	47	47	1,860	4,366				
Portable power tools	37	37	1,665	4,664	31				6	1,541	4,664	
Conveyors	1	1	129	306					1	129	306	
Abrasive wheels	3	3	45	82	3	2	41	82				
Air or electric guns or drills	25	25	1,440	3,585	22	14	725	2,023	3	683	1,562	
Miscellaneous ship engine room machinery	13	13	1,191	3,730	9	5	423	1,385	4	752	2,345	
Unguarded machinery (n. o. c.)	1	1	4	1								
All other (caught in paddle wheel of steamer)	8	7	355	982	5	4	153	454	2	198	528	1 7,500
Total	165	158	9,281	25,841	134	83	3,737	9,771	24	5,340	16,070	7 44,193
Grand total	5,066	5,014	202,481	519,608	4,735	2,633	117,253	292,144	279	76,820	227,464	52 297,550

14. NATURE AND LOCATION OF INJURIES AND DURATION OF DISABILITY

The types of injuries occurring among longshoremen differ from those occurring among repair men and others, probably because of the differences in the hazards encountered by the two groups. The data are included in Tables 24 and 25. Of 14,464 injuries to longshoremen, 7,509, or 51.9 per cent, are classified as bruises or contusions, while among repair men and others, of 5,014 injuries, 1,676, or 33.4 per cent, are of this nature. The percentage of injuries which are cuts and lacerations is 16.1 for longshoremen, and 11.7 per cent for the other group. On the other hand, injuries caused by foreign bodies in the eye are greater proportionately among repair men and others than among longshoremen, being 13.2 per cent for repair men and others, and 0.7 per cent for longshoremen. The rate for burns is 7.9 per cent for repair men and others, and 0.9 per cent for longshoremen. The rate for punctures is 5.9 per cent for repair men and others, and 4.2 for longshoremen. Sprains, fractures, and other types of injuries occur with about equal frequency in each group.

Table 24 gives a distribution of the injuries to longshoremen under general headings of nature and location according to the length of the period of disability. For example, among longshoremen, a cut or laceration of the eye occurred 75 times during the year. The duration of disability in 64 of these cases did not exceed two weeks. Likewise, for injuries described in the table, the experience for the year concerning duration of disability is shown.

Among longshoremen, 39 cases of concussion of the brain disabled the employee for an average of 206.3 days; 60 amputations had an average disability period of 196.6 days; 1,373 fractures disabled an average of 140.5 days; and 51 dislocations had an average disability period of 106 days. The average disability period for sprains among longshoremen is 48.9 days; for bruises, 38 days; for burns, 35.8 days; for cuts and lacerations, 27.6 days; for punctures, 19.5 days; for other miscellaneous injuries, 27.6 days; and an average of 48.7 days for all lost time accidents occurring among longshoremen upon cases closed during the year.

Table 25 analyzes injuries sustained by repairmen and others under the same classifications used in Table 24. In 7 cases of concussion of the brain, the average duration of disability is 313 days; in 16 amputations it is 266.5 days; in 451 fractures it is 135.9 days, and in 22 dislocations, 89.3 days. The average duration of disability for sprains is 39 days; for bruises, 31 days; for cuts, 28.4 days; for burns, 18.3 days; and for miscellaneous injuries, 15.1 days.

The duration of disability in 295 cases of punctures is 41.4 days, or more than twice as long as the duration among longshoremen. This is due to the fact that 11 disability cases lasted for an average of two

years. Nine of these are punctures of the eye, resulting as follows: 3 had complete loss of the right eye; 2 had loss of vision between 50 and 60 per cent; and 4 had loss of vision between 35 per cent and 50 per cent. Two are punctures of the hand, both of which resulted in between 40 per cent and 50 per cent loss of use of hand. The average duration of disability for 284 punctures aside from these 11 cases is 16.2 days.

The average disability period for repairmen and others upon lost time cases closed during the year is 40.4 days as compared with 48.7 days for longshoremen.

TABLE 24.—NATURE AND LOCATION OF INJURIES, BY DURATION OF DISABILITY—LONGSHOREMEN
[Longshoremen's and harbor workers' act, 1930]

Nature and location	Total injuries	7 days and under	8 to 14 days	15 to 21 days	22 to 28 days	29 to 35 days	36 to 49 days	50 to 69 days	70 to 99 days	100 to 182 days	183 to 365 days	Over 365 days
Amputation:												
Thumb, distal phalanx	6						1				1	4
Thumb, proximal phalanx	1											1
Index finger, distal phalanx	16										14	2
Index finger, middle phalanx	2										1	1
Index finger, proximal phalanx	3										3	
Middle finger, distal phalanx	9									2	5	2
Middle finger, middle phalanx	3									2	2	1
Ring finger, distal phalanx	3									2	1	
Ring finger, middle phalanx	2									1	1	1
Ring finger, proximal phalanx	2									1	1	1
Little finger, distal phalanx	6							1	1	2	2	
Little finger, middle phalanx	1									1	1	1
2 fingers	3								1	1		1
3 fingers	1											
Great toe	1										1	
Lesser toe	1							1				
Total.	60						1	2	6	30	18	3
Bruises:												
Eye	61	34	9	8	5	1	1	1			1	1
Head	160	55	39	20	15	4	3	4	3	1	4	12
Face and neck	178	93	32	24	7	15	1	3	3			
Upper trunk	780	177	90	91	79	78	83	79	44	34	25	
Abdominal region	128	48	19	13	11	6	12	9	6	3	1	
Arms, shoulder	625	182	90	96	57	42	47	38	26	20	17	10
Hands	393	115	57	53	37	25	35	23	22	12	5	9
Fingers	1,192	281	179	173	133	86	112	108	52	43	23	2
Legs	1,994	495	242	261	235	159	195	155	93	90	44	25
Feet	1,925	493	250	253	217	148	160	182	113	77	16	16
Miscellaneous	73	6	6	10	7	8	10	9	7	7	2	1
Total.	7,509	1,979	1,013	1,002	803	572	659	611	369	287	138	76
Burns:												
Eyes	8	5	1	1						1		
Face and neck	6	3	1	1	1							
Upper trunk	5	2			1	1						
Arms, shoulder	22	6	5	8	2		1					
Hands	21	5	3	4	4	2		3				
Fingers	4				1	1	1				1	
Legs	22		7	3	2	2	1	3		2	1	1

Feet	39	12	4	6	7	3	3	1			
Miscellaneous	4	2				2					
Total	131	42	17	24	18	8	9	6	4	2	1
Concussions: Brain	39	2	1	7		2	2	4	2	8	8
Cuts and lacerations:											
Eyes	75	4	64	2	1			2			1
Head	235	110		45	25	13	8	17	9	3	3
Face and neck	297	129	73	42	20	15	6	3	3	2	3
Upper trunk	6	1	1		1	1	1	1			
Abdominal region	5			1			4				
Arms, shoulder	164	70	28	33	8	9	7	6	3		
Hands	329	96	84	58	36	11	12	15	6	6	3
Fingers	763	187	115	130	68	48	73	57	34	37	11
Legs	304	79	35	41	39	25	34	18	13	16	2
Feet	155	22	18	19	17	10	22	18	12	12	5
Miscellaneous	1					1					
Total	2,334	698	418	371	215	133	167	137	80	76	27
Dislocations:											
Arms, shoulder	24	1	2	5	3		3	1	1	3	2
Hands	1					1					
Fingers	14	4		1	2	1	2	1	2	1	
Legs	8	1		1		1		3			1
Coccyx	1								1		
Feet	3				1			1		1	
Total	51	6	2	7	6	3	5	6	4	5	3
Fractures:											
Jaw	5	1						2	1		1
Teeth	12	4	4	2	1	1					
Head	25			1	1			3	2	7	6
Nose	12	2		3	2	1	1		1	2	
Spine	22		1			1	1	3	3	3	2
Ribs	98	3	1	14	13	11	14	13	11	12	4
Sternum	1										
Pelvis	11							1	1	6	1
Shoulder	29						2	6	8	1	7
Arms	86	1	1		1	5	7	15	11	14	14
Arm and leg	1										
Hands	47		2	1	2	1	9	9	4	4	8
Fingers	244	7	5	14	29	27	49	36	20	40	13
Legs	230	1	5	3	5	7	13	18	36	43	54
Feet	256	3		6	11	4	23	57	50	51	37
Toes	294	18	10	26	49	33	45	45	29	29	10
Total	1,373	41	28	70	114	91	164	208	177	212	157

TABLE 24.—NATURE AND LOCATION OF INJURIES, BY DURATION OF DISABILITY—LONGSHOREMEN—Continued

Nature and location	Total injuries	7 days and under	8 to 14 days	15 to 21 days	22 to 28 days	29 to 35 days	36 to 49 days	50 to 69 days	70 to 99 days	100 to 182 days	183 to 365 days	Over 365 days
Punctures:												
Eyes	9	5	2		2							
Head	2	2										
Face and neck	8	6	2									
Upper trunk	2	1	1									
Abdominal region	8	1	3	1	2		1	5				
Arms, shoulder	77	38	20	8	4	11	6	4		2	2	1
Hands	156	63	28	27	13	5	5	3	1	2	4	
Fingers	125	56	22	20	7							
Legs	94	49	15	14	3	6	3	1				
Feet	123	65	24	25	2	2	3	2				
Miscellaneous	1		1									
Total	605	286	118	95	33	25	23	10	1	7	6	1
Sprains:												
Head—neck	17	10	1	3	1	2						
Upper trunk	936	214	110	153	112	75	78	90	33	40	21	10
Abdominal region	209	19	14	27	13	9	20	49	26	21	6	5
Arms, shoulder	219	58	43	28	21	12	13	19	8	6	6	5
Hands	31	7		8	2	4		2	3	4	1	
Fingers	58	22	15	7	4		4	4	1	1		
Legs	542	135	85	68	48	35	39	48	28	23	20	13
Feet	81	25	14	7	8	5	5	6	1	5	5	
Total	2,093	490	282	301	209	142	159	218	100	100	59	33
Miscellaneous:												
Eyes (foreign body)	100	74	9	7	2	1		1	4		2	
All other	122	53	11	17	7	6	4	8	5		8	3
Total	222	127	20	24	9	7	4	9	9		10	3
Disfigurements:												
Eyes	2					1				1		
Face	21				1		3	9	1	4	3	
Scalp	2							1	1			
Forehead	14				1	1	4	3	2	3		
Nose	8						2		3	2	1	
Total	47				2	2	9	13	7	10	4	
Grand total	14,464	3,671	1,899	1,901	1,409	985	1,202	1,224	759	730	432	252

TABLE 25.—NATURE AND LOCATION OF INJURY BY DURATION OF DISABILITY—REPAIRMEN AND OTHERS

[Longshoremen's and harbor workers' act, 1930]

Nature and location	Total injuries	Under 7 days	8 to 14 days	15 to 21 days	22 to 28 days	29 to 35 days	36 to 49 days	50 to 69 days	70 to 99 days	100 to 182 days	183 to 365 days	Over 365 days
Amputations:												
Thumb, distal phalanx	4								1		2	1
Thumb, proximal phalanx	1										2	1
Index finger, distal phalanx	2										1	
Middle finger, distal phalanx	1								1	1		
Ring finger, distal phalanx	2							1	1			
Little finger, distal phalanx	2										1	
Two fingers	3										1	
Two or more toes	1											
Total	16								1	3	4	4
Bruises:												
Eye	59	37	10	4	1	2	1			3	1	
Head	49	21	9	7	4	3	2	1	1		1	
Face and neck	43	29	8	1				1	3	1		
Upper trunk	219	60	31	34	23	14	17	15	15	3	3	4
Abdominal region	50	19	5	7	5	3	4	3	1	3		
Arms—shoulders	180	62	32	20	9	14	10	11	8	7	2	5
Hands	105	36	20	13	7	2	8	6	9	2	1	1
Fingers	268	87	45	33	19	20	15	23	16	5	4	1
Legs—hips	357	112	67	39	39	17	27	19	14	19	3	2
Feet	326	107	61	44	21	25	38	13	7	6	2	
Miscellaneous	21	4	1	5	1	3	2	2	1	2		
Total	1,677	574	289	207	129	103	124	94	75	51	17	14
Burns:												
Eye	161	134	14	8	2			1	1			1
Head	10	4	2			3			2	2		
Face and neck	45	22	8	8			1	3				
Upper trunk	10	1	3	2							1	
Abdominal region	3	1		1								
Arms—shoulders	43	16	9	8	6	1	2					
Hands	46	18	12	8	3	2	3					
Fingers	16	6	3	3	2	1		2				
Legs	28	9	6	1	3	1		4				
Feet	28	5	6	6	5	3	1	2				
Miscellaneous	7	1	2	1				1		1		
Total	397	217	65	46	24	9	11	8	2	1	1	3
Concussion: Brain	7				1		2					

TABLE 25.—NATURE AND LOCATION OF INJURY BY DURATION OF DISABILITY—REPAIRMEN AND OTHERS—Continued

Nature and location	Total injuries	Under 7 days	8 to 14 days	15 to 21 days	22 to 28 days	29 to 35 days	36 to 49 days	50 to 69 days	70 to 99 days	100 to 182 days	183 to 365 days	Over 365 days
Cuts and lacerations:												
Eye	22	17	1	1	1							1
Head—scalp	111	45	24	13	7	4	4	5	4	3	2	1
Face and neck	81	52	13	7	3	2	1		2			
Upper trunk	2		1		1							
Abdominal region	1				1							
Arms—shoulder	33	9	6	5	4		4		3		1	1
Hands	71	24	11	12	5	3	6	3	4	2	1	
Fingers	158	36	26	20	13	7	22	15	3	11	4	1
Legs	66	23	16	7	9	4	3		2	2		
Feet	38	15	8	5	5	1	1	3				
Miscellaneous	1									1		
Total	584	221	106	70	49	21	41	26	18	19	10	3
Dislocations:												
Arms—shoulder	12		1	1		4	2	1		1	1	1
Fingers	5	2					1			1		1
Legs	4		2	1				1				
Feet	1					1						
Total	22	2	3	2		5	3	2		2	1	2
Fractures:												
Jaw	5	1			1		1	1	1			
Teeth	2	2										
Head	16			1	1	1	2	2	1	3	2	3
Nose	5		1	1	1	1						
Spine	13			1								
Ribs	56	2	6	4	8	6	18	5	3	3	1	
Sternum	1							1				
Pelvis	9							1	1	2		
Shoulder	17				2	1	2	3		2		3
Arms	43	2	1	1	2	2	7	4	9	3	6	3
Arm and leg	1							1			5	7
Hands	19	1			2		3	7	2	2	1	1
Fingers	99	9	2	6	8	7	17	13	14	12	10	1
Hip	1										1	
Legs	36		1		2		1	2	10	7	6	7
One leg and one foot	2										2	
Feet	57	4	2		5	3	6	8	8	12	6	3
Toes	68	5	3	7	6	8	19	9	5	3	3	1
Miscellaneous	1											
Total	451	26	16	21	38	29	77	56	55	52	47	34

15. AWARDS TO DEPENDENTS

The following tabulation shows the relationship of the dependents in 109 fatal cases listed in Table 20. The average weekly compensation awarded to 80 widows is \$10.19, and for 163 children under 18 years of age the average award is \$2.50 each week. The average total valuation of awards to widows is \$5,324, and for children, \$717. It is estimated that these 109 cases will ultimately cost \$665,257.

Dependents	Number of dependents	Average age	Weekly compensation	Average weekly compensation	Estimated valuation	Average value of awards
Widows.....	80	39	\$815.09	\$10.19	\$425,936	\$5,324
Children, under 18 years of age.....	163	10	408.23	2.50	116,946	717
Sisters.....	8	12	21.60	2.70	6,236	780
Brothers.....	12	9	22.87	1.91	10,531	878
Fathers.....	5	64	27.49	5.50	13,262	2,652
Mothers.....	18	57	126.26	6.31	92,346	4,617
Total.....	286	-----	1,421.54	-----	665,257	-----

IV. DISTRICT OF COLUMBIA WORKMEN'S COMPENSATION ACT

1. SCOPE OF THE LAW

The act approved May 17, 1928, referred to in this report as the "District of Columbia workmen's compensation act," made applicable to all private employment in the District of Columbia, the provision of the longshoremen's and harbor worker's compensation act. This law which is in all respects comparable to a State compensation law is perhaps more inclusive in the scope of employments covered than workmen's compensation laws in effect in any of the States. It applies to the employees of practically all employers carrying on any employment in the District of Columbia and thus includes an employer who in the usual course of his business or profession may have in his employ only one employee working only a few hours a day or week. The only employees in private employment in the District of Columbia excluded from the benefits of this law are a master or member of a crew of any vessel, an employee of a common carrier by railroad when engaged in interstate or foreign commerce and an employee engaged in agriculture, domestic service, or any employment that is casual and not in the usual course of the trade, business, occupation, or profession of the employer. Employees covered by this law are variously estimated to number from 75,000 to 100,000, and number of employers subject to its provisions is approximately 14,000.

2. ADMINISTRATIVE PROCEDURE

The act making the longshoremen's and harbor workers' compensation act applicable to private employment in the District of Colum-

bia did not provide a different form of administrative procedure from that established in the basic law. Consequently the administrative procedure under both laws is the same although the conditions which seemingly called for a special form of administrative procedure under the longshoremen's and harbor workers' compensation law do not exist in the District of Columbia. The longshoremen's act relates to certain employments throughout the United States including the Territories of Hawaii and Alaska, and the territorial waters thereof. To facilitate the adjustment of claims arising under that law, it was necessary to establish administrative districts and appoint district administrators authorized to hold hearings and take testimony in controverted cases and make decisions awarding compensation or rejecting claims. The extent of territory covered probably accounts for the omission from the longshoremen's act of any specific authority for review by the commission of the decision of a deputy commissioner before review is sought in the United States district court. While this condition does not exist in the District of Columbia the same procedure is followed and review of the decision of the deputy commissioner on a claim arising under this law is by the Supreme Court of the District of Columbia without previous review by the commission.

This establishes a somewhat unique procedure for the administration of a State compensation law under the jurisdiction of a commission. In States in which a compensation law is administered by a commission, provision is frequently made for a member of the commission to conduct hearings and make decisions upon claims, but when this procedure is followed the decision of the commissioner is subject to review by the commission before it becomes final. This procedure no doubt tends to reduce the number of cases in which there is an appeal to the court from the decision of the commissioner and further it permits a review of the evidence introduced at the hearing as well as a review of the decision on questions of law, without the expense necessarily incurred in securing a review by the court. Claimants frequently are not financially able to take a case to court. Under existing procedure there is no review of the findings of fact made by the deputy commissioner in the District of Columbia if supported by competent evidence and review by the court of the decision of this administrative officer is limited to questions of law.

3. SECURITY FOR THE PAYMENT OF COMPENSATION

Employers are required to secure the payment of compensation to their employees by one of two methods, namely, by securing an

insurance policy with an insurance company authorized by the commission to write insurance under this law, or by qualifying as a self-insurer under conditions prescribed by the commission. The requirements established by the commission for self-insurance include in addition to satisfactory evidence of the financial responsibility of the employer, a minimum deposit of acceptable securities in the amount of \$10,000, or an indemnity bond in the amount of \$15,000.

During fiscal year 1930, 12 insurance companies were authorized to write insurance and 6 employers were given authority to act as self-insurers. At the end of the fiscal year there were 71 insurance companies having authority to write insurance and 68 employers privileged to act as self-insurers under this law. On June 30, 1930, there were 13,222 employers in the District of Columbia who had complied with the law to that date by securing workmen's compensation insurance with authorized insurance companies.

It is the opinion of the commission that practically all responsible employers in the District of Columbia have complied with the requirements of the law by securing the payment of compensation, and almost without exception employers who were unaware of their obligation in this respect have promptly and willingly complied with the law when informed of its provisions. Undoubtedly there are a number of small employers, particularly those having employees working only part time and at irregular intervals, who have not secured insurance. The discovery of these employers, while of importance because in many cases they are not financially responsible for the payment of compensation in the event an employee is killed or is seriously injured, is quite difficult. The commission has investigated each case where an employer has failed to renew his insurance on the expiration of a policy and has secured the assistance of the police department in making a check of all employers in the different precincts in an effort to require full compliance with the law by all employers.

Failure of an employer to secure the payment of compensation under this law is a misdemeanor punishable upon conviction by fine or imprisonment. During the fiscal year 1930 only one case was referred to the United States attorney for prosecution for failure to comply with the provisions of the law. This case was pending at the close of the fiscal year.

4. PREMIUM RATES

The situation, concerning premiums charged for insuring employers under the compensation law in effect in the District of Co-

lumbia, referred to in the commission's last annual report, has not improved to the extent desired during the year.

The principal difficulty is met in connection with the minimum premium collected from an employer having only one employee working part time. The minimum premium generally charged by insurance carriers is based on a rate per \$100 on an assumed pay roll of \$1,500, while many employers in the District have a pay roll of less than \$500. There have been occasional complaints by employers that rates charged are unreasonable. Such complaints are made as a rule when the premium is increased over the amount theretofore paid by the employer and he does not understand the reasons therefor.

The hope expressed in the last annual report that this matter of minimum premium would be satisfactorily adjusted has not been realized. In one case of about 100 employers, each having a pay roll ranging from \$600 per annum down to a small amount, coverage was afforded by an insurance company issuing one policy to cover all and making a rate for each employer based upon the actual amount of his pay roll instead of the usual assumed minimum pay roll for each employer of \$1,500 a year. This also avoided the \$10 "expense constant" or policy charge against each employer. The minimum premium supposed to be collected from each employer in the work in which these employers were engaged is \$56 a year, and appeared to be unreasonable and not justified by the nature and extent of the risk. Upon expiration of that policy another company, beginning July 1, 1930, has covered these employers in a similar manner. Thus there was avoided what the commission thought was an excessive charge of \$56 a year, regardless of the small amount of the annual pay roll which in some cases was not over \$100. The purpose of the commission, to require insurance companies authorized to do this business in the District of Columbia to charge only reasonable rates, has been accomplished in this case, although possibly not in a manner best to secure uniform and reasonable practices and a satisfactory situation in providing compensation insurance for employers in the District.

There has been no special difficulty during the year in the matter of what are called "undesirable risks"; that is, lines of business which practically all insurance companies wish to avoid for various reasons. The arrangement made in 1928 to meet the situation has continued and it is believed all employers have been able to secure insurance. This cooperation by insurance companies has been necessary in order to make certain that an employer engaged in a legitimate business shall not be required to discontinue business because

of inability to secure insurance. The commission has required certain companies which gave notice of cancellation of policies to withdraw such notices, for the reason that some company had to carry such risks, and there was no reason why a company voluntarily issuing the policy should not continue in the future to insure that risk, rather than that the commission require some other insurance carrier to take it.

The lack of supervision or control over rates for compensation insurance in the District of Columbia has necessarily resulted in freedom of action on the part of all the insurance companies in making rates to suit the exigencies of competition either from other insurance companies or, in case of large employers, to prevent the latter from becoming self-insurers. The commission has not objected when it has known of a rate being quoted by an insurance company in an amount less than that generally charged by other insurance companies. Usually the commission does not know the rates actually charged and collected from employers. In the few cases where it has had information of rates less than the usual charge it has believed it was a method of securing a reasonable rate for the employer and has made no objections.

The control the commission has over the subject of rates is that it authorizes insurance companies to write this form of insurance and has authority to revoke such authorization for good cause. Its efforts to require an individual insurance company to justify the reasonableness of a particular rate charged by such company has not met with much success, for the usual answer is that the insurance company charging the rate denies knowledge of the subject and asserts that the rate is given to it by the National Council on Compensation Insurance. The commission will pursue the matter further and may be called upon to have some public hearings on the question of revocation of the authority of a carrier. The answer that the rate is made by the national council is not satisfactory, as the commission has no part in the making of rates, nor do all carriers always adhere to the rates made by the national council. In the circumstances the commission does not attempt to require them to adhere to such rates and it would be useless to make the effort even if it were a desirable end.

In addition to the several ways of cutting rates, or making a rate less than that put out from time to time by the national council, there is a plan or system of what is known as "equity" rating. The commission is not informed of all the considerations entering into "equity" rating, but it clearly is applied to the employers paying the larger premiums and presumably to meet unusual situations involving to some extent competitive conditions, as well as the desir-

ability of the risk. The great majority of employers in the District do not come within the plan or purpose of "equity" rating, and it may be that there should be some authority to care for the interests of such employers in relation to the premiums they pay for compensation insurance, and to see that they are required to pay only reasonable rates.

It is well-known that the statements of insurance companies show that throughout the country there is no profit in the writing of workmen's compensation insurance. On the other hand it is claimed there is a substantial loss for the companies as a whole. The commission has no information concerning expenditures by insurance companies in the District of Columbia for items other than the compensation paid to the injured or dependents of those killed. What the companies have paid for medical service, expense of adjusting claims, etc., is unknown to the commission. It therefore has no information whether or not, during the two years the compensation law has been in effect, there has been a loss to the companies as a whole, as is claimed to be the experience throughout the country, or a profit. Until all the factors are known it is not possible to reach a conclusion as to the reasonableness of the rates generally charged, and the efforts of the commission, under such authority as it has, have been confined to individual cases.

It is believed that, with the cooperation of the National Council on Compensation Insurance, and of the great majority of the carriers, it will be possible to effect a considerable improvement in the rate situation in the District of Columbia during the current fiscal year. The commission is not prepared at this time to make recommendation for legislation on the subject, as it still believes the matter ought to be more satisfactorily adjusted through other means.

5. INJURIES REPORTED

During the fiscal year ended June 30, 1930—the second year the law was in effect—18,499 injuries were reported as compared with 14,295 reported during the preceding year. This is an increase of 4,204 cases or 29.41 per cent in the number of new cases reported. Included in the number of new cases reported during 1930 were 60 fatal cases, which is an increase of only 1 case over the number reported during the preceding year. During the two fiscal years the law has been in effect a total of 33,794 injuries including 119 which resulted fatally were reported to the commission. The following tabulation compares the number of injuries reported each month during 1930 with the number during the corresponding month in the preceding year.

Month	Injuries reported					
	Year ending June 30, 1930			Year ending June 30, 1929		
	Nonfatal cases	Fatal cases	Total	Nonfatal cases	Fatal cases	Total
July	1,656	3	1,659	731		731
August	1,739	8	1,747	1,222	5	1,227
September	1,431		1,431	1,169	4	1,173
October	1,768	5	1,773	1,288	7	1,295
November	1,512	3	1,515	1,215	7	1,222
December	1,424	5	1,429	1,183	6	1,189
January	1,487	10	1,497	1,081	3	1,084
February	1,265	1	1,266	992	3	995
March	1,409	3	1,412	1,090	5	1,095
April	1,500	7	1,507	1,315	7	1,322
May	1,521	5	1,526	1,405	6	1,411
June	1,727	10	1,737	1,545	6	1,551
Total	18,439	60	18,499	14,236	59	14,295

In addition to 18,499 new cases reported during the fiscal year, 913 closed cases were reopened for further consideration and these together with 1,096 cases pending at the beginning of the year makes a total of 20,508 cases presented for consideration during the year. On June 30, 1930, there were 1,256 cases pending in which compensation was being paid or which were incomplete. During the year 19,252 cases were disposed of, of which 9,653 were nonfatal cases in which the injury caused no loss in time, and 4,583 were cases in which the duration of disability did not exceed the 7-day waiting period. Of the total nonfatal cases disposed of, approximately 75 per cent were not entitled to compensation because the injury did not cause a loss in time or the duration of disability did not exceed seven days. There were 723 cases, including 2 fatal cases, reported, which, upon investigation, were found to be outside the scope of the law. Compensation was paid in 3,902 nonfatal cases without an award, and compensation orders awarding compensation were issued in 128 nonfatal cases. In 12 of the 21 fatal cases disposed of during the year, it was held that death was not the result of an injury within the provisions of the law. In five fatal cases it was determined that there was no person entitled to compensation for the death of the injured employee and these cases were accordingly closed by the payment in each case of \$1,000 into the special fund created by section 44 of the act. The following statement compares the number of cases disposed of during the fiscal years 1929 and 1930, and shows the reason for closing.

CASES DISPOSED OF

Reason for closing	Fiscal year 1930	Fiscal year 1929
Nonfatal:		
No time lost as a result of injury	9,653	6,518
Duration of disability 7 days or less	4,583	3,702
No jurisdiction	721	483
Compensation paid without award	3,902	2,878
Award of compensation	128	43
Miscellaneous	244	117
Total	19,231	13,741
Fatal:		
No jurisdiction	2	7
No dependents (\$1,000 award sec. 44)	5	2
Payment completed	1	
Death not due to injury	12	4
Miscellaneous	1	
Total	21	13

On June 30, 1930, there were 1,167 nonfatal cases and 89 fatal cases pending in the office of the commission in which compensation payments were not completed, or which were awaiting action. On that date compensation was being paid in 474 nonfatal cases and 36 fatal cases, and 677 nonfatal cases and 45 fatal cases were in the process of adjustment, additional information being necessary before the cases could be disposed of.

6. HEARINGS

In any case in which a claim is filed or the right to compensation is controverted, the deputy commissioner upon the application of any interested party is required to hold a public hearing at which the interested parties may present evidence in respect to the claim. If a hearing is not requested and the deputy commissioner deems one unnecessary, he may issue a compensation order awarding compensation or rejecting the claim without the formality of hearing. The percentage of cases in which hearings are held is almost negligible and during the fiscal year 1930, hearings were held in only 172 cases or less than 5 per cent of the total number of cases closed during the year in which compensation was paid. Questions relating to the payment of compensation were involved in 144 hearings, while 9 hearings involved questions relating to medical treatment and expense connected therewith. The hearings are required to be stenographically reported and the cost of reporting is an administrative expense. During the fiscal year 1930 the sum of \$3,360.70 was expended for contract stenographic reporting service in connection with hearings held under this law.

7. REVIEW BY THE COURTS

If not in accordance with law a compensation order issued by the deputy commissioner may be suspended or set aside in whole or in

part, through injunction proceedings brought by any party in interest in the Supreme Court of the District of Columbia. Proceedings must be brought before the expiration of the thirtieth day after the compensation order is filed in the office of the deputy commissioner.

During the fiscal year 1930, review of compensation orders was sought in seven cases in one of which the proceedings were subsequently dropped. In four cases proceedings for review were brought by the employer or insurance carrier and in three cases by the employee or his dependents. Four cases were decided during the year; in three cases the bill was dismissed and in one case the compensation order was set aside and the case was remanded to the deputy commissioner for further action. Of the three cases in which the bill was dismissed, two were brought by the employee and one by the insurance carrier. No written opinions have been handed down by the Supreme Court of the District of Columbia in connection with cases arising under this compensation law, although eight cases have been decided by the court since the law has been in effect.

8. COMPENSATION PAYMENTS

The commission has no information upon which an estimate may be made of the total monetary value of benefits paid under the provisions of the law. It is able to determine from its records only the amount of compensation paid to injured workmen and the dependents of those killed, and to furnish an estimate of the value of future compensation which may be payable in fatal cases. As explained in connection with the discussion in this report concerning insurance premiums, the commission is not informed of the cost of medical and hospital treatment furnished to injured workmen, since this service is furnished by the employer or his insurance carrier and the expense connected therewith is not reported to the commission.

During the period July 1, 1928, to June 30, 1930, covering the entire period the law has been in effect, the compensation paid in 6,648 nonfatal cases, in which it appears that the final payment has been made, amounts to \$433,412. This does not include payments made to June 30, 1930, in 474 incomplete nonfatal cases pending on that date, in which further compensation payments will be made. The total compensation paid and estimated to be paid in 42 fatal cases amounts to \$243,901. Exclusive of the amounts paid and to be paid in the 474 incomplete cases referred to above, the estimated total compensation liability on all cases in which payment had been started prior to June 30, 1930, is \$677,313.

9. AMENDMENTS

In its twelfth annual report the commission recommended an amendment to this law to relieve patriotic and fraternal societies and

similar organizations not organized for profit, from the necessity of carrying workmen's compensation insurance on employees who devote only a few hours once a week, or other short periods of time, to the business of the society or organization. The commission expressed the view that personal services of this nature should not be considered as employment within the meaning of the law.

Bills introduced in the Seventieth and Seventy-first Congresses to carry this recommendation into effect failed of enactment. The bill S. 3653 which was introduced in the Senate on January 6, 1930, passed that body on April 7, 1930, but was not reported from the committee to which it was referred in the House of Representatives. This bill by amending section 2 of the act approved May 17, 1928, excepted the class of employment referred to from the benefits of the act by providing that

no person, who is an officer or employee in the service of any war veterans' or fraternal organization or any lodge or social club or civic organization not organized for profit, and whether incorporated or unincorporated, shall be deemed to be an employee if his usual period of service shall not exceed four hours on one day at intervals of a week or more.

The commission again repeats its recommendation for the enactment of legislation to relieve these societies or organizations of the obligation to secure workmen's compensation insurance, the cost of which, while it may not represent a considerable sum in an individual case, is nevertheless entirely out of proportion to the risk involved. If this recommendation is adopted and the law amended as proposed by the bill S. 3653, Seventy-first Congress, direct benefit will result to probably more than 100 societies and organizations in the District of Columbia that follow the practice of paying a nominal sum to a member of the society for performing secretarial duties or who renders similar services requiring but occasional short periods of time. Other legislation which the commission considers equally desirable to perfect the administrative provision of this law has been referred to in connection with the longshoremen's and harbor workers' compensation act on pages 74 to 76 of this report.

10. EXPENSE OF ADMINISTRATION

The expense of administration of this law is paid from funds provided for the purpose in the annual appropriation for the District of Columbia. The funds thus provided are transferred to the commission for expenditure by it. A total of \$63,000 was appropriated for the fiscal year 1930, and \$60,958 was expended during that year for administrative purposes. The amount expended includes \$50,636 for personal services, while the remainder, \$10,322, represents incidental administrative expenses including \$3,360 for contract stenographic reporting services and \$1,842 for special medical examinations ordered by the deputy commissioner.

11. TRUST-FUND ACCOUNT

The fund created by section 44 of the compensation act is available for the payment of additional compensation for the maintenance of permanently disabled employees undergoing vocational rehabilitation under the direction of the commission, the purchase of prosthetic appliances, and the payment of compensation in certain cases of injuries causing total disability. The only expenditures from this fund to June 30, 1930, have been for the purchase of appliances in cases in which an award was made on account of the loss of a member of the body and where the appliance was necessary to render the injured employee fit to engage in a remunerative occupation. During the fiscal year \$3,250 was deposited to the credit of this fund and during the same period \$858.50 was expended. On June 30, 1930, the balance remaining in the fund was \$4,775. The following statement summarizes receipts and expenditures for the fiscal year 1930.

RECEIPTS

Balance, July 1, 1930	\$1,525.00
Payments of \$1,000 each by carriers during fiscal year 1930	3,000.00
Fines collected, section 44 (c) (2)	250.00
 Total	 4,775.00

DISBURSEMENTS

Prosthetic appliances furnished beneficiaries during fiscal year 1930	\$850.50
Balance June 30, 1930	3,916.50
 Total	 4,775.00

12. ANALYSIS OF INJURIES BY EXTENT OF DISABILITY AND INDUSTRY

In Table 26 the nonfatal injury cases closed during the fiscal year, and fatal cases in which an award for compensation was made prior to June 30, 1930, are distributed among the industries represented in the District of Columbia. The highest number of injuries occurred in the general contracting industry, which reported 1,076 injuries; automobile sales and service reported the next highest number, 726; and food-product manufacturers reported the third highest number, 514. Department, food, and general stores reported 1,134 injuries, restaurants reported 291, and hotels and clubs, 226.

Of the total number of cases tabulated, 4,532 had a disability not to exceed 7 days, 3,781 received compensation for temporary total disability, 129 were compensated for permanent partial disability, and 19 were fatal cases, 15 of which involved awards to dependents. The duration of disability in compensated nonfatal cases amounts to 139,719 days for which \$288,243 was paid in compensation. It is estimated that the 19 death cases will ultimately cost \$103,528.

TABLE 26.—ANALYSIS OF INJURIES BY EXTENT OF DISABILITY, FOR EACH IMPORTANT INDUSTRY, FISCAL YEAR 1930—(DISTRICT ACT)

Industry	All cases, number	Tabulated cases	Total amount compensation	Nonfatal cases						Fatal cases			
				Temporary total disabilities			Permanent partial disabilities—Compensated cases			Total number cases	Number with dependents	Amount weekly compensation	Total estimated costs
				Total number cases	Number	Days duration	Number	Days duration	Amount compensation				
Clerical and personal service:													
Hotels and clubs	226	226	\$7,381	220	102	3,151	\$6,241	6	821	\$1,140			
Laundries, cleaning, dyeing	191	190	4,204	188	96	2,847	3,881	2	283	323	1	1	\$24.38
Restaurants	291	291	6,524	289	164	3,795	5,367	2	718	1,157			
All others	446	444	15,862	435	231	7,134	11,714	9	2,148	4,148	2	1	7.62
Total	1,154	1,151	33,971	1,132	593	16,927	27,203	19	3,970	6,768	3	2	32.00
Construction:													
Brick, stone, tile	327	327	15,654	320	151	5,112	11,867	7	1,478	3,787			
Concrete and cement	267	265	8,592	262	121	3,379	6,739	3	561	1,853	2	1	24.38
General contracting	1,076	1,072	41,877	1,054	449	14,414	31,658	18	3,299	10,219	4	3	66.88
All others	1,010	1,007	54,951	989	472	16,400	40,928	18	4,833	14,023	3	3	48.16
Total	2,680	2,671	121,074	2,625	1,193	39,305	91,192	46	10,171	29,882	9	7	139.42
Manufacturing:													
Blast-furnaces and steel mills	85	85	1,873	83	23	605	1,336	2	329	537			
Chemicals	21	21	790	21	10	341	790						
Clothing	18	18	406	17	13	257	218	1	146	188			
Food products	514	514	23,556	505	253	8,732	18,842	9	1,959	4,714			
Leather goods	39	39	2,861	36	15	501	557	3	1,083	2,304			
Metal goods	26	26	306	26	8	191	306						
Stone, clay, and glass products	55	55	2,306	54	22	456	781	1	427	1,525			
Textiles	4	4	32	4	1	21	32						
Vehicles	12	12	166	11	2	26	28	1	105	138			
Wood products	35	35	2,946	32	15	268	388	3	717	2,558			
All others	95	95	2,154	95	44	1,176	2,154						
Total	904	904	37,396	884	406	12,574	25,432	20	4,766	11,964			
Quarrying and stone products	45	45	1,169	43	14	276	409	2	266	760			

TABLE 26.—ANALYSIS OF INJURIES BY EXTENT OF DISABILITY, FOR EACH IMPORTANT INDUSTRY, FISCAL YEAR 1930—(DISTRICT ACT)—Continued

Industry	All cases, number	Nonfatal cases									Fatal cases							
		Tabulated cases	Total amount compensation	Temporary total disabilities				Permanent partial disabilities—Compensated cases			Total number cases	Number with dependents	Amount weekly compensation	Total estimated costs				
				Total number cases	Compensated cases			Number	Days duration	Amount compensation								
					Number	Days duration	Amount compensation											
Trade:																		
Automobile sales and service	726	725	\$21,741	717	302	8,336	\$17,887	8	1,275	\$3,854	1	1	\$6.05	\$7,500				
Coal, wood, ice	110	109	3,120	108	54	1,418	2,406	1	329	714	1	1	13.46	7,500				
Department stores	223	223	6,338	219	83	2,319	3,160	4	981	3,178								
All others, stores	477	477	12,880	471	164	4,476	7,785	6	1,712	5,095								
Food products—chain stores, etc.	434	433	12,984	426	193	5,581	11,085	7	875	1,899	1	1	8.98	4,145				
Printing and publishing	229	229	5,940	228	112	2,840	5,210	1	204	730								
All others	488	488	13,934	481	219	6,065	11,003	7	1,012	2,931								
Total.	2,687	2,684	76,937	2,650	1,127	31,035	58,536	34	6,388	18,401	3	3	28.49	19,145				
Transportation and public utilities:																		
Drayage and storage	204	204	5,606	201	106	2,890	4,788	3	359	818								
Street railways	208	207	4,772	207	97	2,349	4,772				1	1	14.25	7,500				
Taxicabs	61	60	6,735	58	38	2,216	5,635	2	308	1,100				1,200				
Telegraph	89	89	1,377	89	43	988	1,377											
All others	429	427	9,206	424	164	4,169	7,855	3	762	1,351	2	2	14.98	10,637				
Total.	991	987	27,696	979	448	12,612	24,427	8	1,429	3,269	4	3	29.23	19,337				
Grand total	8,461	8,442	298,243	8,313	3,781	112,729	227,199	129	26,990	71,044	19	15	229.14	103,528				

¹ Does not include 34 third-party cases.

13. CAUSE OF ACCIDENTAL INJURIES

The nonfatal and fatal injuries are distributed in Table 27 according to the cause of the injury. Nonmechanical causes were responsible for 7,870 injuries, as compared with 591 which arose out of mechanical causes. More injuries are caused by objects being handled than any other major classification. During the fiscal year, 1,821, or 21.5 per cent of the total number of injuries tabulated in this report, were from this cause. Injuries from falls of persons number 1,606 during the year, or 19 per cent of the total. Falling objects come next in importance, causing 797 injuries, or 9.4 per cent of the total. Next in order of frequency is injury from hand tools, 8.3 per cent of the total; from striking against objects, 7 per cent; from stepping in or on objects, 6.6 per cent; from automobiles, 5 per cent. In the group classified as due to mechanical causes, machinery which the injured person was operating was the principal cause of injury, 7 per cent of all injuries being due to this cause. These eight causes account for about 84 per cent of the injuries which resulted in loss in working time. Injuries from pressure equipment, explosives, electricity, conflagrations, hot substances, dust, gases, and chemicals combined account for less than 7 per cent of the injuries during the fiscal year.

TABLE 27.—NUMBER OF INJURIES INVOLVING LOSS OF TIME, BY EXTENT OF DISABILITY, IN GENERAL GROUPS OF CAUSATION, FISCAL YEAR 1930—(DISTRICT ACT)

Cause of injury	All cases	Nonfatal cases										Fatal cases			
		Tabulated cases	Total duration	Total amount compensation	Temporary total disabilities				Permanent partial disabilities			Number	Amount weekly compensation	Total estimated cost	
					Total number cases	Compensated cases		Number	Duration	Amount compensation					
Nonmechanical:															
Vehicles—															
Automobiles	425	424	11,085	\$21,616	416	237	8,621	\$18,144	8	1,748	\$3,472	1		\$1,200	
Motor cycles and bicycles	50	50	510	450	50	20	390	450							
All other	62	61	1,810	4,458	57	25	809	1,750	4	873	2,708	1	\$14.25	7,500	
Total	537	535	13,405	26,524	523	282	9,820	20,344	12	2,621	6,180	2	14.25	8,700	
Pressure equipment:															
Steam and hot water escaping	7	7	154	219	7	5	146	219							
Air pressure apparatus	9	9	142	200	9	5	126	200							
All other	10	10	88	53	10	3	60	53							
Total	26	26	384	472	26	13	332	472							
Explosive substances	20	20	269	420	20	8	221	420							
Electricity, wires, etc.	40	38	656	1,302	38	17	572	1,302					2	14.98	10,637
Conflagrations and flames:															
Gasoline and other petroleum products	18	17	397	647	17	13	381	647					1		1,200
All other	59	58	847	1,117	58	24	711	1,117					1	6.05	7,500
Total	77	75	1,244	1,764	75	37	1,092	1,764					2	6.05	8,700
Hot substances:															
Water and other fluids	106	106	1,322	1,634	105	52	1,054	1,434	1	56	200				
Steam	18	18	248	274	18	11	220	274							
Metal (not molten)	35	35	350	302	35	16	274	302							
All other	29	29	592	654	28	9	169	287	1	347	367				
Total	188	188	2,512	2,864	186	88	1,717	2,297	2	403	567				

Dusts, gases, chemicals, etc.:														
Handling or contact with—														
Calcium, lime, plaster	34	34	298	393	34	14	218	393						
Cement	23	23	683	1,223	21	13	221	288	2	430	935			
All other	110	110	1,479	2,349	110	46	1,223	2,349						
Total	167	167	2,460	3,965	165	73	1,662	3,030	2	430	935			
Inhalation	42	42	526	805	42	17	426	805						
Swallowing	4	4	16		4									
Total	213	213	3,002	4,770	211	90	2,088	3,835	2	430	935			
Falls of persons:														
From or on—														
Building, in construction or demolition	32	31	1,400	4,162	30	18	1,024	2,992	1	328	1,170	1	24.38	7,500
Stairs and steps	262	262	6,142	11,552	259	136	4,256	7,196	3	1,394	4,356			
Scaffolds and staging	130	127	3,731	10,029	126	78	3,217	8,879	1	322	1,150	3	60.03	22,500
Ladders	145	145	4,117	10,013	142	79	3,509	8,965	3	356	1,048			
Other elevations	227	226	4,729	9,931	222	104	3,529	7,517	4	728	2,414	1	13.46	7,500
Into shafts, floor openings, etc.	93	91	2,408	5,087	89	58	2,089	4,576	2	195	511	2	32.62	12,409
On same level	314	314	6,421	12,787	314	168	5,837	12,787						
Stumbling over objects	178	178	3,870	7,546	176	93	3,055	6,619	2	483	927			
Slipping or falling while carrying heavy objects	148	148	2,798	5,080	148	80	2,526	5,080						
All other falls	79	79	1,359	2,968	78	32	1,004	2,358	1	171	610			
Total	1,608	1,601	36,975	79,155	1,584	846	30,046	66,969	17	3,977	12,186	7	13,049	49,909
Falling objects:														
From buildings and walls in course of demolition														
All other	121	120	3,241	6,984	116	62	2,137	4,934	4	888	2,050	1		1,200
All other	676	676	13,142	25,108	668	332	10,517	21,195	8	1,281	3,913			
Total	797	796	16,383	32,092	784	394	12,654	26,129	12	2,169	5,963	1		1,200
Handling objects:														
Heavy objects														
All other	599	599	13,723	27,248	599	349	12,723	27,248						
All other	1,222	1,220	20,244	34,507	1,202	555	14,162	25,047	18	3,494	9,460	2	8.98	5,433
Total	1,821	1,819	33,967	61,755	1,801	904	26,885	52,295	18	3,494	9,460	2	8.98	5,433
Hand tools:														
Glancing or slipping														
All other	543	543	8,142	15,841	533	212	4,938	9,473	10	1,920	6,368			
All other	156	156	2,873	5,904	153	60	1,588	2,272	3	913	2,632			
Total	699	699	11,015	21,745	686	272	6,526	12,745	13	2,833	9,000			
Stepping in or on objects:														
Nails														
All other	510	510	3,401	2,782	510	102	1,769	2,782						
All other	52	52	999	2,167	52	22	879	2,167						
Total	562	562	4,400	4,949	562	124	2,648	4,949						

TABLE 27.—NUMBER OF INJURIES INVOLVING LOSS OF TIME BY EXTENT OF DISABILITY, IN GENERAL GROUPS OF CAUSATION, FISCAL YEAR 1930—(DISTRICT ACT)—Continued.

Cause of injury	All cases	Nonfatal cases									Fatal cases		
		Tabulated cases	Total duration	Total amount compensation	Temporary total disabilities			Permanent partial disabilities			Number	Amount weekly compensation	Total estimated cost
					Total number cases	Compensated cases		Number	Duration	Amount compensation			
Striking against objects:													
Nails	116	116	1,165	\$1,566	114	27	417	2	400	\$1,041			
Splinters	283	283	4,357	7,072	278	127	2,982	5	771	2,196			
All other	191	190	2,605	4,310	189	76	1,992	1	161	184	1	13.13	\$7,500
Total	590	589	8,127	12,948	581	230	5,391	8	1,332	3,421	1	13.13	7,500
Struck by objects:													
Flying objects	166	166	1,736	2,802	165	40	900	1	336	1,200			
All other	57	57	797	1,403	57	25	669						
Total	223	223	2,533	4,205	222	65	1,569	1	336	1,200			
Miscellaneous	223	223	2,533	4,205	222	65	1,569	7	1,477	3,051	1	16.88	3,949
Total nonmechanical	7,870	7,852	142,083	266,916	7,760	3,540	106,131	92	19,072	51,963	18	204.76	96,028
Mechanical:													
Prime movers	6	5	176	530	5	3	168				1	24.38	
Power transmission apparatus	17	17	216	284	17	8	180						
Metal works machinery—													
Portable power tools	62	62	623	1,194	61	12	309	1	118	421			
All other	126	126	2,333	4,199	121	26	564	5	1,339	3,124			
Total	188	188	2,956	5,393	182	38	873	6	1,507	3,545			
Wood works machinery	52	52	3,268	9,426	44	28	844	8	2,360	7,449			
Paper products machinery:													
Presses (printing)	31	31	634	1,192	29	11	227	2	335	880			
Bookbinding	11	11	341	607	11	9	333						
All other	33	33	907	1,226	32	18	571	1	280	538			
Total	75	75	1,882	3,025	72	38	1,131	3	615	1,418			

Textile machinery	13	13	141	90	13	7	117	90	4	1,137	1,497		
Laundry machines	39	39	1,741	2,045	35	20	544	548	7	921	1,665		
Food-products machinery	51	51	1,561	2,446	44	22	552	781					
Hoisting apparatus and conveyors:													
Elevators, controlled	35	35	843	1,794	34	20	680	1,597	1	107	197		
All other (cranes, conveyors)	61	61	1,512	3,020	58	34	895	1,699	3	521	1,321		
Total	96	96	2,355	4,814	92	54	1,575	3,296	4	628	1,518		
Miscellaneous	54	54	1,468	3,274	49	23	614	1,285	5	750	1,989		
Total mechanical	591	590	15,764	31,327	553	241	6,598	12,246	37	7,918	19,081	1	24.38
Grand total	8,461	8,442	157,847	208,243	8,313	3,781	112,729	227,199	129	36,990	71,044	19	229.14
													103,528

14. DURATION OF DISABILITY

Table 28 shows the cumulative experience for the two years the District of Columbia act has been in effect. Nonfatal injury cases involving loss of time, numbering 14,754, which were closed during this period by final payment of compensation, have been distributed according to the nature and location of the injury and the length of the disability period. More injuries resulted from bruises than any other type of injury, 4,240 injuries being classified under this classification; 3,048 injuries were reported as cuts; 2,719 as sprains; 1,913 as punctures; 1,091 as fractures; and 827 as burns. Amputations were reported in 29 cases. The average duration of disability in cases described as fractures is 51.1 days; concussions 14.4 days; cuts 13.6 days; bruises, 12.5 days; punctures, 11.2 days. The average duration for all lost time injury cases closed during the two years is 16.5 days.

The law provides that proper and equitable compensation, not to exceed \$3,500, shall be awarded for serious facial or head disfigurement. In most disfigurement cases there is some other disabling injury which causes loss of time, for which compensation is payable. Of the 15 cases tabulated in Table 28 in which an award for disfigurement was made, 1 was associated with a concussion of the brain, 3 with fractures, and 11 with cuts of the scalp, nose, forehead, or other parts of the head and face. The total loss of time in 15 cases amounts to 2,249 days, and compensation amounting to \$4,792 was paid, of which amount \$3,790 was for facial or head disfigurement.

TABLE 28.—NATURE AND LOCATION OF THE INJURY AND DURATION OF DISABILITY, DISTRICT OF COLUMBIA, ACT 1929 AND 1930

Nature and location	7 and under	Duration of days										Total number of injuries
		8 to 14	15 to 21	22 to 28	29 to 35	36 to 49	50 to 69	70 to 99	100 to 182	183 to 365	Over 365	
Amputations:												
Thumb												1
Thumb, distal phalanx											1	2
Thumb, proximate phalanx											1	1
Index finger, distal phalanx					1	1					5	7
Index finger, middle phalanx											1	1
Index finger, proximate phalanx											1	1
Middle finger, distal phalanx					1	2		1	4		1	8
Middle finger, middle phalanx											1	1
Ring finger, distal phalanx						1					1	2
Little finger, distal phalanx				1			1				1	2
Two fingers										1	1	2
Great toe										1		1
Total				1	2	4	1	1	12	6	2	29
Bruises:												
Eye	107	17	6	2	1	2						135
Head	109	18	9	2	6	2	1	1				148
Face and neck	84	17	4	2	1	2						110
Upper trunk	202	64	46	30	13	14	6	2				377
Abdominal region	106	36	35	21	8	8	10	2	4			230
Arms, shoulder	279	65	49	20	11	8	6	6	2	2		448
Hands	177	54	28	17	8	9	5	3			1	302
Fingers	445	140	56	48	20	29	9	3	9	3		762
Legs	464	164	81	47	35	35	22	11	6	2		867
Feet	441	146	71	27	15	16	12	5	1	1		735
Miscellaneous	59	26	11	9	7	7	3	2	2			126
Total	2,473	747	396	225	125	132	74	35	24	8	1	4,240
Burns:												
Eyes	129	22	8	6	2		2		1			170
Face and neck	58	13	7	2	1					1		82
Upper trunk	8	7	1	1						2		19
Abdominal region	3		1	1		1			1			7
Arms, shoulder	82	39	20	11	6	2	1	1				162
Hands	82	32	27	9	5	11	2	3	1		1	173
Fingers	27	17	7	2	4	4	1		2			64
Legs	21	11	9	11	5	6	2	2				67

TABLE 28.—NATURE AND LOCATION OF THE INJURY AND DURATION OF DISABILITY, DISTRICT OF COLUMBIA, ACT 1929 AND 1930—Continued.

Nature and location	7 and under	Duration of days										Total number of injuries
		8 to 14	15 to 21	22 to 28	29 to 35	36 to 49	50 to 69	70 to 99	100 to 182	183 to 365	Over 365	
Burns—Continued.												
Feet	24	11	8	6	1	5	2	2	1			60
Miscellaneous	8	3	5	2		3	2					23
Total	442	155	93	51	24	32	12	8	6	3	1	827
Concussion: Brain		11	16	11	8	6	4	6	9	1	2	1
Cuts:												
Eyes	38	11	6	3	4	1						64
Head	209	67	28	8	4	4	2	1	1			324
Face and neck	238	43	17	8	3	1	4	3	3			322
Upper trunk	4	2	1		1		2					10
Abdominal region	10	5	1			1	1					18
Arms, shoulder	141	67	29	7	5	7	3	3	1	1	1	265
Hands	298	125	57	20	11	15	4	8	3	5	1	547
Fingers	610	227	136	51	27	30	13	3	18	7	2	1,124
Legs	116	51	27	22	7	9	5	3	1	1		242
Feet	71	25	11	6	2	6	2		1			124
Miscellaneous	3	1	2	1								8
Total	1,738	624	315	126	65	74	36	21	28	17	4	3,048
Dislocations:												
Head		1		1								2
Upper trunk					1							1
Sacrum								1				1
Arms, shoulder	6	6	4	8	4				2	1		31
Hands	1											1
Fingers	12	2	2	2	2	2	1	1				23
Legs	4	5	3	1	2	1	1	1				18
Feet							2					3
Total	23	14	9	12	10	3	4	2	2	2		81
Fractures:												
Jaw	2	1	1				1		1	1		7
Teeth	6		2									8
Head	4	2	2	2	1	6	3	5	1	2		28
Nose	10	4	4	1		1	2	2	2			21
Spine	1		3	1	1		4	7	4			24

Ribs.	19	10	13	18	19	18	10	3	1	2	1	111
Pelvis.												11
Arms, shoulder.	21	5	10	26	32	46	40	23	17	12	1	233
Arm and leg.												2
Hands.	7	3	6	9	8	14	7	6	4	1		65
Fingers.	44	27	25	22	17	26	10	6	13	3	2	195
Hip.	1					1			3	2		7
Legs.	2	4	2	3	6	15	29	23	19	11	1	115
Feet.	12	6	11	13	10	30	17	10	7	3		119
Toes.	28	23	24	24	12	13	11	3	5	1		144
Miscellaneous.						1						1
Total	157	85	105	119	106	175	133	83	82	42	4	1,091
Punctures:												
Eyes.	108	12	6	3	3	1			1	1	2	137
Head.	7	2	1									10
Face and neck.	12	3										15
Upper trunk.	3		1				1					5
Abdominal region.	4		1		1	2	1					9
Arms, shoulder.	65	25	5	4		2	2					104
Hands.	139	39	15	6	6	3	2	3				213
Fingers.	207	69	33	9	4	7	3	1	5	4		342
Legs.	50	11	7	6	3	4	2	1				86
Feet.	778	137	42	18	8	5	2	1				991
Miscellaneous.	1											1
Total	1,374	298	111	46	25	24	13	6	7	6	3	1,913
Sprains:												
Eyes (strain).	1											1
Face and neck.	18	3	2	3								26
Upper trunk.	423	192	92	51	31	26	12	13	8	2		851
Abdominal region.	139	65	51	37	27	73	72	27	9	2		502
Arms, shoulder.	212	71	34	28	10	21	6	3				385
Hands.	21	11	2	1		1						35
Fingers.	23	6	3	1		1						34
Legs.	440	150	106	37	27	20	5	8	6			799
Feet.	44	18	7	6		3	6	1				86
Total	1,321	516	295	165	95	144	102	52	24	4	1	2,719
Miscellaneous:												
Eye (includes foreign body in eye).	349	19	6	4	1	3			1			383
All others.	219	44	21	19	14	13	6	2	8	2		348
Total	568	63	27	23	15	16	6	2	9	2		731
Grand total	8,107	2,518	1,362	776	473	608	387	219	194	92	18	14,754

15. AWARDS TO DEPENDENTS

The following tabulation shows the relationship of the dependents in 19 fatal cases listed in Table 26. Awards were made to 12 widows, to 31 children under the age of 18, to 1 dependent sister, to 1 dependent brother, and 2 dependent mothers. The average compensation awarded to widows is \$11.08 weekly, for children the weekly average is \$2.57 each, for brothers and sisters, \$2.08 each, and for mothers, \$6.22 each. The total weekly payments amount to \$229.14. It is estimated that the total compensation paid and to be paid in these cases will amount to \$95,417.

Dependents	Number of dependents	Average age	Weekly compensation	Average weekly compensation	Estimated valuation	Average value of awards
Widows.....	12	34	\$132.92	\$11.08	\$60,780	\$5,065
Children, under 18 years of age.....	31	8	79.62	2.57	26,182	845
Sisters.....	1	9	2.08	2.08	864	864
Brothers.....	1	12	2.08	2.08	581	581
Mothers.....	2	63	12.44	6.22	7,010	3,505
Total.....	47	229.14	95,417

V. PERSONNEL CHANGES

With the exception of the appointment of a new chief of its statistical division, only routine changes occurred in the personnel of the commission during the year. On February 1, 1930, Frank M. Phillips, formerly in charge of the statistical division of the United States Bureau of Education, entered on duty as chief statistician of the commission. On June 30, 1930, the personnel of the commission, in addition to three commissioners, numbered 113 employees in the departmental service and 61 employees in the field.

Respectfully submitted.

BESSIE P. BRUGGEMAN, *Chairman*,
 HARRY BASSETT,
 JOHN M. MORIN,
Commissioners.

