U. S. DEPARTMENT OF LABOR
JAMES J. DAVIS, Secretary
BUREAU OF LABOR STATISTICS
ETHELBERT STEWART, Commissioner

BULLETIN OF THE UNITED STATES BUREAU OF LABOR STATISTICS . . . . . No. 490

INDUSTRIAL ACCIDENTS AND HYGIENE SERIES

STATISTICS OF INDUSTRIAL ACCIDENTS IN THE UNITED STATES TO THE END OF 1927

AUGUST, 1929

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1929

For sale by the Superintendent of Documents, Washington, D. C. - - - Price 30 cents

ACKNOWLEDGMENT

This bulletin was prepared by Lucian W. Chaney and C. F. Stoddard, of the United States Bureau of Labor Statistics.

CONTENTS

BULLETIN OF THE
U. S. BUREAU OF LABOR STATISTICS

No. 490 WASHINGTON AUGUST, 1929

STATISTICS OF INDUSTRIAL ACCIDENTS IN THE UNITED STATES TO THE END OF 1927

Chapter I.—INTRODUCTION

RELATION OF STATISTICS TO INDUSTRIAL SAFETY

The purpose of the collection and publication of industrial accident statistics is to offer a basis for the promotion of safety in industry. The use of such data is essential to an effective operation of any well-planned safety program. To be intelligently applied this information must be analyzed and presented in such a way as to show, by the use of accident rates (explained on p. 8), the frequency with which accidents are occurring in any particular department or occupation of a plant, how serious these accidents are in terms of degree of disability measured by time loss, and the relative importance of the causes operating to produce such accidents. With this information at hand the plant manager or safety director is able to proceed with his program for the conservation of human life within his establishment, knowing that a plan worked out in cooperation with his foremen or his plant committees, or by other approved method, and vigorously and consistently applied, with special emphasis where the need is shown by the accident rates to be greatest, will, in the absence of fortuitous circumstances, result in a reduction of injuries of all kinds.

The enactment of compensation laws in nearly every State[1] focused attention upon the necessity for accident statistics which would shed light upon the various problems of compensation insurance. As this principle of compensating workmen for injuries received in the course of their employment has developed in recent years, some State administrative bodies have come to realize the value of such data in the work of accident prevention and are making the information available to industry. Unfortunately, however, the States have adopted procedures sufficiently different to make it difficult, and in many cases impossible, to combine these records in a general exhibit of interest and utility. The primary reasons for this are, first, lack of funds, because of which handicap many States have been unable to develop their statistical organizations sufficiently

[1] South Carolina, Florida, Mississippi, and Arkansas had no such law. The North Carolina Legislature passed a compensation law at its session in 1929.

to utilize the enormous quantity of raw material of accident statistics which has accumulated in the course of the administration of the workmen's compensation laws; and, second, the fact that the State agencies have found themselves so involved in the multiplicity of problems of compensation that they have been unable to give adequate attention to the really more important problems of accident prevention.

Ultimately it will be necessary for all States to do what some have already done, namely, to grapple with the matter of accident prevention. It is to be hoped that when this time comes there will be an intelligent correlation of the statistical service and the inspection service, so that the statistical information may contribute its full share to the desired end.

A complete compilation of industrial accident statistics has never been attempted by any Government agency. Here, again, insufficient appropriations have made impossible the nation-wide first-hand survey of industry rendered necessary by the absence of provisions in State laws calling for uniform methods of reporting accident data, including definitions, industry classification, report forms, time and extent of reporting, etc., and the centralization of such records in some Federal department at Washington.

SCOPE OF THE BUREAU'S ACCIDENT REPORTS

The United States Bureau of Labor Statistics has issued four bulletins [2] bringing together, so far as possible, the important records of industrial accidents throughout the country. Two of these were prepared by Dr. Frederick L. Hoffman and were issued in 1908 and 1914. The third, prepared by the bureau staff and published in 1923, brought the data for the most part down to the year 1920. In 1927 the fourth report was issued, including, so far as possible, accident records to the end of 1925. In all of these bulletins the data are based largely upon State and other official published reports, but the fourth bulletin, in addition to this, includes the results of the first attempt to collect directly from the States and from industry itself (other than the iron and steel industry, for which accident data have long been available) adequate statistics of accidents in manufacturing industries in a manner to make possible the computation of comparable accident rates. This record was supplemented in 1927 by the publication of a pamphlet giving the accident experience in the iron and steel industry and in a selected group of other manufacturing industries to the end of 1926.

In the introduction to the second bulletin Doctor Hoffman comments as follows: "At the present time there are no entirely complete and trustworthy industrial accident statistics for even a single important industry in the United States. The most reliable data are for the iron and steel industries, mining, and the railways." As time has gone on, the three Federal agencies concerning themselves with accident statistics, namely, the Interstate Commerce Commission, the Bureau of Mines, and the Bureau of Labor Statistics, have so improved their methods of collecting and handling accident data that

[2] U. S. Bureau of Labor Statistics Bul. 78: Industrial accidents; Bul. No. 157: Industrial accident statistics; Bul. 339: Statistics of industrial accidents in the United States; Bul. 425: Record of industrial accidents in the United States to 1925.

what they offer may fairly be claimed to be "trustworthy," though in the nature of the case it would be beyond reasonable expectation that they should be "entirely complete."

The present bulletin brings the statistical data regarding industrial accidents down to the end of the year 1927.

The first accident data assembled by the bureau on a large scale pertains to the iron and steel industry. Beginning in 1911, when the first comprehensive report was issued as Volume IV of Senate Document 110 (62d Cong., 1st sess.), the work has been carried on annually and the results published from time to time,[3] culminating in the figures offered in the present bulletin, which gives the accident experience of this great industry for a period of 19 years. Having secured the cordial cooperation of the industry to the extent that accident reporting is now regular and complete and susceptible of analysis for the application of accident prevention measures, the bureau has turned its attention to obtaining reports concerning manufacturing industries in general, continuing, however, to regard the iron and steel industry as a separate group. Data for this industry therefor are, in consequence, omitted from the general tabulations herein and presented as Chapter IV. The record of the other industries first published was for the year 1925 (Bul. 425); it was followed by data for 1926 (Labor Review, Oct., 1927), and now by data for 1927.

In addition to the data gathered first hand by the bureau's representatives, considerable statistical material compiled by other agencies has been included in the present bulletin. The bureau's presentation of accidents in manufacturing industries and in the iron and steel industry is followed by tabulations published by the United States Bureau of Mines, covering mines, quarries, and metallurgical works, and by the Interstate Commerce Commission, covering the steam and electric railways of the country. These tables are supplemented by charts prepared by the bureau. The Federal Employees' Compensation Commission compiles statistics relating to accidents among Government employees in the civil service, and these figures have been included in this report.

Other accident experience of sufficient volume to be significant has been taken from the latest report of the National Safety Council,[4] which gives for the year 1927 a record of 2,089 establishments employing 1,565,747 workers, with a total of 3,742,404,981 man-hours' exposure. These figures cover 16 industrial groups.

In some instances the accident rates taken from the other sources noted have, where it was possible to do so, been recomputed, on the basis of man-hours' exposure so that they may be more nearly comparable with the rates given in the bureau's tabular matter. In other instances, where no rates are given in the original report, they have been computed. After all, the rates are the significant factors for use in any accident-prevention campaign, and all presentations of accident statistics, whether by official or unofficial organizations or by industry itself, which do not include accident rates, lose much of their value from the standpoint of safety of workers.

[3] Later complete reports on this industry are included in U. S. Bureau of Labor Statistics Buls. 234 and 298.

[4] 108 East Ohio Street, Chicago.

Recapitulating, it may be stated that this bulletin includes accident data covering the following:

1. Manufacturing industries (except the iron and steel industry, which is treated separately in Chapter IV).
2. Iron and steel industry.
3. Mines, quarries, and metallurgical works.
4. Steam and electric railways.
5. Federal departments.
6. Members of the National Safety Council.

ACCIDENT PREVENTION POSSIBLE

That accidents can be prevented by an intelligent study of the situation, which is possible by the publication of statistics of this kind, is well illustrated by the record of the iron and steel industry. (See Table 11, p. 127). In 1910, before the accident situation was brought forcibly to the attention of the officials in that great industry through the computing and classification of accident rates, the workers were being killed and injured at the rate of 74.7 for every million man-hours of exposure, and for every thousand hours of exposure 7.2 days were being lost on account of disabling accidents. This was, of course, recognized as a serious economic loss that should be prevented. A definite safety policy was inaugurated and has been consistently maintained and rigorously enforced throughout the years, resulting in material, though intermittent, decrease in accident rates, until in 1927 the frequency rate had declined to 19.7 and the severity rate to 2.3, a drop of nearly 74 per cent in the former and of about 56 per cent in the latter.

In considering other manufacturing industries, an average rate for the entire group is not significant, first, because of possible violent fluctuations in the amount of exposure or the number of establishments included in the computation, both of which may vary widely from group to group and from year to year, and, second, because of the differences in the extent of reporting accidents in the various States. For these reasons average rates have been omitted from the totals in all tables. But industries may be compared with each other, and the record of accidents within any State may be compared from year to year, such comparison being possible because of the introduction of rates to interpret the significance of the abstract numbers. However, the value of such rates lies not alone in the making of comparisons but in the use of the information to improve conditions by the institution of comprehensive accident-prevention methods and their application where most needed.

The record of the iron and steel industry is very striking. It is possible for other industries to duplicate this record. Indeed, some have done much along this line, as, for example, the Portland Cement Association whose plants, through the careful utilization of information revealed by classified accident statistics, effected a reduction from 1919 to 1927 of 67.17 per cent in their total frequency rate and 49.28 per cent in their total severity rate. Table 1 summarizes the published reports of a number of representative industry groups, showing in a rather impressive manner the effective results of safety efforts.

TABLE 1.—*Comparative results of accident prevention efforts in a group of selected industries in specified years*

Industry	Number of full-year workers	Number of accidents	Accident frequency rates (per 1,000,000 hours' exposure)		Accident severity rates (per 1,000 hours' exposure)	
			Rate	Per cent of decrease	Rate	Per cent of decrease
Iron and steel:						
1910	202,157	45,283	74.67		5.20	
1927	395,707	23,338	19.66	73.67	2.30	55.77
Portland Cement Association:						
1919	16,247	2,119	43.47		.69	
1927	31,290	1,340	14.27	67.17	.35	49.28
Paper mills: [1]						
1920	26,525	3,684	46.34		2.60	
1927	61,790	5,084	27.42	40.83	1.57	39.62
Chemicals: [1]						
1923	6,015	443	24.55		4.78	
1927	84,682	4,364	17.80	27.49	1.90	60.25
Power presses: [1]						
1926	126,387	9,184	24.23		1.39	
1927	149,359	8,717	19.45	19.73	.93	33.09

[1] Industrial accident experience of members of the National Safety Council.

Chapter II.—STATISTICAL ITEMS ESSENTIAL FOR ACCIDENT PREVENTION WORK

Before entering upon a more detailed discussion of the data contained in subsequent pages, it may be well to review the five statistical items which must be known regarding groups of accidents if their study is to be of the greatest service in the work of accident prevention as is clearly reflected in the record of the iron and steel and other industries. These items are as follows: (1) Number of accidents; (2) exposure to hazard; (3) accident rates; (4) classification of industry; (5) causes of accidents.

NUMBER OF ACCIDENTS

The need of a record of the total number of accidents is obvious, but to obtain this record is not so simple as might appear. The difficulty is that the States put various interpretations upon what constitutes an accident. A tabulatable accident, that is, one "resulting in death, permanent disability, or in the loss of time other than the remainder of the day, shift, or turn on which the injury was incurred," as defined by the International Association of Industrial Accident Boards and Commissions,[1] is the designation adopted by most States and their reports are on this basis. However, some of the State reports also include all injuries which do not incapacitate for more than one day or exclude all which do not disable for more than two days or three days or one week or even two weeks, these being sufficient in number to render incomplete the total number of reported accidents occurring in all States or in all industries. This lack of uniformity also invalidates to a large degree a comparison of the reported accidents of one State with those of another even if the industry groups in each State are identical, and therefore impairs the value of the record as a comparative index of changes taking place. The form of definition of an accident is not so important, perhaps, but that in order to compile from State records satisfactory national statistics of accidents, it should be a definition uniformly recognized must be evident.

EXPOSURE TO HAZARD

Exposure to hazard is the basis for the computation of accident rates under the method noted in the next section. By this is meant the number of actual man-hours worked in an establishment during the period covered by the accident reports, usually a year. The method of expressing this element of exposure to hazard was first advanced by the Germans. Their solution was to note the number of days each workman was employed and then to divide the sum of these days by 300 on the supposition that the usual working year

[1] See U. S. Bureau of Labor Statistics Bull. 276, p. 17.

was one of 300 days of 10 hours each. This gave the number of 300-day or full-year workers. The Bureau of Labor Statistics adopted this basis for calculating accident rates when it began its accident studies. There were, however, troublesome difficulties in the use of this base and the International Association of Industrial Accident Boards and Commissions finally determined, at the instance of its committee on statistics and accident insurance cost, to abandon the idea of the number of workers and use instead the hours of employment [2] so that all rates are now computed on the basis of actual reported man-hours, although a reduction to full-year workers is made to avoid the use of large figures in tabulations and also to give some idea of the extent of employment represented. This reduction is obtained by dividing the number of man-hours by 3,000.

To illustrate the convenience and importance of knowing the exposure, reference is made to Table 6. That there were 390 accidents in the manufacture of cotton goods in Georgia in 1927 and 127 in the same industry in Virginia would on its face indicate a greater volume of production in Georgia or that the production was attended with greater hazard, or the larger number of accidents in Georgia may be only the natural result of a larger number employed, which is shown by the number of full-year workers in each State. Yet, when the total number of man-hours or full-year workers in each State, representing the exposure to hazard in that industry, is considered in relation to the number of accidents and frequency rates determined, it will be noted that workers in the Virginia industry apparently have the greater likelihood of being injured, for there a frequency rate of 6.85 is indicated, while in Georgia the rate is 6.13. This, however, does not take into account severity, to be considered later. Thus it will be seen that it is necessary to know how many employees there are in each industry group and something regarding the length of time during which these workers are subject to the dangers of their calling. Without this base to which to relate the number of accidents in both the industrial and the cause classification, the place most needing the application of accident prevention measures is not disclosed.

The importance of exposure as an element in the study of industrial accidents has become recognized more and more with the passage of time. The Bureau of Labor Statistics was the first to utilize it on an extended scale. For some years now the Bureau of Mines and the Interstate Commerce Commission have presented their facts on this basis, and many sections of the National Safety Council, as well as a few independent industrial groups, develop their accident data in this way.

Unfortunately, records of exposure are lacking in most of the States, so that accident rates do not appear in their reports. This condition offers another obstacle to the compilation of national accident statistics of value. It is to be hoped that compensation officials will require the reporting of man-hours where the law does not specifically prohibit it, or seek legislative enactment permitting it if necessary, so that their published accident figures may be of real value to their local industries in the promotion of safety.

[2] See U. S. Bureau of Labor Statistics Bul. 276, pp. 17 and 68.

ACCIDENT RATES

The mere collection of numbers of accidents leads nowhere. To be of value the number must be reduced to some common basis that will permit of comparison. This basis is the accident rate of which two forms are recognized—a frequency rate and a severity rate. The former facilitates a comparison of the occurrence of accidents in various industries, or departments, or States or cause groups, as the case may be, while the latter, expressed in terms of days lost, indicates the comparative seriousness of the various types of accident, or of the same kind of accident under different conditions.

Frequency rate.—In determining the frequency rate two factors are necessary—the exposure to hazard and the number of accidents. This rate is derived by dividing the number of accidents by the number of man-hours expressed in millions.

Severity rate.—It is of course recognized that some industries naturally have a higher proportion of severe injuries, while others predominate in the number of minor injuries. Also, the industry having the more severe accidents, indicated by days lost, may actually have numerically fewer accidents. The frequency rate, being computed from the actual number of accidents, would therefore give misleading information as to the real hazard of the industry, and a comparison of industries, or of departments or occupations within an industry, on this showing alone should not be made if a true basis for safety work is desired.

To meet this situation the severity rate was devised as a more accurate indication of the real hazard. It is evident that in frequency rates a death influences the accident rate to the same extent as does a temporary disability of one day, thus preventing the development of a true and complete picture of the accident situation. The first effort to meet this difficulty was the separation of the accidents into three groups according to their result, namely, death, permanent disability, and temporary disability. While this made possible a separate comparison of each result in different industries, it did not afford comparability of the permanent and the temporary disabilities with each other and with the fatalities. It was necessary to translate the different casualties into common terms. This was accomplished by means of a schedule of fixed time allowances,[3] beginning with 6,000 days for death and the loss of any two members, 4,000 days for the loss of an arm or a leg, 3,000 days for the loss of a hand, 1,800 days for the loss of an eye, and so on through the list of permanent disabilities. The application of these constants gives for each sort of casualty a value in terms of days somewhat proportional to its economic importance. The duration of temporary disabilities is of course definite in each case.

The severity rate is determined by dividing the number of days lost by the number of man-hours' exposure and expressing the result in terms of 1,000 hours' exposure. The change from 1,000,000 hours used in frequency rates to 1,000 hours is to obviate the use of small decimals. Thus we find, to revert to the example already cited on page 7, that the severity rate for accidents in the manufacture of cotton goods in Virginia in 1927 is 0.77 day per 1,000 man-hours'

[3] See U. S. Bureau of Labor Statistics Bul. 276, p. 77.

exposure, which figure may be brought into comparison with the severity rate in Georgia, namely, 1.07, thus indicating the greater hazard in this particular industry in the latter State. It has been observed that high frequency rates are rather apt to accompany low severity rates, and this fact is made evident by the form of statistical presentation just described. In other words, when the number of accidents is increased, giving a high frequency rate, the severity rate is not correspondingly increased because of the large relative proportion of temporary disability cases in which the time-loss factor is comparatively small.

The result of bringing together the exposure to hazard, the number of accidents, and the days lost is well illustrated by the following record of the automobile industry for the year 1927 covering only the group of States reporting disabilities extending beyond one week (see Table 4):

Number of cases:	
Death	61
Permanent disability	649
Temporary disability	4,491
Total	5,201
Accident frequency rates (per 1,000,000 hours' exposure):	
Death	0.11
Permanent disability	1.21
Temporary disability	8.36
Total	9.68
Accident severity rates (per 1,000 hours' exposure):	
Death	0.68
Permanent disability	.90
Temporary disability	.22
Total	1.80

It will be noted that in frequency rates the figures are progressively larger for death, for permanent disability, and for temporary disability. It is hardly possible to avoid the impression that the numerically larger figure for temporary disability is important in proportion to its size. As a corrective to this impression we need the severity rates, in which all injuries, including death, are weighted according to their severity. The frequency rate fails to tell the whole story because in it units are combined that are not comparable. The severity rate corrects this condition through the use of a procedure which reduces these units to approximately common terms.

What is needed is an expression that will combine the two rates into one accident rate, giving proper weight to the relative importance of each. Whether this can be developed is problematical. Meanwhile the almost universal practice is to consider the severity rate as the true measure of the hazard involved and comparisons are usually made on this basis.

CLASSIFICATION OF INDUSTRY

A heterogeneous mass of figures of accidents within a State having varied industries, no matter how extensive the classifications, is worse than confusing; it is useless. The fact that there were 158,690

nonfatal industrial accidents in Pennsylvania in 1927, as shown in Table 3, gives us no information for purposes of accident prevention, even though an accident rate may be obtained. Some of these accidents may have occurred in connection with structural iron work, for example, which is apparently the most hazardous industry in that State as revealed by Table 5, while other accidents may have occurred in the manufacture of bricks where the hazard is relatively small. When, however, the accident in the various industries are separated and rates computed, as has been done in this table, some hint is offered regarding the point where accident prevention effort is needed. Obviously a further analysis is required for definite action.

CAUSES OF ACCIDENTS

In order to apply effectively a program of accident prevention the safety man must know *what* needs to be done as well as *where* remedial effort is demanded. Not only does he require information as to the occupations of the men injured, in what departments they were working, and how long they were incapacitated for work, but he must have data relative to the causes of accidents so as to know just what to do to prevent recurrence. This presents another phase of the safety program, namely, the mechanical aspect, which is no less important than the human side. Both must be considered together and to this end an analysis of accident causes is essential.

A word of caution as to the accuracy of reporting causes is not out of place in this connection. Frequently the cause of an accident is set down as due to a physical or mechanical defect, whereas a careful check may reveal the real cause as disobedience of safety regulations. For example, a case where an employee was reported as injured by a revolving wheel was found, upon close examination, to be due to the fact that he had removed the guard contrary to instructions. Such an inaccurate report would cause a misapplication of safety methods, and for this reason statistical agencies should insist that reports be filled in accurately and precisely.

CONCLUSION

In addition to the items listed as prerequisites to adequate accident prevention in industry, a certain value attaches to information regarding nature of injury and location of injury, although these items are of much less practical importance than are accident causes.

The view of the several States as regards the importance of the above items may be inferred from the records for 1920, the year for which the most nearly complete information is available: Number of States recording number of accidents, 42; number classifying by industry, 22; number classifying by cause of injury, 18; number classifying by location of injury, 11; number determining exposure, 2; number determining accident severity rates, 3. No State covers all items, and in most States no attempt is made to report the important item of exposure to hazard, thus making a complete study of accidents from all standpoints utterly impossible.

Chapter III.—ACCIDENTS IN MANUFACTURING INDUSTRIES

GENERAL SCOPE OF SURVEYS MADE

When the bureau began the collection of accident data covering manufacturing industries, beginning with the year 1925, it was possible to get records of 1,282 establishments in 24 industry groups, employing 555,996 full-year workers in 11 States. In 1926 and again in 1927 the work was extended, including in the latter year 1,075,282 full-year workers in 2,676 establishments and covering 29 industry groups in 26 States. (See Tables 2 and 4.) The records of accidents have been secured directly from State authorities to whom, under the various workmen's compensation laws, establishments are required to report. For the most part the number of man-hours has been obtained directly from individual establishments, request being made therefor by correspondence. The cooperation of State officials and representatives of industry thus enlisted has been cordially given and makes possible this report.

Here again it should be stated that the iron and steel industry was not included in the general survey, since it has been made the subject of special investigation from year to year, the results of which have been published and which are brought down to date in Chapter IV.

Table 2 exhibits the progress made by the bureau in the extent of the three nation-wide surveys of the manufacturing industries thus far completed:

TABLE 2.—*Comparative statement of extent of industrial accident surveys, 1925, 1926, and 1927*

Item	1925	1926 [1]		1927	
		Number	Per cent increase over 1925	Number	Per cent increase over 1926
Establishments	1,282	2,209	72.31	2,676	21.14
Full-year workers	555,996	991,082	78.25	1,075,282	8.50
States	11	25	127.27	[2] 26	4.00
Industry groups	24	30	25.00	[3] 29	[4] 3.33
Fatal accidents	171	370	116.37	459	24.05
Permanent disabilities	2,047	4,690	99.80	3,949	[4] 3.45
Temporary disabilities	21,496	44,041	104.87	57,072	29.59
Total accidents	23,714	48,501	104.52	61,480	26.76

[1] Figures include the carriages and wagons industry group, which has been discontinued.
[2] Kansas, Oklahoma, and Texas added; no reports received from Montana and South Dakota as in 1926.
[3] Carriages and wagons group not included, being discontinued.
[4] Decrease.

While practically all of the industrial States and every industry group in the bureau's classification, which follows substantially the census classification, are now included in this statistical presentation, it is the purpose of the bureau to extend its records, as facilities may

offer, from year to year to include more establishments in each industry and a greater number of full-year workers, so that the resultant accident rates may be based upon the largest possible exposure and thus add materially to their significance.

ACCIDENT DATA REPORTED BY THE STATES, 1917 TO 1927

In gathering from each State the record of its fatal and nonfatal industrial accidents during any calendar year, as presented in Table 3, it has been practically impossible to secure figures that may be considered complete or accurate. In its request for this information the bureau asked three questions as follows, the data to cover a calendar year:

1. Number of fatal industrial accidents?
2. Number of nonfatal industrial accidents (including permanent disabilities and temporary disabilities lasting beyond the day of injury)?
3. Number of industrial accidents that were compensable?

The purpose of question 2 was to include accidents which are tabulatable under the standard definition,[1] thus excluding a large number of accidents requiring medical attention only but which are reported in some States. Question 3 was asked primarily to get some statement of nonfatal accidents in the event that question 2 could not be answered, the thought being that it involves very little extra work to determine the number of cases which by their nature must be considered more or less in detail under compensation laws. However, the replies received were in some instances quite unsatisfactory.

One factor operating to render the figures somewhat inaccurate is that in many of the States those charged with the collection and presentation of accident statistics (usually the same organization which administers the workmen's compensation law) are handicapped by lack of sufficient funds to employ the help necessary to compile detailed statistical reports, or any reports at all, even omitting to tabulate cases involving compensation, although data required for fairly complete reports may be at hand. In some instances, therefore, the figures given are estimates by the States.

But perhaps the greatest obstacle to a satisfactory showing of the true accident situation in the various States is the absence of uniformity in the extent of reporting required from industrial establishments. This in turn is influenced largely by the provisions or absence of certain provisions in each State workmen's compensation law. A State, generally speaking, requires only such information as will enable it to administer its law, and very little attempt is made, except in a few instances, to gather or tabulate complete statistical data. Thus we find that some States do not require the reporting of accidents which cause a disability of less than the waiting period prescribed by law, others require the reporting of all accidents wherein the disability extends beyond the day of injury, and still others require that every accident, no matter how trivial, shall be reported. Reference to this lack of uniform reporting has been repeatedly made, but so serious is this handicap in the vigorous application of accident prevention measures that its repetition seems justified.

[1] See U. S. Bureau of Labor Statistic Bul. 276, p. 17; also, p. 6 herein.

All of these factors, and others of minor importance, modify the reports presented in Table 3. In noting, for example, that there were 10,193 fatal and 1,979,830 nonfatal industrial accidents reported for 1927 as compared with 10,338 fatal and 1,825,401 nonfatal accidents reported for 1926, the explanations offered must be borne in mind lest a wrong impression of the relative significance of the totals be gained.

In so far as practicable the variations in reporting have been indicated by footnotes. It should be stated, in fairness to the States, that wherever "no report" is indicated, it does not mean that the report is missing because of lack of desire to cooperate, but because of some factor already mentioned, or some other reason of local importance which renders a report impossible. To note each of these reasons would multiply the footnotes unduly.

It will thus be seen that a comparison of the records of the various States with each other would not be justified, and Table 3 is not presented for that purpose, but merely as an attempt to show, in a general way, the extent of industrial accidents throughout the country. It is probably the most nearly complete report of industrial accidents in this country ever assembled and it is published for its value as such.

36904°—29——2

TABLE 3.—*Number of fatal and nonfatal accidents*

State	1917		1918		1919		1920		1921	
	Fatal	Nonfatal	Fatal	Nonfatal	Fatal	Nonfatal	Fatal	Nonfatal	Fatal	Nonfatal
Ala	[1] 108	[1] 31	[1] 110	[1] 36	(2)	(2)	[1] 135	[1] 7,144	[1] 144	[1] 4,155
Ariz	[3] 82	[3] 998	[3] 93	[3] 1,261	[3] 62	[3] 1,127	[3] 53	[3] 958	[3] 22	[3] 509
Ark	(2)	(2)	14	150	(2)	(2)	16	1,405	(2)	(2)
Calif	626	59,055	706	57,014	586	57,991	592	69,813	453	61,814
Colo	300	12,480	202	14,730	201	11,157	179	14,100	151	13,753
Conn	(2)	[4] 46,935	(2)	[4] 43,188	(2)	[4] 42,513	(2)	[4] 38,764	96	22,800
Del	(2)	(2)	41	6,107	34	4,853	36	2,611	18	3,882
Ga	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	82	[5] 11,606
Idaho [1]	[3] 21	[3] 854	[3] 64	[3] 3,785	51	3,836	83	5,367	63	4,564
Ill.[1]	492	36,268	629	37,618	535	37,753	597	49,988	498	43,024
Ind	305	42,148	373	37,147	268	34,964	291	42,703	263	34,133
Iowa	159	24,520	187	15,420	181	10,926	154	14,283	113	14,839
Kans	83	6,371	93	6,342	101	6,322	118	6,891	71	6,240
Ky	(2)	[12] 12,665	96	13,557	118	13,810	403	15,662	120	16,789
La	(2)	[13] 819	[13] 1	[13] 980	(2)	[13] 876	[13] 1	(2)	(2)	(2)
Me	63	13,738	83	16,557	52	18,666	60	18,463	49	12,778
Md	[14] 131	37,303	[14] 163	42,407	[14] 183	46,692	[14] 153	53,525	[14] 116	36,896
Mass	481	78,308	438	77,067	356	66,884	376	65,112	266	53,017
Mich	386	112,477	320	256,309	256	231,421	313	227,045	266	100,176
Minn	183	30,926	251	29,716	215	27,068	201	32,659	134	34,447
Mo	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Mont	307	8,018	124	5,697	122	5,353	94	4,820	83	3,421
Nebr	15	13,278	13	7,053	28	11,245	50	13,626	30	11,326
Nev	52	1,958	39	1,960	35	1,177	33	1,143	20	1,247
N. H	9	459	10	759	(2)	(2)	40	3,385	[9] 10	[9] 1,523
N. J	361	12,392	[16] 185	[16] 37,003	524	30,728	285	28,556	282	27,754
N. Mex	(2)	(2)	[3] 28	[3] 543	[3] 21	(2)	[3] 32	(2)	[17] 16	(-)
N. Y	1,570	311,836	1,504	285,367	1,815	286,629	1,236	344,436	1,777	293,292
N. Dak	(2)	(2)	(2)	(2)	(2)	(2)	4	720	9	1,296
Ohio	855	158,786	956	161,253	870	151,401	764	182,206	649	111,626
Okla	141	15,027	195	19,723	(2)	(2)	130	22,584	85	22,779
Oreg	[1] 90	[1] 12,044	[1] 103	[1] 12,638	[1] 147	[1] 14,333	[1] 144	[1] 13,275	[1] 138	[1] 20,318
Pa	3,072	224,808	3,403	181,441	2,569	149,975	2,528	172,451	1,924	138,273
R. I	[1] 27	[1] 3,053	[1] 49	[1] 3,133	[1] 28	[1] 2,666	[1] 28	[1] 2,951	[1] 24	[1] 2,952
S. Dak	[3] 7	[3] 583	20	1,750	23	2,228	21	2,230	23	2,701
Tenn	26	1,465	49	1,613	30	1,190	109	17,455	96	17,093
Tex	(2)	(2)	223	52,502	(2)	(2)	400	65,600	308	94,256
Utah	(2)	(2)	90	11,782	73	8,816	99	10,084	91	9,932
Vt	32	(2)	49	7,160	28	6,258	32	8,048	29	7,724
Va	[17] 63	[17] 512	[17] 41	[17] 846	144	10,776	172	12,151	133	5,327
Wash	320	22,156	414	26,892	368	21,905	369	25,924	287	19,729
W. Va	488	22,903	547	23,832	(2)	(2)	([18])	([18])	429	20,398
Wis	219	20,341	163	19,198	244	18,204	171	18,270	181	18,806
Wyo	[19] 37	[1] 726	24	571	36	605	43	776	51	2,042
United States [20]	227	[21] 15,849	438	28,680	499	25,171	427	19,653	362	18,042
Total	[22] 11,338	[23] 1,363,080	[24] 12,531	[25] 1,545,787	[24] 10,806	[25] 1,365,520	[24] 11,062	[25] 1,636,837	9,992	1,327,369

[1] Compensable cases.
[2] No report.
[3] Mines only.
[4] Includes fatal accidents, which are not reported separately.
[5] Estimated by State.
[6] One-half of number reported for a 2-year period, 1925–26.
[7] Reports received from 4 of the 5 compensation districts and are in part merely estimates. Some of the nonfatal reports include fatals, and some include disabilities of 1 day or less.
[8] March to December.
[9] Covers 10 months only.
[10] Includes all nonfatal accidents reported.
[11] Includes all nonfatal accidents except cases denied compensation.
[12] Includes fatal accidents, which are not reported separately. Covers claims filed for 11 months only.
[13] Figures are for New Orleans Parish.

as reported by the States, 1917 to 1927, by year

1922		1923		1924		1925		1926		1927	
Fatal	Nonfatal	Fatal	Nonfatal	Fatal	Nonfatal	Fatal	Nonfatal	Fatal	Nonfatal	Fatal	Non-fatal
[1] 231	[1] 5, 538	(2)	(2)	(2)	(2)	[1] 235	[1] 6, 453	(2)	(2)	[1] 180	[1] 6, 892
[3] 30	[3] 374	[3] 54	[3] 717	[3] 40	[3] 887	[3] 40	[3] 724	132	13, 172	106	11, 109
(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	48	237	(2)	(2)
708	84, 028	716	92, 744	645	101, 633	307	104, 361	719	93, 096	714	91, 671
155	12, 704	168	15, 194	140	17, 373	50	18, 093	173	19, 624	180	[1] 5, 571
(2)	[5] 20, 407	(2)	[5] 37, 000	(2)	[5] 35, 350	(2)	(2)	[6] 130	[6] 32, 778	[7] 61	[7] 28, 279
19	4, 997	12	6, 611	22	4, 827	15	4, 637	16	2, 530	(2)	(2)
92	17, 429	109	22, 319	109	26, 770	125	28, 655	125	27, 445	120	26, 863
44	2, 232	57	3, 237	83	3, 523	59	7, 019	56	[10] 14, 457	54	[11] 7, 867
534	46, 238	675	61, 135	646	53, 000	(2)	(2)	(2)	(2)	720	[5] 50, 000
198	38, 405	268	54, 582	274	48, 730	328	45, 648	265	42, 873	237	38, 967
77	11, 410	112	13, 834	119	13, 610	69	13, 266	118	[5] 12, 021	149	11, 803
(2)	(2)	72	9, 909	84	10, 890	87	11, 027	81	10, 417	75	10, 015
62	18, 549	108	23, 892	97	28, 036	193	26, 490	208	25, 496	(2)	(2)
(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
62	14, 731	64	16, 311	38	14, 168	59	13, 844	44	15, 075	59	15, 195
[14] 123	33, 493	[14] 126	40, 913	[14] 139	38, 833	[14] 160	39, 069	[14] 162	15, 337	[14] 189	45, 738
306	50, 799	330	64, 560	336	61, 640	309	58, 771	443	59, 175	317	64, 167
360	[1] 30, 831	326	[1] 29, 953	[1] 276	[1] 27, 451	280	23, 015	315	[1] 32, 105	378	200, 998
113	31, 571	204	40, 245	123	36, 123	150	45, 181	114	46, 339	109	44, 339
(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	61	40, 892	(2)	(2)
51	3, 317	81	5, 048	87	5, 702	79	5, 739	[1] 78	[1] 6, 726	88	7, 024
32	13, 900	30	16, 132	35	15, 000	36	16, 964	42	[10] 18, 671	32	7, 181
24	1, 377	31	1, 113	31	1, 346	36	1, 494	27	3, 047	(2)	(2)
22	1, 835	13	1, 434	19	2, 442	16	2, 249	14	2, 033	[15] 11	[15] 3, 001
246	33, 483	200	49, 002	283	47, 958	525	44, 976	237	[1] 23, 519	234	[1] 25, 631
[17] 11	[17] 360	(2)	(2)	(2)	(2)	21	400	[17] 13	(2)	(2)	(2)
1, 421	232, 423	1, 665	345, 189	1, 927	360, 781	1, 828	414, 702	1, 787	482, 786	1, 042	517, 255
7	1, 192	11	1, 654	13	1, 809	10	2, 100	25	2, 958	23	3, 216
676	108, 824	803	176, 427	933	180, 677	931	199, 271	[14] 1, 023	[14] 205, 141	958	215, 552
(2)	25, 636	(2)	34, 908	(2)	46, 517	(2)	52, 000	(2)	50, 962	(2)	43, 944
[1] 124	[1] 21, 721	[1] 178	[1] 30, 013	[1] 142	[1] 25, 811	[1] 150	[1] 27, 596	144	31, 652	163	20, 063
1, 800	144, 365	2, 412	198, 023	2, 209	175, 330	2, 011	174, 370	2, 127	178, 284	2, 053	158, 600
[1] 26	[1] 3, 482	[1] 31	[1] 4, 098	[1] 31	[1] 3, 758	38	28, 357	38	31, 160	38	29, 309
25	3, 282	18	3, 455	17	4, 518	22	4, 394	20	4, 888	22	[15] 5, 402
67	18, 557	99	25, 008	142	21, 222	161	25, 408	169	23, 643	137	16, 908
214	95, 109	253	86, 482	299	92, 613	357	91, 065	343	97, 978	514	[10] 125, 051
69	8, 388	84	13, 137	281	13, 919	112	14, 203	[1] 83	[1] 14, 160	94	14, 895
24	6, 564	35	9, 356	43	10, 507	32	9, 497	37	9, 581	36	11, 018
144	6, 498	145	6, 518	180	7, 899	198	7, 605	[1] 152	8, 430	101	[1] 6, 279
227	18, 453	308	31, 081	385	39, 270	384	42, 003	374	42, 126	387	42, 604
443	21, 855	501	28, 269	751	30, 608	586	31, 045	759	36, 477	(2)	(2)
191	20, 750	168	22, 099	134	25, 062	246	20, 891	187	26, 056	210	[5] 36, 683
33	1, 198	82	1, 719	88	1, 669	(2)	(2)	[1] 40	[1] 2, 845	45	1, 188
353	17, 905	279	17, 713	278	20, 260	314	20, 374	318	19, 209	357	20, 190
9, 434	1, 214, 220	10, 999	1, 641, 145	11, 479	1, 666, 522	10, 559	1, 687, 957	11, 238	1, 825, 401	10, 193	1, 979, 830

[14] Number of claims filed.
[15] Fiscal year ending June 30, 1928.
[16] Covers 8 months only.
[17] Coal mines only.
[18] Records destroyed by fire.
[19] Covers 15 months.
[20] United States Employee's Compensation Commission.
[21] Includes cases reported from Sept. 7, 1916, to Dec. 31, 1916.
[22] Fatal cases in Connecticut and Kentucky are included under nonfatal cases, not being reported separately.
[23] Includes fatal accidents in Connecticut and Kentucky, the number of which is not reported.
[24] Fatal cases in Connecticut are included under nonfatal cases, not being reported separately.
[25] Includes fatal cases in Connecticut, the number of which is not reported.

ACCIDENT DATA GATHERED BY THE BUREAU COVERING MANUFACTURING INDUSTRIES

Tables 4, 5, and 6 present summaries of the accident data gathered by the bureau covering miscellaneous manufacturing industries (except iron and steel which is considered separately in Chapter IV), but there are certain modifying factors as regards these tables which should be noted, in order to caution the reader against possible error in drawing conclusions therefrom. First, in some States those accidents in which the disability terminated in the first week (the waiting period under most of the compensation laws) are not reported and therefore were unavailable for these tabulations. This necessarily vitiates somewhat the comparability of the accident rates. In the second place, reports of accidents causing temporary disabilities were not available in California and Pennsylvania for 1925 and 1926 and in California for 1927, while fatal cases are not being reported in Oklahoma.

These factors, especially the omission of fatalities, make a comparison of industries in the various States somewhat misleading. In Alabama no accident reports are filed where the disability terminated within two weeks. This fact, of course, removes a comparatively large number of temporary accidents from consideration in calculating rates for this State. The accidents in any industry in Alabama, therefore, could hardly be brought into a fair comparison with those in the same industry in a State like Massachusetts where all accidents are reported. This is reflected in the rates for cotton goods, for example. For Alabama in 1927 the frequency rate is 3.67 and the severity rate is 0.18, while for Massachusetts the corresponding rates are 14.74 and 0.55, respectivly. Were all tabulatable accidents reported in Alabama as they are in Massachusetts, with no change in exposure, the rates in the former State would more nearly approach those in Massachusetts and might even exceed them. Of course differences in the extent of accident prevention work would also modify the result.

In an attempt to minimize the effect occasioned by this difference in reporting accidents, and also to prevent, so far as possible, misleading conclusions, the industries and States in Tables 4, 5, and 6 have been grouped on the basis of completeness of the reports received by the various States. Thus in Table 4, for example, all States reporting accidents in which the disability extended beyond the day of injury appear in the first group headed "Accidents for States reporting all disabilities extending beyond day of injury," and the industries there listed include data for such States only.[2] This group, in 1925, included 17.2 per cent of the total full-year workers. In 1926 the percentage was 28.6 and in 1927 more than half (56.6 per cent) of

[2] States for which all accidents resulting in death, permanent disability, or temporary disability extending beyond the day of injury are reported, include the following: Indiana, Iowa, Kansas, Kentucky, Maine, Maryland, Massachusetts, Minnesota, Montana, Nebraska, New Hampshire, New York (in 1927), North Dakota, Ohio, Pennsylvania (in 1927), South Dakota, Tennessee, Texas, and West Virginia.
Those States in which the accidents reported include death, permanent disability, and those temporary disabilities which extended beyond the first week, are as follows: Georgia, Illinois, Michigan, New Jersey, New York (in 1925 and 1926), Virginia (in 1927), and Wisconsin.
The record for 1926 in Virginia includes accidents resulting in death, permanent disability, and only those temporary disabilities which extended beyond 10 days.
Accidents which resulted in temporary disability which lasted less than 2 weeks are not reported in Alabama.
In Oklahoma only those accidents in which the disabilities extended beyond five days are included.
California reported no temporary disabilities, and Pennsylvania reported none for 1925 and 1926.

the workers covered by the reports were in States making complete reports of accidents. It is hoped to increase this percentage from year to year.

ACCIDENTS AND ACCIDENT RATES, 1925 TO 1927, BY INDUSTRIES AND STATES

Table 4 presents in summary form data which are given in more detail in Tables 5, 6, and 7. It shows for each industry (except iron and steel) and State covered, by years, the total accident record assembled by the bureau in its efforts to include the largest possible representation of workers in manufacturing industries throughout the country.

TABLE 4.—*Number of accidents and accident frequency and severity rates for specified industries and States in 1925, 1926, and 1927*

Statistics for specified industries

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

Industry or State, and year	Number of States or industries	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
				Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
		Accidents for States reporting all disabilities extending beyond day of injury													
Agricultural implements:	*States*														
1925	4	31	6,113	7	0.38	2.29	28	1.53	1.46	727	39.64	0.64	762	41.55	4.39
1926	7	29	5,126				39	2.54	3.08	554	36.03	.58	593	38.57	3.66
1927	9	39	7,282	6	.27	1.65	28	1.28	1.10	598	27.37	.46	632	28.92	3.21
Automobiles:															
1925	2	9	4,441				14	1.05	.97	313	23.49	.31	327	24.54	1.28
1926	3	24	28,360	10	.12	.71	180	2.12	5.19	2,145	25.21	.35	2,335	27.45	6.25
1927	5	53	48,886	7	.05	.29	142	.97	1.27	1,852	12.63	.23	2,001	13.65	1.79
Automobile tires:															
1925	1	12	14,888	3	.07	.40	52	1.16	1.06	2,962	66.32	.74	3,017	67.55	2.20
1926	3	13	17,951	3	.06	.33	32	.59	.46	2,913	54.07	.72	2,948	54.72	1.51
1927	5	30	30,696	7	.08	.46	61	.66	.51	3,771	40.95	.73	3,839	41.69	1.70
Boots and shoes:															
1925	1	7	850							54	21.14	.44	54	21.14	.44
1926	4	40	14,779	1	.02	.14	5	.11	.05	316	7.13	.09	322	7.26	.28
1927	6	68	39,763	1	.01	.05	69	.58	.47	892	7.48	.14	962	8.07	.66
Brick:															
1925	5	41	4,778	3	.21	1.26	5	.35	.49	724	50.51	.63	732	51.07	2.38
1926	8	46	4,703	3	.21	1.28	11	.78	1.67	809	57.34	.92	823	58.33	3.87
1927 [1]	11	110	13,497	9	.22	1.33	31	.77	.75	1,436	35.46	.55	1,476	36.45	2.63
Carpets:															
1926	1	3	1,482							19	4.31	.08	19	4.31	.08
1927	3	23	15,321	1	.02	.13	12	.26	.25	214	4.66	.11	227	4.94	.49
Carriages and wagons: [2] 1926	8	14	679				14	6.87	6.75	79	38.78	.81	93	45.65	7.56
Chemicals:															
1925	1	5	1,330				1	.25	.08	44	11.03	.25	45	11.28	.33
1926	3	11	3,117				2	.21	.06	124	13.26	.25	126	13.47	.31
1927	7	35	8,540	5	.20	1.17	17	.66	.68	308	12.02	.22	330	12.88	2.07

Cotton goods:															
1926	6	48	44,194				23	.17	.14	1,171	8.83	.18	1,194	9.00	.32
1927	9	68	56,903	6	.04	.21	57	.33	.33	2,258	13.23	.27	2,321	13.60	.81
Electrical machinery:															
1925	4	23	7,499				10	.44	.42	520	23.11	.20	530	23.55	.62
1926	4	31	18,137	2	.04	.22	56	1.03	.64	1,095	21.13	.37	1,153	22.20	1.23
1927	6	62	60,927	11	.06	.36	210	1.15	1.02	2,611	14.28	.36	2,832	15.49	1.74
Fertilizers:															
1926	5	15	1,309	1	.26	1.54	2	.51	.28	174	44.54	.88	177	45.31	2.70
1927	8	38	2,498	3	.40	2.40	7	.93	1.79	261	34.83	.66	271	36.16	4.85
Flour:															
1925	3	27	3,615	4	.37	2.21	7	.65	.57	203	18.72	.27	214	19.74	3.05
1926	10	54	3,889	4	.34	2.06	15	1.29	1.94	310	26.57	.50	329	28.20	4.50
1927 [1]	13	119	7,107	5	.23	1.41	25	1.17	.90	477	22.37	.41	507	23.77	2.72
Foundry and machine shop products:															
1925	5	73	14,902	5	.11	.67	45	1.01	.92	2,282	51.04	.51	2,332	52.16	2.10
1926	13	104	27,069	17	.21	1.26	85	1.05	1.05	3,193	39.32	.58	3,295	40.58	2.89
1927 [1]	17	258	72,963	38	.17	1.04	338	1.54	1.33	6,356	29.05	.51	6,732	30.76	2.88
Furniture:															
1925	5	85	9,467				27	2.01	1.26	639	47.68	.58	666	49.69	1.84
1926	11	102	11,726				60	1.71	1.44	795	22.60	.53	855	24.31	1.97
1927 [1]	14	177	21,918	5	.68	0.46	124	1.88	1.43	1,296	19.70	.30	1,425	21.66	2.19
Glass:															
1925	2	9	2,603				4	.51	.54	479	61.34	.57	483	61.85	1.11
1926	4	16	6,717	1	.05	.30	17	.84	1.04	797	39.55	.49	815	40.44	1.83
1927	6	59	19,267	14	.24	1.45	24	.42	.35	2,233	38.63	.51	2,271	39.29	2.31
Hardware:															
1926	2	4	886				5	1.88	.73	75	28.22	.58	80	30.10	1.31
1927	4	13	3,764	1	.09	.53	15	1.33	1.02	330	29.22	.44	346	30.64	1.99
Leather:															
1926	5	21	5,530	2	.12	.72	7	.42	.62	187	11.27	.26	196	11.81	1.60
1927	7	51	11,521	3	.09	.52	19	.55	.41	948	27.43	.43	970	28.07	1.36
Lumber—Planing mills:															
1925	5	27	3,562	1	.09	.56	11	1.02	1.24	204	19.09	.29	216	20.20	2.09
1926	8	41	5,242	3	.19	1.14	47	2.99	2.15	467	29.70	.65	517	32.88	3.94
1927	12	73	9,416	9	.32	1.91	72	2.55	2.64	634	22.44	.57	715	25.31	5.12
Lumber—Sawmills:															
1925	2	6	2,248	1	.15	.89	5	.74	.95	125	18.53	.51	131	19.42	2.35
1926	7	19	5,302	15	.94	5.66	33	2.07	3.28	1,012	63.62	1.59	1,060	66.63	10.51
1927	8	37	13,631	22	.54	3.23	130	3.19	3.74	2,386	58.46	1.25	2,538	62.19	8.22
Machine tools:															
1925	2	22	1,887				2	.35	.45	253	44.69	.38	255	45.04	.83
1926	3	43	9,303	3	.11	.64	15	.54	.32	623	22.32	.25	641	22.97	1.21
1927	5	75	12,207	3	.08	.49	28	.76	.70	780	21.30	.34	811	22.14	1.53
Paper and pulp:															
1925	3	7	1,814	1	.18	1.10	11	2.02	1.71	217	39.87	1.70	229	42.07	4.51
1926	10	34	16,770	7	.14	.83	36	.72	.83	1,562	31.05	.51	1,605	31.91	2.17
1927 [1]	13	61	26,074	18	.23	1.38	126	1.61	1.62	2,224	28.43	.60	2,368	30.27	3.60
Petroleum refining:															
1926	2	2	3,783				6	.53	.32	99	8.72	.20	105	9.25	.52
1927	6	15	19,951	25	.42	2.51	67	1.12	1.12	1,979	33.04	.52	2,071	34.58	4.15

[1] The record for Kansas, included herein, covers six months only (July to December).

[2] This industry group has been discontinued.

TABLE 4.—*Number of accidents and accident frequency and severity rates for specified industries and States in 1925, 1926, and 1927*—Contd.

Statistics for specified industries—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

Industry or State, and year	Number of States or industries	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
				Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
	Accidents for States reporting all disabilities extending beyond day of injury—Continued														
Pottery:	*States*														
1925	1	7	1,206				1	0.28	0.50	80	22.12	0.31	81	22.40	0.81
1926	5	14	3,946	1	0.08	0.51	2	.17	.36	142	12.00	.25	145	12.25	1.12
1927	7	25	6,053	2	.11	.66	6	.33	.18	229	12.61	.17	237	13.05	1.01
Shipbuilding, steel:															
1926	2	4	745				2	.89	1.92	123	55.03	.96	125	55.92	2.88
1927	4	12	6,011	5	.28	1.66	36	2.00	2.58	798	44.25	.76	839	46.53	5.00
Slaughtering and meat packing:															
1925	2	6	7,488	3	.13	.80	40	1.78	1.90	878	39.09	.62	921	41.00	3.32
1926	8	34	19,809	8	.13	.81	93	1.56	1.50	2,935	49.39	.66	3,036	51.08	2.97
1927 [1]	14	77	36,222	15	.14	.83	136	1.25	1.00	3,810	35.05	.54	3,961	36.44	2.37
Stamped and enameled ware:															
1925	3	7	1,473				3	.68	.54	75	16.97	.19	78	17.65	.73
1926	4	11	2,848				25	2.93	2.10	175	20.48	.22	200	23.41	2.32
1927	6	20	6,260	2	.11	.64	34	1.81	1.10	234	12.46	.29	270	14.38	2.03
Steam fittings, apparatus, and supplies:															
1925	3	11	936				2	.71	.37	165	58.76	.74	167	59.47	1.11
1926	5	16	5,897				7	.40	.77	966	54.60	.57	973	55.00	1.34
1927	7	41	19,396	2	.03	.21	27	.46	.27	1,630	28.01	.36	1,659	28.50	.84
Stoves:															
1925	3	20	2,724				3	.37	.35	352	43.08	.45	355	43.45	.80
1926	9	30	4,379				21	1.60	1.93	532	40.50	.62	553	42.10	2.55
1927	11	44	7,515	1	.04	.27	25	1.11	1.04	1,002	44.44	.62	1,028	45.59	1.93
Structural-iron work:															
1925	4	24	1,992	3	.50	3.01	7	1.17	1.15	465	77.81	.91	475	79.48	5.07
1926	7	21	1,737	12	2.30	13.82	12	2.30	3.78	358	68.70	1.32	382	73.30	18.92
1927	11	55	8,862	23	.87	5.20	20	.75	.51	1,046	39.43	.61	1,089	41.06	6.32

Woolen goods:															
1926	7	21	1,737	12	2.30	13.82	12	2.30	3.78	358	68.70	1.32	382	73.30	18.92
1927 [1]	12	56	8,979	23	.85	5.12	20	.74	.50	1,061	39.39	.61	1,104	40.98	6.23
All industry groups:															
1925	5	459	95,816	31			278			11,761			12,070		
1926	15	358	283,172	94			855			24,002			24,951		
1927	17	1,776	608,247	250			1,896			43,037			45,183		
		Accidents for States reporting only disabilities extending beyond five days [3]													
Brick: 1927	1	3	163	(4)						[4] 30	61.51	1.02	[4] 30	61.51	1.02
Flour: 1927	1	8	201	(4)						[4] 21	34.90	.82	[4] 21	34.90	.82
Foundry and machine shop products: 1927	1	5	220	(4)			2	3.03	3.18	45	68.16	1.55	[4] 47	71.19	4.73
Furniture: 1927	1	1	62	(4)						1	5.34	.09	[4] 1	5.34	.09
Glass: 1927	1	5	656	(4)						17	8.64	.20	[4] 17	8.64	.20
Lumber—sawmills: 1927	1	2	1,123	(4)			3	.89	1.16	56	16.62	.37	[4] 59	17.51	1.53
Petroleum refining: 1927	1	3	1,779	(4)			12	2.25	1.71	107	20.04	.57	[4] 119	22.29	2.28
Slaughtering and meat packing: 1927	1	2	1,140	(4)			1	.29	.09	59	17.25	.25	[4] 60	17.54	.34
Structural-iron work: 1927	1	1	117	(4)						15	42.74	.54	[4] 15	42.74	.54
All industry groups: 1927	1	30	5,461				18			351			369		
		Accidents for States reporting only disabilities extending beyond one week													
Agricultural implements:															
1925	3	19	8,899	2	0.07	0.45	47	1.76	1.26	323	12.10	0.26	372	13.93	1.97
1926	3	28	9,881	3	.10	.61	54	1.82	1.55	499	16.83	.43	556	18.75	2.59
1927	2	23	8,931	1	.04	.22	46	1.72	1.51	347	12.95	.29	394	14.71	2.02
Automobiles:															
1925	5	59	177,092	51	.10	.58	690	1.30	1.01	3,893	7.33	.16	4,634	8.73	1.75
1926	5	63	213,978	49	.08	.46	876	1.36	1.08	5,595	8.72	.27	6,520	10.16	1.81
1927	4	58	179,064	61	.11	.68	649	1.21	.90	4,491	8.36	.22	5,201	9.68	1.80
Automobiles tires:															
1925	1	7	2,749	1	.12	.73	10	1.21	2.03	97	11.76	.37	108	13.09	3.13
1926	2	7	4,875	2	.14	.82	23	1.57	1.16	196	13.40	.37	221	15.11	2.35
1927	2	4	3,697				7	.63	.85	70	6.31	.16	77	6.94	1.01
Boots and shoes:															
1925	3	16	7,653				6	.26	.19	198	8.62	.16	204	8.88	.35
1926	5	27	25,942	4	.05	.31	61	.78	.53	449	5.77	.20	514	6.60	1.04
1927	5	24	6,735				17	.84	.62	131	6.48	.15	148	7.32	.77
Brick:															
1925	3	34	6,710	3	.15	.89	21	1.04	1.17	326	16.19	.49	350	17.38	2.55
1926	4	46	8,000	1	.04	.25	38	1.58	2.34	435	18.13	.48	474	19.75	3.07
1927	4	33	6,427	1	.05	.31	23	1.19	1.38	263	13.64	.30	287	14.88	1.99

[1] The record for Kansas, included here, covers six months only (July to December).

[3] Data for Oklahoma only.

[4] Fatal cases not reported.

TABLE 4.—*Number of accidents and accident frequency and severity rates for specified industries and States in 1925, 1926, and 1927*—Contd.

Statistics for specified industries—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

Industry or State, and year	Number of States or industries	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
				Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
	Accidents for States reporting only disabilities extending beyond one week—Continued														
Carpets:	*States*														
1925	2	5	6,428	3	0.16	0.93	30	1.56	2.43	94	4.87	0.15	127	6.59	3.51
1926	2	8	8,704	1	.04	.23	20	.77	.61	143	5.48	.28	164	6.29	1.12
1927	1	3	923				3	1.08	1.37	28	10.11	.21	31	11.19	1.58
Carriages and wagons: [2] 1926	4	4	116				3	8.62	8.62	7	20.11	.45	10	28.73	9.07
Chemicals:															
1925	2	24	10,014	3	.10	.60	34	1.13	1.72	148	4.93	.17	185	6.16	2.49
1926	5	34	11,523	6	.17	1.04	46	1.33	1.71	382	11.05	.44	434	12.55	3.19
1927	5	29	8,804	12	.45	2.73	55	2.08	1.84	387	14.65	.42	454	17.18	4.99
Cotton goods:															
1926	4	18	24,360	1	.01	.08	35	.48	.31	350	4.79	.13	386	5.28	.52
1927	4	26	32,389	7	.07	.43	55	.57	.49	434	4.98	.12	546	5.62	1.04
Electrical machinery:															
1925	3	35	33,727	6	.06	.36	150	1.48	1.47	650	6.42	.25	806	7.96	2.08
1926	5	47	36,106	5	.05	.28	188	1.74	1.74	997	9.20	.49	1,190	10.99	2.51
1927	3	41	18,984	1	.02	.11	64	1.12	1.09	368	6.46	.16	433	7.60	1.36
Fertilizers:															
1926	4	7	1,087	1	.31	1.84	2	.61	2.45	46	14.11	.45	49	15.03	4.74
1927	5	26	2,704	4	.48	2.89	23	2.77	2.94	167	20.14	.51	194	23.39	6.34
Flour:															
1926	4	12	2,042				11	1.80	1.91	103	16.81	.74	114	18.61	2.65
1927	5	11	953	1	.05	.27	3	.14	.05	43	1.96	.05	47	2.15	.37
Foundry and machine-shop products:															
1925	5	75	33,379	8	.08	.48	232	2.32	1.96	1,139	11.37	.40	1,379	13.77	2.84
926	6	117	44,932	29	.22	1.29	418	3.10	2.65	2,845	21.11	.73	3,292	24.43	4.67
1927	6	96	27,295	8	.10	.59	246	3.00	2.78	1,569	19.16	.49	1,823	22.26	3.86
Furniture:															
1925	4	48	10,659				36	1.13	.97	264	8.26	.23	300	9.39	1.20
1926	5	96	20,745	3	.05	.29	123	1.98	1.72	613	9.85	.23	739	11.88	2.24
1927	6	81	20,225	1	.02	.10	77	1.27	.87	469	7.73	.18	547	9.02	1.15

Glass:															
1925	1	6	4,632	1	.07	.43	7	.50	.76	50	3.60	.10	58	4.17	1.29
1927	1	6	2,588				9	1.16	1.83	64	8.24	.21	73	9.40	2.04
Hardware:															
1926	3	10	3,023				35	3.86	2.08	86	9.48	.28	121	13.34	2.36
1927	3	13	3,586				36	3.35	3.26	86	7.99	.20	122	11.34	3.46
Leather:															
1925	4	22	5,431	2	.12	.74	28	1.72	1.36	182	11.17	.29	212	13.01	2.39
1926	6	33	9,775	2	.07	.41	58	1.98	1.92	406	13.85	.57	466	15.90	2.90
1927	6	25	8,181	1	.04	.24	42	1.71	1.97	227	9.25	.21	270	11.00	2.42
Lumber—Planing mills:															
1925	4	32	5,555	5	.30	1.80	45	2.70	3.60	337	20.22	.62	387	23.22	6.02
1926	5	64	8,463	11	.43	2.60	78	3.07	3.62	695	27.37	1.06	784	30.87	7.28
1927	5	45	5,215	3	.19	1.15	47	3.00	2.78	360	23.01	.67	410	26.20	4.60
Lumber—sawmills:															
1925	2	16	7,975	10	.42	2.51	19	.79	.57	442	18.47	.48	471	19.68	3.56
1926	4	38	7,121	9	.42	2.53	34	1.59	1.63	867	40.58	1.37	910	42.59	5.53
1927	5	42	9,400	16	.57	3.40	35	1.24	1.21	1,052	37.30	1.16	1,103	39.11	5.77
Machine tools:															
1925	4	18	3,027	1	.11	.66	15	1.65	1.26	79	8.70	.23	95	10.46	2.15
1926	5	30	5,635	1	.06	.35	48	2.84	2.63	252	14.91	.51	301	17.81	3.49
1927	4	26	3,793	2	.18	1.05	23	2.02	1.70	130	11.42	.27	155	13.62	3.02
Paper and pulp:															
1925	4	23	7,796	3	.13	.77	66	2.82	4.12	373	15.95	.53	442	18.90	5.42
1926	4	43	17,649	12	.23	1.36	126	2.38	2.60	1,263	23.85	.77	1,401	26.46	4.73
1927	4	25	8,630	10	.39	2.32	29	1.12	.72	386	14.91	.40	425	16.42	3.44
Petroleum refining:															
1926	4	7	13,320	9	.23	1.35	92	2.30	3.00	293	7.33	.27	394	9.86	4.62
1927	3	5	9,579	1	.03	.21	69	2.40	2.89	140	4.87	12	210	7.30	3.22
Pottery:															
1925	1	6	1,943	1	.17	1.03	2	.34	1.10	76	13.04	.41	79	13.55	2.54
1926	2	10	3,948	1	.08	.51	8	.68	.66	132	11.14	.34	141	11.90	1.51
1927	2	9	2,450				5	.68	.93	100	13.61	.40	105	14.29	1.33
Shipbuilding, steel:															
1926	5	10	5,196	4	.26	1.54	32	2.05	1.45	187	12.00	.59	223	14.31	3.58
1927	5	6	5,765	5	.29	1.73	28	1.62	.70	252	13.41	.40	265	15.32	2.83
Slaughtering and meat packing:															
1925	1	7	16,412	12	.24	1.46	41	83	.50	767	15.58	.33	820	16.65	2.29
1926	4	18	25,088	7	.09	.56	121	1.61	1.57	1,292	17.18	.39	1,420	18.88	2.52
1927	4	16	20,868	11	.18	1.05	155	2.48	2.55	1,201	19.18	.40	1,367	21.84	4.00
Stamped and enameled ware:															
1926	5	9	10,204	3	.10	.59	53	1.73	1.08	180	5.88	.25	236	7.71	1.92
1927	3	5	3,985				18	1.51	.80	64	5.35	.09	82	6.86	.89
Steam fittings, apparatus, and supplies:															
1925	2	9	2,607				30	3.84	4.10	170	21.74	.74	200	25.58	4.84
1926	4	16	5,813	1	.06	.34	48	2.75	2.34	380	21.79	.87	429	24.60	3.55
1927	3	11	3,411	1	.10	.59	32	3.13	3.15	185	18.08	.42	218	21.31	4.16
Stoves:															
1926	4	12	3,160	1	.11	.63	12	1.27	1.16	146	15.40	.52	159	16.78	2.31
1927	4	9	2,079	1	.16	.95	9	1.42	1.94	60	9.47	.23	70	11.05	3.12

[1] This industry group has been discontinued.

TABLE 4.—*Number of accidents and accident frequency and severity rates for specified industries and States in 1925, 1926, and 1927*—Contd.

Statistics for specified industries—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

Industry or State, and year	Number of States or industries	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
				Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
		Accidents for States reporting only disabilities extending beyond one week—Continued													
Structural ironwork:	*States*														
1925	5	16	1,850	2	0.36	2.16	25	4.50	4.97	94	16.94	0.57	121	21.80	7.70
1926	5	18	2,428	7	.96	5.77	28	3.84	2.85	215	29.52	1.17	250	34.32	9.79
1927	5	15	2,274	2	.29	1.76	30	4.40	4.22	286	41.92	1.02	318	46.61	7.00
Woolen goods:															
1925	1	4	6,910				9	.43	.22	33	1.59	.06	42	2.02	.28
1926	5	18	5,722				23	1.34	1.56	75	4.37	.20	98	5.71	1.76
1927	5	16	6,876				18	.87	.94	67	3.25	.08	85	4.12	1.02
All industry groups:															
1925	5	481	361,448	114			1,543			9,735			11,392		
1926	6	859	538,836	173			2,694			19,129			21,996		
1927	6	729	415,871	150			1,853			13,457			15,460		
		Accidents for State reporting only disabilities extending beyond 10 days[5]													
Boots and shoes: 1926	1	5	1,664				2	0.40	0.86	16	3.20	0.06	18	3.60	0.92
Brick: 1926	1	3	274				1	1.25	.91	7	8.75	.23	8	10.00	1.14
Chemicals: 1926	1	1	851	2	0.77	4.70	9	3.46	7.28	78	30.00	1.08	89	34.23	13.06
Cotton goods: 1926	1	3	5,999				10	.56	.87	77	4.28	.13	87	4.84	1.00
Fertilizers: 1926	1	3	517	4	2.50	15.48	1	.63	.19	39	24.38	.85	44	27.51	16.52
Flour: 1926	1	2	78				1	5.00	2.57	4	20.00	.96	5	25.00	3.53
Foundry and machine-shop products: 1926	1	3	717	1	.45	2.79	6	2.73	4.65	80	36.36	.90	87	39.54	8.34
Furniture: 1926	1	2	559				5	2.94	1.34	14	8.24	.27	19	11.18	1.61
Leather: 1926	1	1	113							11	36.67	1.30	11	36.67	1.30
Lumber—Planing mills: 1926	1	2	480	1	.71	4.16	4	2.86	3.22	30	21.43	.48	35	25.00	7.86
Lumber—Sawmills: 1926	1	5	3,288	2	.20	1.21	17	1.72	1.22	195	19.70	.69	214	21.62	3.12
Paper and pulp: 1926	1	2	388							14	11.67	.33	14	11.67	.33

Pottery: 1926	1	1	167							2	4.00	0.05	2	4.00	.05
Ship building, steel: 1926	1	1	4,233	2	.16	.94	31	2.44	2.12	112	8.82	.22	145	11.42	3.28
Slaughtering and meat packing: 1926	1	1	53												
Stoves: 1926	1	1	73							7	35.00	.62	7	35.00	.62
Structural-iron work: 1926	1	1	43				1	10.00	23.76	8	80.00	3.45	9	90.00	27.21
Woolen goods: 1926	1	2	446							3	2.30	.06	3	2.30	.06
All industry groups: 1926	1	39	19,943	12			88			697			797		
Accidents for State reporting only disabilities extending beyond two weeks [6]															
Cotton goods:															
1926	1	9	5,917				5	0.28	0.29	62	3.48	0.12	67	3.76	0.41
1927	1	10	6,353				4	.21	.06	66	3.46	.12	70	3.67	.18
Fertilizers: 1927	1	5	196							3	5.10	.28	3	5.10	.28
Foundry and machine-shop products:															
1926	1	3	2,092				6	.95	.84	102	16.19	.45	108	17.14	1.29
1927	1	4	1,888	1	0.18	1.06	7	1.24	.66	54	9.53	.34	62	10.95	2.06
Lumber—Sawmills:															
1926	1	5	2,312	1	.14	.86	4	.58	.43	48	6.96	.14	53	7.68	1.43
1927	1	4	2,182	1	.15	.92	8	1.22	1.37	78	11.92	.56	87	13.29	2.85
Shipbuilding, steel: 1927	1	1	250				2	2.67	7.75	22	29.38	.92	24	32.05	8.67
Slaughtering and meat packing:															
1926	1	1	47							1	10.00	.15	1	10.00	.15
1927	1	2	186							4	7.16	.27	4	7.16	.27
All industry groups:															
1926	1	18	10,368	1			15			213			229		
1927	1	26	11,055	2			21			227			250		
Accidents for States reporting only fatalities and permanent disabilities [7]															
Agricultural implements:															
1925	1	5	1,282				3	0.78	0.34				3	0.78	0.34
1926	2	8	1,019				5	1.64	.93				5	1.64	.93
1927	1	3	614				3	1.09	.51				3	1.09	.51
Automobiles:															
1925	1	5	7,851	5	0.21	1.27	41	1.74	1.22				46	1.95	2.49
1926	2	14	9,555	6	.21	1.26	46	1.60	1.37				52	1.81	2.63
1927	1	5	915				3	1.09	.51				3	1.09	.51
Automobile tires:															
1925	1	6	2,459				9	1.22	1.13				9	1.22	1.13
1926	2	8	4,246	2	.16	.94	12	.94	.63				14	1.10	1.57
1927	1	2	2,165	1	.15	.92	4	.62	.57				5	.77	1.49

[5] Data are for Virginia only.
[6] Data are for Alabama only.
[7] Data are for California and Pennsylvania in 1925 and 1926, and California in 1927.

TABLE 4.—*Number of accidents and accident frequency and severity rates for specified industries and States in 1925, 1926, and 1927*—Contd.

Statistics for specified industries—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

Industry or State, and year	Number of States or industries	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
				Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
		Accidents for States reporting only fatalities and permanent disabilities—Continued													
Boots and shoes:	*States*														
1925	1	8	2,697												
1926	1	13	3,539												
Bricks:															
1925	1	19	4,106	2	0.16	0.97	3	0.24	0.30				5	0.40	1.27
1926	2	40	6,037	3	.17	.99	17	.94	.67				20	1.11	1.66
1927	1	11	2,567	2	.26	1.56							2	.26	1.56
Carpets:															
1925	1	14	4,571	2	.15	.88	3	.22	.08				5	.37	.96
1926	1	11	2,440				4	.55	.41				4	.55	.41
Carriages and wagons: [2] 1926	1	2	53												
Chemicals:															
1925	1	2	2,626												
1926	1	4	1,166	1	.29	1.72	1	.29	.09				2	.58	1.81
1927	1	2	373	1	.89	5.36	1	.89	.45				2	1.78	5.81
Cotton goods: 1926	1	6	2,539				3	.39	.20				3	.39	.20
Electrical machinery:															
1925	1	13	19,441	7	.12	.72	69	1.18	.80				76	1.30	1.52
1926	1	14	21,146	4	.06	.38	21	.33	.22				25	.39	.60
1927	1	1	201												
Fertilizers:															
1926	1	2	142												
1927	1	3	68												
Flour: 1926	1	4	93												
Foundry and machine shop products:															
1925	1	109	27,121	5	.06	.37	47	.58	.53				52	.64	.90
1926	2	102	30,483	17	.19	1.12	123	1.35	1.10				140	1.54	2.22
1927	1	18	2,056	2	.32	1.95	14	2.27	1.92				16	2.59	3.87

Furniture:															
1925	1	32	4,393				17	1.29	.76				17	1.29	.76
1926	2	32	3,839				12	1.04	.64				12	1.04	.64
1927	1	7	1,108	1	.30	1.81	8	2.41	1.10				9	2.71	2.91
Glass:															
1925	1	25	4,903				7	.48	.59				7	.48	.59
1926	2	22	4,833	4	.28	1.66	14	.97	.97				18	1.25	2.63
1927	1	3	653	1	.51	3.06	1	.51	.15				2	1.02	3.21
Hardware: 1926	1	5	2,337				11	1.57	.53				11	1.57	.53
Leather:															
1925	1	14	3,870				2	.17	.05				2	.17	.05
1926	2	22	4,510	2	.15	.89	9	.67	.52				11	.82	1.41
1927	1	5	554	1	.61	3.61	3	1.80	.78				4	2.41	4.39
Lumber—Planing mills:															
1925	1	5	735				2	.91	1.91				2	.91	1.91
1926	2	24	3,038				15	1.65	.99				15	1.65	.99
1927	1	17	6,371	10	.53	3.13	23	1.20	1.10				33	1.73	4.23
Lumber—Sawmills:															
1926	2	23	13,520	27	.67	3.39	88	2.17	1.70				115	2.84	5.69
1927	1	16	6,958	15	.72	4.31	47	2.25	1.36				62	2.97	5.67
Machine tools:															
1925	1	7	1,119												
1926	1	3	196	1	1.67	10.18	1	1.67	.50				2	3.34	10.68
Paper and pulp:															
1925	1	4	1,532	1	.22	1.31	3	.65	.30				4	.87	1.61
1926	1	6	2,501	2	.27	1.59	4	.53	.24				6	.80	1.83
Petroleum refining:															
1926	2	9	6,072	12	.66	3.95	9	.49	.22				21	1.15	4.17
1927	1	2	3,927	15	1.27	7.64	30	2.55	1.44				45	3.82	9.08
Pottery:															
1926	1	1	277												
1927	1	2	249	1	1.34	8.03	2	2.67	1.07				3	4.01	9.10
Shipbuilding, Steel:															
1926	2	3	3,563	3	.28	1.68	12	1.12	.48				15	1.40	2.16
1927	1	2	2,924	3	.34	2.05	8	.91	.46				11	1.25	2.51
Slaughtering and meat packing:															
1926	1	6	1,102												
1927	1	4	1,424	2	.47	2.81	4	.94	.43				6	1.41	3.29
Stamped and enameled ware:															
1926	1	2	108				1	.33	2.31				1	.33	2.31
1927	1	3	410												
Steam fittings, apparatus, and supplies:															
1925	1	24	2,669	2	.12	.75	6	.75	.26				7	.87	1.01
1926	2	11	2,173	1	.15	.92	2	.31	.16				3	.46	1.08
1927	1	2	43												
Stoves:															
1925	1	9	1,264	1	.26	1.58							1	.26	1.58
1926	1	5	821	1	.40	2.43	1	.40	.30				2	.80	2.73
1927	1	2	280				3	3.58	1.85				3	3.58	1.85

[2] This industry group has been discontinued.

TABLE 4.—*Number of accidents and accident frequency and severity rates for specified industries and States in 1925, 1926, and 1927*—Contd.

Statistics for specified industries—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

Industry or State, and year	Number of States or industries	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
				Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
		Accidents for States reporting only fatalities and permanent disabilities—Continued													
Structural-iron work:	*States*														
1925	1	20	2,681	1	0.12	0.75	10	1.24	0.45				11	1.36	1.20
1926	2	18	3,374	4	.40	2.37	21	2.07	1.08				25	2.47	3.45
1927	1	4	647	2	1.03	6.19	4	2.06	.98				6	3.09	7.17
Woolen goods:															
1925	1	21	5,772	2	.06	.35	4	.23	.26				5	.29	.61
1926	2	15	4,041				6	.49	.66				6	.49	.66
1927	1	1	141												
All industry groups:															
1925	1	342	98,732	26			226						252		
1926	2	435	138,763	90			438						528		
1927	1	115	34,648	57			161						218		
Grand total—All industry groups:															
1925	11	1,282	555,996	171			2,047			21,496			23,714		
1926	25	2,209	991,082	370			4,090			44,041			48,501		
1927	26	2,676	1,075,282	459			3,949			57,072			64,480		

Statistics for specified States

		Accidents for States reporting all disabilities extending beyond day of injury													
Indiana:	*Industries*														
1925	13	122	20,587	1	0.02	0.10	51	0.83	0.46	2,219	35.93	0.50	2,271	36.78	1.06
1926	22	153	39,907	12	.10	.60	229	1.91	4.55	3,326	27.59	.44	3,567	29.60	5.59
1927	23	165	47,110	16	.11	.68	149	1.05	.74	3,180	22.50	.33	3,345	23.66	1.75

Iowa:															
1925	9	54	11,073	2	0.06	0.36	40	1.20	1.01	880	26.49	0.40	922	27.75	1.77
1926	11	51	12,105	6	.17	.99	39	1.07	.90	1,024	28.21	.54	1,069	29.45	2.43
1927	11	57	12,437	6	.16	.97	50	1.34	.74	1,179	31.60	.52	1,235	33.10	2.22
Kansas: [1] 1927	9	70	11,281	3	.09	.53	10	.30	.13	813	24.02	.29	826	24.41	.95
Kentucky:															
1926	11	24	7,181				47	2.19	1.71	1,267	58.93	.78	1,314	61.12	2.49
1927	10	18	6,671	2	.10	.60	40	2.60	1.55	922	46.06	.63	964	48.16	2.78
Maine:															
1926	9	24	12,389	1	[2]	[2]	21	.57	.53	1,005	27.04	.45	1,027	27.61	.98
1927	8	24	13,318	5	.13	.75	28	.70	.81	711	17.80	.36	744	18.63	1.92
Maryland:															
1925	12	52	7,198	1	.05	.28	12	.56	.84	478	22.13	.45	491	22.74	1.57
1926	20	74	13,864	5	.12	.72	35	.84	.64	826	19.86	.44	866	20.82	1.80
1927	20	84	15,310	8	.17	1.05	71	1.55	1.48	1,066	21.90	.45	1,085	23.62	2.98
Massachusetts:															
1926	15	156	76,568	7	.03	.18	50	.22	.16	1,990	8.62	.20	2,047	8.87	.54
1927	15	164	80,205	3	.01	.07	75	.31	.20	3,496	14.53	.33	3,574	14.85	.60
Minnesota:															
1925	12	60	13,744	14	.34	2.04	55	1.33	1.46	1,141	27.67	.49	1,210	29.34	3.99
1926	13	66	14,048	16	.38	2.28	104	2.47	2.78	2,645	62.83	1.16	2,765	65.68	6.22
1927	12	68	14,857	16	.36	2.15	111	2.49	1.84	1,751	39.28	.83	1,878	42.13	4.82
Montana: 1926	2	4	934	2	.07	4.28				64	2.29	.37	66	2.36	4.65
Nebraska:															
1926	6	23	6,078	3	.16	.99	15	.82	1.33	712	39.05	.48	730	40.03	2.80
1927	6	22	6,080	1	.05	.33	9	.49	.32	717	39.31	.50	727	39.85	1.15
New Hampshire:															
1926	5	15	15,253	1	.02	.13	5	.11	.07	650	14.19	.29	656	14.32	.49
1927	5	14	15,679	2	.04	.26	12	.26	.26	557	11.84	.23	571	12.14	.75
New York: 1927	25	209	103,638	40	.13	.77	751	2.42	2.39	3,924	12.62	.47	4,715	15.17	3.63
North Dakota:															
1926	3	7	137				1	2.50	14.59	60	150.00	2.59	61	152.50	17.18
1927	4	5	154				1	2.15	8.60	43	92.47	.95	44	94.62	9.55
Ohio:															
1925	15	171	43,214	13	.10	.60	120	.93	.93	7,043	54.32	.56	7,176	55.35	2.09
1926	25	190	64,208	35	.18	1.08	190	.93	.83	8,343	42.16	.56	8,568	43.32	2.42
1927	27	360	115,303	52	.15	.90	208	.60	.75	10,275	29.70	.47	10,535	30.45	2.12
Pennsylvania: 1927	29	379	119,254	54	.15	.91	171	.48	.30	8,875	24.81	.31	9,100	25.44	1.52
South Dakota: 1926	3	4	1,080	1	.31	1.85	10	3.13	1.02	253	79.06	1.04	264	82.50	3.91
Tennessee:															
1926	17	40	10,171	3	.10	.59	67	2.20	1.51	938	30.74	.37	1,008	33.04	2.47
1927	16	40	9,771	2	.07	.41	32	1.09	.83	727	24.80	.29	761	25.96	1.53
Texas: 1927	11	72	26,357	32	.40	2.43	159	2.01	2.49	4,012	50.74	.80	4,203	53.15	5.72
West Virginia:															
1926	12	27	9,249	2	.07	.43	42	1.52	2.04	869	32.45	.51	943	34.04	2.98
1927	11	25	10,822	8	.25	1.48	19	.59	.48	849	26.15	.29	876	26.99	2.35
Total:															
1925	21	459	95,816	31			278			11,761			12,070		
1926	30	858	283,172	94			855			24,002			24,951		
1927	29	1,806	613,708	250			1,914			43,388			45,552		

[1] The record for Kansas included here covers 6 months only (July to December).

[2] Less than 0.005.

TABLE 4.—*Number of accidents and accident frequency and severity rates for specified industries and States in 1925, 1926, and 1927*—Contd.

Statistics for specified States—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

Industry or State, and year	Number of States or industries	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
				Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
		Accidents for State reporting only disabilities extending beyond five days													
Oklahoma: 1927	9	30	5,461	(1)			18	1.10	0.94	351	21.42	0.47	[4] 369	22.52	1.41
		Accidents for States reporting only disabilities extending beyond one week													
Georgia:	*Industries*														
1926	10	32	23,322	4	0.06	0.34	45	0.64	0.59	471	6.73	0.16	520	7.43	1.09
1927	11	47	25,868	7	.09	.54	52	.67	.55	653	8.41	.21	712	9.17	1.30
Illinois:															
1924	13	120	51,329	21	.14	.82	134	.87	.69	1,737	11.28	.27	1,892	12.29	1.78
1926	24	208	80,033	24	.10	.60	399	1.66	1.49	3,182	13.25	.33	3,605	15.01	2.42
1927	23	204	74,644	20	.09	.54	512	2.29	2.27	3,063	13.68	.30	3,595	16.06	3.11
Michigan:															
1925	7	44	165,918	48	.10	.58	580	1.17	.90	3,624	7.28	.16	4,252	8.55	1.64
1926	24	181	227,350	75	.11	.65	837	1.23	.85	6,900	10.12	.32	7,812	11.46	1.82
1927	22	186	200,895	78	.13	.78	677	1.12	.76	5,751	9.54	.27	6,506	10.79	1.81
New Jersey: [2]															
1925	14	113	46,064	7	.03	.30	223	1.03	1.57	1,010	4.65	.21	1,240	5.71	2.08
1926	20	126	50,102	3	.02	.12	344	2.29	2.53	1,237	8.23	.19	1,584	10.54	2.84
1927	22	141	53,601	6	.04	.22	405	2.52	2.98	1,080	6.72	.17	1,491	9.28	3.37
New York:															
1925	15	131	70,055	26	.12	.74	511	2.43	2.79	1,733	8.25	.37	2,270	10.80	3.90
1926	25	207	112,942	48	.14	.85	865	2.55	2.65	4,618	13.63	.73	5,531	16.32	4.23
Virginia: 1927	17	47	17,880	10	.19	1.12	56	1.04	.67	721	13.44	.36	787	14.67	2.15

Wisconsin:															
1925	11	73	28,082	12	.14	.85	95	1.13	.55	1,631	19.36	.41	1,738	20.63	1.81
1926	20	105	45,087	19	.14	.84	204	1.51	1.18	2,721	20.11	.48	2,944	21.76	2.50
1927	19	104	42,983	29	.22	1.35	151	1.17	.71	2,189	16.98	.43	2,369	18.37	2.49
Total:															
1925	21	481	361,448	114			1,543			9,735			11,392		
1926	29	859	538,836	173			2,694			19,129			21,996		
1927	29	729	415,871	150			1,853			13,457			15,460		
		Accidents for State reporting only disabilities extending beyond 10 days													
Virginia: 1926	18	39	19,943	12	0.20	1.20	88	1.47	1.65	697	11.65	0.35	797	13.32	3.20
		Accidents for State reporting only disabilities extending beyond two weeks													
Alabama:															
1926	4	18	10,368	1	0.03	0.19	15	0.48	0.60	213	10.10	0.28	229	10.61	1.07
1927	6	26	11,055	2	.06	.36	21	.63	.60	227	6.84	.27	250	7.53	1.23
		Accidents for States reporting only fatalities and permanent disabilities													
California:															
1926	16	108	30,703	41	0.45	2.67	147	1.60	1.18				188	2.05	3.85
1927	22	115	34,648	57	.55	3.29	161	1.55	1.00				218	2.10	4.29
Pennsylvania:															
1925	19	342	98,732	26	.26	1.54	226	2.23	1.66				252	2.49	3.20
1926	28	327	108,060	49	.16	.95	291	.94	.70				340	1.10	1.65
Total:															
1925	19	342	98,732	26			226						252		
1926	30	435	138,763	99			438						528		
1927	22	115	34,648	57			161						218		
Grand total, all State groups:															
1925	24	1,282	555,996	171			2,047			21,496			23,714		
1926	30	2,209	991,082	370			4,090			44,041			48,501		
1927	29	2,676	1,075,282	459			3,949			57,072			61,480		

[4] Fatal cases not reported.

[9] Closed cases only are reported.

ACCIDENTS AND ACCIDENT RATES IN SPECIFIED STATES, BY INDUSTRY

A new feature in this report is found in Table 5, wherein the accident data for each specified State is presented by industry, thus affording an opportunity for each State to compare its experience in a particular industry during the years covered. The States are grouped according to the extent to which accidents are reported. Thus those States reporting all accidents in which the disability extended beyond the day of injury will be found in the first group, comprising therefore the most complete reports and rendering the resultant rates more accurate and more nearly a true picture of the accident hazard in each industry. Those States reporting accidents in which disabilities extended beyond the first week, 10 days, and the second week, respectively, are found in subsequent groups.

It is earnestly to be hoped that all States will soon require the reporting of all accidents, so that a fair and uniform basis will be afforded for the computation of industrial accident statistics. To omit that large group of accidents in which the disabilities last beyond the day of injury but which terminate within the first week, minimizes the importance and lessens the value of accidents rates, and in most instances results in the computation of rates that are actually misleading. For effective accident prevention work it is essential that all accidents be reported.

TABLE 5.—*Number of accidents and accident frequency and severity rates in specified States, 1925, 1926, and 1927, by industry*

Accidents for States reporting all disabilities extending beyond day of injury

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

Industry and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
	Indiana													
Agricultural implements:														
1925	9	3,732	1	0.09	0.54	17	1.52	1.38	488	43.59	0.72	506	45.20	2.64
1926	7	1,410				18	4.29	6.90	149	35.48	.90	167	39.77	7.80
1927	7	1,136	1	.29	1.76	1	.29	.09	118	34.61	.72	120	35.19	2.57
Automobiles:														
1925	4	2,230				9	1.34	.47	176	26.21	.27	185	27.55	.74
1926	9	12,581	4	.11	.64	81	2.15	9.67	898	23.82	.27	983	26.08	10.58
1927	9	17,312	2	.64	.23	40	.77	.55	847	16.31	.20	889	17.12	.98
Automobile tires: 1927	1	190				1	1.75	.53	17	29.82	.54	18	31.57	1.07
Brick:														
1925	10	696				1	.48	.14	166	79.56	.71	167	80.04	.85
1926	9	636				2	.95	1.60	185	88.10	1.22	187	89.05	2.82
1927	9	649	1	.51	3.08	1	.51	1.54	122	62.69	.68	124	63.71	5.30
Carriages and wagons: [1] 1926	2	94							8	26.67	.58	8	26.67	.58
Chemicals:														
1926	1	1,300							57	14.62	.18	57	14.62	.18
1927	1	1,343							45	11.16	.14	45	11.16	.14
Cotton goods:														
1926	2	515				1	.67	.39	18	12.00	.13	19	12.67	.52
1927	2	553	1	.60	3.62	1	.60	.45	12	7.24	.18	14	8.44	4.25
Electrical machinery:														
1925	3	3,080				3	.32	.10	184	19.91	.17	187	20.23	.27
1926	5	3,904				23	1.97	1.39	275	23.50	.35	298	25.47	1.74
1927	5	4,792				21	1.46	.62	162	11.27	.17	183	12.73	.79
Fertilizers:														
1926	3	105							23	76.67	.80	23	76.67	.80
1927	5	194				1	1.72	3.09	20	34.36	.56	21	36.08	3.65
Flour:														
1926	6	185				3	5.09	6.49	12	20.00	.31	15	25.00	6.80
1927	6	186				1	1.79	.54	15	26.88	.31	16	28.67	.85

[1] This industry group has been discontinued.

TABLE 5.—*Number of accidents and accident frequency and severity rates in specified States, 1925, 1926, and 1927, by industry*—Continued

Accidents for States reporting all disabilities extending beyond day of injury—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

Industry and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
	Indiana—Continued													
Foundry and machine-shop products:														
1925	15	1,889				3	0.53	0.16	415	73.23	0.78	418	73.76	0.94
1926	12	2,250	2	0.29	1.78	11	1.62	1.71	399	58.68	.82	412	60.59	4.31
1927	12	2,025	3	.49	2.96	9	1.48	1.48	265	43.61	.67	277	45.58	5.11
Furniture:														
1925	50	6,086				11	.60	.26	458	25.09	.24	469	25.69	.50
1926	52	6,418				40	2.07	1.92	453	23.47	.68	493	25.54	2.60
1927	52	6,119				39	2.12	1.59	433	23.59	.32	472	25.71	1.91
Glass: 1927	11	2,774				5	.60	.40	316	37.97	.66	321	38.57	1.06
Lumber—Planing mills:														
1925	8	624				2	1.07	.32	93	49.71	.35	95	50.78	.67
1926	10	711				13	6.19	7.10	83	39.52	.53	96	45.71	7.63
1927	10	634	2	1.05	6.31	2	1.05	1.89	68	35.73	.65	72	37.83	8.85
Lumber—Sawmills:														
1926	1	95							21	70.00	1.35	21	70.00	1.35
1927	2	110				1	3.03	12.12	23	69.70	2.13	24	72.73	14.25
Machine tools:														
1925	3	124							15	40.32	.60	15	40.32	.60
1926	3	248	1	1.43	8.06				24	34.28	.29	25	35.71	8.35
1927	2	204				1	1.63	1.96	3	4.90	.10	4	6.53	2.06
Paper and pulp:														
1925	3	560				3	1.79	.80	50	29.78	3.63	53	31.57	4.43
1926	3	307	2	2.22	13.00	3	3.33	8.13	40	44.44	.36	45	49.99	21.49
1927	3	269							43	53.22	1.16	43	53.22	1.16
Petroleum refining:														
1926	1	3,614				5	.46	.30	70	6.48	.14	75	6.94	.44
1927	1	3,518	4	.38	2.27	4	.38	.11	70	6.63	.12	78	7.39	2.50
Pottery:														
1926	2	303				1	1.11	.33	12	13.33	.23	13	14.44	.56
1927	2	314				1	1.06	.32	12	12.74	.18	13	13.80	.50

Slaughtering and meat-packing:														
1926	8	3,393	1	.10	.59	17	1.67	1.96	349	34.22	.48	367	35.99	3.03
1927	9	3,083	1	.11	.65	9	.97	.32	404	43.67	.58	414	44.75	1.55
Stamped and enameled ware:														
1925	2	588							24	13.61	.14	24	13.61	.14
1926	2	654				3	1.50	2.34	43	21.50	.23	46	23.00	2.57
1927	2	514				4	2.60	1.36	21	13.63	.18	25	16.23	1.54
Steam fittings, apparatus, and supplies:														
1925	1	244							43	58.71	.55	43	58.71	.55
1926	2	235				3	4.29	12.32	44	63.86	.41	47	67.15	12.73
1927	1	250				1	1.33	.40	44	58.69	.57	45	60.02	.97
Stoves:														
1925	9	572				1	.58	.17	72	41.96	.54	73	42.54	.71
1926	8	612				2	1.11	3.59	77	42.77	.68	79	43.88	4.27
1927	8	662				2	1.00	1.21	85	42.80	.69	87	43.80	1.90
Structural-iron work:														
1925	5	153				1	2.17	1.30	35	76.07	.52	36	78.24	1.82
1926	5	287	2	2.22	13.92	3	3.33	13.69	86	95.55	1.54	91	101.10	29.15
1927	5	279	1	1.19	7.17	4	4.78	2.15	35	41.81	.87	40	47.78	10.19
Iowa														
Agricultural implements:														
1925	4	418							38	30.27	0.44	38	30.27	0.44
1926	4	397							42	35.00	.60	42	35.00	.60
1927	4	424							35	27.50	.34	35	27.50	.34
Brick:														
1925	16	1,013	1	0.33	1.98	1	0.33	0.10	74	24.36	.45	76	25.02	2.53
1926	12	702				3	1.43	3.28	101	48.10	.84	104	49.53	4.12
1927	12	851							81	31.72	.72	81	31.72	.72
Carriages and wagons:[1] 1926	1	17							2	40.00	1.37	2	40.00	1.37
Fertilizers:														
1926	1	17												
1927	1	18												
Flour:														
1925	6	143							9	20.86	.57	9	20.86	.57
1927	7	228							17	24.84	.22	17	24.84	.22
Foundry and machine-shop products:														
1925	10	2,785	1	.12	.72	15	1.80	1.38	316	37.82	.52	332	39.74	2.62
1926	10	2,557	1	.13	.78	5	.65	.29	120	15.59	.35	126	16.37	1.42
1927	9	2,559				8	1.04	.49	137	17.85	.37	145	18.89	.86
Furniture:														
1925	5	504							36	23.79	.19	36	23.79	.19
1926	4	559				1	.59	.18	34	20.00	.62	35	20.59	.80
1927	4	600							22	12.23	.24	22	12.23	.24
Lumber—Planing mills:														
1925	7	1,770				5	.94	1.24	44	8.29	.20	49	9.23	1.44
1926	8	1,820	2	.36	2.19	12	2.18	1.36	75	13.64	.33	89	16.18	3.88
1927	8	1,566	2	.42	2.55	6	1.28	.57	58	12.35	.29	66	14.05	3.41

[1] This industry group has been discontinued.

TABLE 5.—*Number of accidents and accident frequency and severity rates in specified States, 1925, 1926, and 1927, by industry*—Continued

Accidents for States reporting all disabilities extending beyond day of injury—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

Industry and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
							Iowa—Continued							
Paper and pulp:														
1925	1	122				1	2.73	2.65	18	49.11	1.36	19	51.84	3.41
1926	1	113				1	3.33	7.69	14	46.67	.70	15	50.00	7.79
1927	1	101							25	82.44	1.39	25	82.44	1.39
Slaughtering and meat packing:														
1925	4	4,252				18	1.41	1.11	345	27.04	.40	363	28.45	1.51
1926	8	5,816	3	0.17	1.03	15	.86	.52	625	35.92	.61	643	36.95	2.16
1927	9	5,980	4	.22	1.34	36	2.01	1.19	794	44.26	.64	834	46.49	3.17
Stoves:														
1926	1	54							1	5.00	.17	1	5.00	.17
1927	1	64												
Structural-iron work:														
1925	1	66												
1926	1	73				2	10.00	27.21	10	20.00	3.55	12	30.00	30.76
1927	1	46							10	72.47	3.09	10	72.47	3.09
							Kansas [2]							
Brick: 1927	8	367							28	25.41	0.32	28	25.41	0.32
Chemicals: 1927	3	459				1	0.72	0.22	25	18.14	.19	26	18.86	.41
Flour: 1927	44	1,553	2	0.43	2.57	2	.43	.26	108	23.18	.34	112	24.04	3.17
Foundry and machine-shop products: 1927	2	250							16	21.30	.41	16	21.30	.41
Furniture: 1927	1	11												
Paper and pulp: 1927	1	140				1	2.37	.71	14	33.24	.37	15	35.61	1.08
Petroleum refining: 1927	1	303	1	1.10	6.59				45	49.45	.41	46	50.55	7.00
Slaughtering and meat packing: 1927	8	7,770				6	.26	.11	533	22.87	.27	539	23.13	.38
Structural-iron work: 1927	2	428							44	54.27	.52	44	34.27	.52

Kentucky													
Agricultural implements:													
1926	1	537				5	3.12	0.93	70	43.75	0.55	75	46.87	1.48
1927	1	333				4	4.01	3.16	30	30.05	.86	34	34.06	4.02
Carriages and wagons: [1] 1926	3	263				10	12.50	14.00	35	43.75	1.00	45	56.25	15.00
Cotton goods:														
1926	2	536				1	.63	.47	24	15.00	.24	25	15.63	.71
1927	2	584				3	1.71	2.88	21	12.00	.16	24	13.71	3.04
Flour:														
1926	4	329				2	2.00	.61	33	33.00	.36	35	35.00	.97
1927	3	302				2	2.20	.66	57	62.83	.86	59	65.03	1.52
Foundry and machine-shop products:														
1926	2	640				10	5.26	5.60	87	45.79	.78	97	51.05	6.38
1927	2	206				5	8.09	9.47	79	127.87	1.96	84	135.96	11.43
Furniture:														
1926	3	324				1	1.00	.31	6	6.00	.11	7	7.00	.42
1927	3	284				1	1.17	.35	6	7.05	.14	7	8.22	.49
Leather:														
1926	1	105							5	16.67	.22	5	16.67	.22
1927	1	92				1	3.62	2.72	11	39.86	.80	12	43.48	3.52
Lumber—Planing mills:														
1926	2	823				14	5.60	1.94	198	79.20	1.87	212	84.80	3.81
1927	2	819	2	.81	4.88	20	8.14	5.72	100	40.70	1.40	122	49.65	12.00
Slaughtering and meat packing:														
1926	3	216				1	1.67	6.17	64	106.67	1.11	65	108.34	7.28
1927	2	252				2	2.64	.79	44	58.15	.59	46	60.79	1.38
Steam fittings, apparatus, and supplies:														
1926	1	3,257				3	.31	.32	718	73.26	.71	721	73.57	1.03
1927	1	3,744				2	.18	.05	573	51.01	.46	575	51.19	.51
Stoves:														
1926	2	151							27	54.00	.98	27	54.00	.98
1927	1	55							1	6.05	.33	1	6.05	.33
Maine														
Carriages and wagons: [1] 1926	1	47				1	10.00	12.82	15	150.00	1.31	16	160.00	14.13
Cotton goods:														
1926	6	6,046				7	.39	.52	279	15.41	.26	286	15.80	.78
1927	6	6,155				14	.76	.99	288	15.60	.29	302	16.36	1.28
Foundry and machine-shop products:														
1926	2	288	1	1.11	6.94	3	3.33	2.49	86	95.56	.78	90	100.00	10.21
1927	2	194				1	1.72	1.03	33	56.82	1.03	34	58.54	2.06
Furniture:														
1926	1	156							6	12.00	.15	6	12.00	.15
1927	1	150							9	20.03	.70	9	20.03	.70

[1] This industry group has been discontinued.

[2] Record is for six months only (July to December).

TABLE 5.—*Number of accidents and accident frequency and severity rates in specified States, 1925, 1926, and 1927, by industry*—Continued

Accidents for States reporting all disabilities extending beyond day of injury—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

Industry and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
	Maine—Continued													
Hardware:														
1926	1	100				1	3.33	2.51	7	23.33	0.59	8	26.66	3.10
1927	1	92				1	3.62	6.52	14	50.70	.57	15	54.32	7.09
Lumber—Planing mills:														
1926	1	52							2	10.00	.19	2	10.00	.19
1927	1	48							4	27.93	.59	4	27.93	.59
Lumber—Sawmills:														
1926	4	209							38	63.33	.96	38	63.33	.96
1927	5	237				1	1.41	.42	26	36.45	1.00	27	37.86	1.42
Paper and pulp:														
1926	5	3,745				9	.80	.52	522	46.61	.84	531	47.41	1.36
1927	4	2,897	5	.58	3.45	10	1.15	1.28	259	29.80	.66	274	31.53	5.39
Woolen goods:														
1926	3	1,746							50	9.61	.21	50	9.61	.21
1927	4	3,545				1	.09	.03	78	7.33	.13	79	7.42	.16
	Maryland													
Automobile tires:														
1926	1	1,907	1	0.16	1.05	2	0.08	0.10	156	27.49	0.39	159	27.73	1.54
1927	1	1,730	1	.19	1.16	1	.19	.06	134	25.82	.50	136	26.20	1.72
Boots and shoes:														
1925	7	850							54	21.14	.44	54	21.14	.44
1926	7	962							34	11.73	.27	34	11.73	.27
1927	7	1,015				3	.99	.39	46	15.11	.22	49	16.10	.61
Brick:														
1925	5	470							52	36.88	.99	52	36.88	.99
1926	5	537	1	.63	3.78	1	.63	1.11	56	35.00	.62	58	36.26	5.52
1927	5	444				1	.75	.38	46	34.53	.60	47	35.28	.98

Carriages and wagons:[1] 1926	2	96							6	20.00	.04	6	20.00	.04
Chemicals:														
1925	5	1,330				1	.25	.08	44	11.03	.25	45	11.28	.32
1926	8	1,768				2	.37	.11	67	12.64	.30	69	13.01	.41
1927	9	1,763	3	.57	3.40	6	1.13	1.49	72	13.62	.34	81	15.32	5.23
Electrical machinery:														
1925	2	851							30	11.75	.24	30	11.75	.24
1926	3	1,045				7	2.26	1.09	41	13.23	.28	48	15.49	1.37
1927	3	1,039				7	2.24	2.04	37	11.87	.26	44	14.11	2.30
Fertilizers:														
1926	5	714	1	.48	2.80	1	.48	.23	112	53.33	1.18	114	54.29	4.21
1927	8	821	3	1.22	7.31	5	2.03	3.09	116	47.09	1.12	124	50.34	11.52
Flour:														
1925	2	29				1	11.31	8.48	3	33.94	.90	4	45.25	9.38
1926	4	76							14	70.00	1.19	14	70.00	1.19
1927	4	68	1	4.89	29.32				12	58.63	1.09	13	63.52	30.41
Foundry and machine-shop products:														
1925	10	1,317	1	.25	1.52	6	1.52	3.35	155	39.22	.64	162	40.99	5.53
1926	1	165				1	2.00	.61	17	34.00	.56	18	36.00	1.17
1927	1	158				1	2.11	.63	18	38.03	.60	19	40.14	1.23
Furniture:														
1925	7	422							30	23.72	.58	30	23.72	.58
1926	10	649				3	1.50	.85	34	17.89	.31	37	19.47	1.16
1927	11	768				7	3.04	2.34	29	12.59	.21	36	15.63	2.55
Glass:														
1925	4	1,051				2	.63	.19	65	20.61	.31	67	21.24	.50
1926	4	1,012				1	.33	.79	78	26.33	.56	79	26.66	1.35
1927	4	1,151				6	1.74	1.39	85	24.62	.56	91	26.36	1.95
Leather:														
1926	4	569				2	1.18	3.05	14	8.23	.30	16	9.41	3.35
1927	4	548				1	.61	2.44	17	10.34	.15	18	10.95	2.59
Lumber—Planing mills:														
1925	5	272				1	1.23	3.68	38	46.55	1.15	39	47.78	4.83
1926	8	607	1	.55	3.29	3	1.78	.76	50	27.78	.79	54	30.11	4.84
1927	8	538				3	1.86	3.59	42	26.00	.66	45	27.86	4.25
Lumber—Sawmills: 1925	1	20							2	33.17	1.18	2	33.17	1.18
Paper and pulp:														
1926	1	1,083				2	.63	.18	56	17.50	.59	58	18.13	.77
1927	2	1,313				4	1.02	.69	82	20.81	.39	86	21.83	1.08
Pottery:														
1926	2	189							12	20.00	.51	12	20.00	.51
1927	2	154							11	23.79	.62	11	23.79	.62
Shipbuilding, steel:														
1926	2	546				1	.63	.18	36	22.50	.68	37	23.13	.86
1927	3	1,045				6	1.91	2.52	34	10.84	.28	40	12.75	2.80
Slaughtering and meat packing: 1927	2	710				10	4.22	3.33	134	56.54	.95	144	60.76	4.28
Stamped and enameled ware:														
1925	1	187				1	1.79	.54				1	1.79	.54
1926	3	447				5	1.79	2.11	6	2.14	.05	11	3.93	2.16
1927	4	766				8	3.48	1.37	43	18.72	.56	51	22.20	1.93

[1] This industry group has been discontinued.

TABLE 5.—*Number of accidents and accident frequency and severity rates in specified States, 1925, 1926, and 1927, by industry*—Continued

Accidents for States reporting all disabilities extending beyond day of injury—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

Industry and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
						Maryland—Continued								
Stoves:														
1925	3	399							5	4.18	0.14	5	4.18	0.14
1926	1	280				1	0.91	0.66	6	5.45	.21	7	6.36	.87
1927	3	521							3	1.92	.05	3	1.92	.05
Structural-iron work:														
1926	1	235	1	1.43	8.51	2	2.86	.85	11	15.71	.31	14	20.00	9.68
1927	1	219				1	1.52	2.74	20	30.47	.37	21	31.99	3.11
Woolen goods:														
1926	2	377				1	.91	.66	20	18.18	.28	21	19.09	.94
1927	2	459				1	.73	.22	25	18.16	.37	26	18.89	.59
						Massachusetts								
Automobile tires:														
1926	4	4,323				4	0.31	0.39	120	9.23	0.27	124	9.54	0.66
1927	3	4,079				9	.74	.45	142	11.60	.30	151	12.34	.75
Boots and shoes:														
1926	28	10,772				4	.12	.05	81	2.51	.05	85	2.63	.10
1927	32	13,559	1	0.02	.15	4	.10	.16	177	4.36	.10	182	4.48	.41
Brick:														
1926	1	93							4	13.33	.09	4	13.33	.09
1927	2	70							10	47.50	1.37	10	47.50	1.37
Carpets:														
1926	3	1,482							19	4.31	.08	19	4.31	.08
1927	3	2,765							13	1.57	.03	13	1.57	.03
Cotton goods:														
1926	30	22,577				5	.07	.07	366	5.41	.13	371	5.48	.20
1927	35	27,761	1	.01	.07	22	.26	.15	1,205	14.47	.33	1,228	14.74	.55

Electrical machinery:														
1926	11	9,551	2	.07	.42	18	.63	.38	589	20.52	.45	609	21.22	1.25
1927	9	7,560	1	.04	.26	18	.79	.46	524	23.10	.61	543	23.93	1.33
Foundry and machine-shop products:														
1926	21	6,504	2	.10	.62	5	.26	.14	206	10.56	.27	213	10.92	1.03
1927	20	4,946				9	.61	.30	335	22.58	.53	344	23.19	.83
Furniture:														
1926	5	624							11	5.79	.19	11	5.79	.19
1927	6	717				2	.93	.42	18	8.37	.15	20	9.30	.57
Leather:														
1926	13	4,251	2	.16	.94	2	.16	.05	125	9.77	.23	129	10.09	1.22
1927	17	4,451				2	.15	.04	333	24.94	.38	335	25.09	.42
Machine tools:														
1926	15	4,917	1	.07	.40	2	.14	.06	70	4.73	.09	73	4.94	.55
1927	13	4,475				1	.07	.04	129	9.61	.20	130	9.68	.24
Paper and pulp:														
1926	13	6,008				5	.28	.34	208	11.56	.24	213	11.84	.58
1927	12	5,539				4	.24	.10	368	22.15	.48	372	22.39	.56
Steam fittings, apparatus, and supplies:														
1926	5	1,500							57	12.66	.23	57	12.66	.23
1927	6	1,524				2	.44	.13	138	30.19	.59	140	30.63	.72
Stoves:														
1926	3	943				3	1.07	1.17	64	22.86	.34	67	23.93	1.51
1927	2	673				1	.50	1.48	59	29.22	.51	60	29.72	1.99
Structural-iron work:														
1926	2	246							9	12.86	.30	9	12.86	.30
1927	3	257				1	1.30	.39	25	32.44	.87	26	33.74	1.26
Woolen goods:														
1926	2	2,777				2	.24	.07	61	7.35	.26	63	7.59	.33
1927	1	1,859							20	3.58	.12	20	3.58	.12
Minnesota														
Agricultural implements:														
1925	5	886	2	0.75	4.52	2	0.75	0.56	20	7.53	0.08	24	9.05	5.16
1926	3	645				7	3.68	4.00	74	38.95	.61	81	42.63	4.61
1927	3	1,262	1	.26	1.58	3	.79	.48	35	9.24	.12	39	10.29	2.18
Boots and shoes:														
1926	3	693							20	9.52	.12	20	9.52	.12
1927	4	975				1	.34	.26	28	9.57	.08	29	9.91	.34
Brick: 1925	1	57							6	34.90	.33	6	34.90	.33
Carriages and wagons: [1] 1926	1	27				1	10.00	3.68	7	70.00	2.35	8	80.00	6.03
Electrical machinery: 1925	1	8							1	43.17	2.37	1	43.17	2.37
Flour:														
1925	19	3,443	4	.39	2.32	6	.58	.52	191	18.49	.25	201	19.46	3.09
1926	22	2,596	4	.51	3.08	7	.90	.98	156	20.00	.52	167	21.41	4.58
1927	22	2,471	1	.13	.81	8	1.08	.45	137	18.48	.35	146	19.69	1.61

[1] This industry group has been discontinued.

TABLE 5.—*Number of accidents and accident frequency and severity rates in specified States, 1925, 1926, and 1927, by industry*—Continued

Accidents for States reporting all disabilities extending beyond day of injury—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

Industry and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
	Minnesota—Continued													
Foundry and machine-shop products:														
1925	9	1,282	1	0.26	1.56	4	1.04	1.25	70	18.20	0.41	75	19.50	3.22
1926	5	897	1	.37	2.23	5	1.85	2.27	104	38.52	1.18	110	40.74	5.68
1927	6	1,061	1	.31	1.89	6	1.89	.66	69	21.69	.40	76	23.89	2.95
Furniture:														
1925	8	634				8	4.20	2.76	38	19.97	.36	46	24.17	3.12
1926	9	1,002				4	1.33	1.76	93	31.00	.60	97	32.33	2.36
1927	9	918	1	.36	2.18	10	3.63	1.80	70	25.42	.44	81	29.41	4.42
Lumber—Planing mills:														
1925	4	458							2	1.45	.01	2	1.45	.01
1926	5	523				5	3.13	3.15	25	15.63	.36	30	18.76	3.51
1927	5	373	1	.89	5.37	3	2.68	2.59	9	8.05	.35	13	11.62	8.31
Lumber—Sawmills:														
1925	5	2,228	1	.15	.90	5	.75	.96	123	18.40	.50	129	19.30	2.36
1926	5	1,988	9	1.50	9.05	25	4.17	6.81	756	126.00	3.29	790	131.67	19.15
1927	5	1,995	6	1.00	6.01	29	4.84	3.87	571	95.38	2.92	606	101.22	12.80
Paper and pulp:														
1925	3	1,132	1	.29	1.77	7	2.06	2.12	149	43.89	.78	157	46.24	4.67
1926	3	1,072	2	.63	3.73	7	2.19	1.07	267	83.44	1.03	276	86.26	5.83
1927	3	1,231	1	.27	1.62	8	2.17	2.14	189	51.16	1.00	198	53.60	4.76
Slaughtering and meat packing:														
1925	2	3,236	3	.31	1.85	22	2.27	2.94	5.33	54.91	.91	558	57.49	5.70
1926	5	3,902				35	2.99	2.86	1,077	92.05	1.15	1,112	95.04	4.01
1927	6	3,641	3	.27	1.65	32	2.93	2.55	574	52.55	.80	609	55.75	5.00
Steam fittings, apparatus, and supplies:														
1925	1	26							2	25.55	.40	2	25.55	.40
1926	1	27							2	24.69	.47	2	24.69	.47
1927	1	24				1	13.70	8.22	1	13.70	.75	2	27.40	8.97
Stoves:														
1926	2	304				7	7.77	7.84	32	35.55	.81	39	43.33	8.65
1927	2	360				9	8.33	3.61	31	28.71	.41	40	37.04	4.02

Structural-iron work:														
1925	2	354	2	1.88	11.29	1	0.94	1.13	6	5.65	0.27	9	8.47	12.69
1926	2	372				1	.91	.53	32	29.09	.48	33	30.00	1.01
1927	2	546	1	.61	3.66	1	.61	1.83	37	22.58	.33	39	23.80	5.82
Montana														
Flour: 1926	2	121							13	32.50	0.14	13	32.50	0.14
Lumber—sawmills: 1926	2	813	2	0.82	4.92				51	20.91	.40	53	21.73	5.32
Nebraska														
Agricultural implements:														
1926	2	271							51	63.75	0.26	51	63.75	0.26
1927	2	256							65	84.60	.70	65	84.60	.70
Brick:														
1926	3	118							20	50.00	.96	20	50.00	.96
1927	2	102							11	36.10	.23	11	36.10	.23
Flour:														
1926	8	218				2	2.86	13.79	43	61.43	.85	45	64.29	14.64
1927	8	260							41	52.59	.97	41	52.59	.97
Foundry and machine-shop products:														
1926	3	207							48	80.00	2.71	48	80.00	2.71
1927	3	220				3	4.56	1.37	37	56.18	.90	40	60.74	2.27
Slaughtering and meat packing:														
1926	5	5,098	3	.20	1.18	13	.85	1.00	525	34.31	.36	541	35.36	2.54
1927	5	5,106	1	.07	.39	6	.39	.32	552	36.03	.45	559	36.49	1.16
Structural-iron work:														
1926	2	166							25	50.00	.91	25	50.00	.91
1927	2	136							11	27.01	.43	11	27.01	.43
New Hampshire														
Cotton goods:														
1926	5	11,345				3	0.09	0.03	373	10.97	0.23	376	11.06	0.26
1927	5	13,519	2	0.05	0.30	8	.20	.27	414	10.21	.20	424	10.46	.77
Foundry and machine-shop products:														
1926	3	1,046				1	.32	.57	78	25.16	.29	79	25.48	.86
1927	3	933				2	.71	.38	52	18.57	.26	54	19.28	.64
Furniture: 1926	1	103							19	61.49	.27	19	61.49	.27
Lumber—Planing mills: 1927	1	121												
Paper and pulp:														
1926	1	367				1	.91	.27	76	69.09	.93	77	70.00	1.20
1927	1	365				2	1.83	.55	50	45.66	1.19	52	47.49	1.74
Woolen goods:														
1926	5	2,392	1	.14	.83				104	14.44	.45	105	14.58	1.28
1927	4	741							41	18.45	.21	41	18.45	.21

TABLE 5.—*Number of accidents and accident frequency and severity rates in specified States, 1925, 1926, and 1927, by industry*—Continued

Accidents for States reporting all disabilities extending beyond day of injury—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

Industry and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
	New York													
Agricultural implements: 1927	4	1,764	1	0.19	1.13	10	1.89	2.30	41	7.75	0.23	52	9.82	3.66
Automobiles: 1927	17	10,221	4	.13	.78	77	2.51	1.79	316	10.31	.39	397	12.95	2.96
Boots and shoes: 1927	10	17,696				60	1.13	.89	459	8.65	.17	519	9.78	1.06
Brick: 1927	14	1,552	2	.43	2.58	14	3.01	3.03	134	28.78	.99	150	32.22	6.60
Carpets: 1927	5	8,339	1	.04	.24	10	.40	.35	59	2.36	.12	70	2.80	.71
Chemicals: 1927	8	1,729	1	.19	1.16	10	1.93	1.75	31	5.97	.17	42	8.09	3.08
Cotton goods: 1927	2	1,490				1	.22	.17	35	7.83	.19	36	8.05	.36
Electrical machinery: 1927	11	19,047	6	.11	.63	111	1.94	2.04	657	11.50	.50	774	13.55	3.17
Fertilizers: 1927	2	126				1	2.64	10.56	7	18.48	.45	8	21.12	11.01
Flour: 1927	4	1,224	1	.27	1.63	9	2.45	3.11	44	11.99	.52	54	14.71	5.26
Foundry and machine-shop products: 1927	23	13,411	11	.27	1.64	186	4.62	4.55	654	16.25	.76	851	21.14	6.95
Furniture: 1927	20	3,916	1	.09	.51	30	2.55	2.39	106	9.02	.30	137	11.66	3.20
Hardware: 1927	1	266				3	3.76	4.88	6	7.51	.60	9	11.26	5.48
Leather: 1927	9	1,824	1	.18	1.10	8	1.46	.99	115	21.02	.55	124	22.66	2.64
Lumber—Planing mills: 1927	19	3,080	1	.11	.65	32	3.46	4.79	169	18.29	.65	202	21.86	6.00
Machine tools: 1927	9	1,374				14	3.40	3.52	55	13.34	.44	69	16.74	3.96
Paper and pulp: 1927	19	6,155	7	.38	2.27	87	4.71	5.02	485	26.26	.81	579	31.35	8.10
Petroleum refining: 1927	2	1,141				10	2.92	2.54	73	21.31	.98	83	24.23	3.52
Pottery: 1927	1	260				1	1.28	.38				1	1.28	.38
Shipbuilding steel: 1927	4	2,333	1	.14	.86	22	3.14	4.23	73	10.43	.47	96	13.71	5.56
Slaughtering and meat packing: 1927	6	2,452	2	.27	1.63	28	3.81	4.44	185	25.14	1.07	215	29.22	7.14
Stamped and enameled ware: 1927	2	576				11	6.36	4.28	47	27.18	1.12	58	33.54	5.40
Steam fittings, apparatus, and supplies: 1927	6	1,723				10	1.93	1.43	108	20.89	.69	118	22.82	2.12
Stoves: 1927	3	403				2	1.64	2.71	22	18.08	1.01	24	19.72	3.72
Structural-iron work: 1927	5	616				2	1.08	.32	31	16.78	1.07	33	17.86	1.39
Woolen goods: 1927	3	917				2	.73	1.31	12	4.36	.19	14	5.09	1.50

36904°—29——4

North Dakota														
Brick:														
1926	3	58				1	5.00	34.33	30	150.00	3.66	31	155.00	37.99
1927	2	44				1	7.61	30.45	4	30.45	.55	5	38.06	31.00
Flour:														
1926	2	34							4	40.00	.26	4	40.00	.26
1927	1	7												
Foundry and machine-shop products:														
1926	2	45							26	192.59	2.98	26	192.59	2.98
1927	1	33							20	200.32	1.06	20	200.32	1.06
Slaughtering and meat packing: 1927	1	70							19	89.91	1.24	19	89.91	1.24
Ohio														
Agricultural implements:														
1925	13	1,077	4	1.24	7.43	9	2.78	3.02	181	56.00	0.90	194	60.02	11.35
1926	10	1,537				5	1.09	.94	152	33.04	.37	157	34.13	1.31
1927	12	1,494	1	.22	1.34	5	1.12	.87	228	50.89	.74	234	52.23	2.95
Automobiles:														
1925	5	2,202				5	.76	1.50	137	20.73	.35	142	21.49	1.85
1926	13	14,122	4	.09	.57	59	1.39	1.19	1,016	23.96	.38	1,079	25.44	2.14
1927	17	14,351	1	.02	.14	10	.23	2.23	471	10.94	.18	482	11.19	2.55
Automobile tires:														
1925	12	14,888	3	.07	.40	52	1.16	1.06	2,962	66.32	.74	3,017	67.55	2.20
1926	8	11,721	2	.06	.34	26	.71	.54	2,637	74.91	.95	2,665	75.68	1.83
1927	18	22,543	6	.09	.53	47	.69	.59	3,341	49.40	.87	3,394	50.18	1.99
Boots and shoes:														
1926	2	2,352	1	.14	.85	1	.14	.09	181	25.49	.18	183	25.77	1.12
1927	2	2,849							121	14.15	.21	121	14.15	.21
Brick:														
1925	9	2,542	2	.26	1.57	3	.39	.84	426	55.86	.62	431	56.51	3.03
1926	12	2,496	2	.27	1.60	4	.53	.74	413	55.07	.90	419	55.87	3.24
1927	19	2,835	4	.47	2.82	6	.71	.58	423	49.73	.66	433	50.91	4.06
Carriages and wagons: [1] 1926	1	17												
Chemicals, 1927	5	574							30	17.43	.33	30	17.43	.33
Electrical machinery:														
1925	17	3,560				7	.66	.81	305	28.56	.22	312	29.22	1.03
1926	12	3,637				8	.73	.40	190	17.43	.23	198	18.16	.63
1927	21	10,612				23	.72	.63	530	16.65	.24	553	17.37	.87
Fertilizer:														
1926	3	255				1	1.25	.78	27	33.75	.55	28	35.00	1.33
1927	12	527							48	30.36	.38	48	30.36	.38
Flour:														
1926	1	38							8	80.00	.70	8	80.00	.70
1927	6	195				1	1.71	2.57	11	18.83	.37	12	20.54	2.94

[1] This industry group has been discontinued.

TABLE 5.—*Number of accidents and accident frequency and severity rates in specified States, 1925, 1926, and 1927, by industry*—Continued

Accidents for States reporting all disabilities extending beyond day of injury—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

Industry and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
	Ohio—Continued													
Foundry and machine-shop products:														
1925	29	7,629	2	0.09	0.52	17	0.74	0.46	1,326	57.93	0.43	1,345	58.76	1.41
1926	40	11,829	10	.28	1.69	40	1.13	1.12	1,897	53.44	.67	1,947	54.85	3.48
1927	69	17,590	11	.21	1.25	43	.81	.52	1,632	30.93	.46	1,686	31.95	2.23
Furniture:														
1925	15	1,821				8	1.46	1.26	77	14.09	.29	85	15.55	1.55
1926	8	496							15	10.00	.21	15	10.00	.21
1927	27	3,191	1	.10	.63	9	.94	.57	210	21.94	.28	220	22.98	1.48
Glass:														
1925	5	1,552				2	.43	.77	414	88.93	.75	416	89.36	1.52
1926	6	2,249	1	.15	.89	6	.90	.73	358	53.43	.62	365	54.48	2.24
1927	14	5,554	7	.42	2.52	8	.48	.50	608	36.49	.49	623	37.39	3.51
Hardware:														
1926	3	786				4	1.67	.51	68	28.33	.58	72	30.00	1.09
1927	5	836	1	.40	2.39	7	2.79	1.55	104	41.46	.82	112	44.65	4.76
Leather:														
1926	1	295				1	1.11	1.36	16	17.78	.34	17	18.89	1.70
1927	1	328				1	1.02	1.22	30	30.50	.63	31	31.52	1.85
Lumber—Planing mills:														
1925	3	438	1	.76	4.56	3	2.28	2.28	27	20.53	.33	31	23.57	7.17
1926	5	368							16	14.55	.20	16	14.55	.20
1927	8	543							45	27.65	.51	45	27.65	.51
Lumber—Sawmills:														
1926	1	37	1	8.94	53.66				4	35.78	.67	5	44.72	54.33
1927	1	31				1	10.68	6.41	11	117.52	1.55	12	128.20	7.96
Machine tools:														
1925	19	1,763				2	.38	.48	238	44.99	.37	240	45.37	.85
1926	25	4,138	1	.08	.48	13	1.04	.65	529	42.66	.42	543	43.78	1.55
1927	45	5,300	3	.19	1.13	11	.69	.55	529	33.27	.44	543	34.15	2.12

Paper and pulp:													
1926	4	3,501	3	.29	1.71	4	.38	.92	251	23.90	.27	258	24.57	2.90
1927	6	4,709	2	.14	.85	6	.42	.52	443	31.36	.46	451	31.92	1.83
Petroleum refining:														
1926	1	169				1	2.00	.59	29	58.00	1.32	30	60.00	1.91
1927	1	168	1	1.98	11.88				20	39.60	1.44	21	41.58	13.32
Pottery:														
1925	7	1,206				1	.28	.50	80	22.12	.31	81	22.40	.81
1926	6	1,027	1	.32	1.95				46	14.84	.15	47	15.16	2.10
1927	14	2,397	1	.14	.83	2	.28	.08	126	17.52	.17	129	17.94	1.08
Shipbuilding, steel: 1927	2	895	2	.74	4.47	1	.37	.22	215	80.07	1.68	218	81.18	6.37
Slaughtering and meat packing: 1927	9	2,225	3	.45	2.70	3	.45	.92	128	19.13	.27	134	20.08	3.89
Stamped and enameled ware:														
1925	4	698				2	.95	1.00	51	24.34	.28	53	25.29	1.28
1926	4	641				7	2.85	1.56	77	29.60	.46	84	32.45	2.02
1927	9	1,330	1	.25	1.50	11	2.76	1.99	85	21.30	.37	97	24.31	3.86
Steam fittings, apparatus, and supplies:														
1925	9	666				2	1.00	.53	120	60.10	.82	122	61.10	1.35
1926	7	878				1	.38	.68	145	55.05	.67	146	55.43	1.35
1927	12	7,007	2	.10	.57	3	.14	.13	210	9.99	.15	215	10.23	.85
Stoves:														
1925	8	1,753				2	.38	.48	275	52.30	.49	277	52.68	.97
1926	8	1,028				5	1.61	1.65	79	25.48	.38	84	27.09	2.03
1927	11	2,924	1	.11	.68	4	.46	.90	428	48.79	.64	433	49.36	2.22
Structural-iron work:														
1925	16	1,419	1	.23	1.41	5	1.17	1.20	424	99.57	1.15	430	100.97	3.76
1926	8	378	9	8.18	47.59	4	3.64	2.12	185	168.18	2.86	198	180.00	52.57
1927	10	2,202	4	.61	3.63	4	.61	.18	174	26.33	.43	182	27.55	4.24
Woolen goods:														
1926	1	213							4	6.66	.28	4	6.66	.28
1927	4	2,093				2	.32	.33	74	11.79	.17	76	12.11	.50
Pennsylvania														
Agricultural implements: 1927	5	500	1	0.68	4.00	4	2.67	1.60	41	27.35	0.38	46	30.70	5.98
Automobiles: 1927	9	6,806				15	.73	.35	198	9.70	.13	213	10.43	.48
Automobile tires: 1927	7	2,154				3	.46	.14	137	21.19	.26	140	21.65	.40
Boots and shoes: 1927	13	3,699				1	.09	.27	61	5.50	.85	62	5.59	1.12
Brick: 1927	26	6,100	2	.11	.66	7	.38	.11	480	26.23	.33	489	26.72	1.10
Carpets: 1927	15	4,217				2	.16	.21	142	11.23	.15	144	11.39	.36
Chemicals: 1927	7	2,627	1	.13	.76				105	13.32	.21	106	13.45	.97
Cotton goods: 1927	6	2,246	2	.30	1.78	2	.30	.10	56	8.30	.10	60	8.90	1.98
Electrical machinery: 1927	13	17,877	4	.07	.45	30	.56	.44	701	13.07	.23	735	13.70	1.12
Fertilizers: 1927	4	495							40	26.92	.35	40	26.92	.35
Flour: 1927	4	124							1	2.69	.03	1	2.69	.03
Foundry and machine shop products: 1927	92	26,830	12	.15	.89	51	.63	.44	2,657	33.01	.40	2,720	33.79	1.73
Furniture: 1927	30	3,279				9	.91	.82	209	21.25	.26	218	22.16	1.08
Glass: 1927	25	7,156	4	.19	1.12	1	.05	.03	844	39.31	.44	849	39.55	1.59
Hardware: 1927	6	2,570				4	.52	.25	206	26.72	.30	210	27.24	.56
Leather: 1927	17	3,943	2	.17	1.01	5	.42	.15	414	35.00	.45	421	35.59	1.61

TABLE 5.—*Number of accidents and accident frequency and severity rates in specified States, 1925, 1926, and 1927, by industry*—Continued

Accidents for States reporting all disabilities extending beyond day of injury—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

Industry and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
Pennsylvania—Continued														
Lumber—Planing mills: 1927	6	621				3	1.61	0.48	56	30.07	0.42	59	31.68	0.90
Lumber—Sawmills: 1927	1	330	1	1.01	6.06	5	5.05	1.82	159	160.65	2.21	165	166.71	10.09
Machine tools: 1927	6	854				1	.39	.29	64	24.97	.33	65	25.36	.62
Paper and pulp: 1927	7	2,769	3	.36	2.17	4	.48	.25	202	24.32	.32	209	25.16	2.74
Petroleum refining: 1927	5	4,454	3	.22	1.35	3	.22	.10	238	17.81	.26	244	18.25	1.71
Pottery: 1927	2	381												
Shipbuilding, steel: 1927	1	1,607	2	.41	2.49	3	.62	.50	361	74.84	.77	366	75.89	3.76
Slaughtering and meat packing: 1927	9	1,585							145	30.48	.36	145	30.48	.36
Stamped and enameled ware: 1927	1	95							11	38.65	.44	11	38.65	.44
Steam fittings, apparatus, and supplies: 1927	14	5,124				8	.52	.22	556	36.17	.40	564	36.69	.62
Stoves: 1927	8	901							61	22.58	.26	61	22.58	.26
Structural ironwork: 1927	21	3,856	16	1.38	8.30	6	.52	.39	544	47.02	.54	566	48.92	9.23
Woolen goods: 1927	19	6,054	1	.06	.33	4	.22	.09	186	10.24	.13	191	10.52	.55
South Dakota														
Brick: 1926	1	13												
Flour: 1926	2	44							5	50.00	1.15	5	50.00	1.15
Slaughtering and meat packing: 1926	1	1,023	1	.32	1.95	10	3.23	1.07	248	80.00	1.05	259	83.55	4.07
Tennessee														
Agricultural implements:														
1926	2	329				4	4.00	4.61	16	16.00	0.33	20	20.00	4.94
1927	1	113	1	2.94	17.63	1	2.94	.88	5	14.69	.16	7	20.57	18.67

Automobiles:													
1926	2	1,657	2	.40	2.41	40	8.00	5.17	231	46.20	.67	273	54.60	8.25
1927	1	196							20	34.08	.83	20	34.08	.83
Carriages and wagons: [1] 1926	3	118				2	5.00	1.69	6	15.00	.35	8	20.00	2.04
Chemicals:														
1926	2	49												
1927	2	45												
Cotton goods:														
1926	3	3,175				6	.63	.27	111	11.68	.11	117	12.31	.38
1927	3	3,146				1	.11	.13	132	13.99	.15	133	14.10	.28
Fertilizers:														
1926	3	218							12	17.14	.36	12	17.14	.36
1927	5	200							8	13.33	.51	8	13.33	.51
Flour:														
1926	3	248				1	1.43	2.42	22	31.43	.23	23	32.86	2.65
1927	5	302				1	1.10	.33	16	17.64	.10	17	18.74	.43
Foundry and machine-shop products:														
1926	2	298							39	43.33	.47	39	43.33	.47
1927	3	945				5	1.76	2.33	34	11.99	.12	39	13.75	2.45
Furniture:														
1926	5	910				7	2.59	1.32	102	37.78	.30	109	40.37	1.62
1927	5	937				12	4.27	2.93	82	29.15	.27	94	33.42	3.20
Glass:														
1926	1	210							10	16.67	.22	10	16.67	.22
1927	1	176							12	22.71	.17	12	22.71	.17
Lumber—Planing mills:														
1926	2	338							18	18.00	.36	18	18.00	.36
1927	2	827							15	6.04	.07	15	6.04	.07
Lumber—Sawmills:														
1926	2	861	1	.33	2.32	1	.33	.11	44	16.92	.29	46	17.68	2.72
1927	2	1,062	1	.31	1.83	3	.94	.85	56	17.58	.22	60	18.83	2.95
Paper and pulp:														
1926	1	98				1	3.33	1.01	20	66.67	.05	21	70.00	1.06
1927	1	204							1	1.64	.02	1	1.64	.02
Pottery:														
1926	1	212							7	11.67	.05	7	11.67	.05
1927	1	214				1	1.56	2.80	5	7.78	.29	6	9.34	3.09
Slaughtering and meat packing:														
1926	3	319				2	2.00	4.49	42	42.00	.52	44	44.00	5.02
1927	3	350				1	.95	.29	27	25.69	.30	28	26.64	.59
Stoves:														
1926	4	879				3	1.15	.91	245	94.23	1.22	248	95.38	2.13
1927	4	926				7	2.52	1.03	306	110.17	1.24	313	112.69	2.27
Woolen goods:														
1926	1	252							13	16.25	.15	13	16.25	.15
1927	1	128							8	20.76	.13	8	20.76	.13

[1] This industry group has been discontinued.

TABLE 5.—*Number of accidents and accident frequency and severity rates in specified States, 1925, 1926, and 1927, by industry*—Continued

Accidents for States reporting all disabilities extending beyond day of injury—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

Industry and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
Texas														
Brick: 1927	11	483				1	0.69	1.24	97	67.00	0.74	98	67.69	1.98
Cotton goods: 1927	7	1,449				5	1.15	1.59	95	21.85	.29	100	23.00	1.88
Fertilizers: 1927	1	117							22	62.68	.77	22	62.68	.77
Flour: 1927	5	187				1	1.78	1.07	18	32.07	.54	19	33.85	1.61
Foundry and machine-shop products: 1927	9	1,340				8	1.99	2.20	272	67.64	1.01	280	69.63	3.21
Furniture: 1927	4	521	1	0.64	3.84	4	2.56	2.02	64	40.95	.56	69	44.15	6.42
Lumber—Planing mills: 1927	3	246	1	1.35	8.12	3	4.06	1.62	68	91.98	1.21	72	97.39	10.95
Lumber—Sawmills: 1927	17	8,538	12	.47	2.81	83	3.24	4.58	1,461	57.04	1.04	1,556	60.75	8.43
Petroleum refining: 1927	5	10,367	16	.51	3.09	50	1.61	1.79	1,533	49.29	.70	1,599	51.41	5.58
Slaughtering and meat packing: 1927	7	2,832	1	.12	.71	3	.35	.16	267	31.43	.55	271	31.90	1.42
Structural iron work: 1927	3	277	1	1.20	7.21	1	1.20	.36	115	138.19	1.84	117	140.59	9.41
West Virginia														
Foundry and machine-shop products:														
1926	1	343				4	4.00	7.67	86	86.00	1.11	90	90.00	8.78
1927	1	262				1	1.27	2.29	46	58.53	.69	47	59.80	2.98
Furniture:														
1926	4	485				4	2.67	1.86	22	14.67	.23	26	17.34	2.09
1927	4	507	1	0.66	3.95	1	.66	.49	38	24.99	.36	40	26.31	4.80
Glass:														
1926	5	3,246				10	1.03	1.39	351	36.19	.41	361	37.22	1.80
1927	4	2,456	3	.41	2.44	4	.54	.45	368	49.93	.63	375	50.88	3.52
Leather:														
1926	2	310				2	2.22	3.55	27	30.00	.55	29	32.22	4.10
1927	2	335				1	.96	.29	28	26.75	.29	29	27.71	.58

Lumber—Sawmills:														
1926	4	1,299	2	.51	3.09	7	1.79	2.92	98	25.13	.74	107	27.43	6.75
1927	4	1,328	2	.50	3.01	7	1.76	.75	79	19.83	.62	88	22.09	4.38
Paper and pulp:														
1926	2	476				3	2.14	3.85	108	77.14	1.30	111	79.28	5.15
1927	1	382							63	55.01	.97	63	55.01	.97
Pottery:														
1926	3	2,215				1	.15	.60	65	9.85	.30	66	10.00	.90
1927	3	2,333	1	.14	.86	1	.14	.04	75	10.72	.17	77	11.00	1.07
Shipbuilding, steel:														
1926	2	199				1	1.67	6.71	87	145.00	1.71	88	146.67	8.42
1927	2	131				4	10.17	15.25	115	292.30	3.33	119	302.47	18.58
Slaughtering and meat packing:														
1926	1	42							5	50.00	.35	5	50.00	.35
1927	1	86							4	15.48	.30	4	15.48	.30
Stamped and enameled ware:														
1926	2	606				10	5.55	2.39	49	27.22	.26	59	32.77	2.6
1927	2	2,979	1	.11	.67				27	3.02	.05	28	3.13	.72
Stoves:														
1926	1	28							1	10.00	.65	1	10.00	.65
1927	1	23							6	87.98	1.64	6	87.98	1.64
All industry groups, all States.														
1925	459	95,816	31			278			11,761			12,070		
1926	858	283,172	94			855			24,002			24,951		
1927	1,776	608,247	250			1,896			43,037			45,183		

Accidents for State reporting only disabilities extending beyond five days

	Oklahoma													
Brick: 1927	3	163	(3)						30	61.51	1.02	[3] 30	61.51	1.02
Flour: 1927	8	201	(3)						21	34.90	.82	[3] 21	34.90	.82
Foundry and machine-shop products: 1927	5	220	(3)			2	3.03	3.18	45	68.16	1.55	[3] 47	71.19	4.73
Furniture: 1927	1	62	(3)						1	5.34	.09	[3] 1	5.34	.09
Glass: 1927	5	656	(3)						17	8.64	.20	[3] 17	8.64	.20
Lumber—Sawmills: 1927	2	1,123	(3)			3	.89	1.16	56	16.62	.37	[3] 59	17.51	1.53
Petroleum refining: 1927	3	1,779	(3)			12	2.25	1.71	107	20.04	.57	[3] 119	22.29	2.28
Slaughtering and meat packing: 1927	2	1,140	(3)			1	.29	.09	59	17.25	.25	[3] 60	17.54	.34
Structural-iron work: 1927	1	117	(3)						15	42.74	.54	[3] 15	42.74	.54

[3] Fatal cases not reported.

TABLE 5.—*Number of accidents and accident frequency and severity rates in specified States, 1925, 1926, and 1927, by industry*—Continued

Accidents for States reporting only disabilities extending beyond one week

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

Industry and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
	Georgia													
Cotton goods:														
1926	12	19,369				24	0.41	0.25	290	4.99	0.12	314	5.40	0.37
1927	16	21,195	5	0.08	0.47	36	.57	.47	349	5.48	.13	390	6.13	1.07
Fertilizers:														
1926	3	639	1	.53	3.13	1	.53	2.09	18	9.47	.22	20	10.53	5.44
1927	12	983	1	.34	2.03	7	2.37	2.29	72	24.40	.60	80	27.11	4.92
Flour: 1927	1	21							1	16.03	.45	1	16.03	.45
Foundry and machine-shop products:														
1926	6	1,300	1	.26	1.54	12	3.08	2.49	84	21.54	.48	97	24.88	4.51
1927	6	1,204				4	1.11	1.12	77	21.32	.62	81	22.43	1.74
Furniture:														
1926	3	500				3	2.00	2.60	9	6.00	.08	12	8.00	2.68
1927	3	505							12	7.92	.25	12	7.92	.25
Leather:														
1926	1	451				1	.71	2.66	28	20.00	.39	29	20.71	3.05
1927	1	320				1	1.04	.31	26	27.12	.63	27	28.16	.94
Lumber—Planing mills:														
1926	2	177	1	2.00	11.30	1	2.00	1.16	9	18.00	.57	11	22.00	13.03
1927	2	222				2	3.00	1.35	7	10.51	.17	9	13.51	1.52
Lumber—Sawmills:														
1926	1	62							5	25.00	.91	5	25.00	.91
1927	2	587	1	.57	3.41	1	.57	.17	72	40.91	1.12	74	42.05	4.70
Petroleum refining:														
1926	1	228	1	1.43	8.78				7	10.00	.22	8	11.43	9.00
1927	1	230							5	7.25	.30	5	7.25	.30
Slaughtering and meat packing:														
1926	1	218				2	2.86	5.49	8	11.43	.23	10	14.29	5.72
1927	1	213							13	20.31	.42	13	20.31	.42

Woolen goods:													
1926	2	378				1	.90	1.59	13	11.81	.23	14	12.71	1.82
1927	2	388				1	.86	.26	19	16.34	.38	20	17.20	.64
	Illinois													
Agricultural implements:														
1925	13	2,808				9	1.07	0.68	65	7.72	0.15	74	8.79	0.83
1926	21	5,357	2	0.12	0.75	29	1.80	1.78	284	17.64	.50	315	19.56	3.03
1927	21	8,608	1	.03	.23	36	1.39	1.34	329	12.74	.29	366	14.16	1.86
Automobiles:														
1925	8	2,990	2	.22	1.34	7	.78	.27	45	5.02	.11	54	6.02	1.71
1926	9	3,689	1	.09	.54	15	1.35	1.25	66	5.95	.14	82	7.39	1.93
1927	8	3,452				32	3.09	3.79	63	6.08	.17	95	9.17	3.96
Boots and Shoes:														
1925	5	3,336							124	12.39	.19	124	12.39	.19
1926	4	5,556				5	.30	.09	39	2.34	.05	44	2.64	.14
1927	7	3,618				8	.74	.53	59	5.44	.13	67	6.18	.66
Brick:														
1925	12	3,802	1	.09	.53	6	.53	1.13	197	17.27	.45	204	17.89	2.11
1926	15	3,265				15	1.53	2.46	249	25.41	.63	264	26.94	3.09
1927	13	3,554	1	.09	.56	15	1.41	1.71	161	15.09	.32	177	16.59	2.59
Carriages and wagons [1]: 1926	1	56				3	15.00	17.75	3	15.00	.28	6	30.00	18.03
Chemicals:														
1926	4	1,527	1	.22	1.31	3	.65	.29	89	19.35	.56	93	20.22	2.16
1927	4	1,477				18	4.06	2.98	88	19.86	.53	106	23.92	3.51
Electrical machinery:														
1925	13	4,944	1	.07	.40	14	.94	.54	54	3.64	.07	69	4.65	1.01
1926	20	6,908				36	1.74	1.34	147	7.10	.19	183	8.84	1.53
1927	20	7,270				28	1.28	1.30	135	6.19	.12	163	7.47	1.42
Fertilizers:														
1926	1	68							10	50.00	.62	10	50.00	.62
1927	2	530	1	.63	3.77	10	6.29	2.54	46	28.92	.71	57	35.84	7.02
Flour:														
1926	2	244				1	1.43	.41	12	17.14	.31	13	18.57	.72
1927	2	236				1	1.42	.71	23	32.54	.63	24	33.96	1.34
Foundry and machine-shop products:														
1925	20	10,293	1	.03	.19	26	.84	.78	239	7.74	.26	266	8.61	1.23
1926	26	7,203	3	.14	.83	55	2.55	1.82	328	15.19	.36	386	17.88	3.01
1927	25	6,674	2	.10	.60	66	3.29	2.71	274	13.69	.32	342	17.08	3.63
Furniture:														
1925	16	2,828				10	1.18	.71	97	11.43	.26	107	12.61	.97
1926	25	4,356				22	1.68	1.14	168	12.82	.23	190	14.50	1.37
1927	25	6,630	1	.05	.30	22	1.11	.99	150	7.54	.16	173	8.70	1.45
Hardware:														
1926	6	2,250				24	3.53	2.32	61	8.97	.18	85	12.50	2.50
1927	6	2,481				15	2.01	1.79	47	6.31	.14	62	8.32	1.93
Leather:														
1925	5	1,378				7	1.69	1.91	58	14.03	.34	65	15.72	2.25
1926	7	1,594				17	3.54	3.14	79	16.46	.61	96	20.00	3.75
1927	7	2,431				20	2.74	2.60	60	8.23	.20	80	10.97	2.80

[1] This industry group has been discontinued.

TABLE 5.—*Number of accidents and accident frequency and severity rates in specified States, 1925, 1926, and 1927, by industry*—Continued

Accidents for States reporting only disabilities extending beyond one week—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

Industry and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
	Illinois—Continued													
Lumber—Planing mills:														
1925	8	667	2	1.00	6.00	3	1.50	2.40	28	14.00	0.48	33	16.50	8.88
1926	17	1,802	3	.56	3.33	16	2.96	4.36	126	3.33	.62	145	26.85	8.31
1927	16	1,557				22	4.71	5.23	142	30.39	.80	164	35.10	6.03
Lumber—Sawmills:														
1926	2	309				5	5.56	4.37	36	40.09	.78	41	45.56	5.15
1927	3	250	1	1.34	8.01	7	9.34	16.22	48	64.08	1.48	56	74.76	25.71
Machine tools:														
1925	5	1,197				3	.84	.25	20	5.57	.19	23	6.41	.44
1926	11	1,933				11	1.89	1.17	66	11.38	.48	77	13.27	1.65
1927	11	1,992	2	.33	2.00	10	1.67	.92	72	12.04	.28	84	14.04	3.20
Paper and pulp:														
1925	5	378	1	.88	5.29				14	12.34	.21	15	13.22	5.50
1926	7	523				1	.63	1.91	16	10.00	.31	17	10.63	2.22
1927	7	595				5	2.80	1.29	31	17.37	.35	36	20.17	1.64
Petroleum refining:														
1926	2	1,710	6	1.18	6.97	2	.39	.41	16	3.14	.12	24	4.71	7.50
1927	2	1,340	1	.25	1.49	6	1.49	1.79	61	15.17	.41	68	16.91	3.69
Shipbuilding, steel:														
1926	1	87				2	6.67	2.31	2	6.67	.10	4	13.34	2.41
1927	1	164				4	8.12	4.06	9	18.27	.58	13	26.39	4.64
Slaughtering and meat packing:														
1925	7	16,412	12	.24	1.46	41	.83	.50	767	15.58	.33	820	16.65	2.29
1926	11	22,228	7	.10	.63	105	1.57	1.61	1,142	17.12	.38	1,254	18.79	2.62
1927	8	17,806	9	.17	1.01	149	2.79	2.94	1,057	19.78	.42	1,215	22.74	4.37
Stamped and enameled ware:														
1926	2	5,462				4	.25	.19	29	1.76	.04	33	2.01	.23
1927	2	472				3	2.11	1.27	17	12.00	.26	20	14.11	1.53

Steam fittings, apparatus, and supplies:														
1926	4	2,085				19	3.02	2.43	153	24.28	.63	172	27.30	3.07
1927	4	1,732				21	4.04	5.51	126	24.23	.52	147	28.30	6.03
Stoves:														
1926	6	1,387				2	.48	.14	16	3.80	.13	18	4.28	.27
1927	6	1,130				3	.88	1.74	13	3.83	.08	16	4.71	1.82
Structural-iron work:														
1925	3	296	1	1.13	6.76	8	9.02	9.58	29	32.69	1.11	38	42.84	17.45
1926	4	434	1	.76	4.60	7	5.38	4.14	45	34.61	1.02	53	40.75	9.76
1927	4	645	1	.52	3.10	11	5.68	5.89	52	23.87	.54	64	33.07	9.53
	Michigan													
Automobiles:														
1925	25	152,620	42	0.09	0.55	549	1.20	0.91	3,210	7.01	0.14	3,801	8.30	1.60
1926	29	190,210	46	.08	.48	677	1.19	.82	4,766	8.35	.25	5,489	9.62	1.55
1927	40	168,325	59	.12	.70	566	1.12	.79	4,172	8.26	.22	4,797	9.50	1.71
Automobile tires:														
1926	1	2,860	2	.23	1.40	13	1.51	.96	101	11.74	.38	116	13.48	2.74
1927	1	1,790				2	.37	.28	51	9.50	.23	53	9.87	.51
Boots and shoes:														
1926	4	522							4	2.50	.09	4	2.50	.09
1927	4	273							4	4.88	.11	4	4.88	.11
Brick:														
1926	2	156				1	2.00	.64	8	16.00	.44	9	18.00	1.08
1927	2	143							4	9.30	.11	4	9.30	.11
Carriages and wagons: [1] 1926	1	10							1	33.00	.56	1	33.00	.56
Chemicals:														
1926	2	2,528	4	.53	3.16	2	.26	.28	72	9.47	.27	78	10.26	3.71
1927	4	3,018	6	.66	3.98	6	.66	.43	148	16.34	.60	160	17.66	5.01
Electrical machinery:														
1926	1	113							1	.33	.08	1	.33	.08
1927	1	107												
Fertilizers:														
1926	1	249							10	14.29	.57	10	14.29	.57
1927	1	207				1	1.61	1.93	6	9.67	.24	7	11.28	2.17
Flour:														
1926	5	468				2	1.43	.43	24	17.14	.48	26	18.57	.91
1927	5	428				1	.78	.23	9	7.02	.25	10	7.80	.48
Foundry and machine-shop products:														
1925	5	4,078	1	.08	.49	15	1.23	.94	133	10.87	.26	149	12.18	1.69
1926	26	6,375	8	.42	2.51	15	.79	.53	482	25.24	.63	505	26.45	3.67
1927	24	5,531	2	.12	.72	11	.66	.32	328	19.77	.56	341	20.55	1.60
Furniture:														
1925	5	2,013							32	5.30	.20	32	5.30	.20
1926	37	9,052	3	.11	.66	48	1.76	1.28	229	8.42	.27	280	10.29	2.21
1927	36	8,937				36	1.34	.66	211	7.87	.18	247	9.21	.84
Hardware:														
1926	3	476				9	6.43	1.82	20	14.29	.49	29	20.72	2.31
1927	3	505				4	2.64	.99	15	9.90	.41	19	12.54	1.40

[1] This industry group has been discontinued.

TABLE 5.—*Number of accidents and accident frequency and severity rates in specified States, 1925, 1926, and 1927, by industry*—Continued

Accidents for States reporting only disabilities extending beyond one week—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

Industry and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
	Michigan—Continued													
Leather:														
1926	2	560				3	1.76	0.89	40	23.53	1.47	43	25.29	2.36
1927	2	532				4	2.51	1.32	29	18.18	.42	33	20.69	1.74
Lumber—Planing mills:														
1925	1	260	1	1.28	7.69	2	2.56	2.50	39	49.99	1.04	42	53.83	11.23
1926	16	1,893	2	.35	2.11	16	2.81	2.67	159	27.89	.77	177	31.05	5.55
1927	16	1,679	2	.40	2.38	9	1.79	1.25	118	23.43	.79	129	25.62	4.42
Lumber—Sawmills:														
1925	5	5,455	4	.24	1.47	7	.43	.47	120	7.33	.23	131	8.00	2.17
1926	17	2,394	2	.28	1.67	13	1.81	1.62	344	47.78	2.07	359	49.87	5.36
1927	17	2,416	5	.69	4.14	10	1.38	1.23	282	38.90	1.55	297	40.97	6.92
Machine tools:														
1926	7	574	1	.59	3.48	3	1.76	.69	36	21.18	.56	40	23.53	4.72
1927	5	389				4	3.43	1.29	15	12.87	.52	19	16.30	1.81
Paper and pulp:														
1925	1	1,179				3	.85	.25	73	20.63	.54	76	21.48	.79
1926	8	3,902	3	.26	1.53	15	1.28	.83	369	31.54	1.03	387	33.08	3.39
1927	7	2,495	2	.27	1.60	6	.80	.73	175	23.38	.60	183	24.45	2.93
Shipbuilding, steel:														
1926	2	807	1	.42	2.48	4	1.67	1.24	39	16.25	.42	44	18.34	4.14
1927	2	570				9	5.26	1.84	52	30.41	1.30	61	35.67	3.14
Slaughtering and meat packing:														
1926	4	930				3	1.07	1.08	64	22.86	.57	67	23.93	1.65
1927	5	1,291				2	.51	.15	59	15.24	.35	61	15.75	.50
Stamped and enameled ware: 1926	1	314				11	12.22	3.82	13	14.44	.26	24	26.66	4.08
Steam fittings, apparatus, and supplies:														
1926	3	1,003	1	.33	1.99	2	.67	.19	33	11.00	.26	36	12.00	2.44
1927	4	897	1	.37	2.23	3	1.12	.33	37	13.75	.40	41	15.24	2.96

Stoves:														
1926	2	723	1	.45	2.76				45	20.45	.53	46	20.90	3.30
1927	1	379	1	.88	5.28				11	9.68	.37	12	10.56	5.65
Structural-ironwork:														
1925	2	313				4	4.26	7.98	17	18.09	.62	21	22.35	8.60
1926	3	537	1	.62	3.72				37	23.13	1.02	38	23.75	4.74
1927	2	368				2	1.81	.54	14	12.67	.25	16	14.48	.79
Woolen goods:														
1926	4	694							3	1.42	.06	3	1.42	.06
1927	4	615				1	.54	.16	11	5.96	.17	12	6.50	.33
	New Jersey [4]													
Automobiles:														
1925	5	3,113				25	2.68	2.28	72	7.71	0.19	97	10.39	2.47
1926	3	2,271	1	0.15	0.88	36	5.29	10.94	88	12.94	.29	125	18.38	12.11
1927	5	2,180				25	3.82	5.00	48	7.33	.17	73	11.15	5.17
Automobile tires:														
1925	7	2,749	1	.12	.73	10	1.21	2.03	97	11.76	.37	108	13.09	3.13
1926	6	2,015				10	1.67	1.43	95	15.83	.37	105	17.50	1.80
1927	3	1,907				5	.87	1.39	19	3.32	.09	24	4.19	1.48
Boots and shoes:														
1926	4	609							6	3.33	.07	6	3.33	.07
1927	1	237				1	1.41	4.22	3	4.22	.11	4	5.63	4.33
Brick:														
1925	12	1,900				8	1.40	1.01	70	12.28	.28	78	13.68	1.29
1926	15	2,631				9	1.14	1.79	69	8.73	.17	78	9.87	1.96
1927	15	2,473				8	1.08	1.13	86	11.58	.27	94	12.66	1.40
Carpets:														
1925	3	857				3	1.17	3.23	27	10.50	.29	30	11.67	3.52
1926	3	905				3	1.11	.33	38	14.07	.29	41	15.18	.62
1927	3	923				3	1.08	1.37	28	10.11	.21	31	11.19	1.58
Carriages and wagons: [1] 1926	1	18							2	20.00	1.30	2	20.00	1.30
Chemicals:														
1925	17	6,778	1	.05	.30	12	.59	.65	89	4.38	.13	102	5.02	1.08
1926	17	3,302				15	1.52	1.57	80	8.08	.18	95	9.60	1.75
1927	19	3,449	2	.19	1.16	29	2.80	2.99	90	8.70	.21	121	11.69	4.36
Cotton goods:														
1926	3	3,558				7	.65	.34	23	2.15	.05	30	2.80	.39
1927	5	5,000	1	.07	.40	9	.60	.85	17	1.13	.04	27	1.80	1.29
Electrical machinery:														
1925	13	8,329	1	.04	.24	62	2.48	2.47	140	5.60	.15	203	8.12	2.86
1926	13	8,090	1	.04	.25	48	1.98	1.74	134	5.51	.12	183	7.53	2.11
1927	17	8,819				32	1.21	1.18	133	5.03	.14	165	6.24	1.32
Fertilizers: 1927	1	285	1	1.17	7.02	5	5.85	14.50	15	17.54	.43	21	24.56	21.95
Foundry and machine-shop products:														
1925	21	5,672	2	.12	.71	55	3.23	2.31	234	3.75	.41	291	17.10	3.43
1926	20	4,833				82	5.66	4.85	243	16.76	.27	325	22.42	5.12
1927	20	4,727	2	.14	.85	125	8.81	9.91	221	15.58	.82	348	24.53	11.18
Furniture: 1927	2	449				7	5.20	6.31	11	8.16	.25	18	13.36	6.56

[1] This industry group has been discontinued.

[4] Closed cases only are reported.

TABLE 5.—*Number of accidents and accident frequency and severity rates in specified States, 1925, 1926, and 1927, by industry*—Continued

Accidents for States reporting only disabilities extending beyond one week—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

Industry and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
	New Jersey—Continued													
Glass:														
1925	6	4,632	1	0.07	0.43	7	0.50	0.76	50	3.60	0.10	58	4.71	1.29
1927	6	2,588				9	1.16	1.83	64	8.24	.21	73	9.40	2.04
Hardware: 1927	4	600				17	9.45	11.25	24	13.34	.26	41	22.79	11.51
Leather:														
1925	7	1,455				15	.43	2.11	33	7.56	.23	48	10.99	2.34
1926	10	2,286				16	2.32	1.36	60	8.70	.29	76	11.02	1.65
1927	9	2,256				14	2.07	3.62	39	5.76	.11	53	7.83	3.73
Machine tools:														
1925	5	477				6	4.19	3.78	19	13.28	.29	25	17.47	4.07
1926	7	729				7	3.18	5.57	19	8.63	.16	26	11.81	5.73
1927	6	422				8	6.33	9.57	10	7.90	.12	18	14.23	9.69
Petroleum refining:														
1926	2	10,208				66	2.16	2.88	126	4.12	.10	192	6.28	2.98
1927	2	8,069				63	2.62	3.16	74	3.08	.07	137	5.70	3.23
Pottery:														
1925	6	1,943	1	.17	1.03	2	.34	1.10	76	13.04	.41	79	13.55	2.54
1926	8	2,720				5	.61	.85	114	13.90	.36	119	14.51	1.21
1927	8	2,310				5	.72	.98	97	13.99	.39	102	14.71	1.37
Shipbuilding, steel: 1926	1	316	1	1.11	6.33	2	2.22	1.27	10	11.11	.43	13	14.44	8.03
Stamped and enameled ware:														
1926	2	485				8	5.33	2.47	14	9.33	.35	22	14.66	2.82
1927	2	503				8	5.30	2.48	11	7.28	.10	19	12.58	2.58
Steam fittings, apparatus, and supplies:														
1925	5	1,149				9	2.61	4.23	70	20.30	.56	79	22.91	4.79
1926	3	968				7	2.41	1.00	30	10.34	.28	37	12.75	1.28
1927	3	782				8	3.41	1.15	22	9.38	.23	30	12.79	1.38
Stoves:														
1926	1	747				6	2.72	2.41	66	30.00	.83	72	32.72	3.24
1927	1	519				6	3.85	4.12	30	19.25	.42	36	23.10	4.54

Structural iron work:													
1925	2	100											
1926	1	8											
1927	3	218				2	3.06	3.22	12	18.39	.48	14	21.45	3.70
Woolen goods:														
1925	4	6,910				9	.43	.22	33	1.59	.06	42	2.02	.27
1926	6	3,403				17	1.66	1.91	20	1.96	.04	37	3.62	1.95
1927	6	4,945				16	1.08	1.27	26	1.75	.04	42	2.83	1.31
	New York													
Agricultural implements:														
1925	3	1,615	1	0.21	1.24	14	2.89	3.14	30	6.19	0.23	45	9.29	4.61
1926	5	1,835	1	.18	1.09	12	2.18	2.02	65	11.82	.17	78	14.18	3.28
Automobiles:														
1925	15	11,919	6	.17	1.01	85	2.38	2.42	188	5.26	.25	279	7.81	3.68
1926	18	11,178				104	3.10	3.27	358	10.69	.62	462	13.79	3.89
Boots and shoes:														
1925	7	2,238				4	.60	.51	21	3.13	.11	25	3.73	.62
1926	10	17,220	4	.08	.46	51	.99	.72	363	7.02	.27	418	8.09	1.45
Brick:														
1925	10	1,008	2	.66	3.97	7	2.31	1.62	59	19.51	1.03	68	22.48	6.62
1926	14	1,948	1	.17	1.03	13	2.24	3.00	109	18.79	.66	123	21.20	4.69
Carpets:														
1925	2	5,571	3	.18	1.08	27	1.62	2.31	67	4.01	.13	97	5.81	3.52
1926	5	7,799	1	.04	.26	17	.73	.64	105	4.49	.28	123	5.26	1.18
Chemicals:														
1925	7	3,236	2	.21	1.24	22	2.27	3.96	59	6.08	.26	83	8.56	5.46
1926	10	4,152	1	.08	.48	26	2.08	3.22	141	11.28	.71	168	13.44	4.41
Cotton goods: 1926	2	1,413	1	.24	1.42	4	.95	1.03	36	8.57	.52	41	9.76	2.97
Electrical machinery:														
1925	9	20,454	4	.07	.39	74	1.21	1.29	456	7.43	.33	534	8.71	2.01
1926	10	20,800	4	.06	.38	104	1.67	1.89	711	11.39	.73	819	13.12	3.00
Fertilizers: 1926	2	131				1	2.50	10.14	8	20.00	1.25	9	22.50	11.39
Flour: 1926	4	1,312				8	2.05	2.74	58	14.87	.83	66	16.92	3.57
Foundry and machine-shop products:														
1925	15	10,104	3	.10	.59	128	4.22	3.90	322	10.62	.58	453	14.94	5.07
1926	22	16,425	14	.28	1.70	199	4.04	3.71	844	17.12	1.16	1,057	21.44	6.57
Furniture:														
1925	14	2,930				23	2.62	2.70	53	6.03	.27	76	8.65	2.97
1926	18	3,621				39	3.58	4.09	129	11.83	.20	168	15.41	4.29
Hardware: 1926	1	297				2	2.22	.68	5	5.56	.66	7	7.78	1.34
Leather:														
1925	6	763	1	.44	2.62	3	1.31	1.84	17	7.43	.35	21	9.18	4.81
1926	8	1,849				17	3.09	3.75	102	18.55	.73	119	21.64	4.48
Lumber—Planing mills:														
1925	14	2,682	1	.12	.75	31	3.85	6.03	84	10.44	.51	116	14.41	7.29
1926	20	2,928	3	.34	2.04	40	4.55	5.48	248	28.18	1.60	291	33.07	9.12
Machine tools:														
1925	6	551	1	.61	3.63	3	1.82	2.18	10	6.05	.27	14	8.48	6.08
1926	9	1,282				23	6.05	5.46	83	21.84	.97	106	27.89	6.43

TABLE 5.—*Number of accidents and accident frequency and severity rates in specified States, 1925, 1926, and 1927, by industry*—Continued

Accidents for States reporting only disabilities extending beyond one week—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

Industry and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
						New York—Continued								
Paper and pulp:														
1925	12	4,597	1	0.07	0.44	58	4.21	6.77	235	17.04	0.67	294	21.32	7.88
1926	19	8,163	8	.33	1.95	92	3.76	4.30	692	28.24	.93	792	32.33	7.18
Petroleum refining: 1926	2	1,174	2	.57	3.40	24	6.86	8.26	144	41.14	2.01	170	48.57	13.67
Pottery: 1926	2	1,228	1	.27	1.62	3	.81	.24	18	4.86	.29	22	5.94	2.15
Shipbuilding, steel: 1926	4	3,044	2	.22	1.31	24	2.64	1.95	62	6.81	.73	88	9.67	3.99
Stamped and enameled ware: 1926	3	1,170				18	5.14	4.12	79	22.57	1.45	97	27.71	5.57
Steam fittings, apparatus, and supplies:														
1925	4	1,458				21	4.80	4.00	100	22.86	.88	121	27.66	4.88
1926	6	1,757				20	3.77	4.17	164	30.94	1.87	184	34.71	6.04
Stoves: 1926	3	303				4	4.44	5.50	19	21.11	1.46	23	25.55	6.96
Structural ironwork:														
1925	7	929	1	.36	2.15	11	3.95	3.78	32	11.48	.45	44	15.79	6.38
1926	6	821	5	2.00	12.17	15	6.00	4.83	44	17.60	1.27	64	25.60	18.27
Woolen goods: 1926	4	1,092				5	1.51	1.67	31	9.39	.77	36	10.90	2.44
						Virginia								
Boots and shoes: 1927	5	741				1	0.45	0.81	16	7.20	0.19	17	7.65	1.00
Brick: 1927	3	257							12	15.57	.40	12	15.57	.40
Chemicals: 1927	1	842				2	.79	.24	59	23.35	.46	61	24.14	.70
Cotton goods: 1927	4	6,173	1	0.05	0.32	10	.54	.26	116	6.26	.19	127	6.85	.77
Fertilizers: 1927	10	759	1	.44	263				28	12.29	.35	29	12.73	2.98
Flour: 1927	2	67	1	.96	5.75	1	.96	.29	1	.96	.03	3	2.88	6.07
Foundry and machine-shop products: 1927	4	930	1	.36	2.15	4	1.44	.72	86	30.86	.76	91	32.66	3.63
Furniture: 1927	2	599				5	2.78	1.92	7	3.90	.08	12	6.68	2.00
Leather: 1927	1	124				1	2.68	4.83	10	26.84	.88	11	29.52	5.71
Lumber—Planing mills: 1927	2	479				6	4.17	3.44	21	14.61	.33	27	18.78	3.77

Lumber—Sawmills: 1927	4	1,380	3	.72	4.34	2	.48	.14	120	28.98	.90	125	30.18	5.38
Paper and pulp: 1927	2	362				4	3.69	1.38	21	19.35	.68	25	23.04	2.06
Pottery: 1927	1	140							3	7.15	.50	3	7.15	.50
Shipbuilding, steel: 1927	1	4,089	3	.24	1.47	13	1.06	.50	104	8.48	.22	120	9.78	2.19
Stoves: 1927	1	51							6	39.14	.87	6	39.14	.87
Structural-iron work: 1927	2	452				7	5.16	6.08	107	78.89	1.94	114	84.05	8.02
Woolen goods: 1927	2	435							4	3.06	.07	4	3.06	.07
Wisconsin														
Agricultural implements:														
1925	3	4,476	1	0.07	0.45	24	1.79	0.95	228	16.98	0.34	253	18.84	1.74
1926	2	2,689				13	1.60	.76	150	18.52	.47	163	20.12	1.23
1927	2	323				10	1.03	5.93	18	18.59	.46	28	19.62	6.39
Automobiles:														
1925	6	6,450	1	.05	.31	24	1.24	.62	378	19.53	.41	403	20.82	1.34
1926	4	6,630	1	.05	.30	44	2.21	1.41	317	15.93	.34	362	18.19	2.05
1927	5	5,107	2	.13	.78	26	1.70	.94	208	13.58	.29	236	15.41	2.01
Boots and shoes:														
1925	4	2,079				2	.32	.14	53	8.50	.17	55	8.82	.31
1926	5	2,035				5	.82	.49	37	6.07	.11	42	6.89	.60
1927	7	1,866				7	1.25	.38	49	8.75	.20	56	10.00	.58
Carriages and wagons:[1] 1926	1	32							1	10.00	.23	1	10.00	.23
Chemicals:														
1926	1	14												
1927	1	18	4	75.87	455.23				2	37.94	.49	6	113.81	455.72
Cotton goods:														
1926	1	20							1	10.00	.27	1	10.00	.27
1927	1	21							2	31.08	.30	2	31.08	.30
Electrical machinery:														
1926	3	195							4	6.67	.15	4	6.67	.15
1927	3	2,788	1	.12	.72	4	.48	.29	100	11.96	.33	105	12.56	1.34
Flour:														
1926	1	18							9	90.00	6.83	9	90.00	6.83
1927	1	201							9	14.91	.37	9	14.91	.37
Foundry and machine-shop products:														
1925	14	3,232	1	.10	.62	8	.82	.32	211	21.76	.43	220	22.68	1.37
1926	17	8,796	3	.11	.68	55	2.08	1.71	864	32.73	.59	922	34.92	2.98
1927	17	8,229	1	.04	.24	36	1.46	.86	583	23.61	.57	620	25.11	1.67
Furniture:														
1925	13	2,888				3	.35	.14	82	9.46	.17	85	9.81	.31
1926	13	3,216				11	1.15	.92	78	8.13	.20	89	9.28	1.12
1927	13	3,105				7	.76	.39	78	8.37	.20	85	9.13	.59
Leather:														
1925	4	1,835	1	.18	1.09	3	.55	.16	74	13.44	.28	78	14.17	1.53
1926	5	3,035	2	.22	1.32	4	.44	.65	97	10.66	.51	103	11.32	2.48
1927	5	2,518	1	.13	.79	2	.26	.08	63	8.34	.18	66	8.73	1.05

[1] This industry group has been discontinued.

TABLE 5.—*Number of accidents and accident frequency and severity rates in specified States, 1925, 1926, and 1927, by industry*—Continued

Accidents for States reporting only disabilities extending beyond one week—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

Industry and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours exposure)
	Wisconsin—Continued													
Lumber—Planing mills:														
1925	9	1,946	1	0.17	1.03	9	1.54	0.80	186	31.86	0.76	196	33.57	2.59
1926	9	1,663	2	.40	2.40	5	1.00	.93	153	30.60	.92	160	32.00	4.25
1927	9	1,278	1	.26	1.56	8	2.09	1.80	72	18.77	.58	81	21.12	3.94
Lumber—Sawmills:														
1925	11	2,520	6	.79	4.76	12	1.59	.79	322	42.59	1.01	340	44.97	6.56
1926	18	4,356	7	.53	3.21	16	1.22	1.45	482	36.79	1.03	505	38.54	5.69
1927	16	4,767	6	.42	2.52	15	1.05	.85	530	37.06	1.03	551	38.53	4.40
Machine tools:														
1925	2	802				3	1.25	.62	30	12.47	.22	33	13.72	.84
1926	5	1,117				4	1.21	.98	48	14.54	.23	52	15.75	1.21
1927	4	990				1	.34	.10	33	11.11	.23	34	11.45	.33
Paper and pulp:														
1925	5	1,642	1	.20	1.22	5	1.01	.40	51	10.35	.23	57	11.56	1.85
1926	9	5,061	1	.07	.39	18	1.18	1.29	186	12.24	.34	205	13.49	2.02
1927	9	5,178	8	.52	3.09	14	.90	.60	159	10.23	.29	181	11.65	3.98
Shipbuilding, steel:														
1926	2	942							74	26.43	.36	74	26.43	.36
1927	2	942	2	.71	4.24	2	.71	.32	67	23.70	.61	71	25.12	5.17
Slaughtering and meat packing:														
1926	2	1,712				11	2.16	.88	78	15.29	.33	89	17.45	1.21
1927	2	1,558	2	.43	2.57	4	.86	.32	72	15.40	.30	78	16.69	3.19
Stamped and enameled ware:														
1926	1	2,773	3	.36	2.16	12	1.44	1.00	45	5.42	.16	60	7.22	3.32
1927	1	3,010				7	.78	.45	36	3.99	.07	43	4.77	.52
Structural-iron work:														
1925	2	212				2	3.15	1.65	16	25.17	.57	18	28.32	2.22
1926	4	628				6	3.16	1.83	89	46.84	1.28	95	50.00	3.11
1927	4	591	1	.57	3.38	8	4.51	3.64	101	56.94	1.51	110	62.02	8.54

Woolen goods:														
1926	2	155							8	1.60	0.32	8	1.60	.32
1927	2	493							7	4.74	.13	7	4.74	.13
All industry groups, all States:														
1925	481	361,448	114			1,543			9,735			11,392		
1926	859	538,836	173			2,694			19,129			21,996		
1927	729	415,871	150			1,853			13,457			15,460		

Accidents for State reporting only disabilities extending beyond 10 days

	Virginia													
Boots and shoes: 1926	5	1,664				2	0.40	0.86	16	3.20	0.06	18	3.60	0.92
Brick: 1926	3	274				1	1.25	.91	7	8.75	.23	8	10.00	1.14
Chemicals: 1926	1	851	2	0.77	4.70	9	3.46	7.28	78	30.00	1.08	89	34.23	13.06
Cotton goods: 1926	3	5,999				10	.56	.87	77	4.28	.13	87	4.84	1.00
Fertilizers: 1926	3	517	4	2.50	15.48	1	.63	.19	39	24.38	.85	44	27.51	16.52
Flour: 1926	2	78				1	5.00	2.57	4	20.00	.96	5	25.00	3.53
Foundry and machine-shop products: 1926	3	717	1	.45	2.79	6	2.73	4.65	80	36.36	.90	87	39.54	8.34
Furniture: 1926	2	559				5	2.94	1.34	14	8.24	.27	19	11.18	1.61
Leather: 1926	1	113							11	36.67	1.30	11	36.67	1.30
Lumber—Planing mills: 1926	2	480	1	.71	4.16	4	2.86	3.22	30	21.43	.48	35	25.00	7.86
Lumber—Sawmills: 1926	5	3,288	2	.20	1.21	17	1.72	1.22	195	19.70	.69	214	21.62	3.12
Paper and pulp: 1926	2	388							14	11.67	.33	14	11.67	.33
Pottery: 1926	1	167							2	4.00	.05	2	4.00	.05
Shipbuilding, steel: 1926	1	4,233	2	.16	.94	31	2.44	2.12	112	8.82	.22	145	11.42	3.28
Slaughtering and meat packing: 1926	1	53												
Stoves: 1926	1	73							7	35.00	.62	7	35.00	.62
Structural-iron work: 1926	1	43				1	10.00	23.76	8	80.00	3.45	9	90.00	27.21
Woolen goods: 1926	2	446							3	2.30	.06	3	2.30	.06
All industry groups: 1926	39	19,943	12			88			697			797		

Accidents for State reporting only disabilities extending beyond two weeks

	Alabama													
Cotton goods:														
1926	9	5,917				5	0.28	0.29	62	3.48	0.12	67	3.76	0.41
1927	10	6,353				4	.21	.06	66	3.46	.12	70	3.67	.18
Fertilizers: 1927	5	196							3	5.10	.28	3	5.10	.28
Foundry and machine-shop products:														
1926	3	2,092				6	.95	.84	102	16.19	.45	108	17.14	1.29
1927	4	1,888	1	.18	1.06	7	1.24	.66	54	9.53	.34	62	10.95	2.06

TABLE 5.—*Number of accidents and accident frequency and severity rates in specified States, 1925, 1926, and 1927, by industry*—Continued

Accidents for State reporting only disabilities extending beyond two weeks—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

Industry and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
	Alabama—Continued													
Lumber—Sawmills:														
1926	5	2,312	1	0.14	0.86	4	0.58	0.43	48	6.96	0.14	53	7.68	1.42
1927	4	2,182	1	.15	.92	8	1.22	1.37	78	11.92	.56	87	13.29	2.85
Shipbuilding, steel: 1927	1	250				2	2.67	7.75	22	29.38	.92	24	32.05	8.67
Slaughtering and meat packing:														
1926	1	47							1	10.00	.15	1	10.00	.15
1927	2	186							4	7.16	.27	4	7.16	.27
All industry groups:														
1926	18	10,368	1			15			213			229		
1927	26	11,055	2			21			227			250		

Accidents for States reporting only fatalities and permanent disabilities

	California													
Agricultural implements:														
1926	3	448				5	3.85	2.12				5	3.85	2.12
1927	3	614				6	3.26	2.61				6	3.26	2.61
Automobiles:														
1926	5	1,031	1	0.32	1.94	1	.32	.16				2	.64	2.10
1927	5	915				3	1.09	.51				3	1.09	.51
Automobile tires:														
1926	2	1,891	1	.18	1.06	5	.88	.35				6	1.06	1.41
1927	2	2,165	1	.15	.92	4	.62	.57				5	.77	1.49

Brick:														
1926	14	1,909	1	.18	1.05	3	.53	.42				4	.71	1.47
1927	11	2,567	2	.26	1.56							2	.26	1.56
Chemicals: 1927	2	373	1	.89	5.36	1	.89	.45				2	1.78	5.81
Electrical machinery: 1927	1	201												
Fertilizers: 1927	3	68												
Foundry and machine-shop products:														
1926	17	1,936	1	.17	1.03	14	2.41	2.91				15	2.58	3.94
1927	18	2,056	2	.32	1.95	14	2.27	1.92				16	2.59	3.87
Furniture:														
1926	7	916				2	.74	.65				2	.74	.65
1927	7	1,108	1	.30	1.81	8	2.41	1.10				9	2.71	2.91
Glass:														
1926	2	171												
1927	3	653	1	.51	3.06	1	.51	.15				2	1.02	3.21
Leather:														
1926	5	544	1	.63	3.68							1	.63	3.68
1927	5	554	1	.61	3.61	3	1.80	.78				4	2.41	4.39
Lumber—Planing mills:														
1926	17	2,266				15	2.21	1.33				15	2.21	1.33
1927	17	6,371	10	.53	3.13	23	1.20	1.10				33	1.73	4.23
Labor—Sawmills:														
1926	21	12,136	25	.69	4.12	84	2.31	1.75				109	3.00	5.87
1927	16	6,958	15	.72	4.31	47	2.25	1.36				62	2.97	5.67
Petroleum refining:														
1926	3	4,460	7	.52	3.12	7	.52	.22				14	1.04	3.34
1927	2	3,927	15	1.27	7.64	30	2.55	1.44				45	3.82	9.08
Pottery: 1927	2	249	1	1.34	8.03	2	2.67	1.07				3	4.01	9.10
Shipbuilding, steel:														
1926	2	2,154	2	.31	1.86	7	1.08	.51				9	1.39	2.37
1927	2	2,924	3	.34	2.05	8	.91	.46				11	1.25	2.51
Slaughtering and meat packing: 1927	4	1,424	2	.47	2.81	4	.94	.48				6	1.41	3.29
Stamped and enameled ware:														
1926	2	108				1	.33	2.31				1	.33	2.31
1927	3	410												
Steam fittings, apparatus, and supplies:														
1926	2	76												
1927	2	43												
Stoves: 1927	2	280				3	3.58	1.85				3	3.58	1.85
Structural iron work:														
1926	4	466	2	1.42	8.59	3	2.14	.96				5	3.56	9.55
1927	4	647	2	1.03	6.19	4	2.06	.98				6	3.09	7.17
Woolen goods:														
1926	2	191												
1927	1	141												

TABLE 5.—*Number of accidents and accident frequency and severity rates in specified States, 1925, 1926, and 1927, by industry*—Continued

Accidents for States reporting only fatalities and permanent disabilities—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

Industry and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
	Pennsylvania													
Agricultural implements:														
1925	5	1,282				3	0.78	0.34				3	0.78	0.34
1926	5	571												
Automobiles:														
1925	5	7,851	5	0.21	1.27	41	1.74	1.22				46	1.95	2.49
1926	9	8,524	5	.20	1.17	45	1.76	1.52				50	1.96	2.69
Automobile tires:														
1925	6	2,459				9	1.22	1.13				9	1.22	1.13
1926	6	2,355	1	.14	.85	7	.99	.85				8	1.13	1.70
Boots and shoes:														
1925	8	2,697												
1926	13	3,539												
Brick:														
1925	19	4,106	2	.16	.97	3	.24	.30				5	.40	1.27
1926	26	4,128	2	.16	.97	14	1.13	.78				16	1.29	1.75
Carpets:														
1925	14	4,571	2	.15	.88	3	.22	.08				5	.37	.96
1926	11	2,440				4	.55	.41				4	.55	.41
Carriages and wagons: [1] 1926	2	53												
Chemicals:														
1925	2	266												
1926	4	1,166	1	.29	1.72	1	.29	.09				2	.58	1.81
Cotton goods: 1926	6	2,539				3	.39	.20				3	.39	.20
Electrical machinery:														
1925	13	19,441	7	.12	.72	69	1.18	.80				76	1.30	1.52
1926	14	21,146	4	.06	.38	21	.33	.22				25	.39	.60
Fertilizers: 1926	2	142												
Flour: 1926	4	93												

Foundry and machine-shop products:														
1925	109	27,121	5	.06	.37	47	.58	.53				52	.64	.90
1926	85	28,547	16	.19	1.12	109	1.27	.98				125	1.46	2.10
Furniture:														
1925	32	4,393				17	1.29	.76				17	1.29	.76
1926	25	2,923				10	1.14	.63				10	1.14	.63
Glass:														
1925	25	4,903				7	.48	.59				7	.48	.59
1926	20	4,662	4	.29	1.72	14	1.00	1.07				18	1.29	2.79
Hardware: 1926	5	2,337				11	1.57	.53				11	1.57	.53
Leather:														
1925	14	3,870				2	.17	.05				2	.17	.05
1926	17	3,966	1	.08	.50	9	.76	.59				10	.84	1.09
Lumber—Planing mills:														
1925	5	735				2	.91	1.91				2	.91	1.91
1926	7	772												
Lumber—Sawmills: 1926	2	1,384	2	.48	2.89	4	.95	1.22				6	1.43	4.11
Machine tools:														
1925	7	1,119												
1926	3	196	1	1.67	10.18	1	1.67	.50				2	3.34	10.68
Paper and pulp:														
1925	4	1,532	1	.22	1.31	3	.65	.30				4	.87	1.61
1926	6	2,501	2	.27	1.59	4	.53	.24				6	.80	1.83
Petroleum refining: 1926	6	1,612	5	1.04	6.18	2	.42	.21				7	1.46	6.39
Pottery: 1926	1	277												
Shipbuilding, steel: 1926	1	1,409	1	.24	1.42	5	1.19	.43				6	1.43	1.85
Slaughtering and meat packing: 1926	6	1,102												
Steam fittings, apparatus, and supplies:														
1925	24	2,669	1	.12	.75	6	.75	.26				7	.87	1.01
1926	9	2,097	1	.16	.95	2	.32	.17				3	.48	1.12
Stoves:														
1925	9	1,264	1	.26	1.58							1	.26	1.58
1926	5	821	1	.40	2.43	1	.40	.30				2	80	2.73
Structural-iron work:														
1925	20	2,681	1	.12	.75	10	1.24	.45				11	1.36	1.20
1926	14	2,908	2	.23	1.37	18	2.07	1.10				20	2.30	2.47
Woolen goods:														
1925	21	5,772	1	.06	.35	4	.23	.26				5	.29	.61
1926	13	3,850				6	.52	.69				6	.52	.69
All industry groups, all States:														
1925	342	98,732	26			226						252		
1926	435	138,763	90			438						528		
1927	115	34,648	57			161						218		
Grand total:														
1925	1,282	555,996	171			2,047			21,496			23,714		
1925	2,209	991,082	370			4,090			44,041			48,501		
1927	2,676	1,075,282	459			3,949			57,072			61,480		

[1] This industry group has been discontinued.

ACCIDENTS AND ACCIDENT RATES IN SPECIFIED INDUSTRIES, BY STATES

Table 6 brings together by industry the accident data for specified States, grouped according to the extent accidents are reported, as in Tables 4 and 5. It must be borne in mind, in consulting this table, that the rates for a particular industry group represent only a sample in each State and should be used therefore with caution. No claim to completeness is made. One industry which was covered in 1926, the manufacture of carriages and wagons, has since been discontinued.

TABLE 6.—*Number of accidents and accident frequency and severity rates in specified industries, 1925, 1926, and 1927, by States*

Agricultural implements

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

State and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
	Accidents for States reporting all disabilities extending beyond day of injury													
Indiana:														
1925	9	3,732	1	0.09	0.54	17	1.52	1.38	488	43.59	0.72	506	45.20	2.64
1926	7	1,410				18	4.29	6.90	149	35.48	.90	167	39.77	7.80
1927	7	1,136	1	.29	1.76	1	.29	.09	118	34.61	.72	120	35.19	2.57
Iowa:														
1925	4	418							38	30.27	.44	38	30.27	.44
1926	4	397							42	35.00	.60	42	35.00	.60
1927	4	424							35	27.50	.34	35	27.50	.34
Kentucky:														
1926	1	537				5	3.12	.93	70	43.75	.55	75	46.87	1.48
1927	1	333				4	4.01	3.16	30	30.05	.86	34	34.06	4.02
Minnesota:														
1925	5	886	2	.75	4.52	2	.75	.56	20	7.53	.08	24	9.03	5.16
1926	3	645				7	3.68	4.00	74	38.95	.61	81	42.63	4.61
1927	3	1,262	1	.26	1.58	3	.79	.48	35	9.24	.12	39	10.29	2.18
Nebraska:														
1926	2	271							51	63.75	.26	51	63.75	.26
1927	2	253							65	84.60	.70	65	84.60	.70
New York: 1927	4	1,764	1	.19	1.13	10	1.89	2.30	41	7.75	.23	52	9.82	3.66

Ohio:													
1925	13	1,077	4	1.24	7.43	9	2.78	3.02	181	56.00	.99	194	60.02	11.35
1926	10	1,537				5	1.09	.94	152	33.04	.37	157	34.13	1.31
1927	12	1,494	1	.22	1.34	5	1.12	.87	228	50.89	.74	234	52.23	2.95
Pennsylvania: 1927	5	500	1	.68	4.00	4	2.67	1.60	41	27.35	.38	46	30.70	5.98
Tennessee:														
1926	2	329				4	4.00	4.61	16	16.00	.33	20	20.00	4.94
1927	1	113	1	2.94	17.63	1	2.94	.88	5	14.69	.16	7	20.57	18.67
Accidents for States reporting only disabilities extending beyond one week														
Illinois:														
1925	13	2,808				9	1.07	0.68	65	7.72	0.15	74	8.79	0.83
1926	21	5,357	2	0.12	0.75	29	1.80	1.78	284	17.64	.50	315	19.56	3.03
1927	21	8,608	1	.03	.23	36	1.39	1.34	329	12.74	.29	366	14.16	1.86
New York:														
1925	3	1,615	1	.21	1.24	14	2.89	3.14	30	6.19	.23	45	9.29	4.61
1926	5	1,835	1	.18	1.09	12	2.18	2.02	65	11.82	.17	78	14.18	3.28
Wisconsin:														
1925	3	4,476	1	.07	.45	24	1.79	.95	228	16.98	.34	253	18.84	1.74
1926	2	2,689				13	1.60	.76	150	18.52	.47	163	20.12	1.23
1927	2	323				10	1.03	5.93	18	18.59	.46	28	19.62	6.39
Accidents for States reporting only fatalities and permanent disabilities														
California:														
1926	3	448				5	3.85	2.12				5	3.85	2.12
1927	3	614				6	3.26	2.61				6	3.26	2.61
Pennsylvania:														
1925	5	1,282				3	78	.34				3	.78	.34
1926	5	571												

Automobiles

Accidents for States reporting all disabilities extending beyond day of injury													
Indiana:													
1925	4	2,239				9	1.34	0.47	176	26.21	0.27	185	27.55	0.74
1926	9	12,581	4	0.11	0.64	81	2.15	9.67	898	23.82	.27	983	26.08	10.58
1927	9	17,312	2	.04	.23	40	.77	55	847	16.31	.20	889	17.12	.98
New York: 1927	17	10,221	4	.13	.78	77	2.51	1.79	316	10.31	.39	397	12.95	2.96
Ohio:														
1925	5	2,202				5	.76	1.50	137	20.73	.35	142	21.49	1.85
1926	13	14,122	4	.09	.57	59	1.39	1.19	1,016	23.96	.38	1,079	25.44	2.14
1927	17	14,351	1	.02	.14	10	.23	2.23	471	10.94	.18	482	11.19	2.55
Pennsylvania: 1927	9	6,806				15	.73	.35	198	9.70	.13	213	10.43	.48
Tennessee:														
1926	2	1,657	2	.40	2.41	40	8.00	5.17	231	46.20	.67	273	54.60	8.25
1927	1	196							20	34.08	.83	20	34.08	.83

TABLE 6.—*Number of accidents and accident frequency and severity rates in specified industries, 1925, 1926, and 1927, by States*—Continued

Automobiles—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

State and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
	Accidents for States reporting only disabilities extending beyond one week													
Illinois:														
1925	8	2,990	2	0.22	1.34	7	0.78	0.27	45	5.02	0.11	54	6.02	1.71
1926	9	3,689	1	.09	.54	15	1.35	1.25	66	5.95	.14	82	7.39	1.93
1927	8	3,452				32	3.09	3.79	63	6.08	.17	95	9.17	3.96
Michigan:														
1925	25	152,620	42	.09	.55	549	1.20	.91	3,210	7.01	.14	3,801	8.30	1.60
1926	29	190,210	46	.08	.48	677	1.19	.82	4,766	8.35	.25	5,489	9.62	1.55
1927	40	168,325	59	.12	.70	566	1.12	.79	4,172	8.26	.22	4,797	9.50	1.71
New Jersey:[1]														
1925	5	3,113				25	2.68	2.28	72	7.71	.19	97	10.39	2.47
1926	3	2,271	1	.15	.88	36	5.29	10.94	88	12.94	.29	125	18.38	12.11
1927	5	2,180				25	3.82	5.00	48	7.33	.17	73	11.15	5.17
New York:														
1925	15	11,919	6	.17	1.01	85	2.38	2.42	188	5.26	.25	279	7.81	3.68
1926	18	11,178				104	3.10	3.27	358	10.69	.62	462	13.79	3.89
Wisconsin:														
1925	6	6,450	1	.05	.31	24	1.24	.62	378	19.53	.41	403	20.82	1.34
1926	4	6,630	1	.05	.30	44	2.21	1.41	317	15.93	.34	362	18.19	2.05
1927	5	5,107	2	.13	.78	26	1.70	.94	208	13.58	.29	236	15.41	2.01
	Accidents for States reporting only fatalities and permanent disabilities													
California:														
1926	5	1,031	1	0.32	1.94	1	0.32	0.16				2	0.64	2.10
1927	5	915				3	1.09	.51				3	1.09	.51
Pennsylvania:														
1925	5	7,851	5	.21	1.27	41	1.74	1.22				46	1.95	2.49
1926	9	8,524	5	.20	1.17	45	1.76	1.52				50	1.96	2.69

Automobile tires

Accidents for States reporting all disabilities extending beyond day of injury														
Indiana: 1927	1	190				1	1.75	0.53	17	29.82	0.54	18	31.57	1.07
Maryland:														
1926	1	1,907	1	0.16	1.05	2	.08	.10	156	27.49	.39	159	27.73	1.54
1927	1	1,730	1	.19	1.16	1	.19	.06	134	25.82	.50	136	26.20	1.72
Massachusetts:														
1926	4	4,323				4	.31	.39	120	9.23	.27	124	9.54	.66
1927	3	4,079				9	.74	.45	142	11.60	.30	151	12.34	.75
Ohio:														
1925	12	14,888	3	.07	.40	52	1.16	1.06	2,962	66.32	.74	3,017	67.55	2.20
1926	8	11,721	2	.06	.34	26	.71	.54	2,637	74.91	.95	2,665	75.68	1.83
1927	18	22,543	6	.09	.53	47	.69	.59	3,341	49.40	.87	3,394	50.18	1.99
Pennsylvania: 1927	7	2,154				3	.46	.14	137	21.19	.26	140	21.65	.40
Accidents for States reporting only disabilities extending beyond one week														
Michigan:														
1926	1	2,860	2	0.23	1.40	13	1.51	.96	1.01	11.74	.38	116	13.48	2.74
1927	1	1,790				2	.37	.28	51	9.50	.23	53	9.87	.51
New Jersey:[1]														
1925	7	2,749	1	.12	.73	10	1.21	2.03	97	11.76	.37	108	13.09	3.13
1926	6	2,015				10	1.67	1.43	95	15.83	.37	105	17.50	1.80
1927	3	1,907				5	.87	1.39	19	3.32	.09	24	4.19	1.48
Accidents for States reporting only fatalities and permanent disabilities														
California:														
1926	2	1,891	1	.18	1.06	5	0.88	0.35				6	1.06	1.41
1927	2	2,165	1	.15	.92	4	.62	.57				5	.77	1.49
Pennsylvania:														
1925	6	2,459				9	1.22	1.13				9	1.22	1.13
1926	6	2,355	1	.14	.85	7	.99	.85				8	1.13	1.70

[1] Closed cases only are reported.

TABLE 6.—*Number of accidents and accident frequency and severity rates in specified industries, 1925, 1926, and 1927, by States*—Continued

Boots and shoes

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

State and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
Accidents for States reporting all disabilities extending beyond day of injury														
Maryland:														
1925	7	850							54	21.14	0.44	54	21.14	0.44
1926	7	962							34	11.73	.27	34	11.73	.27
1927	7	1,015				3	0.99	0.39	46	15.11	.22	49	16.10	.61
Massachusetts:														
1926	28	10,772				4	.12	.05	81	2.51	.05	85	2.63	.10
1927	32	13,529	1	0.02	0.15	4	.10	.16	177	4.36	.10	182	4.48	.41
Minnesota:														
1926	3	693							20	9.52	.12	20	9.52	.12
1927	4	975				1	.34	.26	28	9.57	.08	29	9.91	.34
New York: 1927	10	17,696				60	1.13	.89	459	8.65	.17	519	9.78	1.06
Ohio:														
1926	2	2,352	1	.14	.85	1	.14	.09	181	25.49	.18	183	25.77	1.12
1927	2	2,849							121	14.15	.21	121	14.15	.21
Pennsylvania: 1927	13	3,699				1	.09	.27	61	5.50	.85	62	5.59	1.12
Accidents for States reporting only disabilities extending beyond one week														
Illinois:														
1925	5	3,336							124	12.39	0.19	124	12.39	0.19
1926	4	5,556				5	0.30	0.09	39	2.34	.05	44	2.64	.14
1927	7	3,618				8	.74	.53	59	5.44	.13	67	6.18	.66
Michigan:														
1926	4	522							4	2.50	.09	4	2.50	.09
1927	4	273							4	4.88	.11	4	4.88	.11
New Jersey:[1]														
1926	4	609							6	3.33	.07	6	3.33	.07
1927	1	237				1	1.41	4.22	3	4.22	.11	4	5.63	4.33

New York:													
1925	7	2,238				4	.60	.51	21	3.13	.11	25	3.73	.62
1926	10	17,220	4	0.08	0.46	51	.99	.72	363	7.02	.27	418	8.09	1.45
Virginia: 1927	5	741				1	.45	.81	16	7.20	.19	17	7.65	1.00
Wisconsin:														
1925	4	2,079				2	.32	.14	53	8.50	.17	55	8.82	.31
1926	5	2,035				5	.82	.49	37	6.07	.11	42	6.89	.60
1927	7	1,866				7	1.25	.38	49	8.75	.20	56	10.00	.58
Accidents for State reporting only disabilities extending beyond 10 days														
Virginia: 1926	5	1,664				2	0.40	0.86	16	3.20	0.06	18	3.60	0.92
Accidents for State reporting only fatalities and permanent disabilities														
Pennsylvania:														
1925	8	2,697												
1926	13	3,539												

Brick

Accidents for States reporting all disabilities extending beyond day of injury													
Indiana:													
1925	10	696				1	0.48	0.14	166	79.56	0.71	167	80.04	0.85
1926	9	686				2	.95	1.60	185	88.10	1.22	187	89.05	2.82
1927	9	649	1	0.51	3.08	1	.51	1.54	122	62.69	.68	124	63.71	5.30
Iowa:														
1925	16	1,013	1	.33	1.98	1	.33	.10	74	24.36	.45	76	25.02	2.53
1926	12	702				3	1.43	3.28	101	48.10	.84	104	49.53	4.12
1927	12	851							81	31.72	.72	81	31.72	.72
Kansas: 1927 [2]	8	367							28	25.41	.32	28	25.41	.32
Maryland:														
1925	5	470							52	36.88	.99	52	36.88	.99
1926	5	537	1	.63	3.78	1	.63	1.11	56	35.00	.62	58	36.26	5.52
1927	5	444				1	.75	.33	46	34.53	.60	47	35.28	.98
Massachusetts:														
1926	1	93							4	13.33	.09	4	13.33	.09
1927	2	70							10	47.50	1.37	10	47.50	1.37
Minnesota: 1925	1	57							6	34.90	.33	6	34.90	.33
Nebraska:														
1926	3	118							20	50.00	.96	20	50.00	.96
1927	2	102							11	36.10	.23	11	36.10	.23
New York: 1927	14	1,552	2	.43	2.58	14	3.61	3.03	134	28.78	.99	150	32.22	6.60

[1] Closed cases only are reported.

[2] Record is for six months only (July to December.)

TABLE 6.—*Number of accidents and accident frequency and severity rates in specified industries, 1925, 1926, and 1927, by States*—Continued

Brick—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

State and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
	Accidents for States reporting all disabilities extending beyond day of injury—Continued													
North Dakota:														
1926	3	58				1	5.00	34.33	30	150.00	3.66	31	155.00	37.99
1927	2	44				1	7.61	30.45	4	30.45	.55	5	38.06	31.00
Ohio:														
1925	9	2,542	2	.26	1.57	3	.39	.84	426	55.86	.62	431	56.51	3.03
1926	12	2,496	2	.27	1.60	4	.53	.74	413	55.07	.90	419	55.87	3.24
1927	19	2,835	4	.47	2.82	6	.71	.58	423	49.73	.66	433	50.91	4.06
Pennsylvania: 1927	26	6,100	2	.11	.66	7	.38	.11	480	26.23	.33	489	26.72	1.10
South Dakota: 1926	1	13												
Texas: 1927	11	483				1	.69	1.24	97	67.00	.74	98	67.69	1.98
	Accidents for State reporting only disabilities extending beyond five days													
Oklahoma: 1927	3	163	(3)						30	61.51	1.02	[3] 30	61.51	1.02
	Accidents for States reporting only disabilities extending beyond one week													
Illinois:														
1925	12	3,802	1	0.09	0.53	6	0.53	1.13	197	17.27	0.45	204	17.89	2.11
1926	15	3,265				15	1.53	2.46	249	25.41	.63	264	26.94	3.09
1927	13	3,554	1	.09	.56	15	1.41	1.71	161	15.09	.32	177	16.59	2.59
Michigan:														
1926	2	156				1	2.00	.64	8	16.00	.44	9	18.00	1.08
1927	2	143							4	9.30	.11	4	9.30	.11

New Jersey: [1]														
1925	12	1,900				8	1.40	1.01	70	12.28	.28	78	13.68	1.29
1926	15	2,631				9	1.14	1.79	69	8.73	.17	78	9.87	1.96
1927	15	2,473				8	1.08	1.13	86	11.58	.27	94	12.66	1.40
New York:														
1925	10	1,008	2	.66	3.97	7	2.31	1.62	59	19.51	1.03	68	22.48	6.62
1926	14	1,948	1	.17	1.03	13	2.24	3.00	109	18.79	.66	123	21.20	4.69
Virginia: 1927	3	257							12	15.57	.40	12	15.57	.40
Accidents for State reporting only disabilities extending beyond 10 days														
Virginia:														
1926	3	274				1	1.25	0.91	7	8.75	0.23	8	10.00	1.14
Accidents for States reporting only fatalities and permanent disabilities														
California:														
1926	14	1,909	1	0.18	1.05	3	0.53	0.42				4	0.71	1.47
1927	11	2,567	2	.26	1.56							2	.26	1.56
Pennsylvania:														
1925	19	4,106	2	.16	.97	3	.24	.30				5	.40	1.27
1926	26	4,128	2	.16	.97	14	1.13	.78				16	1.29	1.75

Carpets

Accidents for States reporting all disabilities extending beyond day of injury														
Massachusetts:														
1926	3	1,482							19	4.31	0.08	19	4.31	0.08
1927	3	2,765							13	1.57	.03	13	1.57	.03
New York: 1927	5	8,339	1	0.04	0.24	10	0.40	0.35	59	2.36	.12	70	2.80	.71
Pennsylvania: 1927	15	4,217				2	.16	.21	142	11.23	.15	144	11.39	.36
Accidents for States reporting only disabilities extending beyond one week														
New Jersey: [1]														
1925	3	857				3	1.17	3.23	27	10.50	0.29	30	11.67	3.52
1926	3	905				3	1.11	.33	38	14.07	.29	41	15.18	.62
1927	3	923				3	1.08	1.37	28	10.11	.21	31	11.19	1.58
New York:														
1925	2	5,571	3	0.18	1.08	27	1.62	2.31	67	4.01	.13	97	5.81	3.52
1926	5	7,799	1	.04	.26	17	.73	.64	105	4.49	.28	123	5.26	1.18

[1] Closed cases only are reported.

[3] Fatal cases not reported.

TABLE 6.—*Number of accidents and accident frequency and severity rates in specified industries, 1925, 1926, and 1927, by States*—Continued

Carpets—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

State and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
Accidents for State reporting only fatalities and permanent disabilities														
Pennsylvania:														
1925	14	4,571	2	0.15	0.88	3	0.22	0.08				5	0.37	0.96
1926	11	2,440				4	.55	.41				4	.55	.41
Carriages and wagons[4]														
Accidents for States reporting all disabilities extending beyond day of injury														
Indiana: 1926	2	94							8	26.67	0.58	8	26.67	0.58
Iowa: 1926	1	17							2	40.00	1.37	2	40.00	1.37
Kentucky: 1926	3	263				10	12.50	14.00	35	43.75	1.00	45	56.25	15.00
Maine: 1926	1	47				1	10.00	12.82	15	150.00	1.31	16	160.00	14.13
Maryland: 1926	2	96							6	20.00	.04	6	20.00	.04
Minnesota: 1926	1	27				1	10.00	3.68	7	70.00	2.35	8	80.00	6.03
Ohio: 1926	1	17												
Tennessee: 1926	3	118				2	5.00	1.69	6	15.00	.35	8	20.00	2.04
Accidents for States reporting only disabilities extending beyond one week														
Illinois: 1926	1	56				3	15.00	17.75	3	15.00	0.28	6	30.00	18.03
Michigan: 1926	1	10							1	33.00	.56	1	33.00	.56
New Jersey:[1] 1926	1	18							2	20.00	1.30	2	20.00	1.30
Wisconsin: 1926	1	32							1	10.00	.23	1	10.00	.23

	Accidents for State reporting only fatalities and permanent disabilities													
Pennsylvania: 1926	2	53												
Chemicals														
	Accidents for States reporting all disabilities extending beyond day of injury													
Indiana:														
1926	1	1,300							57	14.62	0.18	57	14.62	0.18
1927	1	1,343							45	11.16	.14	45	11.16	.14
Kansas: 1927 [2]	3	459				1	0.72	0.22	25	18.14	.19	26	18.86	.41
Maryland:														
1925	5	1,330				1	.25	.08	44	11.03	.25	45	11.28	.32
1926	8	1,768				2	.37	.11	67	12.64	.30	69	13.01	.41
1927	9	1,763	3	0.57	3.40	6	1.13	1.49	72	13.62	.34	81	15.32	5.23
New York: 1927	8	1,729	1	.19	1.16	10	1.93	1.75	31	5.97	.17	42	8.09	3.08
Ohio: 1927	5	574							30	17.43	.33	30	17.43	.33
Pennsylvania: 1927	7	2,627	1	.13	.76				105	13.32	.21	106	13.45	.97
Tennessee:														
1926	2	49												
1927	2	45												
	Accidents for States reporting only disabilities extending beyond one week													
Illinois:														
1926	4	1,527	1	0.22	1.31	3	0.65	0.29	89	19.35	0.56	93	20.22	2.16
1927	4	1,477				18	4.66	2.98	88	19.86	.53	106	23.92	3.51
Michigan:														
1926	2	2,528	4	.53	3.16	2	.26	.28	72	9.47	.27	78	10.26	3.71
1927	4	3,018	6	.66	3.98	6	.66	.43	148	16.34	.60	160	17.66	5.01
New Jersey: [1]														
1925	17	6,778	1	.05	.30	12	.59	.65	89	4.38	.13	102	5.02	1.08
1926	17	3,302				15	1.52	1.57	80	8.08	.18	95	9.60	1.75
1927	19	3,449	2	.19	1.16	29	2.80	2.99	90	8.70	.21	121	11.69	4.36
New York:														
1925	7	3,236	2	.21	1.24	22	2.27	3.96	59	6.08	.26	83	8.56	5.46
1926	10	4,152	1	.08	.48	26	2.08	3.22	141	11.28	.71	168	13.44	4.47
Virginia: 1927	1	842				2	.79	.24	59	23.35	.46	61	24.14	.10
Wisconsin:														
1926	1	14												
1927	1	18	4	75.87	455.23				2	37.94	.49	6	113.81	455.72

[1] Closed cased only are reported.

[2] Record is for six months only (July to December.)

[4] This industry group has been discontinued.

TABLE 6.—*Number of accidents and accident frequency and severity rates in specified industries, 1925, 1926, and 1927, by States*—Continued

Chemicals—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

State and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
Accidents for State reporting only disabilities extending beyond 10 days														
Virginia: 1926	1	851	2	0.77	4.70	9	3.46	7.28	78	30.00	1.08	89	34.23	13.06
Accidents for States reporting only fatalities and permanent disabilities														
California: 1927	2	373	1	0.89	5.36	1	0.89	0.45				2	1.78	5.81
Pennsylvania:														
1925	2	266												
1926	4	1,166	1	.29	1.72	1	.29	.09				2	.58	1.81
Cotton goods														
Accidents for States reporting all disabilities extending beyond day of injury														
Indiana:														
1926	2	515				1	0.67	0.39	18	12.00	0.13	19	12.67	0.52
1927	2	553	1	0.60	3.62	1	.60	.45	12	7.24	.18	14	8.44	4.25
Kentucky:														
1926	2	536				1	.63	.47	24	15.00	.24	25	15.63	.71
1927	2	584				3	1.71	2.88	21	12.00	.16	24	13.71	3.04
Maine:														
1926	6	6,046				7	.39	.52	279	15.41	.26	286	15.80	.78
1927	6	6,155				14	.76	.99	288	15.60	.29	302	16.36	1.28

Massachusetts:														
1926	30	22,577				5	.07	.07	366	5.41	.13	371	5.48	.20
1927	35	27,761	1	.01	.07	22	.26	.15	1,205	14.47	.33	1,228	14.74	.55
New Hampshire:														
1926	5	11,345				3	.09	.03	373	10.97	.23	376	11.06	.26
1927	5	13,519	2	.05	.30	8	.20	.27	414	10.21	.20	424	10.46	.77
New York: 1927	2	1,490				1	.22	.17	35	7.83	.19	36	8.05	.36
Pennsylvania: 1927	6	2,246	2	.30	1.78	2	.30	.10	56	8.30	.10	60	8.90	1.98
Tennessee:														
1926	3	3,175				6	.63	.27	111	11.68	.11	117	12.31	.38
1927	3	3,146				1	.11	.13	132	13.99	.15	133	14.10	.28
Texas: 1927	7	1,449				5	1.15	1.59	95	21.85	.29	100	23.00	1.88
Accidents for States reporting only disabilities extending beyond one week														
Georgia:														
1926	12	19,369				24	0.41	0.25	290	4.99	0.12	314	5.40	0.37
1927	16	21,195	5	0.08	0.47	36	.57	.47	349	5.48	.13	390	6.13	1.07
New Jersey: [1]														
1926	3	3,558				7	.65	.34	23	2.15	.05	30	2.80	.39
1927	5	5,000	1	.07	.40	9	.60	.85	17	1.13	.04	27	1.80	1.29
New York: 1926	2	1,413	1	.24	1.42	4	.95	1.03	36	8.57	.52	41	9.76	2.97
Virginia: 1927	4	6,173	1	.05	.32	10	.54	.26	116	6.26	.19	127	6.85	.77
Wisconsin:														
1926	1	20							1	10.00	.27	1	10.00	.27
1927	1	21							2	31.08	.30	2	31.08	.30
Accidents for State reporting only disabilities extending beyond 10 days														
Virginia: 1926	3	5,999				10	0.56	0.87	77	4.28	0.13	87	4.84	1.00
Accidents for State reporting only disabilities extending beyond two weeks														
Alabama:														
1926	9	5,917				5	0.28	0.29	62	3.48	0.12	67	3.76	0.41
1927	10	6,353				4	.21	.06	66	3.46	.12	70	3.67	.18
Accidents for State reporting only fatalities and permanent disabilities														
Pennsylvania: 1926	6	2,539				3	0.39	0.20				3	0.39	0.20

[1] Closed cases only are reported.

TABLE 6.—*Number of accidents and accident frequency and severity rates in specified industries, 1925, 1926, and 1927, by States*—Continued

Electrical machinery

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

State and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
Accidents for States reporting all disabilities extending beyond day of injury														
Indiana:														
1925	3	3,080				3	0.32	0.10	184	19.91	0.17	187	20.23	0.27
1926	5	3,904				23	1.97	1.39	275	23.50	.35	298	25.47	1.74
1927	5	4,792				21	1.46	.62	162	11.27	.17	183	12.73	.79
Maryland:														
1925	2	851							30	11.75	.24	30	11.75	.24
1926	3	1,045				7	2.26	1.09	41	13.23	.28	48	15.49	1.37
1927	3	1,039				7	2.24	2.04	37	11.87	.26	44	14.11	2.30
Massachusetts:														
1926	11	9,551	2	0.07	0.42	18	.63	.38	589	20.52	.45	609	21.22	1.25
1927	9	7,560	1	.04	.26	18	.79	.46	524	23.10	.61	543	23.93	1.33
Minnesota: 1925	1	8							1	43.17	2.37	1	43.17	2.37
New York: 1927	11	19,047	6	.11	.63	111	1.94	2.04	657	11.50	.50	774	13.55	3.17
Ohio:														
1925	17	3,560				7	.66	.81	305	28.56	.22	312	29.22	1.03
1926	12	3,637				8	.73	.40	190	17.43	.23	198	18.16	.63
1927	21	10,612				23	.72	.63	530	16.65	.24	553	17.37	.87
Pennsylvania: 1927	13	17,877	4	.07	.45	30	.56	.44	701	13.07	.23	735	13.70	1.12
Accidents for States reporting only disabilities extending beyond one week														
Illinois:														
1925	13	4,944	1	0.07	0.40	14	0.94	0.54	54	3.64	0.07	69	4.65	1.01
1926	20	6,908				36	1.74	1.34	147	7.10	.19	183	8.84	1.53
1927	20	7,270				28	1.28	1.30	135	6.19	.12	163	7.47	1.42
Michigan:														
1926	1	113							1	.23	.08	1	.33	.08
1927	1	107												

New Jersey: [1]													
1925	13	8,329	1	.04	.24	62	2.48	2.47	140	5.60	.15	203	8.12	2.86
1926	13	8,090	1	.04	.25	48	1.98	1.74	134	5.51	.12	183	7.53	2.11
1927	17	8,819				32	1.21	1.18	133	5.03	.14	165	6.24	1.32
New York:														
1925	9	20,454	4	.07	.39	74	1.21	1.29	456	7.43	.33	534	8.71	2.01
1926	10	20,800	4	.06	.38	104	1.67	1.89	711	11.39	.73	819	13.12	3.00
Wisconsin:														
1926	3	195							4	6.67	.15	4	6.67	.15
1927	3	2,788	1	.12	.72	4	.48	.29	100	11.96	.33	105	12.56	1.34
	Accidents for States reporting only fatalities and permanent disabilities													
California: 1927	1	201												
Pennsylvania:														
1925	13	19,441	7	0.12	0.72	69	1.18	0.80				76	1.30	1.52
1926	14	21,146	4	.06	.38	21	.33	.22				25	.39	.60

Fertilizers

	Accidents for States reporting all disabilities extending beyond day of injury													
Indiana:														
1926	3	105							23	76.67	0.80	23	76.67	0.80
1927	5	194				1	1.72	3.09	20	34.36	.56	21	36.08	3.65
Iowa:														
1926	1	17												
1927	1	18												
Maryland:														
1926	5	714	1	0.48	2.80	1	.48	.23	112	53.33	1.18	114	54.29	4.21
1927	8	821	3	1.22	7.31	5	2.03	3.09	116	47.09	1.12	124	50.34	11.52
New York: 1927	2	126				1	2.64	10.56	7	18.48	.45	8	21.12	11.01
Ohio:														
1926	3	255				1	1.25	.78	27	33.75	.55	28	35.00	1.33
1927	12	527							48	30.36	.38	48	30.36	.38
Pennsylvania: 1927	4	495							40	26.92	.35	40	26.92	.35
Tennessee:														
1926	3	218							12	17.14	.36	12	17.14	.36
1927	5	200							8	13.33	.51	8	13.33	.51
Texas: 1927	1	117							22	62.68	.77	22	62.68	.77

[1] Closed cases only are reported.

TABLE 6.—*Number of accidents and accident frequency and severity rates in specified industries, 1925, 1926 and 1927, by States*—Continued

Fertilizers—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

State and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
Accidents for States reporting only disabilities extending beyond one week														
Georgia:														
1926	3	639	1	0.53	3.13	1	0.53	2.09	18	9.47	0.22	20	10.53	5.44
1927	12	983	1	.34	2.03	7	2.37	2.29	72	24.40	.60	80	27.11	4.92
Illinois:														
1926	1	68							10	50.00	.62	10	50.00	.62
1927	2	530	1	.63	3.77	10	6.29	2.54	46	28.92	.71	57	35.84	7.02
Michigan:														
1926	1	249							10	14.29	.57	10	14.29	.57
1927	1	207				1	1.61	1.93	6	9.67	.24	7	11.28	2.17
New Jersey: 1927	1	285	1	1.17	7.02	5	5.85	14.50	15	17.54	.43	21	24.56	21.95
New York: 1926	2	131				1	2.50	10.14	8	20.00	1.25	9	22.50	11.39
Virginia: 1927	10	759	1	.44	2.63				28	12.29	.35	29	12.73	2.98
Accidents for State reporting only disabilities extending beyond 10 days														
Virginia: 1926	3	517	4	2.50	15.48	1	0.63	0.19	39	24.38	0.85	44	27.51	16.52
Accidents for State reporting only disabilities extending beyond two weeks														
Alabama: 1927	5	196							3	5.10	0.28	3	5.10	0.28
Accidents for States reporting only fatalities and permanent disabilities														
California: 1927	3	68												
Pennsylvania: 1926	2	142												

	Accidents for States reporting all disabilities extending beyond day of injury													
Indiana:														
1926	6	185				3	5.00	6.49	12	20.00	0.31	15	25.00	6.80
1927	6	186				1	1.79	.54	15	26.88	.31	16	28.67	.85
Iowa:														
1925	6	143							9	20.86	.57	9	20.86	.57
1927	7	228							17	24.84	.22	17	24.84	.22
Kansas: 1927 [2]	44	1,553	2	0.43	2.57	2	.43	.26	108	23.18	.34	112	24.04	3.17
Kentucky:														
1926	4	329				2	2.00	.61	33	33.00	.36	35	35.00	.97
1927	3	302				2	2.20	.66	57	62.83	.86	59	65.03	1.52
Maryland:														
1925	2	29				1	11.31	8.48	3	33.94	.90	4	45.25	9.38
1926	4	76							14	70.00	1.19	14	70.00	1.19
1927	4	68	1	4.89	29.32				12	58.63	1.09	13	63.52	30.41
Minnesota:														
1925	19	3,443	4	.39	2.32	6	.58	.52	191	18.49	.25	201	19.46	3.09
1926	22	2,596	4	.51	3.08	7	.90	.98	156	20.00	.52	167	21.41	4.58
1927	22	2,471	1	.13	.81	8	1.08	.45	137	18.48	.35	146	19.69	1.61
Montana: 1926	2	121							13	32.50	.14	13	32.50	.14
Nebraska:														
1926	8	218				2	2.86	13.79	43	61.43	.85	45	64.29	14.64
1927	8	260							41	52.59	.97	41	52.59	.97
New York: 1927	4	1,224	1	.27	1.63	9	2.45	3.11	44	11.99	.52	54	14.71	5.26
North Dakota:														
1926	2	34							4	40.00	.26	4	40.00	.26
1927	1	7												
Ohio:														
1926	1	38							8	80.00	.70	8	80.00	.70
1927	6	195				1	1.71	2.57	11	18.83	.37	12	20.54	2.94
Pennsylvania: 1927	4	124							1	2.69	.03	1	2.69	.03
South Dakota: 1926	2	44							5	50.00	1.15	5	50.00	1.15
Tennessee:														
1926	3	248				1	1.43	2.42	22	31.43	.23	23	32.86	2.65
1927	5	302				1	1.10	.33	16	17.64	.10	17	18.74	.43
Texas: 1927	5	187				1	1.78	1.07	18	32.07	.54	19	33.85	1.61
	Accidents for State reporting only disabilities extending beyond five days													
Oklahoma: 1927	8	201	(3)						21	34.90	0.82	[3] 21	34.90	.82

[1] Closed cases only are reported.

[2] Records for six months only (July to December).

[3] Fatal cases not reported.

TABLE 6.—*Number of accidents and accident frequency and severity rates in specified industries, 1925, 1926, and 1927, by States*—Continued

Flour—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

State and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
Accidents for States reporting only disabilities extending beyond one week														
Georgia: 1927	1	21							1	16.03	0.45	1	16.03	0.45
Illinois:														
1926	2	244				1	1.43	0.41	12	17.14	.31	13	18.57	.72
1927	2	236				1	1.42	.71	23	32.54	.63	24	33.96	1.34
Michigan:														
1926	5	468				2	1.43	.43	24	17.14	.48	26	18.57	.91
1927	5	428				1	.78	.23	9	7.02	.25	10	7.80	.48
New York: 1926	4	1,312				8	2.05	2.74	58	14.87	.83	66	16.92	3.57
Virginia: 1927	2	67	1	0.96	5.75	1	.96	.29	1	.96	.03	3	2.88	6.07
Wisconsin:														
1926	1	18							9	90.00	6.83	9	90.00	6.83
1927	1	201							9	14.91	.37	9	14.91	.37
Accidents for State reporting only disabilities extending beyond 10 days														
Virginia: 1926	2	78				1	5.00	2.57	4	20.00	0.96	5	25.00	3.53
Accidents for State reporting only fatalities and permanent disabilities														
Pennsylvania: 1926	4	93												

Foundry and machine-shop products

	Accidents for States reporting all disabilities extending beyond day of injury													
Indiana:														
1925	15	1,889				3	0.53	0.16	415	73.23	0.78	418	73.76	0.94
1926	12	2,250	2	0.29	1.78	11	1.62	1.71	399	58.68	.82	412	60.59	4.31
1927	12	2,025	3	.49	2.96	9	1.48	1.48	265	43.61	.67	277	45.58	5.11
Iowa:														
1925	10	2,785	1	.12	.72	15	1.80	1.38	316	37.82	.52	332	39.74	2.62
1926	10	2,557	1	.13	.78	5	.65	.29	120	15.59	.35	126	16.37	1.42
1927	9	2,559				8	1.04	.49	137	17.85	.37	145	18.89	.86
Kansas: 1927 [2]	2	250							16	21.30	.41	16	21.30	.41
Kentucky:														
1926	2	640				10	5.26	5.60	87	45.79	.78	97	51.05	6.38
1927	2	206				5	8.09	9.47	79	127.87	1.96	84	135.96	11.43
Maine:														
1926	2	288	1	1.11	6.94	3	3.33	2.49	86	95.56	.78	90	100.00	10.21
1927	2	194				1	1.72	1.03	33	56.82	1.03	34	58.54	2.06
Maryland:														
1925	10	1,317	1	25	1.52	6	1.52	3.35	155	39.22	.64	162	40.99	5.53
1926	1	165				1	2.00	.61	17	34.00	.56	18	36.00	1.17
1927	1	158				1	2.11	.63	18	38.03	.60	19	40.14	1.23
Massachusetts:														
1926	21	6,504	2	.10	.62	5	.26	.14	206	10.56	.27	213	10.92	1.03
1927	20	4,946				9	.61	.30	335	22.58	.53	344	23.19	.83
Minnesota:														
1925	9	1,282	1	.26	1.56	4	1.04	1.25	70	18.20	.41	75	19.50	3.22
1926	5	897	1	.37	2.23	5	1.85	2.27	104	38.52	1.18	110	40.74	5.68
1927	6	1,061	1	.31	1.89	6	1.89	.66	69	21.69	.40	76	23.89	2.95
Nebraska:														
1926	3	207							48	80.00	2.71	48	80.00	2.71
1927	3	220				3	4.56	1.37	37	56.18	.90	40	60.74	2.27
New Hampshire:														
1926	3	1,046				1	.32	.57	78	25.16	.29	79	25.48	.86
1927	3	933				2	.71	.38	52	18.57	.26	54	19.28	.64
New York: 1927	23	13,411	11	.27	1.64	186	4.62	4.55	654	16.25	.76	851	21.14	6.95
North Dakota:														
1926	2	45							26	192.59	2.98	26	192.59	2.98
1927	1	33							20	200.32	1.06	20	200.32	1.06
Ohio:														
1925	29	7,629	2	.09	.52	17	.74	.46	1,326	57.93	.43	1,345	58.76	1.41
1926	40	11,829	10	.28	1.69	40	1.13	1.12	1,897	53.44	.67	1,947	54.85	3.48
1927	69	17,590	11	.21	1.25	43	.81	.52	1,632	30.93	.46	1,686	31.95	2.23
Pennsylvania: 1927	92	26,830	12	.15	.89	51	.63	.44	2,657	33.01	.40	2,720	33.79	1.73
Tennessee:														
1926	2	298							39	43.33	.47	39	43.33	.47
1927	3	945				5	1.76	2.33	34	11.99	.12	39	13.75	2.45

[2] Records for six months only (July to December).

TABLE 6.—*Number of accidents and accident frequency and severity rates in specified industries, 1925, 1926, and 1927, by States*—Continued

Foundry and machine-shop products—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

State and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
	Accidents for States reporting all disabilities extending beyond day of injury—Continued													
Texas: 1927	9	1,340				8	1.99	2.20	272	67.64	1.01	280	69.63	3.21
West Virginia:														
1926	1	343				4	4.00	7.67	86	86.00	1.11	90	90.00	8.78
1927	1	262				1	1.27	2.29	46	58.53	.69	47	59.80	2.98
	Accidents for State reporting only disabilities extending beyond five days													
Oklahoma: 1927	5	220	[3]			2	3.03	3.18	45	68.16	1.55	[3] 47	71.19	4.73
	Accidents for States reporting only disabilities extending beyond one week													
Georgia:														
1926	6	1,300	1	0.26	1.54	12	3.08	2.49	84	21.54	0.48	97	24.88	4.51
1927	6	1,204				4	1.11	1.12	77	21.32	.62	81	22.43	1.74
Illinois:														
1925	20	10,293	1	.03	.19	26	.84	.78	239	7.74	.26	266	8.61	1.23
1926	26	7,203	3	.14	.83	55	2.55	1.82	328	15.19	.35	386	17.88	3.01
1927	25	6,674	2	.10	.60	66	3.29	2.71	274	13.69	.32	342	17.08	3.63
Michigan:														
1925	5	4,078	1	.08	.49	15	1.23	.94	133	10.87	.26	149	12.18	1.69
1926	26	6,375	8	.42	2.51	15	.79	.53	482	25.24	.63	505	26.45	3.67
1927	24	5,531	2	.12	.72	11	.66	.32	328	19.77	.56	341	20.55	1.60
New Jersey:[4]														
1925	21	5,672	2	.12	.71	55	3.23	2.31	234	3.75	.41	291	17.10	3.43
1926	20	4,833				82	5.66	4.85	243	16.76	.27	325	22.42	5.12
1927	20	4,727	2	.14	.85	125	8.81	9.91	221	15.58	.42	348	24.53	11.18

New York:														
1925	15	10,104	3	.10	.59	128	4.22	3.90	322	10.62	.58	453	14.94	5.07
1926	22	16,425	14	.28	1.70	199	4.04	3.71	844	17.12	1.16	1,057	21.44	6.57
Virginia: 1927	4	930	1	.36	2.15	4	1.44	.72	86	30.86	.76	91	32.66	3.63
Wisconsin:														
1925	14	3,232	1	.10	.62	8	.82	.32	211	21.76	.43	220	22.68	1.37
1926	17	8,796	3	.11	.68	55	2.08	1.71	864	32.73	.59	922	34.92	2.98
1927	17	8,229	1	.04	.24	36	1.46	.86	583	23.61	.57	620	25.11	1.67
Accidents for State reporting only disabilities extending beyond 10 days														
Virginia: 1926	3	717	1	0.45	2.79	6	2.73	4.65	80	36.36	0.90	87	39.54	8.34
Accidents for State reporting only disabilities extending beyond two weeks														
Alabama:														
1926	3	2,092				6	0.95	0.84	102	16.19	0.45	108	17.14	1.29
1927	4	1,888	1	0.18	1.06	7	1.24	.66	54	9.53	.34	62	10.95	2.06
Accidents for States reporting only fatalities and permanent disabilities														
California:														
1926	17	1,936	1	0.17	1.03	14	2.41	2.91				15	2.58	3.94
1927	18	2,056	2	.32	1.95	14	2.27	1.92				16	2.59	3.87
Pennsylvania:														
1925	109	27,121	5	.06	.37	47	.58	.53				52	.64	.90
1926	85	28,547	16	.19	1.12	109	1.27	.98				125	1.46	2.10
Furniture														
Accidents for States reporting all disabilities extending beyond day of injury														
Indiana:														
1925	50	6,086				11	0.60	0.26	458	25.09	0.24	469	25.69	0.50
1926	52	6,418				40	2.07	1.92	453	23.47	.68	493	25.54	2.60
1927	52	6,119				39	2.12	1.59	433	23.59	.32	472	25.71	1.91
Iowa:														
1925	5	504							36	23.79	.19	36	23.79	.19
1926	4	559				1	.59	.18	34	20.00	.62	35	20.59	.80
1927	4	600							22	12.23	.24	22	12.23	.24
Kansas: 1927 [2]	1	11												

[1] Closed cases only are reported.

[2] Record is for six months only (July to December).

[3] Fatal cases not reported.

TABLE 6.—*Number of accidents and accident frequency and severity rates in specified industries, 1925, 1926, and 1927, by States*—Continued

Furniture—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

State and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
	Accidents for States reporting all disabilities extending beyond day of injury—Continued													
Kentucky:														
1926	3	324				1	1.00	0.31	6	6.00	0.11	7	7.00	0.42
1927	3	284				1	1.17	.35	6	7.05	.14	7	8.22	.49
Maine:														
1926	1	156							6	12.00	.15	6	12.00	.15
1927	1	150							9	20.03	.70	9	20.03	.70
Maryland:														
1925	7	422							30	23.72	.58	30	23.72	.58
1926	10	649				3	1.58	.85	34	17.89	.31	37	19.47	1.16
1927	11	768				7	3.04	2.34	29	12.59	.21	36	15.63	2.55
Massachusetts:														
1926	5	624							11	5.79	.19	11	5.79	.19
1927	6	717				2	.93	.42	18	8.37	.15	20	9.30	.57
Minnesota:														
1925	8	634				8	4.20	2.76	38	19.97	.36	46	24.17	3.12
1926	9	1,002				4	1.33	1.76	93	31.00	.60	97	32.33	2.36
1927	9	918	1	0.36	2.18	10	3.63	1.80	70	25.42	.44	81	29.41	4.42
New Hampshire: 1926	1	103							19	61.49	.27	19	61.49	.27
New York: 1927	20	3,916	1	.09	.51	30	2.55	2.39	106	9.02	.30	137	11.66	3.20
Ohio:														
1925	15	1,821				8	1.46	1.26	77	14.09	.29	85	15.55	1.55
926	8	496							15	10.00	.21	15	10.00	.21
1927	27	3,191	1	.10	.63	9	.94	.57	210	21.94	.28	220	22.98	1.48
Pennsylvania: 1927	30	3,279				9	.91	.82	209	21.25	.26	218	22.16	1.08
Tennessee:														
1926	5	910				7	2.59	1.32	102	37.78	.30	109	40.37	1.62
1927	5	937				12	4.27	2.93	82	29.15	.27	94	33.42	3.20
Texas: 1927	4	521	1	.64	3.84	4	2.56	2.02	64	40.95	.56	69	44.15	6.42
West Virginia:														
1926	4	485				4	2.67	1.86	22	14.67	.23	26	17.34	2.09
1927	4	507	1	.66	3.95	1	.66	.49	38	24.99	.36	40	26.31	4.80

Accidents for State reporting only disabilities extending beyond five days													
Oklahoma: 1927	1	62	(3)						1	5.34	0.09	31	5.34	0.09
Accidents for State reporting only disabilities extending beyond one week													
Georgia:													
1926	3	500				3	2.00	2.60	9	6.00	0.68	12	8.00	2.68
1927	3	505							12	7.92	.25	12	7.92	.25
Illinois:														
1925	16	2,828				10	1.18	.71	97	11.43	.26	107	12.61	.97
1926	25	4,356				22	1.68	1.14	168	12.82	.23	190	14.50	1.37
1927	25	6,630	1	0.05	0.30	22	1.11	.99	150	7.54	.16	173	8.70	1.45
Michigan:														
1925	5	2,013							32	5.30	.20	32	5.30	.20
1926	37	9,052	3	.11	.66	48	1.76	1.28	229	8.42	.27	280	10.29	2.21
1927	36	8,937				36	1.34	.66	211	7.87	.18	247	9.21	.84
New Jersey:[1] 1927	2	449				7	5.20	6.31	11	8.16	.25	18	13.36	6.56
New York:														
1925	14	2,930				23	2.62	2.70	53	6.03	.27	76	8.65	2.97
1926	18	3,621				39	3.58	4.09	129	11.83	.20	168	15.41	4.29
Virginia: 1927	2	599				5	2.78	1.92	7	3.90	.08	12	6.68	2.00
Wisconsin:														
1925	13	2,888				3	.35	.14	82	9.46	.17	85	9.81	.31
1926	13	3,216				11	1.15	.92	78	8.13	.20	89	9.28	1.12
1927	13	3,105				7	.76	.39	78	8.37	.20	85	9.13	.59
Accidents for State reporting only disabilities extending beyond 10 days													
Virginia:													
1926	2	559				5	2.94	1.34	14	8.24	0.27	19	11.18	1.61
Accidents for States reporting only fatalities and permanent disabilities													
California:														
1926	7	916				2	0.74	0.65				2	0.74	0.65
1927	7	1,108	1	0.30	1.81	8	2.41	1.10				9	2.71	2.91
Pennsylvania:														
1925	32	4,393				17	1.29	.76				17	1.29	.76
1926	25	2,923				10	1.14	.63				10	1.14	.63

[1] Closed cases only are reported.

[3] Fatal cases not reported.

TABLE 6.—*Number of accidents and accident frequency and severity rates in specified industries, 1925, 1926, and 1927, by States*—Continued

Glass

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

State and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000 000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
Accidents for States reporting all disabilities extending beyond day of injury														
Indiana: 1927	11	2,774				5	0.60	0.40	316	37.97	0.66	321	38.57	1.06
Maryland:														
1925	4	1,051				2	.63	.19	65	20.61	.31	67	21.24	.50
1926	4	1,012				1	.33	.79	78	26.33	.56	79	26.66	1.35
1927	4	1,151				6	1.74	1.39	85	24.62	.56	91	26.36	1.95
Ohio:														
1925	5	1,552				2	.43	.77	414	88.93	.75	416	89.36	1.52
1926	6	2,249	1	0.15	0.89	6	.90	.73	358	53.43	.62	365	54.48	2.24
1927	14	5,554	7	.42	2.52	8	.48	.50	608	36.49	.49	623	37.39	3.51
Pennsylvania: 1927	25	7,156	4	.19	1.12	1	.05	.03	844	39.31	.44	849	39.55	1.59
Tennessee:														
1926	1	210							10	16.67	.22	10	16.67	.22
1927	1	176							12	22.71	.17	12	22.71	.17
West Virginia:														
1926	5	3,246				10	1.03	1.39	351	36.19	.41	361	37.22	1.80
1927	4	2,456	3	.41	2.44	4	.54	.45	368	49.93	.63	375	50.88	3.52
Accidents for State reporting only disabilities extending beyond five days														
Oklahoma: 1927	5	656	(2)						17	8.64	0.20	[3] 17	8.64	.20
Accidents for State reporting only disabilities extending beyond one week														
New Jersey: [1]														
1925	6	4,632	1	0.07	0.43	7	0.50	0.76	50	3.60	0.10	58	4.71	1.29
1927	6	2,588				9	1.16	1.83	64	8.24	.21	73	9.40	2.04

	Accidents for States reporting only fatalities and permanent disabilities													
California:														
1926	2	171												
1927	3	653	1	0.51	3.06	1	0.51	0.15				2	1.02	3.21
Pennsylvania:														
1925	25	4,903				7	.48	.59				7	.48	.59
1926	20	4,662	4	.29	1.72	14	1.00	1.07				18	1.29	2.79

Hardware

	Accidents for States reporting all disabilities extending beyond day of injury													
Maine:														
1926	1	100				1	3.33	2.51	7	23.33	0.59	8	26.66	3.10
1927	1	92				1	3.62	6.52	14	50.70	.57	15	54.32	7.09
New York: 1927	1	266				3	3.76	4.88	6	7.51	.60	9	11.26	5.48
Ohio:														
1926	3	786				4	1.67	.51	68	28.33	.58	72	30.00	1.09
1927	5	836	1	0.40	2.39	7	2.79	1.55	104	41.46	.82	112	44.65	4.76
Pennsylvania: 1927	6	2,570				4	.52	.25	206	26.72	.30	210	27.24	.56
	Accidents for States reporting only disabilities extending beyond one week													
Illinois:														
1926	6	2,250				24	3.53	2.32	61	8.97	0.18	85	12.50	2.50
1927	6	2,481				15	2.01	1.79	47	6.31	.14	62	8.32	1.93
Michigan:														
1926	3	476				9	6.43	1.82	20	14.29	.49	29	20.72	2.31
1927	3	505				4	2.64	.99	15	9.90	.41	19	12.54	1.40
New Jersey: [1] 1927	4	600				17	9.45	11.25	24	13.34	.26	41	22.79	11.51
New York: 1926	1	297				2	2.22	.68	5	5.56	.66	7	7.78	1.34
	Accidents for State reporting only fatalities and permanent disabilities													
Pennsylvania: 1926	5	2,337				11	1.57	0.53				11	1.57	0.53

[1] Closed cases only reported.

[2] Fatal cases not reported.

TABLE 6.—*Number of accidents and accident frequency and severity rates in specified industries, 1925, 1926, and 1927, by States*—Continued

Leather

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

State and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
Accidents for States reporting all disabilities extending beyond day of injury														
Kentucky:														
1926	1	105							5	16.67	0.22	5	16.67	0.22
1927	1	92				1	3.62	2.72	11	39.86	.80	12	43.48	3.52
Maryland:														
1926	4	569				2	1.18	3.05	14	8.23	.30	16	9.41	3.35
1927	4	548				1	.61	2.44	17	10.34	.15	18	10.95	2.59
Massachusetts:														
1926	13	4,251	2	0.16	0.94	2	.16	.05	125	9.77	.23	129	10.09	1.22
1927	17	4,451				2	.15	.04	333	24.94	.38	335	25.09	.42
New York: 1927	9	1,824	1	.18	1.10	8	1.46	.99	115	21.02	.55	124	22.66	2.64
Ohio:														
1926	1	295				1	1.11	1.36	16	17.78	.34	17	18.89	1.70
1927	1	328				1	1.02	1.22	30	30.50	.63	31	31.52	1.85
Pennsylvania: 1927	17	3,943	2	.17	1.01	5	.42	.15	414	35.00	.45	421	35.59	1.61
West Virginia:														
1926	2	310				2	2.22	3.55	27	30.00	.55	29	32.22	4.10
1927	2	335				1	.96	.29	28	26.75	.29	29	27.71	.58
Accidents for States reporting only disabilities extending beyond one week														
Georgia:														
1926	1	451				1	0.71	2.66	28	20.00	0.39	29	20.71	3.05
1927	1	320				1	1.04	.31	26	27.12	.63	27	28.16	.94
Illinois:														
1925	5	1,378				7	1.69	1.91	58	14.03	.34	65	15.72	2.25
1926	7	1,594				17	3.54	3.14	79	16.46	.61	96	20.00	3.75
1927	7	2,431				20	2.74	2.60	60	8.23	.20	80	10.97	2.80

Michigan:													
1926	2	560				3	1.76	.89	40	23.53	1.47	43	25.29	2.36
1927	2	532				4	2.51	1.32	29	18.18	.42	33	20.69	1.74
New Jersey: [1]														
1925	7	1,455				15	3.43	2.11	33	7.56	.23	48	10.99	2.34
1926	10	2,286				16	2.32	1.36	60	8.70	.29	76	11.02	1.65
1927	9	2,256				14	2.07	3.62	39	5.76	.11	53	7.83	3.73
New York:														
1925	6	763	1	0.44	2.62	3	1.31	1.84	17	7.43	.35	21	9.18	4.81
1926	8	1,849				17	3.09	3.75	102	18.55	.73	119	21.64	4.48
Virginia: 1927	1	124				1	2.68	4.83	10	26.84	.88	11	29.52	5.71
Wisconsin:														
1925	4	1,835	1	.18	1.09	3	.55	.16	74	13.44	.28	78	14.17	1.53
1926	5	3,025	2	.22	1.32	4	.44	.65	97	10.66	.51	103	11.32	2.48
1927	5	2,518	1	.13	.79	2	.26	.08	63	8.34	.18	66	8.73	1.05
Accidents for State reporting only disabilities extending beyond 10 days														
Virginia: 1926	1	113							11	36.67	1.30	11	36.67	1.30
Accidents for States reporting only fatalities and permanent disabilities														
California:														
1926	5	544	1	0.63	3.68							1	0.63	3.68
1927	5	554	1	.61	3.61	3	1.80	0.78				4	241	4.39
Pennsylvania:														
1925	14	3,870				2	.17	.05				2	.17	.05
1926	17	3,966	1	.08	.50	9	.76	.59				10	.84	1.09
Lumber—Planing mills														
Accidents for States reporting all disabilities extending beyond day of injury														
Indiana:														
1925	8	624				2	1.07	0.32	93	49.71	0.35	95	50.78	0.67
1926	10	711				13	6.19	7.10	83	39.52	.53	96	45.71	7.63
1927	10	634	2	1.05	6.31	2	1.05	1.89	68	35.73	.65	72	37.83	8.85
Iowa:														
1925	7	1,770				5	.94	1.24	44	8.29	.20	49	9.23	1.44
1926	8	1,820	2	.36	2.19	12	2.18	1.36	75	13.64	.33	89	16.18	3.88
1927	8	1,566	2	.42	2.55	6	1.28	.57	58	12.35	.29	66	14.05	3.41
Kentucky:														
1926	2	823				14	5.60	1.94	198	79.20	1.87	212	84.80	3.81
1927	2	819	2	.81	4.88	20	8.14	5.72	100	40.70	1.40	122	49.65	12.00

[1] Closed cases only are reported.

TABLE 6.—*Number of accidents and accident frequency and severity rates in specified industries, 1925, 1926, and 1927, by States*—Continued

Lumber—Planing mills—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

State and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
Accidents for States reporting all disabilities extending beyond day of injury—Continued														
Maine:														
1926	1	52							2	10.00	0.19	2	10.00	0.19
1927	1	48							4	27.93	.59	4	27.93	.59
Maryland:														
1925	5	272				1	1.23	3.68	38	46.55	1.15	39	47.78	4.83
1926	8	607	1	0.55	3.29	3	1.78	.76	50	27.78	.79	54	30.11	4.84
1927	8	538				3	1.86	3.59	42	26.00	.66	45	27.86	4.25
Minnesota:														
1925	4	458							2	1.45	.01	2	1.45	.01
1926	5	523				5	3.13	3.15	25	15.63	.36	30	18.76	3.51
1927	5	373	1	.89	5.37	3	2.68	2.59	9	8.05	.35	13	11.62	8.31
New Hampshire: 1927	1	121												
New York: 1927	19	3,080	1	.11	.65	32	3.46	4.79	169	18.29	.65	202	21.86	6.00
Ohio:														
1925	3	438	1	.76	4.56	3	2.28	2.28	27	20.53	.33	31	23.57	7.17
1926	5	368							16	14.55	.20	16	14.55	.20
1927	8	542							45	27.65	.51	45	27.65	.51
Pennsylvania: 1927	6	621				3	1.61	.48	56	30.07	.42	59	31.68	.90
Tennessee:														
1926	2	338							18	18.00	.36	18	18.00	.36
1927	2	827							15	6.04	.07	15	6.04	.07
Texas: 1927	3	246	1	1.35	8.12	3	4.06	1.62	68	91.98	1.21	72	97.39	10.95
Accidents for States reporting only disabilities extending beyond one week														
Georgia:														
1926	2	177	1	2.00	11.30	1	2.00	1.16	9	18.00	0.57	11	22.00	13.03
1927	2	222				2	3.00	1.35	7	10.51	.17	9	13.51	1.52

Illinois:														
1925	8	667	2	1.00	6.00	3	1.50	2.40	28	14.00	.48	33	16.50	8.88
1926	17	1,802	3	.56	3.30	16	2.96	4.36	126	23.33	.62	145	26.85	8.31
1927	16	1,557				22	4.71	5.23	142	30.39	.80	164	35.10	6.03
Michigan:														
1925	1	260	1	1.28	7.69	2	2.56	2.50	39	49.99	1.04	42	53.83	11.23
1926	16	1,893	2	.35	2.11	16	2.81	2.67	159	27.89	.77	177	31.05	5.55
1927	16	1,679	2	.40	2.38	9	1.79	1.25	118	23.43	.79	129	25.62	4.42
New York:														
1925	14	2,682	1	.12	.75	31	3.85	6.03	84	10.44	.51	116	14.41	7.29
1926	20	2,928	3	.34	2.04	40	4.55	5.48	248	28.18	1.60	291	33.07	9.12
Virginia: 1927	2	479				6	4.17	3.44	21	14.61	.33	27	18.78	3.77
Wisconsin:														
1925	9	1,946	1	.17	1.03	9	1.54	.80	186	31.86	.76	196	33.57	2.59
1926	9	1,663	2	.40	2.40	5	1.00	.93	153	30.60	.92	160	32.00	4.25
1927	9	1,278	1	.26	1.56	8	2.09	1.80	72	18.77	.58	81	21.12	3.94
Accidents for State reporting only disabilities extending beyond 10 days														
Virginia: 1926	2	480	1	0.71	4.16	4	2.86	3.22	30	21.43	0.48	35	25.00	7.86
Accidents for States reporting only fatalities and permanent disabilities														
California:														
1926	17	2,266				15	2.21	1.33				15	2.21	1.33
1927	17	6,371	10	0.53	3.13	23	1.20	1.10				33	1.73	4.23
Pennsylvania:														
1925	5	735				2	.91	1.91				2	.91	1.91
1926	7	772												

Lumber—Sawmills

Accidents for States reporting all disabilities extending beyond day of injury														
Indiana:														
1926	1	95							21	70.00	1.35	21	70.00	1.35
1927	2	110				1	3.03	12.12	23	69.70	2.13	24	72.73	14.25
Maine:														
1926	4	209							38	63.33	.96	38	63.33	.96
1927	5	237				1	1.41	.42	26	36.45	1.00	27	37.86	1.42
Maryland: 1925	1	20							2	33.17	1.18	2	33.17	1.18

TABLE 6.—*Number of accidents and accident frequency and severity rates in specified industries, 1925, 1926, and 1927, by States*—Continued

Lumber—Sawmills—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

State and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
Accidents for States reporting all disabilities extending beyond day of injury—Continued														
Minnesota:														
1925	5	2,228	1	0.15	0.90	5	0.75	0.96	123	18.40	0.50	129	19.30	2.36
1926	5	1,988	9	1.50	9.05	25	4.17	6.81	756	126.00	3.29	790	131.67	19.15
1927	5	1,995	6	1.00	6.01	29	4.84	3.87	571	95.38	2.92	606	101.22	12.80
Montana: 1926	2	813	2	.83	4.92				51	20.91	.40	53	21.73	5.32
Ohio:														
1926	1	37	1	8.94	53.66				4	35.78	.67	5	44.72	54.33
1927	1	31				1	10.68	6.41	11	117.52	1.55	12	128.20	7.96
Pennsylvania: 1927	1	330	1	1.01	6.06	5	5.05	1.82	159	160.65	2.21	165	166.71	10.09
Tennessee:														
1926	2	861	1	.38	2.32	1	.38	.11	44	16.92	.29	46	17.68	2.72
1927	2	1,062	1	.31	1.88	3	.94	.85	56	17.58	.22	60	18.83	2.95
Texas: 1927	17	8,538	12	.47	2.81	83	3.24	4.58	1,461	57.04	1.04	1,556	60.75	8.43
West Virginia:														
1926	4	1,299	2	.51	3.09	7	1.79	2.92	98	25.13	.74	107	27.43	6.75
1927	4	1,328	2	.50	3.01	7	1.76	.75	79	19.83	.62	88	22.09	4.38
Accidents for State reporting only disabilities extending beyond five days														
Oklahoma: 1927	2	1,123	(3)			3	0.89	1.16	56	16.62	0.37	[3] 59	17.51	1.53
Accidents for States reporting only disabilities extending beyond one week														
Georgia:														
1926	1	62							5	25.00	0.91	5	25.00	0.91
1927	2	587	1	0.57	3.41	1	0.57	0.17	72	40.91	1.12	74	42.05	4.70
Illinois:														
1926	2	309				5	5.56	4.37	36	40.00	.78	41	45.56	5.15
1927	3	250	1	1.34	8.01	7	9.34	16.22	48	64.08	1.48	56	74.76	25.71

Michigan:														
1925	5	5,455	4	.24	1.47	7	.43	.47	120	7.33	.23	131	8.00	2.17
1926	17	2,394	2	.28	1.67	13	1.81	1.62	344	47.78	2.07	359	49.87	5.36
1927	17	2,416	5	.69	4.14	10	1.38	1.23	282	38.90	1.55	297	40.97	6.92
Virginia: 1927	4	1,380	3	.72	4.34	2	.48	.14	120	28.98	.90	125	30.18	5.38
Wisconsin:														
1925	11	2,520	6	.79	4.76	12	1.59	.79	322	42.59	1.01	340	44.97	6.56
1926	18	4,356	7	.53	3.21	16	1.22	1.45	482	36.79	1.03	505	38.54	5.69
1927	16	4,767	6	.42	2.52	15	1.05	.85	530	37.06	1.03	551	38.53	4.40
	Accidents for State reporting only disabilities extending beyond 10 days													
Virginia: 1926	5	3,288	2	0.20	1.21	17	1.72	1.22	195	19.70	0.69	214	21.62	3.12
	Accidents for State reporting only disabilities extending beyong two weeks													
Alabama:														
1926	5	2,312	1	0.14	0.86	4	0.58	0.43	48	6.96	0.14	53	7.68	1.43
1927	4	2,182	1	.15	.92	8	1.22	1.37	78	11.92	.56	87	13.29	2.85
	Accidents for States reporting only fatalities and permanent disabilities													
California:														
1926	21	12,136	25	0.69	4.12	84	2.31	1.75				109	3.00	5.87
1927	16	6,958	15	.72	4.31	47	2.25	1.36				62	2.97	5.67
Pennsylvania: 1926	2	1,384	2	.48	2.89	4	.95	1.22				6	1.43	4.11

Machine tools

	Accidents for States reporting all disabilities extending beyond day of injury													
Indiana:														
1925	3	124							15	40.32	0.60	15	40.32	0.60
1926	3	248	1	1.43	8.06				24	34.28	.29	25	35.71	8.35
1927	2	204				1	1.63	1.96	3	4.90	.10	4	6.53	2.06
Massachusetts:														
1926	15	4,917	1	.07	.40	2	.14	.06	70	4.73	.09	73	4.94	.55
1927	13	4,475				1	.07	.04	129	9.61	.20	130	9.68	.24
New York: 1927	9	1,374				14	3.40	3.52	55	13.34	.44	69	16.74	3.96
Ohio:														
1925	19	1,763				2	.38	.48	238	44.99	.37	240	45.37	.85
1926	25	4,138	1	.08	.48	13	1.04	.65	529	42.66	.42	543	43.78	1.55
1927	45	5,300	3	.19	1.13	11	.69	.55	529	33.27	.44	543	34.15	2.12
Pennsylvania: 1927	6	854				1	.39	.29	64	24.97	.33	65	25.36	.62

[3] Fatal cases not reported.

TABLE 6.—*Number of accidents and accident frequency and severity rates in specified industries, 1925, 1926, and 1927, by States*—Continued

Machine tools—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

State and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
Accidents for States reporting only disabilities extending beyond one week														
Illinois:														
1925	5	1,197				3	0.84	0.25	20	5.57	0.19	23	6.41	0.44
1926	11	1,933				11	1.89	1.17	66	11.38	.48	77	13.27	1.65
1927	11	1,992	2	0.33	2.00	10	1.67	.92	72	12.04	.28	84	14.04	3.20
Michigan:														
1926	7	574	1	.59	3.48	3	1.76	.69	36	21.18	.56	40	23.53	4.72
1927	5	389				4	3.43	1.29	15	12.87	.52	19	16.30	1.81
New Jersey: [1]														
1925	5	477				6	4.19	3.78	19	13.28	.29	25	17.47	4.07
1926	7	729				7	3.18	5.57	19	8.63	.16	26	11.81	5.73
1927	6	422				8	6.33	9.57	10	7.90	.12	18	14.23	9.69
New York:														
1925	6	551	1	.61	3.63	3	1.82	2.18	10	6.05	.27	14	8.48	6.08
1926	9	1,282				23	6.05	5.46	83	21.84	.97	106	27.89	6.43
Wisconsin:														
1925	2	802				3	1.25	.62	30	12.47	.22	33	13.72	.84
1926	5	1,117				4	1.21	.98	48	14.54	.23	52	15.75	1.21
1927	4	990				1	.34	.10	33	11.11	.23	34	11.45	.33
Accidents for State reporting only fatalities and permanent disabilities														
Pennsylvania:														
1925	7	1,119												
1926	3	196	1	1.67	10.18	1	1.67	0.50				2	3.34	10.68

Paper and pulp

	Accidents for States reporting all disabilities extending beyond day of injury													
Indiana:														
1925	3	560				3	1.79	0.80	50	29.78	3.63	53	31.57	4.43
1926	3	307	2	2.22	13.00	3	3.33	8.13	40	44.44	.36	45	49.99	21.49
1927	3	269							43	53.22	1.16	43	53.22	1.16
Iowa:														
1925	1	122				1	2.73	2.05	18	49.11	1.36	19	51.84	3.41
1926	1	113				1	3.33	7.09	14	46.67	.70	15	50.00	7.79
1927	1	101							25	82.44	1.39	25	82.44	1.39
Kansas: 1927 [2]	1	140				1	2.37	.71	14	33.24	.37	15	35.61	1.08
Maine:														
1926	5	3,745				9	.80	.52	522	46.61	.84	531	47.41	1.36
1927	4	2,897	5	.58	3.45	10	1.15	1.28	259	29.80	.66	274	31.53	5.39
Maryland:														
1926	1	1,083				2	.63	1.8	56	17.50	.59	58	18.13	.77
1927	2	1,313				4	1.02	.69	82	20.81	.39	86	21.83	1.08
Massachusetts:														
1926	13	6,008				5	.28	.34	208	11.56	.24	213	11.84	.58
1927	12	5,539				4	.24	.10	368	22.15	.48	372	22.39	.58
Minnesota:														
1925	3	1,132	1	.29	1.77	7	2.06	2.12	149	43.89	.78	157	46.24	4.67
1926	3	1,072	2	.63	3.73	7	2.19	1.07	267	83.44	1.03	276	86.26	5.83
1927	3	1,231	1	.27	1.62	8	2.17	2.14	189	51.16	1.00	198	53.60	4.76
New Hampshire:														
1926	1	367				1	.91	.27	76	69.09	.93	77	70.00	1.20
1927	1	365				2	1.83	.55	50	45.66	1.19	52	47.49	1.74
New York: 1927	19	6,155	7	.38	2.27	87	4.71	5.02	485	26.26	.81	579	31.35	8.10
Ohio:														
1926	4	3,501	3	.29	1.71	4	.38	.92	251	23.90	.27	258	24.57	2.90
1927	6	4,709	2	.14	.85	6	.42	.52	443	31.36	.46	451	31.92	1.83
Pennsylvania: 1927	7	2,769	3	.36	2.17	4	.48	.25	202	24.32	.32	209	25.16	2.74
Tennessee:														
1926	1	98				1	3.33	1.01	20	66.67	.05	21	70.00	1.06
1927	1	204							1	1.64	.02	1	1.64	.02
West Virginia:														
1926	2	476				3	2.14	3.85	108	77.14	1.30	111	79.28	5.15
1927	1	382							63	55.01	.97	63	55.01	.97

[1] Closed cases only are reported.

[2] Record is for six months only (July to December).

TABLE 6.—*Number of accidents and accident frequency and severity rates in specified industries, 1925, 1926, and 1927, by States*—Continued

Paper and pulp—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

State and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
Accidents for States reporting only disabilities extending beyond one week														
Illinois:														
1925	5	378	1	0.88	5.29				14	12.34	0.21	15	13.22	5.50
1926	7	523				1	0.63	1.91	16	10.00	.31	17	10.63	2.22
1927	7	595				5	2.80	1.29	31	17.37	.35	36	20.17	1.64
Michigan:														
1925	1	1,179				3	.85	.25	73	20.63	.54	76	21.48	.79
1926	8	3,902	3	.26	1.53	15	1.28	.83	369	31.54	1.03	387	33.08	3.39
1927	7	2,495	2	.27	1.60	6	.80	.73	175	23.38	.60	183	24.45	2.93
New York:														
1925	12	4,597	1	.07	.44	58	4.21	6.77	235	17.04	.67	294	21.32	7.88
1926	19	8,163	8	.33	1.95	92	3.76	4.30	692	28.24	.93	792	32.33	7.18
Virginia: 1927	2	362				4	3.69	1.38	21	19.35	.68	25	23.04	2.06
Wisconsin:														
1925	5	1,642	1	.20	1.22	5	1.01	.40	51	10.35	.23	57	11.56	1.85
1926	9	5,061	1	.07	.39	18	1.18	1.29	186	12.24	.34	205	13.49	2.02
1927	9	5,178	8	.52	3.09	14	.90	.60	159	10.23	.29	181	11.65	3.98
Accidents for State reporting disabilities extending beyond 10 days														
Virginia: 1926	2	388							14	11.67	0.33	14	11.67	0.33
Accidents for State reporting only fatalities and permanent disabilities														
Pennsylvania:														
1925	4	1,532	1	0.22	1.31	3	0.65	0.30				4	0.87	1.61
1926	6	2,501	2	.27	1.59	4	.53	.24				6	.80	1.83

Petroleum refining

	Accidents for States reporting all disabilities extending beyond day of injury													
Indiana:														
1926	1	3,614				5	0.46	0.30	70	6.48	0.14	75	6.94	0.44
1927	1	3,518	4	0.38	2.27	4	.38	.11	70	6.63	.12	78	7.39	2.50
Kansas: 1927 [2]	1	303	1	1.10	6.59				45	49.45	41	46	50.55	7.00
New York: 1927	2	1,141				10	2.92	2.54	73	21.31	.98	83	24.23	3.52
Ohio:														
1926	1	169				1	2.00	.59	29	58.00	1.32	30	60.00	1.91
1927	1	168	1	1.98	11.88				20	39.60	1.44	21	41.58	13.32
Pennsylvania: 1927	5	4,454	3	.22	1.35	3	.22	.10	238	17.81	.26	244	18.25	1.71
Texas: 1927	5	10,367	16	.51	3.09	50	1.61	1.79	1,533	49.29	.70	1,599	51.41	5.58
	Accidents for State reporting only disabilities extending beyond five days													
Oklahoma: 1927	3	1,779	(3)			12	2.25	1.71	107	20.04	0.57	[3] 119	22.29	2.28
	Accidents for States reporting only disabilities extending beyond one week													
Georgia:														
1926	1	228	1	1.43	8.78				7	10.00	0.22	8	11.43	9.00
1927	1	230							5	7.25	.30	5	7.25	.30
Illinois:														
1926	2	1,710	6	1.18	6.97	2	0.39	0.41	16	3.14	.12	24	4.71	7.50
1927	2	1,340	1	.25	1.49	6	1.49	1.79	61	15.17	.41	68	16.91	3.69
New Jersey: [1]														
1926	2	10,208				66	2.16	2.88	126	4.12	.10	192	6.28	2.98
1927	2	8,009				63	2.62	3.16	74	3.08	.07	137	5.70	3.23
New York: 1926	2	1,174	2	.57	3.40	24	6.86	8.26	144	41.14	2.01	170	48.57	13.67
	Accidents for States reporting only fatalities and permanent disabilities													
California:														
1926	3	4,460	7	0.52	3.12	7	0.52	0.22				14	1.04	3.34
1927	2	3,927	15	1.27	7.64	30	2.55	1.44				45	3.82	9.08
Pennsylvania: 1926	6	1,612	5	1.04	6.18	2	.42	.21				7	1.46	6.39

[1] Closed cases only are reported. [2] Record is for 6 months only (July to December). [3] Fatal cases not reported.

TABLE 6.—*Number of accidents and accident frequency and severity rates in specified industries, 1925, 1926, and 1927, by States*—Continued

Pottery

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

State and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
Accidents for States reporting all disabilities extending beyond day of injury														
Indiana:														
1926	2	303				1	1.11	0.33	12	13.33	0.23	13	14.44	0.56
1927	2	314				1	1.06	.32	12	12.74	.18	13	13.80	.50
Maryland:														
1926	2	189							12	20.00	.51	12	20.00	.51
1927	2	154							11	23.79	.62	11	23.79	.62
New York: 1927	1	260				1	1.28	.38				1	1.28	.38
Ohio:														
1925	7	1,206				1	.28	.50	80	22.12	.31	81	22.40	.81
1926	6	1,027	1	0.32	1.95				46	14.84	.15	47	15.16	2.10
1927	14	2,397	1	.14	.83	2	.28	.08	126	17.52	.17	129	17.94	1.08
Pennsylvania: 1927	2	381												
Tennessee:														
1926	1	212							7	11.67	.05	7	11.67	.05
1927	1	214				1	1.56	2.80	5	7.78	.29	6	9.34	3.09
West Virginia:														
1926	3	2,215				1	.15	.60	65	9.85	.30	66	10.00	.90
1927	3	2,333	1	.14	.86	1	.14	.04	75	10.72	.17	77	11.00	1.07
Accidents for States reporting only disabilities extending beyond one week														
New Jersey: [1]														
1925	6	1,943	1	0.17	1.03	2	0.34	1.10	76	13.04	0.41	79	13.55	2.54
1926	8	2,720				5	.61	.85	114	13.90	.36	119	14.51	1.21
1927	8	2,310				5	.72	.98	97	13.99	.39	102	14.71	1.37
New York:														
1926	2	1,228	1	.27	1.62	3	.81	.24	18	4.86	.29	22	5.94	2.15
Virginia, 1927	1	140							3	7.15	.50	3	7.15	.50

Accidents for State reporting only disabilities extending beyond 10 days													
Virginia: 1926	1	167						2	4.00	0.05	2	4.00	0.05
Accidents for States reporting only fatalities and permanent disabilities													
California: 1927	2	249	1	1.34	8.03	2	2.67	1.07				3	4.01	9.10
Pennsylvania: 1926	1	277											

Shipbuilding, steel

Accidents for States reporting all disabilities extending beyond day of injury													
Maryland:													
1926	2	546				1	0.63	0.18	36	22.50	0.68	37	23.13	0.86
1927	3	1,045				6	1.91	2.52	34	10.84	.28	40	12.75	2.80
New York: 1927	4	2,333	1	0.14	0.86	22	3.14	4.23	73	10.43	.47	96	13.71	5.56
Ohio: 1927	2	895	2	.74	4.47	1	.37	.22	215	80.07	1.68	218	81.18	6.37
Pennsylvania: 1927	1	1,607	2	.41	2.49	3	.62	.50	361	74.84	.77	366	75.89	3.76
West Virginia:														
1926	2	199				1	1.67	6.71	87	145.00	1.71	88	146.67	8.42
1927	2	131				4	10.17	15.25	115	292.30	3.33	119	302.47	18.58
Accidents for States reporting only disabilities extending beyond one week													
Illinois:													
1926	1	87				2	6.67	2.31	2	6.67	0.10	4	13.34	2.41
1927	1	164				4	8.12	4.06	9	18.27	.58	13	26.39	4.64
Michigan:														
1926	2	807	1	0.42	2.48	4	1.67	1.24	39	16.25	.42	44	18.34	4.14
1927	2	570				9	5.26	1.84	52	30.41	1.30	61	35.67	3.14
New Jersey:[1] 1926	1	316	1	1.11	6.33	2	2.22	1.27	10	11.11	.43	13	14.44	8.03
New York: 1926	4	3,044	2	.22	1.31	24	2.64	1.95	62	6.81	.73	88	9.67	3.99
Virginia: 1927	1	4,089	3	.24	1.47	13	1.06	.50	104	8.48	.22	120	9.78	2.19
Wisconsin:														
1926	2	942							74	26.43	.36	74	26.43	.36
1927	2	942	2	.71	4.24	2	.71	.32	67	23.70	.61	71	25.12	5.17

[1] Closed cases only are reported.

TABLE 6.—*Number of accidents and accident frequency and severity rates in specified industries, 1925, 1926, and 1927, by States*—Continued

Shipbuilding, steel—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

State and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
Accidents for State reporting only disabilities extending beyond 10 days														
Virginia: 1926	1	4,233	2	0.16	0.94	31	2.44	2.12	112	8.82	0.22	145	11.42	3.28
Accidents for State reporting only disabilities extending beyond two weeks														
Alabama: 1927	1	250				2	2.67	7.75	22	29.38	0.92	24	32.05	8.67
Accidents for States reporting only fatalities and permanent disabilities														
California:														
1926	2	2,154	2	0.31	1.86	7	1.08	0.51				9	1.39	2.37
1927	2	2,924	3	.34	2.05	8	.91	.46				11	1.25	2.51
Pennsylvania: 1926	1	1,409	1	.24	1.42	5	1.19	.43				6	1.43	1.85

Slaughtering and meat packing

Accidents for States reporting all disabilities extending beyond day of injury														
Indiana:														
1926	8	3,393	1	0.10	0.59	17	1.67	1.96	349	34.22	0.48	367	35.99	3.03
1927	9	3,083	1	.11	.65	9	.97	.32	404	43.67	.58	414	44.75	1.55
Iowa:														
1925	4	4,252				18	1.41	1.11	345	27.04	.40	363	28.45	1.51

1926	8	5,816	3	.17	1.03	15	.86	.52	625	35.92	.61	643	36.95	2.16
1927	9	5,980	4	.22	1.34	36	2.01	1.19	794	44.26	.64	834	46.49	3.17
Kansas: 1927 [2]	8	7,770				6	.26	.11	533	22.87	.27	539	23.13	.38
Kentucky:														
1926	3	216				1	1.67	6.17	64	106.67	1.11	65	108.34	7.28
1927	2	252				2	2.64	.79	44	58.15	.59	46	60.79	1.38
Maryland: 1927	2	790				10	4.22	3.33	134	56.54	.95	144	60.76	4.28
Minnesota:														
1925	2	3,236	3	.31	1.85	22	2.27	2.94	533	54.91	.91	558	57.49	5.70
1926	5	3,902				35	2.99	2.86	1,077	92.05	1.15	1,112	95.04	4.01
1927	6	3,641	3	.27	1.65	32	2.93	2.55	574	52.55	.80	609	55.75	5.00
Nebraska:														
1926	5	5,098	3	.20	1.18	13	.85	1.60	525	34.31	.36	541	35.36	2.54
1927	5	5,106	1	.07	.39	6	.39	.32	552	36.03	.45	559	36.49	1.16
New York: 1927	6	2,452	2	.27	1.63	28	3.81	4.44	185	25.14	1.07	215	29.22	7.14
North Dakota: 1927	1	70							19	89.91	1.24	19	89.91	1.24
Ohio: 1927	9	2,225	3	.45	2.70	3	.45	.92	128	19.18	.27	134	20.08	3.89
Pennsylvania: 1927	9	1,585							145	30.48	.36	145	30.48	.36
South Dakota: 1926	1	1,023	1	.32	1.95	.10	3.23	1.07	248	80.00	1.05	259	83.55	4.07
Tennessee:														
1926	3	319				2	2.00	4.49	42	42.00	.53	44	44.00	5.02
1927	3	350				1	.95	.29	27	25.69	.30	28	26.64	.59
Texas: 1927	7	2,832	1	.12	.71	3	.35	.16	267	31.43	.55	271	31.90	1.42
West Virginia:														
1926	1	42							5	50.00	.35	5	50.00	.35
1927	1	86							4	15.48	.30	4	15.48	.30
Accidents for State reporting only disabilities extending beyond five days														
Oklahoma: 1927	2	1,140	(3)			1	0.29	0.09	59	17.25	0.25	[3] 60	17.54	0.34
Accidents for States reporting only disabilities extending beyond one week														
Georgia:														
1926	1	218				2	2.86	5.49	8	11.43	0.23	10	14.29	5.72
1927	1	213							13	20.31	.42	13	20.31	.42
Illinois:														
1925	7	16,412	12	0.24	1.46	41	83	.50	767	15.58	.33	820	16.65	2.29
1926	11	22,228	7	.10	.63	105	1.57	1.61	1,142	17.12	.38	1,254	18.79	2.62
1927	8	17.806	9	.17	1.01	149	2.79	2.94	1,057	19.78	.42	1,215	22.74	4.37
Michigan:														
1926	4	930				3	1.07	1.08	64	22.86	.57	67	23.93	1.65
1927	5	1,291				2	.51	.15	59	15.24	.35	61	15.75	.50
Wisconsin:														
1926	2	1,712				11	2.16	.88	78	15.29	.33	89	17.45	1.21
1927	2	1,558	2	.43	2.57	4	.86	.32	72	15.40	.30	78	16.69	3.19

[2] Record is for 6 months only (July to December).

[3] Fatal cases not reported.

TABLE 6.—*Number of accidents and accident frequency and severity rates in specified industries, 1925, 1926, and 1927, by States*—Continued

Slaughtering and meat packing—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

State and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
Accidents for State reporting only disabilities extending beyond 10 days														
Virginia: 1926	1	53												
Accidents for State reporting only disabilities extending beyond two weeks														
Alabama:														
1926	1	47							1	10.00	0.15	1	10.00	0.15
1927	2	186							4	7.16	.27	4	7.16	.27
Accidents for States reporting only fatalities and permanent disabilities														
California: 1927	4	1,424	2	0.47	2.81	4	0.94	0.48				6	1.41	3.29
Pennsylvania: 1926	6	1,102												

Stamped and enameled ware

Accidents for States reporting all disabilities extending beyond day of injury														
Indiana:														
1925	2	588							24	13.61	0.14	24	13.61	0.14
1926	2	654				3	1.50	2.34	43	21.50	.23	46	23.00	2.57
1927	2	514				4	2.60	1.36	21	13.63	.18	25	16.23	1.54

Maryland:														
1925	1	187				1	1.79	.54				1	1.79	.54
1926	3	947				5	1.79	2.11	6	2.14	.05	11	3.93	2.16
1927	4	766				8	3.48	1.37	43	18.72	.56	51	22.20	1.93
New York: 1927	2	576				11	6.36	4.28	47	27.18	1.12	58	33.54	5.40
Ohio:														
1925	4	698				2	.95	1.00	51	24.34	.28	53	25.29	1.28
1926	4	641				7	2.85	1.56	77	29.60	.46	84	32.45	2.02
1927	9	1,330	1	0.25	1.50	11	2.76	1.99	85	21.30	.37	97	24.31	3.86
Pennsylvania: 1927	1	95							11	38.65	.44	11	38.65	.44
West Virginia:														
1926	2	606				10	5.55	2.39	49	27.22	.26	59	32.77	2.65
1927	2	2,979	1	.11	.67				27	3.02	.05	28	3.13	.72
	Accidents for States reporting only disabilties extending beyond one week													
Illinois:														
1926	2	5,462				4	0.25	0.19	29	1.76	0.04	33	2.01	0.23
1927	2	472				3	2.11	1.27	17	12.00	.26	20	14.11	1.53
Michigan: 1926	1	314				11	12.22	3.82	13	14.44	.26	24	26.66	4.08
New Jersey: [1]														
1926	2	485				8	5.33	2.47	14	9.33	.35	22	14.66	2.82
1927	2	503				8	5.30	2.48	11	7.28	.10	19	12.58	2.58
New York: 1926	3	1,170				18	5.14	4.12	79	22.57	1.45	97	27.71	5.57
Wisconsin:														
1926	1	2,773	3	0.36	2.16	12	1.44	1.00	45	5.42	.16	60	7.22	3.32
1927	1	3,010				7	.78	.45	36	3.99	.07	43	4.77	.52
	Accidents for States reporting only fatalities and permanent disabilities													
California:														
1926	2	108				1	0.33	2.31				1	0.33	2.31
1927	3	410												

Steam fittings, apparatus, and supplies

	Accidents for States reporting all disabilities extending beyond day of injury													
Indiana:														
1925	1	244							43	58.71	0.55	43	58.71	0.55
1926	2	235				3	4.29	12.32	44	62.86	.41	47	67.15	12.73
1927	1	250				1	1.33	.40	44	58.69	.57	45	60.02	.97
Kentucky:														
1926	1	3,257				3	.31	.32	718	73.26	.71	721	73.57	1.03
1927	1	3,744				2	.18	.05	573	51.01	.46	575	51.19	.51

[1] Closed cases only are reported.

TABLE 6.—*Number of accidents and accident frequency and severity rates in specified industries, 1925, 1926, and 1927, by States*—Continued

Steam fittings, apparatus, and supplies—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

State and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
Accidents for States reporting all disabilities extending beyond day of injury—Continued														
Massachusetts:														
1926	5	1,500							57	12.66	0.23	57	12.66	0.23
1927	6	1,524				2	0.44	0.13	138	30.19	.59	140	30.63	.72
Minnesota:														
1925	1	26							2	25.55	.40	2	25.55	.40
1926	1	27							2	24.69	.47	2	24.69	.47
1927	1	24				1	13.70	8.22	1	13.70	.75	2	27.40	8.97
New York: 1927	6	1,723				10	1.93	1.43	108	20.89	.69	118	28.82	2.12
Ohio:														
1925	9	666				2	1.00	.53	120	60.10	.82	122	61.10	1.35
1926	7	878				1	.38	.68	145	55.05	.67	146	55.43	1.35
1927	12	7,007	2	.10	.57	3	.14	.13	210	9.99	.15	215	10.23	.85
Pennsylvania: 1927	14	5,124				8	.52	.22	556	36.17	.40	564	36.69	.62
Accidents for States reporting only disabilities extending beyond one week														
Illinois:														
1926	4	2,085				19	3.02	2.43	153	24.28	0.63	172	27.30	3.07
1927	4	1,732				21	4.04	5.51	126	24.26	.52	147	28.30	6.03
Michigan:														
1926	3	1,003	1	0.33	1.99	2	.67	.19	33	11.00	.26	36	12.00	2.44
1927	4	897	1	.37	2.23	3	1.12	.33	37	13.75	.40	41	15.24	2.96
New Jersey: [1]														
1925	5	1,149				9	2.61	4.23	70	20.30	.56	79	22.91	4.79
1926	3	968				7	2.41	1.00	30	10.34	.28	37	12.75	1.28
1927	3	782				8	3.41	1.15	22	9.38	.23	30	12.79	1.38
New York:														
1925	4	1,458				21	4.80	4.00	100	22.86	.88	121	27.66	4.88
1926	6	1,757				20	3.77	4.17	164	30.94	1.87	184	34.71	6.04

39004°—29——8

	Accidents for States reporting only fatalities and permanent disabilities													
California:														
1926	2	76												
1927	2	43												
Pennsylvania:														
1925	24	2,669	1	0.12	0.75	6	0.75	0.26				7	0.87	1.01
1926	9	2,097	1	.16	.95	2	.32	.17				3	.48	1.12

Stoves

	Accidents for States reporting all disabilities extending beyond day of injury													
Indiana:														
1925	9	572				1	0.58	0.17	72	41.96	0.54	73	42.54	0.7
1926	8	612				2	1.11	3.59	77	42.77	.68	79	43.88	4.27
1927	8	662				2	1.00	1.21	85	42.80	.69	87	43.80	1.90
Iowa:														
1926	1	54							1	5.00	.17	1	5.00	.17
1927	1	64												
Kentucky:														
1926	2	151							27	54.00	.98	27	54.00	.98
1927	1	55							1	6.05	.33	1	6.05	.33
Maryland:														
1925	3	399							5	4.18	.14	5	4.18	.14
1926	1	380				1	.91	.66	6	5.45	.21	7	6.36	.87
1927	3	521							3	1.92	.05	3	1.92	.05
Massachusetts:														
1926	3	943				3	1.07	1.17	64	22.86	.34	67	23.93	1.51
1927	2	673				1	.50	1.48	59	29.22	.51	60	29.72	1.99
Minnesota:														
1926	2	304				7	7.77	7.84	32	35.55	.81	39	43.33	8.65
1927	2	360				9	8.33	3.61	31	28.71	.41	40	37.04	4.02
New York: 1927	3	406				2	1.64	2.71	22	18.08	1.01	24	19.72	3.72
Ohio:														
1925	8	1,753				2	.38	.48	275	52.30	.49	277	52.68	.97
1926	8	1,028				5	1.61	1.65	79	25.48	.38	84	27.09	2.03
1927	11	2,924	1	.11	.68	4	.46	.90	428	48.79	.64	433	49.36	2.22
Pennsylvania: 1927	8	901							61	22.58	.26	61	22.58	.26
Tennessee:														
1926	4	879				3	1.15	.91	245	94.23	1.22	248	95.38	2.13
1927	4	926				7	2.52	1.03	306	110.17	1.24	313	112.69	2.27
West Virginia:														
1926	1	28							1	10.00	0.65	1	10.00	0.65
1927	1	23							6	87.98	1.64	6	87.98	1.64

[1] Closed cases only are reported.

TABLE 6.—*Number of accidents and accident frequency and severity rates in specified industries, 1925, 1926, and 1927, by States*—Continued

Stoves—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

State and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure),
Accidents for States reporting only disabilities extending beyond one week														
Illinois:														
1926	6	1,387				2	0.48	0.14	0.16	3.80	0.13	18	4.28	0.27
1927	6	1,130				3	.88	1.74	13	3.83	.08	16	4.71	1.82
Michigan:														
1926	2	723	1	0.45	2.76				45	20.45	.53	46	20.90	3.30
1927	1	379	1	.88	5.28				11	9.68	.37	12	10.56	5.65
New Jersey:[1]														
1926	1	747				6	2.72	2.41	66	30.00	.83	72	32.72	3.24
1927	1	519				6	3.85	4.12	30	19.25	.42	36	23.10	4.54
New York: 1926	3	303				4	4.44	5.50	19	21.11	1.46	23	25.55	6.96
Virginia: 1927	1	51							6	39.14	.87	6	39.14	.87
Accidents for State reporting only disabilities extending beyond 10 days														
Virginia: 1926	1	73							7	35.00	0.62	7	35.00	0.62
Accidents for States reporting only fatalities and permanent disabilities														
California: 1927	2	280				3	3.58	1.85				3	3.58	1.85
Pennsylvania:														
1925	9	1,264	1	0.26	1.58							1	.26	1.58
1926	5	821	1	.40	2.43	1	.40	.30				2	.80	2.73

Structural-iron work

	Accidents for States reporting all disabilities extending beyond day of injury													
Indiana:														
1925	5	153				1	2.17	1.30	35	76.07	0.52	36	78.24	1.82
1926	5	287	2	2.22	13.92	3	3.33	13.69	86	95.55	1.54	91	101.10	29.15
1927	5	279	1	1.19	7.17	4	4.78	2.15	35	41.81	.87	40	47.78	10.19
Iowa:														
1925	1	66												
1926	1	53				2	10.00	27.21	10	20.00	3.55	12	30.00	30.76
1927	1	46							10	72.47	3.09	10	72.47	3.09
Kansas: 1927 [2]	2	428							44	34.27	.52	44	34.27	.52
Maryland:														
1926	1	235	1	b.43	8.51	2	2.86	.85	11	15.71	.31	14	20.00	9.68
1927	1	219				1	1.52	2.74	20	30.47	.37	21	31.99	3.11
Massachusetts:														
1926	2	246							9	12.86	.30	9	12.86	.30
1927	3	257				1	1.30	.39	25	32.44	.87	26	33.74	1.26
Minnesota:														
1925	2	354	2	1.88	11.29	1	.94	1.13	6	5.65	.27	9	8.47	12.69
1926	2	372				1	.91	.53	32	29.09	.48	33	30.00	1.01
1927	2	546	1	.61	3.66	1	.61	1.83	37	22.58	.33	39	23.80	5.82
Nebraska:														
1926	2	166							25	50.00	.91	25	50.00	.91
1927	2	136							11	27.01	.43	11	27.01	.43
New York: 1927	5	616				2	1.08	.32	31	16.78	1.07	33	17.86	1.39
Ohio:														
1925	16	1,419	1	.23	1.41	5	1.17	1.20	424	99.57	1.15	430	100.97	3.76
1926	8	378	9	8.18	47.59	4	3.64	2.12	185	168.18	2.86	198	180.00	52.57
1927	10	2,202	4	.61	3.63	4	.61	.18	174	26.33	.43	182	27.55	4.24
Pennsylvania: 1927	21	3,856	16	1.38	8.30	6	.52	.39	544	47.02	.54	566	48.92	9.23
Texas: 1927	3	277	1	1.20	7.21	1	1.20	.36	115	138.19	1.84	117	140.59	9.41
	Accidents for State reporting only disabilities extending beyond five days													
Oklahoma: 1927	1	117	(3)						15	42.74	0.54	[3] 15	42.74	0.54

[1] Closed cases only are reported.

[2] Record is for 6 months only (July to December).

[3] Fatal cases not reported.

TABLE 6.—*Number of accidents and accident frequency and severity rates in specified industries, 1925, 1926, and 1927, by States*—Continued

Structural-iron work—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

State and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
Accidents for States reporting only disabilities extending beyond one week														
Illinois:														
1925	3	296	1	1.13	6.76	8	9.02	9.58	29	32.69	1.11	38	42.84	17.45
1926	4	434	1	.76	4.60	7	5.38	4.14	45	34.61	1.02	53	40.75	9.76
1927	4	645	1	.52	3.10	11	5.68	5.89	52	26.87	.54	64	33.07	9.53
Michigan:														
1925	2	313				4	4.26	7.98	17	18.09	.62	21	22.35	8.60
1926	3	537	1	.62	3.72				37	23.13	1.02	38	23.75	4.74
1927	2	368				2	1.81	.54	14	12.67	.25	16	14.48	.79
New Jersey: [1]														
1925	2	100												
1926	1	8												
1927	3	218				2	3.06	3.22	12	18.39	.48	14	21.45	3.70
New York:														
1925	7	929	1	.36	2.15	11	3.95	3.78	32	11.48	.45	44	15.79	6.38
1926	6	821	5	2.00	12.17	15	6.00	4.83	44	17.60	1.27	64	25.60	18.27
Virginia: 1927	2	452				7	5.16	6.08	107	78.89	1.94	114	84.05	8.02
Wisconsin:														
1925	2	212				2	3.15	1.65	16	25.17	.57	18	28.32	2.22
1926	4	628				6	3.16	1.83	89	46.84	1.28	95	50.00	3.11
1927	4	591	1	.57	3.38	8	4.51	3.64	101	56.94	1.51	101	62.02	8.54
Accidents for State reporting only disabilities extending beyond 10 days														
Virginia: 1926	1	43				1	10.00	23.76	8	80.00	3.45	9	90.00	27.21

Accidents for States reporting only fatalities and permanent disabilities														
California:														
1926	4	466	2	1.42	8.59	3	2.14	0.96				5	3.56	9.55
1927	4	647	2	1.03	6.19	4	2.06	.98				6	3.09	7.17
Pennsylvania:														
1925	20	2,681	1	.12	.75	10	1.24	.45				11	1.36	1.20
1926	14	2,908	2	.23	1.37	18	2.07	1.10				20	2.30	2.47

Woolen goods

Accidents for States reporting all disabilities extending beyond day of injury														
Maine:														
1926	3	1,746							50	9.61	0.21	50	9.61	0.21
1927	4	3,545				1	0.09	0.03	78	7.33	.13	79	7.42	.16
Maryland:														
1926	2	377				1	.91	.66	20	18.18	.28	21	19.09	.94
1927	2	459				1	.73	.22	25	18.16	.37	26	18.89	.59
Massachusetts:														
1926	2	2,777				2	.24	.07	61	7.35	.26	63	7.59	.33
1927	1	1,859							20	3.58	.12	20	3.58	.12
New Hampshire:														
1926	5	2,392	1	0.14	0.83				104	14.44	.45	105	14.58	1.28
1927	4	741							41	18.45	.21	41	18.45	.21
New York: 1927	3	917				2	.73	1.31	12	4.36	.19	14	5.09	1.50
Ohio:														
1926	1	213							4	6.66	.28	4	6.66	.28
1927	4	2,093				2	.32	.33	74	11.79	.17	76	12.11	.50
Pennsylvania: 1927	19	6,054	1	.06	.33	4	.22	.09	186	10.24	.13	191	10.52	.55
Tennessee:														
1926	1	252							13	16.25	.15	13	16.25	.15
1927	1	128							8	20.76	.13	8	20.76	.13
Accidents for States reporting only disabilities extending beyond one week														
Georgia:														
1926	2	378				1	0.90	1.59	13	11.81	0.23	14	12.71	1.82
1927	2	388				1	.86	.26	19	16.34	.38	20	17.20	.64
Michigan:														
1926	4	694							3	1.42	.06	3	1.42	.06
1927	4	615				1	.54	.16	11	5.96	.17	12	6.50	.33
New Jersey: [1]														
1925	4	6,910				9	.43	.22	33	1.59	.06	42	2.02	.27
1926	6	3,403				17	1.66	1.91	20	1.96	.04	37	3.62	1.95
1927	6	4,945				16	1.08	1.27	26	1.75	.04	42	2.83	1.31

[1] Closed cases only are reported.

TABLE 6.—*Number of accidents and accident frequency and severity rates in specified industries, 1925, 1926, and 1927, by States*—Continued

Woolen goods—Continued

[Where no figures are shown no accidents occurred. California reported no *temporary* disabilities, and Pennsylvania reported none for 1925 and 1926]

State and year	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)	Number of cases	Frequency rate (per 1,000,000 hours' exposure)	Severity rate (per 1,000 hours' exposure)
Accidents for States reporting only disabilities extending beyond one week—Continued														
New York: 1926	4	1,092				5	1.51	1.67	31	9.39	0.77	36	10.90	2.44
Virginia: 1927	2	435							4	3.06	.07	4	3.06	.07
Wisconsin:														
1926	2	155							8	1.60	.32	8	1.60	.32
1927	2	493							7	4.74	.13	7	4.74	.13
Accidents for State reporting only disabilities extending beyond 10 days														
Virginia: 1926	2	446							3	2.30	0.06	3	2.30	0.06
Accidents for States reporting only permanent disabilities and fatalities														
California:														
1926	2	191												
1927	1	141												
Pennsylvania:														
1925	21	5,772	1	0.06	0.35	4	0.23	0.26				5	0.29	0.61
1926	13	3,850				6	.52	.69				6	.52	.69
Grand total:														
1925	1,282	555,996	171			2,047			21,496			23,714		
1926	2,209	991,082	370			4,090			44,041			48,501		
1927	2,676	1,075,282	459			3,949			57,072			61,480		

ACCIDENTS IN SPECIFIED INDUSTRIES, CLASSIFIED BY NATURE OF INJURY, 1927

Table 7 analyzes the accident data by nature of injury and extent of disability and covers only the year 1927. Here no frequency and severity rates are given. While these rates are desirable if a detailed study is to be made, for example, of the relative importance of the loss of an arm and the loss of an eye, the demand for information of this character does not appear to justify the time and space required to compute and publish these statistics. Should a sample exhibit of this kind be desired, reference is made to the Labor Review for January, 1928 (p. 73), where such information for the year 1926 is published.

TABLE 7.—*Number of accidents in 1927 in specified industries resulting in death, permanent disability, or temporary disability beyond day of injury, by nature of injury*

Industry	Death [1]	Permanent partial disability [2]																	
		Loss of 1 arm	Loss of 1 hand	Loss of 1 leg	Loss of 1 foot	Loss of 1 eye	Loss of 1 thumb	Loss of 1 finger	Loss of 2 fingers	Loss of 3 fingers	Loss of 4 fingers	Loss of thumb and 1 finger	Loss of thumb and 2 fingers	Loss of thumb and 3 fingers	Loss of thumb and 4 fingers	Loss of great toe	Loss of any 2 toes	Other	Total
Agricultural implements	7	1	3		3	5	3	20	11	3	1	3	2			2	1	22	80
Automobiles	68	5	32	4	7	56	80	417	72	32	14	8	4	1	1	25	13	22	793
Automobile tires	8	2	3		2	1	6	34	6	3	2	2	2		1	5		3	72
Boots and shoes	1	2	7			5	11	50	3	2		2				1		3	86
Brick	12	2	6		2	5		17	3	2			1			3	2	11	54
Carpets	1		3		1		1	8									1	1	15
Chemicals	18	3	2	1	5	3	5	27	2		1		1			2		21	73
Cotton goods	13	4	8		2	6	6	61	16	6	1			1	1	2	1	1	116
Electrical machinery	12	7	19	2	6	12	30	126	21	8		5	1			13	5	16	271
Fertilizers	7		1	3	2	3	2	8	2	3	1					2		3	30
Flour	6		3				5	16	2				1					1	28
Foundry and machine-shop products	49	7	31	14	27	31	48	256	45	11	6	8	3			44	11	62	604
Furniture	7	1	12		3	9	39	88	26	7	2	6				2	1	13	209
Glass	15		2	1	3	3	6	16			2						1		34
Hardware	1	2	3		3	2	6	23	6			2		1		1		3	51
Leather	5		8	1	2	2	3	24	3	6			1				1	13	64
Lumber—Planing mills	22	3	6	3	2	8	15	47	8	8	2	5		1	1	4	1	26	140
Lumber—Sawmills	54	4	10	10	10	21	17	87	19	8	2	2	1			3	10	19	223
Machine tools	5	2	1	2	1	3	2	23	3	1		1				2		10	51
Paper and pulp	28	5	16	1	3	5	14	81	5	3		1				4	3	14	155

[1] Fatal cases not reported in Oklahoma.

[2] Amputation between the knee and the ankle or between the elbow and the wrist is considered as loss of foot or hand; at or above the knee or elbow, as loss of a leg or an arm. Loss of a phalanx, permanent malformation, or permanent stiffness of a joint is regarded as loss of a member.

TABLE 7.—*Number of accidents in 1927 in specified industries resulting in death, permanent disability, or temporary disability beyond day of injury, by nature of injury*—Continued

Industry	Death	Permanent partial disability																
		Loss of 1 arm	Loss of 1 hand	Loss of 1 leg	Loss of 1 foot	Loss of 1 eye	Loss of 1 thumb	Loss of 1 finger	Loss of 2 fingers	Loss of 3 fingers	Loss of 4 fingers	Loss of thumb and 1 finger	Loss of thumb and 2 fingers	Loss of thumb and 3 fingers	Loss of thumb and 4 fingers	Loss of great toe	Loss of any 2 toes	Other	Total
Petroleum refining	41	6	8	8	8	8	10	62	15	2	----	2	----	----	----	5	4	40	178
Pottery	3	----	1	----	1	1	1	6	----	----	----	----	----	----	----	1	----	2	13
Shipbuilding steel	13	5	----	----	5	7	6	29	3	----	----	1	----	----	----	3	2	13	74
Slaughtering and meat packing	28	6	20	4	8	7	21	98	36	7	7	7	2	----	1	3	1	67	295
Stamped and enameled ware	2	----	1	----	1	----	6	31	6	3	1	1	----	----	----	1	----	1	52
Steam fittings, apparatus, and supplies	3	1	----	1	1	5	7	23	5	3	2	1	1	----	----	3	1	5	59
Stoves	2	----	5	1	1	2	6	13	3	----	1	----	----	----	----	1	----	4	37
Structural ironwork	27	1	1	----	2	7	9	18	4	----	----	1	----	----	----	1	1	9	54
Woolen goods	1	1	2	----	2	1	3	13	3	----	1	----	----	----	----	----	----	2	28
Total	459	70	213	56	113	218	368	1,722	328	118	46	58	20	4	5	133	60	407	3,939

Industry	Permanent total disability [2]							Grand total permanent partial and total disability	Temporary disability [3] terminating in—								
	Loss of both arms	Loss of both legs	Loss of both hands	Loss of both feet	Loss of both eyes	Other	Total		First week [4]	Second week [5]	Third week	Fourth week	Fifth week	Sixth to thirteenth week	Fourteenth week or later	Duration of disability not known	Total temporary disability
Agricultural implements	----	----	----	----	----	----	----	80	222	245	163	100	59	114	11	31	945
Automobiles	----	----	----	----	----	1	1	794	743	1,994	1,235	674	444	984	209	60	6,343
Automobile tires	----	----	----	----	----	----	----	72	1,135	826	726	397	248	482	25	2	3,841
Boots and shoes	----	----	----	----	----	----	----	86	327	259	160	67	49	114	30	17	1,023
Brick	----	----	----	----	----	----	----	54	449	415	473	139	90	112	24	27	1,729
Carpets	----	----	----	----	----	----	----	15	33	86	65	19	10	11	18	----	242
Chemicals	----	----	----	----	----	----	----	73	80	199	140	74	55	98	25	24	695
Cotton goods	----	----	----	----	----	----	----	116	834	564	431	267	197	423	75	17	2,808
Electrical machinery	----	----	----	----	----	3	3	274	644	736	546	262	208	402	134	47	2,979
Fertilizers	----	----	----	----	----	----	----	30	57	125	115	32	14	68	8	12	431
Flour	----	----	----	----	----	----	----	28	192	115	73	40	31	48	18	24	541

Foundry and machine shop products				1	1	1	3	607	2,020	2,179	1,545	733	481	749	212	105	8,024
Furniture								209	523	477	314	148	79	152	28	45	1,766
Glass								34	797	717	392	157	78	147	16	10	2,314
Hardware								51	67	150	99	35	22	28	6	9	416
Leather								64	289	367	221	103	60	110	14	11	1,175
Lumber, planing mills						2	2	142	174	245	153	103	63	171	54	31	994
Lumber, sawmills								223	460	884	662	494	301	534	127	110	3,572
Machine tools								51	306	210	131	77	82	79	15	10	910
Paper and pulp								155	712	621	396	255	140	313	102	62	2,610
Petroleum refining								178	934	460	274	149	91	190	59	71	2,226
Pottery								13	81	94	62	33	19	35	5		329
Shipbuilding, steel								74	313	242	179	96	55	122	32	13	1,052
Slaughtering and meat packing						1	1	296	1,452	1,442	850	426	242	414	79	169	5,074
Stamped and enameled ware								52	67	71	58	34	16	34	13	5	298
Steam fittings, apparatus, and supplies								59	771	436	282	105	62	128	22	9	1,815
Stoves								37	444	229	143	71	80	81	10	4	1,062
Structural-iron work								54	360	363	281	114	74	103	31	21	1,347
Woolen goods								28	113	148	131	41	28	44	4	2	511
Total				1	1	8	10	3,949	14,599	14,899	10,300	5,243	3,387	6,290	1,406	946	57,072

[2] Amputation between the knee and the ankle or between the elbow and the wrist is considered as loss of foot or hand; at or above the knee or elbow, as loss of a leg or an arm. Loss of a phalanx, permanent malformation, or permanent stiffness of a joint is regarded as loss of a member.

[3] No temporary disabilities reported by California.

[4] The following States do not report temporary disabilities ending in the first week (see notes 3 and 5): Alabama, California, Georgia, Illinois, Michigan, New Jersey, New York, Oklahoma (only those over five days are included), Virginia, Wisconsin.

[5] Covers all States included in this report except Alabama and California.

Chapter IV.—ACCIDENT EXPERIENCE IN THE IRON AND STEEL INDUSTRY TO THE END OF 1927

The first attempt of the bureau at a complete presentation and statistical analysis of accident data in any industry was in Senate Document 110 (62d Cong., 1st sess.), published in 1913, which gave the results of a detailed study of accidents and accident prevention in the iron and steel industry. This record was brought down to date in Bulletins 234 and 298 of the bureau. Since 1910 accident records in this industry have been collected annually and published from time to time, although an exhaustive analysis of these figures has not been made since that included in Bulletin 298, which was issued in June, 1922, and presents the record in detail to the end of 1919. Data for a further critical study are now being assembled covering the 10-year period since 1919. In the present report there is included only a brief review of the accident records of the industry and of its various departments, with a limited analysis of accident causes for the entire period of the bureau's investigations down to the end of the year 1927.

ACCIDENT EXPERIENCE OF SELECTED PLANTS, 1907 TO 1927

For the purposes of this annual review the data available are presented in two groups. The first group is composed of the plants which were pioneers in accidents prevention and have maintained from year to year a continuous and energetic effort to reduce their accident rates. The second group includes all plants from which information could be obtained, including the selected plants in the first group. Table 8 presents the facts for the selected group from 1913 to 1927.

TABLE 8.—*Accident frequency rates (per 1,000,000 hours' exposure) for a selected group of iron and steel plants, 1913 to 1927, by product and year*

Year	Fabricated products	Sheets	Wire and products	Tubes	Miscellaneous steel products		Total
					Group A	Group B	
1913	100.3	61.6	59.3	27.2	70.9	41.3	60.3
1914	59.0	47.2	46.2	12.5	50.7	27.6	43.5
1915	53.5	37.3	52.4	10.8	51.9	23.0	41.5
1916	52.1	34.0	48.2	12.4	67.6	28.2	44.4
1917	51.3	33.9	32.5	10.2	51.3	20.5	34.5
1918	38.2	25.9	18.8	9.1	42.0	31.4	28.8
1919	32.8	25.8	12.5	9.1	39.7	23.0	26.1
1920	35.3	22.7	12.0	8.9	35.3	18.6	22.9
1921	28.4	17.5	7.5	6.1	15.8	12.1	13.2
1922	33.8	16.9	7.9	7.1	14.5	10.8	13.0
1923	32.6	17.2	7.9	7.0	13.9	9.8	12.7
1924	33.4	10.3	6.2	5.1	11.8	7.9	10.2
1925	27.4	11.4	4.2	4.0	9.8	3.7	8.2
1926	24.3	9.4	3.9	3.6	6.6	3.8	6.8
1927	18.0	8.4	3.5	2.5	5.1	2.7	5.3

It will be observed that there is a continuous and considerable decline in the rates in each of the processes covered by the table. The degree of this change for the better will be more evident if the

year 1913 be compared with 1927, the decline between these two years being as follows: Fabricated products from 100.3 to 18; sheets from 61.6 to 8.4; wire and its products from 59.3 to 3.5; tubes from 27.2 to 2.5; miscellaneous steel products, group A, from 70.9 to 5.1; miscellaneous steel products, group B, from 41.3 to 2.7; all processes from 60.3 to 5.3.

Table 9 presents the same data as that in Table 8 from the standpoint of accident causes:

TABLE 9.—*Accident frequency rates (per 1,000,000 hours' exposure) for a selected group of iron and steel plants, 1913 to 1927, by year and cause*

Accident cause	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
Machinery	7.3	5.0	4.9	5.4	4.5	4.0	3.3	3.4	1.8	2.2	2.3	2.0	1.6	1.5	1.3
Working machines	3.8	2.7	2.6	2.6	2.0	1.8	1.4	1.5	.8	1.1	1.0	.8	.7	.7	.5
Caught in	2.5	1.8	1.7	1.7	1.2	1.1	.9	1.0	.6	.8	.7	.6	.5	.5	.4
Breakage	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	(1)	(1)	(1)	(1)	(1)
Moving material in	1.2	.8	.8	.8	.7	.6	.4	.4	.1	.3	.2	.2	.2	.2	.1
Cranes, etc	3.5	2.3	2.3	2.8	2.5	2.2	1.9	1.9	1.0	1.2	1.3	1.2	.9	.9	.8
Overhead	2.8	1.9	2.0	2.5	2.2	1.9	1.6	1.5	.8	1.0	1.1	.9	.7	.7	.6
Locomotive	.3	.2	.2	.2	.2	.2	.2	.2	.2	.1	.1	.1	.1	.1	.1
Other hoisting apparatus	.4	.2	.1	.1	.1	.1	.1	.2	.1	.1	.1	.1	.1	.1	.1
Vehicles	2.3	1.9	1.6	1.7	1.7	1.3	1.2	.1	.5	.4	.6	.5	.3	.3	.2
Hot substances	5.4	3.6	3.7	4.5	3.6	3.0	2.8	2.5	1.2	1.1	1.2	.9	.6	.5	.4
Electricity	.5	.4	.2	.4	.3	.3	.2	.3	.1	.1	(1)	.1	(1)	.1	(1)
Hot metal	3.6	2.1	2.3	3.0	2.5	2.1	2.0	1.8	.8	.7	.9	.6	.4	.4	.3
Hot water, etc	1.3	1.1	1.2	1.1	.8	.6	.6	.4	.2	.3	.2	.2	.1	.1	.1
Falls of persons	4.5	4.1	3.5	3.7	3.2	2.8	2.8	2.5	1.7	1.5	1.4	1.4	1.1	1.0	.7
From ladders	.3	.1	.1	.1	.1	.2	.1	.1	.1	.1	.1	.1	(1)	.1	(1)
From scaffolds	.2	.2	.2	.2	.3	.2	.2	.2	.1	.1	.1	.1	.1	.1	.1
Into openings	.2	.1	.1	.3	.2	.1	.1	.1	.1	(1)	.1	(1)	(1)	(1)	(1)
Due to insecure footing	3.8	3.7	3.1	3.1	2.6	2.3	2.3	2.1	1.4	1.3	1.1	1.1	.9	.8	.6
Falling material not otherwise specified	1.2	.7	.7	.6	.4	.3	.4	-----	.1	.1	.1	.1	.1	.1	(1)
Handling	26.7	19.4	20.6	21.5	15.7	12.8	11.7	10.4	6.5	5.8	5.5	3.9	3.4	2.9	2.0
Dropped in handling	11.2	7.3	7.6	8.4	6.1	5.5	5.0	4.4	2.6	2.6	2.3	1.9	1.5	1.2	.9
Caught between	3.4	2.6	2.6	3.1	2.1	1.7	1.7	1.3	.7	.7	.7	.5	.4	.3	.2
Trucks	1.9	1.0	1.4	1.4	1.2	.9	.7	.6	.5	.4	.4	.2	.2	.2	.1
Lifting	2.5	2.3	2.5	2.5	2.0	1.4	1.4	1.1	.8	.8	.5	.3	.3	.3	.2
Flying from tools	.2	.2	.1	.1	.1	.1	.1	.1	.1	.1	.1	(1)	(1)	(1)	(1)
Sharp points and edges	3.8	3.4	3.8	3.1	2.2	1.5	1.3	1.5	1.1	.6	.6	.3	.4	.4	.3
Tools	3.7	2.6	2.6	2.9	2.0	1.7	1.4	1.4	.8	.7	.8	.6	.5	.5	.3
Miscellaneous	12.9	8.8	6.5	7.0	5.4	4.6	4.1	3.1	1.3	1.9	1.8	1.6	1.1	.4	.6
Asphyxiating gas	.3	.2	.1	.1	.1	.1	.2	.1	.5	(1)	.1	(1)	(1)	(1)	(1)
Flying, not striking eye	.8	.6	.6	.5	.4	.5	.3	.3	.2	.1	.3	.2	.1	.1	.1
Flying, striking eye	2.9	2.1	1.7	1.9	1.6	1.6	1.3	1.1	.5	.4	.2	.3	.2	.1	.1
Heat	.9	.8	.4	.4	.1	.2	.1	.1	.1	.1	(1)	.1	(1)	(1)	(1)
Other	8.0	5.1	3.7	4.1	3.2	2.2	2.2	1.5	.6	1.3	1.1	1.0	.8	.2	.3
Grand total	60.3	43.5	41.5	44.4	34.5	28.8	26.3	22.0	13.3	13.0	12.8	10.2	8.2	6.8	5.3

[1] Less than one-tenth of 1 per cent.

It is quite possible for an unsatisfactory condition to be concealed in some portion of an experience which had been inadequately analyzed. To determine whether accident reduction effort had been effective in all phases of the various processes, rates were determined for the causes of accident. This brought out the pervasive character of the accident-prevention efforts and also served to indicate the relative importance of the causes. One rather striking fact comes to light in this presentation—namely, that machinery still has a degree of importance as a cause of accident. It has been quite customary to regard the machine as being now so well guarded as to be almost nonhazardous. The table shows that while the machine is now much

less of a menace than formerly it has not gained in safety as compared with other causes.

The foregoing represents the high-water mark thus far attained in controlling the accident situation in the iron and steel industry. Attention will now be given to the industry as a whole.

THE INDUSTRY AND ITS DEPARTMENTS

Table 10 presents the facts for such departments as could be treated in the manner shown. Accident frequency and severity are shown by means of a 5-year moving average; that is, each year is considered as ending a 5-year period. For example, for the five years ending with 1911 all the departments shown in the table have an average frequency rate of 69.2 and a severity rate of 5. When the 5-year period ending in 1927 is reached the frequency rate has dropped to 24.7 and the severity rate to 2.4 The decline is remarkably regular. This makes more conspicuous the unfortunate exception in the foundries. It is clear from the experience of some of the foundry companies and of certain individual plants that it is possible to conduct foundry operations just as safely as any other branch of the iron and steel industry. It is therefore disappointing to find that, from year to year, when rates are calculated, the foundries show little or no improvement.

TABLE 10.—*Accident rates in the iron and steel industry, by department and period*

Period	All departments	Blast furnaces	Bessemer converters	Open hearth	Foundries	Heavy-rolling mills	Plate mills	Sheet mills
	Frequency rates (per 1,000,000 hours' exposure)							
1907–1911	69.2	76.1	101.5	84.2	60.1	61.0	69.4	44.1
1908–1912	65.1	67.7	79.5	79.5	61.5	57.0	60.8	47.9
1909–1913	62.1	62.4	92.3	78.6	65.1	51.7	55.9	49.1
1910–1914	59.2	62.3	89.8	75.0	63.6	46.1	49.9	51.1
1911–1915	53.3	50.3	65.0	67.6	59.3	39.4	44.7	48.1
1912–1916	51.3	47.8	76.1	64.8	57.8	37.3	41.5	47.4
1913–1917	48.2	41.4	68.3	58.4	60.4	32.1	36.6	41.3
1914–1918	43.6	40.5	60.7	53.5	57.0	31.1	39.8	35.8
1915–1919	41.5	39.0	57.7	50.5	61.0	32.4	39.2	32.7
1916–1920	41.1	38.0	53.1	50.2	61.0	31.4	38.4	33.7
1917–1921	39.5	36.3	47.0	44.8	63.1	29.9	37.6	33.4
1918–1922	36.5	34.0	39.9	41.3	60.4	27.6	36.7	35.2
1919–1923	34.9	32.9	30.5	33.0	61.7	23.8	31.4	37.2
1920–1924	33.6	30.7	24.9	32.9	62.7	21.2	29.4	35.1
1921–1925	31.3	29.0	17.0	29.9	63.1	18.1	26.8	33.2
1922–1926	29.9	28.7	16.7	28.3	62.8	16.6	25.6	30.6
1923–1927	24.7	24.6	13.5	22.9	55.1	13.2	19.2	22.9
	Severity rates (per 1,000 hours' exposure)							
1907–1911	5.0	10.6	7.6	7.5	2.7	4.4	5.1	3.1
1908–1912	4.3	8.8	7.4	6.6	3.1	4.2	4.1	2.8
1909–1913	4.4	8.3	6.7	6.8	3.5	4.0	3.8	3.0
1910–1914	4.1	7.0	6.4	6.6	3.6	3.6	3.9	2.6
1911–1915	3.6	6.2	5.3	5.8	3.3	3.4	3.1	2.2
1912–1916	3.7	5.8	6.1	5.5	3.1	3.5	2.8	2.3
1913–1917	3.7	5.6	7.1	5.1	3.3	3.6	2.6	2.1
1914–1918	3.5	5.4	7.3	5.8	3.2	3.4	2.6	1.8
1915–1919	3.6	5.8	6.9	6.5	3.4	3.9	2.5	1.5
1916–1920	3.5	5.7	6.3	6.3	3.2	3.5	2.6	1.8
1917–1921	3.4	5.7	5.4	5.8	3.2	3.3	2.5	1.7
1918–1922	3.1	5.5	4.2	5.3	2.7	2.9	2.5	1.8
1919–1923	3.0	5.0	3.2	4.2	2.7	2.4	2.4	1.9
1920–1924	2.8	4.5	2.6	4.2	2.8	2.3	2.4	2.1
1921–1925	2.7	4.6	3.2	4.0	3.1	2.6	2.6	1.9
1922–1926	2.8	4.7	4.0	4.6	3.2	2.6	2.6	1.8
1923–1927	2.4	4.1	3.7	4.3	2.9	2.4	2.2	1.0

The trend of accident frequency and severity in the industry as a whole and in the various departments thereof, as shown by the experience in the three 5-year periods from 1910 to 1924 and in the 3-year period from 1925 to 1927, is next presented. The 3-year period is brought into comparison with the three 5-year periods in order to show the almost universal downward trend of accident rates in representative departments in the industry more accurately than would be accomplished if the records for 1925, 1926, and 1927 were brought into comparison as separate years. A statistical picture of a group of years is always more satisfactory in a historical presentation of accident data than a record giving each year by itself, because the inequalities produced by unusual circumstances, such as a catastrophic occurrence, are smoothed out where a group of years is utilized.

It will be noted that the periods are consecutive and not overlapping, as in Table 10. Since the rates for these four periods are, on account of the greater volume of accident cases included, more reliable than the annual record they will be made the basis of comment, as will also the situation in 1926 and 1927.

Charts showing the accident trend from 1910 to 1927 for the industry as a whole and for four selected departments are also presented. These charts indicate the trend of accident frequency and severity rates as expressed by index numbers, using the year 1910 as the base, or 100. Because of the difference in the method of determining these rates, the one in terms of a million man-hours and the other in terms of a thousand man-hours, the charting thereof would require a scale that is too extended to be practicable here. The reduction of these rates to index numbers avoids this difficulty, and the method shows very clearly the relative changes in the two rates.

THE INDUSTRY

The following figures show the downward trend in frequency and severity rates for the industry as a whole:

	Frequency rate	Severity rate
1910–1014	59. 2	4. 1
1915–1919	41. 6	3. 6
1920–1924	33. 6	2. 8
1925–1927	24. 5	2. 5

In 1926 frequency declined and severity increased; in 1927 both frequency and severity rates declined.

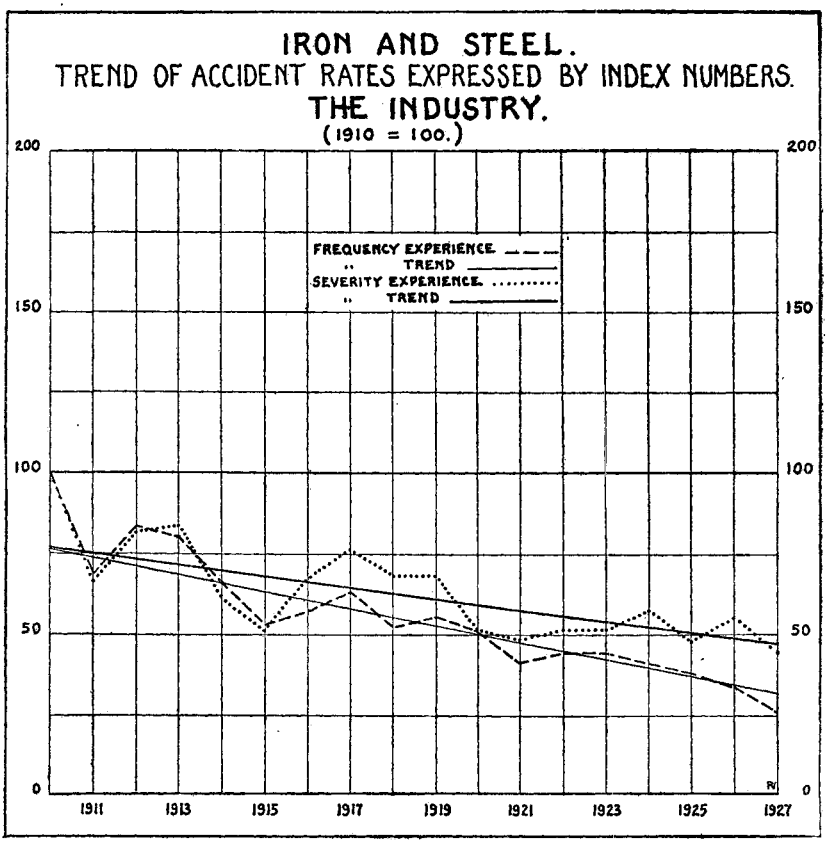
Chart 1 indicates the trend of accident rates in the industry as a whole. It will be noticed that the downward trend, which appears both in frequency and severity, is more pronounced in frequency. This relation, which is indicated in each chart except that for foundries, is almost an invariable rule.

BLAST FURNACES

The blast furnaces have a deserved reputation for hazard. If an extradangerous operation like this can show such improvement as that indicated by the rates below, any department should be able to improve its record.

	Frequency rate	Severity rate
1920–1914	62. 3	7. 0
1915–1919	39. 0	6. 1
1920–1924	30. 7	4. 5
1925–1927	24. 4	4. 3

CHART 1



In 1926 both rates rose slightly and in 1927 frequency dropped sharply while severity remained stationary.

BESSEMER CONVERTERS

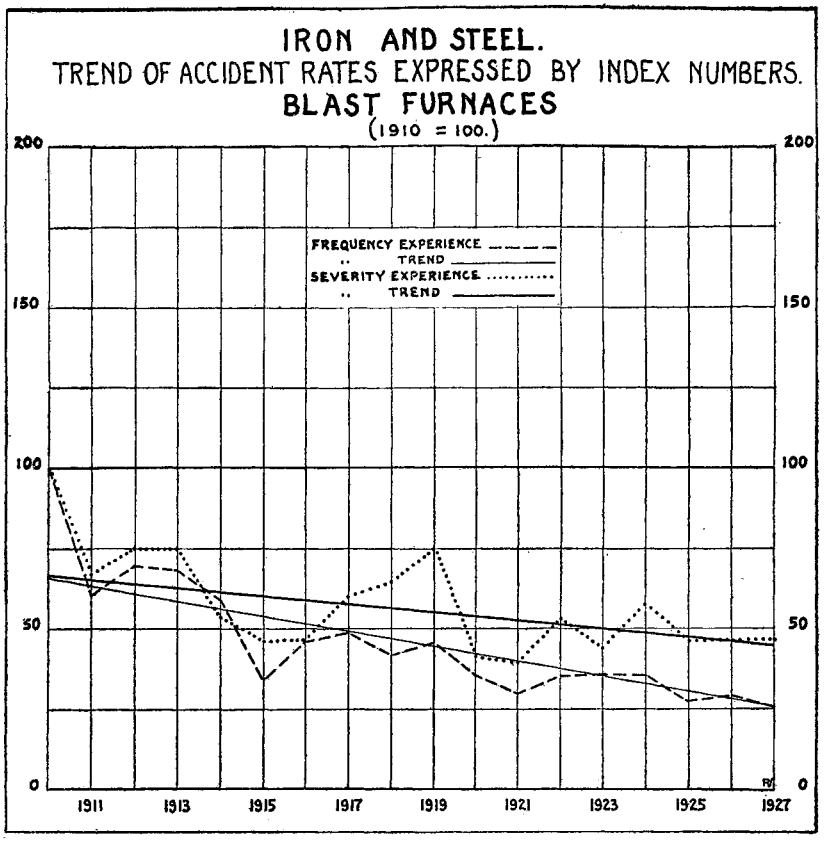
In 1926 both frequency and severity rates rose, while in 1927 both rates went down sharply. This is rather characteristic of the Bessemer operations. They are of a nature particularly difficult to safeguard. This erratic tendency is aggravated by the fact that the exposure in this instance is rather small. The rates for the four periods are as follows:

	Frequency rate	Severity rate
1910–1914	89. 8	6. 4
1915–1919	57. 7	6. 9
1920–1924	24. 9	2. 6
1925–1927	10. 4	4. 9

OPEN-HEARTH FURNACES

Open-hearth furnaces show a drop in frequency rates of about 30 per cent in each period, while severity rates also declined in each period except the last. In 1926 frequency declined, while severity sharply increased; in 1927 a marked decline occurred in both rates.

CHART 2



	Frequency rate	Severity rate
1910–1914	75. 0	6. 6
1915–1919	50. 5	6. 5
1920–1924	32. 9	4. 2
1925–1927	22. 1	4. 7

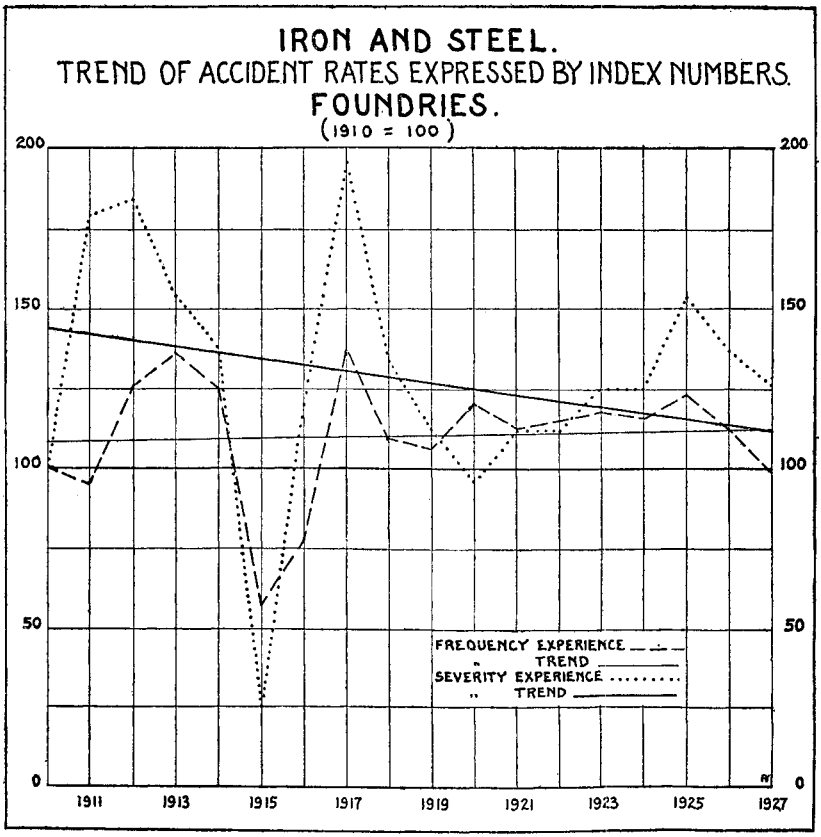
FOUNDRIES

On the whole the foundries have not kept pace with the other departments of the industry as regards reduction of accidents. This is the more disappointing when it is observed that some foundry organizations have made excellent records. The rates in 1926 and in 1927 declined only slightly and during the four periods very little improvement is shown

	Frequency rate	Severity rate
1910–1914	63. 6	3. 6
1914–1919	61. 0	3. 4
1920–1924	62. 7	2. 8
1925–1927	60. 1	3. 2

The upward trend of severity rates as compared to the sharp downward trend of frequency rates is brought out in the following chart:

CHART 3



HEAVY ROLLING MILLS

The 18 years which are under consideration include the war period with its extraordinary demands upon the industry. There can be no doubt that under such industrial stress there is a strong tendency to rising accident rates. It is very probable that in this case changes which were made in these mills, in order to meet the situation created by the war, were a considerable factor in a reduced hazard. With the calling of many workers into war service it became necessary to substitute mechanical devices for the manual power which had before been used. In the development of machine design attention was given to safety of operation, with the result that in many cases the tendency to rising rates was held in check.

In the following rates it will be noted that during the period covering the World War, 1915 to 1919, a marked decline occurred in the frequency rate (29.7 per cent), with but slight advance in the severity rate.

	Frequency rate	Severity rate
1910–1914	46. 1	3. 6
1915–1919	32. 4	3. 9
1920–1924	21. 2	2. 3
1925–1927	12. 3	2. 5

In 1926 both rates dropped, and in 1927 a further decline occurred.

CHART 4

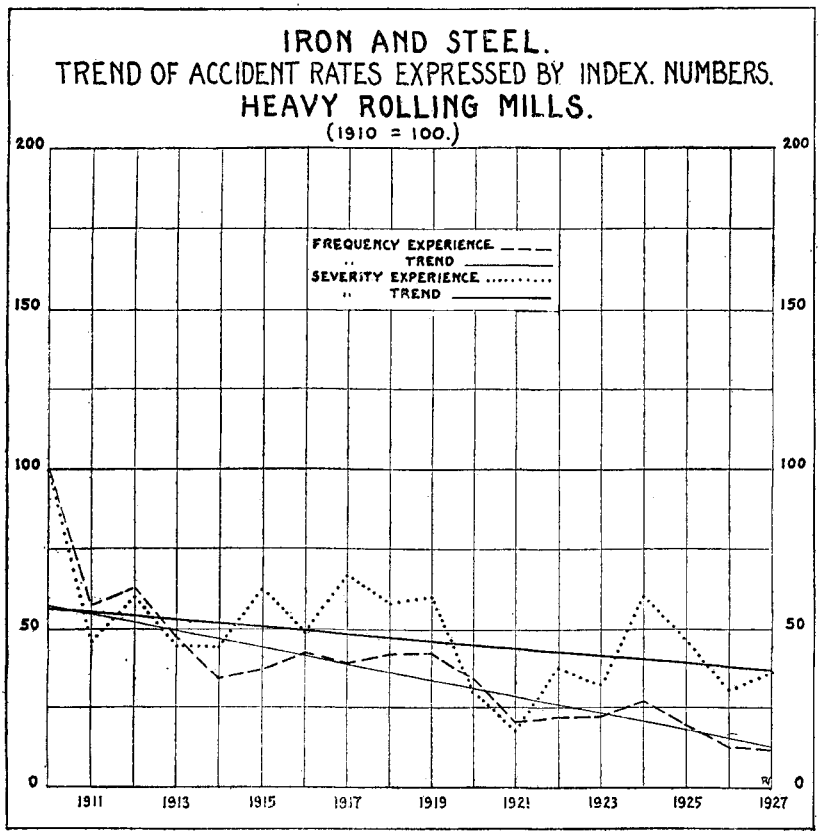


PLATE MILLS

In the plate mills in 1926 and again in 1927 a decline of both rates occurred. The plate mills have shown about as regular a lowering of the rates as has happened in any of the departments which have been covered.

	Frequency rate	Severity rate
1910–1914	49. 9	3. 9
1915–1919	39. 2	2. 5
1920–1924	29. 4	2. 4
1925–1927	17. 5	2. 4

SHEET MILLS

In 1926 both rates declined and in 1927 there was a further sharp reduction. The rates for the four periods are as follows:

	Frequency rate	Severity rate
1910–1914	51. 1	2. 6
1915–1919	32. 7	1. 5
1920–1924	35. 1	2. 1
1925–1927	23. 4	1. 3

TUBE MILLS

In 1926 frequency slightly increased and severity declined somewhat; in 1927 the reverse was the case. These changes are not sufficient to be of great significance. An abrupt drop in the frequency rate is noted in the 3-year period.

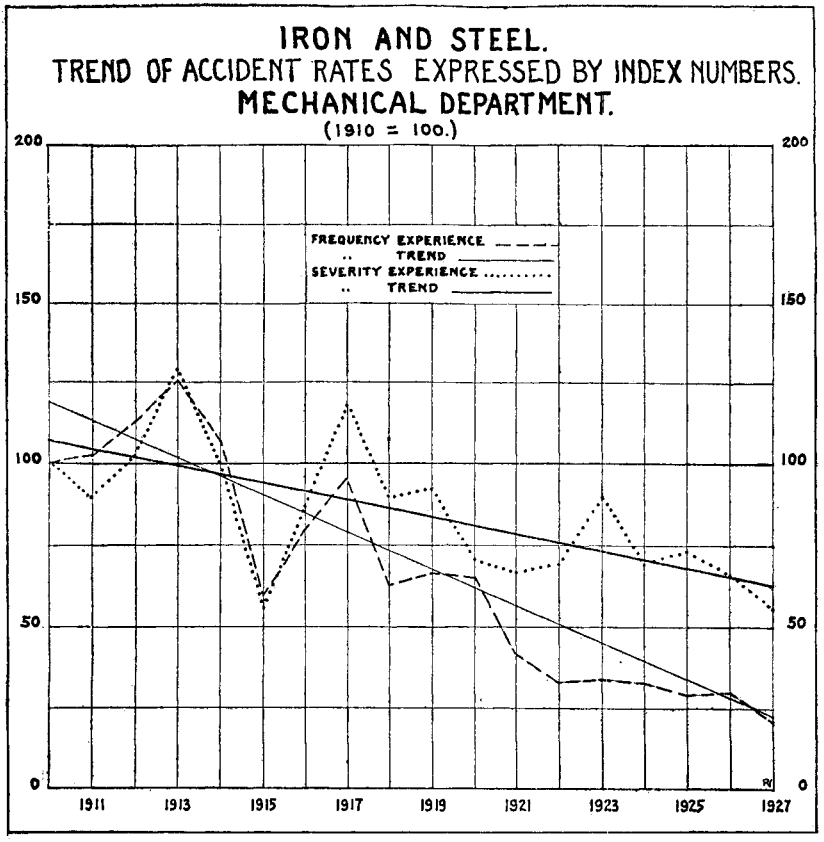
	Frequency rate	Severity rate
1910–1914	40. 5	2. 2
1915–1919	22. 4	1. 8
1920–1924	22. 7	1. 9
1925–1927	16. 2	1. 7

MECHANICAL DEPARTMENT

Frequency rose slightly in 1926 and declined rather sharply in 1927. Severity declined in both years. There is a reduction in frequency rate of 75.4 per cent in the period from 1925 to 1927 as compared with the first 5-year period; and a drop of 37.5 per cent in the severity rate.

	Frequency rate	Severity rate
1910–1914	62. 7	4. 0
1915–1919	41. 3	3. 5
1920–1925	23. 7	2. 8
1925–1927	15. 4	2. 5

CHART 5



ACCIDENTS AND ACCIDENT RATES, BY YEAR AND PERIOD

The foregoing gives an idea of the trend of events in the iron and steel industry to the close of 1927. Those interested in further details will find them in Table 11, which presents the experience of the industry and its departments by years and also for the four periods.

TABLE **11.**—*Accidents and accident rates in the iron and steel industry, 1907 to 1927, by department, year, and period*

THE INDUSTRY

Year or period	Full-year workers	Number of cases				Frequency rates (per 1,000,000 hours' exposure)				Severity rates (per 1,000 hours' exposure)			
		Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total
1907	27,632	61	106	6,530	6,697	0.7	1.3	78.8	80.8	4.4	1.7	1.1	7.2
1910	202,157	327	848	44,108	45,283	.5	1.4	72.7	74.7	3.2	1.2	.8	5.2
1911	231,544	204	931	34,676	35,811	.3	1.3	49.9	51.5	1.8	1.1	.6	3.5
1912	300,992	348	1,241	54,575	56,164	.4	1.4	60.4	62.2	2.3	1.1	.8	4.2
1913	319,919	426	1,200	55,556	57,182	.4	1.3	57.9	59.6	2.7	.9	.7	4.3
1914	256,299	219	860	37,390	38,469	.3	1.1	48.6	50.0	1.7	.9	.6	3.2
1915	116,224	87	372	13,481	13,940	.2	1.1	38.7	40.0	1.5	.7	.5	2.7
1916	166,646	159	728	20,655	21,542	.3	1.4	41.3	43.0	1.9	1.0	.6	3.5
1917	410,852	523	1,268	57,094	58,885	.4	1.0	46.3	47.7	2.5	.9	.6	4.0
1918	474,435	543	1,253	54,293	56,089	.4	.9	38.1	39.4	2.3	.8	.5	3.6
1919	377,549	419	848	41,009	42,276	.4	1.0	40.2	41.6	2.2	.8	.6	3.6
1920	442,685	327	1,084	49,482	50,893	.2	.8	37.3	38.3	1.5	.8	.4	2.7
1921	237,094	156	527	21,279	21,962	.2	.7	29.9	30.8	1.3	.7	.5	2.5
1922	335,909	236	878	32,120	33,234	.2	.9	31.9	33.0	1.4	.8	.5	2.7
1923	434,693	314	1,188	41,766	43,268	.2	.9	32.1	33.2	1.4	.8	.5	2.7
1924	389,438	312	1,133	34,481	35,920	.3	1.0	29.5	30.8	1.6	.9	.5	3.0
1925	443,158	277	1,091	36,404	37,772	.2	.8	27.3	28.3	1.2	.8	.4	2.5
1926	436,261	322	1,202	31,420	32,944	.2	.9	24.2	25.3	1.7	.8	.4	2.9
1927	395,707	245	1,033	22,060	23,338	.2	.9	18.6	19.7	1.2	.8	.3	2.3
1910–1914	1,310,911	1,524	5,080	226,305	232,954	.4	1.3	57.5	59.2	2.3	1.1	.7	4.1
1915–1919	1,545,706	1,731	4,469	186,532	192,732	.4	1.0	40.2	41.6	2.2	.8	.6	3.6
1920–1924	1,839,818	1,345	4,810	179,128	185,277	.2	.9	32.5	33.6	1.5	.8	.5	2.8
1925–1927	1,275,126	844	3,326	89,884	94,054	.2	.9	23.4	24.5	1.3	.8	.4	2.5

Blast furnaces

1908	1,566	9	11	456	476	1.9	2.3	97.1	101.3	11.5	2.7	1.8	16.0
1910	19,389	68	68	4,971	5,107	1.2	1.2	85.5	87.9	6.9	1.7	1.0	9.6
1911	21,479	52	54	3,303	3,409	.8	.8	51.3	52.9	4.8	.9	.8	6.5
1912	27,154	73	87	4,790	4,950	.9	1.1	58.8	60.8	5.4	1.0	.8	7.2
1913	31,988	86	80	4,749	4,945	.9	.8	58.1	59.8	5.3	1.0	.9	7.2
1914	26,572	45	77	3,935	4,057	.6	1.0	49.4	51.0	3.5	1.0	.7	5.2
1915	10,721	19	23	981	1,023	.6	.7	30.5	31.8	3.5	.6	.4	4.5
1916	14,905	23	57	1,763	1,843	.5	1.3	39.4	41.2	3.1	.9	.6	4.6
1917	36,202	79	93	4,430	4,612	.7	.9	40.9	42.5	4.4	.9	.5	5.8
1918	41,449	102	72	4,358	4,532	.8	.6	35.0	36.4	4.9	.8	.5	6.2
1919	32,889	94	67	3,745	3,906	1.0	.7	38.0	39.7	5.7	1.0	.5	7.2
1920	35,470	47	58	3,214	3,319	.4	.5	30.2	31.1	2.7	.9	.4	4.0
1921	15,486	23	24	1,160	1,207	.5	.5	25.0	26.0	3.0	.5	.4	3.9
1922	17,933	38	35	1,586	1,659	.7	.7	29.4	30.8	4.2	.4	.5	5.1
1923	29,698	53	68	2,702	2,823	.6	.8	30.3	31.7	3.6	.1	.5	4.2
1924	25,268	50	66	2,248	2,364	.7	.9	29.7	31.3	4.0	1.1	.5	5.6
1925	25,819	40	51	1,789	1,880	.5	.7	23.1	24.3	3.1	.9	.4	4.4
1926	25,893	42	63	1,881	1,986	.5	.8	24.2	25.5	3.2	.8	.5	4.5
1927	22,870	39	58	1,489	1,586	.6	.8	21.4	22.8	3.4	.7	.4	4.5
1910–1914	126,582	324	366	22,578	23,268	.9	1.0	60.4	62.3	5.2	1.0	.8	7.0
1915–1919	136,166	317	312	15,287	15,916	.8	.8	37.4	39.0	4.7	.9	.5	6.1
1920–1924	123,854	211	251	10,910	11,372	.6	.7	29.4	30.7	3.4	.7	.5	4.5
1925–1927	74,582	121	172	5,159	5,452	.5	.8	23.1	24.4	3.2	.8	.3	4.3

TABLE 11.—*Accidents and accident rates in the iron and steel industry, 1907 to 1927, by department, year, and period*—Continued

Bessemer converters

Year or period	Full-year workers	Number of cases				Frequency rates (per 1,000,000 hours' exposure)				Severity rates (per 1,000 hours' exposure)			
		Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total
1907	967	1	5	383	389	0.3	1.7	132.0	134.0	2.1	0.9	2.4	5.4
1910	5,070	20	18	1,943	1,981	1.3	1.2	127.7	130.2	7.9	.9	1.6	10.4
1911	5,155	6	24	1,237	1,267	.4	1.6	79.9	81.9	2.3	1.1	1.1	4.5
1912	6,521	9	37	1,892	1,938	.5	1.9	96.7	99.1	2.8	1.0	1.5	5.3
1913	6,885	16	42	1,610	1,668	.8	2.0	77.9	80.7	4.6	1.2	1.2	7.0
1914	4,470	6	25	685	716	.4	1.8	51.1	53.3	2.2	1.2	.9	4.3
1915	3,160	2	21	494	517	.2	2.2	52.1	54.5	1.3	1.4	.8	3.5
1916	4,070	13	34	848	894	1.1	2.8	69.5	73.4	6.4	2.1	1.2	9.7
1917	5,979	20	21	1,194	1,235	1.1	1.2	66.6	68.9	6.7	1.3	1.2	9.2
1918	5,881	13	18	877	908	.7	1.0	49.7	51.4	4.4	1.0	.8	6.2
1919	6,555	14	18	849	881	.7	.9	43.2	44.8	4.3	.5	.9	5.7
1920	6,907	5	9	750	764	.2	.4	36.2	36.8	1.4	.3	.6	2.3
1921	3,440	4	6	252	262	.4	.6	24.4	25.4	2.3	.4	.4	3.1
1922	4,778	2	8	233	243	.1	.6	16.3	17.8	.8	.5	.3	1.6
1923	6,080	6	20	367	393	.3	1.1	20.1	21.5	2.0	.5	.5	3.0
1924	4,943	7	10	274	291	.5	.7	18.5	19.7	2.8	.6	.3	3.7
1925	4,834	9	10	115	134	.6	.7	7.9	9.2	3.7	.7	.2	4.6
1926	4,526	6	19	178	203	.4	1.3	13.1	14.8	2.7	4.7	.3	7.7
1927	4,344	4	7	78	89	.3	.5	6.0	6.8	1.8	.3	.2	2.3
1910–1914	28,101	57	146	7,367	7,570	.7	1.7	87.4	89.8	4.0	1.1	1.3	6.4
1915–1919	25,645	62	112	4,262	4,436	.8	1.5	55.4	57.7	4.8	1.1	1.0	6.9
1920–1924	26,147	24	53	1,876	1,953	.3	.7	23.9	24.9	1.8	.4	.4	2.6
1925–1927	13,704	19	36	371	426	.5	.9	9.0	10.4	2.8	1.8	.3	4.9

Open-hearth furnaces

1907	2,987	14	14	908	936	1.6	1.6	101.3	104.5	9.3	4.0	1.1	14.4
1910	9,739	29	53	3,028	3,110	1.0	1.8	103.6	106.4	6.0	2.4	1.4	9.8
1911	10,718	18	45	1,890	1,953	.6	1.4	58.8	60.8	3.4	1.1	.9	5.4
1912	17,355	47	99	4,039	4,185	.9	1.9	77.6	80.4	5.3	1.9	1.0	8.2
1913	20,604	35	95	4,368	4,498	.6	1.5	70.7	72.8	3.4	1.4	1.0	5.8
1914	12,877	14	41	2,484	2,539	.4	1.1	64.3	65.8	2.2	1.5	.8	4.5
1915	5,969	8	20	832	860	.4	1.1	46.5	48.0	2.7	.9	.6	4.2
1916	9,654	12	37	1,458	1,507	.4	1.3	50.3	52.0	2.5	.8	.9	4.2
1917	21,457	47	86	3,187	3,320	.7	1.3	49.5	51.5	4.4	1.2	.8	6.4
1918	26,410	71	103	3,983	4,157	.9	1.3	50.3	52.5	5.4	1.4	1.1	7.9
1919	22,685	53	71	3,103	3,227	.8	1.0	45.6	47.4	4.7	1.3	.8	6.8
1920	28,823	43	70	3,164	3,277	.5	.8	37.0	38.3	3.0	.8	.5	4.3
1921	12,783	9	21	1,082	1,112	.2	.6	28.2	29.0	1.4	.4	.5	2.3
1922	19,805	22	46	1,936	2,004	.4	.8	32.6	33.8	2.2	.9	.5	3.6
1923	24,917	42	74	2,145	2,261	.6	1.0	28.6	30.2	3.4	1.1	.7	5.2
1924	21,493	32	67	1,864	1,963	.5	1.0	28.9	30.4	3.0	.9	.5	4.4
1925	22,837	25	73	1,769	1,867	.4	1.1	25.8	27.3	2.2	1.0	.5	3.7
1926	22,727	51	67	1,322	1,440	.8	1.0	20.0	21.8	4.6	1.2	.5	6.3
1927	19,143	24	60	908	992	.4	1.0	15.8	17.2	2.5	1.4	.4	4.3
1910–1914	71,293	143	333	15,809	16,285	.7	1.5	72.8	75.0	4.0	1.6	1.0	6.6
1915–1919	86,175	191	317	12,563	13,071	.7	1.2	48.6	50.5	4.4	1.2	.9	6.5
1920–1924	107,820	148	278	10,191	10,617	.5	.9	31.5	32.9	2.7	.9	.6	4.2
1925–1927	64,707	100	200	3,999	4,299	.5	1.0	20.6	22.1	3.1	1.2	.4	4.7

Foundries

1907	939	1	3	179	183	0.4	1.1	63.5	65.0	2.1	0.3	1.0	3.4
1910	16,885	7	78	2,615	2,700	.1	1.5	51.6	53.2	.8	1.0	.6	2.4
1911	13,499	18	57	1,970	2,045	.4	1.4	48.6	50.4	2.7	1.0	.6	4.3
1912	23,294	23	135	4,512	4,670	.3	1.9	64.6	66.8	2.1	1.5	.8	4.4
1913	24,605	22	118	5,236	5,376	.3	1.6	70.9	72.8	1.7	1.2	.8	3.7
1914	17,634	14	61	3,432	3,507	.3	1.2	64.9	66.4	1.6	1.0	.7	3.3
1915	1,309	------	2	118	120	------	.5	30.0	30.5	------	.2	.4	.6
1916	1,231	1	6	145	152	.3	1.6	39.3	41.2	1.6	.6	.7	2.9
1917	31,805	45	101	6,810	6,956	.5	1.1	71.4	73.0	2.8	1.0	.9	4.7
1918	32,181	23	106	5,482	5,611	.2	1.1	56.8	58.1	1.5	1.0	.7	3.2

TABLE 11.—*Accidents and accident rates in the iron and steel industry, 1907 to 1927, by department, year, and period*—Continued

Foundries—Continued

Year or period	Full-year workers	Number of cases				Frequency rates (per 1,000,000 hours' exposure)				Severity rates (per 1,000 hours' exposure)			
		Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total
1919	24,220	15	62	4,048	4,125	0.2	0.9	55.7	56.8	1.2	0.8	0.7	2.7
1920	35,300	13	97	6,688	6,798	.1	.9	63.2	64.2	.7	.8	.8	2.3
1921	15,338	9	34	2,756	2,799	.2	.7	59.7	60.6	1.2	.7	.8	2.7
1922	22,770	12	59	4,134	4,205	.2	.9	60.5	61.6	1.1	.9	.7	2.7
1923	38,660	26	126	7,171	7,323	.2	1.2	61.8	63.2	1.4	.8	.8	3.0
1924	37,325	21	143	6,820	6,984	.2	1.3	60.9	62.4	1.1	1.1	.8	3.0
1925	35,570	27	128	6,877	7,032	.3	1.2	64.5	65.9	1.5	1.3	.9	3.7
1926	41,501	26	178	7,376	7,580	.2	1.4	59.0	60.6	1.3	1.1	.9	3.3
1927	31,136	18	106	4,769	4,893	.2	1.1	51.5	52.8	1.2	1.0	.7	2.9
1910–1914	95,917	84	449	17,765	18,298	.3	1.6	61.7	63.6	1.8	1.1	.7	3.6
1915–1919	92,746	84	277	16,604	16,965	.3	1.0	59.7	61.0	1.8	.9	.7	3.4
1920–1924	149,441	81	459	27,569	28,109	.2	1.0	61.5	62.7	1.1	.9	.8	2.8
1925–1927	108,207	71	412	19,022	19,505	.2	1.3	58.6	60.1	1.3	1.1	.8	3.2

Bar mills

1915	3,232	1	7	577	585	0.1	0.7	59.5	60.3	0.6	0.6	0.7	1.9
1916	3,042	4	11	783	798	.4	1.2	85.8	87.4	2.6	.5	1.1	4.2
1917	7,472	8	34	1,940	1,982	.4	1.5	86.5	88.4	2.1	1.0	1.0	4.0
1918	5,734	6	18	756	780	.3	1.0	43.9	45.2	2.1	.7	.7	3.5
1919	4,601	1	7	689	697	.1	.5	49.9	50.5	.4	.5	.7	1.6
1920	3,880	1	5	525	531	.1	.4	44.8	45.3	.5	.2	.5	1.2
1921	1,912		5	228	233		.9	39.8	40.7		1.0	.6	1.6
1922	3,780	7	10	392	409	.6	.9	34.6	36.1	3.7	.8	.5	5.0
1923	4,003		17	443	460		1.4	36.4	37.8		.7	.6	1.3
1924	4,093	2	7	285	294	.2	.6	23.2	24.0	1.0	.2	.5	1.7
1925	4,471	2	13	324	339	.2	1.0	24.2	25.4	.9	.9	.4	2.2
1926	3,042	1	10	146	157	.1	1.1	16.0	17.2	.7	.4	.3	1.4
1927	2,387		8	215	223		1.1	30.0	31.1		1.3	.4	1.7
1915–1919	24,081	20	77	4,745	4,842	.3	1.1	65.6	67.0	1.7	.7	.7	3.1
1920–1924	17,666	10	44	1,869	1,923	.2	.8	35.3	36.3	1.1	.6	.5	2.2
1925–1927	9,900	3	31	685	719	.1	1.0	23.1	24.2	.6	.8	.4	1.8

Heavy-rolling mills

1907	4,556	8	10	874	892	0.6	0.7	64.0	64.3	3.5	0.3	1.0	4.8
1910	9,442	19	57	2,167	2,243	.7	2.0	76.5	79.2	4.0	1.5	1.0	6.5
1911	12,409	9	48	1,636	1,693	.2	1.3	43.9	45.4	1.4	.9	.7	3.0
1912	16,258	20	41	2,395	2,456	.4	.8	49.1	50.3	2.3	.9	.7	3.9
1913	17,569	16	60	1,910	1,986	.3	1.1	36.2	37.6	1.7	.6	.6	2.9
1914	11,985	10	55	899	964	.3	1.5	25.0	26.8	1.5	1.0	.4	2.9
1915	7,148	10	24	596	630	.5	1.1	27.8	29.4	2.8	1.0	.3	4.1
1916	10,076	7	44	959	1,010	.2	1.5	31.7	33.4	1.4	1.3	.5	3.2
1917	20,530	30	87	1,784	1,901	.5	1.4	29.0	30.9	2.9	1.0	.5	4.4
1918	19,807	24	67	1,900	1,991	.4	1.1	32.0	33.5	2.4	.9	.5	3.8
1919	17,605	20	53	1,711	1,784	.4	1.0	32.4	33.8	2.3	1.1	.5	3.9
1920	20,787	12	34	1,638	1,684	.2	.5	26.3	27.0	1.2	.4	.4	2.0
1921	9,000	3	15	485	503	.1	.5	16.5	17.1	.6	.3	.3	1.2
1922	14,574	9	56	752	817	.2	1.3	17.2	18.7	1.2	.9	.4	2.5
1923	16,602	8	36	882	926	.2	.7	17.7	18.6	1.0	.8	.3	2.1
1924	13,162	18	39	789	846	.5	1.0	20.0	21.5	2.7	.8	.4	3.9
1925	16,553	13	50	747	810	.3	1.0	15.0	16.3	1.6	1.1	.3	3.0
1926	14,553	7	38	417	462	.2	.9	9.5	10.6	1.0	.8	.2	2.0
1927	18,171	13	41	494	548	.2	.8	9.0	10.0	1.4	.7	.3	2.4
1910–1914	67,663	74	261	9,007	9,342	.4	1.3	44.4	46.2	2.1	.9	.6	3.6
1915–1919	75,166	91	275	6,950	7,316	.4	1.2	30.8	32.4	2.4	1.0	.5	3.9
1920–1924	74,944	50	180	4,546	4,776	.2	.8	20.2	21.2	1.3	.6	.4	2.3
1925–1927	49,277	33	129	1,658	1,820	.2	.9	11.2	12.3	1.3	.9	.3	2.5

TABLE 11.—*Accidents and accident rates in the iron and steel industry, 1907 to 1927, by department, year, and period*—Continued

Plate mills

Year or period	Full-year workers	Number of cases				Frequency rates (per 1,000,000 hours' exposure)				Severity rates (per 1,000 hours' exposure)			
		Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total
1907	1,915	4	12	637	653	0.7	2.1	110.9	113.7	4.2	3.7	1.2	9.1
1910	3,287	7	27	602	636	.7	2.7	61.1	64.5	4.3	1.6	.7	6.6
1911	4,390	5	15	590	610	.4	1.1	44.8	46.3	2.3	1.0	.6	3.9
1912	5,128	2	25	893	920	.1	1.6	58.0	59.7	.8	2.0	.8	3.6
1913	5,430	3	25	725	753	.2	1.5	44.5	46.2	1.1	1.2	.6	2.9
1914	3,476	2	13	319	334	.2	1.2	30.6	32.0	1.1	1.0	.5	2.6
1915	42,086	1	9	121	131	.2	1.4	19.3	20.9	1.0	.6	.3	1.9
1916	4,681	3	15	436	454	.2	1.1	31.0	32.3	1.3	.7	.5	2.5
1917	6,764	4	22	766	792	.2	1.1	37.7	39.0	1.2	.9	.5	2.6
1918	9,650	8	19	1,446	1,473	.3	.7	49.9	50.9	1.7	.6	.7	3.0
1919	11,892	9	24	1,247	1,280	.3	.7	35.0	36.0	1.5	.5	.5	2.5
1920	11,928	9	23	1,147	1,179	.3	.6	32.1	33.0	1.5	.6	.4	2.5
1921	4,580	3	7	318	328	.2	.5	23.1	23.8	1.3	.3	.4	2.0
1922	6,198	2	26	581	609	.1	1.4	31.2	32.7	.6	.9	.5	2.0
1923	8,731	5	24	662	691	.2	.9	25.3	26.4	1.1	1.2	.4	2.7
1924	6,454	3	18	506	527	.2	.9	26.1	27.1	.9	.6	.5	2.6
1925	5,734	6	15	370	391	.4	.9	21.5	22.8	2.1	1.2	.4	3.7
1926	7,306	4	25	396	425	.2	1.1	18.1	19.4	1.1	1.0	.4	2.5
1927	8,550	5	19	295	319	.2	.7	11.5	12.4	1.2	.5	.2	1.9
1910–1914	27,711	19	105	3,129	3,253	.3	1.6	48.0	49.9	1.8	1.4	.7	3.9
1915–1919	35,073	25	89	4,016	4,130	.2	.8	38.2	39.2	1.4	.6	.5	2.5
1920–1924	37,891	22	98	3,214	3,334	.2	.9	28.3	29.4	1.2	.8	.4	2.4
1925–1927	21,590	15	59	1,061	1,135	.2	.9	16.4	17.5	1.4	.7	.3	2.4

Puddling mills

1917	4,129	1	10	572	583	0.1	0.8	46.2	47.1	0.5	0.6	0.6	1.7
1918	2,712	3	4	370	377	.4	.5	45.5	46.4	2.2	.4	.6	3.2
1919	1,619	-------	1	140	141	-------	.2	28.8	29.0	-------	.1	.4	.5
1920	2,007	1	10	243	254	.2	1.7	40.3	42.2	1.0	.8	.6	2.4
1923	1,620	-------	3	280	283	-------	.6	57.6	58.2	-------	1.1	1.0	2.1
1924	814	-------	4	156	160	-------	1.6	63.9	65.5	-------	1.2	1.2	2.4
1925	1,108	-------	6	166	172	-------	1.8	49.9	51.7	-------	2.8	.9	3.7
1926	1,591	1	5	204	210	.2	1.0	42.5	43.7	1.2	1.5	.8	3.5
1927	1,040	-------	-------	121	121	-------	-------	38.8	38.8	-------	-------	.9	.9
1917–1919	8,460	4	15	1,082	1,101	.2	.6	42.6	43.4	.9	.4	.6	1.9
1920–1924	4,406	-------	9	797	806	-------	.7	60.3	61.0	-------	.8	1.1	1.9
1925–1927	3,739	1	11	491	503	.1	1.0	43.8	44.9	.5	1.5	.9	2.4

Rod mills

1915	2,062	-------	10	229	239	-------	1.6	37.0	38.6	-------	0.7	0.5	1.2
1916	2,493	-------	16	259	275	-------	2.1	34.6	36.7	-------	1.9	.5	2.4
1917	4,951	7	23	699	729	0.5	1.5	47.1	49.1	2.8	1.4	.5	4.7
1918	3,249	5	11	350	366	.5	1.1	35.9	37.5	3.1	1.0	.6	4.7
1919	2,463	2	10	184	196	.3	1.4	24.9	26.6	1.6	1.4	.5	3.5
1920	3,729	1	9	344	354	.1	.8	30.7	31.6	.5	.5	.4	1.4
1921	2,099	-------	6	126	132	-------	1.0	20.0	21.0	-------	.7	.3	1.0
1922	2,645	1	5	196	202	.1	.6	24.7	25.4	.8	.5	.5	1.8
1923	3,224	1	10	189	200	.1	1.1	20.2	21.4	.6	1.3	.3	2.2
1924	2,828	1	7	127	135	.1	.8	15.0	15.9	.7	.7	.4	1.8
1925	2,907	2	7	146	155	.2	.8	16.7	17.7	1.4	1.0	.3	2.7
1926	2,569	2	8	119	129	.3	1.0	15.5	16.8	1.6	.7	.4	2.7
1927	2,433	1	1	84	86	.1	.1	11.6	11.8	.8	.1	.3	1.2
1915–1919	15,218	14	70	1,721	1,805	.3	1.5	37.7	39.5	1.8	1.3	.5	3.6
1920–1924	14,425	4	37	982	1,023	.1	.9	22.7	23.7	.6	.8	.4	1.7
1925–1927	7,909	5	16	349	370	.2	.7	14.7	15.6	1.3	.6	.3	2.2

TABLE 11.—*Accidents and accident rates in the iron and steel industry, 1907 to 1927, by department, year, and period*—Continued

Sheet mills

Year or period	Full-year workers	Number of cases				Frequency rates (per 1,000,000 hours' exposure)				Severity rates (per 1,000 hours' exposure)			
		Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total
1907	2,211	2	8	274	284	0.3	1.2	43.3	44.8	1.8	1.9	0.4	4.1
1910	18,501	28	52	3,310	3,390	.5	.9	59.6	61.0	2.9	.8	.6	4.3
1911	29,710	9	71	3,625	3,705	.1	.8	40.7	41.6	.7	.7	.4	1.8
1912	32,087	19	67	5,497	5,583	.2	.7	57.1	58.0	1.2	.7	.7	2.6
1913	25,938	21	67	3,717	3,805	.3	.9	47.8	49.0	1.6	.5	.6	2.7
1914	22,187	11	51	3,113	3,175	.2	.8	46.8	47.8	.9	.5	.6	2.0
1915	16,266	7	23	1,901	1,931	.1	.5	39.0	39.6	.9	.3	.5	1.7
1916	24,722	13	62	2,655	2,730	.2	.8	35.8	36.8	.6	.5	.5	1.6
1917	26,855	11	38	2,687	2,736	.1	.5	33.4	34.0	.8	.6	.5	1.9
1918	17,278	3	17	937	957	.1	.3	18.1	18.5	.3	.5	.2	1.0
1919	19,214	3	32	1,854	1,889	.1	.6	32.0	32.7	.3	.4	.4	1.1
1920	24,279	14	59	2,979	3,052	.2	.8	40.1	41.0	1.2	.7	.8	2.3
1921	15,845	5	38	1,702	1,745	.1	.8	35.8	36.7	.6	.5	.5	1.6
1922	24,391	10	66	2,951	3,027	.1	.9	40.3	41.3	.8	.8	.9	2.5
1923	29,814	14	61	2,390	2,465	.2	.7	27.6	28.5	1.0	.7	.5	2.2
1924	28,247	7	54	2,457	2,518	.1	.6	29.0	29.7	.5	.7	.5	1.7
1925	32,043	10	56	3,096	3,162	.1	.6	32.2	32.9	.6	.5	.6	1.7
1926	31,713	6	55	2,100	2,161	.1	.6	22.1	22.8	.4	.5	.3	1.2
1927	34,896	4	47	1,537	1,588	(1)	.4	14.6	15.0	.2	.4	.2	.8
1910–1914	128,423	88	308	19,262	19,657	.2	.9	50.0	51.1	1.4	.6	.6	2.6
1915–1919	104,335	37	172	10,034	10,243	.1	.5	32.1	32.7	.7	.4	.4	1.5
1920–1924	121,552	50	278	12,479	12,807	.1	.8	24.2	35.1	.8	.7	.6	2.1
1925–1927	98,652	20	158	6,733	6,911	.1	.5	22.8	23.4	.4	.5	.4	1.3

Tube mills

1907	2,007	1	4	575	580	0.2	0.7	95.5	96.4	1.0	0.6	1.5	3.1
1910	9,767	3	25	1,608	1,636	.1	.9	54.9	55.9	.6	.4	.7	1.7
1911	13,676	1	53	2,080	2,134	(1)	1.3	50.7	52.0	.2	.8	.5	1.5
1912	17,080	10	60	2,154	2,224	.5	1.2	42.0	43.7	1.3	.8	.5	2.6
1913	18,909	15	72	1,586	1,673	.3	1.3	28.0	29.6	1.6	.7	.4	2.7
1914	13,906	7	39	1,195	1,241	.2	.9	28.6	29.7	1.0	.6	.4	2.0
1915	7,109	2	21	182	205	.1	1.0	8.5	9.6	.6	.6	.2	1.4
1916	11,355	2	26	425	453	.1	.8	12.5	13.4	.4	.3	.3	1.0
1917	19,819	17	51	1,967	2,035	.3	.9	33.1	34.3	1.7	.5	.4	2.6
1918	18,499	8	41	1,127	1,176	.1	.7	20.3	21.1	.9	.4	.3	1.6
1919	18,326	9	39	1,127	1,172	.2	.7	20.4	21.3	1.0	.6	.3	1.9
1920	22,666	13	71	2,166	2,250	.2	1.0	31.9	33.1	1.1	.5	.5	2.1
1921	14,622	4	35	840	879	.1	.8	19.1	20.0	.5	.5	.4	1.4
1922	19,535	6	40	1,332	1,378	.1	.7	22.7	23.5	.6	.6	.4	1.6
1923	24,766	8	54	1,292	1,354	.1	.7	17.4	18.2	.6	.6	.3	1.5
1924	22,655	14	68	1,185	1,267	.2	1.0	17.2	18.4	1.2	.6	.3	2.1
1925	25,511	10	64	1,142	1,216	.1	.8	14.9	15.8	.8	.6	.3	1.7
1926	32,089	9	95	1,524	1,628	.1	1.0	15.9	17.0	.6	.7	.2	1.5
1927	26,794	13	61	1,175	1,249	.2	.8	14.6	15.6	1.0	.4	.2	1.6
1910–1914	73,338	36	249	8,623	8,908	.2	1.1	39.2	40.5	1.0	.7	.5	2.2
1915–1919	75,108	38	178	4,825	5,041	.2	.8	21.4	22.4	1.0	.5	.3	1.8
1920–1924	104,577	45	268	6,815	7,128	.1	.9	21.7	22.7	.9	.6	.4	1.9
1925–1927	84,394	32	220	3,841	4,093	.1	.9	15.2	16.2	.8	.6	.3	1.7

Unclassified rolling mills

1910	14,434	15	49	4,861	4,925	0.3	1.1	112.3	113.7	2.1	1.6	1.3	5.0
1911	21,231	16	76	3,388	3,480	.3	1.2	53.2	54.7	1.5	1.1	.7	3.3
1912	22,909	16	76	4,660	4,752	.2	1.1	67.8	69.1	1.5	1.0	.9	3.4
1913	23,382	24	84	5,051	5,159	.3	1.2	72.0	73.5	2.0	1.1	1.0	4.1
1914	22,873	11	75	3,541	3,627	.2	1.1	51.6	52.9	1.0	.8	.7	2.5
1915	4,367	2	14	475	491	.2	1.1	36.2	37.5	.9	.5	.4	1.8
1916	8,082	5	25	922	952	.2	1.0	38.0	39.2	1.2	.6	.7	2.5
1917	27,978	10	60	4,265	4,335	.1	.7	50.8	51.6	.7	.7	.7	2.1
1918	37,163	22	74	4,015	4,111	.2	.7	36.0	36.9	1.2	.5	.5	2.2

[1] Less than one-tenth of 1 per cent.

TABLE 11.—*Accidents and accident rates in the iron and steel industry, 1907 to 1927, by department, year, and period*—Continued

Unclassified rolling mills—Continued

Year or period	Full-year workers	Number of cases				Frequency rates (per 1,000,000 hours' exposure)				Severity rates (per 1,000 hours' exposure)			
		Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total
1919	25,106	14	45	2,967	3,026	0.2	0.6	39.4	40.2	1.1	0.4	0.6	2.1
1920	21,055	16	68	2,785	2,869	.3	1.1	44.1	45.4	1.5	.9	.5	2.9
1921	12,068	4	36	1,479	1,519	.1	1.0	40.9	42.0	.7	.9	.7	2.3
1922	19.382	10	59	2,416	2,485	.2	1.0	41.5	42.7	1.0	.9	.7	2.6
1923	26,357	11	92	2,830	2,933	.1	1.2	35.8	37.1	.8	1.3	.6	2.7
1924	21,664	11	77	2,193	2,277	.2	1.2	33.5	34.9	1.0	1.3	.6	2.9
1925	26,353	9	59	1,836	1,904	.1	.8	23.2	24.1	.7	.5	.4	1.6
1926	25,268	5	66	1,630	1,701	.1	.9	23.5	24.5	.4	.7	.4	1.5
1927	21,126	14	105	1,246	1,365	.2	1.7	19.7	21.6	1.3	1.3	.4	3.0
1910–1914	104,829	82	360	21,501	21,943	.3	1.2	71.8	73.3	1.7	1.1	.9	3.7
1915–1919	102,696	53	218	12,644	12,915	.2	.7	41.0	41.9	1.0	.5	.6	2.1
1920–1924	109,555	55	345	12,631	13,027	.2	1.0	39.4	39.6	1.0	1.1	.6	2.7
1925–1927	72,747	28	230	4,712	4,970	.1	1.1	21.6	22.8	.8	.8	.4	2.0

Fabricating shops

1907	2,081	6	12	571	589	1.0	1.9	91.5	94.4	5.8	2.9	0.8	9.5
1910	8,713	11	33	3,901	3,945	.4	1.3	149.2	150.9	2.5	1.0	1.9	5.4
1911	19,530	8	92	3,244	3,344	.1	1.6	55.4	57.1	.7	1.0	.6	2.3
1912	28,988	32	119	6,890	7,041	.4	1.4	79.2	81.0	2.1	.9	.8	3.8
1913	30,470	34	104	7,368	7,506	.4	1.1	80.6	82.1	2.2	.8	.8	3.8
1914	20,837	13	77	4,103	4,193	.2	1.2	65.6	67.0	1.2	1.0	.7	2.9
1915	3,818	3	15	471	489	.3	1.3	41.1	42.7	1.6	.6	.7	2.9
1916	4,980	7	25	703	735	.5	1.7	47.1	49.3	2.8	.7	.9	4.4
1917	23,614	21	67	4,192	4,280	.3	.9	59.2	60.4	1.8	.6	.7	3.1
1918	29,166	22	29	5,077	5,128	.3	.3	58.0	58.6	1.5	.5	.6	2.6
1919	19,407	6	27	2,752	2,785	.1	.5	47.3	47.9	.7	.3	.5	1.5
1920	17,216	14	68	2,721	2,803	.2	1.3	52.7	54.2	1.6	1.1	.6	3.3
1921	12,908	5	45	1,971	2,021	.1	1.2	50.9	52.2	.8	.7	.6	2.1
1922	16,184	14	41	3,381	3,436	.3	.8	69.6	70.7	1.7	.8	.8	3.3
1923	22,547	9	52	4,019	4,080	.1	.8	59.4	60.3	.8	.7	.7	2.2
1924	10,626	5	63	1,787	1,855	.1	1.0	28.3	29.4	.5	.8	.5	1.8
1925	15,718	4	35	857	895	.1	.7	18.2	19.0	.4	.9	.4	1.7
1926	15,467	7	64	756	827	.2	1.4	16.4	18.0	.9	1.0	.4	2.3
1927	14.523	4	25	283	312	.1	.6	6.4	7.1	.5	.4	.2	1.1
1910–1924	108,538	98	425	25,506	26,029	.3	1.3	78.3	79.9	1.7	.9	.8	3.4
1915–1919	80.985	59	163	13,195	13,417	.2	.7	54.3	55.2	1.5	.5	.6	2.6
1920–1924	89,880	47	269	13,879	14,195	.2	1.0	51.5	52.7	1.0	.8	.6	2.4
1925–1927	45,708	14	124	1,896	2,034	.1	.9	13.8	14.8	.6	.8	.3	1.7

Forge shops

1917	3,881	3	15	917	935	.3	1.3	78.8	80.4	1.5	1.6	1.3	4.4
1918	6,408	4	26	1,009	1,039	.2	1.4	53.2	54.8	1.2	1.1	.7	3.0
1919	2,169	2	4	257	263	.3	.6	39.5	40.4	1.8	.3	.6	2.7
1920	2,197	------	5	380	385	------	.8	58.6	59.4	------	.8	.7	1.5
1921	902	1	3	107	111	.4	1.1	39.5	41.0	2.2	1.0	.7	3.9
1922	1,514	2	8	233	243	.4	1.8	51.3	53.5	2.6	1.7	.9	5.2
1923	2,049	1	9	309	319	.2	1.5	50.2	51.9	1.0	.9	.7	2.6
1924	2,272	------	9	567	576	------	1.3	83.2	84.5	------	1.5	1.2	2.7
1925	3,794	3	11	893	907	.3	1.0	78.5	79.8	1.6	.9	.8	3.3
1926	1,790	------	7	263	270	------	1.3	48.7	50.0	------	.4	.7	1.1
1927	1,645	1	10	108	119	.2	2.0	21.9	24.1	1.2	1.1	.5	2.8
1910–1914	6,249	8	19	1,080	1,107	.4	1.0	57.6	59.0	2.6	.6	.7	3.9
1915–1919	12,667	9	45	2,189	2,243	.2	1.2	57.6	59.0	1.4	1.1	.9	3.4
1920–1924	8,901	4	34	1,596	1,634	.1	1.3	59.8	61.2	.9	1.2	.9	3.0
1925–1927	7,229	4	28	1,264	1,296	.2	1.3	58.3	59.8	1.1	.8	.7	2.6

Wire drawing

1910	10,370	5	84	2,323	2,412	0.2	2.7	74.7	77.6	1.0	2.6	0.7	4.3
1911	11,819	4	89	2,270	2,363	.1	2.3	59.0	61.4	.6	2.0	.6	3.2
1912	13,059	4	104	2,627	2,735	.1	2.7	67.1	69.9	.6	2.5	.7	3.8
1913	12,769	6	59	2,542	2,607	.2	1.5	66.4	68.1	.9	1.1	.7	2.7
1914	11,468	2	47	1,742	1,791	.1	1.4	50.6	52.1	.4	1.3	.5	2.2

TABLE 11.—*Accidents and accident rates in the iron and steel industry, 1907 to 1927, by department, year, and period*—Continued

Wire drawing—Continued

Year or period	Full-year workers	Number of cases				Frequency rates (per 1,000,000 hours' exposure)				Severity rates (per 1,000 hours' exposure)			
		Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total
1915	7,859	1	62	1,831	1,894	0.3	2.6	77.7	80.3	0.3	2.4	0.8	3.5
1916	9,551	4	104	1,764	1,872	.1	3.6	61.6	65.3	.8	2.9	.6	4.3
1917	13,727	3	63	1,700	1,766	.1	1.5	41.3	42.9	.4	1.0	.6	2.0
1918	12,790	4	60	991	1,055	.1	1.6	25.8	27.5	.6	1.2	.4	2.2
1919	8,739	-------	32	626	658	-------	1.2	23.9	25.1	-------	1.0	.4	1.4
1920	13,243	2	63	1,252	1,317	.1	1.6	31.5	33.2	.3	1.7	.5	2.5
1921	9,186	4	36	527	567	.1	1.3	19.1	20.6	.9	1.4	.4	2.7
1922	15,836	3	53	837	893	.1	1.3	20.2	21.6	.4	1.3	.4	2.1
1923	14,783	2	54	919	975	.4	1.2	20.7	21.9	.3	1.2	.4	1.9
1924	11,567	-------	44	711	755	-------	1.3	20.5	21.8	-------	1.8	.3	2.1
1925	13,758	2	47	938	987	.1	1.1	22.7	23.9	.3	1.2	.4	1.9
1926	13,329	3	34	601	638	.1	.9	15.0	16.0	.5	.8	.3	1.6
1927	11,870	5	41	355	401	.1	1.1	9.9	11.1	.8	1.0	.2	2.0
1910–1914	59,481	21	383	11,504	11,908	.1	2.1	63.5	65.7	.7	1.9	.6	3.2
1915–1919	52,666	12	321	6,912	7,245	.1	2.0	43.7	45.8	.5	1.6	.5	2.6
1920–1924	62,614	11	250	4,246	4,507	.1	1.3	22.6	24.0	.4	1.5	.4	2.3
1925–1927	38,957	10	122	1,894	2,026	.1	1.0	16.2	17.3	.5	1.0	.3	1.8
Electrical department													
1910	1,526	2	3	282	287	0.4	0.7	61.6	62.7	2.6	0.9	0.7	4.2
1911	2,700	3	9	356	368	.4	1.1	43.0	44.5	2.2	.9	.5	3.6
1912	3,796	6	15	523	544	.5	1.3	45.9	47.7	3.1	1.7	.5	5.3
1913	4,012	14	15	495	524	1.2	1.2	41.1	43.5	7.0	1.2	.5	8.7
1914	2,327	8	6	301	315	1.1	.9	43.1	45.1	6.9	1.0	.5	8.4
1915	612	1	1	23	25	.5	.5	12.5	13.5	3.3	.2	.1	3.6
1916	1,635	6	6	289	301	1.2	1.2	58.9	61.3	7.3	.4	.8	8.5
1917	4,385	16	16	571	603	1.2	1.2	43.4	45.8	7.3	1.3	.7	9.3
1918	4,747	10	10	485	505	.7	.7	34.1	35.5	4.2	1.1	.4	5.7
1919	4,644	13	7	483	503	.9	.5	34.7	36.1	5.6	.9	.5	7.0
1920	4,473	5	3	403	411	.4	.2	30.0	30.6	2.2	.1	.4	2.7
1921	3,025	2	3	188	193	.2	.3	20.7	21.2	1.3	.6	.3	2.2
1922	3,528	4	1	164	169	.4	.1	15.5	16.0	2.3	.1	.4	2.8
1923	4,325	5	8	215	228	.4	.6	16.6	17.6	2.3	.4	.3	3.0
1924	3,989	7	6	171	184	.6	.5	14.3	15.4	3.5	.4	.3	5.2
1925	4,011	6	5	148	159	.5	.4	12.3	13.2	3.0	.6	.3	3.9
1926	4,611	6	6	131	143	.4	.4	9.6	10.4	2.6	.3	.3	3.2
1927	5,157	9	5	119	113	.6	.3	7.7	8.6	3.5	.5	.4	4.4
1910–1914	14,921	33	48	1,957	2,038	.8	1.1	45.2	47.1	4.6	1.2	.5	6.3
1915–1919	16,023	46	40	1,851	1,937	1.0	.8	38.5	40.3	5.7	1.0	.5	7.2
1920–1924	19,339	23	21	1,141	1,185	.4	.4	19.7	20.5	2.4	.3	.3	3.0
1925–1927	13,779	21	16	398	435	.5	.4	9.6	10.5	3.0	.5	.3	3.8
Mechanical department													
1908	1,619	4	7	430	441	0.8	1.4	89.1	91.3	4.9	0.6	1.1	6.6
1910	15,927	18	56	2,618	2,692	.4	1.2	54.8	56.4	2.3	.9	.5	3.7
1911	17,863	13	80	3,015	3,108	.2	1.5	56.3	58.0	1.5	1.1	.7	3.3
1912	21,591	19	95	4,040	4,154	.3	1.5	62.4	64.2	1.8	1.2	.8	3.8
1913	24,009	36	103	4,972	5,111	.5	1.4	69.0	70.9	2.9	1.0	.9	4.8
1914	17,772	18	60	3,149	3,227	.3	1.1	59.1	60.5	2.0	1.0	.7	3.7
1915	5,987	3	27	573	603	.2	1.5	31.9	33.6	1.0	.7	.4	2.1
1916	16,920	9	86	2,245	2,340	.2	1.7	44.2	46.1	1.1	1.5	.6	3.2
1917	33,328	43	134	5,201	5,378	.4	1.3	52.0	53.7	2.6	1.0	.8	4.4
1918	58,002	54	162	6,054	6,270	.3	.9	34.8	36.0	1.9	1.0	.4	3.3
1919	40,609	45	83	4,483	4,611	.4	.7	36.8	37.9	2.2	.7	.5	3.4
1920	34,648	36	68	3,767	3,861	.3	.7	36.2	37.2	1.5	.6	.5	2.6
1921	25,036	21	41	1,703	1,775	.3	.5	22.7	23.6	1.7	.5	.4	2.5
1922	30,324	25	75	1,626	1,726	.3	.8	17.9	19.0	1.6	.7	.3	2.6
1923	37,449	37	102	2,045	2,184	.3	.9	18.2	19.4	2.0	1.0	.3	3.3
1924	31,331	29	80	1,855	1,964	.3	.8	17.8	18.9	1.7	.6	.3	2.6
1925	36,666	31	71	1,717	1,819	.3	.7	15.6	16.6	1.7	.7	.3	2.7
1926	38,953	32	74	1,887	1,993	.3	.6	16.1	17.0	1.6	.6	.3	2.5
1927	37,531	19	80	1,309	1,408	.2	.7	11.6	12.5	1.0	.9	.2	2.1
1910–1914	97,161	104	392	17,794	18,292	.4	1.3	61.0	62.7	2.1	1.1	.8	4.0
1915–1919	154,846	154	492	18,556	19,202	.3	1.1	39.9	41.3	2.0	1.0	.5	3.5
1920–1924	162,121	138	366	10,996	11,510	.3	.8	22.6	23.7	1.7	.7	.3	2.8
1925–1928	113,150	82	225	4,913	5,220	.2	.7	14.5	15.4	1.5	.7	.3	2.5

TABLE 11.—*Accidents and accident rates in the iron and steel industry, 1907 to 1927, by department, year, and period*—Continued

Power houses

Year or period	Full-year workers	Number of cases				Frequency rates (per 1,000,000 hours' exposure)				Severity rates (per 1,000 hours' exposure)			
		Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total
1917	4,552	7	7	210	224	0.5	0.5	15.4	16.4	3.1	1.0	0.3	4.4
1918	3,699	9	10	254	273	.8	.9	22.9	24.6	4.9	.5	.4	5.8
1919	4,093	11	2	213	226	.9	.2	17.3	18.4	5.4	.1	.2	5.7
1920	4,591	4	1	172	177	.3	.1	12.5	12.9	1.7	(1)	.2	1.9
1921	2,344	2	------	77	79	.3	------	10.9	11.2	1.7	------	.2	1.9
1922	3,361	------	5	115	120	------	.5	11.4	11.9	------	.7	.2	.9
1923	4,070	6	4	117	127	.5	.3	9.6	10.4	2.9	.4	.1	3.4
1924	4,511	5	8	157	170	.4	.6	11.6	12.6	2.2	.6	.2	3.0
1925	4,218	3	4	183	190	.2	.3	14.5	15.0	1.4	.3	.3	2.0
1926	3,446	3	3	56	62	.3	.3	5.4	6.0	1.7	.4	.1	2.2
1927	3,888	------	8	98	106	------	.7	8.4	9.1	------	.2	.1	.3
1912-1914	8,083	6	21	544	571	.2	.9	22.4	23.5	1.5	.8	.3	2.6
1915-1919	13,219	27	21	739	787	.7	.5	18.6	19.8	4.1	.6	.3	5.0
1920-1924	18,878	17	18	638	673	.3	.3	11.3	11.9	1.8	.3	.2	2.3
1925-1927	11,552	6	15	337	358	.2	.4	9.7	10.3	1.0	.3	.2	1.5

Yards

1907	2,618	5	10	509	524	0.6	1.2	64.8	66.6	3.8	2.6	1.1	7.5
1910	15,932	40	49	2,054	2,143	.8	1.0	43.0	44.8	5.0	1.0	.5	6.5
1911	9,085	11	43	1,336	1,390	.4	1.6	49.0	51.0	2.4	1.9	.7	5.0
1912	11,180	23	64	1,940	2,027	.7	1.9	57.8	60.4	4.1	1.4	.8	6.3
1913	11,859	28	50	1,807	1,885	.8	1.4	52.0	54.2	4.7	1.0	.7	6.4
1914	7,879	10	37	975	1,022	.4	1.6	41.2	43.2	2.5	1.4	.6	4.5
1915	3,843	------	15	417	432	------	1.3	36.2	37.5	------	1.0	.4	1.4
1916	7,853	12	56	929	997	.5	2.4	39.4	42.3	3.1	2.2	.6	5.9
1917	15,732	36	77	1,792	1,905	.8	1.6	38.0	40.4	4.6	1.7	.6	6.9
1918	16,354	33	62	1,526	1,621	.7	1.2	31.1	33.0	4.0	1.2	.6	5.8
1919	10,108	25	48	1,021	1,094	.8	1.6	33.7	36.1	4.9	1.9	.6	7.4
1920	12,087	10	33	922	965	.3	.9	25.4	26.6	1.7	1.3	.4	3.4
1921	5,840	6	22	422	450	.3	1.3	24.1	25.7	2.1	1.9	.5	4.4
1922	7,969	15	16	536	567	.6	.7	22.4	23.7	3.8	.5	.5	4.8
1923	8,381	12	35	693	740	.5	1.4	27.5	29.4	2.9	1.9	.4	5.2
1924	8,269	10	19	617	644	.4	.8	24.9	26.1	2.4	.9	.5	3.8
1925	7,683	12	24	755	791	.5	1.0	32.8	34.3	3.1	1.6	.6	5.3
1926	9,857	19	19	474	512	.7	.7	16.0	17.4	3.9	.6	.4	4.9
1927	7,198	10	19	185	214	.5	.9	8.6	10.0	2.8	.9	.2	3.9
1910-1914	55,932	112	243	8,112	8,467	.7	1.5	48.6	50.8	4.0	1.4	.6	6.0
1915-1919	53,890	106	258	5,685	6,049	.7	1.6	35.2	37.5	3.9	1.6	.6	6.1
1920-1924	42,546	53	125	3,190	3,366	.4	1.0	25.0	26.4	2.5	1.2	.4	4.1
1925-1927	24,738	41	62	1,414	1,517	.6	.8	19.0	20.4	3.3	1.0	.4	4.7

Erection of structural steel

1915	803	8	7	251	266	3.3	2.9	104.2	110.4	19.9	4.3	1.2	25.4
1916	1,011	10	3	251	264	3.3	1.0	82.7	87.0	19.8	1.7	1.7	23.2
1917	1,156	12	15	442	469	3.5	4.3	127.5	135.3	20.8	4.0	2.2	27.0
1918	1,234	10	3	364	377	2.7	.8	98.3	101.8	16.2	2.0	1.4	19.6
1919	775	5	7	214	226	2.2	3.0	86.8	92.0	12.9	1.3	1.3	15.5
1920	637	6	12	204	222	3.3	6.6	111.8	121.7	19.7	3.7	2.5	25.9
1921	573	5	4	168	177	2.9	2.3	97.8	103.0	17.5	1.1	1.7	20.2
1922	595	5	2	129	136	2.8	1.1	72.3	76.2	16.8	2.5	1.8	21.1
1923	912	3	7	234	244	1.1	2.6	85.5	89.2	6.6	1.6	1.2	9.4
1924	1,009	10	10	291	311	3.3	3.3	96.1	102.7	19.8	3.4	1.9	25.1
1925	937	9	3	188	200	3.2	1.1	66.9	71.2	19.2	2.2	1.0	22.4
1926	774	11	5	180	196	4.8	2.2	78.3	85.3	28.4	2.3	1.3	32.0
1927	816	3	7	134	144	1.2	2.9	54.7	58.8	7.4	1.1	1.0	9.5
1912-1914	2,157	26	24	738	788	4.0	3.7	114.0	121.7	24.1	5.5	1.8	31.4
1915-1919	4,979	45	35	1,522	1,602	3.0	2.3	101.9	107.2	18.1	2.6	1.6	22.3
1920-1924	3,726	29	35	1,026	1,090	2.6	3.1	91.8	97.5	15.6	2.5	1.8	19.9
1925-1927	2,527	23	15	502	540	3.1	2.0	67.1	72.2	18.4	1.9	1.1	21.4

[1] Less than one-tenth per cent.

TABLE 11.—*Accidents and accident rates in the iron and steel industry, 1907 to 1927, by department, year, and period*—Continued

Coke ovens [2]

Year or period	Full-year workers	Number of cases				Frequency rates (per 1,000,000 hours' exposure)				Severity rates (per 1,000 hours' exposure)			
		Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total
1915	1,648	2	4	128	134	0.4	0.8	25.9	27.1	2.4	0.6	0.3	3.3
1916	2,195	5	6	150	161	.8	.9	22.7	24.4	4.6	.5	.4	5.5
1917	6,641	26	10	508	544	1.3	.5	25.5	27.3	7.8	.5	.4	8.7
1918	9,395	21	14	662	697	.7	.5	23.5	24.7	4.5	.5	.4	5.4
1919	9,022	12	10	647	669	.4	.4	23.9	24.7	2.7	.6	.4	3.7
1920	8,620	6	11	518	535	.2	.4	10.0	10.6	1.4	.7	.3	2.4
1921	5,768	2	4	182	188	.1	.2	10.5	10.8	.7	.3	.2	1.1
1922	6,554	2	1	207	210	.1	.1	10.5	10.7	.6	.2	.2	1.0
1923	8,961	7	14	416	437	.3	.5	15.5	16.3	1.6	1.1	.3	3.0
1924	7,506	9	15	254	278	.4	.7	11.3	12.4	2.4	.9	.1	3.5
1925	7,599	4	14	142	160	.2	.6	6.2	7.0	1.1	.9	.2	2.2
1926	10,745	19	22	277	318	.6	.7	8.6	9.9	3.5	.7	.2	4.4
1927	10,117	7	14	191	212	.2	.5	6.3	7.0	1.4	.5	.2	2.0
1912–1914	13,282	27	39	1,651	1,717	.7	1.0	41.4	43.1	4.1	1.5	.6	6.2
1915–1919	28,901	66	44	2,095	2,205	.8	.5	24.1	25.4	4.6	.5	.4	5.5
1920–1924	37,409	26	45	1,577	1,648	.2	.4	14.1	14.7	1.4	.7	.2	2.3
1925–1926	28,461	30	50	610	690	.4	.6	7.1	8.1	2.1	.7	.1	2.9

Miscellaneous departments

Axle works [3]

1915	191	-------	1	21	22	-------	1.7	36.6	38.3	-------	3.1	0.3	3.4
1916	372	-------	-------	17	17	-------	-------	15.2	15.2	-------	-------	.1	.1
1917	713	-------	-------	81	81	-------	-------	37.9	37.9	-------	-------	.9	.9
1918	609	-------	3	156	159	-------	1.6	85.4	87.0	-------	3.9	1.1	5.0
1919	582	-------	-------	63	63	-------	-------	36.1	36.1	-------	-------	.7	.7
1920	743	-------	-------	100	100	-------	-------	44.8	44.8	-------	-------	.7	.7
1921	242	1	-------	12	13	1.3	-------	16.5	17.9	8.3	-------	.5	8.7
1922	490	-------	-------	11	11	-------	-------	7.5	7.5	-------	-------	.1	.1
1923	774	-------	-------	30	30	-------	-------	12.9	12.9	-------	-------	.1	.1
1924	516	1	1	22	24	.6	.6	14.2	15.4	3.9	.2	.2	4.3
1925	436	-------	-------	6	6	-------	-------	4.6	4.6	-------	-------	.1	.1
1926	340	-------	4	9	13	-------	.4	.9	1.3	-------	2.8	3.2	6.0
1912–1914	1,326	2	4	438	444	.5	1.0	110.1	111.6	3.0	2.1	1.6	6.7
1915–1919	2,467	-------	4	338	342	-------	.5	45.7	46.2	-------	1.2	.7	1.9
1920–1924	2,764	2	1	175	178	.2	.1	21.1	21.5	1.4	(1)	.3	1.7

Car wheels

1915	389	-------	1	25	26	-------	0.9	21.4	22.3	-------	0.3	0.7	1.0
1916	734	2	2	348	352	0.9	.9	158.0	159.0	5.4	1.0	2.1	8.5
1917	1,296	3	4	250	257	.8	1.0	64.3	66.1	4.6	.4	.9	5.9
1918	1,866	1	-------	337	338	.2	-------	60.2	60.4	1.1	-------	.6	1.7
1919	1,619	1	11	353	365	.2	2.3	72.6	75.1	1.2	1.0	1.0	3.2
1920	1,215	-------	4	170	174	-------	1.0	46.7	47.7	-------	.9	.6	1.5
1921	552	1	2	92	95	.6	1.2	56.7	58.6	3.6	.5	.7	4.9
1922	1,102	-------	-------	78	78	-------	-------	23.6	23.6	-------	-------	.6	.6
1923	1,099	1	1	116	118	.3	.3	35.2	35.8	1.8	.2	.8	2.8
1924	1,083	1	3	137	141	.3	.9	42.2	43.4	1.8	.3	.8	2.9
1925	931	-------	3	69	72	-------	1.1	24.7	25.8	-------	1.3	.6	1.9
1926	792	-------	3	32	35	-------	1.2	13.3	14.5	-------	1.6	.4	2.0
1927	552	-------	4	17	21	-------	2.4	10.3	12.7	-------	3.6	.3	3.9
1912–1914	2,367	3	15	609	627	.4	2.1	85.8	88.3	2.5	.9	1.3	4.7
1915–1919	5,904	7	18	1,313	1,338	.4	1.0	74.1	75.5	2.4	.5	1.0	3.9
1920–1924	5,050	3	10	595	608	.2	.7	39.3	40.2	1.2	.4	.7	2.3
1925–1927	2,275	-------	10	118	128	-------	1.5	17.3	18.8	-------	1.9	.5	2.4

[1] Less than one-tenth of 1 per cent.

[2] This section of the table covers only those coke ovens operated in connection with steel works. For more complete information, see publications of the Bureau of Mines; also p. — of this bulletin.

[3] The 1927 record is so small that the figures have been included in "Unclassified." The 1925–1927 grouping has therefore been omitted.

TABLE 11.—*Accidents and accident rates in the iron and steel industry, 1907 to 1927, by department, year, and period*—Continued

Miscellaneous departments—Continued

Year or period	Full-year workers	Number of cases				Frequency rates (per 1,000,000 hours' exposure)				Severity rates (per 1,000 hours' exposure)			
		Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total
		Docks and ore yards											
1915	115		2	7	9		5.8	20.3	26.1		2.3	0.1	2.4
1916	195	3	2	16	21	5.1	3.4	27.4	35.9	30.8	7.3	.5	38.6
1917	353	2	1	78	81	1.9	.9	73.6	76.4	11.3	.7	1.0	13.0
1918	368	1	1	35	37	.9	.9	31.7	33.5	5.4	.3	.3	6.0
1919	352		6	39	45		5.7	37.0	42.7		10.4	.5	10.9
1920	379	1	2	12	15	.9	1.8	10.6	13.3	5.3	2.9	.1	8.3
1921	235			11	11			15.6	15.6			.5	.5
1922	271	3	3	7	13	3.7	3.7	8.6	16.0	22.2	7.6	.3	30.1
1923	538		3	15	18		1.9	9.2	11.1		3.9	.2	4.1
1924	340		4	12	16		3.9	11.8	15.7		14.4	.3	14.7
1925	388	2		7	9	1.7		6.0	7.7	10.3		.3	10.6
1926	389		1	8	9		.1	.7	.8		2.6	.3	2.9
1927	603	1	1	1	4	.6	.6	.6	1.8	3.3	.2	(1)	3.5
1911–1914	1,293	3	11	139	153	.8	2.8	35.8	39.4	4.6	2.8	.8	8.2
1915–1919	1,383	6	12	175	193	1.4	2.9	42.2	46.5	8.7	4.1	.5	13.3
1920–1924	1,761	4	12	57	73	.8	2.3	10.8	13.9	4.5	5.8	.3	10.6
1925–1927	1,380	3	2	16	21	.7	.5	3.9	5.1	4.3	.8	.2	5.3
		Woven wire fence											
1915	1,552		10	294	304		2.1	63.1	65.2		1.2	0.5	1.7
1916	1,623		18	180	198		3.7	37.0	40.7		3.0	.4	3.4
1917	1,269		10	98	108		2.6	25.7	28.3		2.1	.4	2.5
1918	1,531		5	77	82		1.1	16.8	17.9		1.0	.2	1.2
1919	1,336	1	4	35	40	0.2	1.0	8.7	9.9	1.5	.6	.2	2.3
1920	1,097		6	48	54		1.8	14.6	16.4		2.9	.2	3.1
1921	1,095		3	79	82		.9	24.1	30.0		.8	.4	1.2
1922	1,528		6	85	91		1.3	18.5	19.8		.7	.4	1.1
1923	1,603	1	3	124	128	.2	.6	25.8	26.6	1.2	.5	.2	1.9
1924	1,301		6	63	69		1.5	16.1	17.6		1.3	.2	1.5
1925	1,290		2	105	107		.5	27.1	27.6		.2	.4	.6
1926	1,363		6	83	89		1.5	20.8	22.3		.5	.3	.8
1927	1,204		2	47	49		.6	13.0	13.6		1.0	.1	1.1
1915–1919	7,311	1	47	684	732	.1	2.1	31.2	33.4	.3	1.6	.3	2.2
1920–1924	6,623	1	24	399	424	.1	1.2	20.1	21.4	.3	1.2	.3	1.8
1925–1927	3,857		10	235	245		.9	20.3	21.2		.6	.3	.9
		Nails and staples											
1915	1,546	1	12	181	194	0.2	2.6	39.0	41.8	1.3	1.7	0.3	3.3
1916	1,993		10	236	246		.2	39.5	39.7		1.0	1.4	2.4
1917	2,323	1	16	184	201	.1	2.3	26.4	28.8	.9	2.1	.3	3.3
1918	1,916		10	123	133		1.7	21.4	23.1		1.2	.2	1.4
1919	2,040		8	58	66		1.3	9.5	10.8		.5	.1	.6
1920	2,364		8	164	172		1.1	23.1	24.2		.8	.1	.9
1921	1,718	1	6	91	98	.2	1.2	17.7	19.0	1.2	.6	.3	2.1
1922	2,366	1	10	121	132	.1	1.4	17.0	18.5	.8	1.3	.3	2.4
1923	3,404	1	7	131	139	.1	.9	17.4	18.5	.8	1.2	.2	2.2
1924	1,939		6	81	87		1.0	13.9	14.9		1.0	.2	1.2
1925	1,925		6	88	94		1.0	15.2	16.2		1.6	.2	1.8
1926	2,658		2	100	102		.3	16.4	16.7		.1	.2	.3
1927	1,424		1	35	36		.2	8.2	8.4		.1	.1	.2
1915–1919	9,818	2	56	782	840	.1	1.9	26.5	28.5	.4	1.3	.3	2.0
1920–1924	10,890	3	37	588	628	.1	1.1	18.0	19.2	.6	1.0	.2	1.8
1925–1927	6,007		9	223	232		.5	12.4	12.9		.6	.2	.8

[1] Less than one-tenth of 1 per cent.

TABLE **11.**—*Accidents and accident rates in the iron and steel industry, 1907 to 1927, by department, year, and period*—Continued

Miscellaneous departments—Continued

Year or period	Full-year workers	Number of cases				Frequency rates (per 1,000,000 hours' exposure)				Severity rates (per 1,000 hours' exposure)			
		Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total
		Hot mills											
1923	6,374	2	9	820	831	0.1	0.5	42.9	43.5	0.6	0.4	0.5	1.5
1924	5,789	1	7	634	642	.1	.4	36.6	37.1	.3	.5	.6	1.4
1925	7,773	4	19	913	936	.2	.8	39.1	40.1	1.0	.7	.6	2.3
1926	4,319	4	15	834	853	.3	1.2	64.2	65.7	3.9	1.3	1.6	6.8
1927	8,649	1	11	673	685	(1)	.4	25.8	26.3	.2	.5	.3	1.0
1920–1924	30,018	11	39	3,223	3,273	.1	.4	35.8	36.3	.7	.4	.5	1.6
1925–1927	20,741	9	45	2,420	2,474	.1	.7	38.9	39.7	.9	.6	.5	2.0
		Cold rolling[4]											
1926	1,824	-------	2	211	213	-------	0.4	38.3	38.7	-------	0.8	0.4	1.2
1927	1,686	1	6	187	194	.2	1.2	37.0	38.4	1.2	.4	.6	2.2
		Unclassified											
1915	21,547	16	41	2,749	2,806	0.2	0.6	42.5	43.3	1.5	0.6	0.6	2.7
1916	24,216	17	72	2,714	2,803	.2	1.0	37.4	38.6	1.4	1.4	.6	3.4
1917	71,249	65	164	8,165	8,394	.3	.8	38.2	39.3	1.8	.8	.5	3.1
1918	97,513	79	284	9,930	10,293	.3	1.0	33.9	35.2	1.6	.9	.5	2.9
1919	78,804	60	145	7,054	7,259	.3	.6	29.8	30.7	1.5	.7	.4	2.6
1920	104,741	72	261	11,208	11,541	.2	.8	35.7	36.7	1.4	.9	.5	2.8
1921	53,403	36	134	4,468	4,638	.2	.8	27.9	28.9	1.3	.8	.5	2.6
1922	79,405	39	233	6,848	7,120	.2	1.0	28.7	29.9	1.0	.8	.4	2.2
1923	95,138	52	273	9,719	10,044	.2	1.0	34.1	35.3	1.1	.9	.5	2.5
1924	93,018	66	285	8,032	8,383	.2	1.0	28.8	30.0	1.4	.9	.5	2.8
1925	132,291	45	308	10,648	11,001	.1	.8	26.8	27.7	.7	.7	.4	1.8
1926	112,826	58	306	8,325	8,689	.2	.9	24.6	25.7	1.0	.7	.3	2.0
1927	95,957	49	282	5,907	6,238	.2	1.0	20.5	21.7	1.0	.8	.3	2.1
1915–1919	293,329	237	706	30,612	31,555	.3	.8	34.8	35.9	1.6	1.3	.5	3.4
1920–1924	425,704	265	1,186	40,275	41,736	.2	.9	31.5	32.6	1.2	.9	.5	2.6
1925–1927	341,074	152	896	24,880	25,928	.1	.9	24.4	25.4	.9	.7	.4	2.0

[1] Less than one-tenth of 1 per cent.
[4] The 1925–1927 grouping has been omitted since data for 1925 are not available.

ACCIDENT RATES IN THE INDUSTRY, 1922 TO 1927, BY STATE

It is not claimed that the following table is complete; it simply records by States and years such information as has been accumulated from year to year, and probably represents something like 90 per cent of the industry. Where the bureau's records showed less than 1,000 full-year workers in a State that State has been omitted. The general trend in the rates has been quite constantly downwards, and this downward trend is more pronounced in those States where accident prevention has been applied to the problem for the longest time and with the utmost energy. When these figures are compared with the best that are on record, however, it is clearly evident that further progress is still possible.

TABLE 12.—*Accident frequency and severity rates in the iron and steel industry, 1922 to 1927, by State and year*

State and year	Full-year workers	Number of cases				Frequency rates (per 1,000,000 hours' exposure)				Severity rates (per 1,000 hours' exposure)			
		Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total
Alabama:													
1922	10,998	10	51	1,163	1,224	0.30	1.55	35.25	37.10	1.82	1.17	0.48	3.47
1923	11,915	7	78	1,348	1,433	.20	2.18	37.74	40.09	1.18	1.77	.87	3.82
1924	13,705	16	41	1,127	1,184	.39	1.00	27.41	28.80	2.33	1.06	.62	4.01
1925	15,244	14	46	508	568	.31	1.00	12.07	13.38	1.84	1.37	.19	3.40
1926	19,887	30	130	1,370	1,530	.50	2.18	22.95	25.63	3.02	1.56	.39	4.97
1927	14,493	12	77	809	898	.28	1.77	18.61	20.66	1.66	1.43	.36	3.45
California:													
1922	4,013	3	35	711	749	.25	2.91	59.05	62.21	1.50	2.63	.80	4.93
1923	3,113	3	11	597	611	.32	1.18	63.92	65.42	1.93	1.19	.75	3.87
1924	2,901	2	16	522	540	.23	1.84	59.97	62.04	1.38	1.43	1.34	4.15
1925	3,018	1	10	278	289	.11	1.11	30.70	31.92	.66	1.56	.71	2.93
1926	2,908	-------	16	825	841	-------	1.86	95.93	97.82	-------	2.09	1.20	3.29
1927	1,370	-------	4	225	229	-------	.97	54.76	55.73	-------	1.02	.91	1.93
Colorado:													
1922	3,351	3	2	367	372	.30	.20	36.51	37.01	1.79	.27	.36	2.42
1923	4,164	7	13	462	482	.56	1.04	36.98	38.58	3.36	1.22	.76	5.34
1924	4,269	6	22	452	480	.47	1.72	35.29	37.48	2.81	1.52	.63	4.96
1925	4,243	3	14	592	609	.24	1.10	46.50	47.84	1.41	.93	.78	3.12
1926	4,507	2	13	668	683	.15	.96	49.48	50.59	.89	1.15	.71	2.75
1927	4,074	6	27	474	507	.49	2.21	38.78	41.48	2.95	1.75	.51	5.21
Connecticut:													
1922	3,778	3	22	510	535	.26	1.94	44.99	47.19	1.59	1.38	.67	3.64
1923	5,307	5	34	446	485	.31	2.14	28.01	30.46	1.88	1.58	.27	3.73
1924	5,639	6	40	522	568	.35	2.36	30.85	33.56	2.13	1.31	.43	3.87
1925	7,263	5	49	778	832	.23	2.24	35.72	38.19	1.38	.28	.35	2.01
1926	2,908	1	47	366	414	.13	5.40	42.07	47.60	.68	2.47	.72	3.81
1927	4,458	1	27	276	304	.07	1.97	20.09	22.13	.44	1.58	.34	2.36
Illinois:													
1922	23,926	16	95	2,370	2,481	.22	1.32	33.02	34.56	1.34	1.00	.44	2.78
1923	40,097	39	171	3,753	3,963	.32	1.42	31.20	32.94	1.95	1.63	.55	4.13
1924	38,147	21	126	2,934	3,081	.19	1.13	26.26	27.58	1.13	.98	.21	2.32
1925	35,810	20	120	2,551	2,691	.19	1.12	23.75	25.06	1.12	1.32	.36	2.80
1926	37,574	25	114	2,916	3,055	.22	1.01	25.87	27.10	1.33	.82	.38	2.53
1927	49,576	20	124	1,611	1,755	.13	.83	10.83	11.79	.81	.76	.19	1.76
Indiana:													
1922	36,683	18	113	2,200	2,331	.16	1.03	20.05	21.24	.98	.95	.27	2.20
1923	22,887	12	67	1,746	1,825	.17	.98	25.43	26.58	1.05	.86	.33	2.34
1924	34,846	30	69	1,591	1,690	.29	.66	15.22	16.17	1.72	.75	.28	2.75
1925	32,743	25	86	2,110	2,221	.25	.88	21.48	22.61	1.53	.73	.31	2.57
1926	38,735	42	133	1,405	1,580	.36	1.14	12.09	13.59	2.17	.98	.22	3.37
1927	43,120	13	92	1,302	1,407	.10	.71	10.07	10.88	.60	.58	.19	1.37
Kentucky:													
1922	1,396	2	10	477	489	.48	2.39	113.89	116.76	2.87	1.43	1.82	6.12
1923	2,601	5	18	899	922	.64	2.31	115.22	118.17	3.84	4.31	.87	9.02
1924	1,734	1	9	144	154	.19	1.73	27.68	29.60	1.15	1.58	.39	3.12
1925	2,550	13	15	193	221	1.70	1.96	25.23	28.89	10.20	1.83	.39	12.42
1926	3,744	3	30	273	300	.26	2.67	24.37	27.30	1.60	2.57	.25	4.42
1927	4,450	5	26	295	326	.37	1.95	22.10	24.42	2.25	1.62	.35	4.22
Maryland: 1927	10,973	18	15	1,080	1,113	.55	.46	32.81	33.82	3.28	.52	.58	4.38
Massachusetts:													
1922	5,610	7	29	337	373	.41	1.71	19.90	22.02	2.48	1.64	.53	4.65
1923	5,018	4	26	230	260	.27	1.73	15.28	17.28	1.59	1.08	.57	3.24
1924	7,580	3	22	246	271	.13	.97	10.82	11.92	.79	1.55	.29	2.63
1925	6,645	1	7	126	134	.05	.35	6.32	6.72	.30	.33	.21	.84
1926	7,150	5	18	247	270	.23	.83	11.48	12.54	1.42	.78	.32	2.52
1927	7,230	5	13	229	247	.23	.60	10.56	11.39	1.38	.63	.27	2.28
Michigan:													
1922	3,928	6	16	916	938	.51	1.36	77.73	79.60	3.05	1.29	.86	5.20
1923	4,399	11	19	984	1,014	.83	1.44	74.57	76.84	5.00	1.05	.93	6.98
1924	2,457	4	14	583	601	.54	1.90	79.08	81.52	3.26	3.36	.90	7.72
1925	4,869	4	8	1,093	1,105	.27	.56	74.83	75.66	1.64	.70	.92	3.26
1926	5,643	3	16	1,086	1,105	.18	.95	64.15	65.28	1.06	.67	.89	2.62
1927	3,489	2	10	620	632	.19	.96	59.23	60.38	1.15	.51	.79	2.45
Missouri:													
1922	4,676	6	12	1,632	1,650	.43	.86	116.35	117.64	2.57	1.01	1.41	4.99
1923	4,255	-------	4	903	907	-------	.31	70.74	71.05	-------	.33	.84	1.17
1924	1,284	1	8	266	275	.26	2.08	69.06	71.40	1.56	1.78	.76	4.10
1925	3,662	1	2	294	297	.09	.18	26.76	27.03	.55	.19	.34	1.08
1926	3,215	3	6	443	452	.31	.61	46.14	47.06	1.86	.68	.54	3.08
1927	2,913	1	3	268	272	.11	.34	30.67	31.12	.69	.19	.56	1.44

TABLE 12.—*Accident frequency and severity rates in the iron and steel industry, 1922 to 1927, by State and year*—Continued

State and year	Full-year workers	Number of cases				Frequency rates (per 1,000,000 hours' exposure)				Severity rates (per 1,000 hours' exposure)			
		Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total
New Jersey:													
1922	6,597	1	37	625	663	0.05	1.87	31.58	33.50	0.30	1.20	0.55	2.05
1923	7,341		47	780	827		2.13	35.42	37.55		2.17	.57	2.74
1924	7,175		47	772	819		2.18	35.87	38.05		2.69	.70	3.39
1925	6,923	4	31	769	804	.19	1.49	37.03	37.71	1.16	1.46	.59	3.21
1926	7,896	4	30	568	602	.16	1.26	23.96	25.38	1.01	.92	.37	2.30
1927	7,420	6	42	331	379	.27	1.89	14.87	17.03	1.62	1.68	.30	3.60
New York:													
1922	9,785	11	47	1,625	1,683	.43	1.85	64.13	66.42	2.60	1.82	.99	5.41
1923	11,377	9	65	2,141	2,215	.26	1.90	62.73	64.89	1.58	1.84	.73	4.15
1924	6,903	5	51	1,107	1,163	.24	2.46	53.46	56.16	1.45	2.03	.94	4.42
1925	10,372	7	66	2,725	2,799	.22	2.12	87.58	89.92	1.35	2.35	.89	4.59
1926	9,442	7	43	1,821	1,871	.24	1.51	64.34	66.09	1.48	.90	.95	3.33
1927	8,785	5	45	884	934	.19	1.71	33.54	35.44	1.14	1.32	.73	3.19
Ohio:													
1922	51,424	42	125	5,268	5,435	.27	.81	34.15	35.23	1.63	.66	.48	2.77
1923	77,979	39	201	5,763	6,003	.17	.86	24.63	25.66	1.00	.87	.39	2.26
1924	75,282	57	181	5,223	5,461	.25	.80	23.13	24.18	1.54	.98	.36	2.88
1925	86,820	33	150	5,059	5,242	.13	.58	19.42	20.13	.76	.53	.25	1.54
1926	92,678	48	172	5,630	5,850	.17	.62	20.25	21.04	1.03	.44	.23	1.71
1927	91,377	37	190	5,313	5,540	.13	.69	19.38	20.20	.81	.58	.32	1.71
Pennsylvania:													
1922	102,186	60	103	8,364	8,527	.20	.34	27.28	27.82	1.17	.34	.45	1.96
1923	140,259	112	244	12,188	12,544	.27	.58	28.97	29.82	1.60	.59	1.03	3.22
1924	154,800	54	244	8,382	8,680	.12	.53	18.05	18.70	.70	.34	.30	1.34
1925	149,089	75	218	9,527	9,820	.18	.49	21.30	21.97	1.01	.45	.26	1.72
1926	196,124	77	204	7,763	8,044	.13	.34	13.17	13.64	.79	.09	.20	1.08
1927	146,595	103	239	6,727	7,069	.23	.54	15.30	16.07	1.41	.53	.31	2.25
Tennessee:													
1922	1,543		4	220	228		.86	47.52	48.38		1.49	.69	2.18
1923	2,258	9	19	437	465	1.33	2.80	64.50	68.63	7.97	2.26	1.03	11.23
1924	1,503	3	6	77	86	.67	1.33	17.08	19.07	3.99	1.60	.25	5.84
1925	1,256	1	2	196	199	.27	.53	52.02	52.82	1.59	1.67	.69	3.95
1926	1,139	1		32	33	.30		9.41	9.71	1.75		.13	1.88
1927	1,354	1	1	114	116	.25	.25	28.07	28.57	1.48	.44	.48	2.40
Washington:													
1922	534		6	80	86		3.75	49.95	53.70		5.99	.59	6.58
1923	2,258		1	77	78		.42	32.09	32.51		.13	.50	.63
1924	1,503		2	66	68		1.11	36.50	37.61		1.49	1.49	.88
1925	1,256	2	3	181	186	.55	.83	49.89	51.27	3.31	1.27	1.15	5.73
1926	1,348	1	6	148	155	.25	.15	37.00	38.30	1.48	.96	.48	2.92
1927	763		2	69	71		.87	30.17	31.04		1.57	.58	2.15
West Virginia:													
1922	2,702	2	6	592	600	.24	.74	73.03	74.01	1.48	.84	.85	3.17
1923	9,336	8	13	749	770	.29	.46	26.74	27.49	1.71	.54	.33	2.58
1924	4,613	7	18	806	831	.51	1.30	58.24	60.05	3.03	1.53	1.70	6.26
1925	7,964	13	14	537	564	.54	.59	22.48	23.61	3.26	.67	.28	4.21
1926	14,124	12	30	1,306	1,348	.28	.71	30.87	31.86	1.70	.41	.35	2.46
1927	12,414	15	21	1,279	1,315	.40	.56	34.34	35.30	2.42	.56	.56	3.54
Wisconsin:													
1922	5,441		20	790	810		1.23	48.40	49.63		1.39	.73	2.12
1923	4,264	3	17	708	728	.23	1.33	55.34	56.90	1.41	1.23	.78	3.42
1924	8,321	5	47	1,275	1,327	.20	1.88	51.08	53.16	1.20	1.57	.68	3.45
1925	6,089	2	34	1,121	1,157	.13	2.18	72.02	74.33	.77	2.11	.81	3.69
1926	10,481	6	66	1,214	1,286	.19	2.10	38.66	40.95	1.14	1.76	.55	3.45
1927	3,992	4	26	641	671	.33	2.17	53.52	56.02	2.00	1.66	.59	4.25

ANALYSIS OF ACCIDENT CAUSES IN THE INDUSTRY BY DEPARTMENT

The comparison in this section is based on the records of two 5-year periods. A third period will not be completed until the end of 1929. The tables present the experience of 13 departments for 7 large groups. In the portion of the tables pertaining to 1915–1919 the departments were arranged in the order of their accident severity. To make comparison of the two periods as easy as possible, in the

portion of the table relating to 1920–1924 the departments are given the same order as for 1915–1919 and not according to their accident severity.

The most striking feature of these tables is the constancy with which practically every department records lower rates in the second period.

It should be noted that, in order to avoid the use of small decimals in this group of tables, the frequency and severity rates have been figured on the basis of 10,000,000 and 10,000 hours' exposure, respectively.

MACHINERY

In the first period the electrical department suffered most severely from accidents. In the second period there is but one department with a lower severity rate. Evidently the high severity rate of the first period is not wholly typical. Since the group of the second period is much larger, it may be assumed that it more accurately reflects the relations of the departments.

The highest accident frequency (158.7) of the first period is found in the fabricating department. In the second period the highest frequency (114) appears in foundries.

TABLE 13.—*Machinery as a cause of accident: Number of cases and accident frequency and severity rates, 1915 to 1919, and 1920 to 1924, by department*

Department and period	Full-year workers	Number of cases				Frequency rates (per 10,000,000 hours' exposure)				Severity rates (per 10,000 hours' exposure)			
		Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total
1915–1919													
Electrical	4,191	5	6	65	76	4.0	4.8	51.7	60.5	23.86	6.44	1.08	31.38
Open hearths	20,525	16	22	365	403	2.6	3.6	59.3	65.5	15.59	2.12	1.54	19.25
Fabricating	11,110	5	40	484	529	1.5	12.0	145.2	158.7	9.00	6.74	2.81	18.55
Bessemer	5,450	4	4	46	54	2.4	2.4	28.1	33.0	14.68	1.28	.78	16.74
Blast furnaces	17,621	9	19	125	153	1.7	3.6	23.6	28.9	10.22	3.72	.58	14.52
Yards	9,819	5	9	87	101	1.7	3.1	29.5	34.3	10.18	2.78	.60	13.57
Foundries	10,222	4	12	308	324	1.3	3.9	100.4	105.6	7.83	3.18	2.04	13.05
Plate mills	14,711	6	19	347	372	1.4	4.3	78.6	84.3	8.16	2.65	1.87	12.68
Tube mills	11,621	4	17	98	119	1.2	5.0	29.0	35.2	7.10	3.99	1.20	12.29
Mechanical	24,752	8	33	597	638	1.1	4.4	80.4	85.9	6.46	3.17	1.53	11.16
Heavy rolling mills	27,123	7	42	403	452	.9	5.1	49.5	55.5	5.16	4.32	1.23	10.71
Sheet mills	5,920	-------	8	65	73	-------	4.5	36.6	41.1	-------	2.70	.84	3.54
Unclassified	55,534	18	68	1,125	1,211	1.1	4.1	67.5	72.7	6.48	3.64	1.47	11.59
1920–1924													
Electrical	14,002	2	8	90	100	.5	1.9	21.4	23.8	2.86	1.64	.51	5.01
Open hearths	60,087	24	36	533	593	1.3	2.0	29.6	32.9	7.99	1.83	.76	10.58
Fabricating	20,049	6	21	485	512	1.0	3.5	80.6	85.1	5.99	3.53	1.75	11.27
Bessemer	19,853	3	9	119	131	.5	1.5	20.0	22.0	3.02	1.53	.55	5.10
Blast furnaces	54,773	11	23	187	221	.7	1.4	11.4	13.5	4.02	1.16	.29	5.47
Yards	20,118	5	12	116	133	.8	2.0	19.2	22.0	4.97	1.83	.45	7.25
Foundries	37,129	6	49	1,215	1,270	.5	4.4	109.1	114.0	3.23	2.56	2.05	7.84
Plate mills	22,428	7	18	220	245	1.0	2.7	32.7	36.4	6.24	1.23	.84	8.31
Tube mills	68,335	8	53	416	477	.4	2.6	20.3	23.3	2.34	1.52	.56	4.42
Mechanical	89,481	12	61	793	866	.5	2.3	29.5	32.3	2.68	1.78	.58	5.04
Heavy rolling mills	48,082	16	35	505	556	1.1	2.4	35.0	38.6	6.66	1.39	.97	9.02
Sheet mills	45,618	7	44	339	390	.5	3.2	24.8	28.5	3.07	2.77	.65	6.49
Unclassified	107,317	22	49	851	922	.7	1.5	26.4	28.6	4.10	1.29	.61	6.00

POWER VEHICLES

As might be expected yards have the greatest accident severity (54.35 in 1915–1919 and 31.83 in 1920–1924) from power vehicles. In accident frequency also this is the leading accident cause (165.3 in 1915–1919 and 66.4 in 1920–1924).

In the first period blast furnaces (18.96) stand next in severity while in the second period open hearths (7.24) occupy this position. It will be noticed that their rates are very much lower than those for yards. In fact, yards present a serious problem to any safety man. It has been noted elsewhere that in many cases motion is the element of hazard. A localized machine with its moving parts presents dangers. When to the machine is added a motion from place to place the dangers multiply. That the difficulties are not insoluble the records of the two periods strikingly indicate.

TABLE **14.**—*Power vehicles as a cause of accident: Number of cases and accident frequency and severity rates, 1915 to 1919 and 1920 to 1924, by department*

Department and period	Full-year workers	Number of cases				Frequency rates (per 10,000,000 hours' exposure)				Severity rates (per 10,000 hours' exposure)			
		Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total
1915–1919													
Yards	9,819	20	24	443	487	6.8	8.1	150.4	165.3	40.74	9.86	3.75	54.35
Blast furnaces	17,621	15	3	131	149	2.8	.6	24.8	28.2	17.03	1.45	.48	18.96
Bessemer	5,450	3	5	41	49	1.8	3.1	25.1	30.0	11.00	1.28	1.22	13.50
Open hearths	20,525	8	16	178	202	1.3	2.6	28.0	32.8	7.80	3.21	.76	11.77
Heavy rolling mills	27,123	6	7	48	61	.7	.9	5.9	7.5	4.42	1.22	.28	5.92
Mechanical	24,752	2	2	48	52	.3	.3	6.5	7.1	1.62	.86	.28	2.76
Tube mills	11,621	------	2	7	9	------	.6	2.1	2.7	------	.62	.18	.80
Electrical	4,191	------	-----	7	7	------	-----	5.6	5.6	------	-----	.16	.16
Foundries	10,222	------	-----	21	21	------	-----	6.8	6.8	------	-----	.12	.12
Fabricating	11,110	------	-----	13	13	------	-----	3.9	3.9	------	-----	.10	.10
Plate mills	14,711	------	-----	20	20	------	-----	4.5	4.5	------	-----	.07	.07
Sheet mills	5,920												
Unclassified	55,534	14	7	192	213	.8	.4	11.5	12.7	5.04	1.17	.23	6.44
1920–1924													
Yards	20,118	24	23	354	401	4.0	3.8	58.7	66.4	23.86	6.33	1.64	31.83
Blast furnaces	54,773	8	2	150	160	.5	.1	9.1	9.7	2.92	.16	.22	3.30
Bessemer	19,853	1	-----	67	68	.2	-----	11.3	11.4	1.01	-----	.34	1.35
Open hearths	60,087	16	21	263	300	.9	1.2	14.6	16.6	5.33	1.49	.42	7.24
Heavy rolling mills	48,082	4	5	62	71	.3	.4	4.3	4.9	1.66	.59	.12	2.37
Mechanical	89,481	4	4	91	99	.2	.6	3.4	3.7	.89	.19	.13	1.21
Tube mills	68,335	2	1	55	58	.1	.6	2.7	2.8	.59	.01	.07	.07
Electrical	14,002	2	-----	12	14	.5	-----	2.9	3.3	2.86	-----	.06	2.92
Foundries	37,129	1	2	76	79	.1	.2	6.8	7.1	.54	.05	.15	.74
Fabricating	20,049	1	-----	31	32	.2	-----	5.2	5.3	1.00	-----	.14	1.14
Plate mills	22,428	------	-----	12	12	------	-----	1.8	1.8	------	-----	.08	.08
Sheet mills	45,618	1	4	60	65	.1	.3	4.4	4.7	.44	.48	.08	1.00
Unclassified	107,317	13	8	311	332	.4	.3	9.7	10.3	2.42	.51	.24	3.17

HOT SUBSTANCES

Accidents due to hot metal and the electric current are characteristic accidents of the iron and steel industry. It is, however, somewhat surprising that the electrical department has, in both periods, the second highest accident frequency (98.7 in 1915–1919 and 42.1 in 1920–1924).

This is, of course, due to the instances where electricians handle live parts and get more or less severe burns. A comparison of the two periods indicates that the precautions which have come into use in the last five years have been very effective.

TABLE **15.**—*Hot substances as a cause of accident: Number of cases and accident frequency and severity rates, 1915 to 1919 and 1920 to 1924, by department*

Department and period	Full-year workers	Number of cases				Frequency rates (per 10,000,000 hours' exposure)				Severity rates (per 10,000 hours' exposure)			
		Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total
1915–1919													
Electrical	4,191	4	1	119	124	3.2	0.8	94.7	98.7	19.09	4.77	1.12	24.98
Bessemer	5,450	6	-----	114	120	3.7	-----	69.7	73.4	22.02	-----	2.01	24.03
Blast furnaces	17,621	13	5	418	436	2.5	.9	79.1	82.5	14.76	2.21	1.57	18.54
Open hearths	20,525	14	3	764	781	2.3	.5	124.1	126.9	13.64	.66	2.35	16.65
Foundries	10,222	3	-----	167	170	1.0	-----	54.5	55.5	5.87	-----	1.15	7.02
Heavy rolling mills	27,123	6	3	236	245	.7	.4	29.0	30.1	4.42	.66	.62	5.70
Plate mills	14,711	2	-----	160	162	.5	-----	36.3	36.8	2.72	-----	.42	3.14
Mechanical	24,752	3	-----	181	184	.4	-----	24.4	24.8	2.42	-----	.37	2.79
Tube mills	11,621	1	-----	53	54	.3	-----	15.7	16.0	1.78	-----	.40	2.18
Fabricating	11,110	1	-----	40	41	.3	-----	12.0	12.3	1.80	-----	.15	1.95
Sheet mills	5,920	-----	-----	39	39	-----	-----	22.0	22.0	-----	-----	.28	.28
Yards	9,819	-----	-----	51	51	-----	-----	17.3	17.3	-----	-----	.27	.27
Unclassified	55,534	8	4	632	644	.5	.2	37.9	38.6	2.88	.40	.66	3.94
1920–1924													
Electrical	14,002	3	-----	174	177	.7	-----	41.4	42.1	4.3	-----	.7	4.9
Bessemer	19,853	3	-----	165	168	.5	-----	27.7	28.2	3.0	-----	.6	3.7
Blast furnaces	54,773	30	4	576	610	1.8	.2	35.0	37.1	11.0	.6	.8	12.3
Open hearths	60,087	20	2	894	916	1.1	.1	49.6	50.8	6.7	.2	.9	7.8
Foundries	37,129	-----	2	440	442	-----	.2	39.5	39.7	-----	.3	.6	.9
Heavy rolling mills	48,082	2	1	245	248	.1	.1	17.0	17.2	.8	.1	.3	1.3
Plate mills	22,428	1	1	116	118	.2	.2	17.2	17.5	.9	.1	.3	1.3
Mechanical	89,481	8	1	382	391	.3	.0	14.2	14.6	1.8	.2	.2	2.2
Tube mills	68,335	3	-----	302	305	.2	-----	14.7	14.9	.9	-----	.3	1.2
Fabricating	20,049	2	1	78	81	.3	.2	13.0	13.5	2.0	.3	.2	2.5
Sheet mills	45,618	1	-----	300	301	.1	-----	22.0	22.0	.4	-----	.3	.8
Yards	20,118	-----	-----	68	68	-----	-----	11.3	11.3	-----	-----	.2	.2
Unclassified	107,317	12	5	628	645	.4	.2	19.5	20.0	2.2	.3	.3	2.8

FALLS OF PERSONS

That the electrical department again heads the list in the first period in severity (11.21) of accidents due to falls of persons and is next to the highest (3.40) in the second period is due in part to inclusion of linemen, whose duties call for work at a height from which a fall may easily occur. It is quite possible that some of these falls are chargeable to electric shock. In the first period the electrical department also has the highest accident frequency (58.1), followed by open hearths (45.8).

In the second period the highest accident frequency (28.0) is found in foundries; in the second period the highest severity rate (3.71) is in blast furnaces.

TABLE 16.—*Falls of persons as a cause of accident: Number of cases and accident frequency and severity rates, 1915 to 1919 and 1920 to 1924, by department*

Department and period	Full-year workers	Number of cases				Frequency rates (per 10,000,000 hours' exposure)				Severity rates (per 10,000 hours' exposure)			
		Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total
1915–1919													
Electrical	4,191	2	-----	71	73	1.6	-----	56.5	58.1	9.54	-----	1.67	11.21
Blast furnaces	17,621	4	4	191	199	.8	0.8	36.1	37.7	4.54	2.19	.68	7.41
Mechanical	24,752	5	-----	289	294	.7	-----	38.9	39.6	4.04	-----	.89	4.93
Foundries	10,222	1	1	75	77	.3	.3	24.5	25.1	1.96	.20	.30	2.46
Fabricating	11,110	1	-----	93	94	.3	-----	27.9	28.2	1.80	-----	.50	2.30
Tube mills	11,621	1	-----	37	38	.3	-----	10.9	11.2	1.78	-----	.35	2.13
Bessemer	5,450	-----	-----	47	47	-----	-----	28.7	28.7	-----	-----	1.36	1.36
Open hearths	20,525	-----	-----	282	282	-----	-----	45.8	45.8	-----	-----	1.04	1.04
Heavy rolling mills	27,123	-----	1	203	204	-----	.1	24.9	25.0	-----	.09	.53	.62
Plate mills	14,711	-----	-----	120	120	-----	-----	27.2	27.2	-----	-----	.41	.41
Sheet mills	5,920	-----	-----	40	40	-----	-----	22.5	22.5	-----	-----	.41	.41
Yards	9,819	-----	-----	73	73	-----	-----	24.8	24.8	-----	-----	.38	.38
Unclassified	55,534	7	3	537	547	.4	.2	32.2	32.8	2.52	.07	.57	3.16
1920–1924													
Electrical	14,002	2	-----	85	87	.5	-----	20.2	20.7	2.86	-----	.54	3.40
Blast furnaces	54,773	9	3	274	286	.6	.2	16.3	17.4	3.29	.06	.36	3.71
Mechanical	89,481	12	4	506	522	.5	.2	18.9	19.5	2.68	.09	.50	3.27
Foundries	37,129	-----	-----	312	312	-----	-----	28.0	28.0	-----	-----	.39	.39
Fabricating	20,049	2	-----	138	140	.3	-----	22.9	23.3	2.00	-----	.47	2.47
Tube mills	68,335	2	-----	212	214	.1	-----	10.3	10.4	.59	-----	.26	.85
Bessemer	19,853	-----	-----	73	73	-----	-----	12.3	12.3	-----	-----	.35	.35
Open hearths	60,087	6	2	419	427	.3	.1	23.2	23.7	2.00	.04	.50	2.54
Heavy rolling mills	48,082	2	1	253	256	.1	.1	17.5	17.8	.83	.02	.36	1.21
Plate mills	22,428	1	1	92	94	.2	.2	13.7	14.0	.89	.11	.23	1.23
Sheet mills	45,618	2	-----	193	195	.2	-----	14.1	14.3	.88	-----	.26	1.14
Yards	20,118	1	-----	148	149	.2	-----	24.5	24.7	.99	-----	.45	1.44
Unclassified	107,317	12	1	684	697	.4	.0	21.3	21.7	2.24	.01	.40	2.65

FALLING OBJECTS

The high accident severity rate (8.61) for falling objects in the Bessemer department in the first period is, in part at least, associated with the feeding of scrap into the converting vessels. In the older types of construction this was done in a manner permitting the material to fall rather frequently and endangering the men working below, but in recent construction this hazard has been largely overcome.

In the first period the highest accident frequency (78) is found in foundries. The same department also has the highest frequency (82.2) in the second period. This is one of the few cases in which the second period has a higher rate than the first.

TABLE 17.—*Falling objects as a cause of accident: Number of cases and accident frequency and severity rates, 1915 to 1919 and 1920 to 1924, by department*

Department and period	Full-year workers	Number of cases				Frequency rates (per 10,000,000 hours' exposure)				Severity rates (per 10,000 hours' exposure)			
		Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total
1915–1919													
Bessemer	5,450	2	2	65	69	1.2	1.2	39.8	42.2	7.34	0.37	0.90	8.61
Open hearths	20,525	7	3	351	361	1.1	.5	57.0	58.6	6.82	.24	1.00	8.06
Foundries	10,222	2	2	235	239	.7	.7	76.6	78.0	3.92	.20	1.68	5.80
Blast furnaces	17,621	4	1	185	190	.8	.2	35.0	36.0	4.54	.14	.82	5.50
Fabricating	11,110	1	4	192	197	.3	1.2	57.6	59.1	1.80	.26	.94	3.10
Yards	9,819	1	1	102	104	.3	.3	34.6	35.2	2.04	.10	.80	2.94
Mechanical	24,752	2	2	380	384	.3	.3	51.8	52.4	1.62	.08	.84	2.54
Plate mills	14,711		3	299	302		.7	67.7	68.4		.75	1.11	1.86
Heavy rolling mills	27,123		9	307	316		1.1	37.7	38.8		.92	.75	1.67
Sheet mills	5,920		1	39	40		.6	22.0	22.6		.17	.72	.89
Tube mills	11,621	1		63	64	.39		18.6	18.9		.19	.54	.73
Electrical	4,191			32	32			25.5	25.5			.53	.53
Unclassified	55,534	7	8	860	875	.4	.5	51.6	52.5	2.52	.61	.96	4.09
1920–1924													
Bessemer	19,853	1	2	167	170	.2	.3	28.0	28.6	1.01	.10	.52	1.63
Open hearths	60,087	8	10	622	640	.4	.6	34.5	35.5	2.66	.32	.67	3.65
Foundries	37,129		3	912	915		.3	81.9	82.2		.17	1.30	1.47
Blast furnaces	54,773	2	3	291	296	.1	.2	17.7	18.0	.73	.22	.38	1.33
Fabricating	20,049	2	5	255	262	.3	.8	42.4	43.6	2.00	1.20	.88	4.08
Yards	20,118		1	146	147		.2	24.2	24.4		.10	.49	.59
Mechanical	89,481	3	8	626	637	.1	.3	23.2	23.7	.67	.24	.52	1.43
Plate mills	22,428	2		262	264	.3		38.9	39.2	1.78		.62	2.40
Heavy rolling mills	48,082	2	7	389	398	.1	.5	27.0	27.6	.83	.20	.63	1.66
Sheet mills	45,618		1	213	214		.1	15.6	15.6		.02	.33	.35
Tube mills	68,335	3	9	460	472	.2	.4	22.4	23.0	.88	.13	.46	1.47
Electrical	14,002		1	70	71		.2	16.7	16.9		.07	.32	.39
Unclassified	107,317	6	6	790	802	.2	.2	24.5	24.9	1.12	19	.53	1.84

HANDLING

It will be noted on inspecting Table 18 that the accidents recorded exhibit high frequency and relatively low severity. A moment's reflection will make it clear that it is natural that in the manual movement of material minor injuries might occur. In the absence of severity rates this fact has been the cause of a somewhat erroneous view regarding the importance of this type of injury. It has been thought that the rapid reduction of this sort of cases represented a highly successful accident prevention effort. In some instances attention has been so completely directed to methods bringing about decline in frequency that, while it was going on, the severity of accidents was actually increasing. It is very clear that sufficient study should be devoted to those departments and causes where severity is high to bring about as large a reduction as circumstances will allow, as it is the accidents of high severity which are costly and disastrous.

In all preceding tables, sheet mills have been well down the list. In the present cause group these mills are at the top in the first period in accident frequency (220.7) and in accident severity (5.49). In the second period they occupy the same place in accident severity

(3.83) and are next to the top in accident frequency (127.4). This arises in connection with the process of opening the packs of sheets. No way has been discovered to do this except by hand. The sheets have sharp and somewhat jagged edges on which the opener is often cut and lacerated. The striking decline from the first to the second period is evidence that care on the part of the worker will give results even in so distinctively a hand operation as this.

TABLE 18.—*Handling objects and tools as a cause of accident: Number of cases, and accident frequency and severity rates, 1915 to 1919, and 1920 to 1924, by department*

Department and period	Full-year workers	Number of cases				Frequency rates (per 10,000,000 hours' exposure)				Severity rates (per 10,000 hours' exposure)			
		Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total
1915–1919													
Sheet mills	5,920		6	336	392		3.4	217.3	220.7		1.86	3.63	5.49
Mechanical	24,752	1	24	1,064	1,089	0.1	3.3	143.3	146.7	0.81	2.53	1.91	5.25
Foundries	10,222		6	546	552		2.0	178.0	180.0		2.18	2.21	4.39
Tube mills	11,265	1	6	214	221	.3	1.8	63.3	65.4	1.78	1.15	1.13	4.06
Blast furnaces	17,621	1	7	576	584	.2	1.3	109.0	110.5	1.14	1.48	1.41	4.03
Open hearths	20,525	1	13	867	881	.2	2.1	140.8	143.1	.97	.90	1.76	3.63
Yards	9,819		6	294	300		2.0	99.8	101.8		1.78	1.58	3.36
Heavy rolling mills	27,123		19	761	780		2.3	93.5	95.8		1.47	1.36	2.83
Plate mills	14,711		8	613	621		1.8	138.9	140.7		.75	1.74	2.49
Bessemer	5,450		4	128	132		2.4	78.3	80.7		.73	1.52	2.26
Electrical	4,191		4	84	88		3.2	66.8	70.0		1.31	.93	2.24
Fabricating	11,110		4	405	409		1.2	121.5	122.7		.36	1.64	2.00
Unclassified	55,534		40	2,612	2,652		2.4	156.8	159.2		1.39	2.24	3.63
1920–1924													
Sheet mills	45,618	3	21	1,743	1,719	.22	1.53	125.61	127.36	1.32	.69	1.82	3.83
Mechanical	89,481	3	32	1,449	1,484	.11	1.19	53.98	55.28	.67	.74	.84	2.25
Foundries	37,129		18	2,246	2,264		1.62	201.64	203.26		.74	2.46	3.20
Tube mills	68,335	5	27	973	1,005	.24	1.32	47.46	49.02	1.46	.58	.80	2.84
Blast furnaces	54,773	1	16	683	700	.06	.97	41.57	42.60	.37	.43	.69	1.49
Open hearths	60,087	2	43	1,195	1,240	.11	2.39	66.29	68.79	.67	1.32	1.06	3.05
Yards	20,118	1	12	358	371	.17	1.99	59.32	61.48	.99	1.11	.98	3.08
Heavy rolling mills	48,082		28	827	855		1.94	57.33	59.27		.84	.92	1.76
Plate mills	22,428		13	433	446		1.93	64.35	66.28		1.60	.90	2.50
Bessemer	19,853		13	351	364		2.18	58.93	61.11		.98	.98	1.96
Electrical	14,002		4	154	158		.95	36.66	37.61		.29	.52	.80
Fabricating	20,049		13	538	551		2.16	89.45	91.61		2.12	1.50	3.62
Unclassified	107,317	3	21	2,022	2,046	.09	.65	62.80	63.54	.56	.46	1.00	2.02

MISCELLANEOUS CAUSES

The causes grouped under the term "miscellaneous" are so varied from department to department that the rates are not of very great significance.

The high accident severity (14.03) in blast furnaces during the first period is due to asphyxiating gas, a hazard not found to any great extent in any other department. This department also leads in accident severity (5.15) during the second period.

TABLE 19.—*Miscellaneous causes of accident: Number of cases and accident frequency and severity rates, 1915 to 1919 and 1920 to 1924, by department*

Department and period	Full-year workers	Number of cases				Frequency rates (per 10,000,000 hours' exposure)				Severity rates (per 10,000 hours' exposure)			
		Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total	Death	Permanent disability	Temporary disability	Total
1915–1919													
Blast furnaces	17,621	11	3	400	414	2.1	0.6	75.7	78.4	12.49	1.02	0.52	14.03
Yards	9,819	4	4	177	185	1.4	1.4	60.1	62.9	8.15	3.19	.75	12.09
Electrical	4,191	1	-----	88	89	.8	-----	70.0	70.8	4.77	-----	.48	5.25
Tube mills	11,265	2	2	113	117	.6	.6	33.4	34.6	3.55	.27	.53	4.35
Mechanical	24,752	2	7	540	549	.3	.9	72.7	73.9	1.62	1.94	.61	4.17
Plate mills	14,711	2	-----	286	288	.5	-----	64.8	65.3	2.72	-----	.71	3.43
Heavy rolling mills	27,123	3	1	327	331	.4	.1	40.2	40.7	2.21	.22	.53	2.96
Fabricating	11,110	1	2	298	301	.3	.6	89.4	90.3	1.80	.18	.61	2.59
Open hearths	20,525	1	2	449	452	.2	.4	72.9	73.5	.97	.58	.58	2.13
Bessemer	5,450	-----	1	90	91	-----	.6	55.0	55.6	-----	1.10	.64	1.74
Foundries	10,222	-----	3	263	266	-----	1.0	85.8	86.8	-----	.78	.79	1.57
Sheet mills	5,920	-----	1	129	130	-----	.6	72.6	73.2	-----	.17	1.20	1.37
Unclassified	55,534	10	11	997	1,018	.6	.7	59.8	61.1	3.60	.97	.74	5.30
1920–1924													
Blast furnaces	54,773	13	3	455	471	.8	.2	27.7	28.7	4.75	.09	.31	5.15
Yards	20,118	-----	1	208	209	-----	.2	34.5	34.6	-----	.30	.45	.75
Electrical	14,002	1	1	125	127	.2	.2	29.8	30.2	1.43	.14	.36	1.93
Tube mills	68,335	4	6	599	609	.2	.3	29.2	29.7	1.17	.22	.35	1.74
Mechanical	89,481	5	4	770	779	.2	.2	28.7	29.0	1.12	.20	.30	1.62
Plate mills	22,428	1	1	261	263	.2	.2	38.8	39.6	.89	.04	.44	1.37
Heavy rolling mills	48,082	-----	4	374	378	-----	.3	25.9	26.2	-----	.44	.40	.84
Fabricating	20,049	-----	-----	297	297	-----	-----	49.4	49.4	-----	-----	.51	.51
Open hearths	60,087	6	4	608	618	.3	.2	33.7	34.3	2.00	.37	.37	2.74
Bessemer	19,853	1	4	196	201	.2	.7	32.9	33.8	1.01	1.06	.38	2.45
Foundries	37,129	-----	2	988	990	-----	.2	88.7	88.9	-----	.23	.77	1.00
Sheet mills	45,618	1	1	573	575	.1	.1	41.9	42.0	.44	.02	.43	.89
Unclassified	107,317	16	9	902	927	.5	.3	28.0	28.8	2.98	.19	.37	3.54

ACCIDENT EXPERIENCE OF THE DEPARTMENTS ANALYZED BY CAUSE

That the extremes of change may be shown, the tables in this section (Tables 20 to 34) consist of two 5-year periods separated by a 5-year interval. In order to give readily comparable rates they are computed on the basis of 10,000,000 hours' exposure for frequency and 10,000 hours' for severity.

It is well to note in this connection that the severity rates are necessarily more irregular than the frequency rates. This is due to the fact that in frequency a case of injury counts as one unit, since in determining frequency rates the number of accidents is divided by the number of man-hours while in severity the same case, if a death, is rated at 6,000 units because each fatal accident is charged, under the standard time-allowance schedule, with 6,000 days' lost time.

In a number of the tables which follow it will be observed that for the first period rates for the causes which may be regarded as characteristic of the department are given, while those which the department shares with other industries are not separately given but are included under "Unclassified." This omission which makes comparison of the two 5-year periods difficult, is due to the fact that

when the rates for the first period were compiled only the characteristic causes were considered, and when at the close of the second period it seemed desirable to show all the primary cause groups it was not possible to go back and compute the missing items.

BLAST FURNACES

In 1910 the highest frequency rate (143) was for falling objects; in 1924 the highest (35.3) was for handling. In severity falls of persons was highest (34.3) in 1910 and hot substances (19.73) in 1924.

TABLE 20.—*Accident frequency and severity rates for blast furnaces, 1910 to 1914 and 1920 to 1924, by year and accident cause*

Accident cause	1910	1911	1912	1913	1914	1920	1921	1922	1923	1924
	Frequency rates (per 10,000,000 hours' exposure)									
Machinery	21.6	38.3	23.0	28.0	8.7	17.6	7.2	10.1	12.2	15.2
Vehicles	19.7	2.3	6.0	4.0	-------	13.7	8.7	8.1	9.1	6.8
Hot substances	113.2	132.7	89.3	86.6	57.4	50.0	30.2	32.6	34.5	30.2
Falls of persons	78.7	33.7	53.0	26.0	43.0	23.1	17.9	12.7	14.7	15.8
Falling objects	143.0	55.3	66.7	62.3	31.7	21.9	14.3	16.6	15.6	18.7
Handling	108.3	94.3	74.3	56.3	43.0	61.2	41.4	27.9	37.1	35.3
Unclassified	138.0	65.0	103.0	40.3	65.7	41.7	26.5	27.9	20.9	20.5
Total	622.5	421.6	415.3	303.5	249.5	229.2	146.2	135.9	144.1	142.5
	Severity rates (per 10,000 hours' exposure)									
Machinery	1.3	0.6	2.0	14.0	0.3	3.31	1.10	7.11	7.60	8.04
Vehicles	5.3	16.0	-------	-------	-------	2.12	.11	4.55	7.14	2.05
Hot substances	2.0	20.3	.6	4.3	4.6	11.87	18.08	9.41	4.76	19.73
Falls of persons	34.3	1.0	.7	14.0	1.0	.31	13.38	2.80	3.79	2.32
Falling objects	1.7	2.7	.7	.3	.7	1.08	.28	.37	.43	4.35
Handling	3.3	1.3	1.3	2.3	2.3	1.56	.88	.83	1.14	2.82
Unclassified	20.3	16.7	14.3	14.0	39.0	3.00	5.68	2.81	7.01	7.76
Total	68.2	56.6	19.6	48.9	47.9	23.25	39.51	27.88	31.87	47.07

BESSEMER CONVERTERS

The exposure available for Bessemer converters is not so large as could be desired. In general it is not considered good practice to compute rates unless the number of workers is 1,000 or more, but an exception has been made in the case of the Bessemer department because it is still an important steel-making process.

In both 1910 and 1924 the highest accident frequency is found to be due to handling (136 and 34.4, respectively). In severity hot substances are highest in 1910 and falling objects (5.32) in 1924.

TABLE 21.—*Accident frequency and severity rates for Bessemer converters, 1910 to 1914 and 1920 to 1924, by year and accident cause*

Accident cause	1910	1911	1912	1913	1914	1920	1921	1922	1923	1924
	Frequency rates (per 10,000,000 hours' exposure)									
Machinery	81.0	45.0	25.0	42.0	35.0	38.6	16.9	9.1	18.5	16.3
Vehicles	51.0	25.0	30.0	15.0	------	14.7	15.6	4.5	14.8	7.3
Hot substances	106.0	70.0	140.0	91.0	69.0	36.7	27.1	27.2	30.3	17.1
Falls of persons	(1)	(1)	(1)	(1)	(1)	17.3	11.6	6.4	16.3	7.2
Falling objects	(1)	(1)	(1)	(1)	(1)	35.2	30.9	17.3	34.8	22.0
Handling	136.0	65.0	21.0	65.0	17.0	99.9	66.9	40.0	65.2	34.3
Unclassified	463.0	259.0	334.0	206.0	98.0	64.4	36.2	29.1	17.8	17.2
Total	837.0	464.0	550.0	419.0	219.0	302.1	205.2	133.6	197.7	121.5
	Severity rates (per 10,000 hours' exposure)									
Machinery	2.0	1.0	1.0	1.0	6.0	6.19	8.09	0.22	9.14	1.79
Vehicles	1.0	1.0	1.0	27.0	------	.41	.38	.13	4.97	.24
Hot substances	61.0	2.0	2.0	2.0	2.0	4.69	.64	.67	9.57	.42
Falls of persons	(1)	(1)	(1)	(1)	(1)	.35	.39	.17	.59	.19
Falling objects	(1)	(1)	(1)	(1)	(1)	.65	.48	.52	.94	5.32
Handling	2.0	14.0	.3	1.0	5.0	2.47	1.75	1.72	2.38	1.22
Unclassified	37.0	3.0	8.7	3.0	46.0	1.70	1.61	.40	3.03	5.09
Total	103.0	21.0	13.0	34.0	59.0	16.46	13.34	3.83	30.62	14.27

[1] Not separately shown; included in "Unclassified."

OPEN-HEARTH FURNACES

In the first period the greatest accident frequency (133) in open-hearth furnaces is found in hot substances in 1911 while hot substances leads in severity (23) in 1914. In the second period frequency is highest in handling (99) and severity in machinery (15.37), both in 1920.

Frequency shows a very marked decline from period to period, while severity is irregular with only a slight tendency downward.

TABLE 22.—*Accident frequency and severity rates for open-hearth furnaces, 1910 to 1914 and 1920 to 1924, by year and accident cause*

Accident cause	1910	1911	1912	1913	1914	1920	1921	1922	1923	1924
	Frequency rates (per 10,000,000 hours' exposure)									
Machinery	86.0	70.0	61.0	44.0	47.0	49.6	26.0	25.9	33.5	23.2
Vehicles	28.0	27.0	42.0	49.0	8.0	28.0	15.0	13.3	13.6	10.1
Hot substances	122.0	133.0	127.0	110.0	83.0	72.1	50.2	39.8	47.1	43.4
Falls of persons	(1)	(1)	(1)	(1)	(1)	27.8	28.1	21.4	21.7	23.2
Falling objects	(1)	(1)	(1)	(1)	(1)	41.0	42.7	37.5	29.7	33.1
Handling	111.0	82.0	84.0	77.0	75.0	99.0	87.9	57.8	47.6	59.8
Unclassified	292.0	198.0	209.0	225.0	169.0	51.7	43.2	30.5	26.7	21.4
Total	639.0	510.0	523.0	505.0	382.0	369.2	293.1	226.2	219.9	214.2
	Severity rate (per 10,000 hours' exposure)									
Machinery	19.3	10.0	2.0	1.0	1.0	15.37	3.40	6.62	13.28	10.87
Vehicles	11.0	10.0	12.0	17.0	4.0	11.15	2.90	2.41	11.08	5.24
Hot substances	3.0	3.0	9.0	18.0	23.0	8.62	5.62	7.56	9.49	6.48
Falls of persons	(1)	(1)	(1)	(1)	(1)	1.75	.50	.38	5.03	4.59
Falling objects	(1)	(1)	(1)	(1)	(1)	5.66	.73	2.59	4.07	2.63
Handling	3.0	1.0	1.0	1.0	2.0	3.76	5.43	1.30	2.21	3.05
Unclassified	13.7	3.0	10.0	44.0	3.0	3.55	5.11	.90	3.89	.26
Total	50.0	27.0	34.0	81.0	33.0	49.86	23.69	21.76	49.05	33.12

[1] Not separately shown; included in "Unclassified."

FOUNDRIES

The foundries show on the whole high accident frequency and moderate accident severity. The downward trend is not clearly traceable, although a different presentation indicates that there was such a trend, though not very pronounced.

The irregular character of the rates in this department is illustrated when it is noticed that the highest frequency (251.6) occurs in handling in 1923 of the second period, while the highest severity (57) is in machinery in 1912 of the first period.

The failure of the foundries to make a significant change for the better is disappointing, since some large concerns have done excellent safety work with marked success.

TABLE 23.—*Accident frequency and severity rates for foundries, 1910 to 1914 and 1920 to 1924, by year and accident cause*

Accident cause	1910	1911	1912	1913	1914	1920	1921	1922	1923	1924
	Frequency rates (per 10,000,000 hours' exposure)									
Machinery	131.0	84.0	183.0	74.0	108.0	116.6	98.1	123.8	62.4	84.1
Vehicles	3.0	------	3.0	7.0	6.0	6.0	7.0	7.6	10.0	5.0
Hot substances	118.0	91.0	79.0	81.0	34.0	38.4	20.5	48.4	45.4	38.8
Falls of persons	(1)	(1)	(1)	(1)	(1)	23.0	27.5	32.7	33.6	23.9
Falling objects	(1)	(1)	(1)	(1)	(1)	80.6	53.7	118.6	79.7	69.9
Handling	165.0	206.0	205.0	145.0	120.0	195.1	151.3	236.2	251.6	151.8
Unclassified	320.0	236.0	275.0	191.0	260.0	94.5	84.1	109.1	112.2	111.3
Total	737.0	617.0	745.0	498.0	428.0	554.2	442.2	676.4	594.9	484.8
	Severity rates (per 10,000 hours' exposure)									
Machinery	3.0	32.0	57.0	1.0	1.0	8.83	2.73	9.10	10.66	4.96
Vehicles	------	------	------	------	.3	.24	4.50	.23	.22	.07
Hot substances	2.0	1.0	4.0	27.0	1.0	1.27	1.63	.60	.70	.62
Falls of persons	(1)	(1)	(1)	(1)	(1)	.26	.34	.62	.44	.28
Falling objects	(1)	(1)	(1)	(1)	(1)	1.22	1.18	1.73	1.10	2.19
Handling	1.0	6.0	2.0	4.0	7.0	2.74	3.10	3.26	4.56	2.03
Unclassified	6.0	33.0	3.0	3.0	.7	1.55	.81	.94	1.05	1.17
Total	12.0	72.0	66.0	35.0	10.0	16.11	14.29	14.48	18.73	11.32

[1] Not separately shown; included in "Unclassified."

HEAVY ROLLING MILLS

In Table 24 there is a very conspicuous decline in frequency in the second period and a less marked decline in severity.

The highest frequency (82) appears in machinery in 1911 and the highest severity (14) is also in machinery in 1910 and in hot substances in 1913.

TABLE 24.—*Accident frequency and severity rates for heavy rolling mills, 1910 to 1914 and 1920 to 1924, by year and accident cause*

Accident cause	1910	1911	1912	1913	1914	1920	1921	1922	1923	1924
	Frequency rates (per 10,000,000 hours' exposure)									
Machinery	75.0	82.0	56.0	51.0	45.0	44.8	36.1	34.4	33.9	40.6
Vehicles	13.0	10.0	11.0	11.0	3.0	7.4	3.4	3.8	5.0	3.0
Hot substances	40.0	34.0	37.0	30.0	25.0	25.9	15.4	12.6	15.1	11.0
Falls of persons	(1)	(1)	(1)	(1)	(1)	22.3	16.8	13.2	15.4	18.9
Falling objects	(1)	(1)	(1)	(1)	(1)	33.1	23.7	30.6	21.2	24.9
Handling	(1)	(1)	(1)	(1)	(1)	89.7	60.9	45.9	42.0	38.8
Unclassified	343.0	339.0	339.0	240.0	118.0	37.8	21.4	23.6	18.8	21.4
Total	471.0	465.0	443.0	332.0	191.0	261.0	177.7	203.5	151.4	158.6
	Severity rates (per 10,000 hours' exposure)									
Machinery	14.0	12.0	2.0	1.0	2.0	9.09	6.87	7.30	8.91	13.52
Vehicles	1.0	.3	1.0	.3	1.0	.51	1.17	4.27	3.71	2.87
Hot substances	5.0	6.0	6.0	14.0	8.0	1.82	.38	2.37	.92	.15
Falls of persons	(1)	(1)	(1)	(1)	(1)	1.79	.45	2.44	.38	.29
Falling objects	(1)	(1)	(1)	(1)	(1)	2.10	.92	1.16	2.52	.94
Handling	(1)	(1)	(1)	(1)	(1)	1.68	2.01	1.63	1.93	1.56
Unclassified	23.0	20.7	7.0	4.7	4.0	.45	.29	1.18	1.74	.46
Total	43.0	39.0	16.0	20.0	15.0	17.44	12.09	20.35	20.11	19.79

[1] Not separately shown; included in "Unclassified."

PLATE MILLS

Plate mills are among the most regular in declining accident rates of any department covered by this study. Machinery in 1910 has the highest accident frequency (164) and the same cause has the highest accident severity (34) in the same year.

Table 25 illustrates again rather forcibly that frequency rates are not a complete indication regarding the places where accident prevention may be profitably applied. If in the second period frequency alone be considered, it would appear that in every year of the period except 1924 accidents due to handling should have the major share of attention. Turning to severity, however, it will be found that from that standpoint only in 1922 is handling of paramount importance.

TABLE 25.—*Accident frequency and severity rates for plate mills, 1910 to 1914 and 1920 to 1924, by year and accident cause*

Accident cause	1910	1911	1912	1913	1914	1920	1921	1922	1923	1924
	Frequency rates (per 10,000,000 hours' exposure)									
Machinery	164.0	120.0	135.0	93.0	49.0	49.3	31.9	35.4	27.5	82.0
Vehicles	18.0	12.0	18.0	17.0	2.0	1.6	2.2	1.6	3.4	------
Hot substances	53.0	47.0	55.0	55.0	24.0	23.0	15.4	24.4	11.0	12.0
Falls of persons	(1)	(1)	(1)	(1)	(1)	16.1	11.0	15.0	8.9	17.6
Falling objects	(1)	(1)	(1)	(1)	(1)	40.8	27.5	53.5	33.7	33.4
Handling	(1)	(1)	(1)	(1)	(1)	101.0	87.6	62.1	41.2	34.4
Unclassified	491.0	450.0	552.0	434.0	220.0	68.4	39.5	40.1	9.6	28.8
Total	726.0	629.0	760.0	599.0	295.0	300.2	215.1	232.1	135.3	163.2
	Severity rates (per 10,000 hours' exposure)									
Machinery	34.0	2.0	8.0	17.0	1.3	18.83	1.52	1.66	5.35	8.08
Vehicles	15.0	.3	.3	14.0	------	.01	.02	.20	.16	------
Hot substances	1.0	1.0	1.0	1.0	.3	3.77	.19	.54	.20	.39
Falls of persons	(1)	(1)	(1)	(1)	(1)	.21	.11	.33	4.72	.42
Falling objects	(1)	(1)	(1)	(1)	(1)	.56	6.82	.82	.64	5.57
Handling	(1)	(1)	(1)	(1)	(1)	1.12	3.77	2.36	3.58	2.49
Unclassified	11.0	10.7	21.7	6.0	5.4	3.76	.70	.44	.23	.68
Total	61.0	14.0	31.0	38.0	7.0	28.26	13.13	6.35	14.88	17.63

[1] Not separately shown; included in "Unclassified."

SHEET MILLS

It was found in an earlier study[1] of sheet mills that, in the 5-year period ending in 1914 the hot-mill crews had rising accident rates both in frequency and severity. While Table 26 does not go into details as did the table in the earlier study, the rates shown for machinery and handling give an approximate idea of what is happening among hot-mill workers. An examination of these groups in the second 5-year period will show somewhat lower rates and a tendency to decline.

Since neither the machines nor the handling operations have been materially modified, in the second period as compared with the first, this improvement must be largely due to greater skill and care on the part of the workers.

The highest frequency (186) is found in handling in 1912 and the highest severity (11) in machinery in 1911.

TABLE 26.—*Accident frequency and severity rates for sheet mills, 1910 to 1914 and 1920 to 1924, by year and accident cause*

Accident cause	1910	1911	1912	1913	1914	1920	1921	1922	1923	1924
	Frequency rates (per 10,000,000 hours' exposure)									
Machinery	43.0	64.0	59.0	66.0	61.0	32.0	29.2	34.0	29.9	15.6
Vehicles	(1)	(1)	(1)	(1)	(1)	3.1	3.9	8.7	4.1	4.0
Hot substances	16.0	15.0	25.0	10.0	21.0	28.3	23.5	30.4	15.3	11.8
Falls of persons	(1)	(1)	(1)	(1)	(1)	13.3	15.2	24.6	10.5	7.8
Falling objects	(1)	(1)	(1)	(1)	(1)	14.2	18.4	29.3	14.6	7.8
Handling	147.0	103.0	186.0	125.0	61.0	158.7	154.9	179.6	85.8	57.3
Unclassified	135.0	181.0	305.0	256.0	166.0	59.5	54.0	55.0	27.1	13.4
Total	341.0	363.0	491.0	381.0	309.0	309.3	299.1	361.6	187.3	117.1
	Severity rates (per 10,000 hours' exposure)									
Machinery	4.0	11.0	5.0	8.0	2.0	5.58	8.09	4.99	8.24	5.74
Vehicles	(1)	(1)	(1)	(1)	(1)	2.08	.06	.19	2.18	.08
Hot substances	.3	.3	.3	.3	.3	.31	.23	2.64	.32	.29
Falls of persons	(1)	(1)	(1)	(1)	(1)	.27	2.90	.33	.17	2.56
Falling objects	(1)	(1)	(1)	(1)	(1)	.14	.39	1.07	.39	.23
Handling	2.0	1.0	2.0	2.0	1.0	4.30	2.98	5.43	3.56	2.50
Unclassified	40.7	35.7	12.7	13.7	15.7	.44	3.23	.62	.30	.32
Total	47.0	48.0	20.0	24.0	19.0	13.12	17.88	15.27	15.16	11.72

[1] Not separately shown; included in "Unclassified."

TUBE MILLS

While accident frequency rates in tube mills were very high in the early part of the first 5-year period, a very rapid decline occurred before the close of that period and continued to 1924. A decline in accident severity in the first 5-year period is not easily observable and in the second period the irregularities obscure the trend, but if a 12-month moving average be computed a downward trend will be indicated.

When the two periods are considered in comparison it will be evident that a remarkable reduction of both frequency and severity has taken place.

Accident frequency (150) was highest in 1910 in machinery, while accident severity (28) was highest in 1912 in machinery.

[1] U. S. Bureau of Labor Statistics Bul. No. 298, p. 81.

TABLE 27.—*Accident frequency and severity rates for tube mills, 1910 to 1914 and 1920 to 1924, by year and accident cause*

Accident cause	1910	1911	1912	1913	1914	1920	1921	1922	1923	1924
	Frequency rates (per 10,000,000 hours' exposure)									
Machinery	150.0	149.0	89.0	52.0	20.0	33.8	23.9	21.2	26.0	11.1
Vehicles						3.6	1.6	4.6	2.6	1.0
Hot substances	60.0	82.0	50.0	16.0	17.0	23.5	17.1	17.7	11.6	5.5
Falls of persons	(1)	(1)	(1)	(1)	(1)	10.1	9.3	15.0	10.3	7.0
Falling objects	(1)	(1)	(1)	(1)	(1)	20.0	23.3	27.2	27.8	17.0
Handling	(1)	(1)	(1)	(1)	(1)	73.9	48.7	50.9	46.6	25.5
Unclassified	552.0	522.0	422.0	194.0	114.0	48.6	39.4	35.7	18.4	12.0
Total	762.0	753.0	561.0	262.0	151.0	213.5	163.3	172.3	143.3	79.1
	Severity rates (per 10,000 hours' exposure)									
Machinery	18.0	2.3	28.0	1.3	2.0	4.09	4.51	3.53	6.55	3.40
Vehicles						2.75	.09	.14	.09	.02
Hot substances	1.0	1.0	.3	1.0		1.76	2.80	.49	1.53	.13
Falls of persons	(1)	(1)	(1)	(1)	(1)	1.53	.22	.41	1.60	.17
Falling objects	(1)	(1)	(1)	(1)	(1)	1.79	.58	.51	.88	3.06
Handling	(1)	(1)	(1)	(1)	(1)	1.47	3.34	2.66	4.10	2.83
Unclassified	9.0	7.7	4.7	28.7	8.0	1.76	1.23	3.38	.75	1.43
Total	28.0	11.0	33.0	31.0	10.0	15.15	12.77	11.12	15.50	11.04

[1] Not separately shown; included in "Unclassified."

FABRICATING SHOPS

Machines, including cranes and hoists, are the important elements of hazards in these plants. Accident frequency reaches the top record (373) for machinery in 1912 and drops to 51.4 in 1924; the percentage of decline is 86.2.

Accident severity goes from 43 in 1910 to 8.68 in 1924, a drop of 79.8 per cent.

TABLE 28.—*Accident frequency and severity rates for fabricating shops, 1910 to 1914 and 1920 to 1924, by year and accident cause*

Accident cause	1910	1911	1912	1913	1914	1920	1921	1922	1923	1924
	Frequency rates (per 10,000,000 hours' exposure)									
Machinery	293.0	292.0	373.0	357.0	220.0	116.2	84.9	92.6	77.2	51.4
Vehicles	(1)	(1)	(1)	(1)	(1)	7.8	4.8	3.9	6.0	3.5
Hot substances	21.0	26.0	35.0	29.0	11.0	20.5	10.9	10.4	12.7	10.5
Falls of persons	(1)	(1)	(1)	(1)	(1)	24.9	18.4	24.6	19.5	26.6
Falling objects	(1)	(1)	(1)	(1)	(1)	56.6	49.2	44.4	36.0	33.8
Handling	(1)	(1)	(1)	(1)	(1)	140.2	93.3	88.9	74.9	57.2
Unclassified	633.0	673.0	640.0	580.0	430.0	96.0	47.9	67.1	16.5	21.9
Total	947.0	991.0	1,048.0	966.0	661.0	462.2	314.4	331.9	242.8	204.9
	Severity rates (per 10,000 hours' exposure)									
Machinery	43.0	18.0	33.6	5.0	18.0	11.94	17.80	13.68	7.39	8.68
Vehicles	(1)	(1)	(1)	(1)	(1)	.11	.28	.09	4.62	.14
Hot substances			1.0	0.3		4.58	2.33	.15	.28	4.34
Falls of persons	(1)	(1)	(1)	(1)	(1)	.35	.16	.57	.35	9.25
Falling objects	(1)	(1)	(1)	(1)	(1)	.94	1.54	6.41	7.25	3.85
Handling	(1)	(1)	(1)	(1)	(1)	2.96	2.81	2.98	4.74	4.34
Unclassified	31.0	7.0	24.0	18.0	8.0	.81	.47	.74	.20	.34
Total	74.0	25.0	58.0	23.3	26.0	21.69	25.39	24.62	24.83	30.94

[1] Not separately shown; included in "Unclassified"

MECHANICAL DEPARTMENT

Machinery is naturally a more important hazard in the mechanical department than in most of the other departments. While frequency of machine accidents declines, the rate going from 140 in 1910 to 19.3 in 1924, the severity of such accidents seems rather to increase. However, the general frequency and severity are decidedly lower in the second period than in the first. In the second period accidents due to handling are the most frequent in each of the five years. The severity rates are on the whole highest for machinery, followed by those due to falls of persons.

TABLE 29.—*Accident frequency and severity rates for mechanical departments, 1910 to 1914 and 1920 to 1924, by year and accident cause*

Accident cause	1910	1911	1912	1913	1914	1920	1921	1922	1923	1924
	Frequency rates (per 10,000,000 hours' exposure)									
Machinery	140.0	125.0	101.0	51.0	64.0	54.0	36.2	24.9	20.3	19.3
Vehicles	(1)	(1)	(1)	(1)	(1)	4.8	2.9	3.6	3.9	2.5
Hot substances	33.0	50.0	30.0	35.0	18.0	24.8	15.0	11.4	10.5	8.4
Falls of persons	(1)	(1)	(1)	(1)	(1)	27.3	20.6	20.2	14.2	13.2
Falling objects	(1)	(1)	(1)	(1)	(1)	34.1	30.1	21.3	14.6	16.8
Handling	(1)	(1)	(1)	(1)	(1)	95.5	65.8	50.0	34.0	23.6
Unclassified	442.0	311.0	279.0	282.0	273.0	53.1	34.5	26.9	16.5	16.3
Total	615.0	486.0	410.0	368.0	355.0	93.6	205.1	158.3	114.0	100.1
	Severity rates (per 10,000 hours' exposure)									
Machinery	3.0	3.0	4.0	2.0	7.0	5.73	3.41	4.04	5.89	5.49
Vehicles	(1)	(1)	(1)	(1)	(1)	1.04	.12	3.70	1.39	.20
Hot substances	.3	.3	.3	10.0	.3	2.99	.23	2.44	2.40	2.27
Falls of persons	(1)	(1)	(1)	(1)	(1)	5.08	4.51	.79	1.52	3.78
Falling objects	(1)	(1)	(1)	(1)	(1)	.75	1.51	.55	2.67	1.52
Handling	(1)	(1)	(1)	(1)	(1)	2.12	1.69	4.70	2.36	.79
Unclassified	40.0	27.0	16.0	25.0	6.0	.35	.76	2.48	4.66	.56
Total	45.3	30.3	20.3	37.0	13.3	18.06	12.23	18.70	20.89	14.61

[1] Not separately shown; included with "Unclassified."

YARDS

The interest as to yards centers around the experience with power vehicles. The frequency rates of such accidents go from 123 in 1910 to 41.9 in 1924. This would be an excellent record if severity were not considered. In 1910 severity of vehicular accidents was 26 and in 1924 it was 37.03. In four of the five years the second period records higher severity rates than corresponding years of the first period.

It is a well-recognized fact that the hazards of power-vehicle operation are difficult to combat. The steel mills have always had the dangers arising from the steam locomotive, both standard gauge where the railways enter for bringing raw material and narrow gauge for intraplant transportation. In recent years there has been an increased use of motor trucks, thus transferring to new localities the hazard of such moving bodies. Whether this has influenced the severity rates it is not possible to determine from the available data.

The severity rates for machinery are, in general, next to those for vehicles.

TABLE 30.—*Accident frequency and severity rates for yards, 1910 to 1914 and 1920 to 1924, by year and accident cause*

Accident cause	1910	1911	1912	1913	1914	1920	1921	1922	1923	1924
	Frequency rates (per 10,000,000 hours' exposure)									
Machinery	23.0	18.0	40.0	22.0	17.0	19.0	23.0	17.7	31.7	21.6
Vehicles	123.0	79.0	112.0	67.0	74.0	88.9	69.5	40.8	73.6	41.9
Hot substances	19.0	17.0	14.0	11.0	5.0	16.5	15.0	2.6	9.2	8.8
Falls of persons	(1)	(1)	(1)	(1)	(1)	21.5	27.1	14.2	36.8	28.9
Falling objects	109.0	83.0	67.0	36.0	27.0	17.5	31.3	18.6	37.8	24.8
Handling	(1)	(1)	(1)	(1)	(1)	70.4	94.9	40.8	50.1	44.0
Unclassified	209.0	166.0	172.0	104.0	118.0	46.9	36.2	19.5	33.7	25.7
Total	483.0	363.0	405.0	240.0	241.0	280.7	297.0	154.2	272.9	195.7
	Severity rates (per 10,000 hours' exposure)									
Machinery	1.0	1.0	14.0	0.3	2.0	0.51	11.24	11.59	11.13	8.17
Vehicles	26.0	27.0	11.0	4.0	3.0	37.33	22.31	22.29	35.20	37.03
Hot substances	1.0	.3	.3			.22	.24	.05	.14	.22
Falls of persons	(1)	(1)	(1)	(1)	(1)	.38	.57	5.68	.56	.45
Falling objects	1.0	2.0	3.0	1.0	1.0	.36	.56	.49	.72	1.13
Handling	(1)	(1)	(1)	(1)	(1)	2.83	2.11	6.37	2.70	1.07
Unclassified	6.0	4.0	2.0	2.0	19.0	.44	2.23	.24	.45	.76
Total	35.0	34.3	30.3	7.3	25.0	42.07	40.26	46.71	50.90	48.83

[1] Not separately shown; included in "Unclassified."

MISCELLANEOUS ROLLING MILLS

The group of miscellaneous rolling mills is of interest because it contains a large number of hand-operated mills and may be regarded as giving a fair idea of the experience of such mills. The records cover only the last 5-year period. In that period there has been a marked decline in accident frequency and a definite downward trend in accident severity.

TABLE 31.—*Accident frequency and severity rates for miscellaneous rolling mills, 1920 to 1924, by year and accident cause*

Accident cause	1920	1921	1922	1923	1924
	Frequency rates (per 10,000,000 hours' exposure)				
Machinery	64.5	54.5	39.7	44.4	29.1
Vehicles	5.0	5.6	6.0	2.8	2.9
Hot substances	44.1	28.6	27.2	18.0	22.6
Falls of persons	22.5	16.0	7.8	15.6	16.0
Falling objects	31.5	31.4	41.9	27.1	34.3
Handling	124.0	94.8	49.7	60.4	58.5
Unclassified	31.9	30.0	27.6	22.9	18.2
Total	323.5	260.9	199.9	191.2	181.6
	Severity rates (per 10,000 hours' exposure)				
Machinery	3.62	4.02	3.39	4.97	7.97
Vehicles	2.26	.18	2.82	.04	.14
Hot substances	3.65	.51	4.87	.37	.53
Falls of persons	1.83	.20	2.83	.40	.29
Falling objects	3.17	.67	.97	2.61	.86
Handling	2.71	3.03	1.35	2.62	1.36
Unclassified	.46	.52	.39	.55	.34
Total	17.70	9.13	16.62	11.56	11.49

ELECTRICAL DEPARTMENT

In the electrical department during the five years 1920 to 1924 accident frequency declined but accident severity increased. Since the same condition is found in the large group in which causes were not recorded, it seems necessary to conclude that safety effort in this department has not been so successful as in others.

Two observations are pertinent to the situation: 1. When there is a marked decline in accident frequency it is very easy to regard this as a true index and to overlook the fact that accident severity is rising; 2. The use of electricity has been increasing enormously and it may well be that this increase has outrun the precautions taken to render its use safe.

TABLE **32.**—*Accident frequency and severity rates for the electrical department, 1920 to 1924, by year and accident cause*

Accident cause	1920	1921	1922	1923	1924
	Frequency rates (per 10,000,000 hours' exposure)				
Machinery	14.5	23.9	27.6	25.7	13.1
Vehicles	5.8	2.6	1.3	6.1	
Hot substances	72.6	38.8	40.7	24.4	26.2
Falls of persons	42.5	29.5	26.3	28.1	17.8
Falling objects	27.0	17.4	18.4	9.8	9.5
Handling	80.2	49.5	14.4	24.4	8.4
Unclassified	42.6	52.4	18.4	19.6	16.7
Total	284.2	214.1	147.1	138.1	91.7
	Severity rates (per 10,000 hours' exposure)				
Machinery	1.48	0.37	2.82	2.30	11.98
Vehicles	5.85	.01	7.88	.20	7.00
Hot substances	.85	8.64	.56	7.89	7.82
Falls of persons	5.78	.48	.71	8.55	.65
Falling objects	.77	.26	.41	.15	.25
Handling	1.64	.57	.21	.82	.49
Unclassified	.31	1.53	.19	.34	.41
Total	16.68	11.86	12.78	20.25	28.60

WIRE-DRAWING

Only the experience of the last 5-year period is available for the wire drawing department. The record shows that accident frequency declined to a considerable degree while accident severity was pretty nearly the same in three of the years, going up sharply in the other two. In 1921 there were serious accidents in the handling of material, while in 1923 machinery furnished the heaviest severity (22.50). With the old type of wire-drawing benches there was very great danger that a workman's hand would be caught in a kink of the wire. If this happened, the loss of part or all of the hand was almost sure to occur. The modern type of mill, now almost universal, has an automatic stop which greatly reduces this hazard.

TABLE 33.—*Accident frequency and severity rates for wire drawing, 1920 to 1924, by year and accident cause*

Accident cause	1920	1921	1922	1923	1924
	Frequency rates (per 10,000,000 hours' exposure)				
Machinery	42.0	20.9	21.0	32.6	33.0
Vehicles	2.0	3.0	3.0	2.5	
Hot substances	21.0	17.9	6.0	15.1	6.0
Falls of persons	21.0	18.0	8.0	7.5	6.0
Falling objects	17.0	6.0	9.0	12.6	8.0
Handling	123.0	66.0	68.0	50.2	34.0
Unclassified	89.0	29.9	50.0	60.2	22.0
Total	315.0	161.7	165.0	180.7	109.0
	Severity rates (per 10,000 hours' exposure)				
Machinery	8.20	4.70	3.60	22.50	13.60
Vehicles	(1)	2.00	(1)	.70	
Hot substances	.10		.10	.23	.20
Falls of persons	.10	4.20	.20	.11	(1)
Falling objects	.20	.70	.20	.30	.30
Handling	4.70	14.30	1.30	1.23	.50
Unclassified	.80	5.20	8.60	11.20	.20
Total	14.10	31.10	14.00	36.27	14.80

[1] Not separately; included in "Unclassified."

HOT ROLLLING OF SHEETS

The group on which the accident rates for hot rolling of sheets are based is rather small and may not represent typical conditions. Both frequency and severity rates are highly irregular and do not exhibit a consistent trend.

TABLE 34.—*Accident frequency and severity rates for hot sheet rolling, 1920 to 1924, by year and accident cause*

Accident cause	1920	1921	1922	1923	1924
	Frequency rates (per 10,000,000 hours' exposure)				
Machinery	28.0	11.7	36.0	90.0	36.0
Vehicles	2.0	23.0		26.0	3.0
Hot substances	14.0	17.0	18.0	10.3	3.0
Falls of person	26.0	41.0	16.0	77.0	11.0
Falling objects	25.0	40.0	53.0	77.0	15.0
Handling	180.0	103.0	180.0	130.0	67.0
Unclassified	72.0	30.0	71.0	23.2	17.0
Total	347.0	265.7	374.0	433.5	152.0
	Severity rates (per 10,000 hours' exposure)				
Machinery	2.80	2.30	0.90	8.90	12.30
Vehicles		.30	.10	3.00	.10
Hot substances	.20	1.20	.10	2.00	.10
Falls of person	.20	1.20	3.30	4.60	.50
Falling objects	.50	2.70	1.50	1.20	9.40
Handling	2.20	1.30	1.80	1.37	1.30
Unclassified	.70	1.40	4.70	3.60	.50
Total	6.60	10.40	12.40	24.67	24.26

The foregoing discussion gives a fair idea of the relative importance of the main cause groups. Considered from the standpoint of accident severity machinery still contributes the largest share of the damage. On the accident frequency side handling of tools and material is the major factor.

This situation suggests at once the nature and the point of application of remedial measures. Machine accidents are mainly controllable by various forms of "engineering revision."[2] The cases due to handling may be reduced by instruction, which renders the worker skillful and properly careful. Too much emphasis can not be placed upon the fact that the development of skill is much more important than cautionary exhortation.

[2] See U. S. Bureau of Labor Statistics, Bul. 298, pp. 192-214.

36904°—29——11

Chapter V.—ACCIDENTS AND ACCIDENT RATES IN MINES, QUARRIES, AND METALLURGICAL WORKS

The information in this section is derived from the publications of the United States Bureau of Mines, which issues very detailed annual statements covering accidents in mines and kindred industries. The statistical record is supplemented by two charts showing the 17-year trend (15 years for coke ovens) in each industry group of fatal and nonfatal (fatal only in coal mines) accidents.

The trends of accident frequency and severity rates for all industry groups, including railroads, based on data set forth in the next chapter, appear in the following two charts:

CHART 6

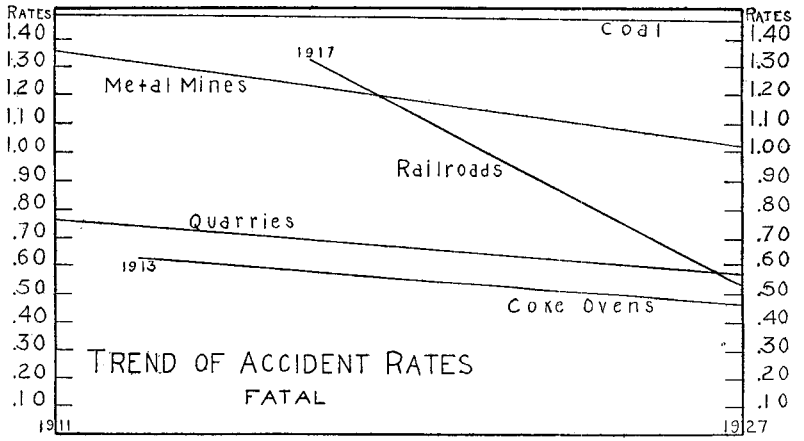
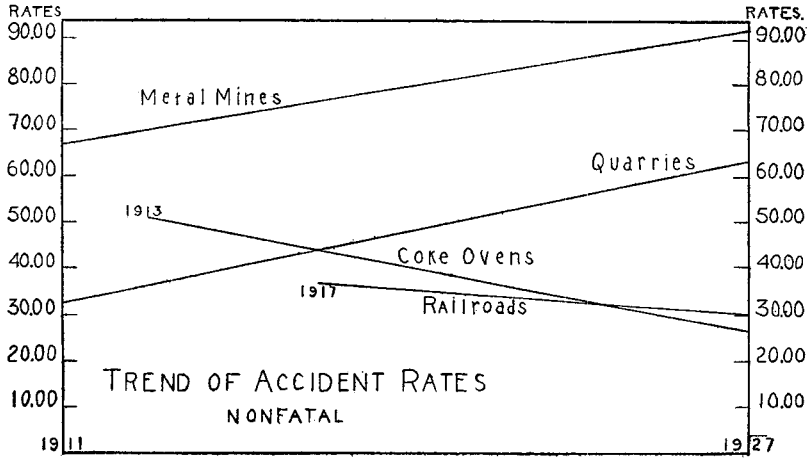


CHART 7



COAL MINES

The accident rates for coal mines have been converted to the number per 1,000,000 hours' exposure, in order to render them comparable with those found in other portions of this bulletin. Only fatal accidents are included, as the record of nonfatal injuries is not available.

It will be noted that in Table 35 two methods of presenting the facts are used, namely, the rate per 1,000,000 hours' exposure and the rate per 1,000,000 tons mined. Consideration of both these rates is desirable inasmuch as they give two distinct views of the conditions reviewed. The rate per 1,000,000 hours measures the hazard to which the men are exposed, while the rate per 1,000,000 tons measures the cost of coal in terms of human injury. A lessened cost accompanied by increased hazard can not be regarded as satisfactory. In fact, the only condition which can be so regarded is one in which both rates are declining with reasonable rapidity.

From 1907 to 1927 fatalities per 1,000,000 hours' exposure declined 28.8 per cent, while fatalities per 1,000,000 tons mined declined 45 per cent. This more rapid decline of cost as compared with hazard is largely due to the introduction of machinery and improved methods. Although improvement in the rates has not been at all regular or consistent through the years, the substantial drop in 1927 as compared to 1907 is worthy of note.

TABLE **35.**—*Men employed, average production per man, men killed, and fatality rates in coal mines in the United States, 1907 to 1927, by year*

Year	Tons mined (short tons)	Men employed		Average production per man (tons)		Men killed	Fatality rate per 1,000,000 hours' exposure	Production per death (short tons)	Fatalities per 1,000,000 tons mined
		Actual number	Full-year workers	Per year	Per day				
1907	477,892,536	674,613	519,452	708	3.07	3,242	2.08	147,407	6.78
1908	409,309,857	678,873	441,267	603	3.09	2,445	1.85	167,407	5.97
1909	460,807,263	666,535	.....	691	.....	2,642	.....	174,416	5.73
1910	501,596,378	725,030	531,689	692	3.14	2,821	1.77	177,808	5.62
1911	496,371,126	728,348	534,122	682	3.10	2,656	1.66	186,887	5.35
1912	534,466,580	722,662	541,997	740	3.29	2,419	1.49	220,945	4.53
1913	570,048,125	747,644	593,131	762	3.20	2,785	1.57	204,685	4.89
1914	513,525,477	763,185	526,598	673	3.25	2,454	1.55	209,261	4.78
1915	531,619,487	734,008	511,598	724	3.46	2,269	1.48	234,297	4.27
1916	590,098,175	720,971	565,766	818	3.48	2,226	1.31	265,094	3.77
1917	651,402,374	757,317	634,666	860	3.42	2,696	1.42	241,618	4.14
1918	678,211,904	762,426	654,973	890	3.45	2,580	1.31	262,873	3.80
1919	553,952,259	776,569	542,217	713	3.41	2,317	1.42	239,082	4.18
1920	658,264,932	784,621	601,283	839	3.65	2,271	1.26	289,857	3.45
1921	506,395,401	823,253	474,529	615	3.56	1,987	1.40	254,854	3.92
1922	476,951,121	848,932	405,056	565	3.92	1,979	1.63	233,576	4.15
1923	657,903,671	860,560	560,000	764	3.91	2,458	1.46	267,492	3.74
1924	571,613,400	779,613	499,894	733	3.81	2,381	1.59	240,072	4.17
1925	581,869,890	748,805	480,227	777	4.04	2,230	1.55	260,461	3.84
1926	657,804,437	759,033	559,426	867	3.92	2,518	1.50	261,241	3.83
1927	597,858,916	759,177	503,065	788	3.96	2,231	1.48	267,978	3.73

LOCATION AND CAUSES OF ACCIDENTS

Table 36 summarizes the facts regarding the place of occurrence and the causes of accidents in coal mines from 1916 to 1927. The underground occupations have much the larger share of fatalities,

and fully half of the underground fatalities are due to falls of material from roof or face. This suggests that there has been a tendency to overemphasis on the startling "major casualties" in which an explosion of gas or dust suddenly snuffs out perhaps hundreds of lives. Inspection of Table 36 will show that explosions are third in order of importance, except in 1924, when they were in second place.

The records (not included here) show that up to 1916 considerable improvement occurred. Since that year the changes have been irregular with a somewhat upward tendency.

TABLE **36.**—*Fatalities in coal mines in the United States, 1916 to 1927, by year, place of occurrence, and cause*

Place and cause	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
	Number of fatalities											
Underground:												
Falls of roof or face	962	1,218	1,294	1,100	1,132	1,024	905	1,162	1,062	1,078	1,214	1,149
Cars and locomotives	390	482	506	381	408	341	341	415	350	360	433	355
Explosions, gas or dust	170	362	129	191	164	116	311	372	536	345	422	247
Explosives	146	111	135	206	128	152	92	114	100	102	96	110
Electricity	90	79	88	69	76	80	74	75	81	84	96	100
Miscellaneous	269	127	129	130	112	118	77	117	100	100	104	119
Total underground	2,027	2,379	2,281	2,077	2,020	1,831	1,800	2,255	2,229	2,069	2,365	2,080
Shaft	49	52	52	53	56	36	41	46	29	34	35	29
Surface:												
Haulage	75	114	118	93	78	45	54	59	70	40	50	46
Machinery	26	51	47	28	29	17	23	26	8	9	9	10
Miscellaneous	49	100	82	66	88	58	61	72	60	78	59	66
Total surface	150	265	247	187	195	120	138	157	138	127	118	122
Grand total	2,226	2,696	2,580	2,317	2,271	1,987	1,979	2,458	2,396	2,230	2,518	2,231
	Fatality rates (per 1,000,000 hours' exposure)											
Underground:												
Falls of roof or face	0.57	0.64	0.66	0.68	0.63	0.72	0.74	0.69	0.70	0.75	0.72	0.76
Cars and locomotives	.23	.25	.26	.23	.23	.24	.28	.25	.23	.25	.26	.24
Explosions, gas or dust	.10	.19	.07	.12	.09	.08	.26	.22	.36	.24	.25	.16
Explosives	.09	.06	.07	.13	.07	.11	.08	.07	.07	.07	.06	.07
Electricity	.05	.04	.04	.04	.04	.06	.06	.04	.05	.06	.06	.07
Miscellaneous	.16	.07	.06	.08	.06	.08	.06	.07	.07	.07	.06	.08
Total underground	1.19	1.25	1.16	1.28	1.12	1.29	1.48	1.34	1.48	1.44	1.41	1.38
Shaft	.03	.03	.03	.03	.03	.03	.03	.03	.02	.02	.02	.02
Surface:												
Haulage	.05	.06	.06	.06	.04	.03	.05	.04	.05	.03	.03	.03
Machinery	.02	.03	.02	.02	.02	.01	.02	.01	.01	.01	.01	.01
Miscellaneous	.03	.05	.04	.04	.05	.04	.05	.04	.03	.05	.03	.04
Total surface	.09	.14	.12	.11	.11	.08	.12	.09	.09	.09	.07	.08
Grand total	1.31	1.42	1.31	1.42	1.26	1.40	1.63	1.46	1.59	1.55	1.50	1.48

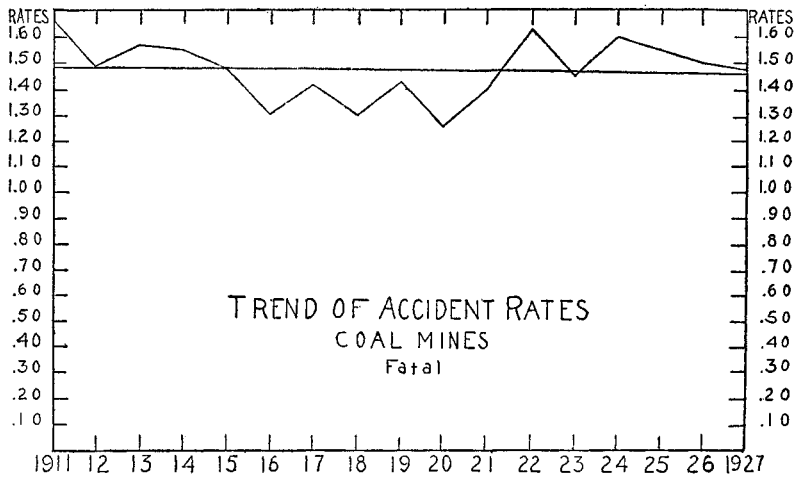
Table 37 presents a comparison of the hazards of coal mining and railway operation. The occurrence of a sudden catastrophe in a coal mine, resulting in the killing of many workers and followed by prolonged rescue work which is detailed in the public prints, has given rise to the general impression that coal mining is unusually hazardous, even more so than the operation of the railroads of the country where only one or two workers at a time meet with an accident. The records prior to 1919 indicate the invalidity of this impression, for

the following table shows that in 1919 for the first time the fatality rate for anthracite mining exceeded that of the railways; it has been higher each year since except 1920 and 1922. Compared to the fatality rate in bituminous coal mining the railway rate has been consistently lower each year from 1921 to 1926, inclusive. Considering the spread of 18 years, there has been a reduction in the fatality rates of 16.8 per cent in anthracite mines, 14.7 per cent in bituminous coal mines, and of 59.3 per cent in railway operation.

TABLE 37.—*Comparison of coal mine and steam railway fatality rates, 1910 to 1927, by year*

Year	Fatality rates (per 1,000 employees)			Year	Fatality rates (per 1,000 employees)		
	Anthracite	Bituminous coal	Railway trainmen		Anthracite	Bituminous coal	Railway trainmen
1910	3.55	4.00	5.41	1919	4.11	2.71	3.02
1911	4.02	3.53	5.49	1920	3.38	2.78	3.60
1912	3.45	3.36	5.22	1921	3.43	2.18	2.15
1913	3.52	3.79	5.08	1922	1.91	2.45	2.27
1914	3.31	3.19	4.73	1923	3.23	2.77	2.61
1915	3.32	3.02	3.53	1924	3.10	3.08	1.95
1916	3.47	2.98	4.07	1925	2.50	3.12	2.14
1917	3.77	3.50	4.23	1926	3.37	4.86	2.08
1918	3.75	3.30	4.39	1927	3.94	4.60	1.98

CHART 8



METAL MINES

Table 38, while not giving a very clear idea of the trend of accident experience in metal mining, does give an idea of the relative importance of the accident hazard in various types of mining. It is noticeable that since 1917 there has been a considerable decrease in the number of men employed, there being 200,579 in 1917 and 119,699 in 1927. This is due in part to changed methods of mining.

TABLE 38.—*Number of men employed, number of accidents, and accident rates in metal mines in the United States, 1917 to 1927, by kind of mine and year*

Kind of mine and year	Active operators	Number employed	Fatal accidents		Nonfatal accidents [1]	
			Number	Rate (per 1,000 employees)	Number	Rate (per 1,000 employees)
Kind of mine						
1917						
Copper	649	61,275	374	6.10	19,935	325.33
Gold, silver, and miscellaneous metals	3,166	51,892	196	3.78	8,385	161.59
Iron	205	57,230	191	3.34	12,278	214.54
Lead and zinc (Mississippi Valley)	369	20,269	68	3.35	4,544	224.18
Nonmetallic mineral	248	9,913	23	2.32	1,144	115.40
Total	4,637	200,579	852	4.25	46,286	230.76
1918						
Copper	524	59,447	220	3.70	20,513	345.06
Gold, silver, and miscellaneous metals	2,429	43,643	181	4.15	7,847	179.80
Iron	176	53,665	179	3.34	9,621	179.28
Lead and zinc (Mississippi Valley)	236	14,004	47	3.36	3,746	267.50
Nonmetallic mineral	271	11,847	19	1.61	1,188	100.28
Total	3,636	182,606	646	3.54	42,915	235.01
1919						
Copper	410	39,327	140	3.56	12,236	311.13
Gold, silver, and miscellaneous metals	2,430	32,130	126	3.92	5,469	170.21
Iron	157	47,676	139	2.92	9,098	190.83
Lead and zinc (Mississippi Valley)	141	12,968	45	3.47	3,185	245.60
Nonmetallic mineral	245	13,161	18	1.37	1,518	111.34
Total	3,383	145,262	468	3.22	31,506	216.89
1920						
Copper	387	35,254	128	3.63	12,047	341.70
Gold, silver, and miscellaneous metals	2,358	29,933	117	3.91	5,704	190.56
Iron	154	45,990	106	2.30	9,072	197.26
Lead and zinc (Mississippi Valley)	119	11,638	36	3.09	3,607	309.93
Nonmetallic mineral	263	13,768	38	2.76	2,132	154.85
Total	3,281	136,583	425	3.11	32,562	238.40
1921						
Copper	357	18,300	55	3.01	4,722	258.03
Gold, silver, and miscellaneous metals	2,135	26,516	78	3.06	5,352	209.75
Iron	122	30,552	65	2.13	4,507	147.49
Lead and zinc (Mississippi Valley)	66	6,948	14	2.15	2,062	317.33
Nonmetalllic mineral	216	11,606	18	1.55	1,961	168.96
Total	2,896	93,929	230	2.45	18,604	198.06
1922						
Copper	274	25,739	75	2.91	8,025	311.78
Gold, silver, and miscellaneous metals	1,942	27,614	140	5.07	6,805	246.43
Iron	110	32,241	83	2.57	4,901	152.01
Lead and zinc (Mississippi Valley)	74	8,990	22	2.45	3,868	430.26
Nonmetallic mineral	199	11,113	24	2.16	2,481	223.25
Total	2,599	105,697	344	3.25	26,080	246.74
1923						
Copper	306	32,477	107	3.29	11,993	369.28
Gold, silver, and miscellaneous metals	2,104	30,525	114	3.73	8,672	284.10
Iron	115	38,419	89	3.32	5,616	146.18
Lead and zinc (Mississippi Valley)	82	10,226	27	2.64	4,894	478.58
Nonmetallic mineral	218	11,632	30	2.58	2,388	205.30
Total	2,825	123,279	367	2.98	33,563	272.25
1924						
Copper	271	32,477	121	3.73	11,858	365.12
Gold, silver, and miscellaneous metals	2,097	29,718	145	4.88	8,649	291.04
Iron	104	36,629	97	2.65	4,959	135.38
Lead and zinc (Mississippi Valley)	87	12,734	34	2.67	5,718	449.03
Nonmetallic mineral	224	11,570	21	1.82	1,934	167.16
Total	2,783	123,128	418	3.39	33,118	268.97
1925						
Copper	249	33,266	102	3.07	12,179	366.11
Gold, silver, and miscellaneous metals	1,989	33,230	123	3.85	10,276	309.24
Iron	96	34,339	80	2.33	5,013	145.99
Lead and zinc (Mississippi Valley)	107	12,913	40	3.10	5,636	436.46
Nonmetallic minerals	231	12,965	21	1.62	2,028	156.42
Total	2,672	126,713	371	2.93	35,132	277.26

[1] Time lost more than 1 day.

TABLE **38.**—*Number of men employed, number of accidents, and accident rates in metal mines in the United States, 1917 to 1927, by kind of mine and year*—Con.

Kind of mine and year	Active operators	Number employed	Fatal accidents		Nonfatal accidents	
			Number	Rate (per 1,000 employees)	Number	Rate (per 1,000 employees)
Kind of mine—Continued						
1926						
Copper	223	32,723	121	3.70	10,102	308.71
Gold, silver, and miscellaneous metals	2,000	33,940	108	3.18	9,878	291.04
Iron	101	33,158	129	3.89	4,082	123.11
Lead and zinc (Mississippi Valley)	112	14,479	39	2.69	3,885	268.32
Nonmetallic minerals	243	13,523	33	2.44	2,403	177.70
Total	2,679	127,823	430	3.36	30,350	237.44
1927						
Copper	211	30,724	111	3.61	8,379	272.72
Gold, silver, and miscellaneous metals	1,960	30,461	114	3.74	8,162	267.95
Iron	104	33,386	73	2.19	3,409	102.11
Lead and zinc (Mississippi Valley)	92	12,499	28	2.24	3,152	252.18
Nonmetallic minerals	260	12,629	26	2.06	2,031	160.82
Total	2,627	119,699	352	2.94	25,133	209.97
Year						
Copper:						
1917	649	61,275	374	6.10	19,935	325.33
1918	524	59,447	220	3.70	20,513	345.06
1919	410	39,327	140	3.56	12,236	311.13
1920	387	35,254	128	3.63	12,047	341.70
1921	357	18,300	55	3.01	4,722	258.03
1922	274	25,739	75	2.91	8,025	311.78
1923	306	32,477	107	3.29	11,993	369.28
1924	271	32,477	121	3.73	11,858	365.12
1925	249	33,266	102	3.07	12,179	366.11
1926	233	32,723	121	3.70	10,102	308.71
1927	211	30,724	111	3.61	8,379	272.72
Gold, silver, and miscellaneous metal:						
1917	3,166	51,892	196	3.78	8,385	161.59
1918	2,429	43,643	181	4.15	7,847	179.80
1919	2,430	32,130	126	3.92	5,469	170.21
1920	2,358	29,933	117	3.91	5,704	190.56
1921	2,135	26,516	78	3.06	5,352	209.75
1922	1,942	27,614	140	5.07	6,805	246.43
1923	2,104	30,525	114	3.73	8,672	284.10
1924	2,097	29,718	145	4.88	8,649	291.04
1925	1,989	33,230	128	3.85	10,276	309.24
1926	2,000	33,940	108	3.18	9,878	291.04
1927	1,960	30,461	114	3.74	8,162	267.95
Iron:						
1917	205	57,230	191	3.34	12,278	214.54
1918	176	53,665	179	3.34	9,621	179.28
1919	157	47,676	139	2.92	9,098	190.83
1920	154	45,990	106	2.30	9,072	197.26
1921	122	30,559	65	2.13	4,507	147.49
1922	110	32,241	83	2.57	4,901	152.01
1923	115	38,419	89	3.32	5,616	146.18
1924	104	36,629	97	2.65	4,959	135.38
1925	96	34,339	80	2.33	5,013	145.99
1926	101	33,158	129	3.89	4,082	123.11
1927	104	33,386	73	2.19	3,409	102.11
Lead and zinc (Mississippi Valley):						
1917	369	20,269	68	3.35	4,544	224.18
1918	236	14,004	47	3.36	3,746	267.50
1919	141	12,968	45	3.47	3,185	245.60
1920	119	11,638	36	3.09	3,607	309.93
1921	66	6,948	14	2.15	2,062	317.33
1922	74	8,990	22	2.45	3,868	430.26
1923	82	10,226	27	2.64	4,894	478.58
1924	87	12,734	34	2.67	5,718	449.03
1925	107	12,913	40	3.10	5,636	436.46
1926	112	14,479	39	2.69	3,885	268.32
1927	92	12,499	28	2.24	3,152	252.18
Nonmetallic mineral:						
1917	248	9,913	23	2.32	1,144	115.40
1918	271	11,847	19	1.61	1,188	100.28
1919	245	13,161	18	1.37	1,518	111.34
1920	263	13,768	38	2.76	2,132	154.85
1921	216	11,606	18	1.55	1,961	168.96
1922	199	11,113	24	2.16	2,481	223.25
1923	218	11,623	30	2.58	2,388	205.30
1924	224	11,570	21	1.82	1,934	167.16
1925	231	12,965	21	1.62	2,028	156.42
1926	243	13,523	33	2.44	2,403	177.70
1927	260	12,629	26	2.06	2,031	160.82

Table 39 shows accident rates for all metal mines from 1911 to 1927. The rate for fatalities declined somewhat, but the rate for nonfatal accidents has a rising tendency.

TABLE **39.**—*Number of full-year workers and accident frequency rates for metal mines in the United States, 1911 to 1927, by year*

Year	Full-year workers			Frequency rates (per 1,000,000 hours' exposure)					
				Fatalities			Nonfatal accidents		
	Underground	Surface	Total	Underground	Surface	Total	Underground	Surface	Total
1911	98,389	57,700	156,089	1.83	0.88	1.48	72.43	30.03	56.76
1912	105,153	56,509	161,662	1.65	.82	1.36	78.81	34.65	63.37
1913	121,293	62,300	183,593	1.51	.72	1.24	70.15	39.84	59.86
1914	91,659	50,960	142,619	1.70	.61	1.31	87.27	40.68	70.62
1915	89,821	52,176	141,997	1.67	.65	1.30	106.62	41.95	82.85
1916	125,601	66,854	192,455	1.52	.61	1.21	102.04	48.80	83.55
1917	126,815	65,270	192,085	1.91	.64	1.48	96.61	48.67	80.32
1918	113,441	67,565	181,006	1.51	.66	1.19	96.87	49.08	79.03
1919	85,769	50,513	136,282	1.51	.53	1.14	96.39	44.25	77.06
1920	80,215	54,325	134,540	1.39	.56	1.05	103.66	46.73	80.67
1921	45,199	29,311	74,510	1.34	.55	1.03	104.28	50.76	83.23
1922	59,454	37,684	97,138	1.67	.41	1.18	116.24	47.30	89.49
1923	73,669	48,197	121,866	1.31	.54	1.00	120.85	47.40	91.80
1924	72,631	46,482	119,113	1.62	.46	1.17	122.27	46.43	92.68
1925	78,784	45,124	123,908	1.32	.94	1.00	121.65	46.85	94.51
1926	78,985	44,885	123,870	1.48	.54	1.16	102.86	45.00	81.67
1927	71,307	42,140	113,447	1.36	.49	1.03	95.59	37.23	73.85

CHART 9

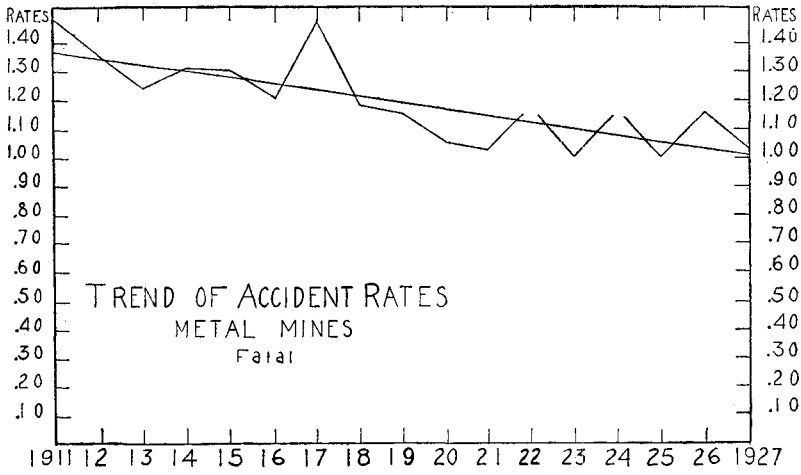
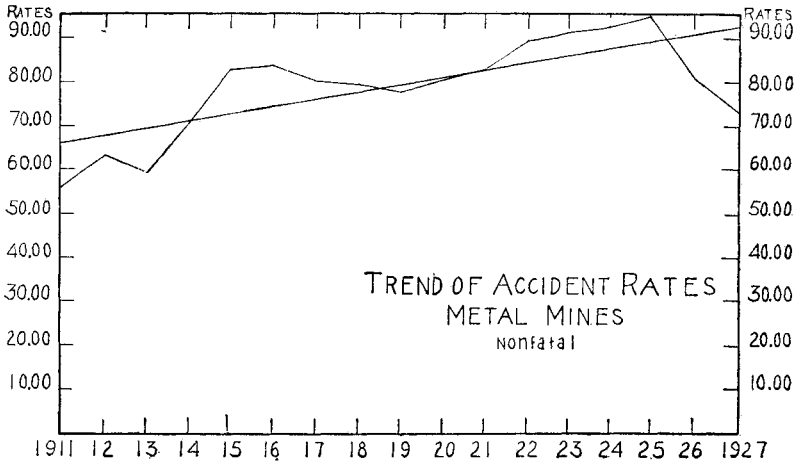


CHART 10



QUARRIES

The increase in injury rates for quarries which appears in Table 40 is undoubtedly due to more complete reporting. The fatality rate for the first 5-year period is slightly higher than that for the second period and in the last period there has been a further pronounced drop. The exposure during the interval has been singularly uniform. The declining death rate, which reaches its lowest point in 1927, reflects the improvement in equipment and in method.

TABLE **40.**—*Number of men employed, number of accidents, and accident frequency rates for quarries in the United States, 1911 to 1927, by year and by 5-year periods*

Year	Men employed		Accidents		Frequency rates (per 1,000,000 hours' exposure)	
	Actual number	Full-year workers	Men killed	Men injured	Fatal	Non-fatal
1911	110,954	84 417	188	5,390	0.74	21.28
1912	113,105	93,837	213	6,552	.76	23.67
1913	106,278	87,141	183	7,739	.70	29.60
1914	87,936	68,187	180	7,836	.88	38.31
1915	100,740	82,447	148	9,671	.60	39.10
Average, 5 years	103,803	83,206	182	7,437	.73	29.80
1916	90,707	76,457	173	13,427	.75	58.54
1917	82,290	71,525	131	13,242	.61	61.71
1918	68,332	59,285	125	8,719	.70	49.02
1919	75,505	63,794	123	9,199	.64	48.07
1920	86,488	77,089	178	11,217	.77	48.50
Average, 5 years	80,682	69,630	146	11,161	.70	53.43
Average, 10 years	92,243	76,418	164	9,299	.72	40.56
1921	77,185	59,958	120	10,465	.67	58.18
1922	79,081	68,861	132	11,839	.64	57.31
1923	92,455	85,153	143	14,990	.56	58.68
1924	94,242	84,246	138	14,777	.54	58.34
1925	91,872	83,487	149	14,165	.59	56.56
Average, 5 years	86,967	76,377	136	13,247	.59	57.81
1926	91,146	82,361	154	13,201	.62	53.43
1927	91,517	82,609	135	13,459	.54	54.31

CHART 11

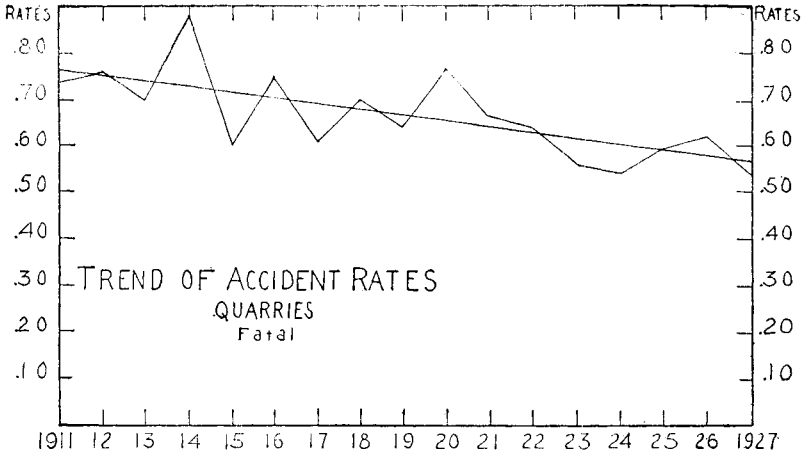
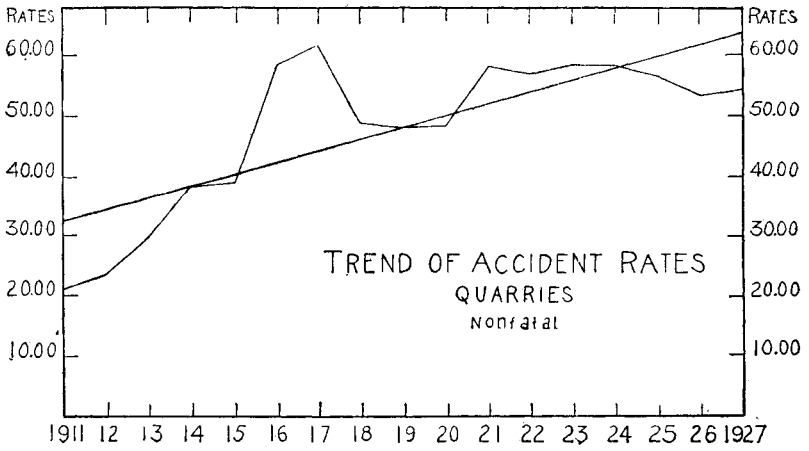


CHART 12



METALLURGICAL WORKS

Ore-dressing plants and auxiliary works show no material improvement in accident experience in the interval under consideration in Table 41. In smelting plants the fatality rates declined from 0.64 to 0.27 and injury rates declined from 58.24 to 28.56, a drop of 51 per cent.

TABLE 41.—*Accidents and accident rates in metallurgical plants in the United States, 1913 to 1927, by year*

Kind of plant and year	Men employed		Accidents		Frequency rates (per 1,000,000 hours' exposure)	
	Actual number	Full-year workers	Men killed	Men injured	Fatal	Non-fatal
Ore-dressing plants:						
1913	14,985	16,154	16	1,977	0.33	40.79
1914	15,128	15,225	23	1,434	.50	31.40
1915	18,564	19,107	30	2,095	.52	36.55
1916 [1]	22,470	23,470	33	3,184	.47	45.22
1917 [1]	24,111	24,372	47	2,952	.64	40.37
1918 [1]	21,809	22,517	35	3,142	.52	46.51
1919 [1]	17,262	16,862	25	2,057	.49	40.74
1920 [1]	16,827	16,813	21	2,624	.42	52.02
1921 [1]	10,047	8,037	4	1,214	.17	50.35
1922 [1]	11,676	11,025	12	1,984	.36	59.84
1923 [1]	14,899	14,782	24	2,549	.54	57.48
1924 [1]	15,735	16,093	20	2,511	.41	52.01
1925 [1]	16,945	17,082	17	2,232	.33	43.55
1926 [1]	16,685	17,385	13	2,294	.25	43.92
1927 [1]	15,328	15,643	17	1,801	.36	38.38
Smelting plants: [2]						
1913	20,564	24,309	47	4,247	.64	58.24
1924	27,879	32,336	33	5,673	.34	58.48
1915	31,327	36,262	38	5,718	.35	52.56
1916 [1]	43,829	49,363	36	9,656	.24	65.20
1917 [1]	44,376	50,659	53	7,745	.35	50.96
1918 [1]	39,899	45,439	42	6,743	.31	49.47
1919 [1]	28,777	31,324	34	4,431	.36	47.15
1920 [1]	26,099	30,411	20	4,147	.22	45.46
1921 [1]	14,621	14,204	14	2,129	.33	49.96
1922 [1]	19,495	20,887	16	3,002	.26	47.90
1923 [1]	22,439	26,677	17	3,487	.21	43.57
1924 [1]	24,941	29,231	16	3,293	.18	37.55
1925 [1]	25,144	29,658	19	3,376	.21	37.94
1926 [1]	24,399	29,049	20	3,181	.23	36.50
1927 [1]	22,696	26,693	22	2,287	.27	28.56
Auxiliary works:						
1913, 1914, 1915.[3]						
1916	14,007	15,763	14	2,240	.30	47.37
1917	15,555	17,014	16	2,881	.31	56.44
1918	18,044	20,111	17	2,808	.28	46.54
1919	15,081	16,172	5	1,638	.10	33.76
1920	16,306	18,363	20	2,092	.36	37.97
1921	8,762	8,308	9	1,151	.36	46.18
1922	12,829	14,069	17	1,692	.40	40.09
1923	16,533	18,040	17	2,388	.31	44.12
1924	15,520	17,624	19	2,422	.36	45.81
1925	16,846	19,480	8	2,103	.14	35.99
1926	16,642	19,253	15	1,804	.26	31.23
1927	15,453	17,955	15	1,653	.28	30.69

[1] Not including auxiliary works such as shops, yards, etc.
[2] Not including iron blast furnaces.
[3] Included under ore dressing and smelting plants.

COKE OVENS

A striking feature of Table 42 is the very great falling off in the number employed in the beehive ovens. In 1916 there were 18,570 workers; in 1927 the number had declined to 3,976. This represents the discarding of a wasteful and inefficient process. The larger use of machinery in by-product ovens has not resulted, as might be anticipated, in higher accident rates, but in material drops in both fatality and injury rates. For coke ovens as a group the fatality rate has declined from an average of 0.60 for the 5-year period 1916 to 1920, to 0.47 for the 5-year period ending with 1925, and to 0.36 for the year 1927.

TABLE 42.—*Number of men employed, and accidents and accident rates in beehive and by-product coke ovens, 1910 to 1927, by year*

Year	Men employed		Accidents		Frequency rates (per 1,000,000 hours' exposure)	
	Actual number	Full-year workers	Men killed	Men injured	Fatal	Non-fatal
Beehive ovens:						
1916	18,570	18,591	24	1,866	0.43	33.46
1917	18,820	19,295	25	1,822	.43	31.48
1918	16,442	16,436	19	2,155	.39	43.70
1919	13,333	10,829	10	1,364	.31	41.99
1920	10,955	10,094	11	1,035	.36	34.18
Average, 5 years	15,624	15,049	18	1,649	.40	33.53
1921	6,011	2,835	5	336	.59	39.51
1922	7,871	4,823	8	474	.55	32.76
1923	8,515	7,144	12	875	.56	40.83
1924	6,450	4,025	3	457	.25	37.85
1925	7,246	5,140	4	498	.26	32.30
Average, 5 years	7,219	4,793	7	528	.49	36.70
1926	6,605	4,874	6	645	.41	44.36
1927	3,976	3,071	2	287	.22	31.15
By-product ovens:						
1916	13,033	15.528	21	3,371	.45	72.36
1917	13,597	16,300	51	4,891	1.04	100.02
1918	15,947	19,040	54	5,637	.95	98.69
1919	15,408	16,845	43	2,667	.85	52.78
1920	17,184	19,827	38	2,380	.64	40.01
Average, 5 years	15,034	17,508	41	3,789	.78	72.14
1921	10,193	11,033	12	1,517	.36	45.83
1922	11,407	13,413	21	1,236	.52	30.72
1923	15,214	18,483	33	1,718	.60	30.98
1924	14,001	16,656	21	1,188	.42	23.78
1925	16,008	18,914	24	1,918	.42	21.11
Average, 5 years	13,365	15,700	22	1,371	.47	29.12
1926	16,510	19,441	45	1,277	.77	21.90
1927	16,691	20,152	23	998	.38	16.51
All coke ovens:						
1916	31,603	34,119	45	5,237	.44	51.16
1917	32,417	35,595	76	6,713	.71	62.86
1918	32,389	35,476	73	7,792	.69	73.21
1919	28,741	27,674	53	4,031	.64	48.55
1920	28,139	29,921	49	3,415	.55	38.04
Average, 5 years	30,658	32,557	59	5,438	.60	55.68
1921	16,204	13,868	17	1,853	.41	44.54
1922	19,278	18,236	29	1,710	.53	31.26
1923	23,729	25,627	45	2,593	.59	33.73
1924	20,451	2,681	24	1,645	.39	26.51
1925	23,254	24,054	28	1,696	.39	23.50
Average, 5 years	20,583	20,493	29	1,899	.47	30.89
1926	23,115	24,288	51	1,922	.70	26.38
1927	20,667	23,223	25	1,285	.36	18.44

CHART 13

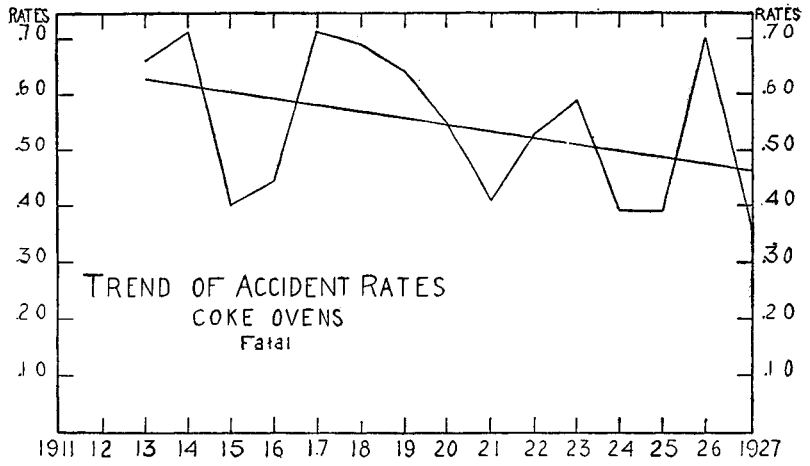
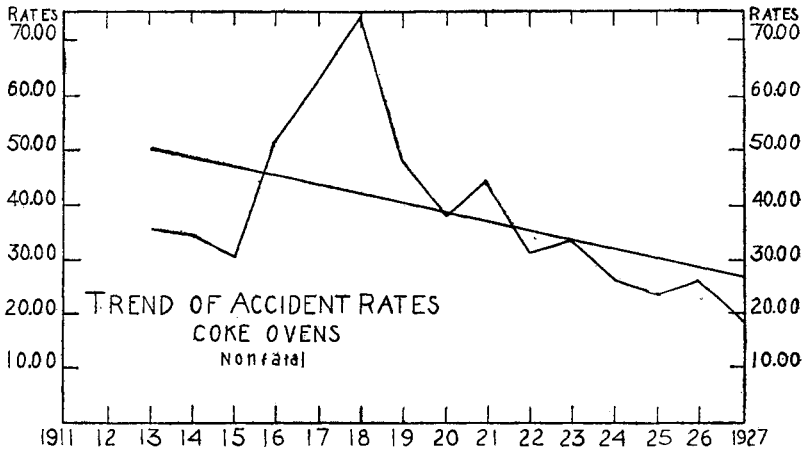


CHART 14



ALL MINERAL INDUSTRIES

The record of accidents, as measured by frequency and severity rates, covering all branches of the mineral industry in the United States, for the years 1911 to 1927 is set forth in Table 43; nonfatal injuries in coal mines are, however, omitted as the record thereof is not available.

TABLE 43.—*Accident frequency rates (per 1,000,000 hours' exposure), in the mineral industries in the United States, 1911 to 1927, by year*

Fatal accidents

Mineral industries	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
Coal mines	1.66	1.49	1.57	1.55	1.48	1.31	1.42	1.31	1.43	1.26	1.40	1.63	1.46	1.60	1.55	1.50	1.48
All metal mines	1.48	1.36	1.24	1.31	1.30	1.21	1.48	1.19	1.16	1.05	1.03	1.18	1.00	1.17	1.00	1.16	1.03
Copper mines	1.73	1.51	1.36	1.28	1.24	1.21	1.96	1.15	1.18	1.14	1.23	1.00	1.04	1.18	.98	1.15	1.15
Gold mines	1.43	1.44	1.28	1.35	1.60	1.35	1.34	1.42	1.47	1.40	1.10	1.78	1.31	1.66	1.28	1.09	1.30
Iron mines	1.55	1.32	1.10	1.26	.96	1.14	1.18	1.15	1.03	.78	1.01	1.00	.79	.98	.95	1.41	.82
Lead and zinc mines	1.34	1.43	1.30	1.44	1.79	1.05	1.36	1.19	1.38	1.09	.86	.88	.91	.92	1.11	1.02	.88
Nonmetallic mines	.67	.55	1.01	1.24	.81	1.00	.83	.56	.55	.96	.66	.80	.89	.65	.57	.87	.73
All quarries, including outside works	.74	.76	.70	.88	.60	.75	.61	.70	.64	.77	.67	.64	.56	.54	.59	.62	.54
Cement rock quarries	1.32	1.16	1.00	1.32	.53	.79	1.00	.71	.89	.92	.64	.76	.56	.75	.59	.50	.18
Granite quarries	.64	.62	.49	1.12	.76	.62	.51	.70	.60	.69	.86	.47	.30	.40	.32	.74	.84
Limestone quarries	.74	.75	.71	.79	.57	.79	.60	.60	.66	.86	.66	.62	.62	.55	.59	.70	.72
Marble quarries	.24	.83	.60	.91	.33	.39	.19	.71	.17	.31	.50	.14	.20	.41	.19	.56	.28
Sandstone and bluestone	.61	.39	.44	.48	.31	.43	.33	.79	.25	.19	.42	.40	.16	.63	1.11	.34	.50
Slate quarries	.87	.87	1.02	1.00	.67	.87	.44	1.05	.59	.50	.47	1.05	.71	.19	.87	.70	.73
Trap-rock quarries	.59	1.03	.80	.83	1.15	1.48	.87	1.49	.85	.87	.96	1.12	1.12	.61	1.38	.80	.97
All quarries, excluding outside works					.72	.77	.67	.73	.76	.94	.74	.77	.66	.63	.76	.86	.77
All quarries, outside works only					.35	.72	.51	.66	.45	.53	.56	.46	.42	.41	.41	.37	.29
Metallurgical works:																	
Ore dressing			.33	.50	.52	.47	.64	.52	.49	.42	.17	.36	.54	.41	.33	.25	.36
Smelters			.64	.34	.35	.24	.35	.31	.36	.22	.33	.26	.21	.18	.21	.23	.27
Auxiliary works						.30	.31	.28	.10	.36	.36	.40	.31	.36	.14	.26	.28
All coke ovens			.66	.71	.40	.44	.71	.69	.64	.55	.41	.53	.59	.39	.39	.70	.36
Beehive ovens					.22	.43	.43	.39	.31	.36	.59	.55	.56	.25	.26	.41	.22
By-product ovens					.58	.45	1.04	.95	.85	.64	.36	.52	.60	.42	.42	.77	.38

Nonfatal accidents

Coal mines [1]																	
All metal mines	56.76	63.37	59.86	70.62	82.85	83.55	80.32	79.03	77.87	80.67	83.23	89.49	91.80	92.68	94.51	81.67	73.85
Copper mines	75.08	86.14	76.93	104.06	107.34	106.53	104.45	107.37	103.20	107.73	105.84	106.93	116.36	115.94	116.87	96.10	87.05
Gold mines	26.78	31.01	23.46	42.30	67.16	63.60	57.50	61.73	63.76	68.27	75.15	86.76	99.62	99.27	102.47	99.83	93.26
Iron mines	84.10	80.60	89.44	74.69	77.84	80.06	75.85	61.82	67.45	66.83	70.30	59.18	50.08	50.34	53.14	44.64	38.21
Lead and zinc mines	46.47	52.76	44.50	63.00	79.42	87.70	91.00	106.51	97.43	109.32	126.56	154.74	165.22	154.72	156.02	101.40	99.22
Nonmetallic mines	11.34	22.13	28.29	33.25	35.93	48.23	41.19	34.90	46.42	53.96	71.82	82.50	70.82	59.58	55.13	63.58	57.07
All quarries, including outside works	21.28	23.27	29.60	38.31	39.10	58.54	61.71	49.02	48.07	48.50	58.18	57.31	58.68	58.34	56.56	53.43	54.31
Cement rock quarries	45.51	46.53	69.33	75.40	49.42	82.94	92.58	79.55	77.19	60.83	71.17	63.69	71.24	56.38	34.52	28.57	23.05
Granite quarries	17.69	14.96	23.20	36.40	32.24	48.00	63.24	36.56	41.57	43.51	44.70	49.07	59.33	65.24	67.51	61.71	72.63
Limestone quarries	22.66	26.66	29.68	38.08	42.48	58.70	58.51	47.11	44.68	47.70	59.51	59.24	56.43	57.86	64.49	66.89	69.79
Marble quarries	14.46	14.12	22.89	40.44	31.27	41.73	33.40	19.34	25.09	30.66	33.62	42.59	42.63	43.96	38.68	48.27	41.58
Sandstone and bluestone	11.56	15.09	24.79	23.03	22.19	42.62	39.63	49.35	43.99	33.52	52.07	33.54	39.81	56.36	66.77	53.89	63.33
Slate quarries	5.91	5.00	6.27	9.54	11.03	28.33	37.35	32.10	32.84	36.07	45.06	42.47	49.70	53.33	56.33	60.91	61.43
Trap-rock quarries	23.25	22.96	29.26	50.85	77.62	79.28	74.31	68.39	62.16	69.63	76.64	86.00	76.16	78.13	108.29	83.19	83.63
All quarries, excluding outside works					42.52	52.88	54.32	49.43	48.88	46.54	55.70	59.05	59.37	59.33	65.01	62.49	64.50
All quarries, outside works only					32.30	68.69	74.60	48.34	46.76	51.35	61.93	54.92	57.68	56.87	47.02	43.67	44.06
Metallurgical works:																	
Ore dressing			40.79	31.37	36.55	45.22	40.37	46.51	40.74	52.02	50.35	59.84	57.48	52.01	43.55	43.98	38.38
Smelters			58.24	58.48	52.56	65.20	50.96	49.47	47.15	45.46	49.96	47.90	43.57	37.55	37.94	36.50	28.56
Auxilliary works						47.37	56.44	46.54	33.76	37.97	46.18	40.09	44.12	45.81	35.99	31.23	30.69
All coke ovens			35.91	34.35	30.26	51.16	62.86	73.21	48.55	38.04	44.54	31.26	33.73	26.51	23.50	26.38	18.44
Beehive ovens					13.28	33.46	31.48	43.70	41.99	34.18	39.51	32.76	40.83	37.85	32.30	44.36	31.15
By-product ovens					46.67	72.36	100.02	98.69	52.78	40.01	45.83	30.72	30.98	23.78	21.11	21.90	16.51

[1] Coal mine injuries not available.

Chapter VI.—CASUALTIES ATTENDING THE OPERATION OF STEAM AND ELECTRIC RAILWAYS

The Interstate Commerce Commission publishes accident bulletins at regular intervals in which may be found detailed information regarding the accident experience of American steam railways. From these bulletins the tables which follow have been derived. Charts showing the trends of accident frequency and severity rates as compared with those in mining operations appear on page 158.

MARKED IMPROVEMENT NOTED

The marked improvement in accident experience of American railways is brought out by Table 44, which is drawn from a presentation found in Bulletin 96 (p. 6) issued by the commission. This table shows the highest accident rates for both freight and passenger trainmen, with a single exception, to be in 1913. The lowest rates are found in 1927.

TABLE **44.**—*Accident rates (per 10,000,000 train-miles), for trainmen in freight and passenger service, 1913 to 1927, by year*

Year	Freight service		Passenger service		Year	Freight service		Passenger service	
	Fatal	Non-fatal	Fatal	Non-fatal		Fatal	Non-fatal	Fatal	Non-fatal
1913	15.6	468.7	2.8	67.5	1921	6.1	256.2	1.7	47.3
1914	13.9	432.4	2.6	65.0	1922	6.7	275.3	1.8	55.2
1915	8.9	355.1	1.7	51.7	1923	7.1	285.9	1.9	58.2
1916	9.9	343.2	1.7	52.2	1924	5.3	239.8	1.4	49.4
1917	12.1	395.9	2.4	62.1	1925	5.1	231.4	1.7	44.6
1918	14.1	374.0	2.9	62.1	1926	5.2	232.9	1.6	46.9
1919	9.4	308.2	2.3	54.5	1927	5.1	201.0	1.4	39.5
1920	10.0	349.8	2.7	64.5					

Table 45 gives the number of casualties on steam railways for passengers, employees, and other persons from 1888 to 1927. For no other branch of American industry has such a record been kept for so long a time.

TABLE 45.—*Number of passengers, employees, and other persons killed or injured in reportable steam railway accidents of all kinds in the United States, 1888 to 1927, by year* [1]

Year ending—	Passengers		Employees		Other persons		Total	
	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured
June 30, 1888	315	2,138	2,070	20,148	2,897	3,602	5,282	25,888
June 30, 1889	310	2,146	1,972	20,028	3,541	4,135	6,823	26,309
June 30, 1890	286	2,425	2,451	22,396	3,598	4,206	6,335	29,027
June 30, 1891	293	2,972	2,660	26,140	4,076	4,769	7,029	33,881
June 30, 1892	276	3,227	2,554	28,267	4,217	5,158	7,147	36,652
June 30, 1893	299	3,229	2,727	31,729	4,320	5,435	7,346	40,393
June 30, 1894	324	3,034	1,823	23,422	4,300	5,433	6,447	31,889
June 30, 1895	170	2,375	1,811	25,696	4,155	5,677	6,136	33,748
June 30, 1896	181	2,873	1,861	29,969	4,406	5,845	6,448	38,687
June 30, 1897	222	2,795	1,693	27,667	4,522	6,269	6,437	36,731
June 30, 1898	221	2,945	1,958	31,761	4,680	6,176	6,859	40,882
June 30, 1899	239	3,442	2,210	34,923	4,674	6,255	7,123	44,620
June 30, 1900	249	4,128	2,550	39,643	5,066	6,549	7,865	50,320
June 30, 1901	282	4,988	2,675	41,142	5,498	7,209	8,455	53,339
June 30, 1902	345	6,683	2,969	50,524	5,274	7,455	8,588	64,662
June 30, 1903	355	8,231	3,606	60,481	5,879	7,841	9,840	76,553
June 30, 1904	441	9,111	3,632	67,067	5,973	7,977	10,046	81,155
June 30, 1905	537	10,457	3,361	66,833	5,805	8,718	9,703	86,008
June 30, 1906	359	10,764	3,929	76,701	6,330	10,241	10,618	97,706
June 30, 1907	610	13,041	4,534	87,644	6,695	10,331	11,839	111,016
June 30, 1908	381	11,556	3,405	82,487	6,402	10,187	10,188	104,230
June 30, 1909	253	10,311	2,610	75,006	5,859	10,309	8,722	95,626
June 30, 1910	324	12,451	3,382	95,671	5,976	11,385	9,682	119,507
June 30, 1911	299	12,042	3,602	126,039	6,495	12,078	10,396	150,159
June 30, 1912	283	14,938	3,635	142,442	6,667	12,158	10,585	169,538
June 30, 1913	350	15,130	3,715	171,417	6,899	13,761	10,964	200,308
June 30, 1914	232	13,887	3,259	165,212	6,811	13,563	10,302	192,662
June 30, 1915	199	10,914	2,152	138,092	6,270	13,034	8,621	162,040
June 30, 1916	239	7,488	2,687	160,663	6,438	12,224	9,364	180,375
Dec. 31, 1916	246	7,152	2,941	176,923	6,814	12,647	10,001	196,722
Dec. 31, 1917	301	7,582	3,199	174,247	6,587	12,976	10,087	194,805
Dec. 31, 1918	471	7,316	3,419	156,013	5,396	11,246	9,286	174,575
Dec. 31, 1919	273	7,456	2,138	131,018	4,567	10,579	6,978	149,053
Dec. 31, 1920	229	7,591	2,578	149,414	4,151	11,304	6,958	168,309
Dec. 31, 1921	205	5,584	1,446	104,530	4,345	10,571	5,996	120,685
Dec. 31, 1922	200	6,153	1,657	117,197	4,468	11,521	6,325	134,871
Dec. 31, 1923	138	5,847	2,026	152,678	5,221	13,187	7,385	171,712
Dec. 31, 1924	149	5,354	1,543	125,319	4,925	13,066	6,617	143,739
Dec. 31, 1925	171	4,952	1,599	119,224	4,996	13,259	6,766	137,435
Dec. 31, 1926	152	4,461	1,672	111,903	5,266	13,871	7,090	130,235
Dec. 31, 1927	88	3,893	1,569	88,223	5,335	12,701	6,992	104,817

[1] Figures for years 1911 to 1915 include industrial and other nontrain accidents to employees only; and for years 1908 to 1910 do not cover switching and terminal roads; otherwise, the statement covers all reportable accidents.

CASUALTIES TO TRAINMEN ON CLASS I RAILROADS, 1916 TO 1927

Table 46 is drawn from Bulletin 96 (p. 106) of the Interstate Commerce Commission, but has been rearranged to render possible certain comparisons difficult to make in the original form. The rates in the report are in terms of 1,000 employees, but these have been recomputed on the basis of 1,000,000 man-hours' exposure. In this conversion it is assumed for convenience, as has been done throughout this bulletin, that each man works 10 hours per day for 300 days in the year, making a total of 3,000 man-hours. The change in rates has therefore been made by the simple expedient of dividing the rates in the report by three. The resulting rates are fairly comparable with those for other industrial groups in this bulletin. Rates in this table are made the basis for determining the accident trend exhibited in the charts on pages 176 and 177.

The following observations regarding accident frequency will be found to be justified by inspection of the table:

1. There is a marked downward tendency in the period 1916 to 1927.
2. There are two years during the period (1920 and 1923) in each of which there is a decided upward tendency as compared with the earlier years.
3. In fatalities the lowest rates are found in 1924, while the lowest rates for injuries are in 1927.

TABLE 46.—*Number of trainmen in service on Class I railroads, number of accidents and accident frequency rates among trainmen, 1916 to 1927, by year and occupation*

Number of trainmen in service

Occupation	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
Yard service:												
Engineers	15,878	18,933	21,310	19,625	21,363	16,929	18,703	22,142	20,593	21,349	22,253	21,562
Firemen	16,190	19,516	21,979	20,031	21,549	17,343	19,249	22,664	21,106	21,804	22,727	22,100
Conductors	15,362	18,703	20,823	19,325	20,236	16,745	18,639	22,002	20,545	21,170	22,066	21,437
Brakemen	40,175	48,451	53,790	49,303	50,799	42,721	46,953	55,301	51,775	52,952	55,334	53,653
Total	87,605	105,603	117,902	108,284	113,947	93,738	103,544	122,109	114,019	117,275	122,380	118,752
Road freight service:												
Engineers	31,675	34,155	34,990	30,907	33,594	28,317	29,372	34,137	31,015	30,653	31,563	30,521
Firemen	33,637	36,828	38,102	32,938	35,756	30,317	31,507	36,504	33,346	32,714	33,544	32,315
Conductors	25,430	27,152	27,679	25,181	27,297	22,598	23,254	26,901	24,864	24,919	25,733	24,821
Brakemen	63,285	67,818	69,048	61,989	67,127	56,620	57,746	65,750	60,539	59,981	61,576	59,384
Total	154,027	165,953	169,819	151,015	163,774	137,852	141,879	163,292	149,764	148,267	152,416	147,041
Road passenger service:												
Engineers	13,429	13,297	12,709	12,442	12,930	12,924	12,710	13,042	12,977	12,930	13,027	12,971
Firemen	13,131	13,105	12,419	12,112	12,630	12,768	12,491	12,754	12,674	12,561	12,946	12,254
Conductors	10,633	10,655	10,444	10,382	10,788	10,546	11,380	11,756	11,730	11,726	11,710	11,652
Brakemen	14,800	14,854	14,423	14,904	15,849	15,315	14,350	14,558	14,369	14,218	14,072	13,938
Baggagemen	5,618	5,524	5,371	5,442	5,661	5,751	5,729	5,871	5,846	5,801	5,768	5,712
Total	57,611	57,435	55,366	55,282	57,858	57,304	56,660	57,981	57,596	57,236	57,073	56,527
All trainmen	299,243	328,991	343,087	314,581	335,579	288,894	302,083	343,382	321,379	322,769	331,869	322,320

Fatalities among trainmen

	Number											
Yard service:												
Engineers	11	16	11	15	9	11	12	12	7	12	9	3
Firemen	22	23	27	14	18	7	5	17	5	9	4	6
Conductors	71	78	73	50	67	39	43	59	45	44	53	49
Brakemen	341	401	397	235	363	169	202	263	195	238	222	208
Total	445	518	508	314	457	226	262	351	252	303	288	266
Road freight service:												
Engineers	70	72	84	66	63	32	46	55	37	34	25	37
Firemen	107	122	132	70	84	36	44	59	43	30	30	46
Conductors	72	88	104	63	62	48	37	60	47	40	59	43
Brakemen	432	478	527	310	396	186	201	262	168	188	197	172
Total	681	760	847	509	605	302	328	436	295	292	311	298
Road passenger service:												
Engineers	45	56	59	50	69	37	40	44	32	44	39	34
Firemen	52	49	50	51	52	36	39	45	31	36	37	30
Conductors	6	5	11	6	6	9	3	7	4	5	5	5
Brakemen	8	18	25	17	16	10	9	10	13	7	8	2
Baggagemen	2	8	5	4	4	2	6	3	1	4	3	4
Total	113	136	150	128	147	94	97	109	81	96	92	75
Grand total	1,239	1,414	1,505	951	1,209	622	687	896	628	691	691	639

TABLE **46.**—*Number of trainmen in service on Class I railroads, number of accidents and accident frequency rates among trainmen, 1916 to 1927, by year and occupation*—Continued

Fatalities among trainmen—Continued

Occupation	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
	Frequency rates (per 1,000,000 hours' exposure)											
Yard service:												
Engineers	0.23	0.28	0.17	0.25	0.14	0.22	0.21	0.18	0.11	0.19	0.13	0.05
Firemen	.35	.39	.41	.23	.28	.13	.09	.25	.08	.14	.06	.09
Conductors	1.54	1.39	1.17	.86	1.10	.78	.77	.89	.73	.69	.80	.76
Brakemen	2.83	2.76	2.46	1.59	2.38	1.32	1.43	1.59	1.26	1.50	1.34	1.29
Total	1.69	1.64	1.44	.97	1.34	.80	.84	.96	.74	.86	.78	.75
Road freight service:												
Engineers	.74	.70	.80	.71	.63	.38	.52	.54	.40	.37	.26	.40
Firemen	1.06	1.10	1.15	.71	.78	.40	.47	.54	.43	.31	.30	.47
Conductors	.94	1.08	1.25	.83	.76	.71	.53	.74	.63	.54	.76	.58
Brakemen	2.28	2.35	2.54	1.67	1.97	1.09	1.16	1.33	.93	1.04	1.07	.97
Total	1.47	1.53	1.66	1.12	1.23	.73	.77	.89	.66	.66	.68	.68
Road passenger service:												
Engineers	1.12	1.40	1.55	1.34	1.78	.95	1.05	1.12	.82	1.13	1.00	.87
Firemen	1.32	1.25	1.34	1.40	1.37	.94	1.04	1.18	.82	.96	.99	.82
Conductors	.19	.16	.35	.19	.19	.28	.09	.20	.11	.14	.14	.14
Brakemen	.18	.40	.58	.38	.34	.22	.21	.23	.30	.16	.19	.15
Baggagemen	.12	.48	.31	.25	.24	.12	.35	.17	.06	.23	.17	.23
Total	.65	.79	.90	.77	.86	.55	.57	.63	.47	.56	.54	.44
Grand total	1.38	1.43	1.46	1.01	1.20	.72	.76	.87	.65	.71	.69	.66

Injuries among trainmen

	Number											
Yard service:												
Engineers	1,078	1,032	908	680	1,023	546	756	835	727	654	721	566
Firemen	1,644	1,905	1,708	1,171	1,791	854	1,082	1,561	1,104	1,123	1,117	866
Conductors	1,993	1,815	1,440	1,249	1,607	1,094	1,414	1,630	1,498	1,595	1,739	1,416
Brakemen	12,209	12,004	10,472	8,296	11,666	6,711	7,562	10,223	8,328	8,663	9,369	7,552
Total	16,924	16,756	14,528	11,396	15,987	9,205	10,804	14,249	11,657	12,035	12,946	10,400
Road freight service:												
Engineers	2,360	2,578	2,547	1,888	2,130	1,404	1,649	1,832	1,370	1,271	1,343	959
Firemen	5,145	6,232	5,706	3,945	5,085	2,791	3,274	4,036	2,747	2,584	2,645	2,016
Conductors	3,051	3,099	2,832	2,253	2,593	1,921	2,227	2,501	2,209	2,223	2,378	2,118
Brakemen	13,115	13,004	11,938	8,829	11,439	7,012	7,613	9,409	7,629	7,632	7,904	6,758
Total	23,671	25,003	23,023	16,915	21,347	13,128	14,763	17,778	13,955	13,710	14,270	11,851
Road passenger service:												
Engineers	714	738	777	660	804	602	715	761	617	532	582	445
Firemen	1,245	1,444	1,253	1,176	1,535	997	1,144	1,295	1,017	943	957	792
Conductors	298	327	304	263	274	209	282	304	302	241	274	251
Brakemen	718	699	674	579	688	570	570	639	587	533	572	468
Baggagemen	361	368	283	292	344	269	308	316	303	303	263	255
Total	3,336	3,576	3,291	2,970	3,645	2,647	3,019	3,315	2,826	2,552	2,648	2,211
Grand total	43,931	45,335	40,842	31,281	40,979	24,980	28,586	35,342	28,438	28,297	29,864	24,462

TABLE **46.**—*Number of trainmen in service on Class I railroads, number of accidents and accident frequency rates among trainmen, 1916 to 1927, by year and occupation*—Continued

Injuries among trainmen—Continued

Occupation	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
	Frequency rates (per 1,000,000 hours' exposure)											
Yard service:												
Engineers	22.63	18.17	14.20	11.55	15.96	10.75	13.30	12.57	11.77	10.21	10.80	8.75
Firemen	33.85	32.54	25.90	19.49	26.16	13.41	18.74	22.97	17.44	17.17	16.38	13.06
Conductors	43.25	32.35	23.05	21.54	26.47	21.78	25.29	24.69	24.30	25.11	26.27	22.02
Brakemen	101.90	82.59	64.89	56.09	76.55	52.36	53.68	61.62	53.61	54.53	56.44	46.92
Total	64.40	52.89	41.07	35.08	46.77	32.73	34.78	38.90	34.08	34.22	35.26	29.19
Road freight service:												
Engineers	24.83	25.16	24.26	20.36	21.13	16.53	18.71	17.90	14.72	13.82	14.18	10.47
Firemen	50.99	56.41	49.91	39.92	47.40	30.69	34.64	36.85	27.46	26.33	26.28	20.80
Conductors	39.99	38.05	34.10	29.81	32.98	28.34	31.92	20.99	29.61	29.74	30.83	28.44
Brakemen	59.08	64.36	57.63	47.48	56.80	41.28	4.95	47.70	42.01	42.41	42.79	37.93
Total	51.23	50.22	45.19	37.34	43.45	31.74	34.68	36.29	31.06	30.82	31.21	26.87
Road passenger service:												
Engineers	17.72	18.50	20.38	17.68	20.73	15.53	18.75	19.45	15.85	13.71	14.89	11.44
Firemen	31.60	36.73	33.63	32.36	40.51	26.03	30.53	33.87	26.75	25.02	25.53	21.54
Conductors	9.34	10.23	9.70	8.44	8.47	6.61	8.26	8.62	8.58	6.85	7.80	7.18
Brakemen	16.17	15.69	15.58	12.95	14.47	12.41	13.24	14.63	13.62	12.50	13.55	11.19
Baggagemen	21.42	22.21	17.56	17.89	20.26	15.56	17.92	17.94	17.28	17.41	15.20	14.88
Total	19.30	20.75	19.81	17.91	21.00	15.40	17.43	19.06	16.36	14.86	15.47	13.04
Grand total	48.94	45.93	39.68	33.15	40.70	28.82	31.54	34.31	29.50	29.22	30.30	25.30

Table 46 furnishes the data on which the following charts are prepared.

CHART 15

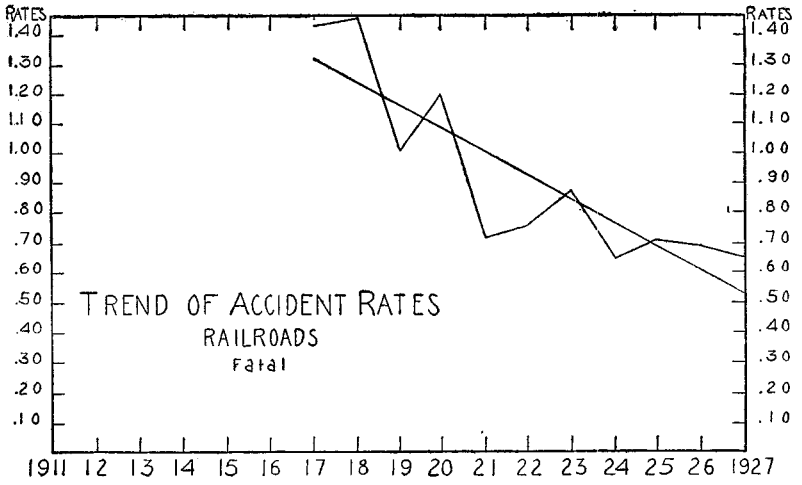
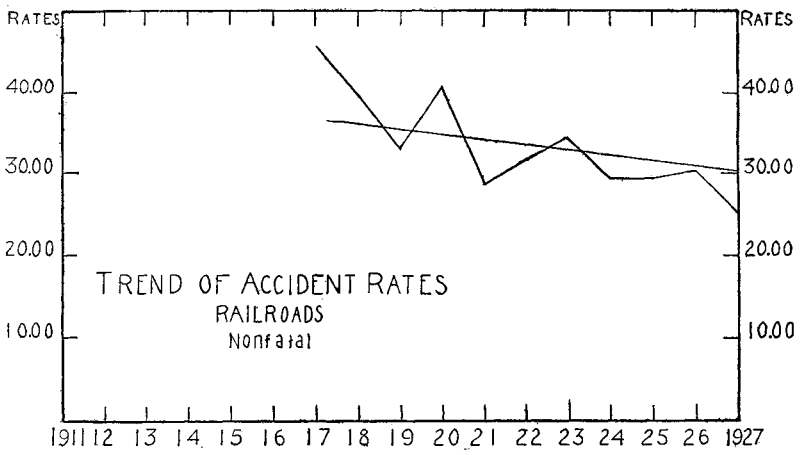


CHART 16



Tables 47 and 48 show the number of train and train service accidents and the number due to specified causes. These tables are chiefly interesting in that they evidence the fact that the improved condition of American railways is a pervasive change. In whatever way the accident data are analyzed it will appear that improvement has taken place. For example, in 1911 collisions caused 297 deaths while in 1927 there were but 65. Injuries due to collisions during the same period declined from 3,071 to 547. In 1911 there were 209 deaths from coupling cars and in 1927 there were 48.

TABLE 47.—*Number of train accidents, 1911 to 1927, by year and kind of accident*

Year ending—	Collisions	Derailments	Locomotive boiler accidents	Other locomotive accidents	Miscellaneous	Total
	Fatalities					
June 30, 1911	297	249	56	(1)	18	620
June 30, 1912	275	244	64	(1)	13	596
June 30, 1913	280	227	41	(1)	9	557
June 30, 1914	224	211	11	(1)	6	452
June 30, 1915	76	127	13	(1)	5	221
June 30, 1916	139	131	24	----	10	304
Dec. 31, 1916	169	154	25	1	9	357
Dec. 31, 1917	235	155	44	----	4	439
Dec. 31, 1918	274	218	41	----	14	547
Dec. 31, 1919	136	159	40	2	22	359
Dec. 31, 1920	182	160	50	6	24	422
Dec. 31, 1921	54	101	29	----	11	195
Dec. 31, 1922	103	119	24	----	7	253
Dec. 31, 1923	112	115	42	----	6	275
Dec. 31, 1924	85	97	24	----	10	216
Dec. 31, 1925	84	121	15	1	11	232
Dec. 31, 1926	104	64	14	----	8	190
Dec. 31, 1927	65	82	25	----	22	194

[1] Included under "Miscellaneous."

TABLE 47.—*Number of train accidents, 1911 to 1927, by year and kind of accident*—Continued

Year ending—	Collisions	Derailments	Locomotive boiler accidents	Other locomotive accidents	Miscellaneous	Total
	Injuries					
June 30, 1911	3,071	1,748	1,092	(1)	690	6,601
June 30, 1912	3,060	2,380	936	(1)	722	7,098
June 30, 1913	3,367	2,243	1,002	(1)	293	6,905
June 30, 1914	2,250	1,820	630	(1)	123	4,823
June 30, 1915	1,360	1,348	443	(1)	211	3,371
June 30, 1916	1,630	1,230	296	(1)	196	3,352
Dec. 31, 1916	1,953	1,249	346	(1)	183	3,731
Dec. 31, 1917	2,388	1,320	326	58	122	4,214
Dec. 31, 1918	2,257	1,433	294	49	146	4,179
Dec. 31, 1919	1,276	1,083	203	49	344	2,955
Dec. 31, 1920	1,607	1,240	246	57	235	3,385
Dec. 31, 1921	559	606	54	18	59	1,296
Dec. 31, 1922	872	709	47	29	54	1,711
Dec. 31, 1923	940	839	57	15	88	1,939
Dec. 31, 1924	709	652	45	13	58	1,477
Dec. 31, 1925	696	616	42	17	112	1,483
Dec. 31, 1926	840	596	34	17	102	1,589
Dec. 31, 1927	547	616	21	13	117	1,211

[1] Included under "Miscellaneous."

TABLE 48.—*Number of train-service accidents, 1911 to 1927, by cause of accident*

Year ending—	Coupling cars	Coupling air hose	Operating locomotives	Operating hand brakes	Operating switches	Striking fixed structures	Getting on or off	Highway crossings	Struck or run over	Miscellaneous	Total
	Fatalities										
June 30, 1911	209					76	160	20	1,197	589	2,251
June 30, 1912	192					77	164	1	1,264	626	2,324
June 30, 1913	195					94	154		1,296	643	2,382
June 30, 1914	171					89	113		1,132	566	2,071
June 30, 1915	90					45	81		722	435	1,373
June 30, 1916	123					59	94		925	467	1,668
Dec. 31, 1916	136					63	106		1,033	515	1,853
Dec. 31, 1917	166	48				95	109		1,222	537	2,177
Dec. 31, 1918	164	44				83	131		1,229	561	2,212
Dec. 31, 1919	108	30	22	45	3	55	92	4		975	1,334
Dec. 31, 1920	151	34	31	50	2	83	96	6		1,232	1,685
Dec. 31, 1921	78	27	14	22	2	45	65	13		635	901
Dec. 31, 1922	81	16	23	37	1	43	63	22	410	292	988
Dec. 31, 1923	103	27	31	24	1	47	101	29	522	403	1,288
Dec. 31, 1924	72	21	20	34	3	36	62	30	388	310	976
Dec. 31, 1925	64	19	14	33	3	38	65	29	400	331	996
Dec. 31, 1926	64	20	11	29		45	62	48	498	325	1,102
Dec. 31, 1927	48	21	22	32	1	47	68	27	403	306	975
	Injuries										
June 30, 1911	2,963					1,510	7,530	39	1,872	25,330	39,247
June 30, 1912	3,234					1,523	8,150	1	2,033	27,081	42,022
June 30, 1913	3,360					1,835	9,358		2,154	33,007	49,714
June 30, 1914	2,692					1,490	8,498		1,914	31,424	46,018
June 30, 1915	1,993					1,083	6,366		1,315	23,932	34,689
June 30, 1916	2,194					1,310	7,234		1,443	26,893	39,074
Dec. 31, 1916	2,440					1,538	8,403		1,636	30,562	44,579
Dec. 31, 1917	2,508	664				1,572	8,601		1,876	32,801	48,022
Dec. 31, 1918	2,332	580				1,349	7,755		1,890	28,866	42,782
Dec. 31, 1919	1,975	425	7,379	1,971	995	1,000	6,162	47		13,371	33,325
Dec. 31, 1920	2,450	590	9,426	2,592	1,453	1,293	8,773	39		16,919	43,535
Dec. 31, 1921	1,540	378	5,732	1,623	847	775	5,510	64		10,759	27,228
Dec. 31, 1922	1,498	393	6,187	1,987	913	722	6,157	88		11,844	30,481
Dec. 31, 1923	1,954	520	8,043	2,571	1,084	859	8,096	100	703	13,517	37,537
Dec. 31, 1924	1,592	430	5,877	2,042	1,050	730	6,564	97	707	11,608	30,097
Dec. 31, 1925	1,538	452	5,458	2,229	930	724	6,680	96	709	11,946	30,762
Dec. 31, 1926	1,591	455	5,697	2,474	1,142	665	7,165	104	768	12,276	32,337
Dec. 31, 1927	1,325	398	4,467	2,158	802	590	5,665	89	629	10,592	26,715

NONTRAIN ACCIDENTS, 1917 TO 1927

Table 49 shows how the hazard of various accident causes has varied during the period covered. It was possible in the earlier years to determine an exposure and to calculate frequency rates. Since it is impossible to do this for the later years the rates are omitted altogether.

TABLE **49.**—*Nontrain accidents on Class I railroads in the United States, 1917 to 1927, by cause of accident*

Fatalities

Cause of accident	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
	Number										
Working machinery, engines, etc.	15	38	17	22	13	18	29	16	31	20	30
Transmission apparatus	5	7	6	3	7	4	5	3	1	3	4
Handling	38	42	52	39	25	18	29	13	18	22	17
Flying particles	1	4		1	2	3	2		1	3	2
Hot substances	21	21	16	13	13	20	35	17	17	14	10
Electric currents	24	25	22	9	16	19	27	32	19	11	20
Collapse, fall, etc., of objects	42	56	42	44	27	40	45	48	31	31	31
Falls of persons	98	111	89	76	59	87	74	49	41	52	51
Miscellaneous	132	149	115	154	92	242	195	205	223	227	254
Total	376	453	359	361	254	451	441	383	282	383	419

Injuries

	Number										
Working machinery, engines, etc.	4,741	4,835	3,885	4,087	2,919	2,997	4,699	3,156	2,986	2,344	1,614
Transmission apparatus	530	585	460	489	343	495	553	302	272	247	171
Handling	44,855	37,196	33,340	35,489	25,858	28,862	39,193	33,077	31,827	28,842	22,889
Flying particles	7,423	6,897	5,536	5,744	4,227	4,759	6,760	5,483	5,006	3,948	2,930
Hot substances	2,949	2,857	2,356	2,648	1,875	2,467	3,757	2,765	2,201	1,845	1,230
Electric currents	185	245	223	221	124	273	270	235	195	174	157
Collapse, fall, etc., of objects	14,087	13,132	10,536	11,822	8,341	10,165	15,251	11,980	10,735	9,113	6,401
Falls of persons	13,892	12,474	9,871	10,906	7,725	9,642	11,614	10,270	8,722	7,941	6,412
Miscellaneous	28,548	26,679	24,635	26,887	20,037	24,926	30,199	25,117	24,347	22,987	17,421
Total	117,210	104,900	90,842	98,293	71,449	84,586	112,296	92,385	86,291	77,441	59,225

Tables 50 and 51 present rates for the nontrain occupations from 1917 to 1921. Since 1921 exposure has not been reported in terms of man-hours, it has not been possible to extend the significant portion of the tables. This grouping brings out some interesting points regarding the movement of the rates and the relations of the several occupations, and therefore these tables are presented although the data therein can not be extended beyond 1921.

It may be noted that shopmen have consistently the highest rates and that these are not widely different from those prevailing in the departments of the iron and steel industry. These comparatively high rates for shopmen are emphasized in Table 51 which covers a 5-year period.

TABLE **50.**—*Number of nontrain accidents, exposure, and accident frequency rates for industrial employees on Class I railroads in the United States, 1917 to 1921, by year and occupation*

Occupation	1917	1918	1919	1920	1921
	Number of accidents				
Shopmen	67,445	63,951	52,318	57,397	41,748
Station men	15,635	12,150	11,206	11,664	6,944
Trackmen	21,036	17,498	17,250	19,113	15,778
Bridge and building men	5,104	4,200	3,835	4,167	3,398
Other employees	7,375	6,499	5,806	5,653	3,835
Total	116,595	104,298	90,315	97,994	71,703
	Hours of exposure (thousands)				
Shopmen	1,400,734	1,582,114	1,456,460	1,584,884	1,150,383
Station men	689,174	690,048	620,370	644,202	511,918
Trackmen	1,019,263	1,031,366	888,266	955,570	678,478
Bridge and building men	203,314	202,575	165,072	168,550	117,742
Other employees	415,005	418,927	391,372	410,764	349,977
Total	3,727,490	3,925,030	3,521,480	3,763,970	2,808,498
	Accident frequency rates (per 1,000,000 hours' exposure)				
Shopmen	48.15	40.42	35.92	36.22	36.29
Station men	22.69	17.61	18.06	18.11	13.56
Trackmen	20.64	16.97	19.42	20.00	23.25
Bridge and building men	25.10	20.73	23.23	24.72	28.87
Other employees	17.77	15.51	14.83	13.76	10.96
Total	31.28	26.57	25.68	26.03	25.53

Table 51 shows the frequency rates per 1,000,000 hours' exposure for nontrain employees for the 5-year period, 1917 to 1921.

TABLE **51.**—*Accident frequency rates (per 1,000,000 hours' exposure) for nontrain employees on Class I railroads in the United States, 1917 to 1921*

Occupation	Fatalities	All accidents
Shopmen	0.09	39.54
Station men	.03	18.30
Trackmen	.10	20.00
Bridge and building men	.30	24.29

GRADE-CROSSING ACCIDENTS, 1890 TO 1927

Table 52 emphasizes in a striking way the change in conditions brought about by the introduction of the automobile. Fatal accidents at grade crossings first went over 1,000 in 1912. From that time there has been a steady increase of such occurrences. The year 1926 has the bad distinction of the greatest number to date, with 2,491. When from 1923 to 1924, there was a slight decline in fatal cases it was hoped that a turning point had been reached. This hope was rudely disturbed when each of the three following years had a greater number of fatalities.

The railways, which have earnestly striven to improve the situation, have thus far been unable to make headway against the mounting hazard due to an increased number of automobiles and probably an increased number of dangerous drivers. Undoubtedly the improvements which have been made in cars have a bearing upon their safety of operation and as the older models go out of use it is reasonable to expect a lessened number of casualties.

TABLE 52.—*Number of persons and of trespassers killed or injured in railway accidents at highway grade crossings in the United States, 1890 to 1927, by year*

Year ending—	Number of persons—		Number of trespassers—		Year ending—	Number of persons—		Number of trespassers—	
	Killed	Injured	Killed	Injured		Killed	Injured	Killed	Injured
June 30, 1890	402	675	98	151	June 30, 1910	839	1,939	129	153
June 30, 1891	564	863	167	162	June 30, 1911	992	2,434	148	124
June 30, 1892	568	942	137	176	June 30, 1912	1,032	2,506	136	138
June 30, 1893	596	1,064	163	179	June 30, 1913	1,125	3,080	145	172
June 30, 1894	571	817	119	136	June 30, 1914	1,147	2,935	122	119
June 30, 1895	508	961	133	176	June 30, 1915	1,086	2,981	83	72
June 30, 1896	615	1,058	171	248	June 30, 1916	1,396	3,267	86	83
June 30, 1897	575	1,033	116	197	Dec. 31, 1916	1,652	3,859	121	101
June 30, 1898	657	1,123	151	202	Dec. 31, 1917	1,969	4,764	131	128
June 30, 1899	674	1,087	170	168	Dec. 31, 1918	1,852	4,683	137	140
June 30, 1900	730	1,297	171	204	Dec. 31, 1919	1,784	4,616	107	216
June 30, 1901	831	1,354	209	242	Dec. 31, 1920	1,791	5,077	100	273
June 30, 1902	827	1,335	265	272	Dec. 31, 1921	1,705	4,868	106	166
June 30, 1903	898	1,481	271	247	Dec. 31, 1922	1,810	5,383	96	163
June 30, 1904	808	1,463	197	224	Dec. 31, 1923	2,268	6,314	133	148
June 30, 1905	838	1,574	215	256	Dec. 31, 1924	2,149	6,525	107	168
June 30, 1906	929	1,892	250	226	Dec. 31, 1925	2,206	6,555	120	178
June 30, 1907	934	1,817	237	274	Dec. 31, 1926	2,491	6,991	103	194
June 30, 1908	837	1,762	216	323	Dec. 31, 1927	2,371	6,613	109	140
June 30, 1909	735	1,833	112	211					

ELECTRIC RAILWAYS

The accident experience of the electric railways, as published by the Interstate Commerce Commission, is rather limited, and accident rates on the basis of man-hours exposure are not available. Table 53 presents the latest and most significant data reported.

TABLE 53.—*Accident experiences of 105 American electric railways in 1923 and 1924*

Item	1923	1924	Item	1923	1924
Car-miles operated	448,489,978	445,200,730	Accidents per 1,000,000 car-miles—Con.		
Passengers carried	3,051,621,122	3,239,039,582	By collision with cars	9.65	8.08
Number of accidents to—					
Employees	4,875	4,627	To employees	10.87	10.39
Passengers	19,784	17,935	To passengers	44.11	40.29
Other persons	9,691	9,758	To other persons	21.61	21.91
Total	34,350	32,320	Total	76.59	72.59
Number of fatalities	337	338	Accidents to passengers per 1,000,000 passengers carried	6.48	5.53
Accidents per 1,000,000 car-miles: By collision with motor vehicles	195.87	194.35			

Chapter VII.—RECORD OF ACCIDENTS IN THE FEDERAL DEPARTMENTS, 1921 TO 1927

The United States Employees' Compensation Commission compiles figures showing the accident experience in the Federal departments, covering civil employees only. The record of that experience is available for a 7-year period, and is set forth in Table 54.

Lacking precise information as to the total hours worked by Government employees in any department it has been assumed for the purpose of computing rates that an 8-hour day is uniform. The hours worked by Federal civil employees range from 7 to 9 and even 10 per day, and it may be that the 8-hour assumption is liberal and as a result that the number of man-hours used as a divisor is somewhat larger than it should be, which would render the rates smaller than they would be if the data were more complete.

When the 1926 figures became available it was noted that the Department of the Interior, the Department of Labor, the Department of the Treasury, the Department of War, and the "Other Government services" group showed declining rates from 1925 to 1926, while increases were shown in those for the Department of Agriculture, the Department of Commerce, the Department of the Navy, the Post Office Department, and the Government Printing Office.

In 1927 the record was hardly more satisfactory, the number of departments showing an increase in rates being six instead of five, but including the Department of the Treasury, the Department of War, and "Other Government services" which showed declines in the preceding year, and excluding the Department of Commerce and the Department of the Navy, which in 1927 took their places among those recording declining rates.

The most notable improvement was made by the Department of Labor, the total rate for which declined 16.9 per cent between 1926 and 1927. The greatest increase in rate (58.7 per cent) was made by the Department of the Treasury. For the Federal departments as a whole a slight increase is recorded for every one of the years included except 1923 and 1926.

Generally speaking, the situation in the Government may not be considered satisfactory when it is observed, by reference to Table 9 (p. 119), that the rates are markedly higher than those prevailing in the better steel mills.

TABLE 54.—*Number of accidents and accident frequency rates in the Government service, 1921 to 1927, by department and year*

[Based on number of employees shown by the Civil Service Commission's yearly reports and on number of accidents reported to the United States Employees' Compensation Commission]

Year	Number of employees	Number of accidents			Frequency rates (per 1,000,000 hours' exposure)		
		Fatal	Nonfatal	Total	Fatal accidents	Nonfatal accidents	Total
All Government Services							
1921	560,673	362	18,042	18,404	0.25	12.88	13.13
1922	535,185	353	17,905	18,258	.26	13.38	13.64
1923	535,781	279	17,713	17,992	.20	13.22	13.43
1924	546,981	278	20,260	20,538	.20	14.82	15.02
1925	538,290	314	20,374	20,688	.23	15.14	15.37
1926	536,426	318	19,209	19,527	.25	15.08	15.33
1927	525,843	357	20,190	20,547	.28	15.99	16.27
Total	3,779,179	2,261	133,693	135,954	.25	14.75	15.00
Department of Agriculture							
1921	18,722	10	638	648	0.22	13.63	13.85
1922	19,773	11	919	930	.22	18.59	18.82
1923	20,078	17	971	988	.34	19.34	19.68
1924	20,385	25	1,287	1,312	.49	25.25	25.74
1925	20,098	26	1,291	1,317	.52	25.69	26.21
1926	20,688	34	1,652	1,686	.68	33.27	33.95
1927	21,518	27	1,760	1,787	.52	34.08	34.60
Total	141,262	150	8,518	8,668	.44	25.12	25.56
Department of Commerce							
1921	11,748	9	246	255	0.31	8.38	8.69
1922	11,267	15	272	287	.53	9.66	10.19
1923	11,199	11	332	343	.40	11.86	12.25
1924	12,119	8	319	327	.26	10.52	10.79
1925	14,631	11	348	359	.30	9.52	9.82
1926	14,682	11	433	444	.30	12.28	12.58
1927	14,950	11	414	425	.31	11.54	11.85
Total	90,596	76	2,364	2,440	.35	10.87	11.22
Government Printing Office							
1921	4,403	2	89	91	0.18	8.09	8.27
1922	4,024	1	63	64	.10	6.26	6.36
1923	3,989	----	42	42	----	4.21	4.21
1924	4,269	----	44	44	----	4.13	4.13
1925	3,984	----	27	27	----	2.71	2.71
1926	4,109	1	39	40	.10	3.95	4.05
1927	4,078	----	42	42	----	4.29	4.29
Total	28,856	4	346	350	.06	4.98	5.04
Department of the Interior							
1921	19,735	14	957	971	0.29	19.39	19.68
1922	17,834	18	1,041	1,059	.41	23.35	23.75
1923	17,092	16	1,415	1,431	.37	33.12	33.49
1924	16,679	19	1,676	1,695	.46	40.20	40.64
1925	13,125	11	1,019	1,030	.34	31.06	31.39
1926	13,468	8	609	617	.25	18.84	19.09
1927	14,960	9	676	685	.25	18.83	19.08
Total	112,893	95	7,393	7,488	.35	27.29	27.64

TABLE 54.—*Number of accidents and accident frequency rates in the Government service, 1921 to 1927, by department and year*—Continued

Year	Number of employees	Number of accidents			Frequency rates (per 1,000,000 hours' exposure)		
		Fatal	Nonfatal	Total	Fatal accidents	Nonfatal accidents	Total
Department of Labor							
1921	3,768	1	112	113	0.11	11.89	11.99
1922	3,744	2	100	102	.22	10.68	10.90
1923	3,821		112	112		11.72	11.72
1924	3,876	1	111	112	.11	11.46	11.56
1925	3,614	5	107	112	.55	11.84	12.40
1926	4,011	2	90	92	.21	9.45	9.66
1927	4,050	2	74	76	.21	7.82	8.03
Total	26,884	13	706	719	.20	10.94	11.14
Department of the Navy							
1921	60,653	36	2,918	2,954	0.24	19.25	19.48
1922	42,515	27	1,516	1,543	.25	14.27	14.52
1923	40,557	30	1,423	1,453	.30	14.04	14.33
1924	42,686	28	1,882	1,910	.26	17.64	17.90
1925	42,842	24	1,662	1,686	.23	15.52	15.74
1926	42,973	39	1,778	1,817	.38	17.24	17.62
1927	43,198	27	1,696	1,723	.26	16.36	16.62
Total	315,424	211	12,875	13,086	.28	17.01	17.29
Post Office Department							
1921	281,658	62	5,218	5,280	0.08	7.42	7.50
1922	284,207	64	6,196	6,260	.10	8.72	8.81
1923	294,226	50	6,559	6,609	.07	8.92	8.99
1924	301,000	42	7,395	7,437	.06	9.83	9.89
1925	304,092	47	7,488	7,535	.06	9.85	9.91
1926	289,980	56	7,896	7,952	.08	11.35	11.43
1927	278,637	54	8,862	8,916	.08	13.25	13.33
Total	2,033,800	375	49,614	49,989	.08	10.17	10.24
Department of the Treasury							
1921	68,648	30	1,157	1,187	0.18	6.74	6.91
1922	56,392	44	1,203	1,247	.31	8.53	8.84
1923	53,604	17	938	955	.13	7.00	7.13
1924	52,121	16	1,013	1,029	.12	7.63	7.75
1925	52,607	22	1,037	1,059	.17	7.88	8.05
1926	51,569	19	864	883	.11	4.93	5.04
1927	51,741	22	983	1,005	.18	7.92	8.10
Total	387,682	170	7,195	7,365	.18	7.70	7.88
Department of War							
1921	53,553	124	6,125	6,249	0.92	45.74	46.68
1922	46,840	104	5,648	5,752	.89	48.23	49.12
1923	44,842	96	4,913	5,009	.85	43.82	44.68
1924	45,906	102	5,295	5,397	.89	46.14	47.03
1925	38,975	115	5,793	5,908	1.18	59.45	60.64
1926	45,285	63	4,700	4,763	.58	43.24	43.82
1927	42,771	124	4,496	4,620	1.21	43.80	45.01
Total	318,172	728	36,970	37,698	.95	48.42	49.37
Other Government Services							
1921	37,785	74	582	656	0.78	6.16	6.95
1922	48,589	67	947	1,014	.55	7.80	8.34
1923	46,373	42	1,008	1,050	.36	8.70	9.06
1924	46,940	37	1,238	1,275	.31	10.55	10.86
1925	44,322	53	1,602	1,655	.48	14.46	14.94
1926	49,661	85	1,148	1,233	.71	9.63	10.34
1927	49,940	81	1,187	1,268	.68	9.90	10.58
Total	323,610	439	7,712	8,151	.57	9.93	10.50

Chapter VIII.—INDUSTRIAL ACCIDENT EXPERIENCE OF MEMBERS OF THE NATIONAL SAFETY COUNCIL

Comprehensive industrial accident statistics are being put out annually by the National Safety Council.[1] The report consists almost exclusively of tabular matter and presents the experience of members of the council only. Sixteen industrial groups are included in this membership, and in 1927 accident reports were filed by 2,089 establishments employing 1,565,747 workers with an exposure of 3,742,404,981 man-hours, which record is an increase over 1926 of approximately 21 per cent in the number of establishments, 28 per cent in the number of workers, and 23 per cent in the number of hours' exposure. A summary of the latest report, giving the comparative experience of a 3-year period, 1925 to 1927, is presented in Table 55. The accident frequency and severity rates for death, permanent disability, and temporary disability, respectively, have been computed, since they do not appear in the report, while the total rates as given in the report have in some instances been modified as indicated by the items on which they are based. To this extent they do not agree with those appearing in the report. Total average rates have not been included, although given in the original report, because they are so readily affected by variation in the number of establishments included in any industrial group and are, therefore, of questionable value.

Without giving the details upon which the information is based, the following brief summary is reproduced from the report:

Eight facts of major importance are revealed by the industrial accident statistics tabulated by the National Safety Council for 1927:

1. Two thousand and eighty nine establishments reported for 1927; 1,725 in 1926; an increase of 21 per cent.
2. In 1927, 1,565,747 persons worked 3,742,404,981 hours, while in 1926, 1,221,094 persons worked 3,033,416,031 hours.
3. A gradual decrease in the hours of exposure per man has occurred in the past three years. In 1927, 2,390; 1926, 2,480; and in 1925, 2,930.
4. 1927 average accident frequency rate equals 25.95. The average for two years previous equals 31.31; a reduction of 17 per cent.
5. 1927 average accident severity rate equals 1.88. The average for two years previous equals 2.50; a reduction of 24 per cent.
6. The ratio of persons employed to lost-time injuries[2] is 16 to 1. Days lost per injury equals 71. The ratio for two years previous equals 12 to 1, with 73 days lost per injury.
7. The ratio of nonfatal injuries equals 155 to 1. Ratio for two years previous equals 154 to 1.
8. One hundred and thirty three establishments, or 7 per cent of the total, completed the year of 1927 without a lost-time injury.

[1] Data in this report, which are copyrighted, are reproduced through the courtesy of the National Safety Council, 108 E. Ohio Street, Chicago.

[2] Only lost-time personal injuries are considered and tabulated throughout this report. A tabulatable personal injury is one arising out of employment and resulting in death, permanent disability, or loss of time from work other than the remainder of the day or shift on which the injury was incurred.

TABLE 55.—*Number of accidents, and accident frequency and severity rates in specified industries, reported by National Safety Council, 1925 to 1927*

Industrial group	Number of establishments	Full-year workers	Death			Permanent disability			Temporary disability			Total		
			Number	Frequency rate (per 1,000,000 hours' exposure)[1]	Severity rate (per 1,000 hours' exposure)[1]	Number	Frequency rate (per 1,000,000 hours' exposure)[1]	Severity rate (per 1,000 hours' exposure)[1]	Number	Frequency rate (per 1,000,000 hours' exposure)[1]	Severity rate (per 1,000 hours' exposure)[1]	Number	Frequency rate (per 1,000,000 hours' exposure)[1]	Severity rate (per 1,000 hours' exposure)[1]
Automotive:														
1925	196	254,188	22	0.03	0.17	560	0.73	0.32	17,279	22.65	0.53	17,861	23.41	1.02
1926	98	142,258	29	.07	.40	484	1.13	.63	9,554	22.40	.33	10,067	23.60	1.36
1927	129	133,179	16	.04	.24	382	.96	.46	8,176	20.46	.33	8,574	21.46	1.03
Chemical:														
1925	65	41,383	38	.31	1.84	86	.69	.57	2,473	19.92	.31	2,597	20.92	2.72
1926	108	65,444	50	.25	1.53	141	.72	.46	3,393	17.28	.29	3,584	18.25	2.28
1927	148	85,676	52	.20	1.21	156	.61	.50	4,248	16.53	.29	4,458	17.34	2.01
Construction:														
1925	36	8,487	24	.94	5.66	18	.71	.81	1,736	68.78	1.11	1,778	69.93	7.57
1926	51	22,343	40	.60	3.58	122	1.82	.94	3,705	55.27	.91	3,867	57.69	5.43
1927	65	19,903	39	.65	4.82	97	1.62	1.32	3,749	62.79	.99	3,885	65.06	7.13
Food:														
1926	63	18,802	4	.07	.42	48	.85	.33	1,279	22.67	.64	1,331	23.59	1.39
1927	124	33,485	11	.11	.66	61	.61	.35	1,903	18.95	.33	1,975	19.67	1.34
Metals:														
1925	280	220,397	86	.13	.78	545	.82	.60	18,915	28.60	.41	[2]19,546	29.55	1.79
1926	318	228,738	127	.19	1.11	796	1.16	.78	23,405	34.10	.55	24,328	35.45	2.44
1927	466	294,820	114	.13	.77	937	1.06	.69	21,892	24.75	.42	22,943	25.94	1.88
Packers and tanners:														
1925	17	11,828	1	.03	.17	41	1.16	.65	1,383	38.97	.45	1,425	40.16	1.27
1926	16	6,512				13	.67	1.14	1,137	58.20	.61	1,150	58.87	1.75
1927	28	11,266	1	.03	.18	29	.86	.32	1,505	44.53	.50	1,535	45.42	1.00
Paper and pulp:														
1925	99	34,874	21	.20	1.20	57	.54	.38	3,943	37.69	.57	4,021	38.43	2.15
1926	133	42,235	22	.17	1.04	67	.53	.39	4,570	36.07	.52	4,659	36.77	1.95
1927	186	61,790	27	.15	.87	63	.34	.34	4,994	26.94	.36	5,084	27.43	1.57
Petroleum:														
1925	18	71,352	47	.22	1.32	208	.97	.58	5,600	26.16	.43	5,855	27.35	2.33
1926	20	83,601	60	.24	1.44	233	.93	.64	7,039	28.06	.40	[2]7,332	29.23	2.48
1927	24	91,150	64	.23	1.40	267	.98	.54	7,615	27.95	.47	7,946	29.16	2.41
Power press:														
1926	145	126,387	26	.07	.22	417	1.10	.59	8,741	23.05	.29	9,184	24.22	1.10
1927	204	154,325	16	.03	.21	451	.97	.49	8,436	18.22	.24	8,903	19.23	.94

Public utilities:														
1926	132	73,954	129	.58	3.49	53	.24	.37	7,308	32.94	.46	7,490	33.76	4.32
1927	322	186,216	243	.43	2.61	125	.22	.31	16,743	29.97	.41	17,111	30.62	3.33
Quarry:														
1925	36	5,108	13	.84	5.09	23	1.50	1.78	708	46.21	.77	744	48.55	7.64
1926	28	5,096	13	.85	5.10	17	1.11	1.13	841	55.01	.80	871	56.97	7.03
1927	31	5,175	9	.58	3.48	15	.97	.94	810	52.18	.79	834	53.73	5.21
Rubber:														
1925	22	57,813	10	.06	.35	70	.40	.37	4,974	28.68	.39	5,054	29.14	1.11
1926	32	58,899	10	.06	.34	86	.49	.40	5,217	29.52	.43	5,313	30.07	1.17
1927	45	68,747	10	.05	.29	69	.33	.25	6,083	29.49	.39	6,162	29.87	.93
Textiles:														
1925	32	25,975	1	.01	.08	31	.40	.21	1,029	13.21	.16	1,061	13.62	.45
1926	49	36,828	4	.04	.22	49	.44	.25	1,396	12.64	.18	1,449	13.12	.65
1927	86	46,738	3	.02	.13	47	.34	.26	1,699	12.12	.15	1,749	12.48	.54
Woodworking and lumber manufacturing:														
1925	100	23,297	11	.16	.95	128	1.83	.96	2,948	42.21	.84	3,087	44.20	2.75
1926	136	32,982	31	.31	1.88	129	1.30	1.19	5,977	60.40	1.44	6,137	62.01	4.56
1927	167	37,079	17	.15	.92	143	1.29	.73	5,143	46.24	.58	5,303	47.68	2.23
Miscellaneous: 1927	64	17,920				4	.07	.13	664	12.37	.15	668	12.44	.28

[1] These rates have been computed and the total rates have been recomputed from the items as given in the report.
[2] This is the total of the items, but is not the total given in the report, and the discrepancy is not explained.

LIST OF BULLETINS OF THE BUREAU OF LABOR STATISTICS

The following is a list of all bulletins of the Bureau of Labor Statistics published since July, 1912, except that in the case of bulletins giving the results of periodic surveys of the bureau only the latest bulletin on any one subject is here listed.

A complete list of the reports and bulletins issued prior to July, 1912, as well as the bulletins published since that date, will be furnished on application. Bulletins marked thus(*)are out of print.

Conciliation and Arbitration (including strikes and lockouts).

*No. 124. Conciliation and arbitration in the building trades of Greater New York. [1913.]
*No. 133. Report of the industrial council of the British Board of Trade on its inquiry into industrial agreements. [1913.]
No. 139. Michigan copper district strike. [1914.]
No. 144. Industrial court of the cloak, suit, and skirt industry of New York City. [1914.]
No. 145. Conciliation, arbitration, and sanitation in the dress and waist industry of New York City. [1914.]
*No. 191. Collective bargaining in the anthracite coal industry. [1916.]
*No. 198. Collective agreements in the men's clothing industry. [1916.]
No. 233. Operation of the industrial disputes investigation act of Canada. [1918.]
No. 255. Joint industrial councils in Great Britain. [1919.]
No. 283. History of the Shipbuilding Labor Adjustment Board, 1917 to 1919.
No. 287. National War Labor Board: History of its formation, activities, etc. [1921.]
No. 303. Use of Federal power in settlement of railway labor disputes. [1922.]
No. 341. Trade agreement in the silk-ribbon industry of New York City. [1923.]
No. 402. Collective bargaining by actors. [1926.]
No. 468. Trade agreements, 1927.
No. 481. Joint industrial control in the book and job printing industry. [1928.]

Cooperation.

No. 313. Consumers' cooperative societies in the United States in 1920.
No. 314. Cooperative credit societies in America and in foreign countries. [1922.]
No. 437. Cooperative movement in the United States in 1925 (other than agricultural).

Employment and Unemployment.

*No. 109. Statistics of unemployment and the work of employment offices [in the United States]. [1913.]
No. 172. Unemployment in New York City. N. Y. [1915.]
*No. 183. Regularity of employment in the women's ready-to-wear garment industries. [1915.]
*No. 195. Unemployment in the United States. [1916.]
No. 196. Proceedings of Employment Managers' Conference held at Minneapolis, Minn., January 19 and 20, 1916.
*No. 202. Proceedings of the conference of Employment Managers' Association of Boston, Mass., held May 10, 1916.
No. 206. The British system of labor exchanges. [1916.]
No. 227. Proceedings of the Employment Managers' Conference, Philadelphia, Pa., April 2 and 3, 1917.
No. 235. Employment system of the Lake Carriers' Association. [1918.]
*No. 241. Public employment offices in the United States. [1918.]
No. 247. Proceedings of Employment Managers' Conference, Rochester, N. Y., May 9–11, 1918.
No. 310. Industrial unemployment: A statistical study of its extent and causes. [1922.]
No. 409. Unemployment in Columbus, Ohio, 1921 to 1925.

Foreign Labor Laws.

*No 142. Administration of labor laws and factory inspection in certain European countries. [1914.]

Housing.

*No. 158. Government aid to home owning and housing of working people in foreign countries. [1914.]
No. 263. Housing by employers in the United States. [1920.]
No. 295. Building operations in representative cities in 1920.
No. 469. Building permits in the principal cities of the United States in [1921 to] 1927.

Industrial Accidents and Hygiene.

*No. 104. Lead poisoning in potteries, tile works, and porcelain enameled sanitary ware factories. [1912.]
No. 120. Hygiene of the painters' trade. [1913.]
*No. 127. Dangers to workers from dusts and fumes, and methods of protection. [1913.]
*No. 141. Lead poisoning in the smelting and refining of lead. [1914.]
*No. 157. Industrial accident statistics. [1915.]
*No. 165. Lead poisoning in the manufacture of storage batteries. [1914.]
*No. 179. Industrial poisons used in the rubber industry. [1915.]
No. 188. Report of British departmental committee on the danger in the use of lead in the painting of buildings. [1916.]
*No. 201. Report of committee on statistics and compensation insurance cost of the International Association of Industrial Accident Boards and Commissions. [1916.]
*No. 207. Causes of death by occupation. [1917.]
*No. 209. Hygiene of the printing trades. [1917.]
*No. 219. Industrial poisons used or produced in the manufacture of explosives. [1917.]
No. 221. Hours, fatigue, and health in British munition factories. [1917.]
No. 230. Industrial efficiency and fatigue in British munition factories. [1917.]
*No. 231. Mortality from respiratory diseases in dusty trades (inorganic dusts). [1918.]
*No. 234. Safety movement in the iron and steel industry, 1907 to 1917.
No. 236. Effects of the air hammer on the hands of stonecutters. [1918.]
No. 249. Industrial health and efficiency. Final report of British Health of Munition Workers' Committee. [1919.]
*No. 251. Preventable death in the cotton-manufacturing industry. [1919.]
No. 256. Accidents and accident prevention in machine building. [1919.]
No. 267. Anthrax as an occupational disease. [1920.]
No. 276. Standardization of industrial accident statistics. [1920.]
No. 280. Industrial poisoning in making coal-tar dyes and dye intermediates. [1921.]
No. 291. Carbon-monoxide poisoning. [1921.]
No. 293. The problem of dust phthisis in the granite-stone industry. [1922.]
No. 298. Causes and prevention of accidents in the iron and steel industry, 1910–1919.
No. 306. Occupational hazards and diagnostic signs: A guide to impairments to be looked for in hazardous occupations. [1922.]
No. 339. Statistics of industrial accidents in the United States. [1923.]
No. 392. Survey of hygienic conditions in the printing trades. [1925.]
No. 405. Phosphorus necrosis in the manufacture of fireworks and in the preparation of phosphorus. [1926.]
No. 425. Record of industrial accidents in the United States to 1925.
No. 426. Deaths from lead poisoning. [1927.]
No. 427. Health survey of the printing trades, 1922 to 1925.
No. 428. Proceedings of the Industrial Accident Prevention Conference, held at Washington, D. C., July 14–16, 1926.
No. 460. A new test for industrial lead poisoning. [1928.]
No. 466. Settlement for accidents to American seamen. [1928.]
No. 488. Deaths from lead poisoning, 1925–1927. (In press.)

Industrial Relations and Labor Conditions.

No. 237. Industrial unrest in Great Britain. [1917.]
No. 340. Chinese migrations, with special reference to labor conditions. [1923.]
No. 349. Industrial relations in the West Coast lumber industry. [1923.]
No. 361. Labor relations in the Fairmont (W. Va.) bituminous-coal field. [1924.]
No. 380. Postwar labor conditions in Germany. [1925.]
No. 383. Works council movement in Germany. [1925.]
No. 384. Labor conditions in the shoe industry in Massachusetts, 1920–1924.
No. 399. Labor relations in the lace and lace-curtain industries in the United States. [1925.]
No. 483. Conditions in the shoe industry, Haverhill, Mass, 1923. (In press.)

Labor Laws of the United States (including decisions of courts relating to labor).

No. 211. Labor laws and their administration in the Pacific States. [1917.]
No. 229. Wage-payment legislation in the United States. [1917.]
No. 285. Minimum-wage laws of the United States: Construction and operation. [1921.]
No. 321. Labor laws that have been declared unconstitutional. [1922.]
No. 322. Kansas Court of Industrial Relations. [1923.]
No. 343. Laws providing for bureaus of labor statistics, etc. [1923.]
No. 370. Labor laws of the United States, with decisions of courts relating thereto. [1925.]
No. 408. Laws relating to payment of wages. [1926.]
No. 444. Decisions of courts and opinions affecting labor, 1926.
No. 467. Minimum wage legislation in various countries. [1928.]
No. 486. Labor legislation of 1928.

Proceedings of Annual Conventions of the Association of Governmental Labor Officials of the United States and Canada. (Name changed in 1928 to Association of Governmental Officials in Industry of the United States and Canada.)

*No. 266. Seventh, Seattle, Wash., July 12–15, 1920.
No. 307. Eighth, New Orleans, La., May 2–6, 1921.
No. 323. Ninth, Harrisburg, Pa., May 22–26, 1922.
No. 352. Tenth, Richmond, Va., May 1–4, 1923.
*No. 389. Eleventh, Chicago, Ill., May 19–23, 1924.
*No. 411. Twelfth, Salt Lake City, Utah, August 13–15, 1925.
No. 429. Thirteenth, Columbus, Ohio, June 7–10, 1926.
No. 455. Fourteenth, Paterson, N. J., May 31 to June 3, 1927.
No. 480. Fifteenth, New Orleans, La., May 15–24, 1928.

Proceedings of Annual Meetings of the International Association of Industrial Accident Boards and Commissions.

No. 210. Third, Columbus, Ohio, April 25–28, 1916.
No. 248. Fourth, Boston, Mass., August 21–25, 1917.
No. 264. Fifth, Madison, Wis., September 24–27, 1918.
*No. 273. Sixth, Toronto, Canada, September 23–26, 1919.
No. 281. Seventh, San Francisco, Calif., September 20–24, 1920.
No. 304. Eighth, Chicago, Ill., September 19–23, 1921.
No. 333. Ninth, Baltimore, Md., October 9–13, 1922.
No. 359. Tenth, St. Paul, Minn., September 24–26, 1923.
No. 385. Eleventh, Halifax, Nova Scotia, August 26–28, 1924.
No. 395. Index to proceedings, 1914–1924.
No. 406. Twelfth, Salt Lake City, Utah, August 17–20, 1925.
No. 432. Thirteenth, Hartford, Conn., September 14–17, 1926.
No. 456. Fourteenth, Atlanta, Ga., September 27–29, 1927.
No. 485. Fifteenth, Paterson, N. J., September 11–14, 1928. (In press.)

Proceedings of Annual Meetings of the International Association of Public Employment Services.

No. 192. First, Chicago, December 19 and 20, 1913; Second, Indianapolis, September 24 and 25, 1914; Third, Detroit, July 1 and 2, 1915.
No. 220. Fourth, Buffalo, N. Y., July 20 and 21, 1916.
No. 311. Ninth, Buffalo, N. Y., September 7–9, 1921.
No. 337. Tenth, Washington, D. C., September 11–13, 1922.
No. 355. Eleventh, Toronto, Canada, September 4–7, 1923.
No. 400. Twelfth, Chicago, Ill., May 19–23, 1924.
No. 414. Thirteenth, Rochester, N. Y., September 15–17, 1925.
No. 478. Fifteenth, Detroit, Mich., October 25–28, 1927.

Productivity of Labor.

No. 356. Productivity costs in the common-brick industry. [1924.]
No. 360. Time and labor costs in manufacturing 100 pairs of shoes, 1923.
No. 407. Labor cost of production and wages and hours of labor in the paper box-board industry. [1926.]
No. 412. Wages, hours, and productivity in the pottery industry, 1925.
No. 441. Productivity of labor in the glass industry. [1927.]
No. 474. Productivity of labor in merchant blast furnaces. [1928.]
No. 475. Productivity of labor in newspaper printing. [1928.]

Retail Prices and Cost of Living.

*No. 121. Sugar prices, from refiner to consumer. [1913.]
*No. 130. Wheat and flour prices, from farmer to consumer. [1913.]
No. 164. Butter prices, from producer to consumer. [1914.]
No. 170. Foreign food prices as affected by the war. [1915.]
No. 357. Cost of living in the United States. [1924.]
No. 369. The use of cost-of-living figures in wage adjustments. [1925.]
No. 464. Retail prices, 1890 to 1927.

Safety Codes.

*No. 331. Code of lighting: Factories, mills, and other work places.
No. 336. Safety code for the protection of industrial workers in foundries.
No. 350. Specifications of laboratory tests for approval of electric headlighting devices for motor vehicles.
No. 351. Safety code for the construction, care, and use of ladders.
No. 375. Safety code for laundry machinery and operation.
No. 378. Safety code for woodworking plants.
No. 382. Code of lighting school buildings.
No. 410. Safety code for paper and pulp mills.
No. 430. Safety code for power presses and foot and hand presses.

Safety Codes—Continued.

No. 433. Safety codes for the prevention of dust explosions.
No. 436. Safety code for the use, care, and protection of abrasive wheels.
No. 447. Safety code for rubber mills and calenders.
No. 451. Safety code for forging and hot-metal stamping.
No. 463. Safety code for mechanical power-transmission apparatus.—First revision.

Vocational Workers' Education.

*No. 159. Short-unit courses for wage earners, and a factory school experiment. [1915.]
*No. 162. Vocational education survey of Richmond, Va. [1915.]
No. 199. Vocational education survey of Minneapolis, Minn. [1917.]
No. 271. Adult working-class education in Great Britain and the United States. [1920.]
No. 459. Apprenticeship in building construction. [1928.]

Wages and Hours of Labor.

*No. 146. Wages and regularity of employment and standardization of piece rates in the dress and waist industry of New York City. [1914.]
*No. 147. Wages and regularity of employment in the cloak, suit, and skirt industry. [1914.]
No. 161. Wages and hours of labor in the clothing and cigar industries, 1911 to 1913.
No. 163. Wages and hours of labor in the building and repairing of steam railroad cars, 1907 to 1913.
*No. 190. Wages and hours of labor in the cotton, woolen, and silk industries, 1907 to 1914.
No. 204. Street-railway employment in the United States. [1917.]
No. 225. Wages and hours of labor in the lumber, millwork, and furniture industries, 1915.
No. 265. Industrial survey in selected industries in the United States, 1919.
No. 297. Wages and hours of labor in the petroleum industry, 1920.
No. 356. Productivity costs in the common-brick industry. [1924.]
No. 358. Wages and hours of labor in the automobile-tire industry, 1923.
No. 360. Time and labor costs in manufacturing 100 pairs of shoes, 1923.
No. 365. Wages and hours of labor in the paper and pulp industry, 1923.
No. 394. Wages and hours of labor in metalliferous mines, 1924.
No. 407. Labor costs of production and wages and hours of labor in the paper box-board industry. [1926.]
No. 412. Wages, hours, and productivity in the pottery industry, 1925.
No. 413. Wages and hours of labor in the lumber industry in the United States, 1925.
No. 416. Hours and earnings in anthracite and bituminous coal mining, 1922 and 1924.
No. 435. Wages and hours of labor in the men's clothing industry, 1911 to 1926.
No. 438. Wages and hours of labor in the motor-vehicle industry, 1925.
No. 442. Wages and hours of labor in the iron and steel industry, 1907 to 1926.
No. 446. Wages and hours of labor in cotton-goods manufacturing, 1910 to 1926.
No. 450. Wages and hours of labor in the boot and shoe industry, 1907 to 1926.
No. 452. Wages and hours of labor in the hosiery and underwear industries, 1907 to 1926.
No. 454. Hours and earnings in bituminous-coal mining, 1922, 1924, and 1926.
No. 471. Wages and hours of labor in foundries and machine shops, 1927.
No. 472. Wages and hours of labor in slaughtering and meat packing, 1927. (In press.)
No. 476. Union scales of wages and hours of labor, 1927. Supplement to Bul. 457. (In press.)
No. 482. Union scales of wages and hours of labor, May 15, 1928.
No. 484. Wages and hours of labor of common street labor, 1928.
No. 487. Wages and hours of labor in woolen and worsted goods manufacturing, 1910 to 1928.

Welfare Work.

*No. 123. Employers' welfare work. [1913.]
No. 222. Welfare work in British munition factories. [1917.]
*No. 250. Welfare work for employees in industrial establishments in the United States. [1919.]
No. 458. Health and recreation activities in industrial establishments, 1926.

Wholesale Prices.

No. 284. Index numbers of wholesale prices in the United States and foreign countries. [1921.]
No. 440. Wholesale prices, 1890 to 1926.
No. 453. Revised index number of wholesale prices, 1923 to July, 1927.
No. 473. Wholesale prices 1913 to 1927.

Women and Children in Industry.

No. 116. Hours, earnings, and duration of employment of wage-earning women in selected industries in the District of Columbia. [1913.]
*No. 117. Prohibition of night work of young persons. [1913.]
No. 118. Ten-hour maximum working-day for women and young persons. [1913.]
No. 119. Working hours of women in the pea canneries of Wisconsin. [1913.]
*No. 122. Employment of women in power laundries in Milwaukee. [1913.]
No. 160. Hours, earnings, and conditions of labor of women in Indiana mercantile establishments and garment factories. [1914.]

Women and Children in Industry—Continued.

*No. 167. Minimum-wage legislation in the United States and foreign countries. [1915.]
*No. 175. Summary of the report on condition of women and child wage earners in the United States. [1915.]
*No. 176. Effect of minimum-wage determinations in Oregon. [1915.]
*No. 180. The boot and shoe industry in Massachusetts as a vocation for women. [1915.]
*No. 182. Unemployment among women in department and other retail stores of Boston, Mass. [1916.]
No. 193. Dressmaking as a trade for women in Massachusetts. [1916.]
No. 215. Industrial experience of trade-school girls in Massachusetts. [1917.]
*No. 217. Effect of workmen's compensation laws in diminishing the necessity of industrial employment of women and children. [1918.]
No. 223. Employment of women and juveniles in Great Britain during the war. [1917.]
No. 253. Women in the lead industries. [1919.]

Workmen's Insurance and Compensation (including laws relating thereto).

*No. 101. Care of tuberculous wage earners in Germany. [1912.]
*No. 102. British national insurance act, 1911.
No. 103. Sickness and accident insurance law of Switzerland. [1912.]
No. 107. Law relating to insurance of salaried employees in Germany. [1913.]
*No. 155. Compensation for accidents to employees of the United States. [1914.]
No. 212. Proceedings of the conference on social insurance called by the International Association of Industrial Accident Boards and Commissions, Washington, D. C., December 5-9, 1916.
*No. 243. Workmen's compensation legislation in the United States and foreign countries, 1917 and 1918.
No. 301. Comparison of workmen's compensation insurance and administration. [1922.]
No. 312. National health insurance in Great Britain, 1911 to 1921.
No. 379. Comparison of workmen's compensation laws of the United States as of January 1, 1925.
No. 423. Workmen's compensation legislation of the United States and Canada as of July 1, 1926.
No. 477. Public-service retirement systems, United States and Europe. [1928.]

Miscellaneous Series.

*No. 174. Subject index of the publications of the United States Bureau of Labor Statistics up to May 1, 1915.
No. 208. Profit sharing in the United States. [1916.]
No. 242. Food situation in central Europe, 1917.
No. 254. International labor legislation and the society of nations. [1919.]
No. 268. Historical survey of international action affecting labor. [1920.]
No. 282. Mutual relief associations among Government employees in Washington, D. C. [1921.]
No. 299. Personnel research agencies: A guide to organized research in employment management, industrial relations, training, and working conditions. [1921.]
No. 319. The Bureau of Labor Statistics: Its history, activities, and organization. [1922.]
No. 326. Methods of procuring and computing statistical information of the Bureau of Labor Statistics. [1923.]
No. 342. International Seamen's Union of America: A study of its history and problems. [1923.]
No. 346. Humanity in government. [1923.]
No. 372. Convict labor in 1923.
No. 386. Cost of American almshouses. [1925.]
No. 398. Growth of legal-aid work in the United States. [1926.]
No. 401. Family allowance in foreign countries. [1926.]
No. 420. Handbook of American trade-unions. [1926.]
No. 439. Handbook of labor statistics, 1924 to 1926.
No. 461. Labor organizations in Chile. [1928.]
No. 462. Park recreation areas in the United States. [1928.]
No. 465. Beneficial activities of American trade-unions. [1928.]
No. 479. Activities and functions of a State department of labor. [1928.]
No. 489. Care of the aged in the United States. (In press.)