

# BULLETIN

OF THE

# DEPARTMENT OF LABOR.

No. 1—NOVEMBER, 1895.

ISSUED EVERY OTHER MONTH.

EDITED BY

CARROLL D. WRIGHT,  
COMMISSIONER.

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CHIEF CLERK.

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**INTRODUCTION.**

During the last session of the Fifty-third Congress Hon. Lawrence E. McGann, chairman of the Committee on Labor of the House of Representatives, introduced a bill (H. R. 8713) providing for the publication of the Bulletin of the Department of Labor. This bill was referred to the Committee on Labor January 29, 1895, and February 1 the committee made the following report, which was committed to the Committee of the Whole House on the state of the Union:

The Committee on Labor, to whom was referred House bill 8713, have had the same under consideration, and beg leave to report that the bill provides that the Commissioner of Labor shall publish a bulletin of the Department of Labor, at intervals not to exceed two months, containing current facts as to the condition of labor in this and other countries, condensations of state and foreign labor reports, facts as to the condition of employment, and such other facts as may be deemed of value to the industrial interests of the country.

The following communication from the Commissioner of Labor, Hon. Carroll D. Wright, sets forth potent arguments in favor of the passage of the bill:

DEPARTMENT OF LABOR,  
*Washington, D. C., February 1, 1895.*

MY DEAR SIR: I have the honor to acknowledge the receipt of your letter of yesterday, inclosing a copy of bill (H. R. 8713) providing for the publication of the Bulletin of the Department of Labor, with suggestion that you would like my views thereon.

In response I have to say that I have very carefully examined, not only the bill, which seems to me to be fully adequate for the purpose for which it is intended, but the plan for which it provides. The Department of Labor is authorized by its organic law to publish an annual report, and also such special reports as may be deemed best, either by the Commissioner of Labor or in response to resolutions of either branch of Congress or a request of the President, and it has in the past fully complied with these provisions, sending to Congress annually a report relating to some specific and extensive investigation, and also various special reports not requiring so extensive work as the annual reports.

I suppose the Department would have the right to make a special report at regular intervals, but in order to do so it would need a larger appropriation than that now made for its use. Your bill, therefore, supplies this lack, and further, it would enable the printing office to bring out a regular bulletin without the necessity of delay in sending it to Congress. After very careful consideration of the whole subject I therefore feel like indorsing fully the purpose of the bill, especially as foreign governments are now doing precisely what your bill aims to accomplish. The English

department of labor, which was established only recently, is now publishing, very successfully and with great acceptance to the industrial interests of the country, a labor gazette. The French department of labor does the same thing, and so, too, does that of New Zealand, and now the Russian government, which has recently established a department of labor, is publishing a gazette. It would seem right, therefore, that the United States, which has been the pioneer of labor departments in the world, should publish a bulletin.

This would have been done before, I presume, had it not been for the suggestion that such bulletins should contain information relative to the lack of labor in different parts of the country. I believe that all now agree that such announcements from an official source would do more harm than good, and therefore the movement has never taken shape; but the publication contemplated by your bill avoids this particular, and to my mind objectionable, feature of a bulletin, and with this objection removed I think it would be greatly for the interest of the industries of this country that such a bulletin should be established.

Should you look for precedents in our own government, you will find them in the Department of Agriculture, the Geological Survey, and the Bureau of Education. All of these offices, while not publishing bulletins at regular intervals, publish them quite frequently, and they are of very great use.

I think our Department is now so constituted that it could bring out at least bimonthly the bulletin contemplated by your bill, and fill its pages with most useful facts relative to the condition of labor in this and other countries—facts which do not naturally and would not generally come within the scope of an annual report. Here would be the great use and great advantage of the bulletin. The annual reports must necessarily be the results of patient and laborious investigation. The bulletins would contain more fragmentary matter, but yet of vital importance. As I read your bill, it is not contemplated that a bulletin should contain theoretical matter or introduce discussions on debatable questions, nor should it become the organ of any propaganda, but its whole function is to be confined to the collection and publication of current but important facts.

The increased expense would be so small that I should not suppose that would stand in the way of the passage of the bill. I am very glad to see that your committee has reported it favorably, and I hope it will secure the favorable action of Congress.

I am, very respectfully,

CARROLL D. WRIGHT,  
*Commissioner.*

Hon. LAWRENCE E. MCGANN, M. C.,  
*Chairman Committee on Labor, House of Representatives.*

Your committee therefore recommend that the bill be passed.

The bill which Mr. McGann introduced, and which the committee reported favorably, provided for a bulletin at intervals not to exceed two months and not to exceed 100 octavo pages; and to contain current facts as to the condition of labor in this and other countries, condensations of state and foreign labor reports, facts as to conditions of employment, and such other facts as may be deemed of value to the industrial interests of the country. This bill passed the House of Representatives February 26, 1895, and was favorably reported in the Senate, but instead of its passing the Senate as a bill, it was incorporated, in an abbreviated form, as a provision in the act making the appropriations for the Department of Labor, as follows:

The Commissioner of Labor is hereby authorized to prepare and publish a bulletin of the Department of Labor, as to the condition of labor in this and other countries, condensations of state and foreign labor reports, facts as to conditions of employment, and such other facts as may be deemed of value to the industrial interests of the country; and there shall be printed one edition of not exceeding ten thousand copies of each issue of said bulletin for distribution by the Department of Labor.

This amendment was accepted by the House and the bill containing it was approved March 2, 1895. It is under this provision of the legis-

lative appropriation act that the Bulletin of the Department of Labor is issued.

It will be noticed that the authorization under the legislative appropriation act is somewhat different from that contained in the bill as it passed the House. In that bill there were limitations as to issue and intervals of issue, but the law as it stands contains no limitations nor restrictions either as to the size of the bulletin or the intervals at which it shall be published, the only condition being that not more than 10,000 copies of each issue of the bulletin shall be printed. Notwithstanding this broad and unrestricted authorization, we feel it right and just to conform, in a general way, to the terms embodied in the House bill. We shall therefore undertake to limit the size of the bulletin to about 100 octavo pages and, at present, to issue it every other month. The principles which will guide us in the preparation of the bulletin are fully indicated in the letter to the chairman of the House Committee on Labor just quoted. We need not, therefore, make any restatement on that point.

Our plan now is to have at least five regular departments of information in each issue, as follows:

First. A liberal portion of each issue to be occupied with the results of original investigations conducted by the Department or its agents.

Second. A digest of foreign labor reports.

Third. A digest of state labor reports.

Fourth. The reproduction, immediately after their passage, of new laws that affect the interests of the working people whenever such are enacted by state legislatures or Congress; also the reproduction of the decisions of courts interpreting labor laws or passing upon any subject which involves the relations of employer and employee; attention likewise will be called to any other matters pertaining to law which may be of concern and value to the industrial interests of the country and which might not be obtained without expense or trouble from other sources.

Fifth. A miscellaneous department, in which brief statements of fact or paragraphs of interest may find a place.

In conducting special investigations, the results of which are to appear in the bulletin, it may be sometimes that such results will take up the whole of the bulletin. The endeavor, however, will be to preserve the regular departments, as a rule, as just stated, departing therefrom only when the importance of the facts to be published warrants such departure.

The bulletin will not be devoted in any way to controversial matters, the enunciation of theories, nor used in any sense for propagandism. We shall undertake to present all the matters in an attractive and straightforward way, and while statistical tables will have to be employed constantly, the aim will still be to give proper space to reading matter. There are very many questions constantly coming up on

which information can not be secured except by inquiry at original sources. Such questions we hope to be able to consider whenever they arise, and to give the results a place in the bulletin.

We shall not attempt in any way to compete with the press, but in general our aim will be to furnish to the public facts and information relating to industrial affairs which can not readily be secured in any other way. So, merely ephemeral matters will not be given a place in the pages of the bulletin, but those matters which have a more or less permanent value and which will take their place in the industrial history of the country will be treated. Readers of the bulletin, therefore, will not look for accounts of passing events, unless such accounts are necessary for future use. In other words, all those matters which are dealt with fully and comprehensively by the press of the country as the days go by ought not to be and will not be used to fill up the pages of the bulletin. The field for the bulletin is wide enough without making it in any sense a newspaper.

The Department now has three channels of communication with the public. By its organic law it is authorized to make an annual report, and special reports when called upon by Congress or by the President or when considered expedient by the head of the Department, and now this more popular way of disseminating information by means of a regularly published bulletin. The annual reports will, as heretofore, consist of the results of investigations which require a large force and considerable time. They are in a sense scientific productions, and can not legitimately be brought to a popular basis in any broad sense. The special reports authorized by the organic law of the Department are those resulting from more thoroughly individual investigations, those where but one or two persons can economically work upon one subject. The annual reports are the results of inquiries made by the schedule system and where any number of people can be employed. The special reports are studies of conditions where the schedule system can not be so generally applied. The bulletin, as against the annual or the special reports, will contain such matters as can not in the nature of things find a place in the annual or special reports; but it is confidently expected that through the bulletin the Department will be able to bring much of its work closer home to the people.

The editors will take personal supervision of the preparation of the bulletin, and it will be their aim to constantly elevate its standard.

## **STRIKES AND LOCKOUTS IN THE UNITED STATES FROM JANUARY 1, 1881, TO JUNE 30, 1894.**

The Third Annual Report of the Commissioner of Labor, entitled *Strikes and Lockouts*, furnished tables covering the details of all strikes and lockouts occurring in the United States for the six years beginning with January 1, 1881, and ending with December 31, 1886, together with summaries recapitulating the facts shown therein. The Tenth Annual Report (soon to be printed) is a volume of about 1,200 pages consisting of similar tables and summaries for the strikes and lockouts which occurred during the seven and one-half years beginning with January 1, 1887, and ending with June 30, 1894, being modeled on the lines laid down in the former report.

The two general tables relating to strikes and lockouts in the Tenth Annual Report furnish the facts in detail for each strike and lockout of one or more days' duration which occurred in the United States from January 1, 1887, to June 30, 1894. In addition to the strikes and lockouts occurring within the above period the report shows the facts for certain strikes and lockouts which occurred in the latter part of 1886, and which were omitted from the Third Annual Report because of the incompleteness at that time of the data relating to them. A comparatively small number of disturbances of less than one day's duration, 1,582 in all, have been excluded from consideration in these tables. They consist mainly of cases of misunderstanding, in which there was but a few hours' cessation of work and no financial loss or assistance involved. For this reason full information concerning them could rarely be secured, and they have not been considered sufficiently important to be classed as strikes.

In the Third Annual Report it was found necessary to make the establishment the unit in the tabular presentation, and not the strike or lockout. Generally each line there represented either a strike or a lockout in a single establishment, or a general strike or lockout in two or more establishments; but there were some instances where the facts were not so treated. In the Tenth Annual Report experience and a great amount of care have made it possible to make the strike or lockout the unit in all cases.

In order that the increase or diminution of strikes during the years embraced in the Third and Tenth Annual Reports on this subject may

be determined, the following table, showing the number of strikes in each year from January 1, 1881, to June 30, 1894, is presented:

STRIKES BY YEARS, JANUARY 1, 1881, TO JUNE 30, 1894.

Year.	Strikes.	Establishments.	Average establishments to a strike.	Employees thrown out of employment.
1881.....	471	2,928	6.2	129,521
1882.....	454	2,105	4.6	154,671
1883.....	478	2,759	5.8	149,763
1884.....	443	2,367	5.3	147,054
1885.....	645	2,284	3.5	242,705
1886.....	1,432	10,053	7.0	508,044
1887.....	1,436	6,589	4.6	379,726
1888.....	906	3,506	3.9	147,704
1889.....	1,075	3,786	3.5	249,559
1890.....	1,833	9,424	5.1	351,944
1891.....	1,718	8,117	4.7	299,064
1892.....	1,298	5,540	4.3	206,671
1893.....	1,305	4,555	3.5	205,914
1894 (6 months).....	896	5,154	5.8	482,066
<b>Total.....</b>	<b>14,390</b>	<b>69,167</b>	<b>4.8</b>	<b>3,714,406</b>

The figures for the years from 1881 to 1886, inclusive, have been taken from the Third Annual Report. As stated in that report, the figures showing the number of strikes in each of these years are estimates, although they are believed to be approximately correct. For the period covered by the Tenth Annual Report, namely, January 1, 1887, to June 30, 1894, inclusive, the figures showing the number of strikes may be accepted as absolute. The figures showing the number of establishments and the number of employees thrown out of employment by strikes may be accepted as correct for the whole period from 1881 to 1894, inclusive. In using this table it should be borne in mind that the figures for 1894 are for the first six months of that year only, the investigation having been closed June 30, 1894.

By this table it is shown that the average number of establishments to each strike for the thirteen and one-half years was 4.8, the highest average being 7 establishments to each strike in 1886, the lowest average being 3.5 establishments to each strike in 1885, 1889, and 1893. As stated in the Third Annual Report, the strikes for 1880 were reported by Mr. Joseph D. Weeks, special agent of the Tenth Census, according to whose report the number was 610. The number of establishments involved was not reported. Commencing with 1881 the number of establishments involved was 2,928. In 1882 the number dropped to 2,105, while in 1883 it rose to 2,759, or nearly that of 1881. In 1884 and 1885 the number fell rapidly, there being 2,367 in 1884, while in 1885 the number of establishments involved in strikes was smaller than in any previous or succeeding year of the period, namely, 2,284. In 1886 the number rose to 10,053, the greatest number in any of the years considered. In 1887 it dropped to 6,589; in 1888 it dropped still further, to 3,506, and remained nearly stationary in 1889 at 3,786, while in 1890 the number again rapidly rose to 9,424, a number almost as great as that for 1886. In the next year, 1891, the number dropped to 8,117, dropping still further in 1892 and 1893, to 5,540 and 4,555,

respectively. For the first six months of 1894 the number was 5,154, indicating that if there was a proportionately large number in the last six months of that year it would reach in round numbers 10,300, a number slightly greater than that for 1886, in which the largest number of establishments were involved in strikes.

The total number of establishments involved in strikes during the whole period of thirteen and one-half years was 69,167. Of this number 4.23 per cent had strikes in 1881, 3.04 per cent had strikes in 1882, 3.99 per cent had strikes in 1883, 3.42 per cent had strikes in 1884, 3.30 per cent had strikes in 1885, 14.53 per cent had strikes in 1886, 9.53 per cent had strikes in 1887, 5.07 per cent had strikes in 1888, 5.47 per cent had strikes in 1889, 13.63 per cent had strikes in 1890, 11.74 per cent had strikes in 1891, 8.01 per cent had strikes in 1892, 6.59 per cent had strikes in 1893, and 7.45 per cent had strikes in the first half of 1894.

Of the 6,067 establishments having lockouts during the period of thirteen and one-half years 0.15 per cent were in 1881, 0.69 per cent were in 1882, 1.93 per cent were in 1883, 5.83 per cent were in 1884, 3.02 per cent were in 1885, 24.87 per cent were in 1886, 21.11 per cent were in 1887, 2.97 per cent were in 1888, 2.18 per cent were in 1889, 5.34 per cent were in 1890, 9 per cent were in 1891, 11.80 per cent were in 1892, 5.03 per cent were in 1893, and 6.08 per cent were in the first half of 1894. The percentage is highest for both strikes and lockouts in 1886. The next highest percentages occur in 1890 and 1891 for strikes, and in 1887 and 1892 for lockouts.

During the seven and one-half years included in the Tenth Annual Report Illinois shows the largest number of establishments affected, both by strikes and lockouts, there being 10,060 of the former and 1,193 of the latter. Next come New York, with 9,540 establishments involved in strikes and 723 in lockouts, and Pennsylvania with 8,219 involved in strikes and 490 in lockouts. During the six years immediately preceding those included in this report, the facts for which appeared in the Third Annual Report, the state in which the greatest number of establishments were affected by strikes was New York, with 9,247, followed by Illinois, with 2,768, and Pennsylvania, with 2,442. The greatest number affected by lockouts was 1,528, found in New York, followed by 147 in Massachusetts and 130 in Pennsylvania, the number in Illinois being 127. Combining the facts for both these periods, in order to secure a statement for the thirteen and one-half years included in both of the reports of the Department on strikes and lockouts, we find the greatest number of establishments affected by strikes to have been in New York, 18,787, followed by Illinois, with 12,828, and Pennsylvania, with 10,661. The states appear in the same order in lockouts, the number of establishments affected being 2,251 in New York, 1,320 in Illinois, and 620 in Pennsylvania.

The industries most affected by strikes during the seven and one-half years included in the Tenth Annual Report were the building

trades, with 20,785 establishments involved; coal and coke, with 5,958; clothing, with 3,041; tobacco, with 2,506; food preparations, with 2,398; stone quarrying and cutting, with 1,993; metals and metallic goods, with 1,834; transportation, with 1,327; printing and publishing, with 608; boots and shoes, with 607; furniture, with 459; wooden goods, with 409, and brick, with 406 establishments. The industries most affected by lockouts were the building trades, with 1,900; stone quarrying and cutting, with 489; clothing, with 431; brewing, with 150; boots and shoes, with 130; metals and metallic goods, with 128, and transportation with 112 establishments involved. For the immediately preceding period of six years, 1881 to 1886, included in the Third Annual Report, the greatest frequency of strikes was found in the building trades, with 6,075 establishments affected; tobacco, with 2,959; mining (practically the same as coal and coke in the Tenth Annual Report), with 2,060; clothing, with 1,728; metals and metallic goods, with 1,570; transportation, with 1,478; food preparations, with 1,419; furniture, with 491; cooperage, with 484; brick, with 478; stone quarrying and cutting, with 468; lumber, with 395; boots and shoes, with 352; wooden goods, with 240, and printing and publishing, with 223 establishments. The lockouts for that period involved 773 establishments in the clothing industry, 531 in the building trades, 226 in the tobacco industry, 155 in boots and shoes, 76 in metals and metallic goods, etc.

A combination of the facts for strikes for the two periods, selecting the 13 industries most largely affected, shows that out of 69,167 establishments involved in strikes during the period from January 1, 1881, to June 30, 1894, 62,038, or 89.69 per cent, were in the following 13 industries: Building trades, 26,860 establishments; coal and coke, 8,018; tobacco, 5,465; clothing, 4,769; food preparations, 3,817; metals and metallic goods, 3,454; transportation, 2,805; stone quarrying and cutting, 2,461; boots and shoes, 959; furniture, 950; brick, 884; printing and publishing, 831, and cooperage, 765.

In the lockouts which occurred during the thirteen and one-half years, six industries bore a very large proportion of the burden, involving 4,914 establishments, or 81 per cent, out of a total of 6,067 establishments. The industries and number of establishments involved in each are as follows: Building trades, 2,431; clothing, 1,204; stone quarrying and cutting, 513; boots and shoes, 285; tobacco, 277, and metals and metallic goods, 204.

The total number of employees involved or thrown out of employment in the whole number of strikes from 1881 to 1886, inclusive, as shown by the Third Annual Report, was 1,323,203. The number as shown by the Tenth Annual Report, for the period from January 1, 1887, to June 30, 1894, was 2,391,203. Adding these numbers together, it is seen that 3,714,406 persons were thrown out of employment by reason of strikes during the period of thirteen and one-half years from January 1, 1881, to June 30, 1894. The number of strikers during the first six years of this period was shown to have been 1,020,156; during the latter

seven and one-half years it was 1,834,218. The number of strikers during the whole period of thirteen and one-half years was therefore 2,854,374. From 1881 to 1886 there were 103,038 new employees engaged after the strikes, of which 37,483 were brought from other places than those in which the strikes occurred. The per cent of new employees after strike of the total number of employees before strike—1,660,835—was therefore 6.20. The per cent of the employees brought from other places of the number of new employees after strike was 36.38.

For the succeeding seven and one-half years, the period involved in the Tenth Annual Report, there were 239,431 new employees after the strikes, of which 115,377 were brought from other places. For this period the per cent of new employees after strike of the total number of employees before strike, 4,300,410, was 5.57, and the per cent of employees brought from other places of the number of new employees after strike, 48.19. Combining the facts for both periods, it is seen that there were, during the thirteen and one-half years, 342,469 new employees engaged after the strikes, and that 152,860 of that number were brought from other places. The new employees after the strikes were 5.74 per cent of the total number of employees before the strikes, 5,961,245, while 44.63 per cent of the new employees after the strikes were brought from other places than those in which the strikes occurred.

In the Third Annual Report it was shown that during the period from 1881 to 1886, inclusive, 2,214 establishments were involved in lockouts, there being 175,270 employees in the establishments before the lockouts occurred, while the number actually involved or locked out was 160,823. There were 13,976 new employees secured at the close of lockouts, 5,682 being brought from other places than those in which the lockouts occurred. For the period of seven and one-half years involved in the Tenth Annual Report lockouts were ordered in 3,853 establishments, having 274,657 employees before the lockouts, of which 205,867 were thrown out of employment in consequence thereof. These establishments secured 27,465 new employees after the lockouts, 16,300 of whom were brought from other places. Combining these facts as to lockouts for the two periods involved, it is seen that during the thirteen and one-half years from January 1, 1881, to June 30, 1894, lockouts occurred in 6,067 establishments in which 449,927 employees were engaged. Of this number 366,690, or 81.50 per cent, were thrown out of employment by the lockouts. In these establishments there were 41,441 new employees engaged after the lockouts, of whom 21,982 were brought from other places than those in which the lockouts occurred. The per cent of new employees after the lockouts of the total number of employees before lockouts was, therefore, 9.21, and of employees brought from other places of the number of new employees after lockouts 53.04.

It should be remembered in considering the figures relating to the number of establishments, the number of employees, etc., that they do not represent the actual number of different individual establish-

ments or different individual employees who were involved in strikes or lockouts in a given industry or in a given year, because in many cases there have been two or more strikes or lockouts in the same establishments in the same year, and in such cases the establishment and the number of employees are duplicated or triplicated, as the case may be, in the totals derived by addition. In the figures showing the number of "employees for whom strike was undertaken" in the tables for strikes there is even more duplication of the kind mentioned. For instance, a sympathetic strike may occur in which the employees strike to enforce the demands of certain employees in another establishment. The number of employees for whom the strike was undertaken, would in that case be the number for whom it was undertaken in that other establishment. The same employees would, therefore, appear in that column in two places in the primary tables, first in connection with the establishment in which they were employed, and second in the establishment in which the sympathetic strike occurred, thus unavoidably being duplicated in tables derived by addition.

As previously stated, a small number of strikes occurring in 1886, 21 in all, which were unavoidably omitted from the Third Annual Report, have been tabulated in the later one. Wherever the facts shown by the two reports are given by years this number and the various facts relating thereto have been added to the figures for 1886 as shown by the Third Annual Report. In the statements previously made, by states and by industries, they have not been so added, but appear in the totals for the period involved in the later report. The number is so small as to make no appreciable difference when comparing the two reports, and to have eliminated them in the later and added them to the Third Annual Report would have involved the reader in many difficulties.

The following table, classifying the employees involved in strikes and lockouts as to sex, combines the facts shown in the Third Annual Report with those shown in the Tenth Annual Report:

SEX OF EMPLOYEES THROWN OUT OF EMPLOYMENT, JANUARY 1, 1881, TO JUNE 30, 1894.

Year.	Strikes.			Lockouts.		
	Employees thrown out of employment.	Males (per cent).	Females (per cent).	Employees thrown out of employment.	Males (per cent).	Females (per cent).
1881.....	129,521	94.08	5.92	655	83.21	16.79
1882.....	154,671	92.15	7.85	4,131	93.80	6.20
1883.....	149,763	87.66	12.34	20,512	73.58	26.42
1884.....	147,054	88.78	11.22	18,121	78.93	21.07
1885.....	242,705	87.77	12.23	15,424	83.77	16.23
1886.....	508,044	86.17	13.83	101,980	63.02	36.98
1887.....	379,726	91.77	8.23	59,630	94.76	5.24
1888.....	147,704	91.50	8.50	15,176	79.53	20.47
1889.....	249,559	90.48	9.52	10,731	73.91	26.09
1890.....	351,944	90.53	9.47	21,555	72.49	27.51
1891.....	290,064	94.90	5.10	31,014	59.13	40.87
1892.....	206,671	93.57	6.43	32,014	96.02	3.98
1893.....	265,914	93.06	6.94	21,842	84.95	15.05
1894 (6 months).....	482,066	95.13	4.87	13,905	95.83	4.17
Total.....	3,714,406	91.22	8.78	366,690	77.47	22.53

An examination of the Tenth Annual Report shows that during the seven and one-half years included in it 69.39 per cent of all the establishments affected by strikes and 75.91 per cent of all affected by lockouts were located in the five states of Illinois, Massachusetts, New York, Ohio, and Pennsylvania. During the six years immediately preceding the above period, it is shown in the Third Annual Report that 74.84 per cent of all establishments in the country, so far as strikes were concerned, and 89.48 per cent of all the establishments in the country, so far as lockouts were concerned, were found in the same states. The following table, combining these facts for the entire period of thirteen and one-half years included in the Third and Tenth Annual Reports, shows the percentages for each year for the five states named:

ESTABLISHMENTS INVOLVED IN ILLINOIS, MASSACHUSETTS, NEW YORK, OHIO, AND PENNSYLVANIA, JANUARY 1, 1881, TO JUNE 30, 1894.

Year.	Strikes.			Lockouts.		
	Total establishments in the United States.	Establishments in the five selected states.	Percent of establishments in the five selected states.	Total establishments in the United States.	Establishments in the five selected states.	Percent of establishments in the five selected states.
1881.....	2,928	2,154	73.57	9	4	44.44
1882.....	2,105	1,499	71.21	42	23	54.76
1883.....	2,759	2,046	74.16	117	105	89.74
1884.....	2,307	1,896	80.10	354	306	86.44
1885.....	2,284	1,586	69.44	183	140	76.50
1886.....	10,053	7,675	76.35	1,509	1,403	92.98
1887.....	6,589	4,761	72.26	1,281	1,188	92.74
1888.....	3,506	2,404	68.57	180	114	63.33
1889.....	3,786	2,275	60.09	132	65	49.24
1890.....	9,424	6,990	74.17	324	203	62.65
1891.....	8,117	5,776	71.16	546	339	62.09
1892.....	5,540	3,200	57.76	716	522	72.91
1893.....	4,555	3,186	69.95	305	190	62.30
1894 (6 months) ..	5,154	3,762	72.99	369	304	82.38
Total .....	69,167	49,210	71.15	6,067	4,906	80.86

These five states contained 51 per cent of all the manufacturing establishments, and employed 56 per cent of the capital invested in the mechanical industries of the United States, taking the census of 1890 as the basis of computation.

The distribution of strikes and lockouts, by cities, during the seven and one-half years from January 1, 1887, to June 30, 1894, is shown in the following tables:

## SUMMARY OF STRIKES IN THE PRINCIPAL CITIES, JANUARY 1, 1887, TO JUNE 30, 1894.

[In the case of many general strikes extending through different cities it was found impossible to subdivide the facts and credit them to the several cities involved. In such cases the whole strike has generally been tabulated against the city most largely affected.]

City.	Total strikes.	Establishments.	Employees thrown out of employment.	Wage loss of employees.	Assistance to employees by labor organizations.	Loss of employers.
New York, N. Y.	2, 614	6, 467	215, 649	\$6, 449, 385	\$792, 817	\$3, 545, 766
Brooklyn, N. Y.	671	1, 271	31, 768	914, 045	145, 848	532, 780
Chicago, Ill.	528	8, 325	282, 611	8, 346, 494	1, 886, 788	14, 444, 034
Boston, Mass.	257	911	25, 574	800, 882	173, 564	589, 982
Allegheny and Pittsburg, Pa.	251	4, 142	100, 822	7, 379, 765	722, 706	2, 599, 487
Philadelphia, Pa.	240	1, 132	59, 527	2, 002, 219	194, 277	836, 568
Saint Louis, Mo.	111	1, 064	19, 693	848, 357	96, 506	572, 933
Cincinnati, Ohio.	109	580	17, 577	736, 906	72, 886	572, 272
Milwaukee, Wis.	100	1, 237	20, 778	1, 265, 049	112, 862	799, 700
Lynn, Mass.	100	110	4, 027	147, 028	9, 871	86, 488
Fall River, Mass.	95	156	30, 232	500, 264	22, 429	118, 319
San Francisco, Cal.	92	337	7, 254	480, 387	96, 854	415, 625
Baltimore, Md.	92	280	11, 192	424, 149	18, 604	187, 552
New Haven, Conn.	82	205	5, 287	206, 840	35, 588	40, 568
Newark, N. J.	69	324	11, 538	500, 896	58, 734	154, 460
Cleveland, Ohio.	64	314	11, 322	208, 738	26, 324	117, 207
Rochester, N. Y.	56	237	9, 314	478, 702	11, 781	300, 621
Indianapolis, Ind.	51	309	7, 851	116, 429	10, 353	161, 102
Haverhill, Mass.	51	76	5, 271	97, 239	6, 660	78, 495
Minneapolis, Minn.	50	169	7, 615	167, 524	18, 899	189, 400
Paterson, N. J.	47	117	22, 326	1, 019, 768	26, 757	555, 200
Buffalo, N. Y.	46	408	14, 079	459, 758	19, 950	818, 015
Jersey City, N. J.	46	113	7, 819	90, 020	1, 430	12, 275
Saint Paul, Minn.	45	255	22, 475	780, 325	24, 520	1, 017, 795
Troy, N. Y.	42	123	2, 649	68, 031	3, 769	39, 802
Total	5, 909	28, 662	955, 250	34, 983, 100	4, 590, 177	28, 786, 446

## SUMMARY OF LOCKOUTS IN THE PRINCIPAL CITIES, JANUARY 1, 1887, TO JUNE 30, 1894.

[In the case of many general lockouts extending through different cities it was found impossible to subdivide the facts and credit them to the several cities involved. In such cases the whole lockout has generally been tabulated against the city most largely affected.]

City.	Total lockouts.	Establishments.	Employees thrown out of employment.	Wage loss of employees.	Assistance to employees by labor organizations.	Loss of employers.
New York, N. Y.	43	393	19, 959	\$587, 801	\$83, 112	\$370, 442
Boston, Mass.	19	128	3, 072	212, 434	40, 450	97, 111
Chicago, Ill.	18	1, 151	48, 612	3, 576, 817	70, 050	2, 789, 910
Allegheny and Pittsburg, Pa.	15	385	11, 572	5, 353, 764	250, 025	727, 959
Philadelphia, Pa.	14	82	9, 262	447, 958	62, 585	510, 575
Cincinnati, Ohio.	13	96	3, 908	211, 375	27, 508	60, 339
San Francisco, Cal.	12	42	776	67, 763	13, 170	18, 200
Haverhill, Mass.	10	57	7, 436	101, 606	5, 900	60, 400
Saint Paul, Minn.	10	55	1, 056	30, 780	3, 303	46, 150
Brooklyn, N. Y.	9	64	2, 360	68, 424	6, 092	121, 225
Saint Louis, Mo.	8	42	1, 006	217, 247	45, 249	48, 140
Milwaukee, Wis.	7	25	752	245, 755	12, 375	505, 600
Minneapolis, Minn.	7	7	1, 650	28, 250	2, 828	26, 100
Indianapolis, Ind.	6	116	1, 135	65, 224	900	20, 000
Rochester, N. Y.	6	81	18, 271	462, 260	3, 159	205, 545
Richmond, Va.	6	15	117	10, 503	2, 274	650
Buffalo, N. Y.	5	30	930	72, 438	3, 365	13, 670
Seattle, Wash.	5	23	423	19, 600	2, 628	4, 040
Detroit, Mich.	5	11	1, 264	56, 201	14, 642	5, 500
Springfield, Mass.	5	8	208	1, 230	.....	11, 725
New Haven, Conn.	5	8	64	3, 344	.....	15, 725
Baltimore, Md.	5	6	239	7, 240	.....	7, 950
Newark, N. J.	4	49	2, 974	139, 536	12, 350	29, 700
Woburn, Mass.	4	19	1, 577	78, 646	4, 329	45, 600
Albany, N. Y.	3	77	1, 512	42, 267	.....	12, 000
Total	244	2, 970	140, 135	12, 108, 463	671, 818	5, 754, 286

In the case of both strikes and lockouts the cities shown are the 26 in which the greatest number of these disturbances occurred during the period included in the report. It will be noticed that the cities are

practically the same in both classes of disturbances, only 6 cities in each table being different.

Considering the table for strikes, it is seen that out of a total of 10,488 strikes for the entire country, 5,909, or 56.34 per cent, occurred in the 26 cities included in that table. The number of establishments involved in strikes in the United States during the period was shown as 46,863, of which number 28,662, or 61.16 per cent, occurred in the 26 cities. The wage loss to employees through strikes in the 26 cities was \$34,988,100 as against \$111,993,143 for the entire country, and the loss to employers \$28,786,446 as against \$51,888,833. These 26 cities contained 34.26 per cent of all the manufacturing establishments, and employed 38.88 per cent of the capital invested in the mechanical industries of the United States, taking the census of 1890 as the basis of computation. Seven of the 26 cities, New York, Brooklyn, Chicago, Boston, Allegheny, Pittsburg, and Philadelphia, reported 4,561 strikes, or 43.49 per cent, of all the strikes which occurred in the United States during the period involved, and 22,248 establishments, or 47.47 per cent, of the whole number of establishments involved.

Of the 22,304 establishments involved in strikes during the six years covered by the Third Annual Report (1881 to 1886), as was there shown, the strikes in 18,342, or 82.24 per cent of the whole, were ordered by labor organizations, while of the 2,214 establishments in which lockouts occurred 1,753, or 79.18 per cent, were ordered by combinations of employers. The facts for the seven and one-half years included in the Tenth Annual Report (January 1, 1887, to June 30, 1894) are as follows: Excluding from consideration seven strikes for which no report touching this point could be secured, 7,295, or 69.60 per cent of the whole number of strikes (10,481), were ordered by labor organizations, while of the 442 lockouts occurring during this period but 81, or 18.33 per cent, were ordered by an employers' organization. It will be noticed, in the preceding statement, that for the former period the establishment forms the basis of the percentages, while for the latter the strike or lockout forms the basis. This is unavoidable, owing to the difference in the tabulation of the facts for this point in the two reports. It does not, however, materially affect the comparableness of the percentages. Bearing this in mind, the facts for each year in this respect may be clearly seen in the percentage table which follows:

STRIKES AND LOCKOUTS ORDERED BY ORGANIZATIONS, JANUARY 1, 1881, TO JUNE 30, 1894.

Year.	Strikes (per cent).	Lockouts (per cent).	Year.	Strikes (per cent).	Lockouts (per cent).
1881.....	75.58	22.22	1888.....	68.14	20.00
1882.....	76.01	26.19	1889.....	67.35	11.11
1883.....	83.98	41.03	1890.....	71.33	14.06
1884.....	82.85	79.10	1891.....	74.84	13.04
1885.....	70.93	71.58	1892.....	70.72	22.95
1886.....	87.53	81.89	1893.....	69.43	21.43
1887.....	66.34	25.37	1894 (6 months).....	63.80	14.29

Combining the facts for the period involved in the Third Annual Report with those for the period included in the later report, the following table shows by years, in the form of percentages, the proportion of the establishments involved in both strikes and lockouts which were closed in consequence of such disturbance:

## ESTABLISHMENTS CLOSED, JANUARY 1, 1881, TO JUNE 30, 1894.

Year.	Strikes (per cent).	Lockouts (per cent).	Year.	Strikes (per cent).	Lockouts (per cent).
1881.....	55.81	33.33	1889.....	61.89	59.09
1882.....	54.01	59.52	1890.....	56.25	63.89
1883.....	63.57	58.12	1891.....	56.66	65.93
1884.....	64.72	37.85	1892.....	65.60	66.80
1885.....	71.58	79.23	1893.....	65.64	40.98
1886.....	58.24	67.93	1894 (6 months).....	60.50	14.91
1887.....	57.55	83.84			
1888.....	53.45	55.00	Average.....	59.56	63.90

Referring to the Third Annual Report, it is seen that from 1881 to 1886, inclusive, of the 22,304 establishments subjected to strikes, 13,411, or 60.13 per cent, were temporarily closed, and of the 2,214 establishments in which lockouts occurred, 1,400, or 63.23 per cent, were closed. The duration of stoppage, or the average days closed, for strikes was 23 days and for lockouts 28.4 days. The facts as shown in the Tenth Annual Report for the seven and one-half years from January 1, 1887, to June 30, 1894, are that of 46,863 establishments subjected to strikes 27,787, or 59.29 per cent, were closed, 42 being closed permanently or having strikes still pending June 30, 1894, the remainder being only temporarily closed; while of the 3,853 establishments involved in lockouts 2,477, or 64.29 per cent, were closed, 23 being closed permanently or having lockouts still pending June 30, 1894, the remainder being only temporarily closed. The average days closed on account of strikes, excluding the 42 above mentioned, was 22.3 days, and on account of lockouts, excluding the 23 above mentioned, 35.4 days.

Combining the facts for the two periods, as shown by the preceding figures, it is seen that during the thirteen and one-half years from January 1, 1881, to June 30, 1894, out of a total of 69,167 establishments in which strikes occurred, 41,198, or 59.56 per cent, were closed, while of the 6,067 establishments subjected to lockouts, 3,877, or 63.90 per cent, were closed. The duration of stoppage, or days closed, in the 41,156 establishments which were temporarily closed, was 22.5 days, while in the 3,854 establishments temporarily closed by reason of lockouts the average time closed was 32.8 days.

The duration of strikes or lockouts themselves—that is, the average length of time which elapsed before the establishments resumed operations and were running normally, either by reason of the strikers or employees locked out having returned to work or by their places having been filled by others—applies to all establishments, whether closed or not, and differs of course from the figures given for duration of entire stoppage of work, which applies only to establishments entirely

closed. The following table shows the average duration or days to date when strikers or employees locked out were reemployed or their places filled by others for each of the years included in the Third and Tenth Annual Reports. A small number of establishments which were closed permanently in consequence of strikes or lockouts, or in which strikes or lockouts were still pending, have of course been omitted in computing the averages:

## DURATION OF STRIKES AND LOCKOUTS, JANUARY 1, 1881, TO JUNE 30, 1894.

(The duration involves the number of days from date of strike or lockout to date when employees returned to work or when their places were filled by others.)

Year.	Strikes.		Lockouts.		Year.	Strikes.		Lockouts.	
	Estab-lish-ments.	Aver-age dura-tion (days).	Estab-lish-ments.	Aver-age dura-tion (days).		Estab-lish-ments.	Aver-age dura-tion (days).	Estab-lish-ments.	Aver-age dura-tion (days).
1881.....	2,928	12.8	9	32.2	1889.....	3,786	26.3	132	57.5
1882.....	2,105	21.9	42	105.0	1890.....	9,424	24.2	324	73.9
1883.....	2,759	20.6	117	57.5	1891.....	8,117	34.9	546	37.8
1884.....	2,367	30.5	354	41.4	1892.....	5,540	23.4	716	72.0
1885.....	2,284	30.1	183	27.1	1893.....	4,555	20.6	305	34.7
1886.....	10,053	23.4	1,509	39.1	1894 (6 months).	5,154	37.8	369	18.7
1887.....	6,589	20.9	1,281	49.8					
1888.....	3,506	20.3	180	74.9	Total.....	69,167	25.4	6,067	47.6

According to the Third Annual Report, for the years 1881 to 1886, of the firms against whom strikes were instituted 46.52 per cent granted the demands of their employees; in 13.47 per cent of the establishments partial success in attaining the objects for which the strikes were instituted was gained, while failure followed in 39.95 per cent of the establishments; a small number of establishments, constituting 0.06 per cent of the whole number, had strikes still pending December 31, 1886. In the lockouts during those years the firms gained their point in 25.47 per cent of the establishments; in 8.58 per cent they partially succeeded and in 60.48 per cent failed; in 5.47 per cent of the whole number of establishments involved the lockouts were still pending December 31, 1886.

For the period included in the Tenth Annual Report, out of the whole number of establishments affected by strikes, viz, 46,863, success in their demands was gained by the employees in 20,397 establishments, or 43.52 per cent; partial success was gained in 4,775 establishments, or 10.19 per cent; and failure followed in 21,687 establishments, or 46.28 per cent of the whole number; for 4 establishments, or 0.01 per cent, either the results were not reported or the strikes were still pending June 30, 1894. Out of the 3,853 establishments having lockouts, 1,883, or 48.87 per cent of the whole number, succeeded in gaining their demands; 391, or 10.15 per cent, partially succeeded, and 1,558, or 40.44 per cent, failed; in 21 establishments, or 0.54 per cent of the whole number, the lockouts were still pending June 30, 1894. The percent-

ages for each of the years included in the two reports are shown as follows:

RESULTS FOR ESTABLISHMENTS, JANUARY 1, 1881, TO JUNE 30, 1894.

Year.	Per cent of establishments in strikes which—			Per cent of establishments in lockouts which—		
	Succeeded.	Succeeded partly.	Failed.	Succeeded	Succeeded partly.	Failed.
1881.....	61.37	7.00	31.63	88.89	11.11	.....
1882.....	53.59	8.17	38.24	64.29	.....	35.71
1883.....	58.17	16.09	25.74	56.41	.....	43.59
1884.....	51.50	3.89	44.61	27.97	.28	71.75
1885.....	52.80	9.50	37.70	38.25	3.28	58.47
1886.....	<i>a</i> 34.45	<i>a</i> 18.82	<i>a</i> 46.58	<i>b</i> 19.48	<i>b</i> 12.06	<i>b</i> 60.44
1887.....	45.64	7.19	47.17	34.19	1.25	64.56
1888.....	52.22	5.48	42.30	74.44	3.89	21.67
1889.....	46.49	18.91	34.60	40.91	25.76	33.33
1890.....	<i>c</i> 52.64	<i>c</i> 10.01	<i>c</i> 37.34	65.74	5.56	28.70
1891.....	37.87	8.29	53.84	63.92	14.29	21.79
1892.....	39.31	8.70	51.99	69.13	25.28	5.59
1893.....	<i>d</i> 50.82	<i>d</i> 10.32	<i>d</i> 38.79	<i>e</i> 39.02	<i>e</i> 17.05	<i>e</i> 37.05
1894 (6 months).....	23.83	15.66	60.51	21.95	1.36	76.69
Total.....	<i>f</i> 44.49	<i>f</i> 11.25	<i>f</i> 44.23	<i>g</i> 40.33	<i>g</i> 9.58	<i>g</i> 47.75

*a* Not including 15 establishments in which strikes were still pending December 31, 1886.

*b* Not including 121 establishments in which lockouts were still pending December 31, 1886.

*c* Not including 1 establishment not reporting.

*d* Not including 3 establishments in which strikes were still pending June 30, 1894.

*e* Not including 21 establishments in which lockouts were still pending June 30, 1894.

*f* Not including 19 establishments for the reasons stated in notes *a*, *c*, and *d*.

*g* Not including 142 establishments for the reasons stated in notes *b* and *e*.

For the thirteen and one-half years ending June 30, 1894, as shown by this table, out of a total of 69,167 establishments affected by strikes the employees were successful in gaining their demands in 30,772, or 44.49 per cent, and partly successful in 7,779, or 11.25 per cent, while in 30,597 establishments, or 44.23 per cent, they failed; in a very small number of establishments, constituting 0.03 per cent of all the establishments involved, the results of strikes were not obtainable. Of the 6,067 establishments in which lockouts occurred during the same period, the firms gained their point in 2,447 establishments, or 40.33 per cent of the whole number involved; in 581, or 9.58 per cent, they were partly successful, while in 2,897, or 47.75 per cent, they failed; in the remaining 142, or 2.34 per cent of the establishments, the results of the lockouts were not obtainable.

The results of strikes from 1881 to 1886, so far as they concerned employees, as shown in the Third Annual Report, were as follows: The number of persons thrown out of employment, in the 10,375 establishments having successful strikes, was 518,583; in the 3,004 establishments in which strikes were partly successful 143,976 employees were involved, while in the 8,910 establishments in which the strikes were failures 660,396 persons were thrown out of employment. The results of strikes in 15 establishments, involving 248 persons, were not reported. While the establishments in which strikes succeeded constituted 46.52 per cent of the establishments in which strikes occurred, the number of persons thrown out of employment in the successful

strikes constituted but 39.19 per cent of the whole number of persons involved; the number of establishments involved in partly successful strikes was 13.47 per cent of all establishments, while the number of persons involved in such strikes was only 10.88 per cent of the whole number of persons. The number of establishments in which strikes failed constituted 39.95 per cent of the whole number, while 49.91 per cent of the number of persons thrown out of employment were involved in such strikes. The number of establishments in which the results of strikes were not reported constituted 0.06 per cent of the entire number, the number of persons thrown out of employment in such establishments being 0.02 per cent of the entire number of persons thrown out of employment.

The results for the succeeding seven and one-half years, from January 1, 1887, to June 30, 1894, so far as they concerned employees, as shown in the Tenth Annual Report, are as follows: In the 20,397 establishments having successful strikes 669,992 persons were thrown out of employment; in the 4,775 establishments in which strikes were partly successful 318,801 employees were involved, while in the 21,687 establishments in which strikes failed, 1,400,988 persons were thrown out of employment. The results were not reported in 19 establishments in which 1,422 persons were involved. While the establishments in which strikes succeeded constituted 43.52 per cent of the establishments in which strikes occurred, the number of persons thrown out of employment in the successful strikes constituted 28.02 per cent of the whole number of persons involved; the number of establishments involved in partly successful strikes was 10.19 per cent of all establishments, while the number of persons involved in such strikes was 13.33 per cent of the whole number. The number of establishments in which strikes failed was 46.28 per cent of the whole number, while 58.59 per cent of the whole number of persons thrown out of employment were involved in such strikes. In 0.01 per cent of the entire number of establishments, including 0.06 per cent of the number of persons thrown out of employment, the results of strikes were not reported.

The following table combines the facts for the two reports, showing the results, so far as employees are concerned, for the strikes during an uninterrupted period of thirteen and one-half years, beginning January 1, 1881, and ending June 30, 1894:

## RESULTS OF STRIKES FOR EMPLOYEES, JANUARY 1, 1881, TO JUNE 30, 1894.

Year.	Number thrown out of employment.				Per cent thrown out of employment.		
	In successful strikes.	In partly successful strikes.	In strikes which failed.	In total strikes.	In successful strikes.	In partly successful strikes.	In strikes which failed.
1881 .....	55,600	17,482	56,489	129,521	42.93	13.50	43.57
1882 .....	45,746	7,112	101,813	154,671	29.58	4.60	65.82
1883 .....	55,140	17,024	77,599	149,763	36.82	11.37	51.81
1884 .....	52,736	5,044	89,274	147,054	35.86	3.43	60.71
1885 .....	115,375	23,855	103,475	242,705	47.54	9.83	42.63
1886 .....	a 195,400	a 74,167	a 238,229	508,044	a 38.46	a 14.60	a 46.90
1887 .....	127,629	26,442	225,655	379,726	33.61	6.96	59.43
1888 .....	41,106	11,130	95,468	147,704	27.83	7.54	64.63
1889 .....	72,099	62,607	114,853	249,559	28.89	25.09	46.02
1890 .....	b 158,787	b 48,444	b 144,681	351,944	b 45.12	b 13.76	b 41.11
1891 .....	80,766	22,885	195,413	299,064	27.01	7.65	65.34
1892 .....	61,125	16,429	129,117	206,671	29.58	7.95	62.47
1893 .....	c 62,018	c 41,765	c 160,741	265,914	c 23.32	c 15.71	c 60.45
1894 (6 months) .....	65,048	88,391	328,627	482,066	13.49	18.34	68.17
Total .....	d 1,188,575	d 462,777	d 2,061,384	3,714,406	d 32.00	d 12.46	d 55.50

a Not including 248 engaged in strikes still pending December 31, 1886.

b Not including 32 engaged in strikes not reporting result.

c Not including 1,390 engaged in strikes still pending June 30, 1894.

d Not including 1,670 for the reasons stated in the preceding notes.

The totals as given in this table show that the number of persons thrown out of employment in the 30,772 establishments having successful strikes was 1,188,575. In the 7,779 establishments in which partial success was gained 462,777 employees were involved, while in the 30,597 establishments in which strikes failed 2,061,384 persons were thrown out of employment. The last three columns of the table show for each year, and for the thirteen and one-half years, the per cent of employees in establishments in which the strikes succeeded, partly succeeded, or failed. Taking the total for the period of thirteen and one-half years, it is seen that 32 per cent of the whole number of persons thrown out of employment succeeded in gaining the object for which they struck; 12.46 per cent succeeded partly, while 55.50 per cent, or over half of the whole number, failed entirely in gaining their demands. A small proportion of the whole number, 0.04 per cent, for the various reasons stated in the notes to the table, made no report as to the result.

The Third Annual Report shows that for the years included therein (1881 to 1886) seventeen of the causes for which strikes were undertaken included 90.28 per cent of all the establishments, leaving the remaining 297 causes operative in only 9.72 per cent of establishments in which strikes occurred. Even four leading causes were found to cover 77.16 per cent of the establishments. The following table was there given as clearly bringing out these facts:

## LEADING CAUSES OF STRIKES, JANUARY 1, 1881, TO DECEMBER 31, 1886.

Cause or object.	Establishments.	Per cent.
For increase of wages.....	9,439	42.32
For reduction of hours.....	4,344	19.48
Against reduction of wages.....	1,734	7.77
For increase of wages and reduction of hours.....	1,692	7.59
For reduction of hours and against being compelled to board with employer.....	800	3.59
For change of hour of beginning work.....	360	1.61
For increase of wages and against the contract system.....	238	1.07
For increase of wages and against employment of nonunion men.....	215	.96
In sympathy with strike elsewhere.....	173	.77
For 9 hours' work with 10 hours' pay.....	172	.77
Against employment of nonunion men, foremen, etc.....	162	.73
For increase of wages and recognition of union.....	145	.65
For adoption of union, etc., scale of prices.....	142	.64
Against increase of hours.....	138	.62
For increase of wages and enforcement of union indenture rules.....	132	.59
For reduction of hours and wages.....	126	.56
For reinstatement of discharged employees, foremen, etc.....	124	.56
Total of 17 leading causes.....	20,136	90.23
All other causes (297).....	2,168	9.72
Total for the United States.....	22,304	100.00

An examination of the causes for which strikes were undertaken during the period of seven and one-half years included in the Tenth Annual Report, shows that the seventeen principal causes included 81.23 per cent of all the establishments, leaving the remaining 574 causes active in only 18.77 per cent of the establishments subjected to strikes during the period. Five of the leading causes included a very large proportion of all establishments, the per cent being 61.42 of the whole number involved. The following table, showing the number and per cent of establishments falling under each of the seventeen principal causes, during the period of seven and one-half years involved in this report, brings out these percentages in detail:

## LEADING CAUSES OF STRIKES, JANUARY 1, 1887, TO JUNE 30, 1894.

Cause or object.	Establishments.	Per cent.
For increase of wages.....	12,041	25.69
For reduction of hours.....	6,199	13.23
Against reduction of wages.....	3,330	8.17
In sympathy with strike elsewhere.....	3,620	7.73
For increase of wages and reduction of hours.....	3,095	6.60
Against employment of nonunion men.....	1,688	3.60
For adoption of new scale.....	1,559	3.33
For recognition of union.....	1,314	2.80
For adoption of union scale.....	844	1.80
For adoption of union rules and union scale.....	783	1.67
For increase of wages and recognition of union.....	686	1.46
To compel World's Fair directors to employ none but union men in building trades.....	472	1.01
For reinstatement of discharged employees.....	468	1.00
For payment of wages overdue.....	383	.82
For increase of wages, and reduction of hours on Saturday.....	378	.81
Against being compelled to board with employer, and for reduction of hours and recognition of union.....	366	.78
For fortnightly payment.....	342	.73
Total of 17 leading causes.....	38,068	81.23
All other causes (574).....	8,795	18.77
Total for the United States.....	46,863	100.00

One of the most important features of the tabulation is the statement of the losses of the employees and of the employers by reason of strikes and lockouts. These figures were collected with the greatest possible care, and although in many cases only an estimate could be secured the results as given are believed to be a very close approximation to the exact losses. It is natural to suppose that after the lapse of several years exact figures could not be secured concerning facts of which no record is kept in most instances. The figures here given are for the immediate, and in many instances only temporary, losses of employees and employers. In most businesses there are seasons of entire or partial idleness among its employees, owing to sickness, voluntary lay-offs, running slack time, etc., the working days per year being on an average from 200 to 250 days out of a possible 313. When a strike or lockout occurs in an establishment whose business is of such a character it is often followed by a period of unusual activity, in which the employee and employer both make up the time lost by reason of the temporary cessation of business on account of the strike.

The employer may in some instances be subjected to an ultimate loss by reason of his inability to fill contracts already made, but it may be accepted as a fact that much of the loss in the cases of both employer and employee is only temporary. It was found impossible, however, for the agents of the Department to take these facts into consideration, inasmuch as in many instances a period of six months or even a year must have elapsed before the whole or even a part of such loss was made up. The computation of wage loss has, therefore, been based on the number of employees thrown out of employment, their average wages, and the number of working days which elapsed before they were reemployed or secured work elsewhere. The amounts representing employers' losses are the figures (in most cases, estimates) furnished by the firms themselves, the Department's agents being instructed to consider, as well as they could, their probable correctness. In the summaries by years the figures can not represent absolute accuracy for a given year, because many strikes beginning in one year ended in another; the entire loss and assistance, as well as the other facts included in the tabulation, have been placed in the year in which the strike or lockout began. These differences may, however, counterbalance each other, and the reported results thus be nearly accurate.

Bearing in mind, then, the difficulties in ascertaining the exact losses of employees and employers as a result of strikes and lockouts, reference may be had to the following table showing the amount of loss to employees and to employers and the amount of assistance granted employees by their labor organizations for a period of thirteen and one-half years from January 1, 1881, to June 30, 1894.

WAGE LOSS OF EMPLOYEES, ASSISTANCE TO EMPLOYEES, AND LOSS OF EMPLOYERS, JANUARY 1, 1881, TO JUNE 30, 1894.

Year.	Strikes.			Lockouts.		
	To date when strikers were reemployed or employed elsewhere.		Loss of employers.	To date when employees locked out were reemployed or employed elsewhere.		Loss of employers.
	Wage loss of employees.	Assistance to employees by labor organizations.		Wage loss of employees.	Assistance to employees by labor organizations.	
1881.....	\$3,372,578	\$287,999	\$1,919,483	\$18,519	\$3,150	\$6,960
1882.....	9,864,228	734,339	4,269,494	466,345	47,668	112,382
1883.....	6,274,480	461,233	4,636,027	1,069,212	102,253	297,097
1884.....	7,666,717	407,871	3,893,073	1,421,410	314,027	640,847
1885.....	10,663,248	465,827	4,388,893	901,173	89,488	455,477
1886.....	14,992,453	1,122,130	12,357,898	4,281,058	549,452	1,949,498
1887.....	16,560,534	1,121,534	6,698,495	4,233,700	155,846	2,819,736
1888.....	6,377,749	1,752,668	6,509,017	1,100,057	85,951	1,217,199
1889.....	10,409,686	592,017	2,936,752	1,379,722	115,889	307,125
1890.....	13,875,338	910,285	5,135,404	957,966	77,210	486,258
1891.....	14,801,714	1,132,557	6,177,288	883,709	50,195	616,888
1892.....	10,772,622	833,874	5,145,691	2,856,013	537,684	1,695,080
1893.....	9,938,048	563,183	3,406,195	6,659,401	364,268	1,034,420
1894 (6 months).....	28,238,471	528,869	15,557,166	457,231	31,737	596,484
Total.....	163,807,866	10,914,406	82,590,386	26,685,516	2,524,298	12,235,451

The loss to employees in the establishments in which strikes occurred, for the period of thirteen and one-half years, was \$163,807,866; the loss to employees through lockouts for the same period was \$26,685,516; or a total loss to employees by reason of these two classes of industrial disturbances of \$190,493,382. The number of establishments involved in strikes during this period was 69,167, making an average loss of \$2,368 to employees in each establishment in which strikes occurred. The number of persons thrown out of employment by reason of strikes was 3,714,406, making an average loss of \$44 to each person involved. The number of establishments involved in lockouts was 6,067, making an average loss of \$4,398 to employees in each establishment in which lockouts occurred, while the number of employees locked out was 366,690, making an average loss of \$73 to each person involved. Combining the figures for strikes and lockouts, it is seen that the wage loss to employees as above stated was \$190,493,382 and the number of establishments involved 75,234, while 4,081,096 persons were thrown out of employment. These figures show an average wage loss of \$2,532 to the employees in each establishment and an average loss of \$47 to each person involved.

The assistance given to strikers during the thirteen and one-half years, so far as ascertainable, was \$10,914,406; to those involved in lockouts, \$2,524,298, or a total sum of \$13,438,704. This sum represents but 7.05 per cent of the total wage loss incurred in strikes and lockouts, and is probably too low. In addition to this sum, which includes only assistance from labor organizations, much assistance was furnished by outside sympathizers, the amount of which the Department had no means of ascertaining.

The loss to employers through strikes during this thirteen and one-half years amounted to \$82,590,386; their losses through lockouts amounted to \$12,235,451, making a total loss to the establishments or firms involved in strikes and lockouts during this period of \$94,825,837.

## STRIKES AND LOCKOUTS IN GREAT BRITAIN AND IRELAND IN RECENT YEARS.

Since 1888 the statistical and other information concerning labor disturbances in Great Britain and Ireland has been published in the annual reports of the Labor Department of the Board of Trade under the title of Reports by the Chief Labor Correspondent on Strikes and Lockouts, and the information presented herewith has been obtained from those reports. The report for 1888, being the first, is not so comprehensive as those for subsequent years; for this reason, and also to enable a uniform presentation of the various facts, the report for the year 1889 is taken as the starting point, the figures being shown as far as practicable for each year up to and including 1893.

The number of strikes reported for each year is shown in the following statement:

STRIKES, 1889 TO 1893.

Division.	1889.	1890.	1891.	1892.	1893.	Total.
England .....	813	716	667	512	509	3,217
Wales .....	53	88	63	52	48	304
Scotland .....	246	156	125	110	175	812
Ireland .....	33	68	38	18	36	193
Total .....	1,145	1,028	893	692	768	4,526

In counting the number of strikes that occurred in 1889, wherever full details were obtained of separate establishments engaged in a general strike, each establishment was considered as one strike. It was not always possible, however, to obtain full details for all the separate establishments affected by a general strike. In those instances a large number of establishments were counted in the annexed table as only one strike. Owing to the difficulty of ascertaining the actual number of establishments affected and of distinguishing between the number of distinct strikes and the number of establishments involved, the system was changed for 1890 and subsequent years so that each strike, whether general or merely local, was counted as one, irrespective of the number of establishments affected. Under these circumstances it can not be inferred that the strike movement in 1890 was not as violent as in 1889, as the above table seems to indicate. A more accurate comparison for the two years may be made by saying that in 1889 there were 3,164 distinct establishments affected by the 1,145 strikes, but the system of enumeration then adopted was not so clear as in 1890, when 4,382 distinct establishments were reported, supposing where no information is given that only one establishment is concerned.

STRIKES AND LOCKOUTS IN GREAT BRITAIN AND IRELAND. 27

In some of the following statements the two classes of labor disputes, strikes and lockouts, have been combined, but when practicable they have been treated separately. Comparatively few lockouts occurred in the United Kingdom during the period from 1889 to 1893. The following statement gives the number reported for each year; the great decrease from 1889 to 1890 is probably accounted for by the change in the method of enumeration previously referred to in connection with strikes:

LOCKOUTS, 1889 to 1893.

Year.	Number.	Year.	Number.
1889.....	66	1892.....	8
1890.....	12	1893.....	14
1891.....	13	Total.....	113

Statistics concerning the cause or object of strikes and their success or failure are probably of more importance and interest than those on any other branch of the subject. Space will not permit a detailed statement of the numerous causes and objects of strikes as presented in the several reports. The grouping adopted in the following statement is in a measure arbitrary with this office:

RESULTS OF STRIKES BY CAUSES, 1889 TO 1893.

Cause or object.	Year.	Suc- ceeded.	Suc- ceeded partly.	Failed.	Not re- ported.	Total.
For increase of wages, and the same combined with secondary causes.	1889	342	290	76	60	768
	1890	208	152	109	45	514
	1891	149	74	68	26	317
	1892	125	59	59	17	260
	1893	116	60	68	12	256
	Total.....	940	635	380	160	2,115
Against reduction of wages, and the same combined with secondary causes.	1889	12	8	20	5	45
	1890	34	14	30	5	83
	1891	52	31	32	14	129
	1892	40	19	50	15	124
	1893	72	45	67	14	198
	Total.....	210	117	199	53	579
For introduction or enforcement of scale of prices, disputes as to former agreements, etc.	1889	20	10	4	2	36
	1890	23	4	10	5	42
	1891	17	8	12	1	38
	1892	4	3	3	3	13
	1893	6	3	7	2	18
	Total.....	70	28	36	13	147
For reduction of hours; for uniformity of hours, and against increase of hours without correspond- ing increase of wages.	1889	(a)	(a)	(a)	(a)	(a)
	1890	10	6	5	2	23
	1891	14	6	3	.....	23
	1892	7	4	2	1	14
	1893	6	1	2	1	10
	Total.....	b 37	b 17	b 12	b 4	b 70
Against conditions of work, materials, subcon- tracting, shop rules, fines, etc.	1889	c 78	c 40	c 57	c 5	c 180
	1890	57	36	59	12	164
	1891	87	34	60	14	195
	1892	52	21	58	10	141
	1893	39	23	48	5	115
	Total.....	c 313	c 154	c 282	c 46	c 795

a Inseparably combined with strikes of 1889 for the cause immediately following.

b Not including strikes of 1889 inseparably combined with those of the same year for the cause immediately following.

c Including strikes of 1889 for the cause immediately preceding.

## RESULTS OF STRIKES BY CAUSES, 1889 TO 1893—Concluded.

Cause or object.	Year.	Suc- ceeded.	Suc- ceeded partly.	Failed.	Not re- ported.	Total.
Against employment of nonunion men, and for adoption or enforcement of union rules, etc.	1889	5	2	17	5	29
	1890	30	4	56	10	100
	1891	24	5	50	5	84
	1892	24	3	27	5	59
	1893	32	9	32	1	74
Total .....		115	23	182	26	346
Disputes between classes of work peoples as to work, wages, etc.	1889	9	4	3	2	18
	1890	6	7	12		25
	1891	12	7	10	2	31
	1892	7	4	5	2	18
	1893	18	11	14	2	45
Total .....		52	33	44	8	137
Defense of or objection to fellow work people (apart from unionism).	1889	7	6	12	4	29
	1890	9	1	23	2	35
	1891	10	11	14	1	36
	1892	14	4	19	2	39
	1893	5	6	15	2	28
Total .....		45	28	83	11	167
Defense of or objection to superior officials.....	1889	3	1	11		15
	1890	2	4	5	2	13
	1891	3	3	6	4	16
	1892	10		4	1	15
	1893	8		5	1	14
Total .....		26	8	31	8	73
In sympathy with other strikes and disputes.....	1889		7	5	8	20
	1890	4	1	12	2	19
	1891		1	4	2	7
	1892			1	1	2
	1893	1	1	6	2	10
Total .....		5	10	28	15	58
Cause not known.....	1889			2	3	5
	1890	1	1	1	7	10
	1891	1	1	4	11	17
	1892				7	7
	1893					
Total .....		2	2	7	28	39
All causes.....	1889	476	368	207	94	1,145
	1890	364	230	322	92	1,028
	1891	369	181	263	80	893
	1892	283	117	228	64	692
	1893	303	159	264	42	768
Total .....		1,815	1,055	1,284	372	4,526

The vast majority of the labor troubles in the United Kingdom have their origin in disputes as to wages. Chiefly they are differences as to amount of wages, although sometimes they are disputes concerning the principle or mode of payment, or of altered systems of work affecting the amount or mode of payment. Considering the total for five years it appears that over half, or 59.5 per cent, of all the strikes were caused by questions concerning the advance or reduction of wages, and that of the strikes for this object 42.7 per cent were successful, 27.9 per cent partly successful, 21.5 per cent unsuccessful, and for 7.9 per cent the result was not reported. Of the total number of strikes for all purposes that occurred during the five years 40.1 per cent were successful, 23.3 per cent partly successful, 28.4 per cent unsuccessful, and for 8.2 per cent the result was not reported.

In connection with the success or failure of strikes it is instructive to consider the number of persons affected. While the number of persons affected is not shown for all of the strikes reported, it is given for a sufficient number to indicate the relative number of persons affected by the disturbances that terminated successfully or otherwise for the workmen, and a summary of the totals for the different years is as follows:

## PERSONS AFFECTED BY STRIKES, 1889 TO 1893, BY RESULTS.

[Persons affected means persons thrown out of work, whether actually striking or not.]

Result.	Year.	Total strikes.	Strikes for which persons affected were reported.	
			Number.	Persons affected.
Succeeded .....	1889	476	304	93,524
	1890	384	275	213,867
	1891	369	289	68,247
	1892	283	235	48,852
	1893	303	271	400,141
Total .....		1,815	1,374	824,631
Succeeded partly .....	1889	368	274	177,476
	1890	230	183	66,029
	1891	181	156	98,127
	1892	117	103	113,414
	1893	159	148	155,249
Total .....		1,055	869	610,295
Failed .....	1889	207	171	40,472
	1890	322	254	101,902*
	1891	263	212	92,763
	1892	228	203	70,978
	1893	264	233	76,430
Total .....		1,284	1,073	382,545
Not reported .....	1889	94	32	10,528
	1890	92	21	11,183
	1891	80	19	7,748
	1892	64	27	8,554
	1893	42	13	1,709
Total .....		372	112	34,722
Aggregate .....	1889	1,145	781	322,000
	1890	1,028	738	392,981
	1891	893	676	266,885
	1892	692	568	236,798
	1893	768	665	633,529
Total .....		4,526	3,428	1,852,193

Of the 4,526 strikes that occurred during the five years covered by this statement, particulars concerning the number of persons affected and the results were obtained for 3,428, or 75.7 per cent. These strikes affected 1,852,193 persons. The strikes that terminated successfully affected 44.5 per cent of the total number of persons; those that succeeded partly, 32.9 per cent; unsuccessful, 20.7 per cent, and those for which the result was not reported, 1.9 per cent. The successful and partly successful strikes combined affected 77.4 per cent of the total number of persons. The average number of persons affected by each of the successful or partly successful strikes was 640, by the unsuccessful strikes 357, and by the strikes for which definite information as to the result was not obtained 310.

The time over which industrial stoppages extend, when considered in connection with the number of persons affected, conveys an idea of the magnitude of the disturbances. The statistics on this subject for the different years are presented in the following statement:

## DURATION OF STRIKES, 1889 TO 1893.

Year.	Total strikes.	Strikes for which duration was reported.		
		Number.	Days of duration.	
			Number.	Average per strike.
1889 .....	1,145	840	15,100	18.0
1890 .....	1,028	794	13,724	17.3
1891 .....	893	687	16,528	24.1
1892 .....	692	555	17,800	32.1
1893 .....	768	575	16,927	29.4
<b>Total</b> .....	<b>4,526</b>	<b>3,451</b>	<b>80,079</b>	<b>23.2</b>

The number of really large strikes is shown by the following analysis: In 1891 there were 9 strikes, of those reporting the number of persons affected, in which 5,000 persons and upward were involved; 45 in which 1,000 to 5,000 persons were affected, and 622 in which less than 1,000 persons were affected. The Report by the Chief Labor Correspondent on the Strikes and Lockouts of 1892 reports for that year but 8 strikes and lockouts affecting 5,000 persons and upward, 34 affecting 1,000 to 5,000, and 530 affecting less than 1,000. In 1893, 10 strikes and lockouts involved 5,000 persons and upward, 31 from 1,000 to 5,000, and 638 less than 1,000.

The number of persons affected by labor disputes, and the duration of such disputes, though interesting in themselves, become more important when brought into relation with each other. This has been done for both strikes and lockouts in the statements which follow so as to show the average days of time lost by the persons affected.

## TIME LOST AND PERSONS AFFECTED BY STRIKES AND LOCKOUTS, 1890 TO 1893.

[Persons affected means persons thrown out of work.]

Year.	Total strikes and lockouts.	Strikes and lockouts for which both persons affected and lost time were reported.			
		Number.	Persons affected.	Days of lost time.	
				Number.	Average per person affected
1890 .....	1,040	652	373,650	7,317,469	19.5
1891 .....	906	606	258,718	6,809,371	26.3
1892 .....	700	503	351,243	17,248,376	49.1
1893 .....	782	586	627,969	31,205,062	49.7
<b>Total</b> .....	<b>3,428</b>	<b>2,347</b>	<b>1,611,580</b>	<b>62,580,278</b>	<b>38.8</b>

DURATION OF AND PERSONS AFFECTED BY STRIKES AND LOCKOUTS IN 1893, BY INDUSTRIES.

[Persons affected means persons thrown out of work.]

Industries.	Total strikes and lockouts.	Strikes and lockouts for which both persons affected and duration were reported.					
		Number.	Persons affected.	Days of duration.		Days of lost time.	
				Number.	Average per dispute.	Number.	Average per person affected
Building and furnishing trades, coach making and coopers.....	198	155	19,976	5,882	37.9	866,971	43.4
Clothing (including saddle and harness trade).....	82	59	10,266	1,885	31.9	204,513	19.9
Domestic (a).....	25	16	5,529	501	31.3	388,569	70.3
Labor (b).....	30	19	1,247	134	7.0	7,646	6.1
Metal (including shipbuilding, engineering, etc.).....	136	113	29,662	3,802	33.6	863,578	29.1
Mining and quarrying.....	156	110	501,724	3,063	27.8	27,977,893	55.7
Printing, paper, and book trades...	7	4	286	116	29.0	7,119	24.9
Textile trades.....	105	80	44,790	1,583	19.8	422,184	9.4
Transport (land and water).....	43	30	14,489	370	12.3	466,589	32.2
Total.....	782	586	627,969	17,336	29.6	31,205,062	49.7

a Comprises food and drink preparation, tobacco, brush makers, and glass and pottery trades.

b Comprises chemical and gas workers, public cleansing, agricultural, general, unskilled, and female labor.

In the majority of cases the largest disputes in point of numbers were also those for which the duration was the longest. For this reason the average duration per dispute is considerably less than the average number of working days lost per person involved.

With one exception the preceding statements have presented the statistics by totals for years only. In the following summary the strikes and lockouts of the four years from 1890 to 1893 are arranged by general groups of trades. This statement shows the number of disturbances in each group, the number for which the persons affected were reported, and the number of persons affected by such strikes and lockouts.

## PERSONS AFFECTED BY STRIKES AND LOCKOUTS, 1890 TO 1893, BY INDUSTRIES.

[Persons affected means persons thrown out of work. It will be noticed that the figures reported below do not agree in every case with the figures given on page 30. The explanation is not known.]

Industries.	Total strikes and lockouts.				Strikes and lockouts for which persons affected were reported.								Average persons affected per dispute.
					Number.				Persons affected.				
	1890.	1891.	1892.	1893.	1890.	1891.	1892.	1893.	1890.	1891.	1892.	1893.	
Building trades .....	117	149	149	170	83	123	115	152	12,558	25,229	18,175	17,738	156
Chemical and gas works .....	10	4	3	5	7	4	3	5	1,218	118	193	427	103
Cabinetmaking and furniture trades .....	18	18	9	20	15	11	7	15	2,142	317	312	366	65
Clothing trades .....	78	66	56	80	47	53	49	71	29,317	40,992	36,431	10,821	530
Coach building and coopers .....	5	9	6	8	3	8	5	6	200	680	477	2,495	175
Domestic trades .....	10	11	8	5	5	7	6	5	487	627	425	56	69
Food, tobacco, and drink preparation trades .....	21	18	12	9	18	17	12	9	3,704	3,271	1,516	549	161
Glass and pottery trades .....	11	12	8	11	6	10	7	10	3,070	3,534	20,369	5,211	975
Labor (agricultural and general unskilled) .....	29	18	19	25	21	11	12	17	2,293	1,967	1,031	958	102
Leather and rubber trades .....	11	5	5	2	9	3	5	2	498	160	717	30	74
Metal trades (including shipbuilding) .....	201	165	129	136	149	123	108	124	81,936	60,502	39,759	30,309	422
Mining and quarrying .....	101	132	109	156	80	96	86	133	140,292	51,427	120,386	506,182	2,072
Paper, printing, and bookbinding trades .....	11	20	7	7	8	14	7	7	356	1,291	708	381	76
Textile trades .....	241	217	137	105	183	164	117	89	42,035	44,837	102,722	45,274	425
Transport .....	164	62	41	43	105	42	35	34	72,875	32,499	12,878	15,589	620
Theatrical employees .....	.....	.....	2	.....	.....	.....	2	.....	.....	700	.....	.....	350
Total .....	1,028	906	700	782	739	688	576	679	392,981	267,460	358,799	636,386	617

Considering the totals for the four years, the greatest number of disturbances are reported for the textile trades, while those involving the greatest number of employees are in mining and quarrying. The textiles rank second in the number of persons affected, the metal trades second in number of disturbances and third in number of persons affected, the building trades third in number of disturbances and fourth in number of persons affected, while mining and quarrying, the first in the number of persons, is fourth in number of disturbances. The magnitude of the average disturbance in the different trades is also indicated in the above statement by the average number of persons affected, the average being obtained from the totals of the four years. The disturbances in the mining and quarrying industries affected, on an average, the largest number of persons, and were followed in point of magnitude by the glass and pottery trades.

Having presented data as to the number, magnitude, and immediate results of strikes, the statistics next in order are those pertaining to the modes of settling the disputes. The different methods of settling

strikes and the number of persons affected by each class during 1891, 1892, and 1893 are shown in the following summary:

MODE OF SETTLEMENT OF STRIKES, 1891 TO 1893.

[Persons affected means persons thrown out of work, whether actually striking or not.]

Mode of settlement.	Year.	Strikes settled.		
		Number.	Strikes for which persons affected were reported.	
			Number.	Persons affected.
By conciliation.....	1891 1892 1893	468 341 388	373 288 347	120,579 55,763 132,393
By conciliation (by mediation).....	1891 1892 1893	9 4 8	9 4 8	9,464 76,144 300,622
By arbitration.....	1891 1892 1893	18 19 25	15 17 24	12,387 32,687 12,124
By submission of work people.....	1891 1892 1893	130 115 119	103 108 104	65,724 37,224 63,676
By hands being replaced.....	1891 1892 1893	87 79 104	67 66 90	6,149 3,729 4,273
By conciliation and submission.....	1891 1892 1893	41 33 44	36 30 43	20,249 21,996 114,277
By conciliation and hands being replaced.....	1891 1892 1893	11 13 6	9 11 6	1,927 1,748 803
By submission and hands being replaced.....	1891 1892 1893	39 22 22	37 20 20	20,410 3,891 1,977
By disappearance or withdrawal of cause of dispute without mutual agreement.	1891 1892 1893	12 2 3	9 2 3	2,268 112 425
Indefinite; no details obtainable as to settlement, or establishment closed.	1891 1892 1893	78 64 49	18 27 20	7,728 3,554 2,959

Much the larger proportion of the strikes for each of the three years covered by this statement were settled by conciliation. Next to conciliation the greatest number of strikes, according to the classification adopted, appear to have been settled by the submission of the work people.

While the available information concerning loss or gain resulting from strikes is not as complete as could be desired, the information secured is of value when considered in connection with the other statistics on this general subject. According to returns received from employers with regard to the cost of strikes in 1893, there were 257 strikes which directly affected (a) 139,168 persons whose weekly wages

a What the distinction is between those directly affected and those indirectly affected is not made clear, but it is believed that the former expression refers to strikers only, and the latter to others thrown out of employment in consequence of the strike.

before the strikes amounted to \$863,045, and 43 strikes which indirectly affected 18,714 persons whose weekly wages before the strikes amounted to \$124,904. In 123 strikes, affecting 120,127 persons, an estimated fixed capital of \$78,522,559 was laid idle, and 80 strikes, affecting 104,811 persons, laid idle property whose estimated ratable value was \$3,416,911. In 109 strikes, affecting 135,230 persons, the estimated outlay by employers in stopping and reopening works and in payment of fixed charges and salaries was \$1,676,354, and the cost to employers in resisting 6 strikes, affecting 8,487 persons, was \$34,980.

Reports from trade unions relating to loss and gain from strikes indicate that in 1893 there were 265 strikes, affecting 239,898 persons, whose weekly wages before the strikes amounted to \$1,260,107. Weekly wages both before and after the strikes were reported for 209 strikes, affecting 236,527 persons, whose weekly wages were \$1,237,931 before and \$1,287,554 after the strikes. In 73 strikes the weekly gain in wages to the 116,249 persons affected was \$39,024, and in 21 strikes the weekly reduction to the 2,523 persons affected was \$1,557. In 224 strikes, which affected 223,679 persons, the estimated wage loss during the strikes was \$8,952,929, the amount expended by trade unions in support of 240 strikes affecting 92,608 persons was \$617,457, and the amount expended from other than trade-union funds in support of 37 strikes, affecting 21,171 persons, was \$119,701. In 313 strikes 88,940 of the number affected belonged to trade unions.

The statistics for lockouts have, of necessity, been included in some of the preceding statements presenting the data for strikes. In some instances it was practically impossible to obtain a separation of the persons affected by the lockout from those affected by the strike; therefore the statistics for lockouts as a distinct class of labor disturbances are not as complete as may be desired. The following statement gives the number of persons affected by and the duration of the lockouts in the United Kingdom, so far as reported, for the years 1891, 1892, and 1893:

DURATION OF AND PERSONS AFFECTED BY LOCKOUTS, 1891 TO 1893.

[Persons affected means persons thrown out of work.]

Year.	Total lockouts.	Lockouts for which persons affected were reported.			Lockouts for which duration was reported.		
		Number.	Persons affected.	Average persons affected per lockout.	Number.	Days of duration.	Average days of duration per lockout.
1891 .....	13	11	575	52	6	224	37.3
1892 .....	8	8	120,001	15,000	6	186	31.0
1893 .....	14	14	2,857	204	11	409	37.2
<b>Total</b> .....	<b>35</b>	<b>33</b>	<b>123,433</b>	<b>3,740</b>	<b>23</b>	<b>819</b>	<b>35.6</b>

The prevailing causes or objects of lockouts and the manner of their termination, i. e., whether successful or otherwise from the employers' point of view, are shown by the following statement:

RESULTS FOR LOCKOUTS BY CAUSES, 1891 TO 1893.

Cause or object.	Year.	Suc- ceeded.	Suc- ceeded partly.	Failed.	Not re- ported.	Total.
Against advance of wages and other demands.....	1891	1	1	2		4
	1892					
	1893	1	1			2
To enforce a reduction of wages.....	1891	2				2
	1892		1			1
	1893	1				1
Against, or to enforce alteration of working arrange- ments, rules, methods of payment, foreign mate- rials, short time, etc.	1891	2				2
	1892		1	3	1	5
	1893	2	4	1		7
Unionism, as to employment of union or nonunion men, union rates of wages, etc.	1891	4		1		5
	1892	1				1
	1893	3	1			4
To end a long-standing strike.....	1892			1		1
All causes.....	1891	9	1	3		13
	1892	1	2	4	1	8
	1893	7	6	1		14
Total.....		17	9	8	1	35

In 17 of the 35 lockouts reported for the three years the employers accomplished the object for which the lockout was organized, in 8 lockouts they failed, in 9 cases they were partly successful, there being 1 lockout for which the result was not reported.

According to returns received from employers with regard to the cost of lockouts in 1893 there were 6 lockouts which directly affected 837 persons whose weekly wages before the lockouts amounted to \$7,144. In 1 lockout, affecting 637 persons, an estimated capital of \$121,663 was laid idle, and 2 lockouts, affecting 664 persons, laid idle property whose estimated ratable value was \$39,467. In 3 lockouts, affecting 772 persons, the cost to the employers in stopping and reopening works, and in payment of fixed charges and salaries, was \$1,898.

Reports from trade unions relating to loss and gain from lockouts indicate that in 1893 there were 7 lockouts, affecting 1,763 persons, whose weekly wages before the lockouts amounted to \$13,436. Weekly wages both before and after the lockouts were reported for 5 lockouts, affecting 1,437 persons, whose weekly wages were \$10,604 before and \$11,392 after the lockouts. In 1 lockout the weekly gain in wages to the 650 persons affected was \$788. In 5 lockouts, affecting 1,743 persons, the estimated wage loss during the lockouts was \$48,874, the amount expended by trade unions in defense against 5 lockouts, affecting 778 persons, was \$15,680, and the amount expended from other than trade-union funds in defense against 2 lockouts, affecting 364 persons, was \$112. In 9 lockouts 1,706 of the number affected belonged to trade unions.

## STRIKES IN FRANCE IN RECENT YEARS.

The report of the French Office du Travail, Statistique des Grèves et des Recours à la Conciliation et à l'Arbitrage Survenus Pendant l'Année, 1894, gives some interesting figures as the result of its annual inquiry into the subject of strikes and lockouts in France. The report shows that during 1894 there were 391 strikes, involving 1,731 establishments and 54,576 strikers, and a loss of work on the part of the strikers and their fellow-employees amounting to 1,062,480 days. In 1893 there were strikes affecting 4,286 establishments and 170,123 strikers. The loss to employees reached 3,174,000 working days.

In 1894, out of the total of 391 strikes, 84, or 21.48 per cent of them, succeeded; 129, or 32.99 per cent, succeeded partly, and 178, or 45.53 per cent, failed entirely. In 1893 the proportions were: 158 strikes, or 24.92 per cent, succeeded; 206, or 32.49 per cent, succeeded partly, and 270, or 42.59 per cent, failed. In 1894, taking into account the number of strikers involved, 23.63 per cent of the strikers succeeded, 45.41 per cent succeeded partly, and 30.96 per cent failed. In 1893 the proportions in regard to number of strikers were 21.27 per cent, 26.36 per cent, and 52.37 per cent, respectively.

Of the strikes reported in 1894, in 295 cases but 1 establishment was involved; in 32 cases from 2 to 5 establishments were involved; in 18 cases from 6 to 10 establishments; in 26 cases from 11 to 25; in 17 cases from 26 to 50; in 2 cases from 51 to 100, and in 1 case 125.

The two following tables summarize the strikes and strikers for 1894, classifying them by industries and by results. The first table shows for each industry the number of strikes and the number of establishments involved, classifying them according as the strikes succeeded, succeeded partly, or failed. The total strikes and establishments are also shown. The second table shows for each industry the number of strikers, classifying them according as they were involved in successful strikes, partly successful strikes, or in strikes that failed. The total strikers and days of work lost are also given. The column in this table headed "Days of work lost" refers here, as well as in the tables which follow, to days lost not only by strikers but by those employees who were thrown out of work by the strike.

STRIKES IN 1894, BY INDUSTRIES.

Industry.	Succeeded.		Succeeded partly.		Failed.		Total.	
	Strikes.	Estab-lish-ments.	Strikes.	Estab-lish-ments.	Strikes.	Estab-lish-ments.	Strikes.	Estab-lish-ments.
Agriculture, forestry, and fish-eries .....	5	16	13	36	3	13	21	65
Mining .....	2	2	4	4	1	1	7	7
Quarrying .....	5	15	4	17	4	5	13	37
Food products .....	1	1	4	50	4	29	8	79
Chemical industries .....	2	3	4	5	5	5	11	13
Printing .....	1	1	1	1	8	8	10	10
Hides and leather .....	7	80	10	11	11	87	28	178
Textiles proper .....	13	67	44	140	55	126	112	333
Clothing and cleaning .....	2	2	5	49	3	21	10	72
Woodworking .....	6	45	5	19	11	19	22	83
Building trades (woodwork) .....	2	34	5	90	2	13	9	137
Metal refining .....	1	1	2	2	2	2	3	3
Metallic goods .....	10	41	10	28	28	46	48	115
Precious-metal work .....	2	2	2	2	1	1	3	3
Stonecutting and polishing, glass and pottery works .....	5	23	3	35	12	17	20	75
Building trades (stone, earthen-ware, glass, etc.) .....	18	105	14	225	23	94	55	424
Transportation and handling .....	3	22	1	1	7	74	11	97
<b>Total .....</b>	<b>84</b>	<b>459</b>	<b>129</b>	<b>713</b>	<b>178</b>	<b>559</b>	<b>391</b>	<b>1,731</b>

STRIKERS IN 1894, BY INDUSTRIES.

Industry.	In suc-cessful strikes.	In partly successful strikes.	In strikes which failed.	Total strikers.	Days of work lost.
Agriculture, forestry, and fisheries .....	530	1,255	628	2,413	23,003
Mining .....	150	2,415	200	2,765	178,964
Quarrying .....	427	620	380	1,427	13,216
Food products .....	1	143	178	321	1,237
Chemical industries .....	850	781	926	2,557	7,088
Printing .....	10	65	86	161	3,413
Hides and leather .....	1,507	507	2,554	4,628	47,086
Textiles proper .....	4,044	14,549	4,868	23,461	308,225
Clothing and cleaning .....	130	235	630	995	50,524
Woodworking .....	518	265	423	1,206	26,151
Building trades (woodwork) .....	108	396	32	536	10,197
Metal refining .....	18	1,198	873	1,216	57,112
Metallic goods .....	583	521	873	1,977	36,753
Precious-metal work .....	8	8	11	19	301
Stonecutting and polishing, glass and pottery works .....	2,268	74	1,459	3,801	266,978
Building trades (stone, earthenware, glass, etc.) .....	1,466	1,740	2,752	5,958	29,763
Transportation and handling .....	220	20	895	1,135	2,464
<b>Total .....</b>	<b>12,897</b>	<b>24,784</b>	<b>16,895</b>	<b>54,576</b>	<b>1,062,480</b>

From these tables it appears that the textile industries proper had the greatest number of strikes during the year, 112, or nearly 30 per cent of the whole number—building trades (stone, earthenware, glass, etc.) following with 55, and metallic goods with 48. Judged by importance of the disturbances as shown by the number of strikers and days of work lost, the textile industries proper still lead with 23,461 strikers and 308,225 days lost. According to number of strikers, building trades (stone, earthenware, glass, etc.) come second with 5,958 strikers, and hides and leather third with 4,628 strikers. According to days of work lost, however, stonecutting and polishing, glass and pottery works come second, and mining, which had but 7 strikes, comes third.

The following summaries, by causes, show for each cause the same facts that in the preceding tables were shown for each industry:

## STRIKES IN 1894, BY CAUSES.

Cause or object.	Succeeded.		Succeeded partly.		Failed.		Total.	
	Strikes.	Estab-lish-ments.	Strikes.	Estab-lish-ments.	Strikes.	Estab-lish-ments.	Strikes.	Estab-lish-ments.
For increase of wages.....	37	290	69	604	73	215	179	1,109
Against reduction of wages...	18	50	28	28	34	83	80	161
For increase of hours of labor...	2	2			1	17	3	19
For reduction of hours of labor, with present or increased wages.....	12	145	6	61	12	105	30	311
Relating to time and method of payment of wages, etc.....	4	5	2	2	3	34	9	41
For or against modification of conditions of work.....	8	49	6	34	19	138	33	221
Against piecework.....	4	5	3	5	2	2	9	12
For or against modification of shop rules.....	2	2	3	3	3	3	8	8
For abolition or reduction of fines.....	2	2	4	4	5	5	11	11
Against discharge of workmen, foremen, or directors, or for their reinstatement....	3	3	6	10	19	37	28	50
For discharge of workmen, foremen, or directors.....	14	16	2	2	34	35	50	53
Against the employment of women.....	1	1			4	4	5	5
For discharge of apprentices or limitation in number.....					2	2	2	2
To support the demands of neighboring woodcutters.....	1	1					1	1
Total (a).....	108	571	129	753	211	680	448	2,004

<sup>a</sup> A considerable number of strikes were due to two or three causes, and the facts in such cases have been tabulated under each cause. Hence the totals for this table necessarily do not agree with those for the table on the preceding page.

## STRIKERS IN 1894, BY CAUSES.

Cause or object.	In successful strikes.	In partly successful strikes.	In strikes which failed.	Total strikers.	Days of work lost.
For increase of wages.....	7,664	16,602	6,434	30,700	601,899
Against reduction of wages.....	3,620	2,979	2,662	9,261	150,655
For increase of hours of labor.....	430		306	736	1,386
For reduction of hours of labor, with present or increased wages.....	1,044	385	951	2,380	38,392
Relating to time and method of payment of wages, etc.....	198	116	337	651	4,622
For or against modification of conditions of work..	1,486	316	4,540	6,342	243,734
Against piecework.....	324	288	215	827	14,045
For or against modification of shop rules.....	53	128	148	329	1,875
For abolition or reduction of fines.....	103	507	384	994	6,353
Against discharge of workmen, foremen, or directors, or for their reinstatement.....	662	2,551	2,008	5,221	246,609
For discharge of workmen, foremen, or directors.	1,601	210	4,376	6,187	239,536
Against the employment of women.....	30		193	223	5,978
For discharge of apprentices or limitation in number.....			32	32	489
To support the demands of neighboring woodcutters.....	30			30	90
Total (a).....	17,245	24,082	22,586	65,913	1,555,663

<sup>a</sup> A considerable number of strikes were due to two or three causes, and the facts in such cases have been tabulated under each cause. Hence the totals for this table necessarily do not agree with those for the table on the preceding page.

<sup>b</sup> Figures here apparently should be 63,913; those given are, however, according to the original.

It will be seen that more than one-half of all the strikes were caused by some difference in regard to wages, 179 being for an increase of wages and 80 being against a reduction of wages. Strikes for a reduc-

tion in the hours of labor were comparatively few, there being but 30 such during the year.

The number of strikers per 1,000 working people employed in each industry (according to the census of 1891) is shown in another short table as follows:

STRIKERS PER 1,000 EMPLOYEES IN 1894, BY INDUSTRIES.

Industry.	Strikes.	Strikers.	Strikers per 1,000 work people.	Days of work lost.
Agriculture and forestry (woodmen and charcoal burners only).....	21	2,413	33.63	23,003
Mining.....	7	2,765	20.23	178,964
Quarrying.....	13	1,427	2.50	13,216
Food products.....	8	321	69.89	1,237
Chemical industries.....	11	2,557	1.06	7,088
Printing.....	10	161	37.16	3,413
Hides and leather.....	28	4,628	22.65	47,086
Textiles proper.....	112	23,461	1.41	308,225
Clothing and cleaning.....	10	995	13.07	50,524
Woodworking.....	22	1,206	(a)	26,151
Building trades (woodwork).....	9	536	12.74	10,197
Metal refining.....	3	1,216	6.51	57,112
Metallic goods.....	48	1,977	36.54	36,758
Precious-metal work.....	3	19	15.08	301
Stonecutting and polishing, glass and pottery works.....	20	3,801	4.61	266,978
Building trades (stone, earthenware, glass, etc.).....	55	5,958		29,763
Transportation and handling.....	11	1,135		2,464
Total.....	391	54,576	19.83	1,062,480

a Included with building trades (stone, earthenware, glass, etc.).  
 b Includes building trades (woodwork).

This table shows perhaps better than any other the relative amount of disturbances in the various industries. It will be seen that in all industries shown, 19.83 out of every 1,000 persons employed were engaged in strikes during the year. In textile industries proper, where are found nearly 30 per cent of all the strikes, are found 22.65 strikers per 1,000 employees, a slight excess over the average of all industries, while in building trades (stone, earthenware, glass, etc.) and metallic goods, respectively second and third as regards number of strikes, are found but 15.08 and 6.51 strikers per 1,000 employees.

The strikes and strikers, classified by results and by the duration of the strikes, are presented in the table which follows:

STRIKES AND STRIKERS, BY DURATION OF STRIKES, 1894.

Days of duration.	Strikes.				Strikers.			
	Suc-ceeded.	Suc-ceeded partly.	Failed.	Total.	Suc-ceeded.	Suc-ceeded partly.	Failed.	Total.
7 or under.....	58	72	102	232	α 8,591	7,722	8,270	24,713
8 to 15.....	14	34	34	82	1,796	4,298	2,587	8,681
16 to 30.....	6	10	20	36	234	2,024	3,353	5,611
31 to 100.....	5	12	18	35	2,076	9,075	1,435	12,586
101 or over.....	1	1	4	6	70	1,665	1,250	2,985
Total.....	84	129	178	391	12,897	24,784	16,895	54,576

α Figures here apparently should be 8,721; those given are, however, according to the original.

It will be seen that most of the strikes, whether successful or not, are of short duration. Nearly 60 per cent in 1894 lasted but a week or less, and only about 10 per cent were of more than a month's duration.

Duration of strikes is presented in another way in the following short table. The strikes are here classified according to number of strikers involved, and for each group the results and days of duration are shown.

DURATION OF STRIKES IN 1894, BY NUMBER OF STRIKERS INVOLVED.

Strikers involved.	Strikes.				Days of duration.				
	Suc- ceeded.	Suc- ceeded partly.	Failed.	Total.	1 to 7.	8 to 15.	16 to 30.	31 to 100.	101 or over.
25 or under.....	21	27	71	119	75	20	11	12	1
26 to 50.....	16	23	34	78	49	18	7	4	.....
51 to 100.....	23	36	35	94	58	16	9	9	2
101 to 200.....	10	21	22	53	26	16	6	4	1
201 to 500.....	10	10	10	30	16	12	.....	2	.....
501 to 1,000.....	2	1	4	7	6	.....	1	.....	.....
1,001 to 5,000.....	2	5	2	9	2	.....	2	3	2
5,001 or over.....	.....	1	.....	1	.....	.....	.....	1	.....
Total.....	84	129	178	391	232	82	36	35	6

This table shows that a large number of the strikes are not only of short duration, but that they are small as regards number of strikers involved. In 119 cases 25 strikers or less were involved, and in 291 cases, 100 strikers or less.

Earlier reports of the Office du Travail give the facts for the years 1890 to 1893. A comparison of the figures for the several years shows a considerable variation in the number and importance of labor disturbances during the several years presented.

The first of the following tables gives the facts, so far as reported, as to number of strikes, establishments involved, strikers, and days of work lost for the years 1890 to 1894.

STRIKES, ESTABLISHMENTS, STRIKERS, AND DAYS OF WORK LOST, 1890 TO 1894.

Year.	Strikes.	Establish- ments.	Strikers.	Days of work lost.
1890.....	313	<i>a</i> 813	<i>b</i> 118, 929	.....
1891.....	267	<i>c</i> 402	<i>d</i> 108, 944	.....
1892.....	261	<i>e</i> 466	<i>f</i> 47, 908	920, 000
1893.....	634	4, 286	170, 123	3, 174, 000
1894.....	391	1, 731	54, 576	1, 062, 480
Total.....	1, 866	7, 698	500, 475	5, 156, 480

*a* In 33 strikes the number of establishments was not reported.

*b* In 8 strikes the number of strikers was not reported.

*c* In 24 strikes the number of establishments was not reported.

*d* In 2 strikes the number of strikers was not reported.

*e* In 16 strikes the number of establishments was not reported.

*f* In 8 strikes the number of strikers was not reported.

A second table shows the number and per cent of strikes which succeeded, succeeded partly, and failed in each of the years of the same period, 1890 to 1894.

NUMBER AND PER CENT OF STRIKES BY RESULTS, 1890 TO 1894.

Year.	Succeeded.		Succeeded partly.		Failed.		Not reported.		Total.	
	Num-ber.	Per cent.	Num-ber.	Per cent.	Num-ber.	Per cent.	Num-ber.	Per cent.	Num-ber.	Per cent.
1890.....	82	26.20	64	20.45	161	51.44	6	1.91	313	100
1891.....	91	34.08	67	25.10	106	39.70	3	1.12	267	100
1892.....	56	21.46	80	30.65	118	45.21	7	2.68	261	100
1893.....	158	24.92	206	32.49	270	42.59	.....	.....	634	100
1894.....	84	21.48	129	32.99	178	45.53	.....	.....	391	100
Total .....	471	25.24	546	29.26	853	44.64	16	.86	1,866	100

The per cent of successful strikes during the five years reported varies from 21.48 in 1894 to 34.08 in 1891, and the average for the period is 25.24 per cent. The average of those which succeeded partly is 29.26 per cent and of those which failed 44.64 per cent.

The last table deals with strikers in the same way. It shows the number and per cent of strikers who were involved in strikes which succeeded, succeeded partly, and failed.

NUMBER AND PER CENT OF STRIKERS, BY RESULTS OF STRIKES, 1890 TO 1894.

Year.	In successful strikes.		In partly successful strikes.		In strikes that failed.		Not reported.		Total.	
	Num-ber.	Per cent.	Num-ber.	Per cent.	Num-ber.	Per cent.	Num-ber.	Per cent.	Num-ber.	Per cent.
1890.....	13,361	11.23	28,013	23.55	76,075	63.97	1,480	1.25	118,929	100
1891.....	22,449	20.61	54,237	49.78	32,109	29.47	149	.14	108,944	100
1892.....	9,774	20.40	23,820	49.73	14,179	29.60	130	.27	47,903	100
1893.....	36,186	21.27	44,836	26.36	89,101	52.37	.....	.....	170,123	100
1894.....	12,897	23.63	24,784	45.41	16,895	30.96	.....	.....	54,576	100
Total .....	94,667	18.92	175,690	35.10	228,359	45.63	1,759	.35	500,475	100

## STRIKES IN ITALY IN RECENT YEARS.

The Statistica degli Scioperi avvenuti nell' Industria e nell' Agricoltura durante gli anni 1892 e 1893 furnishes the data for the accompanying statement concerning strikes in Italy in recent years.

The number of these industrial disturbances during each of the years from 1879 to 1893 is shown in the following table, together with the number of strikers involved in strikes reporting as to number involved:

NUMBER OF STRIKES AND STRIKERS, 1879 TO 1893.

Year.	Strikes.		Strikers.		Year.	Strikes.		Strikers.	
	Total.	Report- ing num- ber of strikers.	Total.	Aver- age per strike.		Total.	Report- ing num- ber of strikers.	Total.	Aver- age per strike.
1879 .....	32	28	4, 011	143	1887 .....	69	68	25, 027	368
1880 .....	27	26	5, 900	227	1888 .....	161	99	28, 974	293
1881 .....	44	39	8, 273	212	1889 .....	126	125	23, 322	187
1882 .....	47	45	5, 854	130	1890 .....	139	133	33, 402	289
1883 .....	73	67	12, 900	193	1891 .....	132	128	34, 733	271
1884 .....	81	81	23, 967	296	1892 .....	119	117	36, 800	263
1885 .....	89	86	34, 166	397	1893 .....	131	127	32, 109	253
1886 .....	96	96	16, 951	177					

During the last two years included in the table strikes occurred with greater frequency in Lombardy and Piedmont than in any other of the provinces of Italy, they being the centers of industrial activity. In Sicily, however, quite a large number occurred also. These were confined mostly to the sulphur mines, where almost the whole of the workmen struck and where the difficulties were most frequent.

The distribution of the strikes as to the causes for which undertaken for the period from 1878 to 1891, for 1892, and for 1893 is shown in the following table:

CAUSES OF STRIKES, 1878-1891, 1892, AND 1893.

[In each of the years under consideration some of the strikes have been omitted, neither cause of strike nor number of strikers having been reported.]

Cause or object.	1878-1891.				1892.				1893.			
	Strikes.		Strikers.		Strikes.		Strikers.		Strikes.		Strikers.	
	Num- ber.	Per cent.										
For increase of wages.	522	52	152, 908	60	39	34	6, 642	22	51	42	13, 386	42
For reduction of hours	70	7	10, 064	4	4	3½	1, 790	6	11	9	1, 519	5
Against reduction of wages	110	11	23, 207	9	23	20	7, 551	25	22	18	3, 931	12
Against increase of hours	20	2	5, 646	2	4	3½	630	2	1	1	300	1
Other causes	276	28	62, 843	25	44	39½	13, 571	45	36	30	12, 492	40
Total classified.	998	100	254, 668	100	114	100	30, 184	100	121	100	31, 628	100
Not classified	77				5				10			
Grand total	1, 075				119				131			

In the last of the five groups are combined many causes, among which may be mentioned the following: Differences as to manner of payment of wages, whether weekly or fortnightly, etc.; as to the amount and methods of fines; as to cooperation of strikers; as to special technical conditions, etc. The per cent columns bring out very clearly the proportion of strikes falling under each cause. During the period from 1878 to 1891 64 per cent of the strikers engaged in strikes for the purpose of ameliorating their condition, while in 1892 28 per cent and in 1893 47 per cent of all persons involved were engaged in such strikes. On the other hand, only 11 per cent of the strikers were engaged in struggles to prevent a decrease of wages for the period from 1878 to 1891, 27 per cent in 1892, and only 13 per cent in 1893.

The table which follows shows the results of strikes for the period from 1878 to 1891, for 1892, and for 1893, so far as the strikers were concerned, classifying the strikes as having succeeded, partly succeeded, or failed in the object or cause for which they were undertaken.

RESULTS OF STRIKES, 1878-1891, 1892, AND 1893.

[In each of the years under consideration some of the strikes have been omitted, neither cause of strike nor number of strikers having been reported.]

Cause or object.	Succeeded.				Succeeded partly.				Failed.			
	Strikes.		Strikers.		Strikes.		Strikers.		Strikes.		Strikers.	
	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.
<b>For increase of wages:</b>												
1878-1891.....	88	17	43,931	29	242	46	74,650	49	192	37	34,327	22
1892.....	9	23	1,078	16	13	33	2,050	31	17	44	3,514	53
1893.....	15	30	6,071	45	18	35	4,713	35	18	35	2,602	20
<b>For reduction of hours:</b>												
1878-1891.....	14	20	3,612	36	28	40	2,449	24	28	40	4,003	40
1892.....	1	25	1,500	84	1	25	40	2	50	250	14	14
1893.....	5	46	581	38	4	36	815	54	2	18	123	8
<b>Against reduction of wages:</b>												
1878-1891.....	14	13	2,700	12	47	43	11,744	50	49	44	8,763	38
1892.....	7	30	3,060	48	7	30	1,623	22	9	40	2,263	30
1893.....	5	23	840	21	10	45	1,841	34	7	32	1,750	45
<b>Against increase of hours:</b>												
1878-1891.....	7	35	2,540	45	8	40	2,750	49	5	25	356	6
1892.....					2	50	350	56	2	50	280	44
1893.....					1	100	300	100				
<b>Other causes:</b>												
1878-1891.....	36	13	9,553	15	104	38	27,441	44	136	49	25,849	41
1892.....	7	16	2,398	18	10	23	1,764	13	27	61	9,409	69
1893.....	9	25	1,705	14	13	36	6,601	53	14	39	4,186	33
<b>All causes:</b>												
1878-1891.....	159	16	62,336	24	429	43	119,034	47	410	41	73,298	29
1892.....	24	21	8,636	29	33	29	5,832	19	57	50	15,716	52
1893.....	34	28	9,197	29	46	38	13,770	44	41	34	8,661	27

As shown by the total columns, during the years from 1878 to 1891 24 per cent of the strikers, or persons involved in strikes, succeeded in gaining the object for which they struck, 47 per cent succeeded partly, while 29 per cent failed. In 1892 29 per cent succeeded, 19 per cent succeeded partly, and 52 per cent failed, while in 1893 29 per cent succeeded, 44 per cent succeeded partly, and 27 per cent failed. The

results of strikes for any of the causes shown may be found in the same manner by reference to the table.

The classification of strikes, for 1892 and 1893, according to the industries in which strikers were engaged is shown in the following table:

STRIKES, BY INDUSTRIES, 1892 AND 1893.

Industry.	1892.			1893.		
	Strikes.		Strikers.	Strikes.		Strikers.
	Total.	Report- ing num- ber of strikers.		Total.	Report- ing num- ber of strikers.	
Weavers, spinners, and carders.....	41	41	7, 679	44	44	14, 061
Miners and ore diggers .....	19	19	8, 280	19	18	3, 840
Mechanics .....	3	3	568	5	5	415
Founders .....	1	1	70	2	2	390
Day laborers .....	13	12	2, 026	9	9	3, 960
Masons and stonecutters .....	5	5	1, 940	6	4	380
Kiln and furnace tenders.....	6	6	439	2	2	250
Printers .....	5	5	345	1	1	10
Hat makers .....	3	3	306	1	1	32
Tanners .....	1	1	12	6	6	447
Joiners .....	3	3	500	.....	.....	.....
Omnibus drivers and conductors.....	3	3	2, 470	5	5	3, 627
Cart drivers .....	1	1	60	4	3	220
Porters and coal carriers .....	4	4	2, 610	7	7	1, 300
Other industries .....	11	10	3, 495	20	20	3, 177
Total .....	119	117	30, 800	131	127	32, 109

The textile, mineral, and metallurgic industries, and that of public works, in which most of the common labor is engaged, are more largely represented in strikes because in those industries the workmen are more generally organized.

Immediately following is shown, for a series of years, from 1879 to 1893, the total and average days lost by reason of strikes.

DAYS OF WORK LOST BY REASON OF STRIKES, 1879 TO 1893.

Year.	Strikes.		Days of work lost.		Year.	Strikes.		Days of work lost.	
	Total.	Report- ing number of days lost.	Total.	Average per strike.		Total.	Report- ing number of days lost.	Total.	Average per strike.
1879 .....	32	28	21, 896	782	1887 .....	69	66	218, 612	3, 312
1880 .....	27	26	91, 899	3, 535	1888 .....	101	95	191, 204	2, 013
1881 .....	44	38	95, 578	2, 515	1889 .....	126	123	215, 880	1, 755
1882 .....	47	45	25, 119	558	1890 .....	139	129	167, 657	1, 300
1883 .....	73	65	111, 697	1, 718	1891 .....	132	123	258, 059	2, 098
1884 .....	81	78	149, 215	1, 913	1892 .....	119	114	216, 907	1, 903
1885 .....	89	82	244, 393	2, 980	1893 .....	131	122	234, 323	1, 921
1886 .....	96	95	56, 772	598					

## STRIKES IN AUSTRIA IN RECENT YEARS.

Volume XI of the Foreign Reports of the British Royal Commission on Labor gives the leading facts in regard to strikes in Austria during 1891 and 1892, quoting from Zusammenstellungen der in den Jahren 1891 und 1892 stattgefundenen Arbeitseinstellungen im Gewerbebetriebe, Vienna, 1892 and 1893.

The two tables immediately following are summaries of strikes by industries for the years 1891 and 1892, respectively. They show the number of strikes, establishments involved, total employees in such establishments, employees striking, and total days of work lost by strikes. These two tables show also the causes or objects for which the strikes were undertaken, classifying them under three heads, viz: For increase of wages or that and other demands, against reduction of wages, and all other. The number of strikes which succeeded, succeeded partly, and failed is also shown:

### STRIKES IN 1891, BY INDUSTRIES.

[It will be observed that the addition of the items in this table will not in all cases produce the totals given. The figures, however, are all as given in the report before referred to, the original not being accessible.]

Industry.	Strikes.	Estab-lish-ments.	Employees.			Cause or object.			Result.		
			Total.	Strik-ers.	Days lost.	For in-crease of wages or that and other de-mands.	Against reduc-tion of wages.	All other.	Suc-ceeded.	Suc-ceeded partly.	Failed.
Bakers .....	7	444	3,068	972	21,855	7				3	4
Builders .....	7	55	2,288	1,392	5,231	5				3	1
Brewers .....	1	1	17	17	17			2	1		1
Bookbinders .....	2	40	107	79	766	2				2	
Printers, engravers, and type founders .....	7	95	3,250	2,236	75,251	3		4	2		5
Cement manu-facturers .....	1	1	20	20	24			1	1		
Railway con-tractors .....	2	2	265	155	155	2			2		
Glass and china manufacturers .....	11	457	6,313	698	4,353	7	2	2	2	2	7
Glovers .....	1	1	8	6	12			1			1
Military outfit-ters .....	1	1	140	32	64	1					1
Manufacturers of wooden goods .....	2	2	86	34	658			2	1		1
Hatters .....	1	1	9	5	5			1			1
Cork manu-facturers .....	1	1	10	7		1					1
Leather manu-facturers .....	4	4	401	126	249		1	3	1		3
Hackney coach-men .....	1	50	148	148	148			1			1
Metal workmen .....	12	13	2,447	1,338	12,911	5		7	4	1	7
Paper and cellu-lose manu-facturers .....	3	13	852	104	542	1	2				3

a About.

## STRIKES IN 1891, BY INDUSTRIES—Concluded.

[It will be observed that the addition of the items in this table will not in all cases produce the totals given. The figures, however, are all as given in the report before referred to, the original not being accessible.]

Industry.	Strikes.	Estab- lish- ments.	Employees.			Cause or object.			Result.		
			Total.	Strik- ers.	Days lost.	For in- crease of wages or that and other de- mands.	Against reduc- tion of wages.	All other.	Suc- ceeded.	Suc- ceeded partly.	Failed.
Pipe manufac- turers .....	1	1	8	8	64		1		1		
Brush makers .....	1	1	17	3	27	1					1
Shipping .....	1	1	100	100	300		1				1
Dockers .....	1	1	800	30	90	1					1
Manufacturers of fancy boxes.....	1	1	35	35	490	1			1		
Tailors .....	1	79	1,656	492	3,444	1				1	
River conserva- tors .....	1	1	72	72	720	1				1	
Shoemakers .....	8	556	10,846	2,547	87,363	4	3	1	1	4	3
Textile manufac- turers .....	18	18	6,585	2,929	26,529	10	4	4	4	6	8
Joiners and cabi- netmakers.....	6	70	401	300	4,678	2		4	2	2	2
Sugar refiners.....	1	1	537	130	1,170		1				1
Total .....	104	1,916	40,486	14,025	247,076	55	15	34	23	26	51

*a* About.

*b* See prefatory note to table.

## STRIKES IN 1892, BY INDUSTRIES.

[It will be observed that the addition of the items in this table will not in all cases produce the totals given. The figures, however, are all as given in the report before referred to, the original not being accessible.]

Industry.	Strikes.	Estab- lish- ments.	Employees.			Cause or object.			Result.		
			Total.	Strik- ers.	Days lost.	For in- crease of wages or that and other de- mands.	Against reduc- tion of wages.	All other.	Suc- ceeded.	Suc- ceeded partly.	Failed.
Painters .....	1	1	9	9	9			1			1
Builders .....	6	34	2,241	2,049	19,401	5	1		2	2	2
Binders .....	4	6	749	158	1,548	2		2	2		2
Manufacturers of cardboard goods.	1	2	111	111	222			1	1		
Manufacturers of cellular linen clothing and mili- tary stocks .....	1	1	14	14	140			1			1
Turners .....	4	92	1,250	442	13,941	3		1	2	2	
Innkeepers .....	1	1	4	4	4	1					1
Glass and china manufacturers ..	5	64	2,341	2,222	62,609	3	1	1	1	2	2
Coffee sorters.....	1	1	200	200	400	1					1
Leather manufac- turers .....	1	1	180	8	8			1		1	1
Hackney coachmen Malt manufac- turers .....	1	1,200	1,200	1,200	2,400	1				1	
Metal workers .....	15	16	4,415	1,444	12,607	4	4	7	2	5	8
Millers .....	2	2	22	13	25	1		1			2
Pipemakers .....	1	1	18	11	22	1			1		
Compositors.....	1	1	4	1	4			1			1
Shoemakers .....	5	5	363	238	1,756		5		2	2	1
Trunkmakers.....	1	1	19	10	60						1
Textile manufac- turers .....	39	48	10,515	5,420	33,114	17	8	14	10	12	17
Joiners and cabi- netmakers .....	4	24	206	206	1,607	3		1	2		2

STRIKES IN 1892, BY INDUSTRIES—Concluded.

[It will be observed that the addition of the items in this table will not in all cases produce the totals given. The figures, however, are all as given in the report before referred to, the original not being accessible.]

Industry.	Strikes.	Estab-lish-ments.	Employees.		Cause or object.			Result.			
			Total.	Strik-ers.	Days lost.	For in-crease of wages or that and other de-mands.	Against reduc-tion of wages.	All other.	Suc-ceeded.	Suc-ceeded partly.	Failed.
Wheelwrights.....	1	12	30	20	400			1		1	
Manufacturers of underlinen.....	3	3	509	123	533	2	1			1	2
Water company.....	1	1	36	66	66	1					1
Match manufac-turers.....	1	1	70	14	14		1		1		
Total.....	101	1,519	24,621	14,025	150,992	α46	21	34	26	29	46

α See prefatory note to table.

The following table shows the distribution of strikes in Austria in 1891 and 1892 by districts, giving the number of strikes, establishments involved, employees, and strikers:

STRIKES IN 1891 AND 1892, BY DISTRICTS.

[It will be observed that the addition of the items in this table will not in all cases produce the totals given. The figures, however, are all as given in the report before referred to, the original not being accessible.]

District.	Strikes.		Establishments.		Employees.		Strikers.	
	1891.	1892.	1891.	1892.	1891.	1892.	1891.	1892.
Lower Austria.....	35	28	22	1,336	17,111	7,285	5,875	2,520
Upper Austria.....	3	1	3	1	60	4	59	4
Salzburg.....		1		4		19		19
Styria.....	2	3	2	3	476	18	474	16
Carinthia.....	2		2		80		36	
Carniola.....	2	2	2	2	641	410	124	260
Coast lands.....	1	3	1	9	800	1,270	30	1,270
Tyrol and Vorarlberg.....	4	1	63	1	440	46	275	44
Bohemia.....	27	35	599	127	16,852	10,740	5,023	8,004
Moravia.....	24	24	26	24	4,737	4,645	1,892	1,855
Silesia.....		1		1		66		22
Galicja.....	3	2	90	11	255	118	227	109
Bukowina.....	1		1		34		10	
Dalmatia.....								
Total.....	104	101	α1,916	1,519	α40,486	24,621	14,025	14,123

α See prefatory note to table.

## PRIVATE AND PUBLIC DEBT IN THE UNITED STATES.

BY GEORGE K. HOLMES.

There is an elaborate network of debts and credits associated with production and trade, and growing out of the numerous wants and necessities of men, to satisfy which they in many cases use borrowed or hired wealth. The manufacturer may have a mortgage on his factory and be in debt for materials, the jobber and wholesale merchant are indebted to him, while the retail merchants owe them. The retail merchants have customers who are indebted to them, and these customers are more or less creditors. It is therefore practically impossible to ascertain the true amount of the private debts of the people. The difficulty can be illustrated by the following familiar example: A owes B \$10, B owes C \$10, and C owes A the same amount; a ten-dollar bill handed by the first to the second, by the second to the third, and by the third to the first will satisfy the three debts, yet in any statistics of private debt under this illustration the total would be \$30.

In undertaking to arrive at the amount of private debt it is impossible to offset credits against debts in cases similar to the foregoing. The best that can be done is to ascertain the amounts of the various classes of debts which are offset in whole, in part, or in any, by credits and regard their sum as the minimum amount of debt, somewhere above which is the true amount.

The results of an effort to do this are presented in the accompanying statement of the minimum debt of the United States in 1890. The amounts of the funded and unfunded debt of railroad and street railway companies, and the amount of the funded debt of telephone companies are obtained from the reports of the Eleventh Census of the United States. To the reported debt of railroad companies has been added an estimate of the debt not reported. The totals for the other items in the statement have been taken from similar official or authentic reports (*a*), or are carefully prepared estimates.

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*a* Bulletins and final reports of the Eleventh Census, Poor's Manual of Railroads, the Manual of American Waterworks, reports of the Massachusetts gas and electric light commissioners, and reports of the Comptroller of the Currency.

MINIMUM DEBT OF THE UNITED STATES, 1890.

Description of debt.	Amount.	Per cent of group total.
<b>RAILROAD COMPANIES.</b>		
Funded debt reported.....	\$4,631,473,184	
Funded debt not reported (estimated in proportion to mileage).....	286,218,553	
Unfunded debt reported, not including unpaid dividends.....	707,986,820	
Unfunded debt not reported (estimated in proportion to mileage).....	48,752,557	
<b>Total</b> .....	<b>5,669,431,114</b>	
<b>STREET RAILWAY COMPANIES.</b>		
Funded debt.....	151,872,289	
Unfunded debt.....	30,368,465	
<b>Total</b> .....	<b>182,240,754</b>	
<b>Total for railroads and street railway companies</b> .....	<b>5,851,671,868</b>	
<b>QUASI PUBLIC CORPORATIONS.</b>		
Railroad companies (\$329,971,110 estimated).....	5,669,431,114	91.44
Street railway companies.....	182,240,754	2.94
Telephone companies, funded debt.....	4,992,565	.08
Telegraph companies (\$2,556,808 estimated).....	20,000,000	.32
Public water companies, not owned by municipalities (\$26,488,939 estimated).....	89,127,489	1.44
Gas companies (estimated).....	75,000,000	1.21
Electric lighting and power companies (estimated).....	45,000,000	.73
Transportation companies, not otherwise specified, and canal, turnpike, bridge, and other quasi public corporations (estimated to make round total).....	114,208,078	1.84
<b>Total</b> .....	<b>6,200,000,000</b>	<b>100.00</b>
<b>REAL ESTATE MORTGAGES.</b>		
<i>On homes occupied by owners.</i>		
In the 420 cities and towns of from 8,000 to 100,000 population.....	292,611,974	27.95
In the 28 cities of 100,000 population and over.....	393,029,833	37.54
Outside of cities and towns of 8,000 population and over.....	361,311,796	34.51
<b>Total</b> .....	<b>1,046,953,603</b>	<b>100.00</b>
<i>On farms and homes occupied by owners.</i>		
On farms.....	1,085,995,960	50.92
On homes.....	1,046,953,603	49.08
<b>Total</b> .....	<b>2,132,949,563</b>	<b>100.00</b>
<i>On acre tracts.</i>		
On farms occupied by owners.....	1,085,995,960	49.16
On hired farms and other acre tracts.....	1,123,152,471	50.84
<b>Total</b> .....	<b>2,209,148,431</b>	<b>100.00</b>
<i>On lots.</i>		
On homes occupied by owners.....	1,046,953,603	27.48
On hired homes, business real estate, and all other lots.....	2,763,577,951	72.52
<b>Total</b> .....	<b>3,810,531,554</b>	<b>100.00</b>
<i>On all real estate.</i>		
On acre tracts.....	2,209,148,431	36.70
On lots.....	3,810,531,554	63.30
<b>Total</b> .....	<b>6,019,679,985</b>	<b>100.00</b>
<b>INDIVIDUALS AND PRIVATE CORPORATIONS.</b>		
Real estate mortgages.....	6,019,679,985	50.16
Crop liens in the South (estimated).....	300,000,000	2.50
Crop liens outside of the South, and chattel mortgages (estimated).....	350,000,000	2.92
National banks, loans and overdrafts.....	1,904,167,351	15.87
Other banks, loans and overdrafts, not including real estate mortgages.....	1,172,918,415	9.77
National, state, and local taxes.....	1,040,473,013	8.67
Other net private debt (estimated to make round total).....	1,212,761,236	10.11
<b>Total</b> .....	<b>12,000,000,000</b>	<b>100.00</b>

## MINIMUM DEBT OF THE UNITED STATES, 1890—Concluded.

Description of debt.	Amount.	Per cent of group total.
<b>AGGREGATE PRIVATE DEBT.</b>		
Quasi public corporations .....	\$6,200,000,000	34.07
Individuals and private corporations .....	12,000,000,000	65.93
Total .....	18,200,000,000	100.00
<b>PUBLIC DEBT, LESS SINKING FUND.</b>		
United States .....	891,960,104	44.00
States .....	228,997,389	11.30
Counties .....	145,048,045	7.15
Municipalities .....	724,463,060	35.74
School districts .....	36,701,948	1.81
Total .....	2,027,170,546	100.00
<b>AGGREGATE PRIVATE AND PUBLIC DEBT.</b>		
Private debt .....	18,200,000,000	89.98
Public debt .....	2,027,170,546	10.02
Total .....	20,227,170,546	100.00

Some of the classes of corporations enumerated in the foregoing statement, such as transportation companies not otherwise specified, canal, turnpike, and bridge companies, do a cash business, and others a business that is so nearly for cash that there is comparatively little in amount of credits to offset against their debt. The amount of credits of such corporations is undoubtedly much more than balanced by the wages that they owe just before pay day.

Debtors who place mortgages on their real or personal estates are creditors to some extent, how far it is impossible to estimate; but these persons are not regarded as appreciably a creditor class, as they would need to be if their combined debt of \$6,669,679,985 was to be reduced much on this account. On the other hand, the borrowers from banks, not including borrowers on real estate security, may be supposed to be creditors to a considerable degree. National banks can not lend on real estate mortgages, and therefore these securities are excluded from the loans of other banks.

The public revenue, too, is derived from persons who are creditors as well as debtors, and a large portion of it, as in the case of crop liens, is not a debt that continues throughout the whole year. Notwithstanding this, it is included in the statement of debt, partly because it is a conspicuous and disagreeable debt burden and partly to account for some of the debt which can not be ascertained in its entirety.

It is believed that the total of the preceding statement expresses the minimum debt of the people of the United States in 1890. Only 12.14 per cent of it is estimated, no part of it is duplicated, and the supposition is that the accepted debt offset by credit is more than equaled by the omitted debt. In addition to showing the amounts, the statement gives the percentages that the different amounts are of the totals of the respective groups of debts. For instance, of the grand total, 89.98 per

cent is classed as private and 10.02 per cent as public debt; the real-estate mortgage debt forms 50.16 per cent of the total debt of individuals and private corporations, and the debt of railroad companies 91.44 per cent of the debt of quasi public corporations.

The relative importance of the different classes of debts is shown by the following statement, in which the various items of debt are converted into percentages of the total debt of \$20,227,170,546:

PER CENT OF EACH CLASS OF DEBT OF THE AGGREGATE DEBT, 1890.

Description of debt.	Per cent.
<b>QUASI PUBLIC CORPORATIONS.</b>	
Railroad companies (partly estimated).....	28.03
Street railway companies.....	.80
Telephone companies, funded debt.....	.03
Telegraph companies (partly estimated).....	.10
Public water companies, not owned by municipalities (partly estimated).....	.44
Gas companies (estimated).....	.87
Electric lighting and power companies (estimated).....	.22
Transportation companies, not otherwise specified, and canal, turnpike, bridge, and other quasi public corporations (estimated).....	.56
<b>Total.....</b>	<b>30.65</b>
<b>INDIVIDUALS AND PRIVATE CORPORATIONS.</b>	
Real estate mortgages.....	29.76
Crop liens in the South (estimated).....	1.48
Crop liens outside of the South, and chattel mortgages (estimated).....	1.73
National banks, loans and overdrafts.....	9.41
Other banks, loans and overdrafts, not including real estate mortgages.....	5.80
National, state, and local taxes.....	5.15
Other net private debt (estimated).....	6.00
<b>Total.....</b>	<b>59.33</b>
<b>PUBLIC DEBT, LESS SINKING FUND.</b>	
United States.....	4.41
States.....	1.13
Counties.....	.72
Municipalities.....	3.58
School districts.....	.18
<b>Total.....</b>	<b>10.02</b>
<b>Grand total.....</b>	<b>100.00</b>
Estimated.....	12.14
Statistically established.....	87.86

Of the different groups of debts that of individuals and private corporations stands first, forming 59.33 per cent of the total, while quasi public corporations form 30.65 per cent. The real-estate mortgage debt alone is 29.76 per cent of the grand total, and is followed by that of railroad companies, 28.03 per cent. Among the items of public debt that of the United States is first, and forms 4.41 per cent, while the debt of municipalities is 3.58 per cent of the total.

There is a great difference between the significance of a debt incurred to acquire the ownership of capital or the more durable property to be used productively and to be retained and used by the debtor and to be kept available for the payment on his debt, and that of a debt incurred for the purchase of property soon to be consumed unproductively or for the purchase of evanescent property. The debt of the quasi public corporations originally stood for substantially an equal amount of capital, and it stands for the same at the present time, except in the

cases of such corporations (almost entirely railroad companies) as have become bankrupt to such a degree that their property is not sufficient to pay their debts.

The statistical information concerning the purposes for which private debts were incurred is exceedingly limited, except that represented by real estate mortgages or by incumbrances on farms and homes occupied by owners, which formed the subject of special investigations at the eleventh census of the United States. The purposes for which this class of debts were incurred are condensed to eight groups, and presented in the accompanying statement. This statement not only gives the amount of the debt incurred for the different purposes, but shows the per cent that each item is of the respective totals of the three general groups of debts based on farms occupied by owners, on homes occupied by owners, and the combination, on farms and homes occupied by owners.

PURPOSES OF INCUMBRANCES ON FARMS AND HOMES.

[The debts included under this classification consist almost entirely of real estate mortgages.]

Purposes of debt.	Amount.	Per cent of group total.
<b>ON FARMS OCCUPIED BY OWNERS.</b>		
Debt incurred for—		
Purchase of real estate.....	\$699, 176, 464	64. 38
Real estate improvements.....	49, 168, 733	4. 53
Real estate purchase and improvements combined (not included in the two items next preceding).....		
Business.....	57, 689, 492	5. 31
Purchase of the more durable kinds of personal property.....	21, 139, 559	1. 95
Farm and family expenses.....	12, 904, 822	1. 19
Various combinations of purposes, not otherwise specified.....	30, 684, 018	2. 82
All other purposes.....	184, 840, 230	17. 02
	30, 392, 642	2. 80
Total.....	1, 085, 995, 960	100. 00
<b>ON HOMES OCCUPIED BY OWNERS.</b>		
Debt incurred for—		
Purchase of real estate.....	554, 334, 083	52. 95
Real estate improvements.....	229, 412, 937	21. 91
Real estate purchase and improvements combined (not included in the two items next preceding).....		
Business.....	66, 793, 837	6. 38
Purchase of the more durable kinds of personal property.....	84, 715, 323	8. 09
Family expenses.....	2, 037, 624	. 19
Various combinations of purposes, not otherwise specified.....	18, 589, 629	1. 78
All other purposes.....	64, 706, 846	6. 18
	28, 363, 324	2. 52
Total.....	1, 046, 953, 603	100. 00
<b>ON FARMS AND HOMES OCCUPIED BY OWNERS.</b>		
Debt incurred for—		
Purchase of real estate.....	1, 253, 510, 547	58. 77
Real estate improvements.....	278, 581, 670	13. 06
Real estate purchase and improvements combined (not included in the two items next preceding).....		
Business.....	124, 483, 329	5. 84
Purchase of the more durable kinds of personal property.....	105, 854, 882	4. 96
Farm and family expenses.....	14, 942, 446	. 70
Various combinations of purposes, not otherwise specified.....	49, 273, 647	2. 31
All other purposes.....	249, 547, 076	11. 70
	56, 755, 966	2. 66
Total.....	2, 132, 949, 563	100. 00

The purchase of real estate appears as the principal purpose for which debts were incurred, the total for this purpose, when not associated with any other, being 58.77 per cent of the combined debt on farms and homes occupied by owners. Real estate improvements, when not asso-

ciated with any other purpose, rank second, being 13.06 per cent of the combined debt. The details given in this statement show at a glance the different incentives for debt. By a further condensation of purposes, it appears that real estate purchase and improvements, when not associated with any other purpose, are represented by the following percentages: For farms, 74.22 per cent; for homes, 81.24 per cent; for farms and homes, 77.67 per cent. Real estate purchase and improvements, business, and the purchase of the more durable kinds of personal property are: For farms, 93.68 per cent; for homes, 95.56 per cent; for farms and homes, 94.65 per cent (*a*). Thus it appears that almost the entire incumbrance on farms and homes occupied by owners was due to the acquiring of capital and the more durable kinds of property.

The crop lien of the South was a necessity that grew out of the conditions in which the farmers found themselves at the close of the civil war. They had their farms and some mules and implements, but beyond that they were poor and could not maintain themselves, to say nothing of paying wages until the harvesting of the next crop, and the ex-slaves, perhaps hardly more than their former masters, were in need of immediate subsistence. In this strait, credit was obtained with the merchants for an advance of supplies until the harvesting of the crop, which, being mostly cotton, but partly tobacco, was as good as cash at the time of harvest. The plantations were next more or less subdivided into holdings to be cultivated by the negroes on shares. Landlords and tenants secured the merchants for advancements by crop liens and by mortgages on farm animals. That system has continued with little abatement until the present time, and the debt that accompanies it is mostly a subsistence debt, but to some extent a debt for capital. The crop liens and chattel mortgage debt of the more recently settled regions partake largely of the latter character.

The purposes of the loans obtained from banks can not be definitely described. It is a matter of common understanding that they are mostly for capital, since banks would not lend to persons, and friends would not indorse for them, if they intended to use the borrowed money so as to weaken their financial responsibility.

The tax debt aims to have for its compensation the maintenance of justice, the promotion of public works, of education, and of undertakings for the general good; and the same may be said of the public debt.

The miscellaneous undescribed debts are those that grow out of trade, production, and services of many varieties. It is impossible to say how far they stand for capital, or for wealth to be preserved or to be consumed.

After the foregoing review of the significance of the various classes of debt, it is apparent that at least about nine-tenths of it was incurred for the acquirement of capital and of the more durable kinds of prop-

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*a* These per cents do not appear in the statement, as they are partly composed of incumbrance taken from some of the "various combinations of purposes, not otherwise specified."

erty, leaving not more than one-tenth, and, as the purposes of the incumbrances on farms and homes indicate, very likely much less than one-tenth, as a consumption debt, or for debt necessitated by misfortune.

Not only is the repayment of the debt obligatory upon the debtor, but he commonly agrees to pay interest upon the loan at a certain rate. Upon the source from which he derives the wealth with which to pay interest depends the degree of "burden," if any, that it is to him. There is a difference to him whether the source is the earnings of the borrowed wealth used as capital, or the earnings of his labor, or the principal of the borrowed wealth itself. The complaint of many of the Western and Southern farmers for several years past has been that they paid interest, if at all, out of the earnings of their labor, if not out of their capital. As already shown, by far the principal portion of the debt of individuals and of private and quasi public corporations represents productive capital in their hands.

Statistics of rates of interest now available make it possible to compute, approximately, the amount of the interest paid on the public and private debt in 1890. This has been done, and the results are presented in the following statement, which shows the debt and the amount and rate of interest for the different classes of debt:

## AMOUNT AND RATE OF INTEREST, 1890.

Description of debt.	Debt.	Interest.	Rate per cent.
<b>PRIVATE DEBT.</b>			
Railroad companies, funded debt (partly estimated) .....	\$4, 917, 691, 737	a \$221, 499, 702	4.50
Street railway companies, funded debt.....	151, 872, 289	8, 945, 278	b 5.89
Telephone companies, funded debt.....	4, 992, 565	294, 082	b 5.89
Telegraph companies (partly estimated) .....	20, 000, 000	1, 178, 000	b 5.89
Public water companies, not owned by municipalities (partly estimated) .....	89, 127, 489	5, 249, 609	5.89
Gas companies (estimated) .....	75, 000, 000	4, 417, 500	b 5.89
Electric lighting and power companies (estimated) .....	45, 000, 000	2, 650, 500	b 5.89
Transportation companies, not otherwise specified, and canal, turnpike, bridge, and other quasi public corporations (estimated) .....	114, 208, 078	6, 726, 856	b 5.89
Real estate mortgages.....	6, 019, 679, 985	397, 442, 792	6.60
Crop liens in the South (estimated) .....	300, 000, 000	120, 000, 000	c 40.00
Croplands outside the South, and chattel mortgages (estimated) .....	350, 000, 000	35, 000, 000	c 10.00
National banks, loans and overdrafts .....	1, 904, 167, 351	125, 675, 045	d 6.60
Other banks, loans and overdrafts, not including real estate mortgages.....	1, 172, 918, 415	77, 412, 615	d 6.60
Three-fourths of other net private debt (estimated) (e) .....	909, 570, 927	65, 069, 965	e 7.00
<b>Total</b> .....	<b>16, 074, 228, 836</b>	<b>1, 071, 561, 924</b>	<b>6.67</b>
<b>PUBLIC DEBT.</b>			
United States .....	891, 960, 104	28, 997, 603	4.08
States .....	1, 135, 210, 442	65, 541, 776	5.29
Counties .....			
Municipalities .....			
School districts.....			
<b>Total</b> .....	<b>2, 027, 170, 546</b>	<b>94, 539, 379</b>	<b>4.85</b>
<b>PRIVATE AND PUBLIC DEBT.</b>			
Private debt.....	16, 074, 228, 836	1, 071, 561, 924	6.67
Public debt.....	2, 027, 170, 546	94, 539, 379	4.85
<b>Total</b> .....	<b>18, 101, 399, 382</b>	<b>1, 166, 101, 303</b>	<b>6.44</b>

a Actually paid and not including interest due and unpaid.

b The rate for water companies is adopted.

c Arbitrarily adopted.

d The rate for real estate mortgages is adopted.

AMOUNT AND RATE OF INTEREST, 1890—Concluded.

Description of debt.	Debt.	Interest.	Rate per cent.
REAL ESTATE MORTGAGES.			
On farms occupied by owners.....	\$1,085,995,960	\$76,728,077	7.07
On homes occupied by owners.....	1,046,953,603	65,182,029	6.23
On farms and homes occupied by owners.....	2,132,949,563	141,910,106	6.65
On homes occupied by owners in the 420 cities and towns of from 8,000 to 100,000 population.....	292,611,974	18,417,745	6.29
On homes occupied by owners in the 28 cities of 100,000 population and over.....	393,029,833	22,584,509	5.75
On homes occupied by owners outside of cities and towns of 8,000 population and over.....	361,311,796	24,179,775	6.69
On acre tracts.....	2,209,148,431	162,652,944	7.36
On lots.....	3,810,531,554	234,789,848	6.16
On all real estate.....	6,019,679,985	397,442,792	6.60

The interest on real estate mortgages is given at 6.60 per cent, which is the rate adopted for the loans of all banks. On the crop liens of the South a high average rate is paid, how high it is not known. Numerous and extensive inquiries, many of them answered by merchants and cotton buyers who hold or have held crop liens, point to the conclusion that the average rate on these liens must be as high as 40 per cent, rarely going as low as 25 per cent, and often going as high as 75 per cent and more.

From the report of the bureau of labor statistics of Illinois it appears that the average rate of interest on chattel mortgages in that state was 7.83 per cent in 1887. There is reason to believe that the rate on chattel mortgages farther west and in the South, and the crop liens west of the Mississippi River, is higher than this, and the general rate of 10 per cent is adopted for crop liens outside of the South and for chattel mortgages.

Some of the estimated "other net private debt," which has been placed at \$1,212,761,236, does not bear interest, such as the debt owing to physicians, to lawyers, for labor, and the like, and for the want of any knowledge of its proportions its amount is arbitrarily assumed to be one-fourth of the total of the class to which it belongs, and the average rate of interest on the remaining three-fourths to be 7 per cent.

The average rates of interest on the total public debt, the debt of the United States, and the local public debt are taken from the report on wealth, debt, and taxation, which forms a part of the report of the eleventh census of the United States. No attempt has been made to correct any of these rates according as the bonds of corporations, public as well as private and quasi public, have been sold above or below par, nor according as there has been default of payment, except in the latter case, for railroad companies.

The total interest-bearing private debt is \$16,074,228,836, and the total interest paid \$1,071,561,924, the average rate being 6.67 per cent, while the average rate on the debt of the United States is 4.08 per

cent, this low rate being partly determined by the debt's freedom from taxation. While the average rate on real estate mortgages is 6.60 per cent, it goes as high as 7.07 per cent on farms occupied by owners and 7.36 per cent on acre tracts.

The material is not statistically or otherwise ascertainable to determine with what ease or difficulty, as the case may be, debtors pay their debts and the interest on them. Numerous voluntary explanations bearing on this point have been made by mortgage debtors and by debtors who own their farms and homes subject to incumbrance. From these explanations it would be impossible to form any definite or tangible conclusion; they are too often doubtful, because remote and involved in political and economic theories.

Whether a ratio between the debt and the wealth possessed by the debtors indicates more than the debt's security to the creditors depends upon the earnings of the borrowed wealth, or, if it has no earnings, upon the income of the debtors.

Subject to these qualifications the accompanying statement is presented, which gives the amount of debt, the wealth, and the percentage that the debt is of the wealth. The figures given in the column headed wealth represent in some cases only the value of the property on which the debt given is a lien; in other cases they represent the value of all of the property in the class to which the debt belongs, although some of the property is not incumbered. These latter are railroad, street railway, and telephone companies, the gas companies in Massachusetts first mentioned, and taxed real estate and untaxed mines.

## PER CENT OF DEBT OF WEALTH, 1890.

Description of wealth.	Debt.	Wealth.	Per cent debt is of wealth.
Railroad companies .....	\$5,669,431,114	\$8,401,508,804	67.48
Street railway companies.....	182,240,754	283,898,519	64.19
Telephone companies.....	4,992,565	72,941,736	69.01
Gas companies in Massachusetts (a).....	6,892,329	620,322,329	33.92
Gas companies in Massachusetts owing debt (a).....	6,892,329	614,475,229	47.61
Incumbered farms occupied by owners.....	1,085,995,960	3,054,323,165	35.55
Incumbered homes occupied by owners.....	1,046,958,603	2,632,374,904	39.77
Incumbered farms and homes occupied by owners.....	2,132,949,563	5,687,298,069	37.50
Incumbered homes occupied by owners in the 420 cities and towns of from 8,000 to 100,000 population.....	292,611,974	739,846,087	39.55
Incumbered homes occupied by owners in the 28 cities of 100,000 population and over.....	393,029,833	934,191,811	42.07
Incumbered homes occupied by owners outside of cities and towns of 8,000 population and over.....	361,311,796	958,337,006	37.70
Taxed real estate and untaxed mines.....	6,019,679,985	36,025,071,490	16.71
The United States.....	20,227,170,548	65,037,091,197	31.10

a 1891.

b Capital stock and bonds.

The percentage that the debt is of the wealth with which it is compared ranges from 16.71 per cent for the taxed real estate and untaxed mines to 69.01 per cent for telephone companies. The percentage in the case of incumbered farms or homes occupied by owners ranges from 35.55 per cent on farms to 42.07 on homes in the 28 cities with a

population of 100,000 and over, the percentage of incumbrance being less on farms than on homes. The percentage on homes is highest in the cities with a population of 100,000 and over, falls to 39.55 per cent in the cities with a population of from 8,000 to 100,000, and to the lowest point, 37.70 per cent, on those homes that are outside the cities of 8,000 population and over, the percentage of incumbrance being considerably less in the rural than in the urban districts. The total private and public debt is 31.10 per cent of the wealth of the United States; this percentage measures as a minimum the extent to which the wealth of the country has passed into the possession of debtors.

The comparison between debt and wealth is continued in the next statement, which exhibits the values of various annual products and classes of property. This statement is necessarily more or less imperfect as a comparison, but it contains amounts of which it may be desired to make some use in connection with the subject under consideration.

DEBT AND ITS INTEREST COMPARED WITH VALUES, 1890.

Description.	Amount.
Private and public debt .....	\$20, 227, 170, 546
Interest paid on the private and public debt.....	1, 166, 101, 303
Product of manufactories, less cost of materials.....	4, 211, 239, 271
Product of farms .....	2, 460, 107, 454
Product of fisheries .....	44, 277, 514
Product of mines and quarries .....	587, 230, 662
Total products of productive industries .....	7, 302, 854, 901
Capital employed in manufacturing .....	6, 139, 397, 785
Value of farms .....	13, 279, 252, 649
Value of live stock on farms and ranges, farm implements, and machines.....	2, 703, 015, 040
Capital employed in the fisheries.....	45, 402, 123
Value of mines and quarries and products on hand.....	1, 291, 201, 579
Total capital invested in productive industries.....	23, 456, 559, 176
Value of farms, live stock on farms and ranges, farm implements, and machines .....	15, 982, 267, 689
Wages and salaries paid in manufacturing .....	2, 283, 216, 529
Value of machinery and mills and products on hand, raw and manufactured.....	3, 058, 593, 441
Value of telegraph and telephone property, shipping, and canals.....	701, 755, 712
Value of gold and silver coin and bullion.....	1, 158, 774, 948
Income of railroad companies.....	1, 204, 335, 951
Property insurance risks in force.....	18, 691, 434, 190
Increase of wealth, 1880 to 1890.....	21, 395, 091, 197
Increase of wealth, 1869 to 1890 .....	2, 819, 902, 791

Per capita averages based on the number of debtors convey an idea of the general level of debt among them, but when the averages are based on the total population the idea conveyed must be that of the social level of debt. The per capita, or social level of debt, is shown in the following statement for some of the principal groups of debts:

## PER CAPITA DEBT, 1890.

Description of debt.	Per capita debt.
<b>Quasi public corporations:</b>	
Railroad and street railway companies.....	93
Other quasi public corporations.....	6
<b>Total.....</b>	<b>99</b>
<b>Individuals and private corporations:</b>	
Real estate mortgages on incumbered farms, etc.....	34
Other real estate mortgages.....	62
Banks, loans and overdrafts, no <sup>t</sup> including real estate mortgages.....	49
National, state, and local taxes.....	17
Other.....	30
<b>Total.....</b>	<b>192</b>
<b>Total quasi public and private debt.....</b>	<b>291</b>
<b>Public debt.....</b>	<b>32</b>
<b>Total private and public debt.....</b>	<b>323</b>
On incumbered farms and homes occupied by owners, crop liens, chattel mortgages, taxes, and "other net private debt".....	80

The per capita private debt is \$291, public debt \$32, the total being \$323, or \$1,594 per family. Few families owe this amount; and the foregoing analysis shows the sources of the debt that contributes to most of the averages. It comes largely from the capital of railroad and other quasi public corporations, from real estate purchases and improvements, and from the loans of banks.

If to the crop liens and chattel mortgages are added the taxes, "other net private debt," and the public debt, the total will include most of the debt to which debtors are most sensitive, although some of it is capital. The total of this group of debts is \$4,930,404,795, that is, \$79 per capita, or \$388 to each family of 4.93 persons in 1890.

The reports of the eleventh census supply some averages of debt computed upon the number of debtors. Each family owning the farm it occupies under incumbrance owes an average incumbrance of \$1,224; home, \$1,293; farm or home, \$1,257; home in the 420 cities and towns of from 8,000 to 100,000 population, \$1,363; home in the 28 cities of 100,000 population and over, \$2,337; home outside of the cities and towns of 8,000 population and over, \$846. The average mortgage on acre tracts made during the ten years from 1880 to 1889, inclusive, was for \$1,032; on lots, \$1,509; on all real estate, \$1,271; on lots in the 27 counties containing the 28 cities of 100,000 population and over, \$2,798; mortgages made by quasi public corporations are not included.

To what extent real estate may be mortgaged is a matter of opinion, depending in the aggregate upon the consensus of opinion of lenders as to the degree of risk they will take. The degree of risk varies as between city and country, as between improved and unimproved real estate, and as between one region and another. The real estate mortgage debt has reached \$6,019,679,985, and the estimated true value of taxed real estate and untaxed mines with which this amount may be compared is \$36,025,071,490. The taxed real estate and untaxed mines,

valued as above, constitute the real estate upon a part of which the above-mentioned mortgage debt is an incumbrance, and include little real estate of quasi public corporations.

If it is practically possible to mortgage real estate for one-half of its value and no more, the existing mortgage debt is 33.42 per cent of the limit; if for three-fifths of its value, 27.85 per cent of the limit; if for two-thirds, 25.06 per cent of the limit.

High real estate values make possible a large mortgage debt, and as a general rule where real estate values are highly concentrated the same is true of mortgage debt. Among the 2,781 counties covered by the census investigation of mortgages there are 27 that contain the 28 cities of 100,000 population and over, and the mortgage debt on the real estate in these counties is 40.51 per cent of the entire real estate mortgage debt of the whole country. In the 338 counties containing the 448 cities and towns of 8,000 population and over the mortgage debt is 69.40 per cent of the total. There are 29 counties in each of which the mortgage debt is \$25,000,000 and over, and the total mortgage debt on the real estate in these counties is 43.34 per cent of the total for the whole country. The 76 counties each having real estate with a mortgage debt of \$10,000,000 and over, represent 55.20 per cent of the total, and the 158 counties each having an existing mortgage debt of \$5,000,000 and over 64.71 per cent of the total.

## RECENT REPORTS OF STATE BUREAUS OF LABOR STATISTICS.

In this number of the Bulletin a digest of the reports of the state bureaus of labor statistics in Connecticut, Indiana, Michigan, Minnesota, Missouri, and Wisconsin is given, and will be followed, in subsequent numbers, by similar presentations for the reports of the bureaus in other states. As far as possible quotations have been made from the results of the original investigations conducted by the different bureaus.

### CONNECTICUT.

The Tenth Annual Report of the Bureau of Labor Statistics of Connecticut for the year ending November 30, 1894, is devoted to the following subjects: Savings and loan associations, 150 pages; effects of the industrial depression, 98 pages; child labor, 27 pages; effect of reduced working time on production, 30 pages; trade and industrial education, 70 pages. The presentation under each of these heads, with the exception of the last, is the result of an original investigation into conditions prevailing in Connecticut.

**SAVINGS AND LOAN ASSOCIATIONS.**—The general plan of operation of these associations, their origin, introduction, and growth in the United States, and their present importance is discussed. The development of the associations in Connecticut is given in detail, and the statistics for the sixteen local associations in existence during the year are summarized and presented separately. The draft of a proposed law to regulate these associations in the state is given in full, with the laws of several other states on the same subject.

Some of the leading facts shown for the operations of the sixteen associations in Connecticut during 1894 are summarized as follows:

#### SAVINGS AND LOAN ASSOCIATIONS, 1894.

Assets .....	\$790,605.02
<hr/>	
Liabilities:	
Capital or share account .....	\$722,440.02
Other liabilities, including undivided profits .....	68,165.00
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Total .....	790,605.02
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**REPORTS OF STATE BUREAUS OF LABOR—CONNECTICUT. 61**

<b>Receipts:</b>	
Cash on hand at beginning of year.....	\$44, 605. 76
Cash receipts in last fiscal year, exclusive of loans repaid.....	272, 447. 58
Loans repaid.....	101, 993. 99
<b>Total</b> .....	<b>419, 047. 33</b>
<b>Disbursements:</b>	
Real-estate loans.....	\$192, 947. 68
Withdrawals.....	134, 043. 95
Expense account.....	6, 092. 64
Other disbursements, including cash on hand.....	85, 963. 06
<b>Total</b> .....	<b>419, 047. 33</b>
<b>Profits:</b>	
Net (expense of management deducted).....	\$37, 947. 77
<b>Gross profits</b> .....	<b>42, 980. 12</b>
Number of loans to pay for homes.....	59
Number of loans for other purposes.....	157
<b>Total number of loans</b> .....	<b>216</b>
Loans repaid, number.....	1, 078
Loans repaid, amount.....	\$364, 015. 18
Loans outstanding at end of last fiscal year.....	\$732, 966. 97
Number of shares outstanding at end of last fiscal year.....	20, 493
Value of shares at maturity.....	\$4, 108, 850. 00
Per cent management expenses are of receipts.....	1. 97
Per cent borrowers are of shareholders.....	22. 03
Per cent loans are of shareholders.....	28. 37
Number of shareholders at end of last fiscal year, men.....	2, 251
Number of shareholders at end of last fiscal year, women.....	568
Number of shareholders at end of last fiscal year, minors.....	169
<b>Total number of shareholders</b> .....	<b>2, 988</b>

**EFFECTS OF THE INDUSTRIAL DEPRESSION.**—The statistics presented on this subject were obtained directly from the books of 378 leading establishments, representing the principal industries in different parts of the state and giving employment to 48.17 per cent of the total number of employees in all industries, according to the United States census of 1890. As 1892 was a fairly prosperous year it was requested that the number of employees, wages paid, and hours of labor for that year be used in comparison with similar data for each month of the period of depression extending from June, 1893, to August, 1894, inclusive. The number of days entirely shut down and changes in wage rates during the period of depression were also called for. The results are given in detail for each establishment, and summarized in convenient form for the different industries. The extent of the depression is indicated by a tabular statement showing the percentages that the time, number of employees, wages, etc., are of the totals for each establishment when working under the conditions existing in 1892. The summary for all industries shows that the working time during the period of depression was about two-thirds of the full time, and the average number of employees was 84.83 per cent of the average number in 1892, while the average monthly payment in wages had decreased about 25 per cent. A large majority of the industries retained on the pay rolls a large percentage of the ordinary number of employees. The reduction made necessary by the depression was largely in the working time, and this is reflected with the nearest approach to accuracy in the lessening of the payments on account of wages. Of the larger industries woolen goods manufacture

felt most keenly the effect of the depression, the monthly wage payments being reduced to 61.34 per cent of the average in 1892. The following is a reproduction of a portion of the summary table presenting these facts:

PERIOD OF DEPRESSION, FROM JUNE, 1893, TO AUGUST, 1894, COMPARED WITH NORMAL CONDITION OF 1892.

Industry.	Per cent hours worked of full time.	Per cent average number employed of average number in 1892.	Per cent monthly average wages paid of monthly average in 1892.
Boots and shoes and leather goods.....	70.86	86.88	77.34
Brass and brass goods.....	70.19	84.39	76.27
Carriages and carriage parts.....	60.25	79.26	71.29
Cutlery and tools.....	53.10	85.16	63.87
Firearms.....	53.05	59.86	57.46
Hardware.....	63.96	80.13	75.75
Hats.....	79.74	92.42	78.56
Hosiery and knit goods.....	70.21	81.20	74.82
Machine shops.....	65.77	82.32	74.10
Manufactures of cotton goods.....	65.82	81.03	83.74
Musical instruments and parts.....	46.66	59.90	56.25
Paper boxes and envelopes.....	78.61	84.18	82.29
Paper mills.....	84.88	95.55	87.28
Printing and bookbinding.....	89.47	90.21	97.28
Rubber and elastic goods.....	82.50	92.31	80.08
Silk.....	63.59	92.50	75.42
Silver-plated ware.....	59.67	86.77	68.95
Woodworking.....	70.16	87.50	74.60
Woolen goods.....	57.77	74.56	61.34

A little more than one-half of the establishments represented reduced the rate of wages. The most common percentage of reduction was 10. In several of the industries not over one-third of the establishments reported reductions in wage rates, and in one industry, that of printing and bookbinding, no changes in wage rates were reported. Changes in the wage rates, average employees and wages, time the establishments were idle, and the production during the depression as compared with 1892, together with percentages similar to those shown in the above statement, are given in detail in the report for each of the 378 establishments, grouped under the different industries.

**CHILD LABOR.**—To show the desirability of extending the age limit from 13 to 14 years at which children could leave school and seek employment, the bureau continued the investigation of the Connecticut board of education, referred to in the report of the secretary for 1892–93. Information was obtained from the grammar schools of the state as to the average age at which pupils completed the highest grammar grade, the per cent not completing the grammar school course, the per cent leaving school upon attaining their thirteenth year, and other data on the subject. Fifty-eight of the 74 schools reporting for 1894 stated that the average age at completion was more than 14 years. In the majority of schools reporting, the percentage of children who do not complete the grammar school course exceeded 50.

The replies to the question concerning the average age at completing the grammar school course are summarized as follows:

## AGES AT COMPLETION OF GRAMMAR SCHOOL COURSE.

Average age at completion of highest grammar grade.	Schools reporting.				
	1890.	1891.	1892.	1893.	1894.
Over 12 and under 13 years.....			1		1
Over 13 and under 14 years.....	6	9	6	10	15
Over 14 and under 15 years.....	9	11	23	26	29
Over 15 years.....	11	16	17	22	29

In commenting on the results of child labor and educational laws in other states as compared with Connecticut the commissioner states: "There are employed in New York factories 15 children for each 1,000 employees, in Massachusetts 18 per 1,000, and in Connecticut 21 per 1,000." The calculations are based on the United States census of 1890. The beneficial results of extending the age limit are treated under the appropriate heads of "Strength of body and of character," "Greater skill and increased comforts," "Would not intensify competition," etc.

**EFFECT OF REDUCED WORKING TIME ON PRODUCTION.**—Information on this subject was obtained from about 100 establishments. The questions called for the effect of a decrease in working time on piece earnings and on production per employee. The answers are published in full for each establishment, by industries.

The following statement concerning establishments engaged in the manufacture of hats is illustrative of the data furnished for the different industries:

## HAT-MAKING ESTABLISHMENTS CLOSING AT NOON ON SATURDAY.

Location of establishment.	Months closed at noon Saturday.	Plan adopted in—	Reduction in weekly wages.	Effect on piece earnings.	Effect on production per employee.	Usual number of employees.
Norwalk.....	12	1890	Yes.....	None...	None(a).	200
Norwalk.....	12	1890	Yes.....	None...	None...	12
Norwalk.....	12	1890	Yes.....	None...	None...	100
Norwalk.....	12	1890	Yes.....	None...	None...	150
Norwalk.....	12	1891	Yes.....	None...	None...	60
Danbury.....	3	1891	(b)	None...	None...	10
Norwalk.....	12	1892	Yes.....	None...	None...	60
Danbury(c).....	12		Yes.....	(d)	(d)	20

a Except where machinery is used.  
b All piecework.

c Closing at 3 p. m. Saturday.  
d Proportionately less.

More than one-half of the establishments making returns reported that there had been no reduction in production following a decrease in the working hours; 31 reported a reduction in product proportionate to the reduction in working time; 7 reported a slight reduction in product; 6 did not report whether the reduction was proportionate or otherwise. The conditions prevailing in the different industries, as shown by the

answers of each establishment, are discussed in detail. The statistical presentation is preceded by a general treatise on the subject under consideration.

**TRADE AND INDUSTRIAL EDUCATION.**—This subject is treated in textual form, and covers the methods prevailing in foreign countries and in various institutions in the United States, the data being gathered largely from the Eighth Annual Report of the Commissioner of Labor of the United States.

## INDIANA.

The Fifth Biennial Report of the Department of Statistics of Indiana for the years 1893 and 1894 opens with a summary of the data concerning different industries and a reproduction of the labor laws of the state. The subjects discussed in the report are as follows: Women wage earners of Indianapolis, 108 pages; labor organizations, 57 pages; domestic labor, 57 pages; coal mining statistics, 123 pages; the iron industries, 35 pages; the wood industries, 70 pages; miscellaneous industries, 53 pages; the glass industry, 33 pages; economic, social, and census statistics, 83 pages; cereal crops and farm animals, 50 pages; railroad statistics, 31 pages.

**WOMEN WAGE EARNERS OF INDIANAPOLIS.**—The statistics relating to this subject are compiled from the reports of 500 working women in Indianapolis engaged in 20 different industries. The reports were secured by a personal canvass, a representative number being selected for each industry. The questions were designed to obtain detailed information under the following heads:

1. Origin: viz, nativity of girl and of parents, whether city or country reared, and occupation of father.
2. Personal and industrial surroundings.
3. Wages and earnings.
4. Expenses and savings.

All but 31 of the 500 girls involved were born in the United States, and 359 were born in Indiana. Eleven working girls' parents were natives to every 9 girls' parents who were foreign. Eighty-four per cent of the girls were reared in the city. Forty per cent of the girls' fathers were mechanics, 31 per cent laborers, 15 per cent tradesmen, 6 per cent professional men, and 8 per cent in miscellaneous occupations. Nine-tenths of the girls were unmarried, and 86 per cent were living at home.

The facts presented in the following statement have been selected from the tables showing statistics concerning the origin and personal and industrial surroundings of the working girls of Indianapolis:

PARENTAGE, CONJUGAL CONDITION, AND AGE OF WOMEN WAGE EARNERS, INDIANAPOLIS.

Industry or occupation.	Reared in—		Occupation of father.					Conjugal condition.			Average age.
	City.	Coun-try.	La-borer.	Me-chanic.	Trades-man.	Profes-sional man.	Mis-cella-neous.	Single.	Mar-ried.	Wid-owed.	
Bindery.....	59	1	13	28	9	7	3	53	3	4	24.4
Bookkeeping.....	9	1	.....	5	2	.....	3	10	.....	.....	24.7
Candy factory.....	10	.....	3	5	.....	.....	2	9	1	.....	22.6
Card factories.....	15	5	11	7	.....	.....	2	20	.....	.....	19.7
Carpet sewers.....	10	.....	1	4	2	.....	3	8	.....	2	32.5
Chain, etc., makers.	6	4	4	3	1	.....	2	10	.....	.....	19.8
Cotton mills.....	15	5	10	9	1	.....	1	18	1	1	20.3
Dressmaking.....	22	8	11	12	4	2	1	26	1	3	28.5
Hair dressing.....	8	2	3	6	.....	1	.....	10	.....	.....	20.9
Laundry.....	27	13	24	10	4	1	1	96	2	2	26.3
Millinery.....	26	4	6	10	6	4	4	26	3	1	25.2
Pants, shirts, etc.	39	21	30	21	6	3	.....	50	4	6	27.2
Paper box factory..	9	1	4	6	.....	.....	.....	10	.....	.....	19.9
Pork packing house	9	1	7	2	1	.....	.....	9	.....	1	26.0
Saleswomen.....	95	5	17	36	28	7	12	95	2	3	23.3
Stenographers, etc.	17	3	2	4	6	2	6	18	2	.....	21.7
Telephone.....	10	1	7	1	1	.....	.....	10	.....	.....	22.3
Tile works.....	15	5	6	12	1	.....	1	12	7	1	22.4
Tobacco factory.....	10	.....	3	7	2	.....	.....	9	1	.....	22.5
Woolen mills.....	10	.....	3	6	1	.....	.....	10	.....	.....	23.7
Total.....	421	79	157	200	75	28	40	449	27	24	a23.7

The averages obtained from some of the other important subdivisions of the inquiry are given in the following summary:

WORKING TIME, EARNINGS, AND EXPENSES OF WOMEN WAGE EARNERS, INDIANAPOLIS.

Industry or occupation.	Average—							Girls who save money.	
	Age of begin-ning work.	Hours of work.		Weeks of vaca-tion.	Unpro-ductive weeks.	Earn-ings of past year.	Expenses of past year.	Num-ber.	Average savings for year.
		Daily, except Satur-day.	Satur-day.						
Bindery.....	17.4	10.0	9.0	1.0	5.3	\$260	\$253.28	7	\$57.60
Bookkeeping.....	19.7	8.7	8.3	1.6	4.0	494	448.60	4	113.25
Candy factory.....	15.7	10.0	8.5	.8	7.0	220	215.00	1	50.00
Card factories.....	14.9	10.0	9.5	.2	12.3	169	166.50	1	25.00
Carpet sewers.....	18.5	9.5	9.2	.7	7.3	269	266.50	1	25.00
Chain, etc., makers.	17.2	10.3	8.0	.....	16.2	156	146.00	1	100.00
Cotton mills.....	14.5	10.0	9.5	1.3	8.1	201	201.00	.....	.....
Dressmaking.....	18.7	9.4	10.1	.6	9.1	255	231.78	10	69.66
Hair dressing.....	15.4	9.7	13.3	1.6	4.3	248	245.60	2	12.00
Laundry.....	16.1	10.0	8.0	1.0	5.4	300	283.00	10	67.92
Millinery.....	17.0	9.4	13.0	1.7	14.9	427	392.87	10	102.39
Pants, shirts, etc.	17.6	10.2	7.6	.2	6.9	250	230.90	13	88.15
Paper box factory..	17.3	9.5	8.3	.....	7.9	124	124.00	.....	.....
Pork packing house..	17.5	8.9	8.9	.....	11.0	190	185.00	2	25.00
Saleswomen.....	16.6	9.3	13.0	1.7	4.8	265	246.10	25	75.60
Stenographers, etc.	18.3	8.3	7.9	1.6	7.1	346	319.90	6	87.00
Telephone.....	15.8	9.0	9.0	1.8	5.3	241	223.00	4	45.00
Tile works.....	17.2	8.0	5.0	.2	5.1	158	155.50	1	25.00
Tobacco factory.....	14.9	8.2	7.6	.8	4.8	209	204.50	2	22.50
Woolen mills.....	13.8	10.0	10.0	.....	20.0	227	219.50	2	37.50
Average.....	a16.7	a9.4	a9.1	a.9	a8.3	a250	a237.97	102	a51.43

a These averages were apparently obtained by adding together the industry averages and dividing the sum by the total industries, 20, and hence take no account of the number of individuals in each industry. True averages might vary considerably from those here given.

LABOR ORGANIZATIONS.—Two forms of blanks were used in gathering the statistics of labor organizations—one contained interrogatories submitted to the secretaries of the organizations and the other inter-

rogatories to which the members were requested to furnish replies. Information was solicited concerning average wages, working hours, days employed, apprentices, dues and benefits, age, nativity, conjugal condition, number in family, number who owned homes or shares in building and loan associations, etc. Two hundred and seventeen organizations, representing 66 trades and callings, with a membership of 19,081, were reported by the secretaries. The average daily wages for the entire state was given as \$2.34, and the average working hours per day 9.7. The average daily wages for apprentices was 98 cents. The average weekly dues of labor organizations was reported as 11.3 cents. One thousand one hundred and forty-two individual members reported their average age as being 33 years and their average daily wages \$2.40. Of the number reported 895 were native born, 244 owned their homes, and 249 owned shares in building and loan associations, the shares aggregating in value \$126,621. The statistics for each organization are given in detail as reported by the secretaries and by the members. The results are summarized by cities, and it is believed the tables represent fully 90 per cent of all the labor organizations of the state.

**DOMESTIC LABOR.**—The inquiry in regard to domestic labor was designed to ascertain the actual economic condition of domestic labor in the principal cities of the state. Six hundred and thirty-eight representative reports were secured from the eight largest cities, the number for each city being in proportion to the population. Care was taken to secure the reports from different sections of the respective cities. The results are presented by totals for the different cities under the following general heads:

1. Personal condition of domestics.
2. Parents of domestics.
3. Work and wages of domestics.
4. Earnings, expenses, and savings of domestics.

The statistics are analyzed with great care and at considerable length. Only a few of the important facts can be presented here, and they may be summarized as follows:

**DOMESTIC LABOR.**

City.	Number.			Born in—		Reared in—		Read and write.	
	White.	Colored.	Total.	United States.	Foreign countries.	City or town.	Country.	Yes.	No.
Indianapolis .....	168	66	234	166	68	90	144	193	41
Evansville .....	79	23	102	95	7	33	69	92	10
Fort Wayne .....	70	.....	70	48	22	30	40	67	3
Ferre Haute .....	57	5	62	53	9	22	40	57	5
New Albany .....	31	17	48	45	3	17	31	41	7
South Bend .....	45	1	46	20	26	20	26	45	1
Richmond .....	34	6	40	35	5	24	16	37	3
Lafayette .....	36	.....	36	25	11	24	12	33	3
Total .....	520	118	638	487	151	260	378	565	73
Per cent .....	82	18	.....	76	24	40	60	89	11

DOMESTIC LABOR—Concluded.

City.	Occupation.			Average—			
	House-work.	Cook.	Other domestic work.	Age.	Earnings of past year.	Places employed in.	Saved in past year.
Indianapolis .....	120	61	53	26	\$145.77	1.8	\$23.86
Evansville .....	60	24	18	26	121.27	1.6	17.19
Fort Wayne .....	54	7	9	23	118.35	1.7	15.45
Terre Haute .....	50	8	4	26	124.40	1.9	14.45
New Albany .....	30	11	7	27	117.22	1.6	21.46
South Bend .....	38	5	3	23	145.12	1.7	27.35
Richmond .....	28	5	7	26	122.25	1.5	25.67
Lafayette .....	27	6	3	24	130.94	1.5	28.61
Total .....	407	127	104	α 25	131.97	α 1.7	α 21.75
Per cent .....	64	20	16				

α These averages were apparently obtained by adding together the city averages and dividing the sum by the total cities, 8, and hence take no account of the number of individuals in each city. True averages might vary considerably from those here given.

**COAL MINING.**—The statistics relating to coal mining, as reported by the operators of 71 coal mines in Indiana, representing an invested capital of \$1,374,440 and a yearly wage account of \$2,473,806, are shown for each mine; also individual reports for 961 miners representing 81 mines. The data were obtained by a personal canvass, “and may be said to show, not approximately, but correctly, the matters which it was designed to call out by the questions.” The questions addressed to the miners obtained informaton concerning age, social relations, nativity, hours of work, cost of and price paid for mining coal, daily wages, net earnings, etc. The presentation is a complete showing for the coal mining industries of the state.

**IRON, WOOD, GLASS, AND MISCELLANEOUS INDUSTRIES.**—The statistics of iron industries, wood industries, miscellaneous industries, and the glass industry were compiled from returns secured on a personal canvass of 375 establishments, 101 of which were engaged in various iron industries, exclusive of blacksmith and repair shops, 163 in the manufacture of articles in which wood is the exclusive or chief material, 45 in the manufacture of glass, and 66 in miscellaneous industries. The establishments report the employment of 40,253 hands, and of this number individual reports were secured from 2,423, distributed as follows: 577 in the iron, 1,035 in the wood, 134 in the glass, and 677 in the miscellaneous industries. The reports of the proprietors and of the employees, respectively, are published in detail by cities, industries, and occupations.

The proprietors' reports furnish data as to capital, cost of materials, value of products, working time, number of employees, total wages, highest and lowest daily wages, and average wages of boys and of women and girls; also as to strikes and increase or decrease in wages.

The following statements show the totals for the different groups of industries under the principal heads of this branch of the inquiry:

## VALUE OF PRODUCTS, WAGES, ETC., IN VARIOUS INDUSTRIES.

Industry.	Estab-lish-ments.	Buildings, grounds, and machinery.	Cost of materials.	Value of products	Total wages.
Iron.....	101	\$5,830,231	\$9,146,897	\$18,069,340	\$4,174,891
Wood.....	163	4,615,430	9,994,589	18,403,267	4,900,008
Glass.....	45	4,987,635	1,865,805	6,493,518	2,950,758
Miscellaneous.....	66	4,358,993	15,816,082	21,009,450	2,459,808
Total.....	375	19,792,289	36,823,373	63,975,575	14,485,465

## AVERAGE DAILY WAGES IN VARIOUS INDUSTRIES.

Industry.	Employees.			Average daily wages.					
	Men.	Boys.	Women and girls.	Boys.	Women and girls.	Skilled labor.		Unskilled labor.	
						Highest.	Lowest.	Highest.	Lowest.
Iron.....	10,514	1,250	146	\$0.74	\$1.04	\$3.75	\$1.92	\$1.50	\$1.13
Wood.....	11,398	1,842	310	.71	.90	2.85	1.72	1.48	1.11
Glass.....	5,163	1,536	195	.82	.67	9.48	3.34	1.99	1.26
Miscellaneous.....	4,035	466	3,403	.79	.88	3.20	1.82	1.45	.91
Total.....	31,105	5,094	4,054	.....	.....	.....	.....	.....	.....

The employees' statements contain data as to age, apprenticeship, number of years engaged in present occupation, working time, highest, lowest, and average wages, social condition, income, expenses, etc., for the different classes of employees in each industry treated.

The principal facts reported by the employees are summarized as follows:

## CONDITION, EARNINGS, ETC., OF EMPLOYEES IN VARIOUS INDUSTRIES.

Industries.	Employees.					Average.					Savings.		
	Number reporting.	Mar-ried.	Sin-gle.	Own-ing homes.	Rent-ing.	Wages.			Hours per day.	Days per year.	An-nual in-come.	Em-ploy-ees who saved.	Total savings for year.
						Highest.	Low-est.	Aver-age.					
Iron.....	577	468	109	223	232	\$2.65	\$2.26	\$2.45	9.1	257	\$610	168	\$24,164
Wood.....	1,035	774	261	356	397	2.15	1.93	2.03	9	274	558	199	22,621
Glass.....	134	108	26	22	85	4.80	4.08	4.41	8.4	212	1,022	83	11,345
Miscellaneous.....	677	255	422	76	161	1.86	1.44	1.59	10	259	448	61	8,459
Total....	2,423	1,605	818	677	875	.....	.....	.....	.....	.....	.....	511	66,589

ECONOMIC, SOCIAL, AND CENSUS STATISTICS.—Under this caption are presented county, city, and town indebtedness and expenses, also real estate transfers, mortgages, and satisfactions recorded in the several counties of the state. These tables show also the number and condition of inmates of asylums, number of divorces, with the causes of complaint, number of persons naturalized, and number of jail incarcerations. Some of the results of the Eleventh Census of the United States are reproduced.

**CEREAL CROPS AND FARM ANIMALS.**—The figures and analysis given relating to cereal crops and farm animals constitute a full presentation of the agricultural industries of the state, by county and by state totals.

**RAILROADS.**—The statistics relating to railroads show in the usual form the totals for 31 roads that were in operation in the state in 1893 and 25 in 1894, some companies not furnishing their reports for 1894 in time to be included.

### MICHIGAN.

The Twelfth Annual Report of the Bureau of Labor and Industrial Statistics of Michigan, for the year ending February 1, 1895, presents the results of investigations into the following subjects: Farm laborers, male, 236 pages; domestic labor, female, 101 pages; statistics from farm proprietors, 109 pages; miscellaneous agricultural statistics, 55 pages; strikes, 21 pages; prisons and prison labor, 4 pages.

**FARM AND DOMESTIC LABOR.**—The statistics presented under the titles of "Male farm laborers" and "Female domestic labor" are the results obtained from reports made by 5,600 male farm laborers and 2,300 female domestic laborers. The data were collected by the enumerators while engaged in taking the state census. The schedules contained numerous questions as to nationality, age, working time, wages, extras, increase or decrease in wages during given periods, effect of immigration on occupation, etc., as well as questions concerning social conditions. Some of the important results of both investigations are combined in the following summary:

#### LABORERS ON FARMS AND DOMESTIC SERVANTS.

Items.	Male farm laborers.	Female domestics.
Total number considered.....	5,600	2,300
Americans.....	3,219	1,431
Germans.....	726	312
All other nationalities.....	1,655	557
Average monthly wages.....	\$17.84	.....
Average weekly wages.....	.....	\$1.85
Average daily wages.....	\$0.92	\$0.59
Total earnings past year.....	\$1,018,388	\$168,464
Average yearly earnings.....	\$181.85	\$73.24
Amount of money saved past year.....	\$198,891	\$34,528
Average amount for those who saved.....	\$77.67	\$34.80
Number reporting increase in wages past five years.....	335	324
Number reporting decrease in wages past five years.....	3,395	675
Number who say times better than five years ago.....	146	177
Number who say times worse than five years ago.....	4,542	1,367
Number who say immigration injures their occupation.....	3,486	834
Average daily wages of foreigners in native land.....	\$0.557	\$0.25
Number of foreigners who say conditions for saving money are better than in native land.....	1,099	348

In some of the returns answers were not given to all the questions. It therefore does not follow that the difference between the number given for any particular item in the above summary and the total number considered represents the number reporting the reverse from what is shown. The report presents the statistics in detail for each laborer, male and female, from whom returns were received.

STATISTICS FROM FARM PROPRIETORS.—These facts were furnished by 935 farmers in Michigan. The effort was made to obtain reports from a reasonable number in each county, that the showing might be general for the state. The inquiries not only covered the question of wages and the condition of wage workers on farms, but also questions pertaining to the staple products of the farms. The average yield and cost of production of leading crops are shown. The number of farmers reporting profit and no profit in stock raising, in dairying, and in poultry raising is also given.

The details shown by the tables are numerous and worthy of careful study, but only a few of the many important results can be stated. The average number of years in which those reporting had been engaged in farming was 25.7. Four hundred and fifty-four employed female help, the average weekly wages for such labor being \$1.94. The average monthly wages for males was \$18.85. Adding the value of extras, such as fuel, pasture for cow, house rent, etc., made the average daily wages paid male farm laborers for the entire state over \$1. The average yield and the average cost of raising per acre, including interest on value of land, is shown for a number of farm products, the results being summarized as follows:

AVERAGE YIELD AND COST PER ACRE OF RAISING CERTAIN FARM PRODUCTS.

Product.	Yield per acre.		Cost of raising per acre.	
	Farmers reporting	Average (bushels).	Farmers reporting.	Average.
Wheat.....	859	18.8	737	\$9.78
Corn.....	849	57.4	696	10.35
Oats.....	964	35.1	692	7.74
Barley.....	161	28.5	167	7.84
Potatoes.....	763	107.9	558	14.84
Beans.....	254	16.1	237	8.42
Peas.....	239	16.4	189	7.71
Clover seed.....	268	2.2	214	4.90
Hay.....	881	a 1.4	688	5.42
Mint.....	13	b 18.3	11	15.16

a Tons.

b Pounds.

About 56 per cent of the farmers reporting are satisfied that there is a profit in dairying, less than 37 per cent that there is a profit in fattening cattle for market, and only 15 per cent that there is a profit in raising horses for sale. Two-thirds of those canvassed say there is a profit in raising poultry for market, and 82 per cent that there is profit in fattening hogs for market. Six hundred and thirty-four of the 935 reporting say there is profit in farming, 162 say there is no profit, and 139 do not answer the question.

These statistics are followed by general remarks from a number of leading farmers in different sections of the state on methods, profits, and the desirability of farming as an industry.

MISCELLANEOUS AGRICULTURAL STATISTICS.—The presentations under the head of miscellaneous agricultural statistics are compilations

from the United States census of 1890 and the state census of 1894. They show the size and value of farms with the value and quantity of farm products, by counties and by townships.

**STRIKES.**—Each strike that occurred in the state during 1894 is described, and is followed by general information concerning some of the large strikes that occurred elsewhere.

**PRISONS AND PRISON LABOR.**—The number of inmates in the state prison and in the different houses of correction during 1894 is given. The number engaged on contract work, with the average price per day for their work, is shown; also the number engaged on state work.

## MINNESOTA.

The Fourth Biennial Report of the Bureau of Labor of Minnesota is for the years 1893 and 1894. In the introduction to the report the law approved April 19, 1893, changing the name of the office from the Bureau of Labor Statistics to the Bureau of Labor, is quoted, and the general work of the bureau outlined. The contents of the report are as follows: Chattel mortgages and pawnbrokers' loans, 43 pages; agricultural statistics, 66 pages; the apprentice system, 257 pages; mortgage statistics, 164 pages; factory inspection, 125 pages.

**CHATTEL MORTGAGES AND PAWNBROKERS' LOANS.**—The statistical information presented under this title is the result of an examination of the contracts, leases, mortgages, and other instruments, having the force of chattel mortgages, filed at the city clerk's office of Minneapolis during the year 1893. For the pawnbrokerage business of the city during the same year the data were obtained from the returns made to the chief of police.

The instruments classified as chattel mortgages are divided into two general classes—the first including those executed to secure the cost price of goods purchased and the second those executed to guarantee the repayment of borrowed money. Some of the principal facts concerning the first class are summarized as follows:

INTEREST ON CHATTEL MORTGAGES, MINNEAPOLIS, 1893.

Interest or credit charge.	Number of instruments.	Goods purchased.					
		Household goods.	Musical instruments.	Carriages, wagons, live stock, etc.	Merchandise.	Farm machinery.	Miscellaneous.
Six per cent per annum .....	20	.....	7	.....	2	.....	11
Seven per cent per annum ...	100	5	76	2	1	1	15
Eight per cent per annum .....	842	13	763	4	6	.....	56
Ten per cent per annum .....	842	781	23	15	2	.....	21
No interest charged .....	3,591	2,888	124	20	68	3	488
Five per cent addition .....	5,540	5,540	.....	.....	.....	.....	.....
<b>Total.....</b>	<b>10,935</b>	<b>9,227</b>	<b>993</b>	<b>41</b>	<b>79</b>	<b>4</b>	<b>591</b>

The number of instruments under the head of "no interest charged" is slightly greater than it actually should be by the inclusion of a few for which the record contained no information as to the interest charged.

Household goods and musical instruments taken together make up about 93 per cent of the sales where chattel mortgages were executed to secure the cost price of the articles purchased. The selling price of the goods purchased by residents of Minneapolis, on the chattel mortgage system, during the year 1893 amounted to \$772,537.36. The instruments making the record of these sales show a cash payment at the time of purchase of \$110,827.90, leaving a debt of \$661,709.46. The average duration of the credit was 5.35 months. These amounts do not include sales for cash or unsecured credit, nor for secured credit to parties residing outside of the city limits.

The chattel mortgages given to secure the repayment of borrowed money are also divided into two classes—those at legal and those at usurious and extortionate rates of interest. The division, however, can only be made approximately. Of chattel mortgages made to secure loans and not known to be extortionate in their interest charges there were 2,171 in 1893, representing an indebtedness of \$515,845.06, the average for each mortgage being \$237.61, with a duration of 5.36 months. It is believed, however, that some 500 of these loans were at usurious interest, which would reduce the number at strictly legal interest to 1,671, representing a mortgage debt of \$495,600.06, the average of the loans being \$296.59, and the life of the mortgage 5.75 months.

There were 2,211 usurious loans reported for the year, the face of the mortgage debt amounting to \$89,310.02, on which the borrowers probably realized about \$80,000 in cash. The borrowers giving these mortgages, so far as could be ascertained, always executed liens for sums about 10 per cent greater than the loans secured by them. The average debt for these loans was \$40.49, hence the average loan or money obtained was, approximately, \$36. Two-thirds of these loans were secured on household goods. Selecting 95 typical usurious loans, the rate of interest was found, upon inquiry of the borrowers, to range from 41 to 480 per cent per annum. Including the loans classed as legal, but probably usurious, there were, approximately, 2,700 usurious loans in the city during the period covered, representing \$110,000, upon which the borrowers obtained less than \$100,000 in cash.

There were twenty-five licensed pawnbrokers doing business in Minneapolis in 1893, who paid as license fees \$2,458.34. Twenty-three thousand and ninety loans were reported by these brokers, the total amount borrowed being \$142,248.12, and the average for each pledge \$6.16. There were 5,425 purchases reported by pawnbrokers, the total amount paid therefor being \$15,055.19.

The statistics of chattel mortgages and pawnbrokers' loans are presented in detail and accompanied by an extended textual discussion, in which various loan institutions in the United States and in foreign countries, established primarily for the relief of the poor, are described.

**AGRICULTURAL STATISTICS.**—This is the result of an inquiry started in the summer of 1893 and designed to ascertain something of the actual and relative prosperity, the elements of success, and the causes of failure among the farmers of the state. The data were obtained by agents of the bureau, who secured reports from 1,555 farm owners and 243 farm tenants. In securing these reports counties and townships were selected that were supposed to be representative of the entire state. All the farms in each township selected were visited, and so far as possible returns were secured from each. The following summaries indicate the character of some of the principal branches of the inquiry and the results obtained:

**VALUE OF AGRICULTURAL PROPERTY.**

State or country of birth.	Farmers.	Tenants.	Years' farming in Minnesota.		Value of possessions at beginning.		Value of present possessions.	
			Farmers.	Tenants.	Farmers.	Tenants.	Farmers.	Tenants.
Minnesota .....	144	39	1,725	382	\$196,305	\$10,755	\$793,466	\$43,860
United States .....	377	78	6,950	740	437,707	26,440	2,891,937	119,504
Germany .....	317	49	6,157	307	266,930	15,525	1,843,318	67,690
Great Britain .....	95	5	2,289	63	72,100	1,050	615,234	3,906
Scandinavia .....	464	58	6,900	518	142,486	17,375	1,630,047	55,313
Bohemia .....	94	7	1,576	33	71,060	1,000	338,096	5,752
British Possessions .....	47	6	1,044	25	48,700	850	274,898	6,091
Other countries .....	17	1	382	8	3,610	.....	62,708	2,722
<b>Total .....</b>	<b>1,555</b>	<b>243</b>	<b>27,083</b>	<b>2,076</b>	<b>1,239,498</b>	<b>72,995</b>	<b>8,449,704</b>	<b>304,838</b>
<b>Averages .....</b>			<b>17</b>	<b>9</b>	<b>797</b>	<b>300</b>	<b>5,434</b>	<b>1,254</b>

**INDEBTEDNESS OF FARMERS AND AGRICULTURAL TENANTS.**

State or country of birth.	Amount of indebtedness.		Net possessions.	
	Farmers.	Tenants.	Farmers.	Tenants.
Minnesota .....	\$103,237	\$5,560	\$690,229	\$38,300
United States .....	311,997	17,016	2,579,940	102,488
Germany .....	166,818	9,784	1,676,500	57,906
Great Britain .....	53,224	600	562,010	3,306
Scandinavia .....	284,922	14,255	1,345,125	41,058
Bohemia .....	60,691	2,295	277,405	3,457
British Possessions .....	23,965	1,500	250,933	4,591
Other countries .....	3,900	.....	58,808	2,722
<b>Total .....</b>	<b>1,008,754</b>	<b>51,010</b>	<b>7,440,950</b>	<b>253,828</b>
<b>Averages .....</b>	<b>649</b>	<b>210</b>	<b>4,785</b>	<b>1,045</b>

The information contained in each of the 1,798 reports is shown in detail, including the several items constituting the total value of present possessions given in the above statement. The results are summarized and the averages shown by counties and by nationalities. The following statements are taken from the comments on the figures:

The possession of a sufficient amount of capital at the outset is the most potent single factor in the accumulation of farm wealth.

Of the 1,798 farmers visited, 17, or less than 1 per cent, had, by reason of debts and insufficient capital, dropped back from farm ownership to tenancy, while 235 had risen from tenancy to farm ownership after an average life as tenant of four years.

A little less than one-half of the tenants visited had such a small amount of capital that they rented farms for one-half of the produce, the landlord furnishing live stock, farm implements, and seed, or a large proportion thereof.

Thirty-one of the 1,555 owners, at some time in their lives, had lost a farm by mortgage foreclosure, but were able in a short time to retrieve their fortunes and regain their earlier place as farm owners.

The American-born farmer is seen to succeed considerably better than any body of newcomers from Europe.

**THE APPRENTICE SYSTEM.**—The treatment of the subject of the apprentice system is almost entirely textual. The history of the apprentice system is traced from its origin in the ancient craft or trade guilds of the Middle Ages. The relation between apprenticeship and strikes is treated at considerable length. The statistics of strikes involving the apprentice question, as published for Great Britain, the United States, and the state of New York, are reproduced to show the extent of the disturbances into which it enters as a factor. While in all three reports the apprentice question is shown to have been the source of some trouble, only a very small proportion of the industries have any serious trouble over it.

In order to secure as much information as possible in regard to the relation between apprenticeship and trade unions, and especially to ascertain whether the unions were controlled by the foreign-born population and whether the American boys were discriminated against in securing membership, the bureau obtained from members of trade unions in the state statements showing for each workman his birth-place, where he learned his trade, the years served as apprentice, and kindred information. Returns were received from 1,985 workmen, and of this number 58.54 per cent were born in the United States and 41.46 per cent were foreign born. On the other hand returns from 133,762 males of voting age in the state showed that only 38 per cent were native born. In other words, the percentage of native born workmen in the trade unions, or 58.54 per cent, was 1.5 times as great as the percentage of native born in the voting population, or 38 per cent. There were 1,624 members of the trade unions, or 81.86 per cent, who acquired their trade in the United States, while only 361, or 18.14 per cent, acquired their trade in foreign lands.

The attitude of a number of national and international labor organizations toward apprentices and cheap labor is discussed. The rules and regulations of the several organizations on this subject are quoted, and in those unions where the membership is composed largely of foreign-trained craftsmen facts are presented showing the cause or reason for the same. Where the unions are known to have had strikes in recent years relating to the employment of apprentices, all available facts relating to the dispute are presented. The actions of several associations of employers on the apprentice question are referred to, particular attention being given to the attitude of the National Association of Builders of the United States of America on this subject.

The last 11 pages of the discussion of the apprentice system consist of a summary in which the history of the system and its present status in the industries and trade unions of the United States is given in concise statements.

**MORTGAGE STATISTICS.**—The different sections of this subject are treated under the following heads: First, real estate mortgage indebtedness; second, mortgage foreclosures; third, redemptions of mortgage foreclosures. Under the first head are shown data relating to the mortgages placed on record, the amount of taxable land as reported by the state auditor, and the general agricultural statistics gathered by the United States census, and comparisons between the same and deductions therefrom. These statistics, as a rule, cover the period from 1880 to 1889, but for eight typical counties the bureau secured and presents statistics of mortgages and taxable land for each year from 1859 to 1893. All of the statistics presented under this general head of mortgages were gathered with the thought that possibly such information would throw new light upon the true relation of mortgage debt to the development and financial prosperity of the average Western community, agricultural or urban. In addition to statistical tables presenting the data of mortgages, agriculture, and taxable property by counties and groups of counties, the report contains graphic tables showing the leading facts for the different branches of the investigation. In the discussion of the figures the increase or decrease of the actual or relative mortgage debt in the different counties is traced, and careful explanation given of the various causes controlling the results shown.

The amount of mortgages placed on record in Minnesota and the acres mortgaged increased relatively, as well as actually, with some irregularity, from 1861 until about 1880. Since that date it has relatively continuously, though irregularly, decreased. In 1893 there was relatively 1 acre of farm land mortgaged for every 2.2 acres thus mortgaged in 1880, and there was \$1 of incumbrance on such farms for every \$1.80 of such incumbrance in the earlier year. While there had been this relative decrease of farm mortgages there had been a slight increase in the total actual amount of outstanding mortgage debt. But the farm debt of 1893 was, if any larger than that of 1880, increased by an amount so slight that such addition could not have exceeded 1 per cent of the property accumulated by the farmers of Minnesota and added to their former possessions between 1880 and 1893. The statistics relating to mortgage foreclosures are contained in five tables, which give the number, amount, and acreage of foreclosures by counties and groups of counties for each year during the period from 1880 to 1893, and for eight typical counties from 1859 to 1893, with percentages of taxable land sold on foreclosure and of mortgaged acres foreclosed.

The percentage of foreclosures of the mortgages executed and the general movement of foreclosure in city and agricultural property are

treated separately. The discussion shows the salient changes in the condition of agriculture and the causes affecting wheat prices and farm prosperity and the foreclosure of farm mortgages in the past thirty-five years in Minnesota.

The following extracts are selected from a list of fifteen conclusions reached after a careful analysis of the figures:

When the foreclosures of one year are compared with the mortgages recorded four years before [four years being the life of the average mortgage], it is found that the foreclosures on farm and acre property in the agricultural counties of the state in 1892 and 1893 were relatively 40 to 50 per cent smaller in number and in acres and amounts involved than in 1884 and 1885.

Between the years 1880 and 1881 and the years 1892 and 1893 the foreclosures on acre property so decreased that relatively only one farm was sold in the latter years by foreclosure where three farms were sold in the earlier, and that one acre of land was foreclosed where two had formerly been, and that the amounts of foreclosure sales had declined so, relatively, that only \$1 of such sales is now occurring where in 1880 there were \$4 of the same.

The foreclosures of 1892 and 1893 were relatively only one-fifth as numerous as twenty-four years before, in 1869 and 1870. The acres sold were only one-fourth and the amounts involved one-fifth as great in the latter as in the earlier years.

In the history of the state there can be traced two sources of mortgage foreclosure: One arises from the imperfection of the farm owner, that which is due to his lack of experience, his shiftlessness and want of character, or knowledge, or energy; the other is crop failures and varying prices for wheat.

In thirty-five years the rates of interest for farm loans have decreased from the prevailing rate of from 3 to 10 per cent a month in Mower County in 1859 and 1860 to an average of not far from 8 per cent annum in 1893.

Crop failures by the introduction of diversified farming have ceased to be as great a possible factor for evil as between 1876 and 1881. Wheat prices as a special disturbing factor are becoming of less and less importance with the passage of years.

The data relating to the redemptions of mortgage foreclosures are not considered as complete or perfect. The redemptions for which statistics were secured include only those transactions whereby the original owner recovered possession by means of a legal instrument, placed upon record, usually designated a redemption. Many owners whose lands had been sold under foreclosure proceedings, instead of securing a redemption, obtained a quitclaim deed of the land. These redemptions by quitclaim deeds make up at least one-third of the total redemptions of the state, and in some counties one-half.

The statistics are presented only by groups of counties, and cover the period from 1880 to 1893, and for a group of eight typical counties from 1859 to 1893. From the textual consideration of the subject are taken the following extracts:

In the state as a whole there is an increase in the foreclosures on acres, but a greater one in redemptions. The reverse is the case with

lots, and shows that the financial condition of the farmers and owners of acre property has increased more than their debts, while the opposite is the case with the owners of other real estate.

In the sixty-five agricultural counties of the state there were in 1880 and 1881 for every 100 foreclosures on acre property 16 redemptions, while in 1892 and 1893 there were 22.6. In the earlier years there were for every \$100 of foreclosures \$12.03 of redemptions, while in the latter years there were \$16.21.

Comparing all foreclosures and redemptions in the city counties it is found that in 1880 and 1881 there were for every 100 foreclosures 33.3 redemptions, while in 1892 and 1893 there were only 6.4, or only one-sixth as many. In 1880 and 1881 for every \$100 of foreclosures on property in city counties there were \$20.84 of redemptions, while in 1892 and 1893 there were only \$5.53, or barely one-fourth as much.

Making allowance for the redemptions by quitclaim deeds in Minnesota [for which no data were secured] it becomes apparent that from one-fourth to one-third of all farm mortgages foreclosed in the state during the last few years were, or will be, redeemed by the owners of the farms.

**FACTORY INSPECTION.**—This subject constitutes Part II of the report of the bureau. Guards for dangerous machinery is the first subject treated, the discussion containing 16 illustrations of various machines to which different forms of guards have been attached. The statistics of accidents in the factories and mines of the state show the character of the machine on which the accident happened, or the cause of the same, and the character of the injury. There were 631 accidents reported between April 1, 1893, and December 31, 1894. Forty-three of these were reported by mines and 588 by factories.

The laws of the state regulating the employment of women and children, and various laws bearing on labor and labor organizations, are quoted and amendments recommended.

The condition of guards for switch rails, guard rails, and frogs in 1893 and 1894 on the various railroads in the state is shown.

Between May 1, 1893, and December 31, 1894, the inspectors visited 1,388 different factories and mills in the state. At the time of the first inspection in 1893 these establishments employed 38,866 operatives, of whom 34,436 were males and 4,430 females. The name and address, facts concerning employees and wages, and the various changes in the buildings and machinery ordered by the inspectors are given for each factory inspected. The detail tables are summarized according to the character of the changes ordered and by industries.

## MISSOURI.

The Sixteenth Annual Report of the Bureau of Labor Statistics and Inspection of Missouri is for the year ending November 5, 1894. The first pages of this report contain a discussion of existing conditions and tendencies of the times, and a synopsis of the current work of other labor bureaus. The substance of the report is divided as follows: Earnings of employees in lead mines, 33 pages; statistics of

manufactures, 149 pages; factory inspection, 35 pages; crimes and costs, 125 pages; building and loan associations, 138 pages; strikes, 19 pages.

**EARNINGS OF EMPLOYEES IN LEAD MINES.**—Under this subject reports for 1,281 employees in three representative lead mines in different sections of the state, concerning the number of working days, days actually worked, and actual and average earnings are given in detail for each employee. The results are summarized as follows:

TIME AND EARNINGS OF EMPLOYEES OF LEAD MINES, 1893.

Items.	Total.	Name of company.		
		Doe Run.	Center Creek.	Victor.
Total number of men employed.....	1, 281	709	161	411
Number of men required to have done the work if each man had worked each working day in the year.....	318+	206	71+	40+
Per cent of days worked of working days in period.....	79+	79. 73	82+	73+
Average daily wages for days worked in period.....	\$1. 60	\$1. 49	\$1. 82	\$1. 76
Average daily wages for working days in period.....	\$1. 27	\$1. 19	\$1. 51	\$1. 29
Average earnings for each man.....	\$123. 41	\$129. 23	\$251. 72	\$53. 41
Average number of days each man worked.....	77 —	90. 50+	137	50+
Average number of working days to each man.....	97 —	113. 73+	166	41+
What the average annual earnings would have been if each man had worked every working day in period at the average rate of daily wages for days worked.....	\$497+	\$440. 20	\$564. 20	\$545. 60

**STATISTICS OF MANUFACTURES.**—The statistics of manufactures collected by the bureau are preceded by a reproduction and discussion of the results of the United States census. The bureau secured reports from 757 private firms and 716 corporations. The number of male and female partners and stockholders, aggregate and average values of capital, stock used, wages, goods made, and proportion of business done are shown by industries, the summary for all industries being as follows:

MANUFACTURING INDUSTRIES, 1893.

<b>Establishments reporting:</b>	
Number of private firms.....	757
Number of corporations.....	716
<b>Total.....</b>	<b>1, 473</b>
<b>Number of partners:</b>	
Males.....	1, 062
Females.....	21
<b>Total.....</b>	<b>1 083</b>
<b>Number of stockholders:</b>	
Males.....	• 325
Females.....	8.5
Banks, trustees, etc.....	16"
<b>Total.....</b>	<b>7, 307</b>
<b>Amount of capital invested.....</b>	<b>\$101, 457, 303</b>
<b>Stock of material used.....</b>	<b>\$82, 095, 133</b>
<b>Other supplies.....</b>	<b>\$11, 481, 109</b>
<b>Total.....</b>	<b>\$93, 576, 242</b>
<b>Wages.....</b>	<b>\$25, 840, 921</b>
<b>Value of goods made and work.....</b>	<b>\$153, 896, 260</b>
<b>Average proportion of business, per cent.....</b>	<b>67</b>
<b>Average number of days in operation.....</b>	<b>274</b>

The report also shows, by industries, the smallest, greatest, and average number of employees; also the number of male and female employees, respectively, engaged during each month, and the number at specified weekly rates of wages. The summary under the last-named classification for the 1,473 establishments is as follows:

CLASSIFIED WEEKLY WAGES IN 1,473 MANUFACTURING ESTABLISHMENTS, 1893.

Weekly wages.	Males.	Females.	Total.
Under \$5.....	4,594	4,088	8,682
\$5 and under \$6.....	1,677	2,515	4,192
\$6 and under \$7.....	2,515	1,934	4,449
\$7 and under \$8.....	3,790	918	4,708
\$8 and under \$9.....	4,354	580	4,934
\$9 and under \$10.....	8,962	314	9,276
\$10 and under \$12.....	6,343	167	6,510
\$12 and under \$15.....	8,494	196	8,690
\$15 and under \$20.....	5,775	101	5,876
\$20 and over.....	1,760	4	1,764
Total.....	48,264	10,817	59,081

**FACTORY INSPECTION.**—In the part of the report relating to this subject a synopsis of the orders issued by the inspectors, and the compliance or noncompliance, is given; also the names and addresses of the factories. The approximate number of employees in the different industries in Saint Louis, their condition, surroundings, and wages are shown in connection with the results of the inspection in the other principal cities of the state.

**CRIMES AND COSTS.**—Under the head of crimes and costs the character of the misdemeanors and felonies, the number of cases in each class, with the number of convictions and acquittals, also the amount of the costs paid by the state and counties, are shown for each county and class of crime. The statistics are preceded by an extended analytical text explaining the figures and making useful deductions. The totals for the state show 10,780 cases (not persons) of misdemeanor during the year, for which the counties paid costs amounting to \$245,941.59. There were 3,291 cases of felony, in which the costs amounted to \$286,104.89, the average cost for each case reported being \$86.93, as compared with \$22.81 for each case of misdemeanor. In addition to the items mentioned, the tables show, by counties, for each day of 1893 the number of persons delivered to the penitentiary, their color, age, nativity, occupation, sex, conjugal condition, and term of sentence.

**BUILDING AND LOAN ASSOCIATIONS.**—The statistics of building and loan associations are shown in detail for each association, the results being presented in eight tables: No. 1, showing assets; No. 2, liabilities; No. 3, receipts; No. 4, disbursements; No. 5, gross profits; No. 6, net profits; No. 7, authorized capital, par value of shares, membership fee, plan, premium, and rates of premium; No. 8, record of shares, record of shareholders, homes paid for, and homes partially paid for. The laws of other states and the different plans of conducting associations are discussed.

The building and loan associations in the city of Saint Louis are treated separately from those in the state exclusive of the city, and the totals combined. Three hundred and fifty-five active associations are given for the year 1894, reports being received from 314, while 41 known to be in existence failed to make reports. One hundred and eighty-nine of the associations were in the city of Saint Louis and 166 in the state outside of the city. Three hundred and seventy-six associations were reported for the state in 1893; 21 others had been incorporated in 1893 making the total number of associations having a nominal existence 397. If to the number 355, supposed to be active in 1894, be added those in liquidation and chartered in 1894 previous to July 1, the total number will be about the same as 1893. Some of the totals shown for all associations for 1894 are summarized as follows:

## BUILDING AND LOAN ASSOCIATIONS, 1894.

Items.	Saint Louis.	State, exclusive of Saint Louis.	Total.
<b>Assets</b> .....	\$22,303,446.15	\$11,101,149.88	\$33,404,596.03
<b>Liabilities:</b>			
Value of shares outstanding, including gain.....	\$17,995,099.59	\$9,136,053.10	\$27,131,152.69
Other liabilities, including undivided profits.....	4,308,346.56	1,965,096.78	6,273,443.34
<b>Total</b> .....	22,303,446.15	11,101,149.88	33,404,596.03
<b>Receipts:</b>			
Cash on hand at close of last fiscal year.....	\$230,535.81	\$225,219.72	\$455,755.53
Cash receipts in last fiscal year, exclusive of loans repaid.....	8,728,627.45	3,345,618.68	12,074,246.13
Loans repaid.....	1,866,675.95	829,169.12	2,695,845.07
<b>Total</b> .....	10,825,839.21	4,400,007.52	15,225,846.73
<b>Disbursements:</b>			
Loans on mortgage security.....	\$1,929,614.95	\$1,682,241.23	\$3,611,856.18
Withdrawals.....	2,787,142.86	1,630,897.03	4,418,039.89
Borrowed money repaid.....	4,329,279.38	379,253.81	4,708,533.19
Other disbursements, including cash on hand.....	1,779,802.02	707,615.45	2,487,417.47
<b>Total</b> .....	10,825,839.21	4,400,007.52	15,225,846.73
<b>Profits:</b>			
Expenses.....	\$2,374,584.35	\$776,321.93	\$3,150,906.28
Net profits.....	5,307,559.68	2,340,237.16	7,647,796.84
<b>Gross profits</b> .....	7,682,144.03	3,116,559.09	10,798,703.12
Number of shares issued during the year.....	21,687.95	39,560.00	61,247.95
Number of shares withdrawn during the year.....	63,069.33	42,289.75	105,359.08
Number of shares loaned on during the year.....	7,201.51	10,129.29	17,330.80
Present total number of shares loaned on.....	95,162.01	48,112.39	143,274.40
Present total number of free shares.....	122,858.98	112,411.67	235,270.65
Present total number of all shares.....	218,020.99	160,524.06	378,545.05
Total number of borrowers.....	7,287	10,474	17,761
Total number of nonborrowers.....	20,608	22,730	43,338
Total number of persons who are shareholders.....	27,895	33,204	61,099
Homes secured and paid for.....	111	1,082	1,193
Number of homes partially paid for.....	7,226	7,004	14,230

**STRIKES.**—A brief account is given of two interstate strikes—the strike originating with the employees of Pullman's Palace Car Company, of Pullman, Illinois, and the coal miners' strike of April 21; also of several minor strikes in the city of Saint Louis.

The report is accompanied with an industrial map showing the location of all mines and railroads in the state and a résumé of the mineral statistics.

WISCONSIN.

The Sixth Biennial Report of the Commissioner of Labor, Census and Industrial Statistics of Wisconsin, for the years 1893 and 1894, treats of the following subjects: The building trades, 64 pages; statistics of manufactures, 55 pages; synoptical report of and orders issued by inspectors of factories and workshops, 206 pages.

**BUILDING TRADES.**—The first presentation consists of reports from persons engaged in various branches of the building trades in different sections of the state. Answers were obtained to questions concerning apprenticeship, system of promotion of apprentices, did best workmen serve as apprentices in Europe, trouble in hiring first-class workmen, hours of labor, strikes, etc. Reports from employers, representing 2,674 employees, giving the actual wages per hour, are also shown, the statistics being grouped by occupations and cities and covering all branches of the building trades. The wages paid per hour in these trades in the city of Milwaukee are placed in comparison with the wages in similar trades in the several cities of the United States. Considering the general average rate per hour for all the trades involved, the results for some of the cities are given as follows:

RATES OF WAGES PER HOUR IN BUILDING TRADES IN VARIOUS CITIES, 1893.

City.	Wages per hour.
Milwaukee, Wisconsin .....	\$0. 206
Atlanta, Georgia.....	. 213
Buffalo, New York.....	. 286
Butte, Montana.....	. 476
Charleston, South Carolina.....	. 216
Cleveland, Ohio.....	. 301
Jacksonville, Florida.....	. 240
Kansas City, Missouri.....	. 286
Lowell, Massachusetts.....	. 274
Newark, New Jersey.....	. 332
Omaha, Nebraska.....	. 344
Philadelphia, Pennsylvania.....	. 325

**STATISTICS OF MANUFACTURES.**—The statistics of manufactures show for each of 84 different industries the number and per cent of employees receiving stated daily wages including the per cent receiving less than \$1 per day. The total amount of wages paid in different industries in the state is shown for each year from 1888 to 1893, inclusive, and the average annual earnings per employee in the different industries for each year from 1889 to 1893, inclusive.

The following statement presents the average annual wages paid in some of the leading industries treated in the summary table:

AVERAGE ANNUAL WAGES PAID IN VARIOUS INDUSTRIES, 1889 TO 1893.

Industry.	1889.	1890.	1891.	1892.	1893.
Agricultural implements.....	\$427.58	\$558.41	\$515.87	\$543.98	\$649.34
Beef and pork packing.....	531.17	498.89	571.75	496.30	438.17
Clothing.....	538.17	271.55	519.90	500.03	376.43
Coffee and spice mills.....	785.60	723.12	500.00	597.56	922.65
Flour and feed.....	656.72	609.32	709.84	657.64	470.22
Furniture, not including chairs.....	400.69	370.21	467.67	366.64	338.84
Iron works, malleable.....	350.75	546.03	409.77	394.73	405.21
Lumber, laths, and shingles.....	334.84	524.12	532.29	348.25	341.10
Marble, cut stone.....	456.99	522.38	587.32	479.40	380.10
Paper and pulp.....	404.10	404.03	368.54	412.96	406.00
Plumbers' and gas-fitters' supplies.....				485.83	409.05
Printing, publishing, and bookbinding.....	518.09	441.14	447.09	455.97	476.82
Railway shops.....	509.14	525.93	569.12	496.51	536.28
Rolling mills.....	552.71	592.98	475.42	784.25	668.19
Sash, doors, and blinds.....	373.15	349.88	378.46	309.54	387.22
Textiles.....	314.14	269.06	253.02	230.18	276.92
Tobacco.....	453.21	455.77	426.24	324.48	542.60
Wagon stock.....				418.02	399.06
Wagons, carriages, etc.....	366.35	463.09	421.44	411.30	354.50
Windmills, tanks, and pumps.....	467.25	825.56	500.01	539.71	530.57

Comparisons are also made between the total wages and the number of employees in different industries in the city of Milwaukee and those in the state exclusive of the city.

An idea of the magnitude of the different industries in Milwaukee and in the state exclusive of the city may be obtained from the following statement, which shows the total for fifteen selected industries:

EMPLOYEES AND TOTAL WAGES IN FIFTEEN SELECTED INDUSTRIES IN MILWAUKEE AND IN WISCONSIN, 1893.

Industry.	Milwaukee.		State, exclusive of Milwaukee.	
	Employees.	Wages.	Employees.	Wages.
Agricultural implements.....	363	\$212,071	2,259	\$1,459,980
Beer and malt.....	3,678	1,926,289	654	542,001
Boots and shoes.....	1,680	427,532	1,777	823,662
Cigars.....	400	136,651	505	221,199
Clothing.....	1,065	547,527	1,028	239,661
Cut stone, marble.....	173	81,060	309	87,766
Flour and feed.....	457	257,616	1,572	560,567
Furniture, chairs.....	694	229,502	3,772	1,485,163
Iron works, foundries, and machine shops.....	2,976	1,641,811	2,054	883,370
Nails, tacks.....	489	154,100	179	64,362
Railway repair shops.....	208	115,640	5,737	3,129,262
Sash, doors, and blinds.....	1,305	541,910	2,481	1,311,354
Tobacco.....	313	125,843		
Wagons, carriages, and sleighs.....	430	147,941	2,758	900,694
Woolens and worsteds.....	1,020	205,212	1,458	530,201

The percentages of employees at stated daily rates of wages in factories, in 1893, are shown for the state, and on examining the total representing 102,865 employees, it is found that 48.55 per cent received \$1.25 and under \$2 per day, while but 1.47 per cent received \$3.50 and under \$4 per day. The results are summarized so as to permit of a ready comparison of the relative number at each rate in the different industries.

The amount of loss by fire in factories for each industry from 1885 to 1893, inclusive, is also shown.

**FACTORY INSPECTION.**—The report headed “Synoptical report of and orders issued by inspectors of factories and workshops” is full of interesting detail concerning the different factories inspected. It gives the description and value of each building, with the number of male and female employees. The summary table shows for each industry the value of new factory buildings, also the value of new machinery added, for 1891–92 and 1893–94, respectively. The totals for 1893–94 are also shown by localities, and the orders of the inspectors for repairs or additions are given in full.

## REPORT BY MISS COLLET ON THE STATISTICS OF EMPLOYMENT OF WOMEN AND GIRLS IN ENGLAND AND WALES.

This report of 152 pages, prepared for the labor department of the British Board of Trade, gives statistics bearing on the employment of females in England and Wales, based principally on the following sources of information:

1. Returns made to the labor department in 1894 by cotton, woolen, and worsted manufacturers as to the employment of married women in their mills—specially procured for this report.

2. The statistics of occupations of women and girls at different ages in urban sanitary districts with over 50,000 inhabitants—compiled from the census sheets.

3. The published returns of inquiries recently conducted on the required scale and according to uniform methods—to be found in the census returns of occupations in 1891, and in the board of trade returns of rates of wages in textile trades in 1886.

The report is divided into three parts, dealing, respectively, with census returns of occupations in 1891, labor department returns of the employment of married women in 1894, and board of trade returns of rates of wages in the cotton, woolen, and worsted industries in 1886.

In Part I the census returns of the employment of women and girls in 1891 are compared with those for 1881. In making comparison the increase of population has been taken into account, the numbers of working females being expressed in ratios of the female population over 10 years of age, and these numbers are brought into comparison with the numbers of working males in the same occupations, expressed in similar ratios of the male population.

In Part II statistics from employers in the cotton, woolen, and worsted industries are given, showing the number and proportion of females employed in their mills who in 1894 were married or widowed, and the summarized results are compared with those of the census, as far as possible, with a view to testing their accuracy.

In Part III the broad results of the board of trade rates of wages returns for 1886 are summarized so far as they relate to the employment of women and girls in the cotton, woolen, and worsted industries in England, and an attempt is made to discover whether there is any indication of a relation between the rates of wages and the employment of married women.

The census statistics, presented in Part I of the report, show that more than four-fifths of the working females reported in 1891 were employed in 18 classes or groups of occupations, there having been 349

such classes. Less than 1 per cent of the working females were employed in each of the remaining classes or groups of occupations, and the total number employed in the 331 classes was only 67 per 1,000 of the total female population over 10 years of age.

The following table, derived from tables in Part I, shows the number of working females per 10,000 females 10 years of age and over engaged in each of the 18 classes of occupations referred to above, in each of which upward of 1 per cent of the total number of working females were employed in either 1891 or 1881, and the number of working females per 10,000 females 10 years of age and over employed in the remaining 331 classes of occupations, in each of which less than 1 per cent of the total number of working females were employed. It also shows the number of working females in 1891, at certain age periods, per 10,000 females at such periods, by occupations, and the decennial increases or decreases in the numbers employed :

WORKING FEMALES IN 1891 AT CERTAIN AGE PERIODS PER 10,000 FEMALES AT SUCH PERIODS.

Occupation.	10 and under 15 years.			15 and under 25 years.			25 and under 45 years.		
	Number.	Compared with 1881.		Number.	Compared with 1881.		Number.	Compared with 1881.	
		Increase.	Decrease.		Increase.	Decrease.		Increase.	Decrease.
Employing more than 1 per cent of females who work :									
Domestic servants.....	665		37	2,744		189	902	57	.....
Milliners, dressmakers, and staymakers.....	108	41	.....	732	90	.....	331	.....	40
Cotton goods operatives.....	305	27	.....	555	.....	25	258	.....	22
Laundry and bath employees.....	11	2	.....	130	17	.....	164	.....	21
School teachers, professors, and lecturers.....	37	.....	.....	245	.....	5	137	16	.....
Charwomen.....	2	1	.....	24	2	.....	102	2	.....
Tailoresses.....	32	20	.....	148	64	.....	66	11	.....
Worsteds goods operatives.....	87	9	.....	117	.....	7	45	.....	7
Woolen goods operatives.....	32	1	.....	106	.....	14	51	.....	3
Nurses, midwives, etc.....	.....	.....	.....	18	14	.....	48	25	.....
Shirtmakers and seamstresses.....	8	.....	3	45	.....	47	39	.....	40
Shoe, boot, patten, and clog makers (a).....	28	11	.....	83	16	.....	33	.....	.....
Drapers and mercers.....	8	4	.....	91	24	.....	35	11	.....
Grocers and chocolate makers and dealers.....	6	3	.....	31	11	.....	38	14	.....
Boarding and lodging house keepers.....	.....	.....	.....	4	.....	.....	38	9	.....
Hotel servants.....	5	.....	.....	98	24	.....	35	13	.....
Silk, satin, velvet, and ribbon factory operatives.....	23	.....	3	46	.....	19	23	.....	12
Farm laborers and servants.....	8	.....	7	30	.....	31	18	.....	13
Total.....	1,365	69	.....	5,242	.....	75	2,363	.....	.....
Employing under 1 per cent of females who work.....	261	51	.....	1,094	197	.....	597	60	.....
Total.....	1,626	120	.....	6,336	122	.....	2,960	60	.....
Total female population...	1,612,709	214,608	.....	2,884,756	389,921	.....	4,006,447	511,665	.....

a Dealers, who were included in the census returns for 1881, were not included in those for 1891.

## WORKING FEMALES IN 1891 AT CERTAIN AGE PERIODS PER 10,000 FEMALES AT SUCH PERIODS—Concluded.

Occupation.	45 and under 65 years.			65 years and over.			All ages over 10 years.		
	Number.	Compared with 1881.		Number.	Compared with 1881.		Number.	Compared with 1881.	
		Increase.	Decrease.		Increase.	Decrease.		Increase.	Decrease.
Employing more than 1 per cent of females who work:									
Domestic servants.....	479	26	.....	276	19	.....	1,209	.....	22
Milliners, dressmakers, and staymakers.....	218	.....	47	94	.....	16	363	5	.....
Cotton goods operatives.....	87	.....	14	13	.....	5	290	.....	13
Laundry and bath employees.....	297	.....	44	200	.....	43	162	.....	15
School teachers, professors, and lecturers.....	53	.....	5	16	.....	13	126	3	.....
Charwomen.....	213	.....	2	129	.....	23	92	.....	.....
Tailoresses.....	58	8	.....	30	4	.....	78	25	.....
Worsteds goods operatives.....	16	.....	4	3	.....	.....	61	.....	3
Woolen goods operatives.....	21	.....	4	5	.....	4	54	.....	5
Nurses, midwives, etc.....	102	.....	4	93	.....	31	47	9	.....
Shirtmakers and seamstresses.....	73	.....	37	93	.....	31	46	.....	a 36
Shoe, boot, patten, and clog makers (b).....	17	.....	5	9	.....	3	40	4	.....
Drapers and mercers.....	19	6	.....	9	2	.....	40	11	.....
Grocers and chocolate makers and dealers.....	73	23	.....	63	14	.....	40	14	.....
Boarding and lodging house keepers.....	102	16	.....	81	5	.....	39	6	.....
Hotel servants.....	10	6	.....	2	1	.....	39	13	.....
Silk, satin, velvet, and ribbon factory operatives.....	21	.....	16	13	.....	12	28	.....	a 13
Farm laborers and servants.....	26	.....	21	19	.....	25	21	.....	a 19
Total.....	1,885	.....	118	1,148	.....	161	2,775	.....	36
Employing under 1 per cent of females who work.....	612	7	.....	450	.....	69	667	73	.....
Total.....	2,497	.....	111	1,598	.....	230	3,442	37	.....
Total female population.....	2,191,964	240,251	.....	766,014	112,932	.....	11,461,890	1,469,377	.....

a An actual decrease as well as a relative one.

b Dealers, who were included in the census returns for 1881, were not included in those for 1891.

The decrease in the numbers employed in occupations connected with the textile industries is shown at every age period above 15 years.

The increase in the number of laundry and bath employees 15 and under 25 years of age is explained by the statement that laundry work in steam laundries attracts girls and young women more than was the case under the hand system.

The numbers employed as teachers, professors, and lecturers, and as nurses, midwives, etc., show an increase at the most efficient age periods, which, it is said, indicates an advance in the quality of their work.

A large decrease is shown, at every age period, in the number of shirtmakers and seamstresses. The report says that the decrease in these occupations would have been still more marked in the number employed who were 15 and under 25 years of age were it not for the

growth of the factory system in the manufacture of shirts and under-clothing; and to the factory system, and the consequent growth of the ready-made clothing trade, must be traced the great increase in the number of tailoresses.

The foregoing table shows that in 9 of the 18 specified occupations in each of which over 1 per cent of the working females were employed in 1891 or 1881 the employment of females increased relatively to population; these 9 occupations in 1891 employed 812 in every 10,000 females 10 years of age and over, or 90 more than in 1881. The other 9 specified occupations in 1891 employed 1,963 females in every 10,000 of 10 years of age and over, or 126 less than in 1881.

In the remaining occupations, in each of which less than 1 per cent of the working females were employed, 667 females per 10,000 of 10 years of age and over were employed in 1891, or 73 more than in 1881.

A striking fact shown by this table is the decrease in the proportion of females between the ages of 15 and 25 employed in domestic service, and the increase in the number so employed above the age of 25. The decrease is said to be due to a probably diminished supply of young servants; and the consequent improved condition of older servants accounts for the increase in their number. It is also said that as the proportion of children under 10 years of age and the proportion of married to single persons in 1891 were less than in 1881, the need for servants had to some extent diminished.

In order to compare the rate of progress in the employment of females with that of males in certain occupations employing both sexes the following table is given, showing the numbers of working males in 1891, at certain age periods, per 10,000 males at such periods, in the selected occupations, and the increase or decrease in the number employed in each occupation since 1881.

WORKING MALES IN 1891 AT CERTAIN AGE PERIODS PER 10,000 MALES AT SUCH PERIODS, IN OCCUPATIONS LARGELY FOLLOWED BY WOMEN.

Occupation.	10 and under 15 years.			15 and under 25 years.			25 and under 45 years.		
	Num-ber.	Compared with 1881.		Num-ber.	Compared with 1881.		Num-ber.	Compared with 1881.	
		In-crease.	De-crease.		In-crease.	De-crease.		In-crease.	De-crease.
Cotton goods operatives...	225	22	.....	277	.....	.....	195	8	.....
Worsted goods operatives.	66	10	.....	45	.....	2	31	.....	.....
Woolen goods operatives..	35	2	.....	75	2	.....	59	.....	3
Silk, satin, velvet, and ribbon factory operatives...	12	1	.....	15	.....	2	13	.....	3
Tailors .....	20	7	.....	120	18	.....	128	.....	1
Shoe, boot, patten, and clog makers.....	58	21	.....	201	21	.....	199	.....	23
Drapers .....	11	1	.....	94	1	.....	64	.....	3
Hotel servants .....	7	.....	.....	81	7	.....	51	8	.....
School teachers, professors, and lecturers .....	10	.....	3	62	.....	25	66	13	.....
Farm laborers and servants, teamsters, etc....	402	.....	76	860	.....	200	589	.....	127

WORKING MALES IN 1891 AT CERTAIN AGE PERIODS PER 10,000 MALES AT SUCH PERIODS, IN OCCUPATIONS LARGELY FOLLOWED BY WOMEN—Concluded.

Occupation.	45 and under 65 years.			65 years and over.		
	Num-ber.	Compared with 1881.		Num-ber.	Compared with 1881.	
		In-crease.	De-crease.		In-crease.	De-crease.
Cotton goods operatives.....	135	.....	14	51	.....	26
Worsted goods operatives.....	26	.....	4	14	.....	6
Woolen goods operatives.....	59	.....	9	38	.....	21
Silk, satin, velvet, and ribbon factory operatives...	20	.....	12	24	.....	20
Tailors.....	141	.....	35	143	.....	21
Shoe, boot, patten, and clog makers.....	256	.....	43	245	.....	47
Drapers.....	45	4	.....	19	.....	.....
Hotel servants.....	20	3	.....	7	.....	.....
School teachers, professors, and lecturers.....	37	5	.....	12	.....	4
Farm laborers and servants, teamsters, etc.....	809	.....	250	990	.....	320

In four occupations employing females and males the former have made distinct advances; in one of these, hotel servants, the number of males also show an advance; in another, drapers, the number of male employees 25 and under 45 years of age show a decrease; in the other two, tailors and shoemakers, boys and youths show an increase. The decrease in the last two occupations in the numbers employed at the age periods above the 15-25 period is said to be probably due to changes in the organization of the trades to which these occupations belong, and the decrease in the number of males 25 and under 45 years of age in the shoe trade is partly due to the exclusion of dealers in the census returns for 1891, who were included in those for 1881. A decrease in the numbers of both sexes employed as farm laborers and servants, teamsters, etc., is shown at every age period.

There was a remarkable increase in the employment of children of both sexes under the age of 15 years. It is suggested that the increase shown by the census of 1891 over the number as reported by the census of 1881 may be partly due to concealment of employment of children in 1881. As to the employment of female children, the increase seems to be attributable to the growth of urban population, such increase having occurred in counties containing one or more towns of over 50,000 inhabitants in which the population has increased at a higher rate than the urban population generally. This inference is supported by the fact that the increase in the employment of girls under 15 years of age was greatest in industries in which the chances of employment are much greater in towns than in rural districts, in several branches of which the extended use of machinery and the minute subdivision of labor render it easier for children to find work than formerly.

In the table giving the employment of females at certain age periods it is shown that in every 10,000 females 10 and under 15 years of age 1,626 were employed, equivalent to 16.26 per cent. The census returns for 1891 show that in 34 towns, including London, with over 50,000 inhabitants each, the percentage was lower than this, ranging in the

different towns from 6.2 to 16 per cent, while in 28 towns of over 50,000 population the percentage was higher, ranging from 17 to 58.1 per cent.

The age period at which the largest percentage of females is employed is that from 15 to 20 years. The census of 1891 shows that in England and Wales 68.6 per cent of females between these ages were employed in the various occupations. In 30 towns each with a population of upward of 50,000 the percentage was lower than this, ranging from 49.2 to 67.1 per cent, while in 32 towns each having populations of over 50,000 the percentage was higher, ranging from 68.8 to 95.3 per cent.

In discussing the employment of women over 20 years of age, with special reference to married and widowed women, the report says that the age period between 20 and 25 years is that at which the female worker has, perhaps, the most industrial freedom; she is then not only in her prime industrially, but generally has the option of exchanging wage-earning employment for domestic life. In England and Wales 70 per cent of the females at this age period were returned as unmarried; but the large towns showed considerable divergence from this average, the percentages ranging from 41 to 85.

Tables are given showing the percentages of working married and widowed females at different age periods in 19 industrial towns in England in 1891 and 1881, and the inference is drawn that in these towns, most affected by female labor, to which the tables relate, the percentage of working married women is diminishing. It is mentioned as a noteworthy fact that in all these factory centers there is a marked diminution in the proportion of working married women between the ages of 20 and 25 years.

The conditions governing married female labor in the north of England are quite different from those in the south. In the north there has been a large demand for female labor, and married women have been attracted by the high wages obtainable in the textile industries, especially in the cotton trade. The women of the north have not regarded industrial employment as being merely a means of support prior to marriage, but have looked upon it, more than upon domestic management, as their life occupation, and they work with a view to saving or for greater comfort in living. These causes tend to make them efficient workers and to develop industrial ambition.

In the south of England, where the factory industries are small and a large proportion of female employment is in domestic service, working girls look forward to marriage as a release from wage-earning employment, and in the upper industrial classes marriage usually gives such release. The girl before marriage rarely aims at becoming a very efficient worker, and if in later life she finds it necessary to again support herself she is unable to gain employment except in ordinary domestic service. In the lower industrial grades females frequently remain at work after marriage because of the small earnings or irreg-

ular employment of their husbands. The effect of these conditions on the quality of female labor is disadvantageous, and the married female labor is of a poor kind.

Part II of the report deals with statistics collected by the labor department from manufacturers in 1894, relative to unmarried, married, and widowed females employed by them in cotton, woolen, and worsted mills in Lancashire, Cheshire, Yorkshire, and the west of England. Returns were received from 1,654 manufacturers, of whom 968 were in the cotton industry, 315 in the woolen, 340 in the worsted, and 31 in the mixed woolen and worsted. These returns relate to the employment of 246,825 females, distributed among the industries as follows: Cotton, 176,456; woolen, 20,045; worsted, 46,540; mixed woolen and worsted, 3,784.

The females employed in the cotton and other industries, to whom the labor department statistics relate, are classified as "half-timers," who were 11 and under 13 years of age; as "young persons," who were 13 and under 18 years of age, and as "women 18 years of age and over." This classification is in accordance with the terms of the English factory act, which defines the terms "half-timer," "young person," and "women" in such a manner as to include all females legally employed in factories under these headings.

In the cotton industry 12,536 of the 176,456 females employed, or 7.1 per cent, were half-timers; 45,398, or 25.7 per cent, were young persons; 118,522, or 67.2 per cent, were women 18 years of age and over. Of the 118,522 women, 38,991, or 32.9 per cent, were either wives or widows; the ratio of married and widowed to the total number of females, exclusive of half-timers, was 23.8 per cent, or nearly one-fourth; of the total number of females, including half-timers, 22.1 per cent, or more than one-fifth, were married or widowed; of the 38,991 women who were married or widowed, 4,841, or 12.4 per cent, were widowed.

Great differences exist in the percentages in different localities; for example, in 10 urban sanitary districts each with over 50,000 inhabitants the percentages of women over the age of 18 who were married or widowed ranged from 9.8 to 44.7 per cent.

In the woolen industry the statistics show that of the 20,045 females to whom they relate, 200, or 1 per cent, were half-timers; 3,364, or 16.8 per cent, were young persons, and 16,481, or 82.2 per cent, were women 18 years of age and over. Of the 16,481 women, 4,906, or 29.8 per cent, were either married or widowed. The ratio of married and widowed to the total number of females, exclusive of half-timers, was 24.7 per cent, or about one-fourth.

The relative number of half-timers reported in this industry was so small that the ratio of wives and widows to the total number of working females was nearly the same as their ratio to the total number exclusive of half-timers, being 24.5 per cent. Of the 4,906 woolen operatives

reported as married or widowed, 844, or 17.2 per cent, were reported as widowed.

In the worsted industry 3,944, or 8.5 per cent, of the 46,540 working females were half-timers; 13,288, or 28.5 per cent, were young persons, and 29,308, or 63 per cent, were women 18 years of age and over. Of the 29,308 women, 6,269, or 21.4 per cent, were either married or widowed. The ratio of married and widowed to the total number of working females, exclusive of half-timers, was 14.7 per cent, or slightly more than one-seventh; the ratio of married and widowed to the total number of working females, inclusive of half-timers, was 13.5 per cent, or nearly one-seventh. Of the 6,269 wives and widows, 1,111, or 17.7 per cent, were widows.

In the mixed woolen and worsted industry 83, or 2.2 per cent, of the 3,784 female operatives were half-timers; 792, or 20.9 per cent, were young persons, and 2,909, or 76.9 per cent, were women 18 years of age and over. Of the 2,909 women, 686, or 23.6 per cent, were either married or widowed. The ratio of the married and widowed to the total number of working females, exclusive of half-timers, was 18.5 per cent, and to the total number, inclusive of half-timers, 18.1 per cent. Of the 686 wives and widows, 108, or 15.7 per cent, were widows.

The total number of females in all the industries to which the statistics relate was 246,825. Of this number 16,763, or 6.8 per cent, were half-timers; 62,842, or 25.5 per cent, were young persons, and 167,220, or 67.7 per cent, were women 18 years of age and over. Of the 167,220 women, 50,852, or 30.4 per cent, were either married or widowed. The ratio of the married and widowed to the total number of working females, exclusive of half-timers, was 22.1 per cent, and to the total number, inclusive of half-timers, 20.6 per cent. Of the 50,852 wives and widows, 6,904, or 13.6 per cent, were widows.

The following statement shows the number of working females, by industries, concerning whom statistics were gathered by the labor department in 1894, classified as "half-timers," those 11 and under 13 years of age; "young persons," those 13 and under 18 years of age, and "women 18 years of age and over," of whom the number unmarried, married, and widowed are given. The percentage that each class is of the total number of working females in each industry is also given.

## WORKING FEMALES IN CERTAIN INDUSTRIES, 1894.

Working females.	Cotton.		Woolen.		Worsted.		Mixed woolen and worsted.		Total.	
	Num. ber.	Per cent.	Num. ber.	Per cent.	Num. ber.	Per cent.	Num. ber.	Per cent.	Num. ber.	Per cent.
<b>Under 18 years of age:</b>										
Half-timers.....	12, 536	7. 1	200	1. 0	3, 944	8. 5	83	2. 2	16, 763	6. 8
Young persons . . .	45, 398	25. 7	3, 364	16. 8	13, 288	28. 5	792	20. 9	62, 842	25. 5
<b>Total .....</b>	<b>57, 934</b>	<b>32. 8</b>	<b>3, 564</b>	<b>17. 8</b>	<b>17, 232</b>	<b>37. 0</b>	<b>875</b>	<b>23. 1</b>	<b>79, 605</b>	<b>32. 3</b>
<b>18 years of age and over:</b>										
Unmarried .....	79, 531	45. 1	11, 575	57. 7	23, 039	49. 5	2, 223	58. 8	116, 368	47. 1
Married .....	34, 150	19. 4	4, 062	20. 3	5, 158	11. 1	578	15. 3	43, 948	17. 8
Widowed.....	4, 841	2. 7	844	4. 2	1, 111	2. 4	108	2. 8	6, 904	2. 8
<b>Total, married and widowed..</b>	<b>38, 991</b>	<b>22. 1</b>	<b>4, 906</b>	<b>24. 5</b>	<b>6, 269</b>	<b>13. 5</b>	<b>686</b>	<b>18. 1</b>	<b>50, 852</b>	<b>20. 6</b>
<b>Total, 18 years of age and over...</b>	<b>118, 522</b>	<b>67. 2</b>	<b>16, 481</b>	<b>82. 2</b>	<b>29, 308</b>	<b>63. 0</b>	<b>2, 909</b>	<b>76. 9</b>	<b>167, 220</b>	<b>67. 7</b>
<b>Grand total.....</b>	<b>176, 456</b>	<b>100. 0</b>	<b>20, 045</b>	<b>100. 0</b>	<b>46, 540</b>	<b>100. 0</b>	<b>3, 784</b>	<b>100. 0</b>	<b>246, 825</b>	<b>100. 0</b>

Part III of the report presents statistics relating to female labor at the principal centers of the cotton, woolen, and worsted industries in England, taken from the Board of Trade Return of Rates of Wages in the Principal Textile Trades in the United Kingdom.

Owing to the vagueness of the distinction made by employers between women and girls, working females are classified as "half-timers" and "full-timers," no attempt being made to distinguish between "women" and "young persons."

The wages covered by the statistics were the average wages for a week in October, 1886. These are shown to have been \$3.51 for 67,843 females working full time in the cotton manufacture in Lancashire and Cheshire; \$3.20 for 10,909 females working full time in the woolen manufacture in Yorkshire and Lancashire; \$2.78 for 18,855 females working full time in the worsted and stuff manufacture in Yorkshire; \$2.60 for 1,757 females working full time in the woolen manufacture in the west of England.

The following statement shows the number and per cent of females working full time, above referred to, in the industries specified, at and between different weekly wage rates:

FEMALES WORKING FULL TIME IN CERTAIN INDUSTRIES AT AND BETWEEN CERTAIN WEEKLY WAGE RATES, 1886.

Industry.	Under \$2.43.		\$2.43 and under \$3.65.		\$3.65 and under \$4.87.		\$4.87 and under \$6.08.		\$6.08 and over.		Total.	
	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.	Num-ber.	Per-cent.
Cotton (a)...	7,245	10.7	30,482	44.9	21,708	32.0	8,216	12.1	192	0.3	67,843	100
Woolen (b)...	1,159	10.6	6,973	64.0	2,767	25.3	10	.1	.....	.....	10,909	100
Woolen (c)...	796	45.3	961	54.7	.....	.....	.....	.....	.....	.....	1,757	100
Total....	1,955	15.4	7,934	62.6	2,767	21.9	10	.1	.....	.....	12,666	100
Worsted and stuff (d)....	6,902	36.6	11,838	62.8	115	.6	.....	.....	.....	.....	18,855	100
Grand total	16,102	16.2	50,254	50.6	24,590	24.7	8,226	8.3	192	.2	99,364	100

a In Lancashire and Cheshire.  
b In Yorkshire and Lancashire.

c In west of England.  
d In Yorkshire.

The board of trade statistics for 1886 are considered in connection with those collected by the labor department in 1894. From the latter it appears that in 1894 the proportion of young persons to women was considerably higher in worsted than in cotton mills, 31.2 per cent of the full-timers being young persons in the former case and 27.7 per cent in the latter. Moreover, only 21.4 per cent of the adult females in the worsted mills were married or widowed, as compared with 32.9 per cent in the cotton mills. Supposing somewhat similar conditions to have prevailed in 1886 as in 1894, it would follow that the average age of the cotton operatives was higher than that of the worsted operatives. Making all allowance for such difference in age, it would seem that the average wages were lower in the worsted than in the cotton industry.

The change that has taken place in the woolen manufacture since 1886 makes it most unlikely that the proportion of young persons to adult women employed in 1894 approximated to that prevailing in 1886. The proportion of adult females in woolen mills was abnormally high in 1894, having been 83 per cent of full-timers, as compared with 72.3 per cent in the cotton mills. This high proportion of adult females was most probably due to the employment of girls in worsted instead of in woolen mills. Notwithstanding the high proportion of adult females, the percentage of females either married or widowed in the Yorkshire woolen mills was less than the percentage in the cotton mills, having been 28.1 per cent in the former case and 32.9 per cent in the latter. In 1886, before the stream of young workers was diverted from the woolen to the worsted cloth manufacture, the percentage of married females was probably lower still.

Comparing the three industries, it was found that the higher average of wages coincide with a higher percentage of adult females either married or widowed. Comparing estimated average wages of young persons in the cotton and worsted mills, the average in the worsted mills was considerably lower than in the cotton mills, although the average age of young persons would be about the same.

An examination of the relation between average wages and the percentage of married women employed in cotton mills in different districts pointed to the conclusion that in the north of England one of the causes of an exceptionally high rate of employment of married women was the high rate of wages that could be earned. In so far as this conclusion is correct, it may be inferred that a falling in wages of working females in the great textile trades would be followed by a diminution in the employment of married women, if the wages of male operatives remained unchanged.

With the relation between wages and the employment of married women in the north of England must be compared the conditions found in the woolen mills in the west of England, where the average weekly wage in 1886 was much lower than the average in Yorkshire and Lancashire, but where the percentage of working females who were either married or widowed was extremely high in 1894.

In conclusion, it is said that the current view that the employment of female labor is rapidly extending, and that women are replacing men to a considerable extent in industrial occupations, is not confirmed. On the whole, the proportion of working females remained practically stationary in the decade 1881-1891, there having been 34.05 working females over 10 years of age per 100 in 1881 and 34.42 per 100 in 1891, the slight increase being attributed to the increased number of females under 25 years of age with definite occupations, and to the increased employment of middle-class women.

The employment of married and elderly women has, on the whole, diminished, as has also the employment of women in casual occupations. There has been an increase in the employment of females under the age of 25 years, which has, however, been concurrent with a similar extension in the employment of young men and boys.

As to the substitution of female for male labor, the census returns show that 83.24 per cent of males over 10 years of age were industrially employed in 1881 and 83.10 per cent in 1891. In either year there were less than 17 males in every 100 who could possibly have been added to the ranks of the employed, whereas there were nearly 66 females in every 100 upon which to draw for an increase in wage earners, yet in 1891 this available female surplus had only been diminished by less than 1, and it appears to be clearly shown that male labor has not been displaced to any marked extent by the employment of females.

## EMPLOYER AND EMPLOYEE UNDER THE COMMON LAW.

BY VICTOR H. OLMSTED AND STEPHEN D. FESSENDEN.

The relations existing between employers of labor and their employees, and the reciprocal duties, obligations, and rights growing out of those relations, are, in the absence of legislative enactments, governed by the common law in regard to master and servant, the words master and servant being legally synonymous with the words employer and employee.

The common law consists of principles, usages, and rules of action, applicable to the government and security of persons and property, which have grown into use by gradual adoption, without legislative authority, and have received, from time to time, the sanction of the courts of justice.

The great body of the common law of the United States consists of the common law of England, and such statutes thereof as were in force prior to the separation of this country from England, and applicable to circumstances and conditions prevailing here. These laws have been adopted as the basis of our jurisprudence in all the states except Louisiana, and many of the most valued principles of the English common law have been embodied in the constitutions of the United States and the several states.

In many details, however, the common law of the United States now differs widely from that of England by reason of modifications arising from different conditions and established by American adjudications. That branch of the common law governing the relation of master and servant has undergone some changes, although in the main it is the same in this country as in England. It is not the purpose of this article to point out such changes or differences, but to state the principles and rules of the common law now prevailing throughout the United States, except where they have been changed or modified by legislative enactments.

The statement which follows is derived from articles in the American and English Encyclopedia of Law on the subject of "Master and servant" and kindred topics, and from standard legal works treating of the subject under consideration. The reader should bear in mind that any rule or principle of the common law, as given in this statement, conflicting with a statute which has not been declared invalid or unconstitutional by the courts, is modified or changed by the statute, and that the statute instead of the common law now governs.

**MASTER AND SERVANT: DEFINITIONS.**—A master is variously defined as one who has in his employment one or more persons hired by contract to serve him either as domestic or common laborers; one who has the superior choice, control, and direction, whose will is represented not merely in the ultimate result of the work in hand, but in all its details; one who is the responsible head of a given industry; one who not only prescribes the end, but directs, or may at any time direct the means and methods of doing the work; one who has the power to discharge; a head or chief; an employer; a director; a governor.

A servant is one who is employed to render personal service to his employer otherwise than in the pursuit of an independent calling, and who, in such service, remains entirely under the control and direction of the latter.

**THE RELATION: ITS CREATION AND EXISTENCE.**—The relation of master and servant is created by contract, either express or implied, where both parties have the requisite legal qualifications for entering into a valid contract. The relation exists only where the person sought to be charged as master employs and controls the other party to the contract of service, or expressly or tacitly assents to the rendition of the particular service by him. The master must have the right to direct the action of the servant, and to accept or reject his service. The relation does not cease so long as the master retains his control or right of control over the methods and manner of doing the work, or the agencies by which it is effected. Furthermore, the relation exists where the servant is employed, not by the master directly, but by an employee in charge of a part of the master's business with authority to engage assistance therein.

**THE CONTRACT OF SERVICE.**—A contract of employment is one by which an employer engages an employee to do something for the benefit of the employer, or of a third person, for a sufficient consideration, expressed or implied. The authority of a subordinate to employ an agent or servant includes, in the absence of restrictive words, authority to make a complete contract, definite as to the amount of wages, as well as to all other terms.

Ordinarily, when an adult person solicits employment in a particular line of work, the solicitation carries with it an implied assertion that the one seeking employment is competent to perform the ordinary duties of the position sought; and it is an implied condition of every contract of service that the employee is competent to discharge the duties of his employment.

A servant is presumed to have been hired for such length of time as the parties adopt for the estimation of wages; for example, a hiring at a yearly rate is presumed to be for one year; at a daily rate, for one day; a hiring by piecework, for no specified time; but such fact does not, in the absence of other evidence, necessarily fix the period of hiring. Where an employee has been hired to work by the week or month, the

burden of proof is upon him to show any change in the contract of employment as to the term of service.

It is a general rule that where a person enters into a contract of service for a fixed compensation, he, *prima facie*, agrees to give his employer his entire time; but this rule is not inflexible.

A contract for service running for a longer period of time than one year, to be valid, must be in writing and signed by the party against whom it may be sought to be enforced, or by his authorized agent.

In the absence of an express contract of hiring, a person may recover compensation for services where the same were rendered under such circumstances as to show that he expected such compensation as a matter of right, and that the person for whom they were rendered was bound to know that he claimed compensation, or was legally entitled thereto. Where one person performs labor for another, a request and a promise to pay the reasonable worth of such labor are presumed by law, unless it is understood that the labor is to be gratuitously performed, or it is performed under such circumstances as to repel the presumption of a promise to pay.

Where there is an express contract the servant must be furnished with employment by the master during the period covered by its terms. If by the terms of the contract the servant is employed to work by the day, week, month, or year, and nothing is said as to the time of payment for his services, the wages are due and may be demanded at the close of each day, week, month, or year, as the case may be; but in such case, as upon all questions relating to the interpretation of contracts, custom has a strong bearing.

A man can contract to furnish his own services and those of his wife, and if she makes no separate claim can sue for them; and if such contract needs ratifying, the testimony of the wife in support of his demand will be a sufficient ratification.

A wife is not responsible for the wages of her husband's employee, notwithstanding the fact that she sometimes pays such wages.

When a master agrees to pay his servant what he considers the servant's services to be reasonably worth, or, where he agrees to pay the same wages as shall be paid to other men in his employ filling similar positions, and there is no showing that the master has other employees in similar positions, the servant is entitled to recover, in a suit for wages, what his services were actually worth. And where the master and servant agree as to the existence of the contract of service, but disagree as to the wages to be paid, the question of compensation must be left to a jury.

Unless otherwise agreed, the wages of an employee must be paid in cash. The master has no right to handle, or invest, or in any manner apply such wages, whether beneficial to the servant or not, but must pay them directly to him.

An employer may discharge an employee before the expiration of the term of service stipulated in the contract for good and sufficient cause, as, for incompetency. The discharge must be couched in such terms as to leave no doubt in the employee's mind of the employer's desire to terminate the relation.

In a majority of the states a contract for service for a specified time is considered apportionable, and an employee who has been discharged for cause is entitled to compensation for the work he has actually performed.

Where one has contracted to employ another for a certain period of time, at a specified price for the entire time, and discharges him wrongfully before the expiration thereof, the wrongfully discharged employee is entitled to recover an amount equal to the stipulated wages for the whole period covered by the contract, less the sum earned, or which might have been earned in other employment during the period covered by the breach. Upon dismissal a servant, under the law, must seek other employment, but extraordinary diligence in such seeking is not required of him. He is only required to use reasonable efforts, and he is not bound to seek employment or render service of a different kind or grade from that which he was engaged to perform under the violated contract, nor to seek employment in a different neighborhood; and if he fails to secure employment and works on his own account the value of such work can not be deducted from his claim.

Where an employee for a fixed period, at a salary for the period, payable at intervals, is wrongfully discharged, he may pursue one of four courses—

1. He may sue at once for the breach of contract, in which case he can only recover his damages up to the time of bringing the suit.
2. He may wait until the end of the contract period, and then sue for the breach.
3. He may treat the contract as existing, and sue at each period of payment for the wages then due.
4. He may treat the contract as rescinded, and sue immediately for the value of his services performed, in which case he can only recover for the time he actually served.

An employee is entitled to recover damages from a person who maliciously procures his discharge, provided he proves that the discharge resulted in damage to him.

An employer is entitled to maintain an action against anyone who knowingly entices away his servant, or wrongfully prevents the servant from performing his duty, or permits the servant to stay with him and harbors such servant with the intention of depriving the master of his services.

**COMBINATIONS AND COERCION OF SERVANTS.**—Everyone has the right to work or to refuse to work for whom and on what terms he pleases, or to refuse to deal with whom he pleases; and a number of

persons, if they have no unlawful object in view, have the right to agree that they will not work for or deal with certain persons, or that they will not work under a fixed price or without certain conditions.

The right of employees to refuse to work, either singly or in combination, except upon terms and conditions satisfactory to themselves, is balanced by the right of employers to refuse to engage the services of anyone for any reason they deem proper. The master may fix the wages, and other conditions not unlawful, upon which he will employ workmen, and has the right to refuse to employ them upon any other terms. In short, both employers and employees are entitled to exercise the fullest liberty in entering into contracts of service, and neither party can hold the other responsible for refusing to enter into such contracts.

It has been held, however, that employers in separate, independent establishments have no right to combine for the purpose of preventing workmen, who have incurred the hostility of one of them, from securing employment upon any terms, and by the method commonly known as blacklisting debarring such workmen from exercising their vocation, such a combination being regarded as a criminal conspiracy.

On the other hand, a combination of employees having for its purpose the accomplishment of an illegal object is unlawful; for instance, a conspiracy to extort money from an employer by inducing his workmen to leave him and deterring others from entering his service, is illegal; and an association which undertakes to coerce workmen to become members thereof or to dictate to employers as to the methods or terms upon which their business shall be conducted, by means of force, threats, or intimidation interfering with their traffic or lawful employment of other persons is, as to such purposes, an illegal combination.

Unlawful interference by employees, or former employees, or persons acting in sympathy with them, with the business of a railroad company in the hands of a receiver, renders the persons interfering liable to punishment for contempt of court.

**EMPLOYER'S LIABILITY FOR INJURIES OF EMPLOYEES.**—Where a person employs an independent contractor to do work for him, and retains or exercises no control over the means or methods by which the work is to be accomplished, he is not answerable for the wrongful acts of such contractor; and the same rule governs as between a contractor and a subcontractor. Under these circumstances an employer would not be liable for an injury sustained by a workman in the course of his employment for which he would have been liable had the work been performed under his own direction.

An employer is ordinarily liable in damages to his employee who sustains an injury through the employer's negligence. Such negligence may consist in the doing of something by the employer which, in the exercise of ordinary care and prudence, he ought not to have done, or in the omission of any duty or precaution which a prudent, careful man would or ought to have taken.

An important duty on the part of a master is to furnish his servant with such appliances, tools, and machinery as are suited to his employment and may be used with safety; and if a master fails to use ordinary care in the selection or care of such appliances his ignorance of a defect therein will not excuse him from liability for an injury caused thereby; he is responsible for all defects in machinery or appliances of which he should have known, but failed through negligence to learn of, or which, having learned of, he has failed to remedy.

A railroad company is liable for injuries to its employees occasioned by the company's negligence in failing to keep its track or roadbed in proper condition; but such company is not bound to furnish an absolutely safe track or roadbed, its duty only being to use all reasonable care in keeping them in safe condition.

A railroad company is likewise liable if it fails to keep its track clear of obstructions and structures dangerously near the same; but such company is not negligent because it erects and maintains structures and contrivances for use in the operation of its road merely for the reason that they may be dangerous to employees operating the company's trains.

It is negligence for such a company to fail to use safe and appropriate engines; or to have the boilers of its engines properly tested; or to furnish suitable freight or passenger cars, and proper and safe attachments and appliances to be used in connection therewith; and such company can not divest itself of its duty to use due care and diligence with respect to the cars of other companies to be moved and handled by its employees, in seeing that such cars are in safe condition to be so moved and handled, by contracts with such other companies that they shall keep their cars in repair.

It is negligence in such a company to permit its employees to disobey its orders, and it is liable for injuries arising from the careless or reckless running of its trains, or the starting thereof without notice, or the running of its trains at immoderate speed.

Railroad companies, and employers of every description, are negligent if they fail to protect a servant who is exposed to danger; but such a company is not absolutely bound to take all possible precautions against storms, or against washouts, landslides, or other obstructions which may be dangerous to its employees. And if the mill of a manufacturing corporation is properly constructed for the carrying on of its ordinary business, the corporation is not liable to an employee who has been injured by a fire, not caused by the negligence of the corporation, because it failed to provide means of escape from the fire; nor is such corporation liable for an accident resulting in injury to an employee from its failure to fence the ordinary machinery used in the servant's employment; if, however, there is a custom in reference to the adoption of certain safeguards in a given business, so general that the employer is presumed to have knowledge of it, he is guilty of negligence if he fails to adopt such safeguards.

A master is not chargeable with negligence when an employee is injured through the use of a machine for an improper or dangerous purpose, for which it was not intended or provided, but is guilty of negligence when he exposes an employee to dangers not obvious or fairly incident to the employment, or where he introduces new and unusual machinery, involving unexpected danger, without notice to his employee.

Employers are not, as a rule, required to furnish the best and latest improved machinery, but only such as is reasonably safe and suitable. Railroad companies, however, are ordinarily bound to adopt new inventions as soon as they have been proved by satisfactory tests to be safer than the appliances in use.

While it is the duty of an employer to exercise reasonable care in keeping buildings, machinery, tools, etc., in suitable and safe condition for use, and to this end he should frequently inspect the machinery, etc., used by his employees, the system of inspection need not be carried to such an extent as will embarrass the operation of his business.

A master who sets a servant at work in a place of danger without giving him such warning and instruction as the youthfulness, inexperience, or lack of capacity on the part of the servant reasonably requires, is guilty of negligence, and liable to the servant for an injury arising therefrom. The fact, however, that a master sets a minor servant to work at a more dangerous occupation than that in which he was originally employed does not, in itself, render the master liable for an injury resulting therefrom, unless under all the circumstances the setting him at such work was a negligent act; but the master will be held more strictly accountable in such a case than in the case of an adult.

Proprietors of manufacturing establishments are charged with the duty of exercising ordinary care in providing their employees with suitable places in which they can work in reasonable safety, and without exposure to dangers not within the usual scope of their employment.

It is the duty of employers to make and promulgate such rules and regulations for the government of their employees as will, if observed, give them reasonable protection; and employees are bound to obey all the lawful and reasonable commands of their employers, though such commands may seem harsh and severe.

It is also the duty of employers to have a sufficient number of trustworthy, competent employees to properly and safely perform the labor required in the business in which they are engaged.

When certain duties are imposed upon an employer by legislative enactment or municipal ordinance, designed for the protection of his employees, it is negligence on his part to fail to comply with such requirements, and he is liable to his employees for injuries arising from such negligence, unless it can be clearly shown that they assumed the risk.

An employer can not avoid his liability to an employee for injuries sustained by the latter through his negligence by means of a contract with such employee which provides that in consideration of the employment he shall be exempt from such liability. Such a contract is against public policy and void. The supreme court of the state of Georgia has, however, sustained the validity of contracts of this character.

**CONTRIBUTORY NEGLIGENCE BY EMPLOYEES.**—It is a general rule that when an employee suffers an injury through the negligence of his employer he is not entitled to recover damages for such injury if his own negligence contributed thereto. Under this rule, where master and servant have equal knowledge of the danger of the service and the means of avoiding it, and the servant while engaged in the performance of his duties is injured by reason of his own inattention and negligence, the master is not liable; and where the servant is told to do a particular thing and is not directed as to the time or manner in which the work is to be done, it being left to his discretion, so that he is given some control over the means, time, and manner of doing it, he is guilty of contributory negligence if he does not use the safest means, time, and method of accomplishing the work and is injured while so engaged, and can not recover damages from the master; nor can he recover such damages if injured by the use of a defective appliance under his own exclusive care; nor where he had knowledge of a defect in an appliance used by him, through which he is injured, and failed to notify the master thereof, if no blame was imputable to the latter in failing to discover such defect, or in failing to furnish a safe and suitable appliance.

But an employee's right to recover damages for an injury is not affected by his having contributed thereto unless he was at fault in so contributing, and he may recover, notwithstanding his contributory negligence, if the master, after becoming aware of the danger, failed to exercise ordinary care to prevent the injury or willfully inflicted the damage.

When an employee in the course of his employment finds himself exposed to imminent peril due to the master's negligence, and in the terror of the moment adopts a course exposing him to greater peril and is injured, such action on his part does not constitute contributory negligence, and will not relieve the master from liability.

An employee is not guilty of contributory negligence if, when injured, he was exercising ordinary care to avoid injury, and discharging his duties in a careful and prudent manner, and the injury was sustained by reason of negligent failure on the part of the employer to exercise ordinary care for the employee's safety, as failure to warn the employee of extraneous risks and unusual dangers known to the employer but unknown to the employee, or to instruct an immature or inexperienced servant and warn him of the dangers attending his work not obvious to one of his capacity or experience; to provide suitable machinery,

tools, and appliances for carrying on the work at which the servant is employed; to inspect and repair machinery, tools, and appliances; to provide a safe place for the servant to work, the ordinary risks of the business excepted; to guard against a danger to a servant of which the master has been notified, or which he has promised to obviate, or which he has assured the servant did not exist; to make and promulgate proper rules and regulations for the conduct of the employment in which the servant is engaged; to employ and retain a sufficient number of competent and trustworthy servants to properly and safely carry on the business. The employee does not assume the risk of injury by reason of the negligent failure of his employer in fulfilling any of the duties incumbent upon him, and, as before stated, is not guilty of contributory negligence when injured by such failure, if he himself was without fault in the discharge of his duty.

Contributory negligence is purely a matter of defense in actions by employees for damages resulting from injuries sustained during the course of their employment, and the burden of proving it is upon the master who seeks thereby to avoid liability for such damages.

**ASSUMPTION OF RISKS BY EMPLOYEES.**—Where an employment is accompanied with risks of which those who enter it have, or are presumed to have, notice, they can not, if they are injured by exposure to such risks, recover compensation for the injuries from their employer; by contracting to perform hazardous duties the employee assumes such risks as are incident to their discharge, and he assumes not only the risks existing at the beginning of his employment, but also such as arise during its course, if he had or was bound to have knowledge thereof. He does not, however, assume the risk of dangers arising from unsafe or defective methods, machinery, or other instrumentalities, unless he has, or may be presumed to have, knowledge or notice thereof, and the burden of proving that an injured employee had such knowledge or notice of the defect or obstruction causing the injury is upon the employer.

The employee assumes all risk of latent defects in appliances or machinery, unless the master was negligent in not discovering the same; but the experience, or lack of experience, of the employee is to be considered in determining whether or not he is chargeable with knowledge of such defects as are not obvious and of the danger arising therefrom.

Another risk assumed by employees is that of the master's method of conducting his business. If the employee enters upon the service with knowledge of the risk attending the method, he can not hold the master responsible for injuries arising from the use of such method though a safer one might have been adopted; but in order to relieve the master from liability the method must amount to a custom or mode of carrying on the business, and not consist merely of an instance or any number of instances of culpable negligence on the part of the master.

**NEGLIGENCE OF FELLOW-SERVANTS.**—The general rule at common law is that he who engages in the employment of another for the performance of specified duties and services, for compensation, takes upon himself the natural and ordinary risks and perils incident to the performance of such services. The perils arising from the carelessness and negligence of those who are in the same employment are no exception to this rule, and where a master uses due diligence in the selection of competent, trusty servants and furnishes them with suitable means to perform the services in which he employs them, he is not answerable to one of them for an injury received in consequence of the carelessness or negligence of another, while both are engaged in the same service.

Various attempts have been made by judges and text writers to lay down some rule or formula by which to determine what servants of a common master may be said to be fellow-servants assuming the risk of each other's negligence. The following are well-known definitions:

Persons are fellow-servants where they are engaged in the same common pursuit under the same general control.

All who serve the same master, work under the same control, derive authority and compensation from the same common source, and are engaged in the same general business, though it may be in different grades or departments of it, are fellow-servants who take the risk of each other's negligence.

The true test of fellow-service is community in that which is the test of service; which is subjection to control and direction by the same common master in the same common pursuit. If servants are employed and paid by the same master, and their duties are such as to bring them into such a relation that the negligence of the one in doing his work may injure the other in the performance of his, then they are engaged in the same common pursuit, and being subject to the same control they are fellow-servants.

All servants in the employ of the same master, subject to the same general control, paid from a common fund, and engaged in promoting or accomplishing the same common object, are to be held fellow-servants in a common employment.

It is said that these definitions are faulty, and of little practical value by reason of their being stated so broadly and in such general and comprehensive terms, nevertheless they give a correct idea as to who have been determined by many courts to be fellow-servants within the rule exempting the master from liability for the negligence of one of them resulting injuriously to another.

The principal limitation contended for on the general rule in regard to fellow-servants is that there is such a servant as vice-principal, who takes the place of the master and is not a fellow-servant with those beneath him; and there is a variation of this idea to the effect that every superior servant is a vice-principal as to those beneath him. The doctrine of vice-principal is, however, repudiated by the courts of many of the states.

The master, as such, is required to perform certain duties which have been hereinbefore specified, and the person who discharges any of these duties, no matter what his rank or grade, no matter by what name he may be designated, can not be a servant within the meaning of the general rule on fellow-servants. The liability of the master for the nonperformance of such duties as the law implies from the contract of service, does not rest upon the ground of guarantee of their performance, but upon the fact of the presence or absence of negligence of the master in their performance.

Whether one is acting as the representative of the master or merely as the fellow-servant with others employed by the same master, does not depend upon his rank or title, but upon the character of the duties he is performing at the time another servant is injured through his negligence; if at such time the offending servant was in the performance of a duty which the master owed his servants, he was not a fellow-servant with the one injured, but a vice-principal, for the rule is fundamental that a master can not rid himself of a duty he owes to his servants by delegating his authority to another and thus escape responsibility for negligence in the performance of such duty.

If, however, at the time of the injury the negligent servant was not engaged in the performance of duty due from the master to his servants, but was discharging a duty which was due from the servant to the master, he was a fellow-servant to the one injured, engaged in the same common business, and the master would not be liable for the injuries sustained by reason of his negligence.

It is held by the courts of some of the states that, as industrial enterprises have grown, and, because of the division of labor and the magnitude of operations, have been divided into distinct and separate departments, a laborer in one department is not a fellow-servant with a laborer in another and separate department of the same establishment.

**INCOMPETENCY OF FELLOW-SERVANTS.**—If an employer knowingly employs or retains an incompetent servant he is liable for an injury to a fellow-servant sustained through the incompetency of the servant so employed or retained, provided the injured servant did not know and had not the means of knowing the incompetency of his fellow-servant. A master is not, however, liable for injuries to one servant by the negligence of another on the ground of unskillfulness of the latter unless the injuries were caused by such unskillfulness.

A master does not warrant the competency of his servants, but must use all ordinary care and diligence in their selection and retention. If he has not been negligent in selecting a servant, and subsequently obtains knowledge of the servant's incompetence and still retains him, he is liable to another servant for any injury resulting from said

incompetence. If the employer had no actual notice of the servant's incompetence, if it was notorious and of such a character that with proper care he would have known of it, he will still be liable.

If a person, knowing the hazards of his employment as it is conducted, voluntarily continues therein without any promise by the master to do any act to render the same less hazardous, the master will not be liable for an injury he may sustain therein, unless it is caused by the willful act of the master. No servant is entitled to damages resulting from the incompetence of a fellow-servant when he knew of such incompetence and did not inform his employer of the same.

When it is alleged that the master has been guilty of selecting or retaining an incompetent servant, the burden of proof of said allegation is on the plaintiff. Neither incompetency nor unskillfulness will be presumed; they must be proved.

A master who has employed skillful and competent general agents or superintendents is liable for injuries received by inferior servants through the negligence of those employed by such general agents or superintendents without due care or inquiry, or retained by them after knowledge of their incompetence.

While the servant assumes the ordinary risks, and, as a general rule, such extraordinary risks of his employment as he knowingly and voluntarily encounters, he is not required to exercise the same degree of care as the master in investigating the risks to which he may be exposed; he has the right to assume that the appliances and machinery furnished him by the master are safe and suitable for the employment in which he is engaged; and to assume, when engaged in an occupation attended with danger and requiring engrossing duties, that the master will not, without proper warning, subject him to other dangers unknown to him, and from which his occupation necessarily distracts his attention; and he has the right to rely upon the taking by the master of all usual and proper precautions against accident, and his faithful fulfillment of all the duties devolving upon him.

If an employee is ordered by his master into a situation of danger and obeys, he does not assume the risk unless the danger was so obvious that no prudent man would have obeyed the order; and the master will be liable for any injury resulting to him by reason of such dangerous employment. If, however, he leaves his own place of work for one more dangerous, in violation of the master's direction, he can not recover for an injury sustained after such change.

If the servant, upon being ordered to perform duties more dangerous than those embraced in his original employment, undertakes the same with knowledge of their dangerous character, unwillingly and from fear of losing his employment, he can not, if injured, recover damages from the master; nor can he recover such damages where the injury

results from an unexpected cause during the course of his employment; nor where the injury is sustained in the performance of a service not within the scope of his duty, if his opportunity for observing the danger is equal to that of his employer; and where an employee voluntarily assumes a risk he thereby waives the provisions of a statute made for his protection.

## BUREAUS OF STATISTICS OF LABOR.

In Belgium the *Office du Travail* (*Ministère de l'Industrie et du Travail*) was established in 1895 at Brussels, the official head of the office being entitled *Chef*. A superior council of labor (*conseil supérieur du travail*), which made investigations and reports on matters relating to labor, has been in existence since April 7, 1892. November 12, 1894, a separate labor bureau, similar to the American and French type, was created under the Department of Agriculture, Industry, and Public Works. But in 1895 this department was separated into two departments, known as Department of Agriculture and Public Works, and Department of Industry and Labor, and the newly created labor bureau was made a division under this latter department.

In France the *Office du Travail* (*Ministère du Commerce, de l'Industrie, des postes et des Télégraphes*) was established July 21, 1891, at Paris, the official head of the office being entitled *Directeur*. The publications of the bureau consist of special reports on particular subjects, of which a number are issued each year, and since January 1, 1894, a monthly bulletin, *Bulletin de l'Office du Travail*.

In Germany the *Kommission für Arbeiterstatistik* was established June 1, 1891, at Berlin. This is a permanent commission which issues special reports from time to time on particular questions and reports of the minutes of its meetings. The material collected by it is compiled by the Imperial Statistical Bureau.

In Great Britain the Labor Department of the Board of Trade was established in 1893 at London, the official head of the office being entitled Commissioner. A service for the collection and publication of statistics of labor has been in existence under the Board of Trade since March 2, 1886. In 1893 this service was greatly enlarged and given its present name. Its reports, therefore, date from 1886-87, and consist of annual reports of operations and statistical abstracts, annual reports on strikes and lockouts, annual reports on trades unions, annual reports on wages (contemplated), special reports, and, since May, 1893, a monthly Labor Gazette.

In Switzerland the *Secrétariat Ouvrier Suisse* was constituted December 20, 1886, at Berne. The *Secrétariat* is an officer of the federation of labor organizations, but is subsidized by the government, which directs him to make certain reports. His publications consist of annual and special reports.

In Ontario, Canada, a Bureau of Industries was organized under the Commissioner of Agriculture, March 10, 1882, the official head of the Bureau being styled Secretary. Annual and occasional special reports are issued.

In New Zealand a Bureau of Industries was created in 1892. In the following year the designation of the bureau was changed to that of Department of Labor. Its publications consist of annual reports and a monthly journal commenced in March, 1893, under the title Journal of Commerce and Labor, which after the issue of a few numbers was changed to that of Journal of the Department of Labor.

We have been informed unofficially that an office for the collection of labor statistics has recently been established in Spain.

The above statement is believed to include information concerning all bureaus of foreign governments specially created for the collection and publication of statistics relating to labor. It is not a statement, however, of the extent to which foreign governments publish labor statistics, as a great deal of valuable information on this subject is contained in the publications of the central statistical bureaus or other offices of foreign governments.

## BUREAUS OF LABOR STATISTICS IN THE UNITED STATES.

[In some instances there have been changes in the official titles of officers. They are given as they exist at present.]

State.	Official name of the office.
Massachusetts.....	Bureau of Statistics of Labor.....
Pennsylvania.....	Bureau of Industrial Statistics.....
Connecticut.....	Bureau of Labor Statistics.....
Ohio.....	Bureau of Statistics of Labor.....
New Jersey.....	Bureau of Statistics of Labor and Industries.....
Indiana.....	Bureau of Statistics.....
Missouri.....	Bureau of Labor Statistics and Inspection.....
Illinois.....	Bureau of Labor Statistics.....
California.....	Bureau of Labor Statistics.....
Wisconsin.....	Bureau of Labor and Industrial Statistics.....
New York.....	Bureau of Labor Statistics.....
Michigan.....	Bureau of Labor and Industrial Statistics.....
Maryland.....	Bureau of Industrial Statistics and Information.....
Iowa.....	Bureau of Labor Statistics.....
United States.....	Department of Labor.....
Kansas.....	Bureau of Labor and Industrial Statistics.....
North Carolina.....	Bureau of Labor Statistics.....
Maine.....	Bureau of Industrial and Labor Statistics.....
Minnesota.....	Bureau of Labor Statistics.....
Colorado.....	Bureau of Labor Statistics.....
Rhode Island.....	Bureau of Industrial Statistics.....
Nebraska.....	Bureau of Labor and Industrial Statistics.....
West Virginia.....	Bureau of Labor.....
North Dakota.....	Department of Labor and Statistics.....
Utah.....	Bureau of Statistics.....
Tennessee.....	Bureau of Labor Statistics and Mines.....
Montana.....	Bureau of Agriculture, Labor, and Industry.....
New Hampshire.....	Bureau of Labor.....
Washington.....	Bureau of Statistics, Labor, Agriculture, and Immigration.....

<sup>a</sup> From organization to May 11, 1874, commissioner.

<sup>b</sup> Reestablished. A like bureau had been established July 12, 1873, which, after making one report, was abolished July 23, 1875.

<sup>c</sup> Reorganized. See preceding note.

<sup>d</sup> To March 9, 1889, annual.

<sup>e</sup> This act created a bureau of labor statistics, and was repealed by an act approved March 23, 1883, which created a Bureau of Labor Statistics and Inspection.

## BUREAUS OF LABOR STATISTICS IN THE UNITED STATES.

[In some instances there have been changes in the official titles of officers. They are given as they exist at present.]

Date of act of establishment.	Year of organization.	Locality of the office (post-office).	Title of head of office.	Issue of reports.
June 23, 1869.....	1869	Boston.....	Chief.....	Annual.
April 12, 1872.....	1872	Harrisburg.....	Chief (a).....	Annual.
April 23, 1885 (b)...	c 1885	Hartford.....	Commissioner.....	Annual.
May 5, 1877.....	1877	Columbus.....	Commissioner.....	Annual.
March 27, 1878.....	1878	Trenton.....	Chief.....	Annual.
March 29, 1879.....	1879	Indianapolis.....	Chief.....	Biennial. (d)
May 19, 1879 (e).....	1879	Jefferson City.....	Commissioner.....	Annual.
May 29, 1879.....	1879	Springfield.....	Secretary.....	Biennial.
March 3, 1883.....	1883	San Francisco.....	Commissioner.....	Biennial.
April 3, 1883.....	1883	Madison.....	Commissioner.....	Biennial.
May 4, 1883.....	1883	Albany.....	Commissioner.....	Annual.
June 6, 1883.....	1883	Lansing.....	Commissioner.....	Annual.
March 27, 1884.....	1884	Baltimore.....	Chief.....	Biennial.
April 3, 1884.....	1884	Des Moines.....	Commissioner.....	Biennial.
June 27, 1884 (f).....	f 1885	Washington.....	Commissioner.....	Annual and special. (g)
March 5, 1885.....	1885	Topeka.....	Commissioner.....	Annual.
February 28, 1887..	1887	Raleigh.....	Commissioner.....	Annual.
March 7, 1887.....	1887	Augusta.....	Commissioner.....	Annual.
March 8, 1887.....	1887	Saint Paul.....	Commissioner.....	Biennial. (h)
March 24, 1887.....	1887	Denver.....	Deputy Commissioner (i)	Biennial.
March 29, 1887.....	1887	Providence.....	Commissioner.....	Annual.
March 31, 1887.....	1887	Lincoln.....	Deputy Commissioner (j)	Biennial.
February 22, 1889..	(k)	Charleston.....	Commissioner.....	Annual.
October 1, 1889.....	1889	Bismarck.....	Commissioner.....	Biennial.
March 13, 1890.....	(l)	Salt Lake City..	Territorial Statistician..	Annual.
March 23, 1891.....	1891	Nashville.....	Commissioners.....	Annual.
February 17, 1893..	1893	Helena.....	Commissioner.....	Annual.
March 30, 1893.....	1893	Concord.....	Commissioner.....	Annual.
March 19, 1895.....	(l)	Olympia.....	(i)	(l)

f This office was created June 27, 1884, under the title of Bureau of Labor and the Commissioner appointed January 31, 1885. By an act passed June 13, 1883, the office was established as the Department of Labor.

g Also, bimonthly bulletins are to be published beginning with November, 1895.

h To April 24, 1889, annual.

i The secretary of state is ex officio commissioner.

j The governor is ex officio commissioner.

k First report issued December 1, 1894.

l No report yet issued.