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INDUSTRIAL COMMUNITIES. (a)

BY W. F. WILLOUGHBY.

CHAPTER VI.

OTHER INDUSTRIAL COMMUNITIES.

The places that have been described in detail by no means constitute all the industrial centers in Europe coming under the designation of industrial communities. There is no hard and fast distinction that marks off a place as an industrial community. Under varying conditions are formed the practically self-contained industrial community, as Guise, the community dominated by and almost wholly given up to the interests of a single industrial establishment, as Essen or Anzin, and the ordinary manufacturing town, all of which may be styled industrial communities. In the middle class may be numbered a good many other places only slightly less important than those of which a detailed account has been given. While it is impracticable, if indeed it were desirable, to give to each of these the same full treatment that has been accorded to the others, it will nevertheless be of value to make mention of their existence and to give some account of their conditions or institutions most worthy of investigation. The following is believed to be a practically complete list of important places with sufficient of the character of industrial communities to cause the grouping around them of systems of special institutions, thus giving to them a special life and character of their own:

In France there are, first, the other more important mining communities, notably Douchy, Courrières, Liévin, and Bessèges, and, second, Le Creuzot, the seat of the important iron and steel works of MM. Schneider & Co., the "Krupp" of France; Noisiel, a unique community of its kind, the seat of the chocolate works of M. Menier, and Thaon, a village

a See footnote to the beginning of this series of articles in Bulletin No. 3.

almost wholly devoted to the enterprise of the Thaon Dyeing and Print Cloth Works. In Belgium those most worthy of mention are the mining community of Mariemont and Bascoup, the Vieille-Montagne Zinc Mining and Smelting Company, and Willebroek, the seat of the paper mills of De Naeyer & Co. In Holland there is the village of Agneta Park, the seat of the Netherland Yeast and Alcohol Factory, near Delft. In Switzerland the most prominent example is that of the Suchard Chocolate Works at Neuchâtel; in England, the not very fortunate enterprise of Saltaire, and in Italy, the works of Senator Rossi, at Schio. In Germany there is no industrial community at all approaching Essen in importance. Mention might be made of Bochum, where are located the iron works of the Bochumer Verein, and the works of Gebrüder Stumm at Neunkirchen.

A more or less full account of the more important of these places is given in this chapter.

THE MARIEMONT AND BASCOUP COAL MINING COMPANY, BELGIUM.

A number of considerations mark the Mariemont and Bascoup Coal Mining Company as the most worthy of study, from the standpoint of the present report, of all the industrial concerns in Belgium. The company is one of the most important in the country. The seat of its operations, the two adjoining villages of Mariemont and Bascoup, is so largely given up to this one concern as to constitute it a distinct industrial community, and, more than all, its workmen's institutions are among the most remarkable in Europe.

The present company was formed through the consolidation of the two separate companies of Mariemont and Bascoup, whose properties were contiguous. The mining of coal in this region dates back several centuries, but the first regular operations may be said to date from 1794, while the first concession to the companies was made in 1802. The two companies have constantly grown in importance through the acquisition of additional property. Legally they are still distinct companies, though they are under the same direction and for all practical purposes are one undertaking.

In 1894 the company employed in round numbers 6,500 men, and its annual production was between 1,000,000 and 1,200,000 tons.

In the organization of labor by the company the principle of piece-work has probably been carried further than in any other mine in Belgium, if not on the Continent. Wherever possible the work is let out by contract to the workmen, and in addition to the wages thus provided for certain premiums or bonuses are added for good work or participation in any savings that may be made in the use of materials and supplies. This is done by making an estimate of the cost of these supplies and tools under the system of day labor in vogue elsewhere,

and any saving made on this sum is shared equally by the men and by the company. M. Weiler, the engineer of the company, is very enthusiastic over the success of this system. He says that marked economy, which has profited the men and the company alike, is manifest in the use of both tools and materials. Every effort is made to interest the workmen in their work and in the general prosperity of the company. One of the unique methods employed is to make a large graphic representation of the organization of the company into departments, branches, etc., a copy of which is given to each workingman who deserves it, so that he can get an intelligent idea of the whole work of the company in which he is employed and the exact position that he occupies in this system. This is but a sample of the efforts made to give to the men an intelligent conception of what they are doing. They are encouraged to find an education in their work.

In 1888 the company prepared a statement of the average wages paid since 1869, as well as for the year 1888, in greater detail. These statistics of wages are the only ones available and are given in the tables that follow:

AVERAGE DAILY WAGES OF EMPLOYEES OF THE MARIEMONT AND BASCOUP COAL MINING COMPANY, 1869 TO 1888.

Year.	Average daily wages.	Year.	Average daily wages.	Year.	Average daily wages.	Year.	Average daily wages.
1869.....	\$0.56	1874.....	\$0.85	1879.....	\$0.61½	1884.....	\$1.67½
1870.....	.60	1875.....	.81½	1880.....	.70	1885.....	.62
1871.....	.62	1876.....	.79½	1881.....	.68½	1886.....	.62½
1872.....	.69½	1877.....	.66½	1882.....	.69	1887.....	.62½
1873.....	.89	1878.....	.62	1883.....	.72	1888.....	.63

AVERAGE DAILY WAGES OF EMPLOYEES OF THE MARIEMONT AND BASCOUP COAL MINING COMPANY, BY CLASSES, 1888.

MARIEMONT.

Class of employees.	Employees above ground.		Employees below ground.		Total employees.	
	Number.	Average daily wages.	Number.	Average daily wages.	Number.	Average daily wages.
Men.....	700	\$0.67	1,701	\$0.73½	2,401	\$0.71½
Women.....	127	.23½			127	.23½
Boys under 16 years of age.....	57	.22	260	.28	317	.27
Girls under 16 years of age.....	80	.19½			80	.19½
Total.....	964	.54½	1,961	.67½	2,925	.63

BASCOUP.

Men.....	569	\$0.63	1,864	\$0.76	2,433	\$0.73
Women.....	132	.27½			132	.27½
Boys under 16 years of age.....	38	.19½	319	.34	357	.32½
Girls under 16 years of age.....	92	.19			92	.19
Total.....	831	.50½	2,183	.70	3,014	.64½

WORKINGMEN'S INSTITUTIONS.

The workingmen's institutions of Mariemont and Bascoup include a complete scheme of institutions similar to those already described as existing at Anzin and Blanzly, such as the housing of employees, medical service, mutual-aid societies, cooperative distributive stores, schools, etc. To describe these in detail would result in unnecessary repetition. There are two institutions, however, which are unlike any yet studied and which form the central feature of the Mariemont and Bascoup Company's social work. These two, both of which are of great importance and interest, will therefore be described in detail, while a general description of the other work of the company will be sufficient. The first of these is the scheme of chambers of explanations (*chambres d'explications*) and councils of conciliation and arbitration (*conseils de conciliation et d'arbitrage*), organized for the prevention and adjustment of difficulties between the company and its employees, an effort which is without doubt the most important in Europe for the settlement of labor disputes without invoking the aid of the Government. The second is the system of workingmen's insurance against accidents, sickness, and old age. The latter is important, not because it is unique, but because it affords an example of the general system for the insurance of coal miners in Belgium.

Before commencing their consideration a few words should be said regarding the spirit in which these institutions have been created and are now administered, for it should never be forgotten that this spirit usually determines the real benefits that result. The following extract is quoted from an address delivered by M. Julien Weiler before the Société Belge d'Économie Sociale, entitled the Spirit of the Workingmen's Institutions of Mariemont. M. Weiler is the engineer in chief in charge of the practical operations of mining at Mariemont, and is the official to whom has been given the especial charge of all the company's work for its employees, and his remarks are therefore in the nature of an authoritative statement of the motives actuating the company in its social work. He says:

The question can be raised why we do not allow the pension and aid funds to be entirely managed by the workingmen. The reply to this is that we are desirous of diminishing our intervention each time that the workingmen manifest the desire to augment theirs. But the workingmen have not yet arrived at the stage where they can be disfranchised from all guidance. The proof of this is that as soon as they are released from control by the company they have recourse to some other guidance.

We think, however, and this is a point on which I wish to lay great stress, for it indicates the whole spirit of our institution, that the employer ought to continue his intervention provided that his intervention is limited to that which the workingmen themselves can not do. In other words, the employer, as regards the matter of tutelage, ought to prepare the way for his own abdication.

You do not find among us, therefore, patriarchal institutions. * * * On the contrary all our efforts tend to emancipate our workingmen intellectually and morally. Self-help is the sentiment we desire to inculcate, and I hope to show you that we have in great measure succeeded in our efforts.

COUNCILS OF CONCILIATION AND ARBITRATION.

Without doubt the most worthy of study of all the institutions of the Mariemont and Bascoup Coal Mining Company is the system adopted by it for the prevention and settlement of labor disputes. Its efforts in this direction are the most remarkable made by any private company in Europe. "The entire history of arbitration in Belgium," says the French Labor Bureau in its exhaustive report on Arbitration and Conciliation, "is contained in that of the councils of conciliation of Mariemont and Bascoup and in that of the councils of industry and labor."

The first application of the idea of conciliation in labor disputes by the Mariemont and Bascoup Company, and indeed the first application of that idea in Belgium, was made in the year 1877. As the result of a serious strike of his employees in 1875-76, the manager of the company requested his engineer, M. Julien Weiler, to make a thorough study of the question of conciliation and arbitration with the view of the introduction of some such system in the organization of labor in his company.

The first action, as the result of this investigation, took the form of the creation of chambers of explanation (*chambres d'explications*) in the workshops of the company. These were meetings of clerks or foremen and workingmen, with the object of furnishing a medium of communication between the employees and their employer, in order that misunderstandings might be avoided. In this way an opportunity was afforded for the settlement of demands that in themselves would often be readily granted were they only brought to the attention of the other side, but which if not explained might cause great trouble and friction. Each of the 9 trades in the workshops was represented by a committee of 6 workingmen and 6 clerks or foremen, with a central committee composed of a delegate from each group for the discussion of general questions.

At first, owing to lack of previous organization among the workingmen, and to the fact that the establishment of the chambers coincided with a serious reduction in wages, the results were not satisfactory. However, after the chambers had been in existence several years, and after several modifications had been made in their organization, they began to render valuable services. Fines were entirely abolished, while the officials were unanimously of the opinion that their regulations had never been more respected; moreover, the regulations themselves were revised by the committees. The system of task work which had previously been considered impracticable was successfully organized, and the cost of production diminished by at least 20 per cent, while wages were advanced to an equal extent.

In 1880 the system was extended to the employees engaged in the transportation of the coal, and in 1889 further extended so as to include all the different branches of the company's work and all its employees.

The creation of these chambers of explanation necessarily required the creation of an institution which, while leaving to these chambers the oversight of daily details, should itself have a higher character and take cognizance of more serious disputes. On January 1, 1888, therefore, there was created both at Mariemont and at Bascoup a council of conciliation and arbitration (*conseil de conciliation et d'arbitrage*). These councils constitute the supplement to the chambers of explanations. The constitutions of the two councils are practically identical. Each is organized in such a way as to secure to both the workingmen and the company an absolute equality. The council is composed of 6 representatives of the company and 6 representatives of the workingmen. The company chooses its representatives from among its higher employees, including the general manager. The 6 workingmen representatives are elected by a species of electoral college. Thirty-six delegates are elected by the workingmen, 6 from each branch of the company's service. Only those workingmen can vote who are 21 years of age and have been in the service of the company at least six months. This body, all the members of which have the right to attend the meetings of the council, elects 6 representatives, who alone have the right of voting in the deliberations. These representatives must be over 30 years of age and they must have been in the service of the company five or more years.

The council meets monthly. A president and vice-president are appointed annually, one of whom must be chosen from among the workingmen. The president convokes the meetings, at which two-thirds of the representatives of each side must be present in order to constitute a quorum.

All disputes of general interest must be discussed before the whole council. Prior to the examination of a disputed point, and during its discussion, work must be continued under the conditions which existed when the difficulty arose. Both parties agree to accept the decisions of the council for at least three months and the same question can not be raised again within that period. All the expenses of the council are defrayed by the company. Each representative and delegate is allowed 2 francs (39 cents) for each meeting that he attends, and is indemnified for all time lost.

The proof of the value of any institution is in the practical results of its operations. A survey of the operations of these councils during the first six years of their existence shows how many important questions have been brought to their attention and decided by them.

During the first year, 1888, there were 18 meetings of the council, at which 39 questions were considered. Nineteen of these were general questions, that is, such as concerned more than one group of working-

men; 10 were questions relating to one group or branch of workmen, and 10 related to individuals.

Among the more important general questions was a demand made in April for increased pay based on newspaper reports of an alleged revival of trade. The administration made a formal agreement to increase wages as soon as better times should set in and the other party was satisfied. On November 19 a second demand was made, resulting in a recommendation of a 5 per cent increase, which the administration granted.

Another question related to a demand for shorter hours and certain regulations regarding time of ascending and descending the mines. This question evoked heated discussions during three meetings of the council, when a committee of 2 from each side was appointed to thoroughly examine the question. The committee's report was in the form of a compromise and was adopted, to the satisfaction of both parties.

As frequent disputes had arisen regarding the time of arrival of employees, the council succeeded in having clocks placed at convenient points about the mines.

Several questions relating to health, security, and convenience were satisfactorily settled.

Among the minor questions were such as related to complaints on account of fines, promotions, discharges, errors in wage payments, etc. All these were disposed of after careful examination either by the council alone or with the assistance of special committees.

In 1889 there were 12 meetings of the council, at which 30 questions were considered. Of these 17 were general questions, 6 related to one group of workmen, and 7 to individuals. On September 23 the council considered a demand for a further increase of wages in proportion to the higher price of coal. The company offered its books in evidence, and the meeting adjourned pending their investigation. At the next meeting, October 22, the company agreed to increase the wages 5 per cent, to take effect November 1. Another increase of 5 per cent was made December 1, and still another of 10 per cent on January 1, 1890. Other general questions considered related to hours of work, the fine system, indemnities to workmen, etc.

In 1890 there were 16 meetings of the council, at which 57 questions were considered. Of these 39 were general questions, 15 related to one group of workmen, and 3 related to individuals. The general questions related to the health service, wages, the sale of coal to workmen, hours of labor, aid and provident funds, fines, holidays, handling of explosives, etc.

In 1891 there were 13 meetings, at which 47 questions were considered. Of these 33 were general, 12 special, and 2 individual questions. The general questions related to the health service, the provident fund, wages, fines, fuel, tools, etc.

In 1892 there were 12 meetings of the council, at which 27 general

questions, 7 special, and 4 individual questions, or a total of 38 were considered.

In 1893 there were 13 meetings of the council, at which 32 general, 8 special, and 2 individual questions, or a total of 42, were considered. The nature of the questions was about the same as that of other years.

WORKINGMEN'S SICK FUND AND OLD-AGE PENSION FUND.

The investigation of the insurance funds of the Mariemont and Bas-coup Company offers the opportunity for a study of the workings, in a particular case, of the general system of the insurance of miners in Belgium, one of the most interesting insurance systems on the Continent.

In Belgium the insurance of coal miners by their employers is obligatory. For this purpose there was created during the years 1839-1844 in each of the 6 great mining districts into which Belgium is divided a central insurance fund, in which all mining companies were required to participate. They have all been in active operation since then, and have therefore had an existence of over 50 years.

The scheme comprehended, in addition to the central funds for the more regular insurance of workingmen, the creation of special insurance funds by each mining company for purposes of relief in minor cases of sickness. Each mining company, therefore, participates in two funds, a central fund and a special individual one.

The central fund is maintained by (1) the payment of three-fourths of 1 per cent of their wages by the workingmen, (2) the payment of an equal amount by the company, (3) a subsidy from the State, (4) a smaller subsidy from the province, and (5) gifts and donations.

This fund is invested in approved securities. The schedule of monthly indemnities is as follows:

1. To an employee injured so as to be permanently and totally unable to work—	
(a) Workingman, married, 19 years of age or over.....	\$5.79
(b) Workingman, unmarried, 19 years of age or over.....	4.44
(c) Workingman, unmarried, less than 19 years of age.....	2.97
(d) Workingwoman, 16 years of age or over.....	2.66
(e) Workingwoman, less than 16 years of age.....	1.78
2. To an employee injured so as to be able to earn not more than 50 per cent of his usual wages—	
(a) Workingman, married, 19 years of age or over.....	4.25
(b) Workingman, unmarried, 19 years of age or over.....	3.28
(c) Workingman, unmarried, less than 19 years of age.....	2.20
(d) Workingwoman, 16 years of age or over.....	1.97
(e) Workingwoman, less than 16 years of age.....	1.31
3. To an employee injured so as to be able to earn from 51 to 70 per cent of his usual wages—	
(a) Workingman, married, 19 years of age or over.....	2.90
(b) Workingman, unmarried, 19 years of age or over.....	1.93
(c) Workingman, unmarried, less than 19 years of age.....	1.29
(d) Workingwoman, 16 years of age or over.....	1.16
(e) Workingwoman, less than 16 years of age.....	.77

4. To an employee injured so as to be able to earn from 71 to 85 per cent of his usual wages—	
(a) Workingman, married, 19 years of age or over.....	\$1. 54
(b) Workingman, unmarried, 19 years of age or over.....	1. 16
(c) Workingman, unmarried, less than 19 years of age.....	. 77
(d) Workingwoman, 16 years of age or over.....	. 69
(e) Workingwoman, less than 16 years of age.....	. 46
5. To an employee injured so as to be able to earn over 85 per cent of his usual wages, no allowance.	
6. To a widow of a workingman killed by an accident—	
(a) Personal allowance.....	2. 90
(b) For each male child under 12 or female child under 15 years of age... ..	. 39
7. To a widow of a workingman pensioned on account of injuries not fatal—	
(a) Personal allowance, 50 per cent of husband's pension.	
(b) For each male child under 12 or female child under 15 years of age... ..	. 39
8. To a father and mother or a grandfather and grandmother of a workingman killed by an accident when unable to support themselves—maximum for division among all.....	1. 74
9. To an orphan of a workingman killed by an accident—	
(a) Male, until 12 years of age.....	1. 16
(b) Female, until 15 years of age.....	1. 16
10. To a workingman unable to work and at least 55 years of age, and having been employed at least 30 years, or of any age and having been employed 38 years.....	2. 90
11. To a workingman, whether able to work or not, 60 years of age, or 65 if employed more than half the time above ground, and having been employed 35 years.....	3. 86
12. To the widow of a workingman pensioned on account of old age, if she had been his wife 30 years.....	1 54

The operations of this fund may be seen from the following figures, taken from the latest annual report obtainable, showing receipts and expenditures during that fiscal year and during the entire period of its existence:

RECEIPTS AND EXPENDITURES OF THE MINERS' INSURANCE FUND OF THE CENTRAL DISTRICT OF BELGIUM, 1893, AND AGGREGATE, 1841-1893.

Items.	1893.	1841-1893.
RECEIPTS.		
Contributions of employees, retained from wages.....	\$36, 638. 08	\$713, 397. 48
Contributions of mine owners.....	36, 638. 08	713, 397. 48
Subsidy of central government.....	1, 361. 28	46, 650. 53
Subsidy of province.....	282. 55	9, 299. 19
Interest on funds invested.....	8, 252. 93	217, 547. 97
Total.....	83, 172. 92	1, 700, 292. 65
EXPENDITURES.		
Running expenses other than cash benefits:		
Salary of secretary.....	386. 00	(a)
Salaries of commission of physicians.....	115. 80	(a)
Attendance fees of workingmen's delegates.....	247. 04	(a)
Rent of room.....	58. 60	(a)
Printing annual report.....	58. 60	(a)
Stamps and miscellaneous.....	27. 03	(a)
Total running expenses.....	853. 07	17, 745. 29
Pensions and aid.....	74, 444. 00	1, 896, 287. 16
Indemnities to widows remarrying.....	593. 59	18, 903. 14
Total.....	75, 890. 66	1, 422, 935. 59
Excess of receipts over expenditures.....	7, 282. 26	277, 357. 06

a Not reported.

During the year 1893 the number of pensioners increased from 2,241 to 2,366 and the value of the average yearly pension from 166.69 francs (\$32.17) to 167.12 francs (\$32.25). Among this number of 2,366 pensioners there were 1,162 pensioned for old age (old workingmen or widows of old workingmen). During the life of the fund 6,219 pensions have been recorded. Of these 3,853 have become extinguished, leaving on December 31, 1893, as has been stated, 2,366 still in existence. There are nine corporations participating in the fund, of which that of Mariemont and Bascoup is easily the most important. Of the total amount paid for all the companies in 1893, it contributed 153,980.66 francs (\$29,718.27), or 40.56 per cent, and among the total number of pensioners it was credited with 923, or 36.31 per cent.

As has been said, each mining company is required also to maintain a special fund for relief purposes rather than insurance operations, properly speaking. In compliance with this obligation, two special relief funds have been organized by the Mariemont and Bascoup Company, one in Mariemont and the other in Bascoup. Their constitutions are practically identical.

The special relief funds are constituted by (1) the payment by the workingmen of a sum equal to three-eighths of 1 per cent of their wages, (2) the payment by the company of an equal amount, and (3) the payment by the company of all sums collected by it through fines levied upon the workingmen.

From this fund benefits are paid to workingmen as follows: In case of accidents an indemnity equal to 30 per cent of their wages during three months if they are incapacitated for work that length of time. After that patients are cared for by the general insurance fund. In case of sickness an indemnity is paid during the first six months equal to 22 per cent of the patient's wages, during the second six months one equal to 15 per cent, and during the second year one equal to 7½ per cent of his average wages. In case the sickness continues longer than two years special provision is made in each case.

An important point to be noted in connection with this as well as the general fund is the large extent to which the workingmen themselves participate in its management.

The following statement of the receipts and expenditures of the funds of both Mariemont and Bascoup for the year 1893 will show the extent of their operations:

Cash on hand January 1, 1893.....	\$633. 67
Receipts.....	10, 392. 85
Total	11, 026. 52
Expenditures	11, 371. 71
Deficit borne by the company December 31, 1893.....	345. 19

In addition to the work done by these two funds a great deal is done by the company along the same lines through its old-age pension fund

for its office employees, engineers, etc., and through its pension fund for boss miners, foremen, chief machinists, and laborers of a similar grade, and by the workingmen themselves through their mutual aid societies.

In 1868 the company organized a pension fund for its higher employees which provides for a maximum pension equal to 60 per cent of the recipient's usual wages after he is 60 years of age and has been in the employ of the company 35 years, or has become incapacitated for work, whatever his age or length of service. In case the incapacity is due to an accident the pension can equal 70 per cent of his wages. Provisions are also made for pensioning the widows of members. The funds are raised through the retention of a certain percentage of the wages of members and the payment of a varying amount by the company.

The company also, entirely at its own expense, grants pensions to its boss miners, foremen, chief machinists, etc., (1) in the case of boss miners when they are 55 years of age, and of the others when they are 60 years of age; (2) when incapacitated for work, whatever their age, as the result of old age or sickness; (3) when incapacitated for work as the result of an accident. In the first and second cases the pension is equal to 2 per cent of the recipient's wages for each of the first 15 years that he has been in the service of the company and 1 per cent for each succeeding year. In the third case the pension is equal to 5 per cent of the wages for each of the first 5 years and three-fourths of 1 per cent for each succeeding year of his service. In no case, however, can the pension exceed 40 per cent of the wages nor be less than 35 francs (\$6.76) per month. Provision is also made for the pensioning of the widows of these workingmen. If these pensioners are in receipt of pensions from the two regularly constituted funds, only the excess of the pension which they are entitled to under the present regulations over those received from the regular funds is paid to them.

It will be unnecessary to describe the character and operations of the mutual-aid societies organized by the workingmen, as they offer little variation from the aid societies described in the cases of Anzin and Blanzy. It is sufficient to say that they are entirely independent of the management of the company, their funds are obtained through membership dues and interest on capital invested, and their objects are the granting of aid in cases of sickness, the defrayal of funeral expenses of deceased members, etc. Membership in these societies is almost universal on the part of the workingmen.

OTHER SOCIAL INSTITUTIONS.

The remaining institutions need only a brief mention. They include savings banks, technical and primary schools, cooperative societies, workingmen's houses, etc. The company has itself erected 562 houses for its employees. They are arranged in groups of two, four, and six. Each house possesses a small garden. Their average cost was about

3,500 francs (\$675.50) and the average rent is 7.50 francs (\$1.45) per month, which gives a return on the money invested of $2\frac{1}{2}$ per cent. The company has also advanced money to its employees with which to build houses of their own. About 40 houses are annually built by this means, and it is estimated that one-quarter of the workingmen have become house owners. Several cooperative societies for the sale of commodities, organized by the employees themselves, have been in operation since 1869. Though moderately successful, they have far from driven private dealers from the field. The great benefit derived from them is that they have compelled the other dealers to lower their prices to their own standard of minimum prices.

VIEILLE-MONTAGNE ZINC MINING AND SMELTING COMPANY, BELGIUM.

There are few more interesting aggregations of workingmen's institutions than that organized under the auspices of the Zinc Mining and Smelting Company of Vieille-Montagne, of Belgium, with its headquarters at Chénée. At the same time there is not the same opportunity for studying the conditions of a particular locality as in the case of Anzin, Essen, Guise, or Blanzky, for the company has constantly extended its operations, acquiring other establishments in other countries as well as in Belgium, until to-day it almost controls the zinc trade of Europe. As in each place, however, it has pursued the policy of organizing its workingmen into special communities with their special institutions, their study enters into the scope of the report.

The history of the zinc industry is practically that of the Vieille-Montagne Company. The industry may be said to have been created by it through the discovery of an easy process for the reduction of zinc ore by Abbé Dony, the real founder of the Vieille-Montagne Company. The existence of ore rich in zinc at Vieille-Montagne was known as early as the middle of the fifteenth century, but the efforts that culminated in the present company only date from 1806, when Abbé Dony was granted his concession. Dony, through his discovery of the means of extracting the pure zinc from the ore, laid the foundation for the industry. In 1837 the present Vieille-Montagne Company was created in order to concentrate various interests that had become scattered among different heirs. Even at this time the industry was in a feeble condition. The company, however, early inaugurated the policy of bringing in and absorbing other mines and establishments for the extraction and production of zinc. Thus at the present time, though the seat of the company and the most important center of production is at Vieille-Montagne, it has in its possession twenty-one large establishments situated at different points in Belgium and other countries.

The company has now reached a position where it is much the largest zinc mining and manufacturing company in the world. In 1890 the total production of zinc in Europe was 287,494 tons. Of this amount

the Vieille-Montagne Company produced 53,710 tons, or between one-fifth and one-sixth of the total amount, or 30,000 tons more than that mined by the next largest company.

WORKINGMEN'S INSTITUTIONS.

The fact that all of the company's establishments are organized in one central system and that the same policy regarding social institutions has been followed throughout makes it possible to study the social work of the company as a whole in much the same manner as if there were one instead of a number of industrial centers.

In 1889 the company, in a pamphlet published in connection with its exhibit at the Paris Exposition, made the following concise statement of the principles by which it has been guided in the treatment of its employees. A translation of it is given:

1. The best mode of remunerating workingmen is that which interests them not only in the general profits of the enterprise, but also in the industrial results over which they themselves can exercise a direct and personal influence.

2. In order that wages may be sufficient, they ought to be of an amount that would permit workingmen not only to live, but also to make savings in order to provide for future as well as present wants.

3. But even if the workingmen receive such wages, they will not save nor acquire possession of homes unless the employer facilitates their so doing either through the creation of savings banks or by advances made with liberality and yet with caution.

4. Even with this aid but a minority of workingmen will be in a position to profit by these institutions. For the protection of the others there should be organized funds aiding them in cases of sickness, invalidity, and old age.

5. Two considerations which too often are neglected are absolutely necessary in order to insure the normal operation of these funds and prevent their disaster.

- (a) The first consists in keeping an exact account of present and especially of prospective expenditures and in providing resources and the necessary reserves.

- (b) The second consists in avoiding the systems of the management of the funds by the employer alone or by the employees alone, in favor of a mixed system.

In that way only can workingmen be interested in the management and the necessary control by the employer be at the same time exercised.

To carry out these principles, the company has organized a system for the determination of wages and for limited profit sharing, institutions to aid workingmen to become house owners, aid and insurance funds, savings banks, and other institutions intended to better the intellectual and moral condition of its employees.

THE SYSTEM OF THE DETERMINATION OF WAGES.

All those who take part in any way in the work of the company, from the manager down to the ordinary workingman, are interested within the limits of their respective spheres of action in the financial returns of the work carried on. This result has been obtained through the application of a system of extra wages, premiums, or additions to regular wages. The remuneration of employees is made to consist of two parts, the one fixed, or wages, properly speaking, the other variable, called a premium. The first is intended to be, in a way, pay for the time consecrated by the employee to the service of the company; the second is a reward for personal efforts—a return for the special activity and intelligence displayed by the workingman.

The basis on which the premium is determined varies according to the nature of the service. The premiums are proportional either to the quantity of ore mined or to the economy in the use of material, especially that of fuel, or to the amount of the final product produced within a given time. The amount of the premium is greater or less, according to the relative importance of the work; but whatever the basis—and this is a matter of prime importance—the workingman always knows exactly the rate, and each day, according to the results obtained, can himself calculate his share. The premium account is made up at the same time as that of his wages, but only half of the amount earned is paid over. The other half is carried to his account, and is not liquidated until the end of the year. In this way the workingman has quite an accumulation of savings at the end of each year.

The following table shows the total number of employees and the average daily wages per employee for each year since the organization of the company:

AVERAGE DAILY WAGES OF EMPLOYEES OF THE VIEILLE-MONTAGNE ZINC MINING AND SMELTING COMPANY, 1837 TO 1888.

Year.	Em- ployees.	Average daily wages.	Year.	Em ployees.	Average daily wages.	Year.	Em- ployees.	Average daily wages.
1837.....	932	\$0.26	1855.....	6,763	\$0.37	1873.....	6,994	\$0.60
1838.....	945	.26	1856.....	5,417	.43	1874.....	6,751	.62½
1839.....	960	.26½	1857.....	5,492	.43	1875.....	6,477	.62½
1840.....	982	.26	1858.....	6,068	.46	1876.....	6,472	.62½
1841.....	1,080	.26½	1859.....	4,947	.43½	1877.....	7,121	.60½
1842.....	1,072	.26½	1860.....	5,034	.43	1878.....	7,193	.60½
1843.....	1,124	.27	1861.....	5,264	.43	1879.....	6,890	.60
1844.....	1,148	.27	1862.....	5,332	.44	1880.....	6,363	.59½
1845.....	1,187	.27½	1863.....	5,559	.45½	1881.....	6,859	.60½
1846.....	1,211	.28½	1864.....	5,842	.45½	1882.....	6,960	.61½
1847.....	1,432	.28	1865.....	6,223	.46½	1883.....	6,902	.61½
1848.....	1,247	.31½	1866.....	6,495	.48	1884.....	6,547	.60
1849.....	1,511	.35½	1867.....	6,696	.49	1885.....	6,101	.61
1850.....	1,952	.35	1868.....	6,802	.49	1886.....	5,900	.61
1851.....	2,083	.40½	1869.....	7,115	.50	1887.....	6,218	.61
1852.....	2,242	.40½	1870.....	6,902	.51	1888.....	6,512	.61½
1853.....	4,451	.37	1871.....	7,118	.52			
1854.....	5,950	.36½	1872.....	7,074	.55½			

These figures are of course of value only from the standpoint of a comparison of wages from year to year. But for this purpose they are of exceptional interest, covering, as they do, a period of over fifty years in the most important establishment in the world of the industry to which it relates. Average wages, it will be seen, have gradually risen from 1.35 francs (\$0.26) in 1837 to 3 24 francs (\$0.62½) in 1875, since when the average has been almost stationary. According to the report of the company for 1893 the average for that year was exactly that paid in 1875. Of this amount the premium represents a proportion ranging from 10 to 25 per cent.

In commenting on these figures for the year 1888 the company said:

It should be remarked that the average wages, 3.18 francs (\$0.61), relate to workmen very differently situated. We can therefore say that, although the average wages paid amount to 3.18 francs (\$0.61) per day, or 1,019 francs (\$196.67) per year, in reality 50 per cent of the employees earn yearly wages of 1,200 francs (\$231.60) or more, and the remainder earning less is composed in large part of youths whose wages are added to the family income.

As in the case of Anzin, it would be a matter of interest to compare the variation in wages with the variation in the prices of commodities that enter into the cost of living for the workmen. In the present case material is at hand to do this in but the single case of wheat. The table that follows shows this relative variation by expressing the quantity of wheat that the average salary will buy.

QUANTITY OF WHEAT PURCHASABLE BY AVERAGE WAGES OF EMPLOYEES OF THE VIEILLE-MONTAGNE ZINC MINING AND SMELTING COMPANY, 1837 TO 1888.

Years.	Average daily wages.	Price of wheat per hectoliter (a).	Bushels of wheat average daily wages would purchase.
1837 to 1846.....	\$0. 27	\$5. 05	0. 151
1847 to 1856.....	. 36½	5. 82	. 178
1857 to 1866.....	. 45	4. 98	. 255
1867 to 1876.....	. 55½	6. 06	. 259
1877 to 1886.....	. 60½	4. 87	. 354
1887.....	. 61	3. 70	. 467
1888.....	. 61½	3. 76	. 463

a Hectoliter equals 2.8377 bushels.

This table shows that though the period of the greatest increase in nominal average wages was between the years 1837 and 1876, and that wages were comparatively steady during the period 1877 to 1888, yet that if wages were expressed in wheat this latter period would be the one of the greatest increase. It thus affords an illustration of the necessity of distinguishing between nominal and actual wages.

INSTITUTIONS TO AID WORKINGMEN TO BECOME HOUSE OWNERS.

It has been the consistent policy of the company to encourage the workingmen to become the proprietors of their houses. To do this it has, according to circumstances, either bought and subdivided land which it afterwards offered to its employees on favorable terms, or has made advances to them with which to build, repayable in installments, or has itself built houses that it sold on the installment plan. In this way over one thousand of its employees have become house owners. In addition to this the company has also encouraged the acquisition of garden plots by employees. The acquisition of gardens has gone along with that of houses. A great many of the owners of houses are reported as owning a cow, and almost all of them keep one or more pigs.

The company has also made notable efforts along the line of constructing houses to rent to those of its employees who are unable or unwilling to become house owners. In general these houses are constructed in groups of two or four, with but a single tenement to each house. A house of four rooms, with shed attached and a small garden, rents for from 80 to 100 francs (\$15.44 to \$19.30) per year, or about 10 per cent of the wages of the renter. The company says regarding the question of housing:

Our experience has demonstrated that isolated and independent houses form the preferable system from every point of view for workingmen.

AID AND INSURANCE FUNDS.

Workingmen's aid societies in connection with the Vieille-Montagne Company consist of three institutions by which the European workingman usually provides for the future or the contingencies of sickness and old age: (1) Sick and accident fund, (2) old-age pension fund, and (3) savings banks.

The sick and accident fund was organized as early as 1847. Its objects are:

1. To furnish gratuitously in cases of sickness or accident medical aid to workingmen and members of their families dependent upon them.
2. To grant to those thus temporarily incapacitated for work pecuniary aid during their invalidity. The amounts of these indemnities have varied at different periods. Under the present regulations, which went into effect in 1886, the amount paid in each case is determined by a permanent commission, but can not exceed one-third of the recipient's average wages in case of sickness or one-half of his wages in case of incapacity resulting from an accident.
3. To contribute by a grant of money toward defraying the expense consequent upon childbirth in a workingman's family.

4. To contribute to the funeral expenses of a workingman or of a member of his family by the grant of a fixed indemnity of 20 francs (\$3.86) in the case of a married workingman, 15 francs (\$2.90) for unmarried adults, and 5 francs (\$0.97) for children, in addition to furnishing the coffin.

5. To furnish temporary aid to widows, orphans, and parents of deceased workingmen. The rate of these indemnities is as follows: 50 centimes (10 cents) per day to the widow of a workingman; 75 centimes (14 cents) per day to the widow of an overseer; 10 centimes (2 cents) per day to each child until he or she is 14 years of age, or in case the other parent is also dead 25 centimes (5 cents) per day, and 25 centimes (5 cents) to the parents of the deceased.

Previous to April 11, 1891, the resources of this fund were obtained by a contribution on the part of the workingmen of an amount equal to from 1 to 5 per cent of their wages, the company making up any balance necessary for the complete carrying out of its provisions. On that date, however, the company assumed the entire charge of the fund, the workingmen henceforth contributing in no way to the support of the fund.

The old-age pension fund likewise dates from 1847, and was established in order to grant life pensions to workingmen who had become unable to work either as the result of old age or sickness after having been in the employment of the company a certain period of years. The amount of the pension is fixed at one-fifth of the amount of the pensioner's average annual wages, obtained by taking an average of the three years in which he earned the most during the last five years of his service. This amount, however, can not be less than 50 centimes (10 cents) nor more than 1 franc (19 cents) per day. In order to be entitled to a pension the workingman must have had 15 years of continuous service with the company and be totally incapacitated for work. If, however, he is incapacitated as the result of an accident received in the service of the company through no fault of his own, he is entitled to a pension irrespective of the length of his service. The expenses of this fund have always been borne by the company. These two funds supplement each other, and together form one system. To some extent, therefore, space will be economized by showing the results of their operations in the same tables. The first table shows the total expenditures of each fund each year since 1850, the average expenditure per member, and the relation that the total expenditure bears to average wages.

EXPENDITURES OF THE SICK AND ACCIDENT FUND AND THE OLD-AGE PENSION FUND OF THE VIEILLE-MONTAGNE ZINC MINING AND SMELTING COMPANY, 1850 TO 1888.

Year.	Expenditures.			Average expenditure per member.			Per cent of total expenditures of total wages.	Number of pensioners.
	Aid fund.	Pension fund.	Total.	Aid fund.	Pension fund.	Total.		
1850	\$4,036.60	\$1,443.25	\$5,479.85	\$2.07	\$0.74	\$2.81	2.65	(a)
1851	6,464.15	3,476.89	9,941.04	3.10	1.67	4.77	3.88	(a)
1852	5,503.98	4,228.24	9,732.22	2.45	1.89	4.34	3.55	(a)
1853	9,058.65	5,460.74	14,519.39	2.05	1.23	3.28	2.93	(a)
1854	16,868.78	7,841.78	24,710.56	2.83	1.32	4.15	3.21	42
1855	18,522.60	8,368.67	26,891.27	2.74	1.24	3.98	3.51	(a)
1856	22,505.35	8,927.02	31,432.37	4.15	1.65	5.80	4.11	(a)
1857	23,996.85	8,764.13	32,760.98	4.37	1.60	5.97	4.21	(a)
1858	19,431.24	8,797.91	28,229.15	3.20	1.45	4.65	3.37	(a)
1859	16,033.09	9,023.71	25,056.80	3.24	1.82	5.06	3.89	(a)
1860	17,028.20	9,650.77	26,678.97	3.38	1.92	5.30	4.10	51
1861	17,186.26	10,569.65	27,755.91	3.26	2.01	5.27	4.06	(a)
1862	17,127.78	11,798.83	28,916.61	3.21	2.21	5.42	4.10	(a)
1863	19,598.04	12,802.27	32,200.31	3.49	2.30	5.79	4.26	(a)
1864	21,266.28	12,982.34	34,248.62	3.64	2.22	5.86	4.29	(a)
1865	23,157.30	12,638.60	35,795.90	3.72	2.03	5.75	4.37	(a)
1866	29,111.73	14,947.85	44,059.58	4.48	2.30	6.78	4.69	(a)
1867	24,713.07	19,649.91	44,362.98	3.69	2.94	6.63	4.52	(a)
1868	27,044.12	19,860.09	46,904.21	3.98	2.92	6.90	4.70	(a)
1869	27,986.16	20,653.89	48,640.05	3.94	2.90	6.84	4.57	(a)
1870	27,206.82	21,305.27	48,512.09	3.94	3.09	7.03	4.61	57
1871	27,810.14	23,503.16	51,313.30	3.91	3.30	7.21	4.61	(a)
1872	27,874.27	25,803.33	53,677.60	3.91	3.65	7.56	4.53	(a)
1873	29,410.69	22,241.90	51,652.59	4.21	3.18	7.39	4.10	(a)
1874	31,641.77	23,302.44	54,944.21	4.69	3.45	8.14	4.35	(a)
1875	36,766.12	32,525.71	69,291.83	5.68	5.02	10.70	5.70	155
1876	36,664.98	45,694.10	82,359.08	5.66	7.06	12.72	6.77	(a)
1877	39,176.88	52,453.15	91,630.03	5.50	7.37	12.87	7.08	(a)
1878	37,804.84	51,252.31	89,057.15	5.26	7.12	12.38	6.96	(a)
1879	36,008.01	49,370.75	85,378.76	5.23	7.16	12.39	6.90	(a)
1880	38,398.76	48,670.36	86,979.12	6.02	7.65	13.67	7.64	246
1881	38,670.25	48,049.67	86,719.92	5.64	7.00	12.64	6.95	340
1882	28,749.09	48,532.16	77,281.25	4.13	6.97	11.10	5.88	352
1883	29,915.00	48,986.30	78,901.30	4.33	7.10	11.43	6.21	374
1884	35,713.11	49,949.36	85,662.47	5.45	7.63	13.08	7.25	469
1885	29,469.94	56,418.53	85,888.47	4.83	9.25	14.08	7.82	474
1886	44,988.11	34,718.57	79,706.68	7.63	5.88	13.51	7.49	472
1887	40,970.81	35,634.36	76,605.17	6.50	5.73	12.23	6.76	508
1888	39,859.71	34,004.48	73,864.19	6.12	5.22	11.34	6.32	487

a Not reported.

The following table shows in greater detail the objects of the expenditures of the combined funds for the years 1850 to 1888, inclusive, as well as the proportion each item of expense bears to the total amount expended:

AGGREGATE EXPENDITURES OF THE SICK AND ACCIDENT FUND AND THE OLD-AGE PENSION FUND OF THE VIEILLE-MONTAGNE ZINC MINING AND SMELTING COMPANY, BY OBJECTS OF EXPENDITURE, 1850 TO 1888.

Objects of expenditure.	Expenditures, 1850 to 1888.	Average yearly expenditures.	Per cent of each item of expenditure of—	
			Total expenditures.	Total wages.
Indemnities for accidents, sickness, and partial invalidity	\$504,173.90	\$12,927.54	25.47	1.28
Medicines	264,514.22	6,782.42	13.36	.67
Medical service	259,426.93	6,651.97	13.11	.65
Funeral expenses and other expenditures	154,318.94	3,956.89	7.80	.39
Old-age and invalidity pensions	418,599.24	10,733.31	21.15	1.06
Payments to widows	294,239.31	7,544.60	14.86	.74
Payments to orphans	84,214.20	2,159.34	4.25	.21
Total	1,979,486.74	50,756.07	100.00	5.00

These two tables serve a double purpose. In the first place, they show to how great an extent the wages of the workingmen are supplemented by their participation in these relief funds. The addition thus made to wages is seen to have steadily increased, both absolutely and relatively to wages, until 1880, after which it has varied more or less, with a slight tendency to decrease. Thus in 1850 each workingman received on an average benefits to the amount of 14.55 francs (\$2.81), which represented an increase to his wages of 2.65 per cent. In 1860 the amount was 27.46 francs (\$5.30), or 4.10 per cent; in 1870, 36.42 francs (\$7.03), or 4.61 per cent, and in 1880, 70.83 francs (\$13.67), or 7.64 per cent, while in 1888 the amount of benefits had sunk to 58.77 francs (\$11.34), or 6.32 per cent. The average for the whole period represented an addition to wages of 5 per cent.

On the other hand, these tables, in common with similar tables given for the other industrial communities, have a theoretical interest to students of workingmen's insurance as showing how great an average expenditure is necessary on the part of a company if the funds are supplied by it, or how great a proportion of their wages must be sacrificed by the workingmen if the funds are maintained by them, in order to insure the steady operation of (1) a sick fund providing for the supply of medicine and medical attendance and a fixed sick benefit and (2) a pension fund for old and incapacitated workingmen and their widows and orphans.

The last table is of especial interest as showing what portion of this expenditure is devoted to each specific purpose.

In considering the significance of these figures the important facts should be noted that (1) expenses of administration are not included, (2) that the figures relate to a body of men that has been constantly increasing in numbers, (3) that necessarily the expenditures for pensions during the first few years after the inauguration of the fund would be comparatively light, but that as the fund became older the number of pensioners would increase materially. The company believe that a normal number has now been reached, varying between 450 and 500.

SAVINGS BANK.

The company first organized a savings bank in 1842. In the beginning but slow progress was made. For a good many years the number of depositors and the amount of deposits increased scarcely at all. Commencing with 1853, however, the use of the bank by employees has increased yearly. Thus while in that year there were but 126 depositors, representing scarcely 2 per cent of the personnel, in 1888 there were 900 depositors, or nearly 14 per cent of all employees. The following table shows the number of depositors, the amount of deposits, etc.,

for each year from 1853 to 1888. Five per cent interest on deposits has been paid from the start:

DEPOSITORS AND DEPOSITS IN THE SAVINGS BANK OF THE VIEILLE-MONTAGNE ZINC MINING AND SMELTING COMPANY, 1853 TO 1888.

Year.	Depositors.	Amount deposited.	Amount withdrawn.	Interest earned.	Amount on hand at end of year.	
					Total.	Per depositor.
1853.....	126				\$11,751 19	\$93.26
1854.....	153	\$9,777.57	\$6,703.66	\$668.55	a 15,489.79	101.24
1855.....	147	6,767.35	7,749.14	763.90	15,271.90	103.89
1856.....	147	7,958.35	7,969.94	766.02	16,026.33	109.02
1857.....	181	8,001.39	5,434.68	829.13	19,422.17	107.30
1858.....	202	9,674.13	6,689.96	1,035.44	a 23,422.48	115.95
1859.....	209	8,839.59	7,590.30	1,199.88	a 25,890.95	123.88
1860.....	218	11,268.69	10,958.15	1,284.99	27,486.48	126.08
1861.....	192	7,846.41	11,851.16	1,309.12	a 24,792.78	129.13
1862.....	203	6,532.47	6,621.05	1,251.41	a 25,953.68	127.85
1863.....	212	8,371.37	10,618.67	1,264.73	24,971.11	117.79
1864.....	222	10,926.89	9,992.77	1,224.01	27,129.24	122.20
1865.....	260	15,312.81	10,089.65	1,529.14	33,881.54	130.31
1866.....	259	12,170.19	14,072.98	1,684.70	33,668.45	129.97
1867.....	288	12,576.85	10,576.79	1,676.78	37,340.29	129.65
1868.....	320	15,921.15	11,461.11	1,930.38	43,730.71	136.66
1869.....	462	19,846.38	10,920.32	2,434.31	a 45,511.08	94.18
1870.....	462	20,984.31	15,882.35	2,918.35	a 63,111.39	136.60
1871.....	461	21,114.01	16,476.99	3,145.51	70,893.92	153.78
1872.....	485	22,195.19	21,036.42	3,514.92	75,567.61	155.81
1873.....	518	23,705.03	21,261.65	3,891.46	81,902.45	158.11
1874.....	569	24,276.31	19,091.37	4,213.19	91,300.58	160.46
1875.....	611	36,551.11	24,257.01	4,922.47	108,517.15	177.61
1876.....	651	42,170.11	38,766.56	5,540.64	117,461.34	180.43
1877.....	686	43,609.70	38,379.98	6,126.01	a 124,957.08	182.15
1878.....	714	42,708.97	35,532.07	6,655.60	a 142,649.58	199.79
1879.....	728	55,012.53	42,072.46	7,109.54	162,699.10	223.49
1880.....	744	51,231.85	44,030.05	8,433.52	178,334.51	239.70
1881.....	757	63,986.25	52,465.31	9,391.96	199,247.41	263.21
1882.....	784	76,655.93	65,498.99	10,454.62	a 220,863.41	281.71
1883.....	815	72,606.60	62,945.98	10,510.97	a 241,995.75	296.93
1884.....	839	66,009.48	58,091.07	12,387.32	a 262,301.67	312.64
1885.....	804	77,740.59	80,077.82	13,285.16	a 273,249.79	339.86
1886.....	845	78,362.82	59,835.21	14,509.16	306,286.56	362.47
1887.....	880	77,503.78	67,553.28	15,834.11	a 332,264.86	377.57
1888.....	900	76,644.93	79,824.99	16,748.93	345,833.23	384.26

a These figures do not balance. They are given, however, as published by the company.

LIFE INSURANCE SOCIETY.

The aid and pension funds are intended solely for the benefit of the workmen, strictly speaking. For the administrative force, including the engineer's office employees, etc., the company organized January 1, 1877, a life insurance society, believing that this form of making provision for the future was the most successful for the higher paid employees. According to the provisions of this society, each employee desiring to become a member is required to pay into the fund 3 per cent of his annual wages. To this the company adds an amount equal to 1 per cent of his wages. The amount of insurance is then calculated according to the tables in use by insurance companies. Every five years a balance sheet of assets and liabilities is struck, and if there is a surplus half of it is apportioned among the members, increasing pro rata their insurance, and the other half is carried to a reserve fund. The constitution determines the investment of the funds, which is

always made in approved securities. The society is administered by a central committee elected from among the members. The entire expense of administration and bookkeeping is borne by the company, so that there is absolutely no expense of management. Although participation in this society is purely voluntary, with scarcely an exception all of the employees of the company have become policy holders.

CONCLUSION.

What has been the result of the social work of the company? Concerning this there are available but two kinds of evidence: The testimony of the company itself and that of the employees as shown through statistics of the stability of their employment. Concerning the first, the company speaks unequivocally:

And now, first of all from the social point of view, has the company obtained that harmony between all who cooperate by their labor in the work of production; has it realized that ideal of social peace of which all economists and politicians dream? We do not venture to assert that this result has been definitely obtained, and that the workingmen of our establishments have already reached this degree of moral superiority. All that we can state is that up to the present time, despite the diversity of countries and variety of industries in which we are engaged, we have never had to suffer a strike in any one of our establishments, and that we have succeeded in obtaining a remarkable degree of stability in our corps of employees as regards the length of their employment, since, with an average of 6,500 employees, the average length of the time they have been employed has exceeded 12 years.

These facts find their natural explanation in all the advantages accorded to the workingmen, their high wages, participation in industrial profits, facilities for making savings and becoming owners of property, and security for the future through the organization of gratuitous aid in case of sickness, and the provision of pensions for workingmen incapacitated by old age or infirmities. There are more than 900 depositors in the savings bank, and more than 1,000 workingmen are the owners of their own homes. More than a fourth of all the employees are either house owners or are in possession of savings, the interest on which increases the resources of the family. All this is conducive to good order, good work, and peace. Such are the results of the system consistently practiced by the company.

Moreover, it is important to add that, in spite of the expenditures entailed by this course, these results have been obtained without at all sacrificing the financial prosperity of the company, but on the other hand have contributed to it. If the company has been able to pay to its shareholders each year during 50 years an average dividend of 20 per cent on their original investment, * * * it can be affirmed that the honor is due to the liberality with which the administration has treated its employees.

These results appear to be of such a nature as to determine the company to persevere in its course and to encourage others who have not yet entered this work to do likewise.

The following table showing the stability of the personnel speaks for the employees:

YEARS OF SERVICE OF EMPLOYEES OF THE VIELLE-MONTAGNE ZINC MINING AND SMELTING COMPANY, 1888.

Years of service.	Em- ploy- ees.	Per cent.	Years of service	Em ploy- ees.	Per cent.	Years of service.	Em. ploy- ees.	Per cent.
Under 2	1,085	16.95	19 but under 20 ..	151	2.36	37 but under 38 ..	20	0.31
2 but under 3	574	8.97	20 but under 21 ..	94	1.47	38 but under 39 ..	24	.38
3 but under 4	349	5.45	21 but under 22 ..	83	1.30	39 but under 40 ..	11	.17
4 but under 5	376	5.87	22 but under 23 ..	104	1.63	40 but under 41 ..	12	.19
5 but under 6	294	4.59	23 but under 24 ..	112	1.75	41 but under 42 ..	9	.14
6 but under 7	277	4.33	24 but under 25 ..	95	1.48	42 but under 43 ..	8	.12
7 but under 8	214	3.34	25 but under 26 ..	64	1.00	43 but under 44 ..	3	.05
8 but under 9	200	3.12	26 but under 27 ..	66	1.03	44 but under 45 ..	2	.03
9 but under 10	177	2.77	27 but under 28 ..	49	.77	45 but under 46 ..	3	.05
10 but under 11	148	2.31	28 but under 29 ..	66	1.03	46 but under 47 ..	1	.02
11 but under 12	177	2.77	29 but under 30 ..	38	.59	47 but under 48 ..	2	.03
12 but under 13	173	2.70	30 but under 31 ..	57	.89	48 but under 49 ..	3	.05
13 but under 14	204	3.19	31 but under 32 ..	81	1.27	49 but under 50 ..	1	.02
14 but under 15	229	3.58	32 but under 33 ..	25	.39	50 or over	4	.06
15 but under 16	178	2.78	33 but under 34 ..	24	.38			
16 but under 17	168	2.63	34 but under 35 ..	22	.34			
17 but under 18	175	2.73	35 but under 36 ..	36	.56			
18 but under 19	112	1.75	36 but under 37 ..	20	.31			
						Total	6,400	100.00

THE NETHERLANDS YEAST AND ALCOHOL FACTORY, AGNETA PARK, DELFT, HOLLAND.

Like the Familistère at Guise, this community represents the deliberate attempt to organize an industry on special lines so as to increase the solidity of interests of all concerned in the undertaking, to develop mutuality, and to create social institutions of all kinds. As at Guise, therefore, the introduction of a plan for participation in profits by the workingmen and the creation of a special industrial community were made integral parts of the scheme. While at Guise, however, a system of pure cooperation was adopted and a peculiar plan of tenement houses or familistères selected, at Delft a system of partial profit sharing and a village of isolated cottages were introduced. At both places, however, each of the various social institutions is related to all the others and together form one system.

This industry, founded by Mr. J. C. van Marken, is that of the manufacture of yeast, for which he has a market in a great many countries of Europe and in Great Britain. Alcohol, gin, and some other products are also manufactured as by-products. The first factory was built and operations commenced in 1869. The capital invested was 150,000 florins (\$60,300). Since then a number of buildings have been added and the capital successively increased until in 1892 it was something over 1,200,000 florins (\$482,400). The Netherlands Oil Manufactory was established in 1884, adjoining the yeast works, as a separate company. As Mr. van Marken, however, has a controlling interest in this company, the two enterprises, as far as social institutions are concerned, have for the most part been treated as one undertaking. The company employs between 250 and 300 men.

The key to the social system that has been created is found in the hierarchal organization of all the employees and the practice of a system of profit sharing, combined with the opportunity accorded to workingmen to become part owners of the capital stock of the company. Combined with these are a great variety of institutions, such as cooperative stores, sick funds, old-age, accident, and life insurance, institutions for promoting house ownership, etc.

THE ORGANIZATION OF LABOR.

The personnel of the company is divided into the following classes: Higher officials, officials and superintendents, lower officials and under superintendents, clerks and workingmen, and assistant clerks and helpers. The latter class consists of persons under 20 years of age who have not yet fully learned their calling. The salaries of higher officials, officials, and superintendents are determined by the directors. All employees under these grades are paid by the hour. The wages of an under superintendent are 14 florins (\$5.63) per week of sixty hours. Under that grade employees are paid in accordance with the nature of their work, and are divided into six wage classes, receiving, respectively, 16.5, 17, 17.5, 18, 18.5, and 22 Dutch cents ($6\frac{3}{4}$, $6\frac{1}{2}$, 7, $7\frac{1}{2}$, $7\frac{3}{4}$, and $8\frac{1}{4}$ cents) per hour.

Care has been taken that the wages for a full day's work with proper effort can not fall below that necessary for the maintenance of an ordinary family. The minimum is fixed at 12 florins (\$4.82) per week. Helpers receive 12 Dutch cents ($4\frac{1}{2}$ cents) per hour, with a 10 per cent advance for overtime work. The office force receives the following weekly wages on the basis of $7\frac{1}{2}$ hours' work per day: Assistant clerks, 7 florins (\$2.81); clerks, 10 florins (\$4.02); minor officials, 15 florins (\$6.03), and 15, 22, and 23 Dutch cents (6, $8\frac{1}{2}$, and $9\frac{1}{2}$ cents) per hour, respectively, for overtime work. Members of the force of a lower grade than minor officials and superintendents whose work requires special knowledge receive enhanced wages.

Besides the above classification as to the nature of the occupation, there is another division of employees into five classes, in accordance with the energy and zeal displayed while at work. The object of this classification is to form the basis for a scheme of premium payments. All employees above the first class receive premiums, amounting to 2 per cent of their wages for the second class, 5 per cent for the third class, 10 per cent for the fourth class, and 20 per cent for the fifth class. New employees are placed in the first class. Promotions are then made annually on the 1st of January according to the devotion to duty that has been shown by the employees, one step only being made at a time. Neglect of duty is punished by failure to promote or by reduction to a lower class.

In addition to this, extra premiums may be paid for special services,

and finally premiums for economy in the use of working time, raw materials, fuel, etc. The classification of the personnel and the premiums awarded are kept secret by the directors.

PARTICIPATION IN PROFITS.

The participation in profits consists of 10 per cent of the net gains of the company. Of this not more than one-fourth may be devoted to purposes of public utility benefiting all the employees. The balance is distributed in accordance with the grade and merit class of the employees. The employees of the five different classes receive their share in proportion to two, three, four, six, and eight times the amount of their salaries. Thus in 1890 the employees received $1\frac{3}{4}$, $2\frac{5}{8}$, $3\frac{1}{2}$, $5\frac{1}{2}$, and 7 per cent of the amount of their wages as shares in profits.

From 1870 to 1890, 2,554,000 florins (\$1,026,708) were paid out in wages, 315,000 florins (\$126,630) in premiums, 81,000 florins (\$32,562) as shares in profits, and 100,000 florins (\$40,200) for the insurance of employees, or a total of 3,050,000 florins (\$1,226,100). During this same period 2,024,000 florins (\$813,648) were credited to the capital account, of which 984,000 florins (\$395,568) were paid into the amortization fund, 96,000 (\$38,592) to the reserve fund, 360,000 (\$144,720) were counted as net profits, 389,000 (\$156,378) interest on capital, and 195,000 (\$78,390) interest on bonds.

THE HOUSING OF EMPLOYEES.

As a matter of course the provision of houses for the workmen constitutes an essential feature of an attempt such as that of Mr. van Marken to build up a special industrial center. In doing this Mr. van Marken desired to have the employees cooperate as far as possible in the work. Instead, therefore, of directly providing houses, he organized among his employees a cooperative society with a capital of 160,000 florins (\$64,320). To this society he gave 3,000 florins (\$1,206) in cash for founders' shares to that amount and turned over a tract of 4 hectares (about $9\frac{7}{8}$ acres) in return for founders' shares to the amount of 29,000 florins (\$11,658). The remaining 128,000 florins (\$51,456) of the capital stock was raised by a loan at $4\frac{1}{2}$ per cent interest, to secure which a mortgage on the property was given. With this money the ground, which was named Agneta Park, was laid out as a park, and in it were erected 86 houses. The community thus created is one of unusual attractiveness. The streets are in all cases winding and bordered by shade trees and lawns. In the center of the grounds an artificial lake has been constructed of sufficient size to permit of boating. The houses are built on the Mulhouse plan, each having a garden adjoining. The material is of brick, and various plans were selected so as to give to each house a distinct character. The rents average 2.25 florins (90 cents) per week.

The system by which the members of the cooperative society were to become the owners of the property is somewhat similar to that by which the workmen of Guise became the owners of the plant in which they labored. The total rent is so fixed as to represent $7\frac{1}{2}$ per cent return on the cost of the land and buildings. Out of the total receipts are paid, first, the expenses of maintenance and management, then $4\frac{1}{2}$ per cent interest on loans and 5 per cent dividends on founders' shares. Ten per cent of the balance goes to the reserve fund, and the remainder is devoted to liquidating the mortgage. At the same time this latter amount is credited to the individual tenants in proportion to the rents paid. As soon as a tenant has in this way 100 florins (\$40.20) credited to his account he comes into possession of a share of stock bearing interest at 3 per cent. It is then only a matter of time when all the stock of the cooperative society, including the founders' shares, which will be replaced by ordinary shares, will be held by the tenants, who thus become owners of the property. Shares of stock can only be transferred with the consent and through the agency of the board of directors. Once the shares are all held by the tenants the system adopted at Guise of canceling and redeeming the old shares and issuing new ones in their place will be practiced.

In addition to providing dwelling houses, this cooperative association also runs a cooperative store, a building for which has been erected in Agneta Park. This store sells food products, clothing, and dry goods. Profits from its operations are added to rents and distributed in the same way, credit being given in proportion to the value of the purchases of each tenant.

OTHER SOCIAL INSTITUTIONS.

In addition to these efforts relating to housing and profit sharing, there has been created a great variety of social institutions. Among these may be mentioned savings banks, funds for the insurance of employees against sickness, accidents, old age, and death and for the pensioning of widows of workmen, educational and recreative institutions, and an assembly of workmen and heads of departments for the purpose of discussing all matters relating to the mutual interests of the workmen and the establishments and the settlement of difficulties that may arise. Without entering into details, the general features of these institutions can be briefly given.

The insurance of employees of course constitutes the most important class of workmen's institutions. In case of sickness employees receive from the company their full wages for a period not exceeding eight weeks. In addition all employees are compelled to belong to a fund for securing medical aid and medicines. Their weekly contributions are 12 Dutch cents ($4\frac{1}{2}$ cents) for men, 8 ($3\frac{1}{2}$ cents) for women, and 3 ($1\frac{1}{2}$ cents) for each child. For this the members, in case of sickness,

receive free medicines and medical attendance, except that patients are required to pay 5 Dutch cents (2 cents) per visit in the case of clerks and workmen and 10 and 15 Dutch cents (4 and 6 cents) in the case of higher officials.

In case of accidents while at work employees receive full wages until their recovery. In 1884 an accident insurance fund was inaugurated. This fund pays two full years' wages in case of death, loss of sight, or loss of two limbs; one year's wages for the loss of an eye, a foot, or the right hand; 35 per cent of the past year's wages for the loss of the left hand, and from 5 to 25 per cent for the loss of one or more fingers. This insurance is paid whether the accident occurs while at work or not. The premium required from members is 0.65 per cent of their wages.

In regard to the provision of old-age insurance, the company has adopted a peculiar but at the same time effective system. The company retains 7 per cent of the wages of each employee who has been a year or more in its service. With this money it purchases each year a paid-up old-age pension from an insurance society that will begin to run when the employee reaches the age of 60 years. By this arrangement the longer a man remains in the company the greater the value of the old-age pension to which he acquires a right. Each year's operation constitutes a separate transaction. A person thus, after ten years' service, is in possession of ten paid-up old-age pension policies. This system presents the very great advantage that should a man leave the service of the company he retains possession of his policies, and the acquisition of an old-age pension is thus in no way dependent upon employees remaining in the employment of the company.

A system of life insurance has been added to that of old-age pensions. By paying 2 per cent of their wages in addition to the 7 per cent for old-age pensions the company secures for its employees a life-insurance policy equal to 9 per cent of all the wages received by them during the time that they are insured.

As the above life insurance is insufficient to prevent distress in the case of families of persons who died after a short period of insurance, a special widows' fund has been established. For the support of this fund each director and employee contributes 1 per cent of his wages. The company adds an amount equal to one-half of the total of these contributions. Any widow who is unable to provide for her own or her children's subsistence, either by her earnings or from other sources, receives 4 florins (\$1.61) per week for herself and 1 florin (40½ cents) for each child, the total, however, to in no case exceed 8 florins (\$3.22). In September, 1893, 15 widows and 31 children were receiving aid from this fund.

The organization for bringing together the workmen and the heads of departments for the purpose of the common consideration of questions relating to their interests, or "The Kernel" as it is called, though

somewhat differently organized from the councils of arbitration and conciliation at Mariemont and Bascoup, yet follows so closely the general lines of action of these institutions that it would be superfluous to give the details of its organization and operations.

The remaining institutions, such as the savings banks, of which there are two, a kindergarten, manual-training, housekeeping, and other schools, and a gymnasium, reading room, and casino, though of course of importance, do not require any extended comment.

THE CHOCOLATE FACTORY OF MENIER, NOISIEL, FRANCE.

The village of Noisiel, the seat of the chocolate factory of Menier, though interesting in itself, offers but few points for an extended study. Though it is a pure type of an industrial village, the management of affairs has been so completely retained in the hands of the proprietor that no opportunity has been afforded for the development of workingmen's institutions on the principle of mutuality. The village has been managed entirely as a branch of the general industrial enterprise, so that information concerning it can not well be distinguished from that of the manufacturing branch proper.

Though M. Menier's industry dates from 1825, the industrial village itself was only constructed in 1874. The village is absolutely removed from all other houses and forms a distinct community presenting all the necessary houses, such as schools, restaurants, stores, etc., for a self-contained existence. At the present time there are 295 tenements. They are built in groups of two and are exceptionally well constructed and comfortable. The general appearance of the group with its open spaces and shade trees is that of a charming country village. (a) The total number of employees of the works is about 1,500, but these houses are sufficient to accommodate practically the entire personnel, as the industry is such as to permit of the advantageous employment of women and children, and in consequence it is customary for the wives and daughters of workingmen to be employed as well.

Absolutely no opportunity is given for the development of institutions by the workingmen themselves, nor has M. Menier himself created many such. The work in this direction consists chiefly in the maintenance of a relief fund and the support of primary schools. Every care, however, seems to have been taken to make the condition of the employees as comfortable as possible. The village is so managed as to produce a moderate income on the money invested in it.

a For details concerning these houses see the Eighth Special Report of the Department of Labor on the Housing of the Working People.

IRON AND STEEL WORKS OF SCHNEIDER & CO. LE CREUZOT, FRANCE.

Though Le Creuzot is not an industrial center possessing a unified and homogeneous character of such a nature as to warrant its study in detail as an industrial village, it should at least be noticed on account of the important industrial and social work of the iron and steel works of Schneider & Co. This establishment is one of the most important in France, and it employs between 12,000 and 13,000 workmen. In connection with its works at Le Creuzot the company has organized a great many institutions for the benefit of its employees. It has erected 466 houses for renting to its workmen; it has facilitated the acquisition of homes through the advancement of money with which to build; it has provided liberally for the support of schools; an efficient medical service for the gratuitous care of sick and injured workmen is maintained. Since 1877 it has provided for the pensioning of its old employees through contributions to the National Old-Age and Invalidity Fund. In 1889 the company reported to the Paris Exposition that during the year 1888 the total amount expended by it for the benefit of its employees was 1,632,000 francs (\$314,976).

RATES OF WAGES PAID UNDER PUBLIC AND PRIVATE CONTRACT.

BY ETHELBERG STEWART.

The tables which immediately follow are the results of an original investigation in the cities of Baltimore, Boston, New York, and Philadelphia as to the wages paid, first, to those engaged on public work employed directly by the city or State, second, to those engaged on public work employed by contractors, and, third, to those engaged on private work employed by contractors or firms. The rates given in these three divisions are not only for the same occupations, but these occupations represent similar work so far as it was possible to obtain such data. Table I shows the number of persons in each occupation and the rate of wages per hour; also in addition to the wages per hour the hours of work per week are shown. Each city is taken up separately and in the following order: Baltimore, Boston, New York, and Philadelphia. The occupations for which wages were secured appear under each city in alphabetical order and are subdivided into the three classes previously given. For brevity's sake these classes are indicated in the tabulations by (1) public, by city or State, (2) public, by contractors, and (3) private, by contractors or firms.

Whenever it could be done wages were secured in each class for each occupation. This, however, was not always possible. Taking Baltimore in Table I, for instance, it is seen that for the first occupation, asphalt layers, no data are given for persons engaged on public work directly by the city or State, none having been found in the city; all such work, both public and private, having presumably been done through contractors or firms. The same is true for the next occupation, asphalt mixers; but for blacksmiths it is seen that data were secured in each of the three classes. In the first two occupations, asphalt layers and asphalt mixers, it is shown that the same wages per hour were paid in each of the two classes of work, and also that the same number of hours per week were worked. Blacksmiths employed on public work directly by the city or State, working 54 hours per week, were paid from $22\frac{1}{4}$ to $30\frac{1}{2}$ cents per hour. Those employed on public work by contractors worked 60 hours per week, but were paid lower wages—from $17\frac{1}{2}$ to 26 cents per hour, the majority being paid $22\frac{1}{2}$ cents per hour. Those employed on private work by contractors or firms, working 60 hours per week, were paid also from $17\frac{1}{2}$ to 26 cents per hour, the majority being paid $22\frac{1}{2}$ cents. In this manner each of the occupations for which data are given may be analyzed and comparisons made.

Table II summarizes the data given in Table I so far as the wages per hour for each occupation are concerned, the data relating to the number of employees and hours worked per week being omitted. In this table each occupation is taken up in order, and for each of the three classes of employment the highest, lowest, and average wages per hour are given. For example, taking up the city of Baltimore, it is seen that carpenters on public work employed directly by the city or State were paid a maximum wage of 33½ cents per hour, the lowest wage paid being 27½ cents per hour, while the average was 32½ cents per hour. Carpenters on public work employed by contractors were paid as much as 31½ cents per hour and as little as 22½ cents, the average wage per hour being 25½ cents. For those working at the same occupation employed on private work by contractors or firms a maximum of 28 cents and a minimum of 18 cents per hour were paid, the average being 26½ cents. These averages, being based on the entire number of carpenters shown in Table I, afford a fair comparison. As shown, those employed on public work directly by the city or State were paid the highest average wage, 32½ cents per hour; those engaged on public work under contractors were paid the lowest, 25½ cents per hour, while those engaged on private work by contractors or firms were paid 26½ cents per hour.

It is strongly asserted in some quarters that the tendency of letting public contracts to the lowest bidder is to lower the wages of labor; that the lowest bidder is, generally speaking, the man who pays lowest wages or expects to use poorest material; that the idea that the lowest bidder is the one willing to accept least profits for himself is erroneous.

The legislature of the State of New York seems to have been convinced of the tendency of the contract system to lower the rates of wages, and in 1894 passed a law that all contractors on public works, State and municipal, must pay the prevailing rate of wages in the locality in which the work is being done. Pursuant to this law a clause like the following is inserted in all contracts:

All work to be performed and materials furnished to be according to the laws of the State and municipality applicable thereto, especially of chapter 622 of the laws of 1894, entitled "An act to amend chapter three hundred and eighty-five of the laws of eighteen hundred and seventy, entitled 'An act to regulate the hours of labor of mechanics, workingmen and laborers in the employ of the State, or otherwise engaged on public works,'" which provides that * * * "all mechanics, workingmen, and laborers now or hereafter employed by the State, or any municipal corporation therein, through its agents or officers, or in the employ of persons contracting with the State or such corporation for performance of public works, * * * shall receive not less than the prevailing rate of wages in the respective trades or callings in which such mechanics, workingmen, and laborers are employed in said locality. And in all such employment none but citizens of the United States shall be employed by the State, any municipal corporation therein, and by persons contracting with the State or any municipal corporation thereof."

An inquiry as to whether or not the inspectors on public works were expected to enforce this clause was answered by the statement that its enforcement was left to the trades unions and working people in whose interest the law was enacted. Aside, however, from all questions of the efficiency of this law, or the manner of its enforcement or nonenforcement, the fact of its existence can hardly be construed in any other light than as an admission by the legislature of the State of New York of a tendency in the contract system to lower the rates of wages and an attempt upon its part to check that tendency.

A glance at the tables will show that the highest rates of wages paid to unskilled labor are paid to those employed directly by the municipality or State. This is, generally speaking, true also of the skilled trades. Some of the exceptions will be noted further on. With the exception of Boston, all cities included in this investigation fix the rate of wages paid unskilled labor by city ordinance or, as in the case of New York City, by State law.

The city of Baltimore, by an ordinance passed May 1, 1883, provides that:

The pay of all laborers shall be ten dollars per week, and no deduction from said amount shall be made except for such time as any of said laborers may lose by absenting themselves from the work upon which they may be at the time employed. (*a*)

The law also fixes the hours of labor, which must not exceed 9 in any one day, and provides that all city employees must be citizens and registered voters.

Philadelphia fixes the rate of pay for laborers at \$1.75 per day of 9 hours, except for those employed in the public parks. In its annual appropriation ordinance it has a most elaborate scale, fixing the rate of wages for nearly every trade and occupation employed by any of the city departments. These rates are the maximum union rates in cases of organized trades, and corresponding rates for other occupations.

The same may be said of the laws of New York fixing rates of wages to be paid by New York City.

As a general statement it may be affirmed that the public, when employing directly by the day, pays the highest prevailing rate of wages for the shortest prevailing day's labor. This is especially true of the United States Government, where in the navy-yards of Boston and Brooklyn the highest outside rates for a 10-hour day are made the prevailing rates for an 8-hour day. Certain apparent exceptions to this rule have been omitted from the tables, as without an explanatory note in each case some misunderstanding might arise, and because they become, upon examination, not really exceptions. For instance, the city gas works of Philadelphia employs bricklayers at a rate considerably below the prevailing one. These men, however, work steadily or are paid in the absence of work—that is, they lose no time. The

a Ordinance No. 48, sec. 221, art. 48, p. 1020, City Code of Baltimore.

superintendent states that these men were given their choice of the maximum union rate of \$4.05 and take work when they could get it, or \$3 per day and steady employment. It will be readily seen that yearly earnings would be greater at the lesser daily rate. The exigencies of statistical tabulation would require that these men be brought in direct contrast with other bricklayers working on public contracts or on private work. It is only just, however, to say that these men—in fact, all employees of the city gas department—are paid higher wages than are paid either by the company furnishing gas to the city under contract or the company producing gas for private sale.

Another instance is that of 10 pavers employed by the city of Baltimore at rates much lower than the prevailing contract rate and lower than that paid to other pavers by the city. These men work for the waterworks department. They are steadily employed, are not union men, never required to do new work, and are in fact paid 25 cents more per day of 9 hours than other nonunion pavers get for 10 hours. With this explanation of the two most striking apparent exceptions, the statement may be repeated that the public when employing directly by day labor pays the highest prevailing rate for the shortest prevailing day. It would appear also, at least in a great many instances, that this can be done with the best economic results.

Probably the highest wages paid (in the occupations employed) are those paid by the trustees of the New York and Brooklyn bridge, being considerably higher than wages in like occupations by private concerns. Yet the trustees of this bridge have been enabled to reduce fares continuously, to abolish tolls for pedestrians, and magnificently improve the plant.

The city of Boston sprinkles its own streets by day labor, having practically abandoned the contract system for this work. On page 414 of the Annual Report of the Street Department of the city of Boston for 1895, the superintendent summarizes the result of the two systems as follows:

COMPARISON OF DAY WORK WITH CONTRACT WORK IN BACK BAY AND SOUTH END, BOSTON.

Back Bay:	
Contract work, 1894.....	\$6, 696. 02
Day work, 1895.....	4, 990. 00
	1, 706. 02
	1, 706. 02
South End:	
Contract work, 1894.....	5, 128. 50
Day work, 1895.....	2, 540. 00
	2, 588. 50
	2, 588. 50
Total saving in day work over contract work.....	4, 294. 52

The above comparison is one of the most satisfactory evidences of the good results accomplished by the division this year. To it attention is specially directed.

The cost for watering in the Back Bay with fresh water in 1894 under contract was \$575 per mile, while this year the same service was more efficiently rendered at an expense of \$424 per mile.

The expense in the South End last year for watering was \$460 per mile for fresh water, \$630 per mile for salt water, while this year the watering was done under day work at an expense of \$277 per mile.

As will appear in the tables following, the rate of wages paid by the city to the men who actually did the street watering was considerably greater than the wages paid by the contractors.

The city of Baltimore does all its street cleaning by day labor, except the machine sweeping. This is at present let by contract at a very low figure. Nevertheless, the street commissioner states upon computations made by him that he could more efficiently do the work and save the city enough in one year to pay for the machines and horses; that is, he could pay for the contractor's plant in one year and do better work. This computation was based upon a proposition to pay the legal city rate of wages, \$1.66 $\frac{2}{3}$ per day, whereas the present contractor pays the machine drivers but 80 cents per day. The cost of supervision and inspection increases as the contract price decreases, until it sometimes costs almost as much to make the contractor do his work as it would to do it.

The cost of inspection is enormous for cities, still greater proportionately for the Federal Government, and this cost must be added to the contract price before it can be determined whether or not the contract figure is a low one.

It is to be regretted that a minute and satisfactory statement of the cost of sewer construction, excavation, etc., could not be obtained in Boston, where an enormous amount is being done under both systems. The work performed by day labor is, however, generally experimental, and even where the conditions were practically similar no accounts that could be used for comparison were obtainable. One very significant statement was, however, made by the secretary of the metropolitan sewer commission to the effect that one piece of sewer had been constructed entirely by day labor because it undermined some private property, and notwithstanding their inspection the commissioners were afraid to risk the contract system because of the heavy damage suits that might result from faulty work.

Three of the cities in which this investigation was conducted clean their streets by day labor. These are Boston, New York, and Baltimore (except the machine sweeping). Baltimore does not keep a record of cost of cleaning per mile. Philadelphia lets her contract for a lump sum, and keeps no record of cost of cleaning per mile. The city of Brooklyn is included as a part of the metropolitan district of New York for purposes of comparison.

The cost of cleaning the streets in Boston is shown in the following statement:

COST PER MILE OF CLEANING STREETS IN EACH DISTRICT OF BOSTON, INCLUDING SUPERVISION, LABOR, YARD, AND STABLE EXPENSES.

Old districts.	Miles of streets cleaned.	Cost of cleaning streets.	64 per cent of the total cost of supervision.	73 per cent of the total cost of yard and stable expenses.	Total expenses.	Total cost per mile.
1.....	439.64	\$5,496.26	\$210.33	\$998.86	\$6,705.45	\$15.25
2.....	486.80	5,488.50	210.03	997.44	6,695.97	13.75
3.....	652.06	7,395.90	283.04	1,344.04	9,022.98	13.83
4.....	399.53	6,207.84	237.56	1,128.16	7,573.56	18.90
5.....	167.66	4,722.78	180.73	858.29	5,761.80	34.36
6.....	207.89	4,776.40	183.78	868.03	5,827.21	28.03
7.....	94.35	4,201.00	160.77	763.46	5,125.23	54.32
9.....	204.96	4,091.73	156.58	743.61	4,991.92	24.35
Total.....	2,652.83	42,380.41	1,621.82	7,701.89	51,704.12	.....

Average cost per mile of cleaning streets in eight old districts, including supervision, etc., \$19.49.

New districts.	Miles of streets cleaned.	Cost of cleaning streets.	64 per cent of the total cost of supervision.	73 per cent of the total cost of yard and stable expenses.	Total expenses.	Total cost per mile.
1.....	858.50	\$12,004.77	\$460.77	\$2,188.11	\$14,653.65	\$17.06
2,3.....	799.28	9,924.00	389.80	1,808.85	12,113.74	15.15
7.....	433.71	12,427.71	478.99	2,285.20	15,189.90	34.97
8.....	3,671.47	35,109.57	1,347.55	6,399.40	42,856.52	11.67
9.....	459.13	6,902.07	264.92	1,258.04	8,425.03	18.34
10.....	2,544.07	27,084.99	1,039.54	4,936.76	33,061.29	12.99
Total.....	8,766.16	103,453.11	3,970.66	18,856.36	126,280.13	.....

Average cost per mile of cleaning streets in six new districts, including supervision, etc., \$14.40.

The average cost of cleaning the 11,418.99 miles actually swept, and comprising all the districts new and old, was \$15.58 per mile. This includes much that is charged to other accounts in other cities, such, for instance, as dumping, etc. It will be seen from the tables that notwithstanding this low cost per mile, Boston paid higher rates of wages than any city except New York.

The cost of street cleaning in New York City for 1895 is shown in the following statement:

The whole cost of cleaning the streets (including every expense incurred in the administration of the department) was, per mile of street swept per day...	\$22.94
The whole cost of cleaning the streets (including every expense incurred in the administration of the department) was—	
Per cart load of material collected (including permits).....	1.86
Per cart load of material collected (excluding permits).....	2.41
The cost of sweeping, not including supervision or any other expense, was, per mile of street swept per day.....	8.74
The cost of carting ashes, garbage, and street sweepings, not including supervision, was, per cart load of material collected.....	.65
The cost of collecting and removing snow and ice, not including supervision, was, per cart load of snow and ice removed.....	.72
The cost of final disposition of ashes, garbage, and street sweepings, was, per cart load of material removed on boats.....	.29

At the same time the contract price in Brooklyn was \$23 per mile for street cleaning, and \$215,000 as a lump sum for removal of ashes, etc. To this contract price of \$23 per mile must be added the cost of administration, which was 60 cents per mile, as estimated for this report. At that time the Brooklyn contractor was paying \$1.50 per day of twelve hours. The contract price for 1896 is \$17 per mile and \$210,000 lump sum for removal of ashes. With the reduction in contract price, the wages of street sweepers are reduced to \$1.25 per day.

Perhaps the most striking instance of reduction in wages as a result of contract employment is that shown for New York City under the occupation of snow shovelers. Formerly the city did this work by day labor, employing extra men as occasion required at \$2 per day of eight hours. Last winter the work was let by contract, and the wages paid, as shown in the first table, was \$1.25 per day of ten hours.

One feature of the investigation as originally designed, but which could not appear in tabular form, was the effect of the contract system or rates of wages paid under it upon wages paid on private work. When times are good the contractors who bid lowest get the public contracts and the smaller private ones, thus absorbing both this class of contractors and the cheaper labor which they employ, leaving the larger private contracts to the contractors styling themselves "legitimate," and who employ only union or high-priced labor. In times of business depression, however, such as the country has been experiencing, there is little else but public contracts to be had, and the employer of the higher-priced labor must bid low enough to get it, or have nothing to do. To enable their employers to meet these conditions, the Bricklayers' Union of Baltimore during last year reduced its scale of wages from \$4 for eight hours to \$3.60 for eight hours, and then again to \$3 for nine hours, with eight hours on Saturday, this being the rate generally paid nonunion bricklayers. The carpenters of Baltimore and the painters of New York City are now having a similar struggle. Notwithstanding the State law and indictments under it, the painters of New York find it impossible to maintain their scale on public works. As a rule, however, it must be said that the effect of the contract system in reducing wages is largely confined to unskilled and unorganized labor, and that the trades are but slowly and slightly affected.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS.

BALTIMORE.

Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.
Asphalt layers:			Carpenters:			Curbstone setters—Conc'd.		
Public, by contractors.			Public, by city or State.			Private, by contractors or firms.		
25	60	\$0.20	4	54	\$.27 $\frac{1}{2}$	5	60	\$0.30
Private, by contractors or firms.			18	54	.33 $\frac{1}{2}$	Curbstone setters' helpers:		
13	60	.20	Public, by contractors.			Public, by contractors.		
Asphalt mixers:			70	54	.22 $\frac{1}{2}$	10	60	.15
Public, by contractors.			15	60	.22 $\frac{1}{2}$	Private, by contractors or firms.		
8	60	.15	140	54	.25	10	60	.15
Private, by contractors or firms.			2	54	.27 $\frac{1}{2}$	Draftsmen:		
Public, by contractors.			12	48	.31 $\frac{1}{2}$	Public, by contractors.		
6	60	.15	65	54	.31 $\frac{1}{2}$	1	54	.33 $\frac{1}{2}$
Private, by contractors or firms.			Private, by contractors or firms.			25	54	.44 $\frac{1}{2}$
Blacksmiths:			20	60	.18	Private, by contractors or firms.		
Public, by city or State.			4	60	.20	1	54	.33 $\frac{1}{2}$
2	54	.22 $\frac{1}{2}$	15	60	.22 $\frac{1}{2}$	25	54	.44 $\frac{1}{2}$
1	54	.25	134	54	.27 $\frac{1}{2}$	Drivers:		
1	54	.30 $\frac{1}{2}$	70	54	.28	Public, by contractors.		
Public, by contractors.			Cement finishers:			Public, by contractors.		
1	60	.17 $\frac{1}{2}$	Public, by contractors.			15	60	.07
20	60	.22 $\frac{1}{2}$	1	60	.25	1	a 84	a .07 $\frac{1}{2}$
4	60	.25	2	60	.35	5	a 84	a .08 $\frac{1}{2}$
2	60	.26	Private, by contractors or firms.			17	54	.09
Private, by contractors or firms.			4	60	.35	12	a 84	a .09 $\frac{1}{2}$
1	60	.17 $\frac{1}{2}$	Cement mixers:			18	60	.12 $\frac{1}{2}$
3	60	.18	Public, by contractors.			1	a 70	a .12 $\frac{1}{2}$
7	60	.20	25	60	.12 $\frac{1}{2}$	2	60	.15
20	60	.22 $\frac{1}{2}$	Private, by contractors or firms.			Private, by contractors or firms.		
2	60	.26	10	60	.12 $\frac{1}{2}$	10	60	.12 $\frac{1}{2}$
Blacksmiths' helpers:			Chandelier fitters:			1	a 70	a .12 $\frac{1}{2}$
Public, by city or State.			Public, by contractors.			Drivers with single team:		
1	54	.22 $\frac{1}{2}$	10	60	.20	Public, by city or State.		
Public, by contractors.			Private, by contractors or firms.			3	54	.25
15	60	.13	10	60	.20	84	54	.26 $\frac{1}{2}$
2	60	.15	10	60	.20	12	54	.30 $\frac{1}{2}$
10	60	.16 $\frac{1}{2}$	Chandelier makers:			1	54	.33 $\frac{1}{2}$
2	60	.20	Public, by contractors.			Public, by contractors.		
Private, by contractors or firms.			15	60	.25	82	60	.20
15	60	.13 $\frac{1}{2}$	Private, by contractors or firms.			Private, by contractors or firms.		
5	60	.15	20	60	.25	25	60	.20
10	60	.16 $\frac{1}{2}$	Coal handlers:			12	60	.22 $\frac{1}{2}$
Boiler makers:			Public, by contractors.			Dynamo men:		
Public, by contractors.			Public, by contractors.			Public, by contractors.		
50	60	.22 $\frac{1}{2}$	5	a 60	a .15	2	a 70	a .17 $\frac{1}{2}$
Private, by contractors or firms.			Private, by contractors or firms.			2	a 70	a .22 $\frac{1}{2}$
50	60	.22 $\frac{1}{2}$	5	a 60	a .15	Private, by contractors or firms.		
Bricklayers:			Cornice workers:			2	a 70	a .17 $\frac{1}{2}$
Public, by city or State.			Public, by contractors.			2	a 70	a .22 $\frac{1}{2}$
1	54	.22 $\frac{1}{2}$	3	54	.22 $\frac{1}{2}$	Dynamo men's helpers:		
28	53	.39 $\frac{1}{2}$	2	54	.25	Public, by contractors.		
Public, by contractors.			3	54	.27 $\frac{1}{2}$	4	a 70	a .12 $\frac{1}{2}$
120	54	.33 $\frac{1}{2}$	Private, by contractors or firms.			Private, by contractors or firms.		
63	53	.34	6	54	.22 $\frac{1}{2}$	4	a 70	a .12 $\frac{1}{2}$
28	48	.37 $\frac{1}{2}$	2	54	.25	Engine cleaners:		
Private, by contractors or firms.			6	54	.27 $\frac{1}{2}$	Public, by contractors.		
13	54	.33 $\frac{1}{2}$	Curbstone setters:			5	a 70	a .12 $\frac{1}{2}$
35	53	.34	Public, by contractors.			1	a 70	a .14 $\frac{1}{2}$
10	53	.39 $\frac{1}{2}$	5	60	.30	Private, by contractors or firms.		
						5	a 70	a .12 $\frac{1}{2}$
						1	a 70	a .14 $\frac{1}{2}$

a Work 7 days per week.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

BALTIMORE—Continued.

Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.
Engineers, chief: Public, by contractors.			Foremen, cornice workers: Public, by contractors.			Granite cutters: Public, by contractors.		
1	a 70	a \$0.28½	1	51	\$0.33½	43	48	\$0.40½
Private, by contractors or firms.			Private, by contractors or firms.			Private, by contractors or firms.		
1	a 70	a .28½	3	54	.33½	51	48	.40½
Engineers, hoisting: Public, by city or State.			Foremen, electric lighting: Public, by contractors.			Ground men, electric lighting: Public, by contractors.		
6	54	.30½	1	a 70	a .33	6	a 70	a .12½
Public, by contractors.			Private, by contractors or firms.			Private, by contractors or firms.		
2	60	.20	1	a 70	a .33	6	a 70	a .12½
7	54	.22½	Foremen, electric lighting, assistant: Public, by contractors.			Hod carriers: Public, by contractors.		
6	60	.22½	1	a 70	a .21½	3	53	.22½
2	53	.22½	Private, by contractors or firms.			6	48	.25
Private, by contractors or firms.			1	a 70	a .21½	10	54	.27½
8	53	.28½	Foremen, laborers: Public, by city or State.			Private, by contractors or firms.		
Engineers, stationary: Public, by contractors.			10	54	.22½	6	53	.28½
6	a 70	a .20	6	54	.25	Hostlers: Public, by contractors.		
2	60	.22½	1	54	.27½	2	a 84	a .07½
4	60	.25	Public, by contractors.			2	a 70	a .10
Private, by contractors or firms.			11	54	.29½	1	a 70	a .12½
6	60	.20	4	60	.20	Private, by contractors or firms.		
6	a 70	a .20	6	60	.25	Inspectors, electric lighting: Public, by contractors.		
4	60	.22½	8	60	.30	8	a 70	a .17½
3	60	.25	Private, by contractors or firms.			2	a 77	a .18½
Engineers, stationary, assistant: Public, by contractors.			4	60	.35	2	a 77	a .19½
3	a 70	a .18½	Foremen, linemen: Public, by contractors.			Private, by contractors or firms.		
Private, by contractors or firms.			1	a 70	a .28½	8	a 70	a .17½
3	a 70	a .18½	Private, by contractors or firms.			2	a 77	a .18½
Engineers, steam roller: Public, by contractors.			Galvanized and sheet iron workers: Public, by contractors.			Iron workers, ornamental: Public, by contractors.		
2	60	.40	24	54	.22½	12	60	.24
Private, by contractors or firms.			2	54	.25	Private, by contractors or firms.		
1	60	.40	Private, by contractors or firms.			12	60	.24
Firemen: Public, by contractors.			16	54	.22½	Iron workers', ornamental, helpers: Public, by contractors.		
1	a 60	a .15	4	54	.25	6	60	.15
4	a 60	a .17½	Gardeners: Public, by city or State.			Private, by contractors or firms.		
2	a 77	a .18½	3	60	.18½	6	60	.15
10	a 70	a .20	1	60	.21½	Iron workers, structural: Public, by contractors.		
Private, by contractors or firms.			Private, by contractors or firms.			85	60	.17½
1	a 60	a .16½	4	60	.15	30	60	.20
4	a 60	a .17½	1	60	.20	12	54	.22½
2	a 77	a .18½	Gas-holder riveters: Public, by contractors.			20	60	.22½
6	60	.20	150	60	.27½	4	60	.25
10	a 70	a .20	Private, by contractors or firms.			Private, by contractors or firms.		
Foremen, carpenters: Public, by contractors.			150	60	.27½	86	60	.17½
10	54	.27½	Private, by contractors or firms.			15	60	.20
1	54	.39½	150	60	.27½	20	60	.22½
Private, by contractors or firms.			Private, by contractors or firms.			4	60	.25
5	54	.30½	Private, by contractors or firms.			18	54	.25
2	54	.32½	Private, by contractors or firms.			Private, by contractors or firms.		
1	54	.39	Private, by contractors or firms.			86	60	.17½
2	54	.41½	Private, by contractors or firms.			15	60	.20
Private, by contractors or firms.			Private, by contractors or firms.			20	60	.22½
Private, by contractors or firms.			Private, by contractors or firms.			18	54	.25

a Work 7 days per week.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
 2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
 3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

BALTIMORE—Continued.

Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.
Iron workers', structural, helpers:			Machinists' helpers—Cont'd.			Pavers:		
Public, by contractors.			Private, by contractors or firms.			Public, by city or State.		
33	60	\$0.15	1	60	\$0.12	11	54	\$0.30½
Private, by contractors or firms.			1	60	.12½	Public, by contractors.		
30	60	.15	3	60	.13½	20	60	.25
Laborers:			Masons, stone:			Pavers, Belgian block:		
Public, by city or State.			Public, by city or State.			Public, by city or State.		
661	54	.18½	19	53	.40½	33	53	.51
1	54	.22½	Public, by contractors.			Public, by contractors.		
Public, by contractors.			32	60	.30	10	54	.39
30	60	.11½	6	60	.32½	17	54	.50
1,750	60	.12½	6	60	.35	10	53	.51
112	54	.14	6	54	.36	Private, by contractors or firms.		
83	60	.15	5	54	.39	20	60	.22½
10	48	.15½	Private, by contractors or firms.			2	60	.25
Private, by contractors or firms.			18	54	.33½	10	54	.50
100	60	.11½	2	54	.36	Pavers, cobblestone:		
691	60	.12½	25	53	.39	Public, by city or State.		
46	54	.14	Molders:			34	53	.41½
177	60	.15	Public, by contractors.			Public, by contractors.		
20	54	.16½	46	60	.22½	4	60	.30
Laborers, building:			80	60	.27½	43	54	.33½
Public, by contractors.			Private, by contractors or firms.			11	54	.39
26	60	.15	46	60	.22½	16	53	.39½
Private, by contractors or firms.			80	60	.27½	Private, by contractors or firms.		
14	54	.14	Molders' helpers:			20	60	.22½
15	54	.16½	Public, by contractors.			10	60	.25
Linemen:			40	60	.12½	10	54	.39
Public, by contractors.			Private, by contractors or firms.			Plumbers:		
3	a 70	a .21½	40	60	.12½	Public, by contractors.		
3	a 70	a .24½	Oilers:			10	54	.22½
6	60	.25	Public, by contractors.			30	54	.27½
Private, by contractors or firms.			2	a 84	a .14½	4	54	.30½
8	a 84	a .20	Private, by contractors or firms.			Private, by contractors or firms.		
3	a 70	a .21½	2	a 84	a .14½	40	54	.27½
3	a 70	a .24½	Painters:			4	54	.30½
6	60	.25	Public, by city or State.			Rammers, Belgian block:		
Machinists:			2	54	.22½	Public, by city or State.		
Public, by city or State.			Public, by contractors.			17	53	.34
1	54	.27½	3	54	.16½	Public, by contractors.		
1	54	.33½	30	54	.22½	4	54	.19½
1	54	.36	Private, by contractors or firms.			9	54	.39
Public, by contractors.			6	54	.16½	6	53	.39½
4	60	.15	4	60	.17½	Private, by contractors or firms.		
1	60	.16½	12	60	.18	20	60	.13½
55	60	.22½	26	54	.25	6	54	.39
4	60	.25	23	53	.28½	Rammers, cobblestone:		
Private, by contractors or firms.			Pattern makers:			Public, by city or State.		
1	60	.16½	Public, by city or State.			17	53	.22½
3	60	.17	1	54	.27½	Public, by contractors.		
10	60	.18	Public, by contractors.			2	60	.15
2	60	.18½	16	60	.25	10	54	.19½
6	60	.20	26	60	.30	10	54	.22½
58	60	.22½	Private, by contractors or firms.			8	53	.23½
Machinists' helpers:			Public, by contractors or firms.			Private, by contractors or firms.		
Public, by contractors.			16	60	.25	20	60	.13½
8	60	.15	25	60	.30	6	54	.22½

a Work 7 days per week.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
 2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS.
 3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

BOSTON—Continued.

Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.
Bricklayers—Cont'd.			Carpenters—Cont'd.			Draftsmen—Cont'd.		
Private, by contractors or firms.			Public, by contractors—Cont'd.			Private, by contractors or firms.		
25	54	\$0.35	9	54	\$0.27½	3	56	\$0.24
133	48	.42	32	53	.28	1	56	.26½
Bricklayers, sewer:			Private, by contractors or firms.			Dredge crane men:		
Public, by city or State.			Public, by city or State.			Public, by contractors.		
24	48	.55	119	56	.24	2	60	.28½
3	50	.60	15	56	.26½	2	60	.30½
6	50	.70	5	56	.27	Private, by contractors or firms.		
Public, by contractors.			Carpenters' helpers:			Dredge runners:		
3	54	.44½	Public, by city or State.			Public, by contractors.		
12	a 84	a .58½	9	54	.27½	4	60	.28½
3	48	.60	3	50	.24½	3	60	.34½
11	54	.60	3	54	.25	Private, by contractors or firms.		
8	48	.65	Public, by contractors.			Dredge runners:		
50	48	.70	5	a 77	a .20	Public, by contractors.		
7	a 77	a .70	Private, by contractors or firms.			Private, by contractors or firms.		
8	48	.75	10	48	.70	2	60	.34½
Calkers, iron:			Cement finishers:			Drillers, stone:		
Public, by city or State.			Public, by city or State.			Public, by city or State.		
34	54	.24½	2	56	.18	10	50	.25
2	54	.25	4	56	.19	4	54	.25
1	54	.26½	24	56	.20	Public, by contractors.		
2	54	.30½	Private, by contractors or firms.			25	60	.17½
Public, by contractors.			Cement finishers' helpers:			11	60	.20
37	60	.22½	3	54	.39	2	54	.22½
12	60	.23	16	54	.44½	2	54	.25
18	60	.25	Private, by contractors or firms.			2	54	.25
6	59	.25½	11	54	.44½	8	60	.25
Calkers, wood:			Cement finishers' helpers:			50	54	.30
Public, by city or State.			Public, by city or State.			Private, by contractors or firms.		
4	54	.33½	16	54	.22½	5	54	.30
Public, by contractors.			3	54	.28	7	60	.30
2	59	.30½	Private, by contractors or firms.			Drivers:		
9	48	.40½	11	54	.22½	Public, by city or State.		
Private, by contractors or firms.			Coal handlers:			1	a 63	a .19½
9	48	.40½	Public, by city or State.			189	54	.23½
Carpenters:			3	a 63	a .22½	30	54	.23½
Public, by city or State.			2	a 63	a .22½	1	48	.25
1	54	.21½	3	a 63	a .23½	21	54	.25
15	54	.27½	Private, by contractors or firms.			6	a 63	a .25
6	50	.28	6	a 70	a .17½	1	a 63	a .27½
8	66	.28	3	a 70	a .18	1	48	.28
2	50	.30½	Cooks:			Public, by contractors.		
2	54	.30½	Public, by city or State.			36	a 84	a .14½
20	48	.32	2	a 63	a .18½	128	60	.15
2	48	.35	Private, by contractors or firms.			12	60	.16
2	48	.38	2	a 75	a .21½	31	54	.16½
3	48	.40	Draftsmen:			4	60	.16½
3	54	.41½	Public, by city or State.			34	60	.17½
1	48	.45	1	a 75	a .18½	154	54	.19½
Public, by contractors.			Private, by contractors or firms.			2	60	.20
4	60	.20	1	a 75	a .18½	2	66	.20½
2	60	.22½	Draftsmen:			10	54	.22½
4	60	.25	Public, by city or State.			1	60	.22½
9	a 77	a .25	1	54	.55	3	48	.31½
4	59	.25½	1	48	.57	Private, by contractors or firms.		
14	a 84	a .27½	1	48	.75	8	60	.17½
			2	54	.39	3	a 70	a .17½
			3	54	.44½	20	54	.19½
			1	54	.50	45	60	.20
			1	54	.55	10	54	.22½
			1	48	.57	4	60	.22½
			1	48	.75	81	a 70	a .22½
						3	48	.31½

a Work 7 days per week.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

BOSTON—Continued.

Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.
Drivers with double team:			Engineers, stationary—Cont'd.			Foremen, laborers:		
Public, by city or State.			Private, by contractors or firms—Cont'd.			Public, by city or State.		
1	54	\$0.50	12	a 70	a \$0.25½	3	48	\$0.25
Public, by contractors.			1	a 70	a .28½	4	54	.25
10	60	.40	7	a 70	a .30	4	54	.27½
50	60	.45	4	a 70	a .35½	2	54	.33½
51	54	.55½	1	a 70	a .38½	2	54	.36
			1	a 70	a .40	1	66	.40
			Firemen:			3	50	.42
Drivers with single team:			Public, by city or State.			1	66	.45
Public, by city or State.			8	a 70	a .16½	2	50	.60
1	54	.33½	1	a 63	a .22½	Public, by contractors.		
Public, by contractors.			3	a 63	a .22½	3	60	.20
1	60	.30	3	a 48	a .25	2	60	.22½
20	54	.33½	17	a 63	a .25	2	60	.23½
Dump men:			1	a 63	a .27½	6	60	.25
Public, by city or State.			8	48	.20	20	60	.30
9	54	.27½	Public, by contractors.			2	54	.33½
Public, by contractors.			1	60	.19½	1	60	.33½
4	a 77	a .20	2	a 70	a .21½	3	a 77	a .36½
Engineers, hoisting:			1	a 70	a .18½	6	a 84	a .39½
Public, by city or State.			16	a 70	a .20	17	60	.40
2	50	.34½	38	a 70	a .22½	5	59	.40½
3	48	.38	Foremen, blacksmiths:			10	a 84	a .41½
Public, by contractors.			Public, by contractors.			3	60	.50
17	54	.22½	1	60	.32½	2	a 77	a .54½
14	60	.25	Foremen, bricklayers:			Private, by contractors or firms.		
4	a 77	a .25	Public, by contractors.			1	a 70	a .16½
3	60	.27½	1	60	.32½	1	a 70	a .22½
2	a 77	a .30	Private, by contractors or firms.			1	56	.27
5	54	.30½	2	56	.32	4	60	.30
4	48	.34½	1	60	.32½	Foremen, machinists:		
Private, by contractors or firms.			1	56	.35½	Public, by city or State.		
6	48	.34½	1	56	.40	1	48	.41
Engineers, stationary:			Foremen, bricklayers:			Public, by contractors.		
Public, by city or State.			Public, by contractors.			1	60	.32½
2	a 70	a .21½	1	60	.50	Private, by contractors or firms.		
1	a 70	a .22	15	48	.53½	4	56	.32
1	a 63	a .22½	5	48	.62½	1	60	.32½
6	a 70	a .24½	Private, by contractors or firms.			Foremen, masons:		
1	a 63	a .27½	2	48	.45	Public, by city or State.		
3	54	.27½	5	48	.53½	Private, by contractors or firms.		
3	a 63	a .27½	1	48	.55	3	48	.62½
6	a 70	a .28½	Foremen, carpenters:			Private, by contractors or firms.		
16	a 63	a .30½	Public, by city or State.			1	56	.42½
17	54	.33½	1	54	.44½	Foremen, painters:		
1	a 63	a .33½	Public, by contractors.			Public, by contractors.		
1	a 63	a .33½	1	a 77	a .30	12	48	.32
4	48	.35	4	54	.33½	3	48	.35
2	50	.36	2	53	.39½	4	48	.37½
4	a 63	a .36½	Private, by contractors or firms.			Private, by contractors or firms.		
2	48	.38	1	56	.30	1	56	.30½
1	54	.42½	2	56	.30½	25	48	.32
2	a 63	a .45½	6	54	.33½	6	45	.35
1	63	.76	1	56	.34	10	48	.35
Public, by contractors.			3	53	.39½	8	48	.37½
1	.60	.17½	Foremen, dredge runners:			Foremen, pavers:		
2	a 77	a .22	Public, by contractors.			Public, by contractors.		
7	60	.25	1	60	.38½	3	54	.44½
4	a 77	a .25	1	60	.50	6	54	.53½
8	a 84	a .27½	Private, by contractors or firms.			Private, by contractors or firms.		
Private, by contractors or firms.			1	60	.53½	1	54	.44½
1	a 70	a .20						
14	a 70	a .22½						
1	a 70	a .25						

a Work 7 days per week.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
 2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
 3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

BOSTON—Continued.

Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.
Foremen, track men:			Hostlers—Cont'd.			Laborers, building—Cont'd.		
Public, by contractors.			Public, by city or State—Cont'd.			Private, by contractors or firms		
1	54	\$0.50	1	48	\$0.25	13	53	\$0.20
1	54	.55 $\frac{1}{2}$	10	a 63	a. 25	12	54	.22 $\frac{1}{2}$
1	54	.61	3	a 63	a. 27 $\frac{1}{2}$	250	48	.25
Private, by contractors or firms.			Public, by contractors.			9	54	.25
2	54	.50	1	a 70	a. 14 $\frac{1}{2}$	Lathers:		
1	54	.55 $\frac{1}{2}$	Private, by contractors or firms.			Public, by contractors.		
1	54	.61	51	a 63	a. 16 $\frac{1}{2}$	9	48	.35 $\frac{1}{2}$
Gatemen:			1	a 63	a. 18 $\frac{1}{2}$	18	48	.37 $\frac{1}{2}$
Public, by city or State.			Laborers:			Private, by contractors or firms.		
5	a 63	a. 22 $\frac{1}{2}$	Public, by city or State.			30	48	.37 $\frac{1}{2}$
4	54	.23 $\frac{1}{2}$	62	48	.19	Machinists:		
Private, by contractors or firms.			75	54	.19 $\frac{1}{2}$	Public, by city or State.		
1	a 70	a. 17 $\frac{1}{2}$	19	48	.20	2	54	.27 $\frac{1}{2}$
2	a 70	a. 20	12	50	.20	6	54	.30 $\frac{1}{2}$
2	a 70	a. 21 $\frac{1}{2}$	68	54	.20	5	54	.33 $\frac{1}{2}$
Glaziers:			105	66	.20	1	48	.35
Public, by contractors.			3	48	.22	4	54	.36
3	54	.27 $\frac{1}{2}$	1, 145	54	a. 22 $\frac{1}{2}$	1	48	.38
Private, by contractors or firms.			1	a 63	a. 22 $\frac{1}{2}$	4	54	.38 $\frac{1}{2}$
7	54	.27 $\frac{1}{2}$	239	54	.23 $\frac{1}{2}$	2	48	.41
Harness makers:			81	50	.24	Public, by contractors.		
Public, by city or State.			36	48	.25	6	60	.22 $\frac{1}{2}$
1	54	.27 $\frac{1}{2}$	3	54	.25	2	59	.23
1	54	.30 $\frac{1}{2}$	4	54	.27 $\frac{1}{2}$	Private, by contractors or firms.		
1	54	.33 $\frac{1}{2}$	2	48	.29	6	60	.22 $\frac{1}{2}$
1	54	.44 $\frac{1}{2}$	1	48	.32	6	56	.24
Public, by contractors.			2	48	.35	6	56	.25
1	54	.25	2	48	.39	1	56	.26
Private, by contractors or firms.			Public, by contractors.			27	56	.27
1	56	.24	1	60	.12 $\frac{1}{2}$	4	56	.29
4	56	.26 $\frac{1}{2}$	485	60	.13 $\frac{1}{2}$	Machinists' helpers:		
Hod carriers:			597	60	.14	Public, by city or State.		
Public, by contractors.			2, 500	60	.15	3	54	.24 $\frac{1}{2}$
72	48	.25	217	a 77	a. 15 $\frac{1}{2}$	1	54	.27 $\frac{1}{2}$
Private, by contractors or firms.			120	59	.15 $\frac{1}{2}$	Private, by contractors or firms.		
693	60	.16 $\frac{1}{2}$	20	60	.16	3	56	.16
7	60	.23 $\frac{1}{2}$	114	54	.16 $\frac{1}{2}$	12	56	.18
43	48	.25	96	a 84	a. 16 $\frac{1}{2}$	21	56	.19
Horse feeders:			693	60	.17 $\frac{1}{2}$	2	56	.20
Public, by city or State.			20	a 77	a. 17 $\frac{1}{2}$	9	56	.22
2	a 63	a. 25	50	59	.17 $\frac{1}{2}$	Masons:		
Private, by contractors or firms.			60	50	.18	Public, by city or State.		
6	a 70	a. 15	331	54	.19 $\frac{1}{2}$	1	48	.47
Horseshoers:			30	60	.20	2	48	.50
Public, by city or State.			8	a 77	a. 20	Public, by contractors.		
1	54	.27 $\frac{1}{2}$	88	a 84	a. 20	106	48	.42
1	54	.33 $\frac{1}{2}$	1	60	.21 $\frac{1}{2}$	1	60	.42
2	54	.35 $\frac{1}{2}$	10	54	.22 $\frac{1}{2}$	Private, by contractors or firms.		
1	54	.36	1	60	.24	13	56	.37 $\frac{1}{2}$
Public, by contractors.			2	60	.25	256	48	.42
1	53	.22 $\frac{1}{2}$	Private, by contractors or firms.			Masons, stone:		
1	53	.31 $\frac{1}{2}$	43	a 70	a. 15	Public, by city or State.		
Hostlers:			61	56	.16	6	54	.42
Public, by city or State.			90	54	.16 $\frac{1}{2}$	3	48	.47 $\frac{1}{2}$
4	a 63	a. 22 $\frac{1}{2}$	702	60	.17 $\frac{1}{2}$	Public, by contractors.		
4	a 63	a. 23 $\frac{1}{2}$	16	56	.18 $\frac{1}{2}$	16	48	.30
Laborers, building:			115	54	.19 $\frac{1}{2}$	7	60	.30
Public, by contractors.			12	54	.22 $\frac{1}{2}$	13	54	.35
10	53	.20	Laborers, building:			30	60	.35
6	54	.22 $\frac{1}{2}$	Public, by contractors.			27	54	.39
154	48	.25	10	53	.20	9	54	.42
			6	54	.22 $\frac{1}{2}$	14	60	.42

a Work 7 days per week.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

BOSTON—Continued.

Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.
Masons' helpers:			Pavers:			Rammers, paving—Cont'd.		
Public, by city or State.			Public, by contractors.			Private, by contractors or firms.		
8	48	\$0.28½	282	54	\$0.44½	55	60	\$0.20
1	54	.30½	10	54	.50	8	54	.22½
4	50	.33½	Private, by contractors or firms.			8	54	.25
1	54	.36	56	60	.37½	Riggers:		
Public, by contractors.			20	54	.44½	Public, by city or State.		
43	48	.25	5	54	.50	4	54	.22½
10	48	.30	Pipe layers:			4	54	.25
9	a 77	a 31	Public, by city or State.			3	54	.27½
Private, by contractors or firms.			2	54	.24½	2	48	.29
125	48	.25	4	54	.25	5	48	.32
Miners:			2	54	.26½	1	48	.35
Public, by city or State.			7	54	.27½	2	48	.38
6	50	.25	2	54	.33½	Public, by contractors.		
3	66	.25	Public, by contractors.			2	a 84	a 31½
Public, by contractors.			52	60	.20	Private, by contractors or firms.		
4	60	.22½	4	54	.22½	1	60	.25
20	a 84	a 23	90	60	.22½	Rock men:		
Private, by contractors or firms.			56	59	.23	Public, by city or State.		
Oilers:			Private, by contractors or firms.			74	54	.22½
Public, by city or State.			4	54	.27½	Public, by contractors.		
1	a 63	a 22½	Plasterers:			9	60	.16½
7	a 63	a 22½	Public, by contractors.			55	60	.17½
3	a 63	a 25	63	47	.43	25	54	.19½
2	a 63	a 27½	17	48	.50	44	60	.20
Private, by contractors or firms.			Private, by contractors or firms.			167	54	.22½
19	a 70	a 20	90	47	.43	Private, by contractors or firms.		
4	a 70	a 21½	10	48	.50	5	60	.17½
7	a 70	a 22½	Plasterers' helpers:			30	60	.20
Public, by city or State.			Public, by contractors.			Spikers:		
1	54	.21½	46	47	.32	Public, by contractors.		
1	54	.22½	Private, by contractors or firms.			19	54	.25
5	54	.25	52	47	.32	Private, by contractors or firms.		
8	54	.27½	Public, by contractors.			14	60	.22½
1	48	.29	12	54	.33½	25	54	.25
1	48	.32	1	54	.36	Sprinklers, street:		
2	54	.33½	1	48	.41	Public, by city or State.		
3	48	.35	1	48	.44	7	54	.22½
1	54	.41½	Public, by contractors.			20	54	.23½
Public, by contractors.			155	48	.47	Public, by contractors.		
121	48	.30	17	48	.56½	11	60	.16½
12	48	.31½	Private, by contractors or firms.			7	54	.18½
Private, by contractors or firms.			1	56	.28½	Private, by contractors or firms		
9	56	.21	3	56	.34	15	54	.19½
19	56	.22	102	48	.47	Stonecutters:		
1	56	.23	4	48	.56½	Public, by city or State.		
30	56	.24	Plumbers' helpers:			2	54	.27½
2	56	.25	Public, by contractors.			17	54	.33½
234	48	.30	135	48	.12½	2	48	.38
10	48	.31½	Private, by contractors or firms.			4	50	.38
Painters, decorative:			Public, by contractors.			Public, by contractors.		
Public, by contractors.			90	48	.12½	1	60	.35
6	48	.35	7	48	.15½	1	60	.44
Private, by contractors or firms.			Private, by contractors or firms.			Private, by contractors or firms.		
3	48	.35	Rammers, paving:			3	60	.27½
Public, by city or State.			Public, by contractors.					
1	48	.41	191	54	.22½			
Private, by contractors or firms.								
1	56	.29						
11	56	.32						

a Work 7 days per week.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
 2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
 3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

BOSTON—Concluded.

Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.
Sweepers, street:			Track men—Cont'd.			Water boys—Cont'd.		
Public, by city or State.			Private, by contractors or firms.			Public, by contractors.		
101	54	\$0.22½	56	60	\$0.22½	4	60	\$0.05½
51	54	.22½	25	54	.27½	9	60	.10
107	54	.23½	Watchmen:			6	a 84	a .10½
Private, by contractors or firms.			Public, by city or State.			Private, by contractors or firms.		
45	60	.17½	1	a 70	a .20	4	60	.07½
Timekeepers:			5	a 70	a .21	2	60	.15
Public, by city or State.			1	a 70	a .22½	Wheelwrights:		
3	54	.27½	3	a 63	a .23½	Public, by city or State.		
1	54	.33½	4	48	.25	2	54	.33½
Public, by contractors.			2	54	.25	2	54	.38
2	60	.15	2	a 63	a .25	1	48	
3	54	.27½	4	a 70	a .25	Public, by contractors.		
1	60	.36½	Public, by contractors.			2	54	.27½
Private, by contractors or firms.			2	a 84	a .14½	1	54	.30½
4	54	.27½	3	a 77	a .15½	1	54	.37
Tinsmiths:			2	a 84	a .16½	Wire men:		
Public, by city or State.			Private, by contractors or firms.			Public, by city or State.		
1	54	.33½	1	a 70	a .14½	2	54	.27½
Private, by contractors or firms.			2	a 70	a .15	1	48	.32
1	60	.20	1	a 70	a .17½	4	54	.33½
1	60	.22	6	a 70	a .20	Private, by contractors or firms.		
2	56	.24	3	a 70	a .22½	1	60	.20
2	60	.24	Water boys:			2	60	.22½
1	56	.29	Public, by city or State.			1	60	.23½
Track men:			2	54	.08½	1	60	.25
Public, by contractors.			2	66	.12	4	60	.27½
19	54	.27½						

NEW YORK CITY.

Ash and garbage lifters:			Asphalt mixers:			Blacksmiths—Cont'd.		
Public, by city or State.			Public, by contractors.			Public, by contractors.		
430	48	.28½	1	60	.22½	1	60	.20
Public, by contractors.			Private, by contractors or firms.			11	59	.25
250	66½	.15½	6	60	.22½	1	53	.31½
Ash tenders:			3	60	.24	15	48	.37½
Public, by city or State.			5	48	.25	6	48	.40½
10	48	.33	20	60	.25	Private, by contractors or firms.		
Private, by contractors or firms.			Axmen:			38	60	.20½
23	a 84	a .14½	Public, by city or State.			2	55	.21½
8	a 70	a .15	2	48	.24	1	55	.24½
1	a 70	a .16	25	48	.28½	26	60	.25
1	a 70	a .17½	56	48	.31½	19	59	.25½
1	a 70	a .19	3	48	.36	6	55	.27½
Asphalt layers:			1	48	.37½	15	60	.27½
Public, by contractors.			2	48	.43½	11	55	.28½
31	60	.20	Private, by contractors or firms.			1	55	.29
5	60	.22½	4	60	.25	6	60	.30
8	60	.25	10	54	.27½	4	54	.33½
Private, by contractors or firms.			Blacksmiths:			2	54	.36
5	60	.20	Public, by city or State.			2	54	.39
12	60	.22½	1	48	.31	15	48	.40½
28	60	.25	5	(b)	.35	12	48	.43½
15	48	.28½	11	48	.36	4	48	.47
			1	48	.37	Blacksmiths' helpers:		
			16	48	.37½	Public, by city or State.		
			1	48	.40	7	48	.25
			2	48	.41	8	48	.27
			4	48	.43½	8	48	.28½
			4	48	.44	6	48	.31½

a Work 7 days per week.

b Not reported.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

NEW YORK CITY—Continued.

Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.
Blacksmiths' helpers—Conc'd.			Bricklayers—Conc'd.			Carpenters—Conc'd.		
Public, by contractors.			Public, by contractors.			Private, by contractors or firms—Conc'd.		
1	53	\$0.22 $\frac{3}{4}$	12	48	\$0.40	34	55	\$0.27 $\frac{1}{2}$
14	48	.25	2	48	.43 $\frac{3}{4}$	12	b 70	b .27 $\frac{1}{2}$
3	48	.28 $\frac{3}{4}$	127	48	.50 $\frac{3}{4}$	7	55	.25 $\frac{3}{4}$
Private, by contractors or firms.			Private, by contractors or firms			1	b 70	b .28 $\frac{3}{4}$
21	55	.17 $\frac{3}{4}$	5	60	.40	1	55	.30
10	60	.17 $\frac{3}{4}$	123	48	.50	14	60	.30
2	55	.19	Calkers, iron:			16	b 70	b .30
4	54	.19 $\frac{3}{4}$	Public, by city or State.			1	b 70	b .34 $\frac{3}{4}$
8	60	.20	11	48	.31	1	55	.35 $\frac{3}{4}$
1	55	.21 $\frac{3}{4}$	19	48	.31 $\frac{3}{4}$	1	b 70	b .38 $\frac{3}{4}$
4	54	.25	10	48	.35	197	48	.43 $\frac{3}{4}$
15	48	.28 $\frac{3}{4}$	Public, by contractors.			1	b 70	b .48
19	48	.31 $\frac{3}{4}$	12	59	.20 $\frac{1}{2}$	1	b 70	b .49 $\frac{3}{4}$
Boiler makers:			Private, by contractors or firms.			Carpenters' helpers:		
Public, by city or State.			35	60	.20	Public, by city or State.		
5	48	.35	25	59	.20 $\frac{1}{2}$	1	48	.25
2	48	.37 $\frac{3}{4}$	Calkers, wood:			1	48	.28 $\frac{1}{2}$
14	48	.38	Public, by city or State.			3	48	.31 $\frac{1}{2}$
15	48	.41	1	48	.38	3	48	.33
Private, by contractors or firms.			1	(a)	.39	Public, by contractors.		
3	55	.24 $\frac{3}{4}$	22	48	.41	8	48	.25
1	60	.25	Public, by contractors.			20	40	.30
11	60	.27 $\frac{3}{4}$	20	60	.22 $\frac{1}{2}$	Private, by contractors or firms.		
9	55	.28 $\frac{3}{4}$	Private, by contractors or firms.			1	60	.15
5	55	.30	237	54	.36	2	55	.19
12	54	.31	Car cleaners:			1	b 70	b .20
1	55	.42	Public, by city or State.			25	48	.30
Boiler makers' helpers:			45	48	.26 $\frac{3}{4}$	Cement mixers:		
Public, by city or State.			Private, by contractors or firms.			Public, by city or State.		
1	48	.24	12	60	.15	1	48	.26 $\frac{3}{4}$
15	48	.27	289	b 70	b .15	Public, by contractors.		
Private, by contractors or firms.			6	b 70	b .17 $\frac{1}{2}$	3	60	.16 $\frac{3}{4}$
10	55	.17 $\frac{3}{4}$	2	b 70	b .19	30	60	.17 $\frac{3}{4}$
1	60	.17 $\frac{3}{4}$	Car couplers:			Private, by contractors or firms.		
2	55	.19	Public, by city or State.			50	60	.17 $\frac{1}{2}$
10	60	.20	14	48	.26 $\frac{3}{4}$	4	60	.20
Boiler setters:			Private, by contractors or firms.			10	48	.25
Public, by contractors.			63	b 84	b .12 $\frac{1}{2}$	Cleaners:		
7	48	.50	7	b 70	b .15	Public, by city or State.		
Private, by contractors or firms.			Carpenters:			49	48	.25
10	48	.28 $\frac{1}{2}$	Public, by city or State.			3	48	.31 $\frac{1}{2}$
Private, by contractors or firms.			5	48	.37 $\frac{1}{2}$	Private, by contractors or firms.		
40	48	.25	2	48	.38	42	b 84	b .20 $\frac{3}{4}$
Bracers:			4	48	.41	Conductors:		
Public, by contractors.			47	48	.43 $\frac{3}{4}$	Public, by city or State.		
16	59	.20	28	48	.47	140	48	.34 $\frac{3}{4}$
35	60	.20	Public, by contractors.			Private, by contractors or firms.		
Private, by contractors or firms.			17	59	.25	22	b 70	b .17 $\frac{1}{2}$
20	29	.20 $\frac{1}{2}$	8	48	.30	20	b 70	b .19
Brass finishers:			24	48	.37 $\frac{1}{2}$	1,075	b 70	b .20
Public, by contractors.			154	48	.43 $\frac{3}{4}$	27	b 70	b .22
6	60	.30	Private, by contractors or firms.			316	b 70	b .23
Private, by contractors or firms.			7	60	.17 $\frac{1}{2}$	Coppersmiths:		
6	60	.30	3	b 70	b .22 $\frac{1}{2}$	Public, by city or State.		
Private, by contractors or firms.			1	b 70	b .24	2	48	.37 $\frac{1}{2}$
6	60	.30	8	55	.24 $\frac{3}{4}$	8	48	.38
Bricklayers:			6	60	.25	16	48	.41
Public, by city or State.			1	b 70	b .25	Private, by contractors or firms.		
52	48	.50	6	59	.25 $\frac{3}{4}$	6	60	.25
			9	55	.20 $\frac{1}{2}$	6	60	.27 $\frac{1}{2}$

a Not reported.

b Work 7 days per week.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
 2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
 3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

NEW YORK CITY—Continued.

Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.
Coppersmiths' helpers:			Dock builders—Cont'd.			Drivers with single team—Cont'd.		
Public, by city or State.			Private, by contractors or firms.			Public, by contractors.		
3	48	\$0.25	260	60	\$0.22½	65	60	\$0.27½
16	48	.28	780	60	.25	40	60	.30
Private, by contractors or firms.			20	58	.25½	25	60	.35
2	54	.27½	Draftsmen:			Private, by contractors or firms.		
Public, by city or State.			Public, by city or State.			Public, by contractors.		
1	48	.31½	1	48	.37½	10	60	.35
1	48	.37½	5	48	.38	10	54	.39
5	48	.38	4	48	.41	Drivers with team and truck:		
29	60	.30	10	48	.50	Public, by city or State.		
4	54	.50	1	48	.56½	1	48	.75
Private, by contractors or firms.			2	48	.62½	Public, by contractors.		
7	54	.33½	7	48	.63	30	60	.45
Curbstone setters' helpers:			Public, by contractors.			Elevator constructors:		
Public, by contractors.			2	54	.27½	Public, by contractors.		
19	60	.15	3	54	.33½	2	48	.31½
Private, by contractors or firms.			Private, by contractors or firms.			64	48	.37½
3	54	.19½	3	60	.30	51	48	.40½
Derrick men:			Drillers:			1	48	.47
Public, by contractors.			Public, by city or State.			Private, by contractors or firms.		
6	48	.34½	2	48	.24	46	48	.37½
7	48	.37½	49	48	.28	61	48	.40½
Private, by contractors or firms.			Public, by contractors.			Elevator constructors' helpers:		
10	48	.34½	28	59	.25½	Public, by contractors.		
Derrick men's helpers:			Private, by contractors or firms.			26	48	.28½
Public, by contractors.			39	59	.25½	11	48	.31½
16	48	.31½	Drivers:			3	48	.34½
Private, by contractors or firms.			Public, by city or State.			Private, by contractors or firms.		
20	48	.31½	222	48	.24	25	48	.28½
Divers:			28	48	.25	15	48	.31½
Public, by city or State.			567	48	.28½	Engineers, hoisting:		
1	48	1.20	14	48	.31	Public, by contractors.		
6	24	1.25	3	48	.31½	17	48	.31½
Public, by contractors.			1	48	.36	1	48	.37½
10	60	.50	Public, by contractors.			Private, by contractors or firms.		
25	(a)	1.00	450	66½	.15½	3	60	.27½
Private, by contractors or firms.			52	60	.17½	9	48	.31½
8	(a)	1.00	577	60	.20	Engineers, locomotive:		
Public, by city or State.			3	54	.22½	Public, by city or State.		
Private, by contractors or firms.			Private, by contractors or firms.			2	48	.31
38	b 70	b .17½	38	54	.19½	3	48	.38
6	54	.19½	65	60	.20	10	48	.41
2	(a)	.35	725	b 70	b .20	20	48	.50
Public, by contractors.			20	54	.22½	Public, by contractors.		
30	60	.25	30	60	.25	2	60	.30
Private, by contractors or firms.			1	60	.30	Private, by contractors or firms.		
2	60	.25	Drivers with double team:			40	b 70	b .30
Public, by city or State.			Public, by city or State.			5	b 70	b .32½
147	(a)	.30	2	48	.43½	7	b 70	b .35
12	(a)	.39	1	48	.47	447	b 63	b .39
Public, by contractors.			8	48	.56½	Engineers, stationary:		
56	60	.20	Public, by contractors.			Public, by city or State.		
745	60	.22½	20	60	.35	19	(a)	.35
195	60	.25	Drivers with single team:			5	50	.38½
11	48	.30	Public, by city or State.			4	48	.40
22	60	.30	5	48	.28½	1	50	.42½
Private, by contractors or firms.			7	48	.31½	12	48	.43½
89	48	.37½	1	50	.46	1	50	.46
20	48	.43½	3	48	.48	3	48	.48
Private, by contractors or firms.			1	50	.57½	1	50	.57½
2	48	.60	2	48	.60	2	48	.60

a Not reported.

b Work 7 days per week.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

NEW YORK CITY—Continued.

Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.
Engineers, stationary—Cont'd.			Firemen—Cont'd.			Foremen, steam fitters—Cont'd.		
Public, by contractors.			Private, by contractors or firms.			Private, by contractors or firms.		
23	59	\$0.25	28	a 84	a \$0.16 $\frac{1}{2}$	4	48	\$0.47
28	60	.25	5	a 70	a .17 $\frac{1}{2}$	6	48	.50
20	60	.27 $\frac{1}{2}$	11	a 63	a .17 $\frac{1}{2}$			
1	53	.34	7	a 84	a .18 $\frac{1}{2}$	Foremen, sweepers, street:		
2	60	.35	2	a 63	a .19 $\frac{1}{2}$	Public, by city or State.		
			4	a 70	a .20	3	48	.26
Private, by contractors or firms.			12	a 70	a .22 $\frac{1}{2}$	2	48	.31 $\frac{1}{2}$
3	a 84	a .16 $\frac{1}{2}$	Firemen, locomotive:			58	48	.40
3	a 84	a .18 $\frac{1}{2}$	Public, by city or State.			Public, by contractors.		
1	a 84	a .20	3	48	.28	60	72	.20 $\frac{1}{2}$
7	a 84	a .20 $\frac{1}{2}$	18	48	.29	Galvanized and sheet iron workers:		
31	a 84	a .22 $\frac{1}{2}$	Private, by contractors or firms.			Public, by city or State.		
9	a 70	a .25	52	a 70	a .17 $\frac{1}{2}$	2	48	.31
2	a 84	a .25	476	a 63	a .22 $\frac{1}{2}$	4	48	.41
30	59	.25 $\frac{1}{2}$	Foremen, blacksmiths:			21	48	.44
12	a 84	a .27	Public, by city or State.			Public, by contractors.		
53	60	.27 $\frac{1}{2}$	1	48	.43 $\frac{1}{2}$	56	48	.43 $\frac{1}{2}$
1	55	.29 $\frac{1}{2}$	Private, by contractors or firms.			Private, by contractors or firms.		
1	a 70	a .30	7	60	.30	8	60	.25
1	60	.32 $\frac{1}{2}$	2	60	.32	8	55	.32 $\frac{1}{2}$
3	a 70	a .33	2	55	.37 $\frac{1}{2}$	1	55	.37 $\frac{1}{2}$
3	a 56	a .37 $\frac{1}{2}$	Foremen, elevator constructors:			55	48	.43 $\frac{1}{2}$
1	54	.39	Public, by contractors.			Galvanized and sheet iron workers' helpers:		
2	a 70	a .41	15	48	.43 $\frac{1}{2}$	Public, by contractors.		
1	a 70	a .40 $\frac{1}{2}$	1	48	.47	1	48	.18 $\frac{1}{2}$
Engineers, steam roller:			1	48	.50	1	48	.22
Public, by city or State.			Private, by contractors or firms.			2	48	.25
3	48	.37 $\frac{1}{2}$	11	48	.43 $\frac{1}{2}$	Private, by contractors or firms.		
Public, by contractors.			Foremen, iron workers, assistant:			3	60	.15
12	60	.30	Public, by contractors.			7	55	.24 $\frac{1}{2}$
2	60	.35	6	48	.37 $\frac{1}{2}$	5	48	.25
Engine hostlers:			Private, by contractors or firms.			Gardeners:		
Public, by city or State.			6	48	.37 $\frac{1}{2}$	Public, by city or State.		
5	48	.50	Foremen, laborers:			50	48	.25
Private, by contractors or firms.			Public, by city or State.			Private, by contractors or firms.		
5	a 70	a .16 $\frac{1}{2}$	5	(b)	.35	225	60	.16 $\frac{1}{2}$
2	a 84	a .18 $\frac{1}{2}$	Public, by contractors.			Gatemen, street railway:		
2	a 70	a .20 $\frac{1}{2}$	41	60	.30	Public, by city or State.		
50	a 84	a .20 $\frac{1}{2}$	Foremen, linemen:			34	48	.31 $\frac{1}{2}$
1	a 84	a .23	Public, by city or State.			Private, by contractors or firms.		
9	a 84	a .25	1	48	.40	132	a 84	a .10 $\frac{1}{2}$
9	a 84	a .29 $\frac{1}{2}$	Foremen, machinists:			67	a 70	a .12 $\frac{1}{2}$
Engine wipers:			Public, by city or State.			409	a 84	a .12 $\frac{1}{2}$
Public, by city or State.			1	48	.43 $\frac{1}{2}$	71	a 84	a .13 $\frac{1}{2}$
10	48	.23 $\frac{1}{2}$	Private, by contractors.			6	a 84	a .14 $\frac{1}{2}$
Private, by contractors or firms.			2	48	.43 $\frac{1}{2}$	Harness makers:		
14	a 84	a .12 $\frac{1}{2}$	Foremen, machinists:			Public, by city or State.		
42	a 70	a .15	Public, by city or State.			1	48	.31 $\frac{1}{2}$
5	55	.18 $\frac{1}{2}$	1	48	.62 $\frac{1}{2}$	2	48	.32
1	a 70	a .17 $\frac{1}{2}$	Public, by contractors.			13	48	.37 $\frac{1}{2}$
Firemen:			Private, by contractors or firms.			Private, by contractors or firms.		
Public, by city or State.			9	60	.85	12	60	.22 $\frac{1}{2}$
1	48	.25	1	60	.40 $\frac{1}{2}$	Hod carriers:		
11	48	.28	Foremen, steam fitters:			Public, by city or State.		
16	50	.30	Public, by contractors.			1	48	.34
12	48	.31 $\frac{1}{2}$	4	48	.47			
8	48	.33 $\frac{1}{2}$	4	48	.80			
Public, by contractors.								

a Work 7 days per week.

b Not reported.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

NEW YORK CITY—Continued.

Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.
Hod carriers—Cont'd.			Joiners—Cont'd.			Laborers, building—Cont'd.		
Public, by contractors.			Public, by contractors.			Private, by contractors or firms.		
5	48	\$0.20	3	60	\$0.20	30	60	\$0.20
4	48	.25	25	60	.22½	5	48	.28½
150	48	.30	10	60	.25	125	48	.30
45	48	.31½				7	48	.31½
Private, by contractors or firms.			Private, by contractors or firms.			Linemen:		
111	48	.30	2	54	.36	Public, by city or State.		
			10	54	.39	2	48	.36
Holders-on:			Laborers:			1		
Public, by city or State.			Public, by city or State.			1		
7	48	.28	1	48	.16	1		
Public, by contractors.			6	48	.19	3		
25	48	.28½	261	48	.22	Public, by contractors.		
Private, by contractors or firms.			255	(b)	.23	15		
12	54	.24½	1,175	48	.25	Private, by contractors or firms.		
65	48	.28½	114	48	.26½	2	a 70	a 20
35	48	.34½	19	48	.28½	2	a 70	a 22½
Hostlers:			4	48	.28½	1	a 70	a 33
Public, by city or State.			78	48	.31½	Machinists:		
1	a 70	a 19½	11	48	.36	Public, by city or State.		
19	48	.24	Public, by contractors.			1	(b)	.35
86	a 56	a 24½	54	60	.12½	5	48	.36
18	a 56	a 25	1	53	.14½	13	48	.37½
Public, by contractors.			35	48	.15	29	48	.38
12	a 84	a 12½	2,394	60	.15	14	48	.39
12	a 84	a 14½	588	59	.15½	6	48	.43½
3	a 70	a 20	21	48	.15½	48	48	.44
Private, by contractors or firms.			1	53	.17	4	48	.50
491	a 70	a 17½	1,956	60	.17½	Public, by contractors.		
20	60	.22½	7	48	.18½	4	60	.20
Iron workers, structural:			35	54	.19½	1	53	.25½
Public, by contractors.			56	48	.22	10	60	.27½
46	48	.28½	22	48	.25	1	53	.28½
25	48	.30	Private, by contractors or firms.			8	60	.30
7	60	.30	10	a 84	a 10½	2	53	.31
25	48	.31½	260	a 84	a 12½	6	a 56	a 31½
10	48	.34½	74	a 84	a 14½	1	53	.34
47	48	.37½	199	60	.15	6	48	.34½
24	48	.43½	497	a 70	a 15	Private, by contractors or firms.		
Private, by contractors or firms.			828	59	.15½	1	a 70	a 20
43	48	.28½	75	60	.16	40	60	.20½
40	48	.30	25	55	.16½	3	55	.21½
10	60	.30	25	60	.16½	8	60	.22½
45	48	.31½	42	a 84	a 16½	11	55	.24½
25	48	.34½	107	a 70	a 17½	14	60	.25
45	48	.37½	656	60	.17½	5	55	.26½
35	48	.43½	372	a 70	a 17½	3	55	.27½
6	48	.47	24	55	.19	33	60	.27½
Iron workers', structural, help-			309	54	.19½	93	55	.28½
ers:			48	48	.22	2	55	.29½
Public, by contractors.			15	54	.22½	8	55	.30
55	48	.25	1	a 70	a 22½	76	60	.30
25	60	.25	165	48	a 25	6	a 56	a 31½
Private, by contractors or firms.			5	a 70	a 25	1	55	.31½
50	48	.20	1	a 70	a 29½	2	55	.32½
5	48	.25	Laborers, building:			5	55	.33½
25	60	.25	Public, by city or State.			2	60	.34½
Joiners:			Public, by contractors.			1	a 70	a 38
Public, by city or State.			18	48	.18½	2	a 70	a 41
2	48	.35	35	48	.25	16	48	.43½
12	48	.38	3	48	.28½	Machinists' helpers:		
65	48	.41	88	48	.30	Public, by city or State.		
			4	48	.31½	1	48	.24
						6	48	.25
						16	48	.27
						5	48	.29½
						2	48	.31½

a Work 7 days per week.

b Not reported.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

NEW YORK CITY—Continued.

Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.
Machinists' helpers—Cont'd.			Painters—Cont'd.			Plasterers:		
Private, by contractors or firms.			Private, by contractors or firms.			Public, by contractors.		
7	60	\$0.17 $\frac{1}{2}$	11	60	\$0.20	268	44	\$0.54 $\frac{1}{2}$
2	70	0.17 $\frac{1}{2}$	9	60	.30	Private, by contractors or firms.		
39	55	.19	4	54	.40	207	44	.54 $\frac{1}{2}$
12	60	.20	244	48	.43 $\frac{1}{2}$			
Masons:			Painters, shop:			Plasterers' helpers:		
Public, by city or State.			Public, by city or State.			Public, by contractors.		
4	48	.43 $\frac{1}{2}$	3	48	.31 $\frac{1}{2}$	141	44	.30
48	48	.50	3	48	.36	20	48	.31 $\frac{1}{2}$
8	(b)	.50	4	48	.37 $\frac{1}{2}$	Private, by contractors or firms.		
Public, by contractors.			3	48	.41	156	44	.30
18	48	.40	Private, by contractors or firms.			Plumbers:		
123	48	.50	1	60	.17 $\frac{1}{2}$	Public, by city or State.		
Private, by contractors or firms.			1	60	.20	1	48	.37 $\frac{1}{2}$
5	60	.25	9	55	.21 $\frac{1}{2}$	2	48	.41
20	60	.35	32	60	.22 $\frac{1}{2}$	1	48	.43 $\frac{1}{2}$
139	48	.50	40	55	.24 $\frac{1}{2}$	14	48	.44
Masons, stone:			10	55	.27 $\frac{1}{2}$	7	48	.50
Public, by city or State.			1	55	.29 $\frac{1}{2}$	Public, by contractors.		
1	48	.50	1	55	.30	6	48	.40
Public, by contractors.			Painters' helpers:			141	48	.47
4	48	.40	Public, by city or State.			Private, by contractors or firms.		
125	48	.50	2	48	.25	1	56	.24
Private, by contractors or firms.			4	48	.28 $\frac{1}{2}$	4	60	.27 $\frac{1}{2}$
12	48	.50	3	48	.33	2	56	.29 $\frac{1}{2}$
Masons' helpers:			3	48	.34 $\frac{1}{2}$	6	60	.30
Public, by city or State.			Public, by contractors.			1	55	.31 $\frac{1}{2}$
4	48	.28 $\frac{1}{2}$	6	48	.25	1	55	.32 $\frac{1}{2}$
Private, by contractors or firms.			Private, by contractors or firms.			5	55	.35 $\frac{1}{2}$
7	60	.15	1	55	.08 $\frac{1}{2}$	1	55	.42
14	60	.20	7	60	.15	159	48	.47
10	48	.25	2	60	.16	Plumbers' helpers:		
Molders:			51	55	.16 $\frac{1}{2}$	Public, by city or State.		
Public, by city or State.			Pavers, Belgian block:			2	48	.16
9	48	.38	Public, by city or State.			1	48	.22
11	48	.41	47	48	.50	3	48	.31 $\frac{1}{2}$
6	48	.44	Public, by contractors.			Public, by contractors.		
Private, by contractors or firms.			9	54	.44 $\frac{1}{2}$	1	48	.08 $\frac{1}{2}$
1	55	.32 $\frac{1}{2}$	143	54	.50	1	48	.10 $\frac{1}{2}$
Oakum spinners:			Private, by contractors or firms.			13	48	.12 $\frac{1}{2}$
Public, by city or State.			14	60	.22 $\frac{1}{2}$	61	48	.15 $\frac{1}{2}$
3	48	.25	9	60	.25	Private, by contractors or firms.		
Private, by contractors or firms.			53	54	.50	2	60	.10
1	54	.33 $\frac{1}{2}$	Pipe fitters:			8	60	.15
Painters:			Public, by city or State.			59	48	.15 $\frac{1}{2}$
Public, by city or State.			1	48	.25	3	56	.18 $\frac{1}{2}$
6	48	.38	3	48	.44	8	56	.24
11	48	.41	Private, by contractors or firms.			Rammers, Belgian block:		
22	48	.43 $\frac{1}{2}$	1	55	.21 $\frac{1}{2}$	Public, by city or State.		
48	48	.44	1	60	.24	16	48	.37 $\frac{1}{2}$
Public, by contractors.			2	55	.24 $\frac{1}{2}$	3	48	.38
25	54	.27 $\frac{1}{2}$	1	60	.25	Public, by contractors.		
12	48	.30	1	60	.26	64	54	.39
4	48	.31 $\frac{1}{2}$	1	55	.261	Private, by contractors or firms.		
20	54	.32 $\frac{1}{2}$	4	55	.27 $\frac{1}{2}$	15	60	.17 $\frac{1}{2}$
56	48	.37 $\frac{1}{2}$	1	60	.27 $\frac{1}{2}$	22	54	.39
8	48	.43 $\frac{1}{2}$	1	55	.30			
			1	55	.32 $\frac{1}{2}$			

a Work 7 days per week.

b Not reported.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

NEW YORK CITY—Continued.

Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.
Riggers:			Rock men—Cont'd.			Steam and gas fitters' helpers:		
Public, by city or State.			Private, by contractors or firms.			Public, by contractors.		
12	48	\$0.31	190	59	\$0.18	18	48	\$0.18 $\frac{1}{2}$
4	48	.31 $\frac{1}{2}$	10	60	.20	72	48	.25
2	48	.35	20	59	.20 $\frac{1}{2}$	Private, by contractors or firms.		
10	48	.37 $\frac{1}{2}$	Roofers, slate:			80		
2	48	.38	Public, by city or State.			48		
2	48	.43 $\frac{1}{2}$	1			.25		
3	48	.44	Private, by contractors or firms.			44		
Public, by contractors.			8			Stokers:		
10	60	.17 $\frac{1}{2}$	2			Public, by city or State.		
15	59	.20	2			1		
39	60	.20	2			3		
20	48	.25	Sawmill men:			48		
29	48	.31 $\frac{1}{2}$	Public, by city or State.			a 56		
Private, by contractors or firms.			5			a 31 $\frac{1}{2}$		
24	60	.20	Private, by contractors or firms.			.31 $\frac{1}{2}$		
15	59	.20 $\frac{1}{2}$	3			a 31 $\frac{1}{2}$		
27	60	.22 $\frac{1}{2}$	3			.50		
20	60	.25	Shipsmiths:			8		
66	48	.31 $\frac{1}{2}$	Public, by city or State.			48		
18	48	.37 $\frac{1}{2}$	3			.43 $\frac{1}{2}$		
15	54	.39	11			.48		
Riggers' helpers:			Private, by contractors or firms.			30		
Public, by contractors.			21			48		
6	60	.17 $\frac{1}{2}$	Shipsmiths' helpers:			48		
35	48	.22	Public, by city or State.			.23		
Private, by contractors or firms.			22			.24		
10	60	.17 $\frac{1}{2}$	Private, by contractors or firms.			.25 $\frac{1}{2}$		
26	48	.22	10			.28		
Riveters:			Shipwrights:			728		
Public, by city or State.			Public, by city or State.			72		
6	48	.32	1			.10 $\frac{1}{2}$		
18	48	.35	30			.15		
4	48	.37 $\frac{1}{2}$	Private, by contractors or firms.			.16 $\frac{1}{2}$		
Public, by contractors.			186			.37 $\frac{1}{2}$		
15	60	.25	2,300			.41		
10	48	.31 $\frac{1}{2}$	Public, by city or State.			.36		
40	48	.34 $\frac{1}{2}$	Public, by contractors.			.29		
Private, by contractors or firms.			3,000			.37 $\frac{1}{2}$		
1	55	.13 $\frac{1}{2}$	Spar makers:			.44		
1	55	.16 $\frac{1}{2}$	Public, by city or State.			.56		
7	55	.19	2			.17 $\frac{1}{2}$		
30	55	.21 $\frac{1}{2}$	Private, by contractors or firms.			.18 $\frac{1}{2}$		
2	55	.24 $\frac{1}{2}$	26			.20		
25	60	.25	Snow shovelers:			.51 $\frac{1}{2}$		
2	55	.27 $\frac{1}{2}$	Public, by city or State.			.17 $\frac{1}{2}$		
2	55	.28 $\frac{1}{2}$	Public, by contractors.			.18 $\frac{1}{2}$		
60	48	.31 $\frac{1}{2}$	3,000			.21 $\frac{1}{2}$		
52	48	.34 $\frac{1}{2}$	Spar makers:			.22 $\frac{1}{2}$		
Rivet heaters:			Public, by city or State.			.24 $\frac{1}{2}$		
Public, by contractors.			3			.24 $\frac{1}{2}$		
5	60	.15	Private, by contractors or firms.			.25		
Private, by contractors or firms.			1			.28 $\frac{1}{2}$		
4	54	.16 $\frac{1}{2}$	3			.31 $\frac{1}{2}$		
Rock men:			Public, by contractors.			.34 $\frac{1}{2}$		
Public, by city or State.			12			.44		
6	48	.28 $\frac{1}{2}$	54			.44		
Public, by contractors.			6			.43 $\frac{1}{2}$		
80	60	.17 $\frac{1}{2}$	Private, by contractors or firms.			.40		
127	59	.18	6			.43 $\frac{1}{2}$		
25	60	.20	12			.27 $\frac{1}{2}$		
			70			.37 $\frac{1}{2}$		
			48			.43 $\frac{1}{2}$		
			a Work 7 days per week.					

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

NEW YORK CITY—Concluded.

Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.
Timekeepers:			Track men—Conc'd.			Watchmen—Conc'd.		
Public, by city or State.			Private, by contractors or firms—Conc'd.			Private, by contractors or firms—Conc'd.		
1	48	\$0.43 $\frac{1}{2}$	14	a 70	a \$0.22 $\frac{1}{2}$	2	a 84	a \$0.16 $\frac{1}{2}$
Public, by contractors.			3	a 70	a .23	1	a 70	a .20
10	60	.20	5	a 70	a .24 $\frac{1}{2}$	1	55	.21 $\frac{1}{2}$
8	54	.22 $\frac{1}{2}$	1	a 70	a .26 $\frac{1}{2}$	Wire men:		
5	60	.22 $\frac{1}{2}$	1	a 70	a .29 $\frac{1}{2}$	Public, by contractors.		
4	60	.25	Train dispatchers:			6	a 56	a .31 $\frac{1}{2}$
Private, by contractors or firms.			Public, by city or State.			49	48	.37 $\frac{1}{2}$
3	60	.22 $\frac{1}{2}$	6	48	.43 $\frac{1}{2}$	Private, by contractors or firms.		
3	a 70	a .25	Private, by contractors or firms.			6	a 56	a .31 $\frac{1}{2}$
7	a 70	a .30	2	a 84	a .20 $\frac{1}{2}$	20	48	.37 $\frac{1}{2}$
Tinsmiths:			2	a 84	a .22	Wire men's helpers:		
Public, by city or State.			23	a 84	a .24 $\frac{1}{2}$	Public, by contractors.		
1	48	.37 $\frac{1}{2}$	Watchmen:			15	48	.22
1	48	.38	Public, by city or State.			15	48	.25
Private, by contractors or firms.			3	(b)	.16 $\frac{1}{2}$	Private, by contractors or firms.		
1	55	.21 $\frac{1}{2}$	5	(b)	.18 $\frac{1}{2}$	Public, by city or State.		
1	60	.25	5	(b)	.21 $\frac{1}{2}$	Private, by contractors or firms.		
3	55	.26 $\frac{1}{2}$	5	48	.28	10	48	.25
3	55	.28 $\frac{1}{2}$	2	48	.29	Woodworkers:		
Track men:			1	48	.30	Public, by city or State.		
Public, by city or State.			3	48	.31	1	48	.37 $\frac{1}{2}$
4	48	.50	Private, by contractors or firms.			Private, by contractors or firms.		
Private, by contractors or firms.			5	a 84	a .12 $\frac{1}{2}$	30	60	.22 $\frac{1}{2}$
1	a 70	a .15	6	a 84	a .14 $\frac{1}{2}$			
17	a 70	a .17 $\frac{1}{2}$	1	a 70	a .15			
204	a 70	a .20						

PHILADELPHIA.

Asphalt layers:			Blacksmiths' helpers:			Bricklayers—Conc'd.		
Public, by contractors.			Public, by city or State.			Private, by contractors or firms.		
45	60	.17 $\frac{1}{2}$	2	54	.19 $\frac{1}{2}$	59	50	.45
Private, by contractors or firms.			16	60	.22	145	50	.48 $\frac{1}{2}$
14	60	.17 $\frac{1}{2}$	7	54	.22 $\frac{1}{2}$	Bricklayers, sewer:		
Public, by contractors.			2	54	.25	Public, by contractors.		
Private, by contractors or firms.			Public, by contractors.			91	54	.50
15	60	.15	2	60	.15	15	60	.50
Private, by contractors or firms.			3	60	.17 $\frac{1}{2}$	84	54	.55
3	60	.15	6	54	.18 $\frac{1}{2}$	20	54	.55 $\frac{1}{2}$
Public, by contractors.			Private, by contractors or firms.			45	54	.61
2	60	.22 $\frac{1}{2}$	13	60	.14	Private, by contractors or firms.		
141	60	.27 $\frac{1}{2}$	2	60	.15	25	54	.50
4	60	.30	4	60	.17	Bricklayers' helpers:		
2	54	.30 $\frac{1}{2}$	6	54	.18 $\frac{1}{2}$	Public, by city or State.		
Private, by contractors or firms.			Boiler makers:			6	54	.24 $\frac{1}{2}$
8	60	.20	Public, by contractors.			Public, by contractors.		
12	60	.20 $\frac{1}{2}$	147	60	.25	9	50	.16 $\frac{1}{2}$
1	60	.21 $\frac{1}{2}$	Private, by contractors or firms.			Calkers, iron:		
27	60	.22 $\frac{1}{2}$	147	60	.25	Public, by city or State.		
4	60	.25	Public, by city or State.			30	54	.25
138	60	.27 $\frac{1}{2}$	18	50	.48 $\frac{1}{2}$	140	54	.27 $\frac{1}{2}$
4	60	.30	Public, by contractors.			Private, by contractors or firms.		
2	54	.30 $\frac{1}{2}$	4	60	.25	19	54	.22 $\frac{1}{2}$
a Work 7 days per week.			15	50	.43 $\frac{1}{2}$	5	60	.22 $\frac{1}{2}$
			28	54	.45	2	60	.24
			120	50	.48 $\frac{1}{2}$	3	60	.25
			b Not reported.					

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
 2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
 3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

PHILADELPHIA—Continued.

Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.
Carpenters:			Draftsmen:			Dynamo men:		
Public, by city or State.			Public, by contractors.			Public, by city or State.		
14	50	\$0.30	88	60	\$0.38	2	48	\$0.31½
43	54	.33½	Private, by contractors or firms.			Public, by contractors.		
Public, by contractors.			88	60	.38	20	60	.22½
9	54	.25	Drillers, iron:			10	a 70	a .25
3	60	.25	Public, by contractors.			Private, by contractors or firms.		
26	54	.27½	91	60	.17½	6	48	.22½
20	54	.28	Private, by contractors or firms.			20	60	.22½
170	54	.30	91	60	.17½	1	48	.25
214	60	.30	Drillers, stone:			10	a 70	a .25
10	50	.32½	Public, by contractors.			18	a 56	a .26½
8	48	.33½	64	60	.27½	10	a 56	a .28½
8	48	.34½	Private, by contractors or firms.			4	a 56	a .30½
Private, by contractors or firms.			Drillers', stone, helpers:			Electricians:		
40	60	.20	Public, by contractors.			Public, by contractors.		
52	60	.22½	6	60	.27½	48	60	.25
116	60	.24	Private, by contractors or firms.			Private, by contractors or firms.		
196	54	.30	3	60	.16½	12	60	.18
214	60	.30	32	60	.17½	48	60	.25
180	54	.30½	Private, by contractors or firms.			Engineers, chief:		
10	50	.32½	4	60	.17½	Public, by contractors.		
150	50	.33	Drips, gas works:			1	72	.29½
52	54	.35	Public, by city or State.			Private, by contractors or firms.		
Carpenters' helpers:			Private, by contractors or firms.			Engineers, dynamo:		
Public, by city or State.			Public, by contractors.			Public, by contractors.		
3	54	.19½	7	a 84	a .18½	1	a 84	a .23½
Public, by contractors.			Private, by contractors or firms.			Private, by contractors or firms.		
8	60	.17½	3	a 84	a .16½	Engineers, dynamo, assistant:		
2	48	.18½	Public, by city or State.			Public, by contractors.		
Private, by contractors or firms.			Private, by contractors or firms.			1	a 84	a .16½
5	54	.16½	Drivers:			Private, by contractors or firms.		
Cement mixers:			Public, by city or State.			Engineers, hoisting:		
Public, by contractors.			22	60	.17½	Public, by city or State.		
Private, by contractors or firms.			20	a 84	a .18½	6	48	.37½
50	60	.15	18	a 70	a .20	Public, by contractors.		
Coal handlers:			26	54	.22½	1	a 84	a .16½
Public, by contractors.			Public, by contractors.			Private, by contractors or firms.		
20	a 70	a .17½	30	60	.12½	1	a 84	a .16½
Private, by contractors or firms.			246	60	.15	Engineers, hoisting:		
2	a 84	a .14½	110	60	.16½	Public, by city or State.		
31	a 56	a .18½	Private, by contractors or firms.			6	48	.37½
Coppersmiths:			72	60	.15	Public, by contractors.		
Public, by contractors.			20	60	.16½	4	60	.22½
30	60	.30	3	60	.17½	11	50	.24
Private, by contractors or firms.			Drivers with double team:			17	60	.25
30	60	.30	Public, by city or State.			4	54	.27½
Cornice workers:			2	54	.50	1	60	.30
Public, by contractors:			Public, by contractors.			Private, by contractors or firms.		
10	54	.27½	2	60	.40	4	50	.24
Private, by contractors or firms.			105	60	.50	1	54	.25
6	54	.27½	Drivers with single team:			10	50	.27
Dock builders:			Public, by city or State.			5	54	.27½
Public, by contractors.			22	54	.27½	Engineers, stationary:		
15	60	.22½	38	54	.33½	Public, by city or State.		
3	60	.25	Public, by contractors.			4	a 84	a .21
Private, by contractors or firms.			105	60	.27½	7	a 84	a .22½
325	60	.22½	143	60	.30	2	a 84	a .23
100	60	.25	Private, by contractors or firms.			5	a 84	a .25½
			306	60	.30	1	a 84	a .27
			a Work 7 days per week.					

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

PHILADELPHIA—Continued.

Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.
Engineers, stationary—Cont'd.			Foremen, bricklayers:			Foremen, machinists—Cont'd.		
Public, by contractors.			Public, by city or State.			Private, by contractors or firms.		
20	60	\$0.25	4	54	\$0.39	14	60	\$0.30
4	a 70	a .25	1	50	.60	2	60	.35
2	a 70	a .30	Public, by contractors.			Foremen, painters:		
Private, by contractors or firms.			Private, by contractors or firms.			Public, by city or State.		
10	60	.21½	1	60	.45	1	54	.32
11	60	.22½	1	60	.45	1	54	.36½
4	60	.25	1	50	.54	1	54	.41½
2	a 56	a .27½	3	50	.57	1	50	.42
12	a 56	a .28½	7	50	.62½	Public, by contractors.		
15	a 56	a .31½	1	50	.63	9	54	.39
6	a 56	a .34½	Foremen, carpenters:			Private, by contractors or firms.		
1	a 56	a .35	Public, by city or State.			13	54	.39
Engineers, stationary, assistant:			1	54	.35½	3	54	.44½
Public, by contractors.			2	54	.39	Foremen, plasterers:		
2	a 84	a .16½	1	50	.42	Public, by contractors.		
Private, by contractors or firms.			Public, by contractors.			8	48	.50
2	a 84	a .16½	1	48	.37½	Private, by contractors or firms.		
Engineers, steam roller:			3	54	.39	9	48	.50
Public, by contractors.			Private, by contractors or firms.			Foremen, purifiers, gas works:		
10	60	.25	12	54	.39	Public, by city or State.		
6	60	.35	Foremen, dock builders:			5	a 70	a .27½
Private, by contractors or firms.			Public, by contractors.			1	a 70	a .32½
2	60	.25	4	60	.30	Public, by contractors.		
Fasteners, shipbuilding:			Private, by contractors or firms.			2	60	.20
Public, by contractors.			20	60	.35	Foremen, stokers:		
23	60	.17½	Foremen, iron workers, structural:			Public, by city or State.		
Private, by contractors or firms.			Public, by contractors.			1	a 84	a .27
23	60	.17½	2	54	.33½	Private, by contractors or firms.		
Firemen:			Private, by contractors or firms.			2	a 84	a .22
Public, by city or State.			1	54	.33½	Galvanized and sheet iron workers:		
51	a 84	a .19½	Foremen, laborers:			Public, by contractors.		
28	a 84	a .23	Public, by city or State.			150	60	.22½
19	48	.28½	1	54	.29½	18	54	.27½
Public, by contractors.			1	50	.39	10	54	.30
2	a 84	a .16½	Public, by contractors.			Private, by contractors or firms.		
7	a 70	a .22½	16	60	.20	150	60	.22½
Private, by contractors or firms.			85	60	.25	7	54	.27½
16	60	.15½	3	60	.27½	12	54	.30
2	a 84	a .16½	25	60	.30	10	54	.30½
39	a 56	a .25	5	60	.35	Gardeners:		
Fitters (iron setters), shipbuilding:			Private, by contractors or firms.			Public, by city or State.		
Public, by contractors.			7	60	.20	1	54	.22½
67	60	.25	20	60	.25	6	54	.25½
Private, by contractors or firms.			3	60	.30	8	54	.27½
67	60	.25	Foremen, linemen:			1	54	.29½
Foremen, blacksmiths:			Public, by contractors.			1	54	.32
Public, by city or State.			1	60	.29½	Private, by contractors or firms.		
2	60	.35	Private, by contractors or firms.			5	60	.15
2	60	.37½	1	60	.29½	4	60	.16½
Public, by contractors.			Foremen, machinists:			3	60	.20
2	60	.30	Public, by city or State.			1	60	.29½
Private, by contractors or firms.			1	54	.42½	1	60	.25
1	60	.27½	1	54	.44½	Gardeners' helpers:		
6	60	.30	1	54	.53½	Public, by city or State.		
						1	54	.22½

a Work 7 days per week.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Cont'd.

PHILADELPHIA—Continued.

Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.
Gardeners' helpers—Cont'd.			Laborers—Cont'd.			Machinists' helpers:		
Private, by contractors or firms.			Public, by contractors.			Public, by city or State.		
6	60	\$.12½	3,549	60	\$.12½	6	54	\$.22½
5	60	.15	65	60	.13	5	54	.25
			75	60	.13½	1	60	.25
Granite cutters:						Private, by contractors or firms.		
Public, by contractors.								
39	54	.39	985	60	.14	11	60	.15
			7	54	.16½	23	60	.17½
Private, by contractors or firms.								
36	54	.39	30	60	.17½			
			2	60	.20			
			2	48	.25			
Hod carriers:			Private, by contractors or firms.			Masons, stone:		
Public, by city or State.						Public, by contractors.		
14	54	.24	45	60	.12	25	54	.30
3	50	.30	64	60	.12½	15	54	.39
Public by contractors.						Private, by contractors or firms.		
20	60	.17½	313	60	.13	10	50	.42
13	50	.27	487	60	.13½			
7	54	.30	596	60	.15			
40	48	.31½	2	54	.16½	40	54	.33½
41	50	.32½	4	54	.19½	35	50	.45
			7	60	.20			
			9	54	.22½			
Private, by contractors or firms.			Laborers, building:			Meter inspectors, gas works:		
20	60	.17½	Public, by city or State.			Public, by city or State.		
6	50	.24	111	50	.21	46	48	.33½
16	50	.27	9	50	.24	Private, by contractors or firms.		
49	50	.30	Public, by contractors.			4	60	.23½
45	45	.31½	58	60	.15	Millwrights:		
40	50	.32½	2	48	.17½	Public, by contractors.		
			20	50	.18	18	54	.29½
			25	54	.19½	Private, by contractors or firms.		
			Private, by contractors or firms.			18	54	.29½
			35	60	.15	Molders:		
			85	54	.16½	Public, by contractors.		
			12	60	.17½	203	60	.20
			13	50	.18	Private, by contractors or firms.		
			8	54	.19½	203	60	.20
			22	50	.21	50	60	.25
			Linemen:			10	60	.27
			Public, by city or State.			Oilers:		
			8	60	.25	Public, by city or State.		
			8	60	.27½	30	a 84	a .18½
			Public, by contractors.			Private, by contractors or firms.		
			8	60	.25	8	48	.22½
			Private, by contractors or firms.			Painters:		
			59	60	.25	Public, by city or State.		
			Machinists:			2	54	.22½
			Public, by city or State.			25	54	.27½
			2	54	.27½	21	50	.30
			1	60	.30	6	54	.33½
			5	54	.30½	Public, by contractors.		
			1	60	.32½	5	54	.28
			34	54	.33½	35	48	.30
			Public, by contractors.			77	54	.30
			565	60	.25	100	60	.30
			20	54	.27½	20	54	.30½
			4	60	.30	Private, by contractors or firms.		
			Private, by contractors or firms.			419	54	.30
			301	60	.20	100	60	.30
			5	60	.22	11	54	.30½
			41	60	.22½	Pattern makers:		
			567	60	.25	Public, by city or State.		
			20	54	.27½	3	54	.33½

a Work 7 days per week.

TABLE I.—HOURS OF WORK AND WAGES OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS—Conc'd.

PHILADELPHIA—Concluded.

Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.	Number of employees.	Hours of work per week.	Wages per hour.
Pattern makers—Conc'd.			Pump men—Conc'd.			Steam and gas fitters' helpers—		
Public, by contractors.			Public, by contractors.			Conc'd.		
68	60	\$0.30	4	a 70	a \$0.22½	Private, by contractors or firms.		
1	54	.30½	Purifiers, gas works:			1	60	\$0.15
Private, by contractors or firms.			Public, by city or State.			6	54	.16½
18	60	.24½	69	a 70	a .25	1	60	.19½
7	60	.25	Public, by contractors.			Stokers:		
7	60	.27	12	60	.17½	Public, by city or State.		
68	60	.30	Private, by contractors or firms.			212	a 84	a .23
1	54	.30½	1	a 70	a .19	Private, by contractors or firms.		
Pavers, Belgian block:			Rammers, Belgian block and			8	a 84	a .18
Public, by contractors.			cobblestone:			Stonecutters:		
15	60	.35	Public, by contractors.			Public, by city or State.		
56	54	.44½	10	60	.15	5	54	.39½
Private, by contractors or firms.			10	54	.30½	3	50	.42
25	60	.25	Private, by contractors or firms.			Public, by contractors.		
20	54	.50	17	60	.20	25	54	.30
Pavers, cobblestone:			30	54	.33½	50	50	.42
Public, by contractors.			Riggers:			14	50	.43
15	60	.35	Public, by contractors.			Private, by contractors or firms.		
15	54	.44½	67	60	.18½	10	54	.36
Private, by contractors or firms.			4	50	.24	44	50	.43
20	60	.25	2	50	.30	Stonecutters' helpers:		
43	54	.50	3	54	.33½	Public, by city or State.		
Pile drivers:			Private, by contractors or firms.			3	50	.24
Public, by contractors.			67	60	.18½	Public, by contractors.		
75	60	.22½	10	54	.27½	50	50	.22
Private, by contractors or firms.			25	50	.30	Stone setters:		
30	60	.22½	2	54	.33½	Public, by contractors.		
20	60	.25	4	50	.48	6	50	.48½
10	60	.27½	Riveters:			Private, by contractors or firms.		
Plasterers:			Public, by contractors.			25	50	.45
Public, by contractors.			199	60	.20	2	50	.48½
12	54	.30½	Private, by contractors or firms.			Trimmers, electric lighting:		
30	48	.40	199	60	.20	Public, by city or State.		
Private, by contractors or firms.			Steam and gas fitters:			10	60	.37½
10	54	.39	Public, by city or State.			Public, by contractors.		
103	48	.40	23	54	.27½	35	a 70	a .20
Plumbers:			4	50	.36	Private, by contractors or firms.		
Public, by city or State.			Public, by contractors.			35	a 70	a .20
10	54	.30½	274	60	.25	Watchmen:		
6	54	.33½	5	60	.30	Public, by city or State.		
7	54	.42	3	48	.31½	12	a 84	a .16½
Public, by contractors.			29	54	.33½	2	a 84	a .18
25	54	.38½	4	48	.37½	2	a 84	a .20½
12	48	.37½	Private, by contractors or firms.			Public, by contractor		
4	48	.43½	8	60	.20	3	a 84	a .10½
Private, by contractors or firms.			1	60	.23½	4	a 70	a .17½
1	54	.27½	274	60	.25	32	60	.18
91	54	.33½	3	60	.26½	Private, by contractors or firms.		
17	54	.39	13	60	.27½	15	60	.12
Plumbers' helpers:			5	54	.27½	32	60	.18
Public, by city or State.			3	54	.30½	Weighers, gas works:		
3	54	.25	80	54	.33½	Public, by city or State.		
7	54	.27½	Steam and gas fitters' helpers:			4	a 70	a .22
Public, by contractors.			Public, by city or State.			Public, by contractors.		
10	54	.16½	14	54	.22½	2	a 70	a .20
Pump men:			15	54	.24			
Public, by city or State.			1	54	.24½			
14	a 70	a .22	Public, by contractors.					
6	48	.34½	10	54	.16½			
			3	48	.18½			

a Work 7 days per week.

TABLE II.—SUMMARY OF WAGES PER HOUR OF EMPLOYEES—

1. ON PUBLIC WORK, EMPLOYED DIRECTLY BY THE CITY OR STATE,
2. ON PUBLIC WORK, EMPLOYED BY CONTRACTORS,
3. ON PRIVATE WORK, EMPLOYED BY CONTRACTORS OR FIRMS.

BALTIMORE.

Occupations.	Public, by city or State.			Public, by contractors.			Private, by contractors or firms.		
	High-est.	Low-est.	Aver-age.	High-est.	Low-est.	Aver-age.	High-est.	Low-est.	Aver-age.
Asphalt layers				\$0.20	\$0.20	\$0.20	\$0.20	\$0.20	\$0.20
Asphalt mixers				.15	.15	.15	.15	.15	.15
Blacksmiths	\$0.30	\$0.22	\$0.25	.26	.17	.23	.26	.17	.21
Blacksmiths' helpers	.22	.22	.22	.20	.13	.15	.16	.13	.14
Boiler makers				.22	.22	.22	.22	.22	.22
Bricklayers	.30	.22	.39	.37	.33	.34	.39	.33	.34
Carpenters	.33	.27	.32	.31	.22	.25	.28	.18	.26
Cement finishers				.35	.25	.31	.35	.35	.35
Cement mixers				.12	.12	.12	.12	.12	.12
Chandeller fitters				.20	.20	.20	.20	.20	.20
Chandeller makers				.25	.25	.25	.25	.25	.25
Coal handlers				.15	.15	.15	.15	.15	.15
Cornice workers				.27	.27	.27	.27	.27	.27
Curbstone setters				.30	.30	.30	.30	.30	.30
Curbstone setters' helpers				.15	.15	.15	.15	.15	.15
Draftsmen				.44	.33	.44	.44	.33	.44
Drivers				.15	.07	.09	.12	.12	.12
Drivers with single team	.33	.25	.27	.20	.20	.20	.22	.20	.20
Dynamo men				.22	.17	.20	.22	.17	.20
Dynamo men's helpers				.12	.12	.12	.12	.12	.12
Engine cleaners				.14	.12	.13	.14	.12	.13
Engineers, chief				.28	.28	.28	.28	.28	.28
Engineers, hoisting	.30	.30	.30	.22	.20	.22	.28	.28	.28
Engineers, stationary				.25	.20	.22	.25	.20	.21
Engineers, stationary, as- sistant				.18	.18	.18	.18	.18	.18
Engineers, steam roller				.40	.40	.40	.40	.40	.40
Firemen				.20	.15	.19	.20	.15	.19
Foremen, carpenters				.33	.27	.28	.41	.30	.34
Foremen, cornice workers				.35	.33	.33	.33	.33	.33
Foremen, electric lighting				.33	.33	.33	.33	.33	.33
Foremen, electric lighting, assistant				.21	.21	.21	.21	.21	.21
Foremen, laborers	.29	.22	.26	.35	.20	.27	.25	.17	.20
Foremen, linemen				.28	.28	.28	.28	.28	.28
Galvanized and sheet iron workers				.25	.22	.22	.25	.22	.23
Gardeners	.21	.18	.19				.20	.15	.16
Gas-holder riveters				.27	.27	.27	.27	.27	.27
Granite cutters				.40	.40	.40	.40	.40	.40
Ground men, electric light- ing				.15	.12	.14	.15	.12	.14
Hod carriers				.27	.23	.26	.28	.22	.25
Hostlers				.12	.07	.09	.12	.12	.12
Inspectors, electric lighting				.19	.17	.17	.19	.17	.17
Iron workers, ornamental				.24	.24	.24	.24	.24	.24
Iron workers, ornamental, helpers				.15	.15	.15	.15	.15	.15
Iron workers, structural				.25	.17	.19	.25	.17	.19
Iron workers, structural, helpers				.15	.15	.15	.15	.15	.15
Laborers	.22	.18	.18	.15	.11	.12	.16	.11	.13
Laborers, building				.15	.15	.15	.16	.14	.15
Linemen				.25	.21	.24	.25	.20	.22
Machinists	.36	.27	.32	.25	.15	.22	.22	.16	.21
Machinists' helpers				.15	.15	.15	.15	.12	.14
Masons, stone	.40	.40	.40	.39	.30	.32	.39	.35	.36
Molders				.27	.22	.25	.27	.22	.25
Molders' helpers				.12	.12	.12	.12	.12	.12
Oilers				.14	.14	.14	.14	.14	.14
Painters	.22	.22	.22	.22	.16	.21	.28	.16	.23
Pattern makers	.27	.27	.27	.30	.25	.28	.30	.25	.28
Pavers	.30	.30	.30	.25	.25	.25			
Pavers, Belgian block	.51	.51	.51	.39	.39	.47	.50	.22	.31
Pavers, cobblestone	.41	.41	.41	.39	.30	.35	.39	.22	.27
Plumbers				.30	.22	.26	.30	.27	.28
Rammers, Belgian block	.34	.34	.34	.39	.19	.35	.39	.13	.19
Rammers, cobblestone	.22	.22	.22	.15	.21	.22	.19	.13	.15
Rammers, paving				.17	.17	.17	.17	.17	.17
Repairmen, electric light- ing				.12	.08	.10	.12	.08	.10
Roofers, slate				.34	.34	.34	.34	.34	.34

TABLE II.—SUMMARY OF WAGES PER HOUR OF EMPLOYEES, ETC.—Cont'd.

BALTIMORE—Concluded.

Occupations.	Public, by city or State.			Public, by contractors.			Private, by contractors or firms.		
	High-est.	Low-est.	Aver-ge.	High-est.	Low-est.	Aver-ge.	High-est.	Low-est.	Aver-ge.
Steam and gas fitters				\$0. 27½	\$0. 27½	\$0. 27½	\$0. 27½	\$0. 27½	\$0. 27½
Stonecutters	\$0. 43½	\$0. 43½	\$0. 43½	. 39	. 32½	. 33½	. 43	. 40½	. 42
Stone setters				. 50	. 50	. 50	. 40½	. 40½	. 40½
Tappers, waterworks	. 22½	. 22½	. 22½				. 16½	. 16½	. 16½
Tinsmiths				. 20	. 20	. 20	. 20	. 20	. 20
Tool sharpeners				. 40½	. 40½	. 40½	. 40½	. 40½	. 40½
Trimmers, electric lighting				. 14½	. 12½	. 13½	. 14½	. 14½	. 14½
Watchmen	. 22½	. 14	. 22	. 11½	. 11½	. 11½	. 11½	. 11½	. 11½
Wire men				. 27½	. 27½	. 27½	. 27½	. 16½	. 25½

BOSTON.

Blacksmiths	. 41	. 25	. 34	. 30	. 22½	. 26½	. 29	. 24	. 26½
Blacksmiths' helpers	. 32½	. 22½	. 29	. 18½	. 18½	. 18½	. 19	. 16	. 17
Boiler makers	. 33½	. 33½	. 33½				. 21	. 20	. 20½
Boiler makers' helpers	. 27½	. 27½	. 27½				. 18	. 14	. 15½
Bracers	. 33½	. 22½	. 26½	. 25	. 20	. 23½			
Bricklayers	. 44	. 41	. 43	. 42	. 42	. 42	. 42	. 35	. 41
Bricklayers, sewer	. 70	. 55	. 58½	. 75	. 44½	. 66½	. 70	. 70	. 70
Calkers, iron	. 30½	. 24½	. 25	. 25	. 22½	. 23½			
Calkers, wood	. 33½	. 33½	. 33½	. 40½	. 30½	. 39	. 40½	. 40½	. 40½
Carpenters	. 45	. 21½	. 31½	. 30	. 20	. 27½	. 30	. 24	. 26½
Carpenters' helpers	. 25	. 22½	. 23½	. 20	. 20	. 20	. 20	. 18	. 19½
Cement finishers				. 44½	. 39	. 43½	. 44½	. 44½	. 44½
Cement finishers' helpers				. 28	. 22½	. 23½	. 22½	. 22½	. 22½
Coal handlers	. 23½	. 22½	. 22½				. 18	. 17½	. 17½
Cooks	. 18½	. 18½	. 18½	. 21½	. 21½	. 21½	. 18½	. 18½	. 18½
Draftsmen	. 75	. 33½	. 43½				. 42½	. 24	. 30½
Dredge crane men				. 30½	. 23½	. 29½	. 30½	. 30½	. 30½
Dredge runners				. 34½	. 23½	. 31½	. 34½	. 34½	. 34½
Drillers, stone	. 25	. 25	. 25	. 30	. 17½	. 25	. 30	. 30	. 30
Drivers	. 28	. 19½	. 22½	. 31½	. 14½	. 17½	. 31½		. 21½
Drivers with double team	. 50	. 50	. 50	. 55½	. 40	. 49½			
Drivers with single team	. 33½	. 33½	. 33½	. 33½	. 30	. 33			
Dump men	. 27½	. 27½	. 27½	. 20	. 20	. 20			
Engineers, hoisting	. 38	. 34½	. 36½	. 34½	. 22½	. 25½	. 34½	. 34½	. 34½
Engineers, stationary	. 76	. 21½	. 32	. 27½	. 17½	. 25½	. 40	. 20	. 27
Firemen	. 29	. 16½	. 24	. 21½	. 19½	. 20	. 22½	. 18½	. 21½
Foremen, blacksmiths				. 32½	. 32½	. 32½	. 40	. 32	. 34½
Foremen, bricklayers				. 62½	. 50	. 55½	. 55	. 45	. 51½
Foremen, carpenters	. 44½	. 44½	. 44½	. 39½	. 30	. 34½	. 39½	. 30	. 34
Foremen, dredge runners				. 44½	. 33½	. 44½	. 55½	. 55½	. 55½
Foremen, laborers	. 60	. 25	. 34½	. 54½	. 20	. 35½	. 30	. 16½	. 26½
Foremen, machinists	. 41	. 41	. 41	. 32½	. 32½	. 32½	. 32½	. 32	. 32
Foremen, masons	. 62½	. 62½	. 62½				. 42½	. 42½	. 42½
Foremen, painters				. 37½	. 32	. 33½	. 37½	. 30½	. 33½
Foremen, pavers				. 55½	. 44½	. 51½	. 61½	. 44½	. 44½
Foremen, track men				. 61	. 50	. 55½	. 61	. 50	. 54½
Gatemen	. 23½	. 22½	. 23				. 21½	. 17½	. 20
Glaziers				. 27½	. 27½	. 27½	. 27½	. 27½	. 27½
Harness makers	. 44½	. 27½	. 34	. 25	. 25	. 25	. 26½	. 24	. 26½
Hod carriers				. 25	. 25	. 25	. 25	. 25	. 24½
Horse feeders	. 25	. 25	. 25				. 15	. 15	. 15
Horseshoers	. 36	. 27½	. 33½	. 31½	. 22½	. 27			
Hostlers	. 27½	. 22½	. 24½	. 14½	. 14½	. 14½	. 18½	. 16½	. 16½
Laborers	. 39	. 19	. 22	. 25	. 12½	. 15½	. 22½	. 15	. 17½
Laborers, building				. 25	. 20	. 24½	. 25	. 20	. 24½
Luthers				. 37½	. 35½	. 37	. 37½	. 37½	. 37½
Machinists	. 41	. 27½	. 34½	. 23	. 22½	. 22½	. 29	. 22½	. 26
Machinists' helpers	. 27½	. 24½	. 25½				. 22	. 16	. 19½
Masons	. 50	. 47	. 49	. 42	. 42	. 42	. 42	. 37½	. 41½
Masons, stone	. 47½	. 42	. 43½	. 42	. 30	. 36½			
Masons' helpers	. 36	. 28½	. 30½	. 31	. 25	. 26½	. 25	. 25	. 25
Miners	. 25	. 25	. 25	. 23	. 22½	. 23			
Others	. 27½	. 22½	. 24				. 22½	. 20	. 20½
Painters	. 41½	. 21½	. 29	. 31½	. 30	. 30	. 31½	. 21	. 28½
Painters, decorative				. 35	. 35	. 35	. 35	. 35	. 35
Pattern makers	. 41	. 41	. 41				. 32	. 29	. 31½
Pavers				. 50	. 44½	. 44½	. 50	. 37½	. 40
Pipe layers	. 33½	. 24½	. 27½	. 23	. 20	. 22	. 27½	. 27½	. 27½
Plasterers				. 50	. 43	. 44½	. 50	. 43	. 43½
Plasterers' helpers				. 32	. 32	. 32	. 32	. 32	. 32
Plumbers	. 44	. 39½	. 34½	. 56½	. 47	. 48	. 56½	. 28½	. 46½
Plumbers' helpers				. 12½	. 12½	. 12½	. 16½	. 12½	. 12½

TABLE II.—SUMMARY OF WAGES PER HOUR OF EMPLOYEES, ETC.—Cont'd.

BOSTON—Concluded.

Occupations.	Public, by city or State.			Public, by contractors.			Private, by contractors or firms		
	High-est.	Low-est.	Aver-age.	High-est.	Low-est.	Aver-age.	High-est.	Low-est.	Aver-age.
Rammers, paving				\$0.22½	\$0.22½	\$0.22½	\$0.25	\$0.20	\$0.20½
Riggers	\$0.38	\$0.22½	\$0.28½	31½	31½	31½	.25	.25	.25
Rock men	.22½	.22½	.22½	.22½	.16½	.20½	.20	.17½	.19½
Spikers				.25	.25	.25	.25	.22½	.24
Sprinklers, street	.23½	.22½	.23	.18½	.16½	.17½	.19½	.19½	.19½
Stonecutters	.38	.27½	.34	.44	.35	.39½	.27½	.27½	.27½
Sweepers, street	.23½	.22½	.22½				.17½	.17½	.17½
Timekeepers	.33½	.27½	.29½	.38½	.15	.25½	.27½	.27½	.27½
Tinsmiths	.33½	.33½	.33½				.29	.20	.23½
Track men				.27½	.27½	.27½	.27½	.22½	.24
Watchmen	.25	.20	.23½	.16½	.14½	.15½	.22½	.14½	.19½
Water boys	.12	.08½	.10½	.10½	.05½	.09½	.15	.07½	.10
Wheelwrights	.38	.33½	.35½	.37	.27½	.30½			
Wire men	.33½	.27½	.31½				.27½	.20	.24½

NEW YORK CITY.

Ash and garbage lifters	.28½	.28½	.28½	.15½	.15½	.15½			
Ash tenders	.33	.33	.33				.19	.14½	.15
Asphalt layers				.25	.20	.21½	.28½	.20	.25
Asphalt mixers				.22½	.22½	.22½	.25	.22½	.24½
Axmen	.43½	.24	.31				.27½	.25	.27
Blacksmiths	.44	.31	.38	.40½	.20	.33½	.47	.20½	.28½
Blacksmiths' helpers	.32½	.25	.28½	.28½	.22½	.25½	.31½	.17½	.23½
Boiler makers	.41	.35	.38½				.42	.24½	.29
Boiler makers' helpers	.27	.24	.26½				.20	.17½	.18½
Boiler setters				.50	.50	.50	.50	.50	.50
Boiler setters' helpers				.28½	.28½	.28½	.25	.25	.25
Bracers				.20	.20	.20	.20½	.20½	.20½
Brass finishers				.30	.30	.30	.30	.30	.30
Bricklayers	.50	.50	.50	.50	.40	.49	.50	.40	.49½
Calkers, iron	.35	.31	.32	.20½	.20½	.20½	.20½	.20	.20
Calkers, wood	.41	.38	.40½	.23½	.22½	.22½	.36	.36	.36
Car cleaners	.26½	.26½	.26½				.19	.15	.15
Car couplers							.15	.12½	.12½
Carpenters	.47	.37½	.44	.43½	.25	.41	.49½	.17½	.37½
Carpenters' helpers	.33	.25	.30½	.30	.25	.28½	.30	.15	.28½
Cement mixers	.28½	.28½	.28½	.17½	.16½	.17½	.25	.17½	.18½
Cleaners	.31½	.25	.25½				.20½	.20½	.20½
Conductors	.34½	.34½	.34½				.23	.20	.20½
Coppersmiths	.41	.37½	.39½				.33½	.25	.27½
Coppersmiths' helpers	.28	.25	.27½				.27½	.27½	.27½
Curbstone setters				.50	.30	.32½	.33½	.35½	.33½
Curbstone setters' helpers				.15	.15	.15	.19½	.19½	.19½
Derrick men				.37½	.34½	.36	.34½	.34½	.34½
Derrick men's helpers				.31½	.31½	.31½	.31½	.31½	.31½
Divers	1.25	1.20	1.24½	.50	1.00	.85½	1.00	1.00	1.00
Divers' tenders	.35	.35	.35	.25	.25	.25	.25	.25	.25
Dock builders	.39	.30	.30½	.30	.20	.23	.25½	.22½	.24½
Draftsmen	.63	.51½	.49½	.33½	.27½	.31	.30	.30	.30
Drillers	.28	.24	.27½	.25½	.25½	.25½	.25½	.25½	.25½
Drivers	.36	.24	.27½	.22½	.16½	.18	.30	.17½	.20½
Drivers with double team	.56½	.43½	.53	.35	.35	.35			
Drivers with single team	.48½	.28½	.37½	.36	.27½	.29½	.39	.35	.37
Drivers with team and truck	.75	.75	.75	.45	.45	.45			
Elevator constructors				.47	.31½	.39	.40½	.37½	.39½
Elevator constructors' helpers				.34½	.28½	.29½	.31½	.28½	.29½
Engineers, hoisting				.87½	.81½	.81½	.81½	.27½	.30½
Engineers, locomotive	.50	.31	.45½	.30	.30	.30	.39	.30	.38½
Engineers, stationary	.60	.35	.40½	.35	.28	.28	.49½	.18½	.26
Engineers, steam roller	.37½	.37½	.37½	.35	.30	.30			
Engine hostlers	.50	.50	.50				.29½	.18½	.22
Engine wipers	.28½	.28½	.28½				.17½	.12½	.14½
Firemen	.38½	.25	.30½	.17½	.17½	.17½	.22½	.16½	.18½
Firemen, locomotive	.29	.28	.28½				.22½	.17½	.21½
Foremen, blacksmiths	.43½	.43½	.43½				.37½	.30	.31½
Foremen, elevator constructors				.50	.48½	.44½	.43½	.43½	.43½
Foremen, iron workers, assistant				.87½	.87	.87½	.37½	.37½	.37½
Foremen laborers	.35	.35	.35	.30	.30	.30			

TABLE II.—SUMMARY OF WAGES PER HOUR OF EMPLOYEES, ETC.—Cont'd.

NEW YORK CITY—Concluded.

Occupations.	Public, by city or State.			Public, by contractors.			Private, by contractors or firms.		
	High-est.	Low-est.	Aver-ge.	High-est.	Low-est.	Aver-ge.	High-est.	Low-est.	Aver-ge.
Foremen, linemen	\$0.40	\$0.40	\$0.40	\$0.43 $\frac{1}{2}$	\$0.43 $\frac{1}{2}$	\$0.43 $\frac{1}{2}$			
Foremen, machinists	.62 $\frac{1}{2}$	.62 $\frac{1}{2}$	.62 $\frac{1}{2}$	.36 $\frac{1}{2}$	.36 $\frac{1}{2}$	.36 $\frac{1}{2}$	\$0.40 $\frac{1}{2}$	\$0.35	\$0.35 $\frac{1}{2}$
Foremen, steam fitters				.50	.47	.48 $\frac{1}{2}$	.50	.47	.48 $\frac{1}{2}$
Foremen, sweepers, street	.40	.26	.39	.20 $\frac{1}{2}$	.20 $\frac{1}{2}$	.20 $\frac{1}{2}$			
Galvanized and sheet iron workers	.44	.31	.42 $\frac{1}{2}$	.43 $\frac{1}{2}$	.43 $\frac{1}{2}$	.43 $\frac{1}{2}$	.43 $\frac{1}{2}$	.25	.40 $\frac{1}{2}$
Galvanized and sheet iron workers' helpers				.25	.18 $\frac{1}{2}$	.22 $\frac{1}{2}$	.25	.15	.22 $\frac{1}{2}$
Gardeners	.25	.25	.25				.16 $\frac{1}{2}$	.16 $\frac{1}{2}$	.16 $\frac{1}{2}$
Gate-men, street railway	.31 $\frac{1}{2}$	.31 $\frac{1}{2}$	.31 $\frac{1}{2}$				.14 $\frac{1}{2}$	.10 $\frac{1}{2}$	.12 $\frac{1}{2}$
Harness makers	.37 $\frac{1}{2}$	.31 $\frac{1}{2}$	.36 $\frac{1}{2}$				.22 $\frac{1}{2}$	.22 $\frac{1}{2}$	.22 $\frac{1}{2}$
Hod carriers	.34	.34	.34	.31 $\frac{1}{2}$	.20	.30	.30	.30	.30
Holders-on	.28	.23	.28	.28 $\frac{1}{2}$	.28 $\frac{1}{2}$	.28 $\frac{1}{2}$	.34 $\frac{1}{2}$	.24 $\frac{1}{2}$	.29 $\frac{1}{2}$
Hostlers	.25	.19 $\frac{1}{2}$	.24 $\frac{1}{2}$	.20	.12 $\frac{1}{2}$	.14 $\frac{1}{2}$	.22 $\frac{1}{2}$	.17 $\frac{1}{2}$	.17 $\frac{1}{2}$
Iron workers, structural				.43 $\frac{1}{2}$	.28 $\frac{1}{2}$	.33 $\frac{1}{2}$	.47	.28 $\frac{1}{2}$	.34
Iron workers, structural, helpers				.25	.25	.25	.25	.20	.22
Joiners	.41	.35	.40 $\frac{1}{2}$	.25	.20	.23	.39	.36	.38 $\frac{1}{2}$
Laborers	.36	.16	.24 $\frac{1}{2}$	.25	.12 $\frac{1}{2}$	.16	.29 $\frac{1}{2}$	.10 $\frac{1}{2}$	.16 $\frac{1}{2}$
Laborers, building	.31 $\frac{1}{2}$	.23 $\frac{1}{2}$	.30 $\frac{1}{2}$	.31 $\frac{1}{2}$	.18 $\frac{1}{2}$	.27 $\frac{1}{2}$	.31 $\frac{1}{2}$	.20	.28 $\frac{1}{2}$
Linemen	.44	.36	.40 $\frac{1}{2}$	.34 $\frac{1}{2}$	.34 $\frac{1}{2}$	.34 $\frac{1}{2}$	.33	.20	.23 $\frac{1}{2}$
Machinists	.50	.35	.40 $\frac{1}{2}$	.34 $\frac{1}{2}$	.20	.29 $\frac{1}{2}$	.43 $\frac{1}{2}$	.20	.28 $\frac{1}{2}$
Machinists' helpers	.31 $\frac{1}{2}$	.24	.27 $\frac{1}{2}$				.20	.17 $\frac{1}{2}$	.19
Masons	.50	.43 $\frac{1}{2}$	.49 $\frac{1}{2}$	.50	.40	.48 $\frac{1}{2}$	.50	.25	.47 $\frac{1}{2}$
Masons, stone	.50	.50	.50	.50	.40	.49 $\frac{1}{2}$	.50	.50	.50
Masons' helpers	.28 $\frac{1}{2}$	.28 $\frac{1}{2}$	.28 $\frac{1}{2}$				.25	.15	.20 $\frac{1}{2}$
Molders	.44	.38	.40 $\frac{1}{2}$				.32 $\frac{1}{2}$	.32 $\frac{1}{2}$	.32 $\frac{1}{2}$
Oakum spinners	.25	.25	.25				.33 $\frac{1}{2}$	.33 $\frac{1}{2}$	.33 $\frac{1}{2}$
Painters	.44	.38	.43 $\frac{1}{2}$	.43 $\frac{1}{2}$	.27 $\frac{1}{2}$	.34 $\frac{1}{2}$	.43 $\frac{1}{2}$	.20	.42 $\frac{1}{2}$
Painters, shop	.41	.31 $\frac{1}{2}$	.36 $\frac{1}{2}$				.30	.17 $\frac{1}{2}$	.23 $\frac{1}{2}$
Painters' helpers	.34 $\frac{1}{2}$	.25	.30 $\frac{1}{2}$	.25	.25	.25	.16 $\frac{1}{2}$	.08 $\frac{1}{2}$	.16
Pavers, Belgian block	.50	.50	.50	.50	.44 $\frac{1}{2}$	.49 $\frac{1}{2}$	.50	.22 $\frac{1}{2}$	.42
Pipe fitters	.44	.25	.39 $\frac{1}{2}$				.32 $\frac{1}{2}$	.21 $\frac{1}{2}$	.26 $\frac{1}{2}$
Plasterers				.54 $\frac{1}{2}$	.54 $\frac{1}{2}$	.54 $\frac{1}{2}$	.54 $\frac{1}{2}$	.54 $\frac{1}{2}$	.54 $\frac{1}{2}$
Plasterers' helpers				.31 $\frac{1}{2}$	.30	.30 $\frac{1}{2}$	.30	.30	.30
Plumbers	.50	.37 $\frac{1}{2}$	.45 $\frac{1}{2}$	.47	.40	.46 $\frac{1}{2}$	.47	.24	.45 $\frac{1}{2}$
Plumbers' helpers	.31 $\frac{1}{2}$	.16	.24 $\frac{1}{2}$	.15 $\frac{1}{2}$	.08 $\frac{1}{2}$	.15	.24	.10	.16 $\frac{1}{2}$
Rammers, Belgian block	.38	.37 $\frac{1}{2}$	.37 $\frac{1}{2}$	.39	.39	.39	.39	.17 $\frac{1}{2}$	.30 $\frac{1}{2}$
Riggers	.44	.31	.35 $\frac{1}{2}$	.31 $\frac{1}{2}$	.17 $\frac{1}{2}$	.23 $\frac{1}{2}$	.39	.20	.28 $\frac{1}{2}$
Riggers' helpers				.22	.17 $\frac{1}{2}$	.21 $\frac{1}{2}$	.22	.17 $\frac{1}{2}$	.20 $\frac{1}{2}$
Riveters	.37 $\frac{1}{2}$	.32	.34 $\frac{1}{2}$	.34 $\frac{1}{2}$	.25	.31 $\frac{1}{2}$	.34 $\frac{1}{2}$	.13 $\frac{1}{2}$	.23
Rivet heaters				.15	.15	.15	.18 $\frac{1}{2}$	.16 $\frac{1}{2}$	.16 $\frac{1}{2}$
Rock men	.28 $\frac{1}{2}$	.28 $\frac{1}{2}$	.28 $\frac{1}{2}$	.20	.17 $\frac{1}{2}$	.18	.20 $\frac{1}{2}$	.18	.18 $\frac{1}{2}$
Roofers, slate	.44	.44	.44				.43 $\frac{1}{2}$	.40 $\frac{1}{2}$	.41 $\frac{1}{2}$
Sawmill men	.28	.28	.28				.22 $\frac{1}{2}$	.22 $\frac{1}{2}$	.22 $\frac{1}{2}$
Shipsmiths	.44	.41	.43 $\frac{1}{2}$				.38 $\frac{1}{2}$	.35 $\frac{1}{2}$	.33 $\frac{1}{2}$
Shipsmiths' helpers	.28	.28	.28	.22 $\frac{1}{2}$	.22 $\frac{1}{2}$	.22 $\frac{1}{2}$	.22 $\frac{1}{2}$	.22 $\frac{1}{2}$	.22 $\frac{1}{2}$
Shipwrights	.41	.37 $\frac{1}{2}$	.41				.36	.36	.36
Snow shovelers	.25	.25	.25	.12 $\frac{1}{2}$	.12 $\frac{1}{2}$	.12 $\frac{1}{2}$			
Spar makers	.44	.44	.44				.39	.39	.39
Steam and gas fitters	.44	.37 $\frac{1}{2}$	.40 $\frac{1}{2}$	.43 $\frac{1}{2}$	.40	.43	.43 $\frac{1}{2}$	.27 $\frac{1}{2}$	.41 $\frac{1}{2}$
Steam and gas fitters' helpers				.25	.18 $\frac{1}{2}$	.23 $\frac{1}{2}$	.25	.25	.25
Stokers	.31 $\frac{1}{2}$	.31 $\frac{1}{2}$	.31 $\frac{1}{2}$				.25	.25	.25
Stonecutters	.50	.50	.50	.43 $\frac{1}{2}$	.43 $\frac{1}{2}$	.43 $\frac{1}{2}$			
Sweepers, street	.28 $\frac{1}{2}$	.23	.27 $\frac{1}{2}$	.10 $\frac{1}{2}$	.10 $\frac{1}{2}$	.10 $\frac{1}{2}$	.16 $\frac{1}{2}$	.15	.16
Switchmen	.37 $\frac{1}{2}$	.37 $\frac{1}{2}$	.37 $\frac{1}{2}$				.24 $\frac{1}{2}$	.17 $\frac{1}{2}$	.20 $\frac{1}{2}$
Telegraph operators	.51 $\frac{1}{2}$	.51 $\frac{1}{2}$	.51 $\frac{1}{2}$				.20	.17 $\frac{1}{2}$	.18 $\frac{1}{2}$
Ticket agents	.37 $\frac{1}{2}$	.37 $\frac{1}{2}$	.37 $\frac{1}{2}$				.18 $\frac{1}{2}$	.12 $\frac{1}{2}$	.17
Timekeepers	.43 $\frac{1}{2}$	.43 $\frac{1}{2}$	.43 $\frac{1}{2}$	.25	.20	.21 $\frac{1}{2}$	.30	.25	.27
Tinsmiths	.36	.37 $\frac{1}{2}$	.37 $\frac{1}{2}$				.25 $\frac{1}{2}$	.21 $\frac{1}{2}$	.26 $\frac{1}{2}$
Track men	.50	.50	.50				.29 $\frac{1}{2}$	.15	.20 $\frac{1}{2}$
Train dispatchers	.43 $\frac{1}{2}$	.43 $\frac{1}{2}$	.43 $\frac{1}{2}$				.24 $\frac{1}{2}$	.20 $\frac{1}{2}$	.24 $\frac{1}{2}$
Watchmen	.31	.16 $\frac{1}{2}$	.23 $\frac{1}{2}$				.21 $\frac{1}{2}$	.12 $\frac{1}{2}$	.15
Wire men				.37 $\frac{1}{2}$	.31 $\frac{1}{2}$	.36 $\frac{1}{2}$	.37 $\frac{1}{2}$	.31 $\frac{1}{2}$	.36
Wire men's helpers				.25	.22	.28 $\frac{1}{2}$	.25	.20	.25
Woodworkers	.37 $\frac{1}{2}$	.37 $\frac{1}{2}$	.37 $\frac{1}{2}$				.22 $\frac{1}{2}$	.22 $\frac{1}{2}$	.22 $\frac{1}{2}$

PHILADELPHIA.

Asphalt layers				.17 $\frac{1}{2}$	.17 $\frac{1}{2}$	.17 $\frac{1}{2}$	.17 $\frac{1}{2}$	.17 $\frac{1}{2}$	.17 $\frac{1}{2}$
Asphalt mixers				.15	.15	.15	.15	.15	.15
Blacksmiths	.33	.37 $\frac{1}{2}$	.31	.30 $\frac{1}{2}$	.22 $\frac{1}{2}$	.27 $\frac{1}{2}$	.30 $\frac{1}{2}$	.30	.28
Blacksmiths' helpers	.25	.19 $\frac{1}{2}$	.22	.18 $\frac{1}{2}$	.15	.17 $\frac{1}{2}$	.18 $\frac{1}{2}$	.14	.15 $\frac{1}{2}$

TABLE II.—SUMMARY OF WAGES PER HOUR OF EMPLOYEES, ETC.—Cont'd.

PHILADELPHIA—Continued.

Occupations.	Public, by city or State.			Public, by contractors.			Private, by contractors or firms.		
	High-est.	Low-est.	Aver-age.	High-est.	Low-est.	Aver-age.	High-est.	Low-est.	Aver-age.
Boiler makers				\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25
Bricklayers	\$0.48½	\$0.48½	\$0.48½	.48½	.25	.47	.48½	.45	.47½
Bricklayers, sewer				.61	.50	.54	.50	.50	.50
Bricklayers' helpers	.24½	.24½	.24½	.18½	.18½	.18			
Calkers, iron	.27½	.25	.27½	.25	.22½	.23½	.25	.22½	.23½
Carpenters	.33½	.30	.32½	.34½	.25	.29½	.35	.20	.29½
Carpenters' helpers	.18½	.19½	.19½	.18½	.17½	.17½	.16½	.16½	.16½
Cement mixers				.15	.15	.15	.15	.15	.15
Coal handlers				.17½	.17½	.17½	.18½	.14½	.18½
Coppersmiths				.30	.30	.30	.30	.30	.30
Cornice workers				.27½	.27½	.27½	.27½	.27½	.27½
Dock builders				.25	.25	.23	.25	.22½	.23
Draftsmen				.38	.38	.38	.38	.38	.38
Drillers, iron				.17½	.17½	.17½	.17½	.17½	.17½
Drillers, stone				.27½	.27½	.27½	.27½	.27½	.27½
Drillers', stone, helpers				.17½	.16½	.17½	.17½	.17½	.17½
Drips, gas works	.18½	.18½	.18½	.16½	.16½	.16½			
Drivers	.22½	.17½	.19½	.16½	.12½	.15½	.17½	.15	.15½
Drivers with double team	.50	.50	.50	.50	.40	.49½			
Drivers with single team	.33½	.27½	.31½	.30	.27½	.29	.30	.30	.30
Dynamo men	.31½	.31½	.31½	.25	.22½	.23½	.30½	.22½	.25½
Electricians				.25	.25	.25	.25	.18	.23½
Engineers, chief				.29½	.29½	.29½	.29½	.29½	.29½
Engineers, dynamo				.23½	.23½	.23½	.23½	.23½	.23½
Engineers, dynamo, assistant				.16½	.16½	.16½	.16½	.16½	.16½
Engineers, hoisting	.37½	.37½	.37½	.30	.22½	.25	.27½	.24	.26½
Engineers, stationary	.33½	.21	.28½	.30	.25	.25½	.35	.21½	.27½
Engineers, stationary, assistant				.16½	.16½	.16½	.16½	.16½	.16½
Engineers, steam roller				.35	.25	.28½	.25	.25	.25
Fasteners, shipbuilding				.17½	.17½	.17½	.17½	.17½	.17½
Firemen	.28½	.19½	.22½	.22½	.16½	.21½	.25	.16½	.22
Filters (iron setters), shipbuilding				.25	.25	.25	.25	.25	.25
Foremen, blacksmiths	.37½	.35	.36½	.30	.30	.30	.30	.27½	.29½
Foremen, bricklayers	.60	.39	.43½	.45	.45	.45	.63	.45	.59½
Foremen, carpenters	.42	.35½	.39	.39	.37½	.38½	.39	.39	.39
Foremen, dock builders				.30	.30	.30	.35	.35	.35
Foremen, iron workers, structural				.33½	.33½	.33½	.33½	.33½	.33½
Foremen, laborers	.39	.19½	.29½	.35	.20	.25½	.30	.20	.24½
Foremen, linemen				.29½	.29½	.29½	.29½	.29½	.29½
Foremen, machinists	.55½	.42½	.46½				.35	.30	.30½
Foremen, painters	.42	.32	.38	.39	.39	.39	.44½	.39	.40
Foremen, plasterers				.50	.50	.50	.50	.50	.50
Foremen, purifiers, gas works	.32½	.27½	.28½	.20	.20	.20			
Foremen, stokers	.27	.27	.27				.22	.22	.22
Galvanized and sheet iron workers				.30	.22½	.23½	.30½	.22½	.23½
Gardeners	.32	.22½	.27				.25	.15	.18
Gardeners' helpers	.22½	.22½	.22½				.15	.12½	.13½
Granite cutters				.39	.39	.39	.39	.39	.39
Hod carriers	.30	.24	.25	.32½	.17½	.28½	.32½	.17½	.29
Inspectors, electric lighting	.37½	.37½	.37½	.22½	.20	.20½	.22½	.20	.20½
Iron workers				.20	.20	.20	.20	.20	.20
Iron workers, structural				.22½	.22½	.22½	.22½	.22½	.22½
Joiners				.27½	.27½	.27½	.27½	.27½	.27½
Laborers	.20	.16½	.18½	.25	.12½	.13	.22½	.12	.14
Laborers, building	.24	.21	.21½	.19½	.15	.16½	.21	.15	.17½
Linemen	.27½	.25	.26½	.25	.25	.25	.25	.25	.25
Machinists	.38½	.27½	.32½	.30	.25	.25½	.27½	.20	.23½
Machinists' helpers	.25	.22½	.23½				.17½	.15	.16½
Masons, stone				.42	.30	.35	.45	.38½	.38½
Meter inspectors, gas works	.33½	.33½	.33½				.23½	.23½	.23½
Millwrights				.29½	.29½	.29½	.29½	.29½	.29½
Molders				.20	.20	.20	.27	.20	.21½
Oilers	.18½	.18½	.18½				.22½	.22½	.22½
Painters	.38½	.28½	.29	.30½	.28	.30	.30½	.30	.30
Pattern makers	.39½	.32½	.33½	.30½	.30	.30	.30½	.24½	.28½
Pavers, Belgian block				.44½	.35	.42	.50	.25	.36
Pavers, cobblestone				.48	.35	.37½	.50	.25	.42
Pile drivers				.22½	.22½	.22½	.27½	.23½	.24½

TABLE II.—SUMMARY OF WAGES PER HOUR OF EMPLOYEES, ETC.—Conc'd.
PHILADELPHIA—Concluded.

Occupations.	Public, by city or State.			Public, by contractors.			Private, by contractors or firms.		
	High-est.	Low-est.	Aver- age.	High-est.	Low-est.	Aver- age.	High-est.	Low-est.	Aver- age.
Plasterers.....				\$0.40	\$0.30½	\$0.38½	\$0.40	\$0.39	\$0.40
Plumbers.....	\$0.42	\$0.30½	\$0.34½	.43½	.33½	.35½	.39	.27½	.34
Plumbers' helpers.....	.27½	.25	.27	.16½	.16½	.16½			
Pump men.....	.34½	.22	.25½	.22½	.22½	.22½			
Purifiers, gas works.....	.25	.25	.25	.17½	.17½	.17½	.19	.19	.19
Rammers, Belgian block and cobblestone.....				.30½	.15	.22½	.33½	.20	.28½
Riggers.....				.33½	.18½	.19½	.48	.18½	.23½
Riveters.....				.20	.20	.20	.20	.20	.20
Steam and gas fitters.....	.36	.27½	.29	.37½	.25	.26	.33½	.20	.26½
Steam and gas fitters' helpers.....	.24½	.22½	.23½	.18½	.16½	.17½	.19½	.15	.16½
Stokers.....	.23	.23	.23				.18	.18	.18
Stonecutters.....	.42	.33½	.36½	.43	.30	.38½	.43	.36	.41½
Stonecutters' helpers.....	.24	.24	.24	.22	.22	.22			
Stone setters.....				.48½	.48½	.48½	.48½	.45	.45½
Trimmers, electric light- ing.....	.37½	.37½	.37½	.20	.20	.20	.20	.20	.20
Watchmen.....	.20½	.16½	.17½	.18	.10½	.17½	.18	.12	.16
Weighers, gas works.....	.22	.22	.22	.20	.20	.20			

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RECENT REPORTS OF STATE BUREAUS OF LABOR STATISTICS.

PENNSYLVANIA.

Annual Report of the Secretary of Internal Affairs of the Commonwealth of Pennsylvania. Vol. XXIII, 1895. Part III, Industrial Statistics. James M. Clark, Chief of Bureau. 256 pp.

This report treats of the following subjects: Black and tin plate, 47 pages; statistics of manufactures, 150 pages; silk manufacture, 22 pages; strikes and lockouts, 22 pages.

BLACK AND TIN PLATE.—This part of the report consists of a history of the tin-plate industry in general, an account of its development in recent years in the United States, a description, with illustrations, of the largest tin-plate establishment in Pennsylvania, and statistics showing the extent of tin-plate manufacture in the State.

There were in operation during 1895, in Pennsylvania, 10 black-plate works and 17 dipping works for which returns are shown. In the 17 dipping works 557 persons were employed. The average number of days in operation was 244 and the total amount of wages paid was \$188,224.32. This makes an average of \$337.92 per person for the 244 days, or \$1.38 per day. The black-plate manufacturers employed 2,474 persons, who were paid \$1,063,695.23 in wages during 229 days of operation. This makes an average per person for the 229 days of \$429.95, or \$1.87 per day. For the entire tin-plate industry in the State there was, therefore, a total of \$1,251,919.55 paid out in earnings to 3,031 persons for an average time of 231½ days, a per capita for skilled and unskilled laborers of \$413.03 for the year, or \$1.78 per day.

The following statement shows the number of black-plate works and dipping works in the various States in 1895:

NUMBER OF BLACK-PLATE AND DIPPING WORKS IN THE UNITED STATES IN 1895, BY STATES.

State.	Black-plate works.		Dipping works.	
	Plants.	Hot mills.	Plants.	Tin-ning sets.
Pennsylvania.....	11	64	19	α90
Ohio.....	9	39	6	23
Indiana.....	6	44	1	37
Maryland.....	3	10	1	16
Illinois.....	1	3	2	23
Missouri.....	1	7	.....	.....
Michigan.....	.....	.....	1	3
New York.....	1	4	1	8
Virginia.....	.....	.....	1	2
West Virginia.....	1	4	1	4

α One of the dipping works did not report the number of tinning sets.

STATISTICS OF MANUFACTURES.—The statistics relating to manufacturing in the State cover 51 industries, representing 381 establishments. The presentation consists of a series of seven tables, showing a comparison of figures, grouped by industries, for the same establishments for the years 1892, 1893, 1894, and 1895, under the following heads: Average number of days in operation; average number of persons employed; aggregate wages paid; average yearly earnings; average daily wages of employees; value of manufactured product; average annual product per employee.

The following statement summarizes the statistics of manufactures for the years considered:

STATISTICS OF MANUFACTURES FOR THE YEARS 1892 TO 1895.

Year.	Estab- lishments consid- ered.	Average persons em- ployed.	Aggregate wages paid.	Average yearly earnings.	Value of product.
1892	381	140,850	\$68,156,287	\$483.89	\$272,925,056
1893	381	125,611	57,402,683	456.99	227,491,310
1894	381	112,271	46,186,794	411.39	185,463,976
1895	381	130,925	57,383,199	438.29	225,720,416

In 1895, 36 of the 51 industries, representing 294 establishments, had increased days of operation over 1894. Eleven industries, representing 83 establishments, had a decrease, while 4 industries, representing 4 establishments, worked the same number of days. The average increase over 1894 for all persons employed was 16 days, and the average decrease, as compared with 1892, 9 days.

In 1895 there was a general increase in employment, the excess of the persons employed in the 381 establishments over 1894 being 18,654. Notwithstanding this increase, there were still 9,925 fewer persons employed in 1895 than in 1892. An analysis of the detail tables shows that 31 industries, representing 304 establishments, employed 123,436 persons in 1892 and 112,307 persons in 1895, a decrease of 11,129 in the number employed, and the remaining 20 industries, representing 77 establishments, employed 17,414 persons in 1892 and 18,618 in 1895, an increase of 1,204, leaving a net decrease in 1895 over 1892, as above stated, of 9,925 persons, or 7.04 per cent.

In 24 industries, representing 255 establishments and employing 102,233 persons, the average daily wages were lower in 1895 than in 1892; in the remaining 27 industries, representing 126 establishments and employing 28,692 persons, the wages had increased over those of 1892. The net average decrease per day, 1895 over 1892, was 11 cents.

As satisfactory returns of product were received from only 162 of the 381 establishments, a separate series of comparative tables is presented giving the product of these 162 establishments, the corresponding value, aggregate of wages, yearly earnings, and persons employed.

General statistics of iron and steel manufactures for the year 1895 are presented in a series of 67 tables, or one for each branch of the

industry, and a final table summarizing the data. The various branches considered comprise the production and manufacture of iron and steel, including pig metal. The tables show the average number of persons employed, number of days in operation, aggregate amount of wages paid, total product, and value of product for each of 1,528 establishments.

These establishments employed, in 1895, a total of 185,496 persons, receiving an aggregate of \$88,586,570 in wages, or a per capita of \$477.56. The average number of days in operation was 286, which makes an average daily wage of \$1.67. The total value of the manufactured product was \$336,415,068.

SILK MANUFACTURE.—This consists of a statistical presentation of the number of spindles and hand-power and Jacquard looms, and of persons employed, amount of wages paid, and value of product for each of the 65 silk manufacturing establishments in the State.

These establishments employed, in 1895, a total of 13,815 skilled and unskilled laborers, receiving a total of \$4,082,292.08 in wages, or a per capita of \$295.50 for 48 weeks of operation. Salaries of clerks, salesmen, officials, and members of the firm are not included in these figures. The gross value of the product during the year was \$24,184,583.84.

STRIKES AND LOCKOUTS.—During the year 1895, 151 strikes occurred in Pennsylvania that came to the knowledge of the bureau. In these strikes 17,113 persons were actually engaged.

The following statement shows, by industries, the number of strikes and the number of persons engaged:

STRIKES AND PERSONS ENGAGED, BY INDUSTRIES.

[Each strike in each establishment is considered separately, whether part of a general strike or not. So also when one establishment has several strikes it is regarded as so many separate establishments. Thus the number of strikes is made to equal the number of establishments.]

Industry.	Strikes.	Persons engaged.	Industry.	Strikes.	Persons engaged.
Coal mining	70	10,805	Cotton, worsted, and jeans..	1	70
Carpet weaving	36	2,524	Cotton and silk goods.....	1	183
Boiler making	6	571	Cabinetmaking	1	25
Blast furnace	4	440	Worsted, woolen, and cotton goods	1	110
Pig-iron manufacturing	2	230	Cloaks and suits	1	25
Hosiery making	3	91	Cloth weaving	1	150
Woolen and worsted goods.....	4	191	Chenille weaving	1	121
Cigar making	3	447	Worsted goods	1	26
Woolen goods	2	123	Chenille and upholstery manufacturing	1	52
Cotton and woolen goods	2	275	Cooking utensils	1	19
Upholstery manufacturing	2	140	Brickmaking	1	175
Iron and steel works	1	64	Shoe manufacturing	1	15
Foundry and machine works	1	36	Drivers of milk wagons	1	20
Electric street railway	1	30			
Iron works	1	150			

Of the total number of strikes, 109 were inaugurated for an increase of wages, 19 against a reduction of wages, and the remaining 23 for various other causes. Ninety-eight strikes, or 64.9 per cent, were ordered by labor organizations; 33, or 21.8 per cent, were not so ordered, and of the remaining 20 strikes the returns were incomplete. Forty-three, or 28.4 per cent, of the strikes succeeded; 70, or 46.3 per cent,

failed; 32, or 21.2 per cent, succeeded partly, and in the cases of the others the results were doubtful.

In 114 strikes the returns indicated that 9,017 persons were involved who were not actually engaged as strikers, but who were prevented from working on account of strikes. The average duration in 143 strikes, where the time was reported, was 31.8 days. In the 151 establishments where strikes occurred, 134, or 88.7 per cent, of the establishments were closed for longer or shorter periods of time; 13, or 8.6 per cent, were not closed, and for the others this fact was not reported upon.

Estimates of actual loss to strikers were received from 132, or 87.4 per cent, of all the strikes. In these there were 15,109 persons engaged, whose loss in wages, etc., amounted to \$913,495, or an average of \$60.46 per person. In one strike no loss to strikers was reported. As regards loss to operators, estimates were received from 89 establishments. These showed a total loss of \$235,883. Sixteen establishments reported no loss.

RECENT FOREIGN STATISTICAL PUBLICATIONS.

Bulletin de l'Institut International de Statistique. Tome VIII, 2^e Livraison. Luigi Bodio, Secrétaire Général. xi, 346 pp.

This volume is almost entirely devoted to a reproduction of the report presented by E. Levasseur on behalf of the committee on statistics of education, concerning the statistics of primary education in all the civilized countries of the world. This committee was appointed in 1889 and made a first report in 1891 at the session of the Institute held at Vienna. The present is a second report made according to the same plan in which the effort is made to complete the information thus given and to include countries concerning which information could not be obtained for the former report. The report consists of two parts. In the first, primary education is historically and statistically treated of in each country separately. The second is an attempt to make a general comparative study of the subject of primary education in all of the countries, based upon the information given in the first part.

Bulletin de l'Institut International de Statistique. Tome IX, 2^e Livraison. Luigi Bodio, Secrétaire Général. cx, 314 pp.

This volume gives a report of the fifth session of the International Statistical Institute, which was held at Bern, Switzerland, August 26-31, 1895. In addition to the report of proceedings, the list of members, committees, etc., it embraces the following papers which were read at this meeting:

1. Die Einkommensverteilung in alter und neuer Zeit [The division of incomes in ancient and modern times], by G. Schmoller.
2. L'état démographique de la Roumanie d'après le mouvement de la population [The demographic condition of Roumania according to the movement of population], by C. Crupenski.
3. Taxation in the United States, with suggestions for establishing a form for comparing the taxation of different countries, by Edward Atkinson.
4. L'échange international des bulletins de recensement concernant les étrangers: Rapport fait au nom de la première section [The international exchange of census bulletins concerning foreigners: Report made in behalf of the first section], by H. Rauchberg.

5. L'échange international des bulletins de recensement concernant les étrangers: Motion présentée au Bureau de l'Institut International de Statistique [The international exchange of census bulletins concerning foreigners: Motion presented to the Bureau of the International Statistical Institute], by K. T. von Inama-Sternegg, F. von Juraschek, and H. Rauchberg.
6. Statistique internationale des valeurs mobilières [International statistics of personal property], by A. Neymarek.
7. La longévité dans les familles [Longevity in families], by L. Vacher.
8. Les causes des régularités statistiques [The causes of statistical regularities], by W. Lexis.
9. Sur un certain nombre de professions qu'il est particulièrement désirable de voir figurer sur les nomenclatures professionnelles des différents pays [Concerning a certain number of occupations which it is particularly desirable should be included in the nomenclature of occupations in the various countries], by J. Bertillon.
10. Trois projets de nomenclature des infirmités [Three plans for a nomenclature of infirmities], by J. Bertillon.
11. Nomenclature des accidents [The nomenclature of accidents], by J. Bertillon.
12. Zur Frage einer internationalen Berufsparkassenstatistik [The question of international statistics of the occupations of savings-bank depositors], by K. Rasp.
13. Statistique de la production, du mouvement international et de la consommation des métaux précieux [Statistics of the production, international movement, and consumption of the precious metals], by C. F. Ferraris.
14. International military medical statistics, by J. S. Billings.
15. La statistique agricole: Rapport fait à l'assemblée générale au nom de la troisième section [Agricultural statistics: Report made in behalf of the third section to the general assembly], by Th. Pilat.
16. La statistique agricole: Rapport fait à la troisième section de la session de Berne [Agricultural statistics: Report made to the third section of the session at Bern], by Th. Pilat.
17. La statistique du tonnage des transports à l'intérieur: Rapport fait au nom du comité des transports à l'intérieur [Statistics of the tonnage of internal commerce: Report made in behalf of the committee of internal commerce], by E. Cheysson.
18. La statistique des transports à l'intérieur: Supplément au rapport de Vienne en 1891 [Statistics of internal commerce: Supplement to the report of Vienna in 1891], by J. Borkowsky.
19. Les registres de population: Rapport fait au nom de la première section [Registers of population: Report made in behalf of the first section], by E. Nicolaï.

20. La statistique des divorces: Rapport fait au nom de la première section [Statistics of divorce: Report made in behalf of the first section], by E. J. Yvernès.
21. Le premier recensement de la population de l'Empire russe qui doit être fait en 1897 [The first census of the population of the Russian Empire to be taken in 1897], by N. Troïnitsky.
22. L'échange des publications statistiques [The exchange of statistical publications], by E. Nicolaï.
23. Le dénombrement général de la population en 1900: Rapport présenté au nom de la première section [The general census of population in 1900: Report presented in behalf of the first section], by L. Guillaume.
24. Die Erhebungsperiode der Handelsstatistik [The periods for the collection of trade statistics], by T. Geering.
25. Comparabilité des statistiques du commerce [Comparability of statistics of commerce], by W. A. Verkerk Pistorius.
26. La statistique commerciale internationale: Rapport fait au nom de la deuxième section [International statistics of commerce: Report made in behalf of the second section], by A. E. Bateman.
27. La statistique des salaires des ouvriers industriels: Rapport fait au nom de la quatrième section [Wage statistics of industrial workmen: Report made in behalf of the fourth section], by K. T. von Inama-Sternegg.
28. Essai de statistique internationale des produits agricoles [Essay concerning international statistics of agricultural products], by P. G. Craigie.
29. Observations et expériences concernant les dénombrements représentatifs [Observations and experiences concerning representative censuses], by A. N. Kiaer.
30. La statistique internationale de la consommation de l'alcool: Rapport fait au nom de la quatrième section [International statistics of the consumption of alcohol: Report made in behalf of the fourth section], by G. E. Milliet.
31. De la protection de l'enfance et plus spécialement de l'assistance aux enfants-trouvés en Italie et dans quelques autres États [The protection of children and especially the assistance of foundlings in Italy and some other states], by E. Raseri.
32. Statistique des forêts: Question rédigée sur la proposition de la Société Nationale d'Agriculture [Statistics of forests: A schedule of inquiry prepared in accordance with a proposition of the National Agricultural Society], by E. Levasseur.
33. Des méthodes à suivre pour l'étude des différentes classes sociales [Methods to be followed in studying the different social classes], by J. Bertillon.
34. Les progrès de la statistique en Roumanie et la création du service d'anthropométrie [The progress of statistics in Roumania and the creation of the service of anthropometry], by Gr. P. Olanesco.

35. Sur l'utilité de la publication d'un compte-rendu annuel international de la statistique du mouvement de la population: Rapport fait au nom de la première section [The utility of publishing an annual international report on the statistics of the movement of population: Report presented in behalf of the first section], by G. von Mayr.
36. Internationale Jahresberichte über die Bevölkerungsbewegung [International annual reports concerning the movement of population], by G. von Mayr.
37. L'organisation d'une statistique internationale du chômage [The organization of international statistics of nonemployment], by C. Moron.
38. L'organisation internationale de la statistique du travail [The international organization of statistics of labor], by H. Denis.
39. L'organisation internationale de la statistique du travail: Rapport sur la proposition de M. Denis, fait au nom de la quatrième section [The international organization of statistics of labor: Report concerning the proposition of M. Denis, made in behalf of the fourth section], by E. Cheysson.
40. La machine électrique à recensement: Expériences et améliorations [The electrical tabulating machine: Experiences and improvements], by H. Rauchberg.
41. La comparaison entre les statistiques du commerce des différents pays [The comparison of statistics of commerce of different countries], by A. E. Bateman.
42. Organisation et développement de l'office du travail en Angleterre [Organization and development of the labor bureau of England], by A. E. Bateman.
43. La crise du revenu [The income crisis], by E. Cheysson.
44. La monographie de commune [Monographs of communes], by E. Cheysson.
45. Conférence sur les lois statistiques [Address on statistical laws], by G. von Mayr.
46. Conférence sur l'histoire de la démographie [Address on the history of demography], by E. Levasseur.

Minimum de Salaire. Enquête—Mai 1896. Rapport présenté au Conseil communal au nom de la Commission d'enquête, par M. le Bourgmestre, Président. Ville de Bruxelles, Travaux Publics. 180 pp.

In May, 1896, the communal council of Brussels appointed a commission, of which M. Buis, the mayor, was made president, to make an investigation of the subject of the advisability of adopting a minimum wage scale for all workingmen employed by the municipality, and as a part of such inquiry to determine to what extent this principle had been accepted by other public bodies in Belgium.

In accordance with these instructions, the commission sent out

schedules of inquiry to the provincial administrations, to the administrations of communes having a population of over 8,000, to organizations of employers and workingmen, and to certain private employers who had done work for the city of Brussels. The information thus obtained was supplemented by statements showing the actual wages paid to employees in the different services of the city and a calculation of what would be the financial results of the application of a system of minimum wages.

The replies of each body or individual making response to the schedules sent are given separately.

As regards the provinces, a résumé of the information given shows that 8 provinces make some sort of provision concerning the minimum wages to be paid workingmen employed either directly by them or by contractors working on their account. Of these, 6 stipulate expressly the minimum wages to be paid, and 2 require the contractors to state in their bids the minimum wages that they will pay. Four provinces require the contractors to submit regular accounts of wages paid by them, and 3 require them to insure their employees against accidents. All of the 8 report that they have received no complaint concerning the working of the system, either from the contractors or the workingmen; and but 2 have experienced any abnormal financial results, a slight increase in the cost of certain work being in each case noticed.

The returns from the communes show that 47, with a total population of 1,427,515, have provisions concerning the minimum wages that must be paid workingmen engaged on public work, and that 39, with a total population of 586,919, have no such provisions. Five of the latter, however, announce that such a measure will probably be introduced within a short time. Of the 47 with minimum wage provisions, 38 indicate the rate of wages that must be paid either by themselves or by contractors working for them. The other 9 require the contractors to indicate in their bids the lowest wages that they will pay to their employees. If this rate is deemed too low their bids are not considered. Twenty-four communes require the contractor to keep a special record of wages paid and to furnish other information to the administration. Seventeen communes have fixed the maximum duration of the working-day; the others have no provisions on this subject. Eighteen communes require the contractors to insure their workingmen against accidents. All of the communes except two from which information was obtained declare that they have received no complaint concerning the workings of the system; and all save one report that no abnormal financial effects have resulted. Seventeen of the communes, however, have as yet executed no work under the régime of minimum wages.

In making reply to the circulars sent to them, 2 provinces and 16 communes gave the schedules of minimum wages adopted by them. From these statements it has been possible to compile the following table, showing the minimum wages per hour paid by each in most of the

principal occupations in the building trades. In constructing this table unusual occupations and those for which but a single quotation could be secured were omitted. Omissions on this account, however, were very few in number.

MINIMUM WAGES PER HOUR IN THE PRINCIPAL OCCUPATIONS IN THE BUILDING TRADES PAID BY CERTAIN PROVINCES AND COMMUNES OF BELGIUM.

Occupation.	Province Hainaut.	Com- mune Jumet.	Com- mune Braine- Comte.	Com- mune Tour- nai.	Com- mune Roul- ers.	Com- mune Menin.	Com- mune Gend- brugge.	Com- mune Ni- velles.	Com- mune Ver- viers.
Excavator.....	\$0.048	\$0.048	\$0.048	\$0.058	\$0.041	\$0.058	\$0.054	\$0.058	\$0.058
Paver.....	.068	.068	.068	.087	.077		.062	.077	.087
Paver's helper.....	.044	.044	.044		.058		.042		
Mason.....	.068	.068	.068	.068	.058	.058	.058	.068	.077
Mason's helper.....	.044	.044	.044	.039	.041	.039	.042	.044	
Stonecutter.....	.068	.068	.068	.077	.068	.068	.068	.077	.077
Plasterer.....	.069	.069	.069	.068	.058	.058	.062	.068	.068
Plasterer's helper.....	.050	.050	.050	.034	.041	.039	.042	.044	
Painter.....	.064	.064	.064	.068	.058	.058		.073	
Glazier.....	.068	.068	.068	.077	.058	.058			
Glazier's helper.....	.044	.044	.044						
Carpenter and joiner.....	.068	.068	.068	.068	.058	.058	.062		.068
Carpenter and joiner's helper.....	.044	.044	.044			.039			
Locksmith.....	.069	.069	.069	.073					
Locksmith's helper.....	.044	.044	.044						
Driver.....	.054	.054	.054						.058
Plumber.....				.087	.058		.062		.068
Plumber's helper.....				.031			.042		
Lead and zinc worker.....	.077	.077	.077	.073		.058			
Lead and zinc worker's helper.....	.044	.044	.044						
Zinc worker.....					.058				.068
Slater.....					.058		.062		
Slater's helper.....					.041		.042		
Slate roofer.....	.077	.077	.077			.058		.068	
Slate roofer's helper.....	.052	.052	.052					.044	
Roofer.....				.077					
Roofer's helper.....				.029		.039			
Blacksmith.....					.058	.058		.077	
Marble worker.....	.069	.069	.069						
Paper and tapestry hanger.....	.068	.068	.068						
Whitewasher.....	.058	.058	.058						

Occupation.	Pro- vince Bra- bant.	Com- mune Ander- lecht.	Com- mune Alost.	Com- mune Gram- mont.	Com- mune Ber- chem- Anvers.	Com- mune Charle- roi.	Com- mune Herstal.	Com- mune Schaer- beek.	Com- mune Dison.
Excavator.....	\$0.048	\$0.068	\$0.039		\$0.058	\$0.058		\$0.068	\$0.064
Paver.....	.077	.058			.077	.073	\$0.073	.077	
Paver's helper.....	.042	.048	.039		.054			.048	
Mason.....		.068	.052	\$0.048	.071	.073	.077	.077	
Mason's helper.....	.042	.048	.039	.039	.054			.048	
Stonecutter.....			.058						
Painter.....				.048					
Glazier.....				.068					
Carpenter and joiner.....				.048					
Driver.....								.058	
Blacksmith.....				.048					
Marble worker.....				.058					
Filler-in, masonry.....					.068		.068		.068

The replies received from the associations of employers and employees are much less interesting in character and need not here be considered.

The information concerning workmen employed directly by the city of Brussels showed a total of 1,570 persons employed, of which 800 were credited to the city gas works, 344 to the street-cleaning

department, 299 to public works proper, and the remainder to other services. Of these, 7 received in wages less than 2 francs (\$0.39) per day, 17 from 2 to 2.50 francs (\$0.39 to \$0.48), 240 from 2.50 to 3 francs (\$0.48 to \$0.58), 528 from 3 to 3.50 francs (\$0.58 to \$0.68), 348 from 3.50 to 4 francs (\$0.68 to \$0.77), 258 from 4 to 4.50 francs (\$0.77 to \$0.87), 129 from 4.50 to 5 francs (\$0.87 to \$0.97), 31 from 5 to 5.50 francs (\$0.97 to \$1.06), and 12 over 5.50 francs (\$1.06). The most prevalent wage rate was that from 3 to 3.50 francs (\$0.58 to \$0.68), 528, or slightly over one-third of the total number of employees, being found in that class, while 606, or nearly two-fifths, received from 3.50 to 4.50 francs (\$0.68 to \$0.87). Eleven hundred and thirty-four workmen, or 72 per cent of all employed, therefore, received from 3 to 4.50 francs (\$0.58 to \$0.87) per day.

On the basis of this information two calculations were made in order to show the extra expense that would be caused to the city under two different systems of minimum wages. The second calculation, showing the result if all employees worked eight hours a day only and all receiving less than 4 francs (\$0.77) per day had their wages increased to that amount, indicated that the extra expense to the city consequent upon its introduction would be 751,740.90 francs (\$145,085.99).

Travail du Dimanche: Établissements Industriels (non compris les mines minières et carrières). Volume I, Belgique. Office du Travail, Ministère de l'Industrie et du Travail. 1896. Ixiii, 503 pp.

The present report is the first of a series of volumes under preparation by the Belgian labor bureau, the object of which is to determine the extent and character of work performed on Sunday in all industries. The investigation when complete will consist of five parts giving (1) the results of an investigation concerning Sunday work in industrial establishments other than mines and quarries, (2) the same concerning mines and quarries, (3) the opinions and advice of the councils of industry and commercial and industrial associations, (4) Sunday work in large stores, and (5) Sunday work in foreign countries (Germany, Austria, Switzerland, and England). Only the first of these, the present report, has as yet been completed.

In this report information was obtained from 1,459 establishments or divisions of establishments, representing 268 different industries and employing 119,477 working men and women.

Of the 1,459 establishments, 12 employed 1,000 or more working people, 34 from 500 to 999, 75 from 250 to 499, 326 from 50 to 249, 470 from 10 to 49, and 542 less than 10 employees.

Of the 119,477 employees, 93,275, or 78.07 per cent, were males, of which 84,762 were 16 years of age or over and 8,513 under that age; and 26,202, or 21.93 per cent, were females, of which 13,163 were 21 years of age or over, 9,127 between the ages of 16 and 21, and 3,912 less than 16 years of age.

In the analysis of the material collected, the Belgian bureau has first made a division of the establishments into two classes—those carrying on regular and those carrying on irregular Sunday work. Within each of these a further threefold division has been made: (1) The work of production proper, (2) the work of repair, cleaning, and maintenance, and (3) the work of guarding, transportation, and shipment.

The report contains six general tables, one for each of these branches. These tables give for each establishment separately the character of the industry, its location, the total number of employees, and the number employed on Sunday, according to sex and age periods, and the per cent of the total number of employees thus employed. These tables, it should be remarked, are not mutually exclusive, as the same establishment may and usually does figure in all six tables.

Of the 1,459 establishments considered, 513, or 35.16 per cent, show no Sunday work, while in 946, or 64.84 per cent, such work is carried on. In these latter, 183, or 19.34 per cent, exhibit regular Sunday work, 516, or 54.55 per cent, Sunday work at irregular occasions, and 247, or 26.11 per cent, both regular and irregular Sunday work.

According to the nature of the work done, 675, or 71.35 per cent, work on Sunday in productive operations, 500, or 52.85 per cent, at repairs, cleaning, etc., and 109, or 11.52 per cent, at guarding works, transportation, and shipment. The sum of these establishments of course exceeds 946, as the same establishments engaged in more than one kind of work.

If distinction be made also as to whether work is regular or not, it is found that of the 946 establishments working Sundays 308, or 32.56 per cent, work regularly at the operations of production, 143, or 15.12 per cent, regularly at repairs, etc., and 74, or 7.82 per cent, regularly at guarding, transportation, etc.; and that 462, or 48.84 per cent, work irregularly at operations of production, 392, or 41.44 per cent, irregularly at repairs, etc., and 41, or 4.33 per cent, irregularly at guarding, etc.

If the percentages be calculated according to the total number of establishments investigated, whether pursuing Sunday work or not, it will be seen that 21.11 per cent of all work regularly on Sundays in the operations of production, 9.80 per cent at repairs, etc., and 5.07 per cent at guarding, transportation, etc.; and 31.67 per cent irregularly at production, 26.87 per cent at repairs, etc., and 2.81 per cent at guarding, transportation, etc.

The reasons for Sunday work were not always stated. It is of interest, however, to know that of the 308 establishments pursuing regular Sunday work in production 119, or 38.64 per cent, carried on such work the whole 24 hours on account of the nature of the work, which was such as to demand continuous operations. The best example of this is that of blast furnaces. In 189 other establishments work was carried on during a part of Sunday only, and in 91 of these the work was due

to the fact that one of the shifts of work extended over from Saturday night into Sunday morning. There, therefore, remain 98 establishments, or 31.82 per cent, where Sunday work had no relation to maintaining the continuity of work. In 462 establishments, where work at production was carried on during certain Sundays of the year only, the desire to take advantage of certain seasons of the year was responsible for 76 establishments, or 16.45 per cent, doing Sunday work.

In regard to the frequency of Sunday work in those establishments where irregular Sunday work was carried on, in 110, or 14.42 per cent, of such cases Sunday work was practiced on 26 Sundays or over, in 244, or 31.98 per cent, on from 10 to 25 Sundays, and in 409, or 53.60 per cent, on less than 10 Sundays.

In a great many of these cases the whole establishment would not, of course, be in operation as during week days. The following table is intended to show the extent to which the entire force was employed:

ESTABLISHMENTS WITH SPECIFIED PER CENT OF EMPLOYEES AT WORK ON SUNDAY.

Per cent of employees at work on Sunday.	Regular work.			Irregular work.		
	Production.	Repairs, cleaning, maintenance.	Guarding, transportation, shipment.	Production.	Repairs, cleaning, maintenance.	Guarding, transportation, shipment.
Less than 5 per cent.....	16	77	53	174	289	27
From 5 to 24 per cent.....	61	52	14	153	33	3
From 25 to 49 per cent.....	94	6	4	32	1	1
Not less than 50 per cent.....	127	3	3	17	.....	.....
Not stated.....	10	5	.....	86	69	10
Total.....	308	143	74	462	392	41

In this table the most interest naturally attaches to establishments with regular Sunday work. Deducting the 15 establishments not reporting the per cent of their employees at work, it will be seen that of the 510 remaining, 133, or 26.08 per cent, employed on Sunday at least 50 per cent of their employees; that 104, or 20.39 per cent, employed from 25 to 49 per cent; 127, or 24.90 per cent, from 5 to 24 per cent, and 146, or 28.63 per cent, less than 5 per cent of their force.

Turning to the question of the number of working people employed on Sunday, it is found that 77,798, or 65.12 per cent, of all the employees covered by the investigation were never employed on Sundays, while 41,679, or 34.88 per cent, were occupied all or occasional Sundays. Of this last number 13,651, or 32.75 per cent, worked every Sunday; 14,712, or 35.30 per cent, every other Sunday in order to complete the shift, and 13,316, or 31.95 per cent, occasional Sundays only. In relation to the total number of persons investigated, or 119,477, these percentages are 11.43 working every Sunday, 12.31 every other Sunday, and 11.15 occasional Sundays.

In regard to the nature of the work, 37,166, or 89.17 per cent, of the 41,679 workmen who were employed more or less on Sundays were

engaged in the operations of production, 4,062, or 9.75 per cent, in the work of repair, cleaning, and maintenance, and 451, or 1.08 per cent, in the work of guarding, transportation, and shipment. It will thus be seen that the great majority, or between 89 and 90 per cent, of those working on Sundays were engaged in the operations of production.

It has been seen that 13,316 persons work only occasionally on Sundays. In the cases of 1,699 of these the frequency of Sunday labor was not determined. Of the remaining 11,617 persons 950, or 8.18 per cent, work 26 Sundays or more, 4,352, or 37.46 per cent, from 10 to 25 Sundays, and 6,315, or 54.36 per cent, less than 10 Sundays. With this class, therefore, Sunday work is comparatively infrequent.

To obtain precise information concerning the extent of Sunday work it is necessary to carry the analysis to the number of hours worked on Sunday. The most important class of Sunday workers are those who are employed regularly on that day. This class numbers 13,651. Of these, 12,011 are employed in the operations of production. Among these it is found that 3,523 work the same number of hours each Sunday, and 8,488 a different number of hours on alternate Sundays. In the first class 917 work at least 12 hours, 1,521 from 6 to 12 hours, 1,022 less than 6 hours, and 63 a number of hours that could not be determined. In the second class 3,869 work alternate Sundays 6 and 18 hours, 900 alternately 7 and 17 hours, 1,603 first 6, then 12, and then 6 hours, and 2,116 in some other combination. Of the 1,422 employed regularly in repair, cleaning, and maintenance work 106 were employed at least 12 hours, 644 from 6 to 12 hours, 652 less than 6 hours, and 20 a number of hours not determined. Of the 218 employed in guarding, transportation, and shipment service 32 were employed at least 12 hours, 94 from 6 to 12 hours, 47 less than 6 hours, and the remainder a number of hours not determined.

Among the 14,712 workingmen who are employed alternate Sundays in order to complete the shift, the great majority work 6 hours, or until 6 o'clock in the morning, and the remaining workingmen various hours from 4 to 12.

In regard to the 13,316 workingmen who are employed only occasionally on Sundays, after deducting 536 whose hours of labor could not be obtained, it is found that 4,398 are organized in shifts which for the most part work first 6 and then 12 or 18 hours on alternate Sundays, 1,590 at least 12 hours when working, 3,320 from 6 to 12 hours, and 3,472 less than 6 hours.

In the foregoing no account has been taken of the sex or ages of employees. The facts regarding Sunday employment have been presented in the following table in such a way as to bring out these elements:

NUMBER AND PER CENT OF EMPLOYEES WORKING SUNDAY, BY SEX AND AGE.

Sex and age.	Employees working every Sunday.		Employees working alternate Sundays.		Employees working occasional Sundays.		Total.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Males 16 years or over.....	11,985	28.75	12,642	30.33	12,163	29.19	36,790	88.27
Females 21 years or over.....	255	.61	794	1.91	429	1.03	1,478	3.55
Males under 16 years.....	866	2.08	1,168	2.80	407	.97	2,441	5.85
Females 16 to 20 years.....	367	.88	76	.18	253	.61	696	1.67
Females under 16 years.....	178	.43	32	.08	64	.15	274	.66
Total.....	13,651	32.75	14,712	35.30	13,316	31.95	41,679	100.00

From this table it will be seen that 88.27 per cent of those working Sunday were males 16 years of age or over, and 5.85 per cent were males under that age. On the other hand, 3.55 per cent of those working Sunday were females 21 years of age or over, and 2.33 per cent were under that age. It must be remembered that the work performed on alternate Sundays is really more in the nature of work Saturday night, as it is usually terminated early Sunday morning, than Sunday work proper.

There remains one other element yet to be considered in treating of Sunday work—that of the industries in which it is prevalent. The significant results of the whole investigation, from this standpoint, are brought out in the following table, wherein is given the extent of Sunday work in the 68 most important industries.

In this tabulation there are included all industries in which over 10 establishments were investigated or those employing more than 700 workmen. The table thus restricted relates to 1,069 establishments and 102,952 employees, or 73.27 per cent of all establishments and 86.17 per cent of all employees comprehended within the investigation. A special feature of this table is the column wherein has been shown the per cent of hours worked of possible hours of Sunday work, in order that the relative prevalence of Sunday work in the different industries can be easily discernible. This per cent was calculated in the following manner: The total number of employees in each industry was multiplied by 24 in order to give the maximum number of hours of possible work. For each establishment the number of persons working on Sunday was then multiplied by the number of hours that they worked. The sum of these latter amounts was then divided by the first amount, representing the possible capacity. In the case of irregular work the factor of the number of Sundays worked was also taken into account.

PER CENT OF REGULAR SUNDAY WORK, BY INDUSTRIES.

[In calculating the per cent of hours worked of possible hours of work in the last column of this table 24 has been taken as the possible hours of work for each employee.]

Industry.	Estab-lish-ments consid-ered.	Em-ployees consid-ered.	Production.		Repair, cleaning, main-tenance.		Guarding, transportation, shipment.		Per cent of hours worked of possible hours of work.
			Per cent of estab-lish-ments work-ing Sun-days.	Per cent of em-ployees work-ing Sun-days.	Per cent of estab-lish-ments work-ing Sun-days.	Per cent of em-ployees work-ing Sun-days.	Per cent of estab-lish-ments work-ing Sun-days.	Per cent of em-ployees work-ing Sun-days.	
Manufacture of sulphuric acid, and related industries	11	432	100.0	53.7					25.04
Manufacture of steel	7	3,241	85.7	39.5	57.1	8.3			12.04
Manufacture of matches	8	1,100	12.5	1.1	12.5	0.3	12.5	0.1	.34
Sizing of woven goods	11	555	9.1	0.4	18.1	0.5			.05
Manufacture of arms	13	2,530	7.7	9.2	15.4	2.0			.45
Manufacture of candles	3	740	100.0	2.3	66.6	1.1			10.44
Bread and pastry baking	32	374	65.6	43.3			12.5	2.4	11.36
Manufacture of bolts and screws	8	817					12.5	0.4	.04
Brewing and malting	63	666	30.1	10.0			7.9	3.3	2.79
Manufacture of bricks	10	459							
Manufacture of brushes	10	529			10.0	0.2			.01
Manufacture of carriages and wagons	17	144			5.9	1.4			.17
Manufacture of hats	8	1,044							
Carpentry and joinery	24	439							
Boiler making	18	1,293	5.5	0.01	10.5	0.1			.02
Manufacture of lime	23	894	8.7	0.7	4.3	0.6			.34
Manufacture of cement	15	1,278	60.0	9.7	6.7	3.9	6.7	0.08	3.94
Manufacture of shoes, etc.	22	647							
Manufacture of glass and glassware	9	5,535	100.0	13.9	44.4	1.0	1.1	0.3	4.04
Cabinetmaking	17	120							
Iron puddling and rolling	27	9,817	77.8	33.1	25.9	1.3	7.4	0.03	8.75
Cotton spinning	17	3,572			70.6	1.8	58.8	0.5	.52
Woolen spinning	29	3,120	17.2	18.8	27.6	4.6	3.4	0.06	5.43
Jute and hemp spinning and weaving	10	1,378			30.0	0.6			.06
Linen spinning and weaving	21	8,815			52.4	0.8	28.5	0.2	.21
Copper and bronze foundry	12	212							
Iron foundry (small articles)	11	530	9.0	0.4					.18
Iron foundry and cast-steel works	19	852	10.5	0.5					.22
Manufacture of iron castings	13	2,124	100.0	78.4					39.11
Manufacture of gas	17	783	94.1	41.5			17.6	2.3	20.87
Gauze, lead, and zinc working	20	80							
Ice making	2	995	100.0	25.4	100.0	2.6			7.60
Printing and lithographing	35	1,143	11.4	6.0	2.8	0.1	2.8	0.09	1.58
Manufacture of laces, ribbons, and braids	3	713	33.3	6.3	33.3	0.1			1.32
Iron and steel plate rolling	13	1,290	92.3	50.5	61.0	9.5	28.6	0.4	16.87
Copper and zinc rolling	8	731	75.0	46.2	37.5	3.3	18.7	0.1	7.09
Wool washing and singeing	11	657	36.4	17.9	18.2	1.4			5.93
Laundry work	14	169	7.1	1.2					.24
Manufacture of machinery, metallic constructions, railway cars, and supplies	38	7,004	6.0	1.1	9.0	0.3	3.0	0.01	.34
Manufacture of small machinery, accessories, and tools	18	334							
Masonry and ceiling work	17	306							
Marble sawing and cutting	16	176							
Horseshoeing	12	28	8.3	10.7					2.23
Flour milling	36	744	38.9	26.9	20.0	5.6			10.79

PER CENT OF REGULAR SUNDAY WORK, BY INDUSTRIES—Concluded.

[In calculating the per cent of hours worked of possible hours of work in the last column of this table 24 has been taken as the possible hours of work for each employee.]

Industry.	Estab-lish-ments consid-ered.	Em-ployees consid-ered.	Production.		Repair, cleaning, main-tenance.		Guarding, transportation, shipment.		Per cent of hours worked of possible hours of work.
			Per cent of estab-lish-ments work-ing Sun-days.	Per cent of em-ployees work-ing Sun-days.	Per cent of estab-lish-ments work-ing Sun-days.	Per cent of em-ployees work-ing Sun-days.	Per cent of estab-lish-ments work-ing Sun-days.	Per cent of em-ployees work-ing Sun-days.	
Paper and pasteboard mak- ing.....	15	2,009	60.0	15.2	18.7	3.9	.....	.....	5.63
Preparation of phosphate of lime.....	11	312	54.5	26.6	36.3	5.1	45.4	1.5	12.43
Preparation of hair for hats	4	750	.....	.....	.....	.....	.....	.....	.....
Manufacture of china and porcelain.....	3	969	66.6	2.3	33.3	0.8	33.3	0.1	.85
Wool preparation.....	11	1,047	18.2	19.8	18.2	2.9	.....	.....	4.74
Ironing linens.....	11	95	.....	.....	.....	.....	.....	.....	.....
Cotton and linen twisting.	3	984	33.3	5.2	.....	.....	.....	.....	1.13
Flax retting and breaking.	10	398	.....	.....	.....	.....	.....	.....	.....
Soap making.....	13	102	7.7	1.9	.....	.....	.....	.....	.65
Wood sawing.....	17	232	.....	.....	11.8	3.0	5.9	0.4	.61
Locksmithing and stove manufacture.....	17	225	.....	.....	.....	.....	5.9	0.9	.18
Sugar making and refining.	20	2,957	.....	.....	.....	.....	.....	.....	.....
Manufacture of tobacco and cigars.....	18	727	5.5	0.3	.....	.....	.....	.....	.01
Leather tanning and cur- rying.....	19	538	21.1	2.2	.....	.....	5.3	0.4	.33
Tapestry and decorating.	11	97	.....	.....	.....	.....	.....	.....	.....
Dyeing of threads and woven goods.....	26	773	15.4	6.3	3.8	0.6	.....	.....	1.62
Garment dyeing and clean- ing.....	10	165	.....	.....	.....	.....	.....	.....	.....
Cotton weaving.....	19	3,405	.....	.....	21.1	0.3	15.8	0.1	.10
Woolen weaving.....	12	1,760	.....	.....	16.6	0.6	.....	.....	.09
Manufacture of mixed woven goods.....	20	3,610	.....	.....	20.0	0.3	5.0	0.03	.04
Cooperage.....	11	248	.....	.....	.....	.....	.....	.....	.....
Manufacture of window glass.....	9	4,944	100.0	73.4	.....	.....	.....	.....	24.65
Manufacture of men's and women's clothing.....	27	125	3.7	1.6	.....	.....	.....	.....	.33
Manufacture of zinc.....	7	1,898	100.0	65.5	.....	.....	.....	.....	22.28

PER CENT OF IRREGULAR SUNDAY WORK, BY INDUSTRIES.

Manufacture of sulphuric acid, and related indus- tries.....	11	432	9.1	0.5	.....	.....	.....	.....	.13
Manufacture of steel.....	4	1,336	50.0	25.9	42.9	4.5	.....	.....	1.45
Manufacture of matches.....	6	786	.....	.....	50.0	1.2	.....	.....	.02
Sizing of woven goods.....	11	555	9.0	1.1	45.4	2.1	.....	.....	.26
Manufacture of arms.....	13	2,530	30.8	2.4	15.4	0.4	.....	.....	.07
Manufacture of candles.....	3	740	33.3	18.0	66.6	0.8	.....	.....	.70
Bread and pastry baking.	31	321	16.1	3.7	6.4	1.5	.....	.....	.16
Manufacture of bolts and screws.....	8	817	.....	.....	75.0	1.8	.....	.....	.13
Brewing and malting.....	63	666	68.0	21.0	4.8	1.5	3.2	0.3	4.59
Manufacture of bricks.....	9	432	88.8	4.1	20.0	1.3	.....	.....	1.41
Manufacture of brushes.....	10	529	.....	.....	22.2	1.0	.....	.....	.02
Manufacture of carriages and wagons.....	16	139	43.8	3.6	.....	.....	.....	.....	.37
Manufacture of hats.....	6	969	16.6	0.1	33.3	1.7	.....	.....	.13
Carpentry and joinery.....	21	219	42.9	16.9	.....	.....	.....	.....	.53
Boiler making.....	16	1,211	68.7	9.8	25.0	1.5	.....	.....	.66
Manufacture of lime.....	18	734	27.8	19.6	.....	.....	.....	.....	.25
Manufacture of cement.....	11	571	18.2	0.4	27.2	3.9	9.1	1.0	.67
Manufacture of shoes, etc.	20	466	20.0	5.4	10.0	1.5	10.0	0.8	.09
Manufacture of glass and glassware.....	8	2,609	25.0	0.1	37.5	0.2	.....	.....	.06
Cabinetmaking.....	16	113	18.7	6.2	.....	.....	.....	.....	.23
Iron puddling and rolling.	24	8,222	58.3	82.9	58.3	4.1	3.7	0.2	3.11
Cotton spinning.....	14	1,898	.....	.....	78.5	4.2	.....	.....	.18

PER CENT OF IRREGULAR SUNDAY WORK, BY INDUSTRIES—Concluded.

[In calculating the per cent of hours worked of possible hours of work in the last column of this table 24 has been taken as the possible hours of work for each employee.]

Industry.	Estab-lish-ments consid-ered.	Em-ployees consid-ered.	Production.		Repair cleaning, main-tenance.		Guarding, transportation, shipment.		Per cent of hours worked of possible hours of work.
			Per cent of estab-lish-ments work-ing Sun-days.	Per cent of em-ployees work-ing Sun-days.	Per cent of estab-lish-ments work-ing Sun-days.	Per cent of em-ployees work-ing Sun-days.	Per cent of estab-lish-ments work-ing Sun-days.	Per cent of em-ployees work-ing Sun-days.	
Woolen spinning.....	27	2,991	3.7	1.0	44.4	1.2	.....	.....	.23
Jute and hemp spinning and weaving.....	9	1,283	11.1	0.3	70.0	2.1	.....	.....	.07
Linen spinning and weaving.....	18	7,299	.....	.....	83.3	1.4	5.0	0.1	.09
Copper and bronze foundry	12	212	41.7	11.3	8.3	0.9	.....	.....	.66
Iron foundry (small articles)	10	526	20.0	0.4	20.0	4.2	.....	.....	.22
Iron foundry and cast-steel works	18	796	16.7	3.3	22.2	1.4	.....	.....	.44
Manufacture of iron castings	11	2,284	18.2	3.6	.....	.....	.....	.....	.32
Manufacture of gas	14	547	7.1	1.8	14.2	0.5	11.7	4.5	.42
Gauze, lead, and zinc working	18	74	22.2	21.6	.....	.....	.....	.....	.74
Ice making.....	2	995	50.0	10.2	.....	.....	.....	.....	.44
Printing and lithographing	31	1,090	64.5	12.5	12.2	1.0	3.2	0.3	.55
Manufacture of laces, ribbons, and braids.....	3	713	.....	.....	.....	.....	.....	.....	.....
Iron and steel plate rolling	5	543	60.0	12.3	92.9	2.5	40.7	1.1	.62
Copper and zinc rolling.....	7	663	14.3	7.5	28.5	1.2	.....	.....	.45
Wool washing and singeing	11	657	27.0	16.3	27.2	1.0	.....	.....	.78
Laundry work.....	14	169	14.0	12.4	7.1	0.7	.....	.....	.18
Manufacture of machinery, metallic constructions, railway cars, and supplies.....	30	6,196	70.0	7.8	50.0	4.7	.....	.....	.80
Manufacture of small machinery, accessories, and tools.....	14	235	.....	.....	14.2	1.8	.....	.....	.17
Masonry and ceiling work	14	246	7.1	1.2	.....	.....	.....	.....	.02
Marble sawing and cutting	14	113	21.4	24.8	.....	.....	.....	.....	.60
Horseshoeing.....	10	24	60.0	54.2	.....	.....	.....	.....	2.23
Flour milling.....	34	738	17.6	6.0	23.5	23.8	8.8	0.9	1.83
Paper and pasteboard making	16	2,839	31.2	4.4	62.5	2.1	.....	.....	1.25
Preparation of phosphate of lime.....	8	143	.....	.....	37.5	2.8	.....	.....	.38
Preparation of hair for hats	4	750	.....	.....	75.0	2.1	.....	.....	.06
Manufacture of china and porcelain.....	1	879	100.0	4.3	100.0	5.3	.....	.....	.48
Wool preparation.....	10	338	.....	.....	40.0	2.6	.....	.....	.04
Ironing linens.....	10	89	40.0	42.7	.....	.....	.....	.....	1.90
Cotton and linen twisting	3	994	.....	.....	100.0	2.6	.....	.....	.14
Flax retting and breaking	10	398	60.0	44.7	30.0	5.7	.....	.....	3.52
Soap making.....	12	99	33.3	16.2	16.6	3.0	8.3	2.0	.71
Wood sawing.....	17	232	17.6	20.0	47.0	10.0	.....	.....	.66
Locksmithing and stove manufacture	16	223	18.7	18.2	6.2	0.5	.....	.....	.74
Sugar making and refining	20	2,957	100.0	82.0	40.0	5.1	.....	.....	5.86
Manufacture of tobacco and cigars.....	18	727	5.5	0.3	5.5	0.5	.....	.....	.03
Leather tanning and currying	16	478	31.2	2.5	12.5	0.6	.....	.....	.03
Tapestry and decorating	8	83	25.0	4.8	.....	.....	.....	.....	.06
Dyeing of threads and woven goods	25	741	.....	.....	32.0	1.5	.....	.....	.13
Garment dyeing and cleaning.....	10	165	40.0	40.0	10.0	1.8	.....	.....	2.15
Cotton weaving.....	17	2,922	5.9	0.03	70.5	2.2	.....	.....	.07
Woolen weaving.....	11	1,613	.....	.....	54.5	0.9	.....	.....	.01
Manufacture of mixed woven goods.....	20	3,610	5.0	0.1	60.0	1.6	5.0	0.1	.05
Cooperage.....	11	248	36.3	28.2	18.1	2.8	.....	.....	.40
Manufacture of window glass.....	8	4,052	38.9	11.3	12.5	0.3	.....	.....	.34
Manufacture of men's and women's clothing.....	23	99	52.2	49.5	.....	.....	.....	.....	.73
Manufacture of zinc.....	10	4,278	.....	.....	30.0	0.4	.....	.....	.01

From this table it is possible to see at a glance in which industries Sunday work is comparatively the most frequent or prolonged. As regards regular Sunday work, the industry having the highest per cent of hours worked of possible hours of work is that of the manufacture of iron castings, followed in the order named by those of the manufacture of sulphuric acid and related industries; manufacture of window glass; manufacture of zinc; manufacture of gas; iron and steel plate rolling; preparation of phosphate of lime; manufacture of steel; bread and pastry baking; flour milling, and manufacture of candles. In other industries the proportion of Sunday work seems to be quite small. Of irregular Sunday work the proportion appears to be small in all industries. Work of this sort is most prevalent in sugar making and refining, brewing and malting, flax retting and breaking, iron puddling and rolling, horseshoeing, and garment dyeing and cleaning.

Fourth Annual Report of the Government Labor Bureau of New South Wales for the year ending February 17, 1896. Joseph Creer, Superintendent. 11 pp.

This report deals mainly with the subject of the unemployed and the work done and expenditures by the bureau in securing work for the people and providing relief where needed. It also contains statistics of immigration from other colonies and foreign countries.

The following extracts taken from the report give a general summary of the operations of the bureau during the year ending February 17, 1896:

The number of unemployed registered at the bureau was 14,062 (or 487 more than the previous year), of which 5,450 were married men, with 11,755 children depending on them. Single men registered amounted to 8,612. The total number assisted and sent to work for the year amounted to 20,576, or 4,196 more than the preceding year and 6,514 more than the number registered during the period. This is mainly owing to the large number of passes issued to country places to applicants who have not been registered in addition to those who have been registered during previous years.

* * * * *

The average daily attendance of unemployed at the bureau during the greater portion of the year has been very large. Many months it averaged daily from 1,500 to 2,500, but it has fallen off considerably during the last few weeks, only from 300 to 500 attending.

The following table gives a comparative statement of the number of persons registered and the number assisted during each year of operation of the bureau:

PERSONS REGISTERED AND ASSISTED, 1893 TO 1896.

Year ending February 17—	Persons registered.	Increase.	Persons assisted and sent to work.	Increase.
1893	18,600	.....	8,154	.....
1894	12,145	a 6,455	10,349	2,195
1895	13,575	1,430	16,380	6,031
1896	14,062	487	20,576	4,196
Total	58,382	.....	55,450	.....

a Decrease.

The expenditures incurred on works in aid of the unemployed for the twelve months ending February, 1896, is set down at £201,591 4s. 1d. (\$981,043.60). This was used in the prosecution of public works, such as grading, road construction, forest thinning, etc., the payment of railway and steamer transportation, the furnishing of rations, special grants to municipalities for necessary works, and to benefit local destitute unemployed.

Fifth Annual Report of the Department of Labor of New Zealand for the year ending March 31, 1896. Hon. R. J. Seddon, Minister of Labor. xxxiv, 46 pp.

This report, like that for the preceding year, deals with the condition of the labor market; assistance rendered by the department in finding employment for persons out of work, and wages and employees in railway workshops and factories; the effect of certain features of the factory inspection and shops acts, and reports of factory inspectors. In addition to these topics the present report touches briefly upon the effects of the truck act; industrial conciliation and arbitration; the servants' registry offices; foreign immigration; cooperative works, and publishes the minutes of the proceedings of the board of conciliation.

Much space is devoted to the operations of the employment bureau of this department. During the year 2,871 persons obtained employment through this bureau, 1,880 of whom were married. Of the total number, 708 were sent to private employment, and 2,163 to Government works.

Since the organization of the department, June, 1891, 15,739 men have been assisted, and these with their dependents make a total of 53,579 persons who have been directly benefited by this branch of the labor department during the five years of its existence.

The number of factories registered under the factories act increased during the year from 4,109 to 4,647, and the number of factory hands from 29,879 to 32,387. This increase is partly due to a more complete registration of small establishments.

The other topics treated in the report are of local interest.

DECISIONS OF COURTS AFFECTING LABOR.

[This subject, begun in Bulletin No. 2, will be continued in successive issues, dealing with the decisions as they occur. All material parts of the decisions are reproduced in the words of the courts, indicated when short by quotation marks and when long by being printed solid. In order to save space immaterial matter, needed simply by way of explanation, is given in the words of the editorial reviser.]

DECISIONS UNDER STATUTORY LAW.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES—*Texas Central Ry. Co. v. Frazier.* 34 *Southwestern Reporter*, page 664.—Suit was brought in the district court of Hamilton County, Tex., by Etta Frazier, widow of J. W. Frazier, for herself and minor child, Freddie Frazier, against the Texas Central Railway Company to recover damages for the death of her husband. From a judgment in her favor the railway company appealed the case to the court of civil appeals of the State, which rendered its decision March 4, 1896, and affirmed the judgment of the lower court. The opinion of said court was delivered by Judge Key, and the following, containing a statement of the facts in the case, is quoted therefrom:

On the 15th of April, 1893, a freight train was wrecked on appellant's road near the town of Aquilla, in Hill County, Tex., one result of which was the death of appellee's husband, J. W. Frazier, who was employed and serving as a brakeman on said train.

That appellee was the wife of J. W. Frazier; that the minor, Freddie Frazier, was their only child; that the wreck occurred at the time and place alleged; and that J. W. Frazier was a brakeman on the train, and received injuries in the wreck, which caused his death in a few hours thereafter, were clearly shown, and these facts are not disputed. But appellant's contention is that the testimony fails to show the alleged negligence of the engineer, and fails to show that said engineer, if negligent, was other than a fellow-servant of J. W. Frazier, for whose negligence appellant would not be responsible. It is also contended that the death of Frazier resulted from one of the ordinary risks of the service in which he was engaged, and, therefore, that appellant is not liable.

As to the question of negligence on the part of the engineer, it may be that, if we were trying the case as jurors, we should reach a different conclusion, and return a different verdict; but, after a careful consideration of the statement of facts, we can not say that the verdict is without evidence to support it. By the verdict under consideration, twelve men, presumably disinterested and honest, have decided that on the occasion in question the engineer did not exercise all the care that a person of ordinary prudence would have exercised; and that decision is not so clearly unsupported by testimony as to justify us in setting it aside.

The act approved March 10, 1891, defining who are and who are not fellow-servants, declares "that all persons engaged in the service of any railway corporations, foreign or domestic, doing business in this State, who are intrusted by such corporation with the authority of superintendence, control, or command of other persons in the employ or service of such corporation, or with the authority to direct any other employee, are vice principals of such corporation, and not fellow-servants with such employee." (Laws 22d Leg., p. 25.) The evidence in this case shows that Neal, the engineer, had authority from appellant to direct the deceased, who was head brakeman, to put on the brake, and that it was the duty of the deceased to obey such direction. This made the engineer a vice principal, under the statute above cited, and the doctrine of fellow-servants does not apply.

As to the question of Frazier's assumption of risk, it is sufficient to say that, while it is true that he assumed the risks ordinarily incident to his employment as brakeman, such assumption would not shield appellant from injuries resulting from its negligence; and, under the court's charge, the jury were not authorized to find for the plaintiff unless they found that the engineer was guilty of negligence in the respect charged, and that he was appellant's vice principal.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES—ANNULMENT OF STATUTE BY ADOPTION OF CONSTITUTION—*Crisswell v. Montana Cent. Ry. Co.* 44 *Pacific Reporter*, page 525.—This case was originally brought in the district court of Cascade County, Mont., by Charles G. Crisswell against the railroad company to recover damages for injuries received while in the company's employ. A verdict was rendered for the plaintiff and the defendant appealed the case to the supreme court of the State, which rendered its decision November 25, 1895, and affirmed the judgment of the lower court. Said decision was reported in 42 *Pacific Reporter*, page 767, and was published in part on page 433 of Bulletin No. 4 of the Department of Labor, issued in May, 1896. Subsequently the supreme court granted a rehearing in the case upon the question as to what effect section 11 of article 15 of the State constitution had upon the statute (section 697 of the Compiled Statutes of 1887) on which the former decision in the case hinged. Section 697 of the Compiled Statutes of 1887 reads as follows:

That in every case the liability of the corporation to a servant or employee acting under the orders of his superior shall be the same in case of injury sustained by default or wrongful act of his superior, or to an employer not appointed or controlled by him, as if such servant or employee were a passenger.

The material part of section 11 of article 15 of the constitution of the State is as follows:

And no company or corporation formed under the laws of any other country, State or Territory, shall have, or be allowed to exercise, or enjoy within this State any greater rights or privileges than those possessed or enjoyed by corporations of the same or similar character created under the laws of the State.

Upon this rehearing the supreme court rendered its decision April 13, 1896, reversing its former decision and declaring that section 697 was annulled by section 11 of article 15 of the constitution.

The opinion of said court was delivered by Judge Hunt, and in the course of the same he states, in effect, that section 697 of the Compiled Statutes is to be found first as section 20 of "An act to provide for the formation of railroad corporations in the Territory of Montana," passed over the governor's veto on May 7, 1873 (Laws Mont., 1873, ex. sess., p. 93 et seq.), and that an examination of the various sections of the act, taken in connection with its title above quoted, showed that the act applied to domestic railroad corporations only. The judge then continues, and the following is quoted therefrom:

Holding, therefore, that section 697 applied to domestic railroad corporations only, what effect did the adoption of the constitution have upon that section? No comment is necessary to demonstrate that a rule of liability by which a domestic railroad company may suffer heavily for negligence of an employee, where another, but foreign, railroad corporation can not be made liable at all for like negligence, is the imposition of a burden upon the former, and not upon the latter. Whether the legislature of the State may impose such different burdens is immaterial to the question under consideration. Without deciding that question, it may be here assumed they can. Still, our examination will not go beyond the point of ascertaining whether the constitution by section 11, article 15, supra, has annulled section 697, or whether it has extended it so that it has become applicable to all railroad companies, foreign and domestic.

The learned counsel for the respondent argues that section 11 is self-executing. We agree with him in that contention, but not to the extent he would apply the doctrine of self-execution. The prohibition lays down a principle of protection to domestic corporations that at once, upon the adoption of the constitution and the admission of the State, became a sufficient rule by means of which the rights and privileges possessed, by domestic companies were and are protected against legislative or other discriminations extending the possession or enjoyment of rights or privileges to foreign corporations greater than those already possessed or those that may be attempted to be granted by any future action. To this extent the provision was completely self-executing, and no legislation was required to give the prohibition full force and operation. *Cooley, Const. Lim.*, p. 99.

But we can not assent to respondent's position that the object of the constitutional provision was to establish uniformity with respect to the two classes of corporations by making laws that were applicable only to the domestic class at the time of the adoption of the constitution extend to the foreign class, in order to make an equal liability for all, or that the clause does establish uniformity by so operating upon such Territorial laws. As said, the inhibition at once, by itself, prevented the discriminations; but there is no affirmative language, and no intent, by the words used, to extend to foreign companies the burdens, rights, and privileges imposed or granted by law to domestic corporations. In this respect legislation must be had to affect such corporations by force of law. By section 1 of the schedule of the constitution all laws enacted by the legislative assembly of the Territory and in force at the time the State was admitted into the Union, and not

inconsistent with the constitution, should be and remain in full force as the laws of the State until altered or repealed, or until expired by their own limitation. This provision is likewise self-executing. By it, rights were preserved. It operated of itself to keep in force a system of laws for the government of the State, unless such laws were inconsistent with the constitution. But, as to any such repugnant statutes, it operated as an effective repeal, for, when the constitution became the fundamental law, acts in conflict with it yielded, and when the question of a conflict is presented to the court, and the conflict clearly appears, the statute must be decided to be inoperative and void. Cooley, Const. Lim., p. 58. As the supreme court of Illinois has very recently said, by way of repetition of one of its earlier decisions:

"The understanding with all persons is that a law passed, either before or after the adoption of the constitution, which is repugnant to its provisions, must be held to be of no valid force, and precisely as if it had been repealed before the performance of the act." *Washington Home of Chicago v. City of Chicago*, 157 Ill. 414, 41 N. E., 893.

From these views it follows that the prohibition clause against any discrimination against a domestic corporation is self-executing as a prohibition but not as an affirmative imposition upon or securement to foreign companies of the rights or privileges expressly only accorded by the State laws to domestic companies. It also follows that by section 697 a greater burden was put upon appellant than was placed upon a foreign company of a similar character. The statute therefore, being inconsistent with the constitution, was annulled by the adoption of the constitution.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES—FELLOW-SERVANTS—*Gulf, C. and S. F. Ry. Co. v. Warner*. 35 *Southwestern Reporter*, page 364.—This action was brought by Charles C. Warner against the Gulf, Colorado and Santa Fe Railway Company to recover damages for injuries received by the plaintiff while in the employ of said company. Judgment was given for the plaintiff in the lower court, and the defendant appealed to the court of civil appeals of Texas, and said court certified the case to the supreme court of the State, which rendered its decision April 27, 1896.

The opinion of the supreme court was delivered by Judge Denman, and contains a statement of the facts in this case, and a clear and definite interpretation of the fellow-servants act of 1893 (chap. 91, acts of 1893), which repealed the fellow-servants act of 1891 (chap. 24, acts of 1891), and upon which the result of this action hinged.

Said opinion, practically in full, reads as follows:

The court of civil appeals have certified to this court a question and explanatory statement, as follows:

"On the 7th day of October, 1893, appellee, an employee of appellant, at that time, while engaged with his duties as switchman in the railroad yards of appellant, in Cleburne was injured by a car passing over and crushing his leg. The car that inflicted the injury was being pushed by a locomotive in charge of a switch engineer, who was an employee of appellant, and while switching was being done by a switch crew of which both appellee and the switch engineer were members.

The switch crew consisted of a foreman, the engineer, the fireman, and switchmen. The foreman directed the switching, as it was his duty to do. The engineer had no authority or control over the switchmen. The switchmen were in the transportation department, and the switch engineer in the mechanical department. The yard master employed and discharged the switchmen, and the master mechanic employed and discharged the engineers. The duties of an engineer require skilled labor, and the duties of a switchman do not.

“On motion: Was the switch engineer a fellow-servant of the switchman who was injured, under the provisions of the fellow-servants act of 1893?”

The act referred to, as far as it affects the question certified, is as follows:

“An act to define who are fellow-servants, and who are not fellow-servants, and to prohibit contracts between employer and employees, based upon contingency of the injury or death of the employees, limiting the liability of the employer for damages.

“SECTION 1. *Be it enacted by the legislature of the State of Texas,* That all persons engaged in the service of any railway corporation, foreign or domestic, doing business in this State, or in the service of a receiver, manager, or of any person controlling or operating such corporation, who are intrusted by such corporation, receiver, or person in control thereof, with the authority of superintendence, control, or command of other persons in the employment of such corporation, or receiver, manager, or person in control of such corporation, or with the authority to direct any other employee in the performance of the duty of such employee, are vice principals of such corporation, receiver, manager, or person controlling the same, and are not fellow-servants of such employee.

“SEC. 2. That all persons who are engaged in the common service of such railway corporation, receiver, manager, or person in control thereof, and who, while so employed, are in the same grade of employment, and are working together at the same time and place, and to a common purpose, neither of such persons being intrusted by such corporation, receiver, manager, or person in control thereof, with any superintendence or control over their fellow-employees, or with the authority to direct any other employee in the performance of any duty of such employee, are fellow-servants with each other: *Provided,* That nothing herein contained shall be so construed as to make employees of such corporation, receiver, manager, or person in control thereof, fellow-servants with other employees engaged in any other department or service of such corporation, receiver, manager, or person in control thereof. Employees who do not come within the provisions of this section shall not be considered fellow-servants.” Gen. Laws, 1893, p. 120.

It will be observed that the caption of the act declares its purpose to be “to define who are fellow-servants and who are not fellow-servants,” and that section 2 completely accomplishes such purpose by first defining who are fellow-servants, and then declaring that “employees who do not come within the provisions of this section shall not be considered fellow-servants.” This section divides all employees into fellow-servants, and nonfellow-servants, and gives the distinctive characteristics of the former, but not of the latter. The purpose of the statute was accomplished by limiting and definitely determining the employees who should thereafter be classed as fellow-servants, for whose negligence the employer should not be responsible to another fellow-servant; and it was unnecessary to deal further with such employees as did not come

within this statutory definition of fellow-servants, for the employer would be responsible for their negligence, whether they be termed agents, vice principals, or otherwise.

The distinctive characteristics prescribed by the statute as essential to be found concurring and common to two or more employees in order to constitute them fellow-servants are: First. They must be "engaged in the common service." As here used, "service" means the thing or work being performed for the employer at the time of the accident, and out of which it grew, and "common" means that which pertains equally to the employees sought to be held fellow-servants; and, therefore, "common service" means the particular thing or work being performed for the employer, at the time of the accident, and out of which it grew, jointly, by the employees sought to be held fellow-servants.

The members of a crew running a train, though each be in the performance of different acts in reference thereto, are all "engaged in the common service," for they are jointly performing the thing or work of managing the train for the employer; but they would not be "engaged in the common service" with the members of a crew running another train for the employer over the same road, for one crew would be jointly performing the thing or work of managing one train, while the other would be jointly performing the thing or work of managing the other train. We therefore conclude that the engineer and switchman were "engaged in the common service."

Second. They must be "in the same grade of employment." "Grade" means the rank or relative positions occupied by the employees while "engaged in the common service." This definition, however, gives us no certain means of determining whether given employees are in the same or different grades, for it furnishes no test by which their respective ranks or relative positions "in the common service" can be ascertained. In the absence of a statutory test, the grade would have depended upon the test which might have been adopted by the courts, such as authority one over the other, order of promotion, skill in the service, compensation received, etc. We are of the opinion that the legislature anticipated and settled this difficulty in the construction of the word "grade" by the use of the clause, "neither of such persons being intrusted * * * with any superintendence or control over their fellow-employees," etc., as explanatory of what was meant by the clause "in the same grade;" thus adopting the most natural test of grade in the construction of the statute, authority one over the other while "engaged in the common service." Probably the most serious difficulty in arriving at the conclusion that one clause was intended as merely explanatory of the other is the fact that the explanatory clause does not immediately follow the one it explains; but this objection is removed when we consider that, in the original section, as enacted in 1891, the qualifying clause immediately follows the words "same grade," and was evidently intended to explain their meaning. Since the engineer had no authority or control over the switchman, and vice versa, while "engaged in the common service," we conclude that they were "in the same grade of employment."

Third. They must be "working together at the same time and place." While "at" indicates nearness in time and place, it does not demand an exact coincidence as to either, but only that it shall be sufficiently so to afford the employees a reasonable opportunity of observing the conduct of each other, with a view of guarding themselves against injury therefrom. We are of the opinion that the engineer and switchman were working together at the same time and place at the time of the accident.

Fourth. They must be working "to a common purpose." By this is meant that the acts required of each in the performance of his duties at the time of the accident must be in furtherance of "the common service." We are of the opinion that the engineer in managing the engine, and the switchman in performing his duties, both having in view the switching of the cars, were working to a "common purpose." When these four distinguishing characteristics are found concurring and common to two or more employees, they must be held fellow-servants under the statute; otherwise, not.

It is urged that the proviso adds, as another distinguishing characteristic, that they must be in the same department. A proviso may be inserted for the purpose either of adding something to, or of insuring a certain construction of, the preceding language of the statute. This proviso bears upon its face unmistakable evidence of having been inserted for the latter purpose. It says: "Provided nothing herein contained shall be so construed as to make employees * * * fellow-servants with other employees engaged in any other department or service," and to complete the idea we may add the words "than the common service" above specified. The words "department or service," as here used, merely means a subdivision of business, as running a train, clearing away a wreck, repairing a track, etc., and, if employees are, at the time of the accident, engaged in the same subdivision of business, they are also "engaged in the common service," as we have hereinbefore construed that term. In other words, the proviso was merely intended to insure the strict construction above given by us to the words "engaged in the common service." In so far as section 1 of the act bears upon the question of "who are fellow-servants and who are not fellow-servants," we can not see that it adds anything to section 2. It merely selects a certain class of employees, who are non-fellow-servants under the terms of section 2, and declares that they are vice principals. It results that we must answer the question certified in the affirmative.

WEIGHING COAL AT MINES—CONSTITUTIONALITY OF STATUTE—*Harding et al. v. People. 43 Northeastern Reporter, page 624.*—William Harding and another were convicted of a crime in the circuit court of Vermilion County, Ill., and brought their case before the supreme court of the State on a writ of error. Said court rendered its decision March 30, 1896, and reversed the judgment of the lower court. The facts in the case are given in the opinion of the supreme court, delivered by Judge Cartwright, which reads as follows:

Plaintiffs in error were indicted and convicted for a violation of the act requiring the weighing of coal at mines, in force July 1, 1887, as amended by act in force July 1, 1891. Some of the counts upon which they were found guilty charged them with a failure to weigh all the coal delivered from the mine, and others charged them with not keeping a correct record of the weight of each miner's car. The portion of the act under which the prosecution was had, material to the same, is as follows:

"SECTION 1. That the owner, agent, or operator of every coal mine in this State at which miners are paid by weight, shall provide at such mines suitable and accurate scales of standard manufacture for the weighing of all coal which shall be hoisted or delivered from such mines.

"SEC. 2. All coal so delivered from such mines shall be carefully weighed upon the scales as above provided, and a correct record shall be kept of the weight of each miner's car, which record shall be kept open at all reasonable hours for the inspection of all miners or others pecuniarily interested in the product of such mine. The person designated and authorized to weigh the coal and keep such record shall, before entering upon his duties, make and subscribe to an oath before some magistrate or other officer authorized to administer oaths, that he will accurately weigh and carefully keep a true record of all coal delivered from such mine, and such oath shall be kept conspicuously posted at the place of weighing.

"SEC. 5. Any person, owner or agent, operating a coal mine in this State who shall fail to comply with all the provisions of this act, or who shall obstruct or hinder the carrying out of its requirements, shall be fined for the first offense not less than fifty dollars (\$50) nor more than two hundred dollars (\$200); for the second offense not less than two hundred dollars (\$200) nor more than five hundred dollars (\$500); and for a third offense not less than five hundred dollars (\$500), or be imprisoned in the county jail not less than six months nor more than one year: *Provided*, That the provisions of this act shall apply only to coal mines whose product shall be shipped by rail or water."

The constitutionality of this act is challenged by plaintiffs in error, and this is the only question that will be considered, although the application of the statute to this case is disputed, and questions of variance and of error in giving and refusing of instructions are also raised. It is objected that the act is in violation of section 2 of article 2 of our constitution, which provides that no person shall be deprived of life, liberty, or property without due process of law, because it singles out operators of one class of coal mines and imposes restrictions upon them not required to be borne by operators of other mines, or by persons engaged in other business, and also by interfering with the right of employer and laborer to contract with each other. The Consolidated Coal Company had owned and operated the mine where plaintiffs in error were employed for six or seven years. The greater part of its product was shipped from the mine by rail, on the Wabash Railroad, and sold in other markets. All the coal so shipped was correctly weighed on scales of standard manufacture by the company, at the mine, before being dumped into the railroad cars, and a correct record was made of the weight of each miner's car, and that record was posted and kept open at all reasonable hours for the inspection of the miners or any person interested. During this time the company had also furnished the Wabash Railroad Company with coal for its locomotives, which was delivered at the mine, into tenders of the locomotives, as they stopped there for coal. There were about 250 miners employed, and the average output of the mine was from 700 to 950 tons of screened coal per day. The miners were paid 55 cents per ton for screened coal. About the last 100 miners' cars that came up in the evening of each day would be placed on the storage tracks, for the purpose of coaling the locomotives during the night and the next day. This last coal was not weighed, but each miner was given the average weight of the cars sent up by him and weighed during the day as the weight of his last car, crediting him with the average weight of the cars mined by him that day that had been actually weighed. By the act under consideration its provisions are applied only to coal mines whose produce is shipped by rail or water, and the learned attorney-general and counsel for the people construe the provision as making

the law applicable to each mine where the major portion of its product is so shipped. However that may be, it is plain that the act not only singles out the operator of a mine, and imposes restrictions and burdens upon him as to the use and enjoyment of his property that are not imposed upon other branches of business similarly situated and conducted, but it divides the operators of mines and only applies its provisions to those whose product is shipped in a certain manner. In the various constitutions the phrases "due process of law" and "the law of the land" are used interchangeably, sometimes one being employed and sometimes the other; but they are synonymous, and the meaning is the same in every case. *Cooley, Const. Lim.*, 353. In *Millett v. People*, 117 Ill., 294, 7 N. E., 631, it was said of this phrase, "And this means general public law, binding upon the members of the community, under all circumstances, and not partial or private laws, affecting the rights of private individual or classes of individuals," citing *James v. Reynolds*, 2 Tex., 251; *Wynehemer v. People*, 13 N. Y., 376; *Vanzant v. Waddel*, 2 Yerg., 269. And the same declaration was made in *Frerer v. People*, 141 Ill., 171, 31 N. E., 395, where the statute prohibiting engaging in keeping a truck store was held unconstitutional, and in *Braceville Coal Co. v. People*, 147 Ill., 66, 35 N. E., 62, where the same conclusion was reached as to an act to provide for the weekly payment of wages by a corporation.

The right to enact such a statute does not arise out of the police power, where much latitude is allowed in determining what may tend to insure the comfort, safety, or welfare of society; and it is not authorized by section 29 of article 4 of the constitution, providing for laws to secure safety to coal miners. *Millett v. People*, supra. Each person subject to the laws has a right that he shall be governed by general public rules. Laws and regulations entirely arbitrary in their character, singling out particular persons not distinguished from others in the community by any reason applicable to such persons, are not of that class. Distinctions in rights and privileges must be based upon some distinction or reason not applicable to others. In *Braceville Coal Co. v. People*, supra, it is said: "And it is only when such distinctions exist that differentiate in important particulars, persons or classes of persons from the body of the people, that laws having operation only on such particular persons or classes of persons have been held to be valid enactments." No possible reason or distinction affecting any interest, justifying the division of mines made by the act, has been suggested, except that it might be intended to reach mines in which the larger number of miners were employed. But this is not the division or distinction made, and does not in any manner follow from such division. It is not the language or purport of the act, and, if such had been the intention of the legislature, it would certainly have been made manifest by basing the division or distinction upon the number of miners employed. The act applies equally to the owner of a small mine, where the product may not exceed a carload per day, and the owner of a mine such as that of the Consolidated Coal Company. The distinction is based solely upon the fact of the product being shipped by rail or water, and counsel have been able to suggest no reason why the legislature should require the product of such a mine to be weighed in the manner specified, and not that of another mine where the product is sold on the spot. The distinction between operators who sell their product at the mine to some shipper, who ships it away to the market, and those who themselves ship their coal by rail or water, is purely arbitrary. Any reason that would apply to one, calling for a restriction upon the manner of doing business, would be equally appli-

cable to the other; and special burdens and restrictions upon one class, not imposed upon the other, constitute an arbitrary deprivation of rights. As the act makes that an offense, if committed by a person engaged in one branch of mining, which, if done by persons in another branch of the same business, is lawful, without any reason for distinction between the two, we must regard it as unconstitutional.

In *Millett v. People*, supra, and *Ramsey v. People*, 142 Ill., 380, 32 N. E., 364, where provisions similar to those of the act now under consideration were held to be unconstitutional and void, the general right of the laborer and employer to contract in regard to the price of labor, and the method of ascertaining the price, was asserted; and the rule was laid down that any restriction upon that right is a deprivation of both liberty and property within the meaning of the constitutional provision. In view of the discussion of the principles involved in those cases, no extended statement of them will be necessary here. This act makes it an offense against the law for the employer and laborer, at any coal mine at which the miners are paid by weight, to determine upon the weight of any miner's car, or any lot of coal, by any other method than that pointed out by the statute. A failure to weigh a car, and to keep a correct record of the weight, renders the operator liable to the penalties prescribed by the act, although he and the laborer may have agreed upon the weight of the car, or contracted for other methods of determining the weight. This is well illustrated by the facts of this case. The last cars that came up in the evening of each day, designed for coaling the locomotives, would not be weighed until the coal was dumped into the tenders, so that the miners could not obtain the weights until the next day, and they wanted them the same evening. For this reason, and at the instance of the miners, it has been the custom for six years to give each miner the weight according to the system above stated. When the company attempted to change this system and weigh the coal, the miners objected, and insisted upon the custom of averaging weights. No objection was ever made by any miner to this manner of arriving at the weight, instead of weighing the cars on the scales. Here was an arrangement, amounting to a contract between the parties, with which all the contracting parties were satisfied, and the testimony upon which plaintiffs in error were convicted came from miners who left during the miners' strike of 1894, and were not again employed by the company. It seems that a law which deprives men engaged in the business of mining from contracting with each other for the purpose of ascertaining the weight of the coal mined, or the amount due them, in any manner mutually satisfactory, can not be sustained. That such is the effect of this law is the contention of counsel for the people, and it is only upon the assumption that the law does so control the power to contract that a conviction could have been had in this case; for, as already seen, the parties had contracted otherwise. This act takes away the freedom of contracting by the parties for the ascertainment of the weight of coal, except by a certain method; and, in our opinion, it is unconstitutional. The judgment will be reversed, and the cause remanded, with direction to the circuit court to discharge the defendants. Judgment reversed.

DECISIONS UNDER COMMON LAW.

CONSPIRACY—BOYCOTTS—*Oxley Stave Co. v. Coopers' International Union of North America et al.* 72 *Federal Reporter*, page 695.—This case was brought in the United States circuit court for the district of Kansas by a bill in equity filed by the Oxley Stave Company against

the Coopers' International Union of North America, Lodge No. 18, of Kansas City, Kans., the Trades Assembly of Kansas City, Kans., and various individuals named, who are officers and members of such organizations, and also against "all other persons who may be members of either of said organizations, their agents, attorneys, etc.," to enjoin them from inaugurating and maintaining a boycott against the use of packages, casks, barrels, etc., made by complainant by means of certain machines constituting part of its plant. The circuit court rendered its decision March 9, 1896, and allowed the injunction asked for. The opinion of said court was delivered by District Judge Foster, and the following is quoted therefrom:

This brings us to the question whether, under the allegations of the bill, which is verified, and the other evidence presented, the complainant is entitled to the relief prayed for. The material allegations of the bill are but partially controverted by the defendants. Indeed, they are substantially admitted. Much testimony was offered to show that barrels hooped by machinery were not as serviceable or as valuable as hand-hooped barrels. It also appears that there is some little difference in the price of such barrels; that a skilled workman can hoop 14 to 16 barrels per day by hand, and that the hooping machine does the work of about six or seven men; and that boys or young men, from 16 years upward, are employed, to some extent, in operating the machines. All of this cuts but little figure in the case. Whether the work of the machine is better or worse than the hand work is not material. The barrels are made and sold as machine work, and a price fixed accordingly, and the customer must decide whether or not he will buy them; and the complainant, in operating the machines in its business, is engaged in a legitimate enterprise, and defendants had no legal right to demand that it should cease operating them. There is some testimony tending to show that the reason the packing companies had not made contracts for these barrels for this year was not on account of the threatened boycott, but because they preferred hand-hooped barrels. The purchasing agent of Fowler Sons & Co., Limited (Robert McWhittaker), however, testified that a committee of the Coopers' Union and Trades Assembly notified him, if his company purchased machine-made barrels, they would boycott the contents of the barrels, and that such notice would tend to make his company very careful about purchasing machine-made barrels. The manager of Swift & Co. testified that his company was buying hand-made barrels on account of the threatened boycott. The following is a copy of the resolution of the Trades Assembly on the subject, and indicates the purpose of the defendant associations:

"To the officers and members of the Trades Assembly, greeting: Whereas, the cooperage firms of J. R. Kelley and the Oxley Cooperage Company have placed in their plants hooping machines operated by child labor; and whereas, said hooping machines is the direct cause of at least one hundred coopers being out of employment, of which a great many are unable to do anything else, on account of age,—at a meeting held by Coopers' Union No. 18 on the 31st of December, 1895, a committee was appointed to notify the above firms that unless they discontinued the use of said machines on and after the 15th of January, 1896, that Coopers' Union No. 18 would cause a boycott to be placed on all packages hooped by said machines, the 15th of January, 1896; and at a meeting held by Coopers' Union No. 18 on the 4th of January, 1896,

delegates were authorized to bring the matter before the Trades Assembly in proper form, and petition the Assembly to indorse our action, and to place the matter in the hands of their grievance committee, to act in conjunction with a committee appointed by Coopers' Union No. 18 to notify the packers before letting their contracts for their cooperage. Therefore, be it resolved, that this Trades Assembly indorse the action of Coopers' Union No. 18, and the matter be left in the hands of the grievance committee for immediate action.

"Yours, respectfully,

"J. L. COLLINS,

"*Secretary Coopers' International Union of N. A., Lodge No. 18.*"

James Cable, president of Coopers' Union, testified as follows:

Unless complainant ceased using the machines—

"That the boycott would be declared by the Coopers' Union upon the contents of the tierces and barrels hooped by machinery; meaning thereby that the members of the said Coopers' Union, and of its parent association, the Trades Assembly, would thereafter cease to purchase or use any of the commodities that were packed in machine-hooped tierces or barrels."

No one can question the right of the defendants to refuse to purchase machine-made packages, or of goods packed in them, or, by fair means, to persuade others from purchasing or using them. If that is all that is implied by a boycott, as insisted by defendants, it is difficult to see where they violate any law, although it might injure the complainant's business. It has been decided, however, that while such action would not be unlawful by an individual, a combination and conspiracy to accomplish the purpose would be an illegal act. In *Arthur v. Oakes*, 11 C. C. A., 209, 63 Fed., 321, 322, Mr. Justice Harlan says:

"It is one thing for a single individual, or for several individuals, each acting upon his own responsibility, and not in cooperation with others, to form the purpose of inflicting actual injury upon the property or rights of others. It is quite a different thing, in the eye of the law, for many persons to combine or conspire together with the intent not simply of asserting their right of accomplishing lawful ends by peaceable methods, but of employing their united energies to injure others or the public. An intent upon the part of a single person to injure the rights of others or of the public is not in itself a wrong of which the law will take cognizance, unless some injurious act be done in execution of the unlawful intent. But a combination of two or more persons with such intent, and under circumstances that give them, when so combined, a power to do an injury they would not possess as individuals acting singly, has always been recognized as in itself wrongful and illegal."

The term "boycott" has acquired a significance in our vocabulary, and in the literature of the law. The resolution of the defendant associations says, unless complainant discontinue the use of said machines on and after January 15, 1896, that Coopers' Union No. 18 would cause a boycott to be placed on all packages hooped by said machines. Just what action would be taken, the resolution does not state. It does not say the defendants would not purchase the packages, or the goods packed in them, but simply says a "boycott" would issue. That term implies that a general proscription of all articles so manufactured, and the goods packed in them, would be inaugurated and maintained by the power of these assemblies, wherever they could reach. It is fair to presume, from the resolution and other testimony, that the defendants

were determined to use all means, short of violence, to make the prescription effective. That has been the history of such proceedings in the past, and such is the meaning imputed to the use of the word "boycott." It has become a word carrying with it a threat and a menace, and was evidently so intended by this resolution. In *Thomas v. Railway Co.*, 62 Fed. 818-821, the court says:

"But the combination was unlawful, without respect to the contract feature. It was a boycott."

Again the court says:

"The combination under discussion was a boycott. It was so termed by Debs, Phelan, and all engaged in it. Boycotts, although unaccompanied by violence, have been pronounced unlawful in every State of the United States where the question has arisen, unless it be in Minnesota, and they are held to be unlawful in England."

The court further says:

"Boycotts have been declared illegal conspiracies in *State v. Glidden*, 55 Conn. 46, 8 Atl. 890; in *State v. Stewart*, 59 Vt. 273, 9 Atl. 559; *Steamship Co. v. McKenna*, 30 Fed. 48; *Casey v. Typographical Union*, 45 Fed. 135; *Toledo A. A. & N. M. Ry. Co. v. Pennsylvania Co.* 54 Fed. 730, and in other cases."

From these authorities we reach the conclusion that complainant is entitled to the relief prayed for. The labor-saving machines which modern invention has brought into every industry in life excite our wonder and admiration, but our enthusiasm is subdued by the thought that the machines must largely drive the skilled laborer out of a field he has spent years to fit himself for, and upon which, more or less, depends the means of livelihood for himself and his family; and yet it is a hopeless task for the laborer to contend against the use of machinery, wherever it can be utilized. Labor can only adjust itself to the constant progress made in all the mechanical pursuits, and it has been well said that, despite all the inventions to save hand work, there never was a time when the laborer was paid better, or had greater advantages, than he has to-day. The injunction will be allowed as prayed for by complainant.

CONSPIRACY—UNLAWFUL COMBINATIONS—*Elder et al. v. Whitesides et al.* 72 *Federal Reporter*, page 724.—This case was brought by a bill in equity filed in the United States circuit court for the eastern district of Louisiana by Elder, Dempster & Co., of Liverpool, England, owners of certain steamboats, against William Whitesides and others, citizens of Louisiana. The bill alleged the existence of an unlawful combination and conspiracy, on the part of the defendants, to prevent the loading or unloading of complainants' steamboats at Gretna, La., except by such labor as might be acceptable to said defendants; that such combination and conspiracy absolutely prevented complainants from loading or unloading their steamers at said port of Gretna by other than the said defendants and their confederates. An injunction was asked restraining the defendants from continuing their said combination and conspiracy. The court rendered its decision March 22, 1895, and granted the injunction asked for.

The opinion of the court was delivered by District Judge Parlange, and the following is quoted therefrom:

The defendants have been granted all the time which they have requested to present their side of the case. The argument made by their counsel may be divided under four heads. He urged: First, that there is no allegation or proof of any overt act committed by the defendants against the particular vessel mentioned in the bill; second, that a court of equity can not enjoin crime; third, that no damages have actually been inflicted upon the vessel; and, fourth, that the proof of conspiracy is insufficient.

In a recent case decided by the United States circuit court of appeals, seventh circuit (*Arthur v. Oakes*, 11 C. C. A., 209; 63 Fed., 310), in which Mr. Justice Harlan was the organ of the court, all the law points made by the counsel for the defendants have been passed upon, clearly and distinctly. In speaking of combinations and conspiracies, Mr. Justice Harlan said:

"According to the principles of the common law, a conspiracy upon the part of two or more persons, with the intent by their combined power, to wrong others, or to prejudice the rights of the public, is in itself illegal, although nothing be actually done in the execution of such conspiracy. This is fundamental in our jurisprudence. So, a combination or conspiracy to procure an employee or body of employees to quit service, in violation of the contract of service, would be unlawful, and, in a proper case, might be enjoined, if the injury threatened would be irreparable in law. It is one thing for a single individual or for several individuals, each acting upon his own responsibility, and not in cooperation with others, to form the purpose of inflicting actual injury upon the property or rights of others. It is quite a different thing, in the eye of the law, for many persons to combine or conspire together with the intent, not simply of asserting their rights or of accomplishing lawful ends by peaceable methods, but of employing their united energies to injure others or the public. An intent upon the part of a single person to injure the rights of others or of the public is not in itself a wrong of which the law will take cognizance, unless some injurious act be done in execution of the unlawful intent. But a combination of two or more persons with such an intent, and under circumstances that give them, when so combined, a power to do an injury they would not possess as individuals acting singly, has always been recognized as in itself wrongful and illegal."

The justice cites approvingly the language of another court, as follows:

"There is nothing in the objection that to punish a conspiracy where the end is not accomplished would be to punish a mere unexecuted intention. It is not the bare intention that the law punishes, but the act of conspiring, which is made a substantive offense by the nature of the object to be affected." *State v. Buchanan*, 5 Har. and J., 317.

The justice further said:

"The authorities all agree that a court of equity should not hesitate to use this power [injunction] when the circumstances of the particular case in hand require it to be done in order to protect rights of property against irreparable damages by wrongdoers. * * * That some of the acts enjoined would have been criminal, subjecting the wrongdoers to actions for damages or to criminal prosecution, does not, therefore, in itself determine the question as to interference by injunction. If the acts stopped at crime, or involved merely crime, or if the injury threatened could, if done, be adequately compensated in damages,

equity would not interfere. But as the acts threatened involve irreparable injury to and destruction of property for all the purposes for which the property was adapted, as well as continuous acts of trespass, to say nothing of the rights of the public, the remedy at law would have been inadequate. 'Formerly,' Mr. Justice Story says, 'courts of equity were extremely reluctant to interfere at all, even in regard to cases of repeated trespasses. But now there is not the slightest hesitation, if the acts done or threatened to be done to the property would be ruinous, irreparable, or would impair the just enjoyment of the property in future. If, indeed, courts of equity did not interfere in cases of this sort, there would, as has been truly said, be a great failure of justice in this country.'

So far as the question of jurisdiction is concerned, it is clearly settled, both by *Arthur v. Oakes*, supra, and by the decision of the United States circuit court of appeals of this (the fifth) circuit. *Hagan v. Blindell*, 6 C. C. A., 86; 56 Fed., 696. In both of those cases the jurisdiction depended entirely, as in the case at bar, upon the diverse citizenship of the parties and the equitable powers of the court.

The decisions above referred to clearly dispose of all the law points raised by defendants' counsel. The proof of conspiracy is made out by the affidavits offered by complainants. The only proof offered by the defendants is their affidavit, which confines itself to a denial that they interfered with the complainants or prevented the loading of the vessel *Niagara*, or caused damages to the complainants. This seems to be in line with the argument of their counsel, and to be based upon the theory that the jurisdiction of the court depends upon unlawful overt acts having been committed against the particular vessel mentioned in the bill, and upon actual damages having been caused the complainants, prior to the application for the injunction. There is no denial of the agreement or conspiracy to do the unlawful things charged in the bill, which conspiracy is the gravamen of the case. The preliminary injunction must issue.

EMPLOYERS' LIABILITY—FELLOW-SERVANTS—*Southern Pacific Co. v. McGill*. 44 *Pacific Reporter*, page 302.—Action was brought in the district court of Pima County, Ariz., by William McGill against the Southern Pacific Company to recover damages for injuries sustained while in the employ of said company. Judgment was rendered for McGill and the company appealed the case to the supreme court of the Territory of Arizona, which affirmed the judgment of the lower court. The court, however, granted a rehearing, and as a result of the same rendered a decision February 10, 1896, reversing the judgment of the lower court. The facts of the case were as follows:

McGill, hereinafter referred to as "the plaintiff," was a section foreman in the employ of the defendant company. He was directed by the roadmaster to go to a point on the track 6 or 7 miles west of a section called "Pantano," and there to grade and lay a track in order to raise an engine which had been derailed. He went there with his men and tools and worked part of a day, when the civil engineer in charge directed him and his men to get on the work train. They did so, and

the train started, and had not gone over three-quarters of a mile when it collided with a passenger train and the plaintiff was seriously injured about the head. The charge was made in the complaint that Barrett, the conductor of the work train, ran the train negligently, and with want of care and attention to his duty, and so caused the accident.

The opinion of the supreme court was delivered by Chief Justice Baker, and contains the following:

The following instruction was given to the jury for the plaintiff: "The court instructs the jury that the conductor of a railway train, who commands its movements, directs when it shall start, at what station it shall stop, and has the general management of it, and control over the persons employed on it, represents the railway company; and is not a fellow-servant with a section foreman in the employ of said company. If the jury believe from the evidence that John Barrett was the conductor of the train upon which plaintiff was, and had the powers just stated regarding such train, the court instructs the jury that Barrett was not a fellow-servant with the plaintiff."

This instruction was not altered, changed, or modified by any instruction subsequently given, and, being objected to and duly assigned as error, constitutes the pivotal point in the case. There is an endless diversity of opinion upon this "fellow-servant" doctrine in the decisions of the various courts in this country. The cases are too numerous to cite, and it would be an idle effort to attempt to reconcile or distinguish them. I can do no better than to deduce one or two propositions applicable to the facts at bar, which the decided weight of all the cases authorizes.

(1) A person entering upon the service of a corporation assumes all the risk naturally incident to his employment, including the dangers which may arise from the negligence of a fellow-servant.

(2) That the master's liability does not depend upon gradations in the employment, unless the superiority of the person causing the injury was such as to make him principal or vice principal.

(3) The liability of the master does not depend upon the fact that the servant injured may be doing work not identical with that of the wrongdoer. The test is, the servant must be employed in different departments, which in themselves are so distinct and separate as to preclude the probability of contact and of danger of injury by the negligent performance of the duties of the servant in the other department.

In the case at bar the plaintiff and Barrett, the conductor, were brought together at the same time and place, and closely associated in the discharge of their respective duties. The very work which the plaintiff engaged to do necessitated the constant use of a train, such as the one in use at the time of the collision, to transport laborers, tools, materials, supplies, etc., to the place of operations; and he must be held to have contemplated its use when he accepted the employment. He was at work when riding upon this train in going to and from the point where the wreck occurred, just as much as he was when he was actually engaged in raising the derailed engine. Both he and the conductor were engaged in a common purpose and object—the clearing of the track and the raising of the fallen engine.

The labors of both contributed to and were intended to effect that immediate and present result. Both had a common master. That there was some gradation—some difference in the work of the two—is not the test. The departments must be so distinct and separate

within themselves as to preclude the probability of contact and of danger to one servant in one department by reason of the negligence of another servant in another department. This can not be said of the plaintiff's and Barrett's employment.

The plaintiff's labors constantly exposed him to the dangers of running and moving the work train, and he must be held to have assumed the risk of such dangers.

The giving of the instructions quoted was reversible error, since, upon the facts, the conductor of the work train and the plaintiff were fellow-servants. The judgment is reversed and a new trial is ordered.

EMPLOYERS' LIABILITY—FELLOW-SERVANTS—*Northern Pacific R. R. Co. v. Peterson.* 16 *Supreme Court Reporter*, page 843.—This action was commenced by Peterson in the United States circuit court for the district of Minnesota, fourth division, to recover damages for injuries sustained while in the employ of the railroad company. The facts in the case were as follows:

The plaintiff, a day laborer, was employed on an extra gang, amounting in numbers to thirteen men, with one Holverson as foreman, at a place called "Old Superior," a station on the line of the defendant's road. Holverson had power to employ men, and also to discharge them. The men were taken each morning on hand cars to the place where they were to work during the day, and when the work was finished were brought back.

The members of the gang themselves worked the hand cars, Holverson generally occupying a place on the front hand car and taking care of the brakes. He always went with the gang, superintended their work, even if taking no part in the actual manual labor, and came home with them at the end of the day's labor. When the accident occurred Holverson held his accustomed place on the front hand car, at the brakes, and Peterson was on the same car. While going around a curve in the track Holverson thought he saw some object in front of him and applied the brakes suddenly, in consequence of which the car was abruptly stopped. He gave no warning of his intention, and the rear car was following so closely that it could not stop before running into the car ahead, the result of which was that the first car was thrown from the track, throwing the plaintiff Peterson off the car and injuring his leg by having the rear car run over it. Upon these facts the jury returned a verdict in favor of Peterson, and the case was taken by the railroad company to the United States circuit court of appeals for the eighth circuit upon a writ of error. Said court affirmed the judgment of the court below, and the railroad company then carried the case on writ of error to the United States Supreme Court, which rendered its decision April 13, 1896, reversing the judgments of the lower courts and ordering a new trial.

The opinion of said court was delivered by Mr. Justice Peckham, and the following is quoted therefrom:

The sole question for our determination is whether Holverson occupied the position of fellow-servant with the plaintiff below. If he did, then this judgment is wrong, and must be reversed.

By the verdict of the jury, under the charge of the court, we must take the fact to be that Holverson was foreman of the extra gang for the defendant company, and that he had charge of and superintended the gang in the putting in of the ties, and assisting in keeping in repair the portion of the road included within the three sections; that he had power to hire and discharge the hands in his gang, then amounting to thirteen in number, and had exclusive charge of the direction and management of the gang in all matters connected with their employment; that the plaintiff below was one of the gang of hands so hired by Holverson, and was subject to the authority of Holverson in all matters relating to his duty as laborer. Upon these facts the courts below have held that the plaintiff and Holverson were not fellow-servants in such a sense as to preclude plaintiff recovering from the railroad company damages for the injuries he sustained through the negligence of Holverson, acting in the course of his employment as such foreman.

In the course of the review of the judgment by the United States circuit court of appeals, that court held that the distinction applicable to the determination of the question of a coemployee was not "whether the person has charge of an important department of the master's service, but whether his duties are exclusively those of supervision, direction, and control over a work undertaken by the master, and over subordinate employees engaged in such work, whose duty it is to obey, and whether he has been vested by the common master with such power of supervision and management." Continuing, the court said that "the other view that has been taken is that whether a person is a vice principal is to be determined solely by the magnitude or importance of the work that may have been committed to his charge; and that view is open to the objection that it furnishes no practical or certain test by which to determine in a given case whether an employee has been vested with such departmental control or has been 'so lifted up in the grade and extent of his duties' as to constitute him the personal representative of the master. That this would frequently be a difficult and embarrassing question to decide, and that courts would differ widely in their views, if the doctrine of departmental control was adopted, is well illustrated by the case of *Borgman v. Railway Co.*, 41 Fed., 667, 669. We are of the opinion, therefore, that the nature and character of the respective duties devolved upon and performed by persons in the same common employment, should, in each instance, determine whether they are, or are not, fellow-servants, and that such relation should not be deemed to exist between two employees, when the function of one is to exercise supervision and control over some work undertaken by the master which requires supervision, and over subordinate servants engaged in that work, and where the other is not vested by the master with any such power of direction or management." 4 U. S. App., 574, 578; 2 C. C. A., 157; 51 Fed., 182.

The court thereupon affirmed the judgment.

It seems quite plain that Holverson was not the "chief" or "superintendent" of a separate and distinct department or branch of the business of the company, as such term is used in those cases where a liability

is placed upon a company for the negligence of such an officer. We also think that the ground of liability laid down by the courts below is untenable.

The general rule is that those entering into the service of a common master become thereby engaged in a common service, and are fellow-servants; and, *prima facie*, the common master is not liable for the negligence of one of his servants which has resulted in an injury to a fellow-servant. There are, however, some duties which a master owes, as such, to a servant entering his employment. He owes the duty to provide such servant with a reasonably safe place to work in, having reference to the character of the employment in which the servant is engaged. He also owes the duty of providing reasonably safe tools, appliances, and machinery for the accomplishment of the work necessary to be done. He must exercise proper diligence in the employment of reasonably safe and competent men to perform their respective duties, and it has been held in many States that the master owes the further duty of adopting and promulgating safe and proper rules for the conduct of his business, including the government of the machinery, and the running of trains on a railroad track.

If the master be neglectful in any of these matters, it is a neglect of a duty which he personally owes to his employee, and, if the employee suffer damage on account thereof, the master is liable.

If, instead of personally performing these obligations, the master engages another to do them for him, he is liable for the neglect of that other, which in such case is not the neglect of a fellow-servant, no matter what his position as to other matters, but is the neglect of the master to do those things which it is the duty of the master to perform as such.

In addition to the liability of the master for his neglect to perform these duties, there has been laid upon him by some courts a further liability for the negligence of one of his servants in charge of a separate department or branch of business, whereby another of his employees has been injured, even though the neglect was not of that character which the master owed, in his capacity as master, to the servant who was injured. In such case it has been held that the neglect of the superior officer or agent of the master was the neglect of the master, and was not that of the coemployee, and hence that the servant, who was a subordinate in the department of the officer, could recover against the common master for the injuries sustained by him under such circumstances. It has been already said that Holverson sustained no such relation to the company, in this case, as would uphold a liability for his acts based upon the ground that he was a superintendent of a separate and distinct branch or department of the master's business.

It is proper, therefore, to inquire what is meant to be included by the use of such a phrase.

A leading case on this subject in this court is that of *Railway Co. v. Ross*, 112 U. S., 377, 5 Sup. Ct., 184. In that case a railroad corporation was held responsible to a locomotive engineer in the employment of the company for damages received in a collision which was caused by the negligence of the conductor of the train drawn by the engine of which the plaintiff was engineer. This court held the action was maintainable, on the ground that the conductor, upon the occasion in question, was an agent of the corporation, clothed with the control and management of a distinct department, in which his duty was entirely that of direction and superintendence; that he had the entire control and management of the train, and that he occupied a very different position from the brakemen, porters, and other subordinates employed

on it; and that he was in fact, and should be treated as, a personal representative of the corporation, for whose negligence the corporation was responsible to subordinate servants. The engineer was permitted to recover on that theory. These facts give some indication of the meaning of the phrase.

In the above case the instruction given by the court at the trial to which exception was taken was in these words: "It is very clear, I think, that if the company sees fit to place one of its employees under the control and direction of another, that then the two are not fellow-servants engaged in the same common employment, within the meaning of the rule of law of which I am speaking." That instruction, thus broadly given, was not, however, approved by this court in the Ross case. Such ground of liability—mere superiority in position, and the power to give orders to subordinates—was denied. What was approved in that case, and the foundation upon which the approval was given, is very clearly stated by Mr. Justice Brewer in the course of his opinion delivered in the case of *Railroad Co. v. Baugh*, 149 U. S., 368, 13 Sup. Ct., 914, at page 380, 149 U. S., and page 914, 13 Sup. Ct., and the following pages. In the *Baugh* case it is also made plain that the master's responsibility for the negligence of a servant is not founded upon the fact that the servant guilty of neglect had control over, and a superior position to that occupied by, the servant who was injured by his negligence. The rule is that, in order to form an exception to the general law of nonliability, the person whose neglect caused the injury must be "one who was clothed with the control and management of a distinct department, and not a mere separate piece of work in one of the branches of service in a department." This distinction is a plain one, and not subject to any great embarrassment in determining the fact in any particular case. When the business of the master or employer is of such great and diversified extent that it naturally and necessarily separates itself into departments of service, the individuals placed by the master in charge of these separate branches and departments of service, and given entire and absolute control therein, may properly be considered, with respect to employees under them, vice principals and representatives of the master, as fully and as completely as if the entire business of the master were placed by him under one superintendent. Thus, Mr. Justice Brewer in the *Baugh* case, illustrates the meaning of the phrase "different branches or departments of service" by suggesting that "between the law department of a railway corporation and the operating department there is a natural and distinct separation—one which makes the two departments like two independent kinds of business, in which the one employer and master is engaged. So, oftentimes, there is, in the affairs of such corporation what may be called a manufacturing or repair department, and another strictly operating department. These two departments are, in their relations to each other, as distinct and separate as though the work of each was carried on by a separate corporation. And from this natural separation flows the rule that he who is placed in charge of such separate branch of the service—who alone superintends and has the control of it—is, as to it, in the place of the master."

The subject is further elaborated in the case of *Howard v. Railroad Co.*, 26 Fed., 837, in an opinion by Mr. Justice Brewer, then circuit judge of the eighth circuit. The other view is stated very distinctly in the cases of *Borgman v. Railroad Co.*, 41 Fed., 667, and *Woods v. Lindvall*, 1 C. C. A., 37, 48 Fed., 62. This last case is much stronger for the plaintiff than the one at bar. The foreman in this case bore no resem-

blance, in the importance and scope of his authority, to that possessed by Murdock in the Woods case, *supra*. These cases which have been cited serve to illustrate what was in the minds of the courts when the various distinctions as to departments and separate branches of service were suggested. In the Baugh case the engineer and fireman of a locomotive engine running alone on the railroad, and without any train attached, were held to be fellow-servants of the company, so as to preclude the fireman from recovering from the company for injuries caused by the negligence of the engineer.

The meaning of the expression "departmental control" was again, and very lately, discussed in *Railroad Co. v. Hambly*, 154 U. S., 349, 14 Sup. Ct., 983, where it was held, as stated in the headnote, that a common day laborer, in the employ of a railroad company, who, while working for the company, under the orders and direction of a section boss or foreman, on a culvert on the line of the company's road, receives an injury through the neglect of a conductor and an engineer in moving a particular passenger train upon the company's road, is a fellow-servant of such engineer and of such conductor, in such a sense as exempts the railroad company from liability for the injury so inflicted.

The subject is again treated in *Railroad Co. v. Keegan*, 160 U. S., 259; 16 Sup. Ct. 269 (decided at this term), when the men engaged in the service of the railroad company were employed in uncoupling from the rear of trains cars which were to be sent elsewhere and in attaching other cars in their place; and they were held to be fellow-servants, although the force, consisting of five men, was under the orders of a boss who directed the men which cars to uncouple and what cars to couple, and the neglect was alleged to have been the neglect of the boss, by which the injury resulted to one of the men. This court held that they were fellow-servants, and the mere fact that one was under the orders of the other constituted no distinction, and that the general rule of nonliability applied.

These last cases exclude, by their facts and reasoning, the case of a section foreman from the position of a superintendent of a separate and distinct department. They also prove that mere superiority of position is no ground for liability.

This boss of a small gang of 10 or 15 men, engaged in making repairs upon the road, wherever they might be necessary, over a distance of three sections, aiding and assisting the regular gang of workmen upon each section as occasion demanded, was not such a superintendent of a separate department, nor was he in control of such a distinct branch of the work of the master, as would be necessary to render the master liable to a coemployee for his neglect. He was in fact, as well as in law, a fellow-workman. He went with the gang to the place of the work in the morning, stayed there with them during the day, superintended their work, giving directions in regard to it, and returned home with them in the evening, acting as a part of the crew of the hand car upon which they rode. The mere fact, if it be a fact, that he did not actually handle a shovel or a pick, is an unimportant matter. Where more than one man is engaged in doing any particular work, it becomes almost a necessity that one should be boss, and the others subordinate, but both are, nevertheless, fellow-workmen.

If, in approaching the line of separation between a fellow-workman and a superintendent of a particular and separate department, there may be embarrassment in determining the question, this case presents no such difficulty. It is clearly one of fellow-servants. The neglect for which the plaintiff has recovered in this case was the neglect of

Holverson in not taking proper care at the time when he applied the brake to the front car. It was not a neglect of that character which would make the master responsible therefor, because it was not a neglect of a duty which the master owes, as master, to his servant, when he enters his employment.

The charge of the court to the jury in the matter complained of was erroneous, and the judgment must therefor be reversed, and the case remanded, with directions to grant a new trial.

EMPLOYERS' LIABILITY—FELLOW-SERVANTS—*Northern Pacific R. R. Co. v. Charless.* 16 *Supreme Court Reporter*, page 848.—This was a suit brought against the Northern Pacific Railroad Company by one Charless as plaintiff, to recover damages for injuries received while in the employ of said company. The plaintiff recovered a judgment and the case was carried on appeal to the United States circuit court of appeals for the ninth circuit, which sustained the judgment of the lower court. The case was then brought on writ of error before the United States Supreme Court, which rendered its decision April 13, 1896, and reversed the judgments of the courts below. The opinion of said court, delivered by Mr. Justice Peckham, gives a full statement of the facts in the case, and the following is quoted therefrom:

The plaintiff below was an ordinary day laborer, employed, under a section boss or foreman, to keep a certain portion of the roadbed of the defendant in repair. The foreman had power to employ and discharge men, and to superintend their work, and was himself a workman. He employed the plaintiff, who, with the rest of the men employed in the gang—some four, five, or six—was carried to and from his work, daily, on a hand car worked by the men themselves.

In August, 1886, on the 28th of the month, an accident occurred as the men were on their way to their work. They were using a hand car with what is alleged to have been a defective brake. The foreman had complained of it to the yardmaster a short time before, who had promised a better one. In the meantime, and as a temporary makeshift, the foreman had provided the car with a brake which consisted of a bit of wood, 4 by 4, fastened on the side of the car with a bolt; and the long arm acted as a lever, and pressed the shorter portion of the timber against the wheel. In that way the car had been run for a day or two before the morning of the accident. On that day the plaintiff, with the rest of the men in the gang, and the foreman, started on the hand car to go over a certain portion of the section to inspect the condition of the road. They were running the car very rapidly, under the direction and supervision of the foreman, and had arrived at a narrow cut in the road, around a curve, when they were suddenly confronted with a freight train coming through the cut in the opposite direction. There had been no warning or signal of any kind given by any of the employees on the freight train of its approach, and the plaintiff below knew nothing of the fact that any freight train was expected. Efforts were made to stop the hand car, and, as the speed did not seem to be slackened in time, plaintiff became frightened, and undertook to jump from the front end of the car, when he stumbled over some tools that were on the car

and fell between the rails in front of it. As the hand car approached him he put his foot up against it in order to prevent its running over him; but the impetus of the car was too great, and it ran over and doubled him up and wrenched his spine, causing him great internal injuries. The other hands jumped off the car, removed it from the track, and took the plaintiff out of danger, before the freight train passed by.

The injuries of the plaintiff were of a very serious nature, and his legs became paralyzed and he was rendered a cripple for life. He commenced this action against the defendant below to recover damages on account of the negligence of the agents and servants of the defendant. The negligence claimed consisted in—

(1) The defective brake on the car, which it is alleged was an appliance for the prosecution of the work on the defendant's road, and necessary to be used to enable the employees to perform their duties, and that, as such appliance, it was the duty of the defendant to see that it was reasonably safe and fit for the purpose intended.

(2) The negligence of the foreman in charge of the gang, who directed the speed of the hand car, and ran it at a hazardous rate of speed when he knew that a train coming toward him was expected, while the other members of the gang were ignorant of that fact.

(3) The negligence of the train hands on the approaching train, in giving no signals of their approach around the curve and through the cut, although they were near a public crossing, and some signals were necessary on that account.

Upon the trial evidence was given tending to prove the above facts, and among other things the judge charged the jury as follows:

"I think that the case, when stripped of all the side issues and the incidental questions surrounding it, resolves itself into just this question for this jury to determine: Whether the injury to the plaintiff resulted directly from the negligence of the defendant in needlessly exposing him to the danger of being hurt by a collision between the hand car and the extra freight train at the place where it occurred, or whether the injury was a mere accident, which was the result of one of the ordinary hazards of the employment in which he was engaged; whether it was an ordinary risk of his employment, or whether an extraordinary danger caused by the negligence on the part of the defendant; whether that negligence was a negligence of the foreman in running the hand car too fast up to a point which he knew to be dangerous, and which he did not warn the other men working on the hand car of, so that it was impossible for them, without extreme hazard to their lives, to avoid a collision; or whether the negligence was on the part of the officers in charge of the freight train, in approaching a curve in the cut, which obstructed the train from view, or passing a public crossing, without giving warning by sounding the whistle or engine bell. If, in any of these respects, there was actual neglect on the part of defendant which placed the plaintiff in a situation of extraordinary danger—something clear beyond the ordinary risks of his employment—and his injury was not in any degree owing to his own negligence at the time, the defendant would be liable to damages."

The defendant below excepted to each of the above propositions, as laid down by the learned judge in his charge, and the jury rendered a verdict in favor of the plaintiff, which was affirmed by the circuit court of appeals for the ninth circuit (2 C. C. A., 380, 51 Fed., 562), and the defendant below sued out a writ of error from this court to review the judgment.

Many of the facts surrounding the happening of this accident are similar in their nature to those existing in the case of *Railroad Co. v. Peterson* (just decided), 16 Sup. Ct., 843. The employment of the plaintiff below, the nature of the work, and the powers of the section boss under whom he worked, are substantially the same as those existing in the other case. We may refer to the general principles of the law of master and servant applicable to these facts which are set forth in the opinion of this court in that case, and which we think govern the case at bar, upon those facts.

In regard to the particular allegations of negligence above set forth, it is not necessary, in the view we take of this case, to express any opinion whether the alleged defect in the brake on the hand car rendered it a defective appliance, within the meaning of the law, rendering the master liable for a failure to provide a reasonably safe and proper appliance for the work to be done by his employees.

There were two other propositions submitted to the jury by the learned judge, each of which was, as we think, of a material nature and also clearly erroneous.

1. We think it was error to submit to the jury the question of the negligence of the employees on the extra freight train in failing to give the signals of its approach. This failure, assuming that it constituted negligence, was nothing more than the negligence of co-servants of the plaintiff below in performing the duty devolving upon them. The principle which covers the facts of this case was laid down in *Randall v. Railroad Co.*, 109 U. S., 478, 3 Sup. Ct., 322, and that case has never been overruled or questioned. Among the latest expressions of opinion of this court in regard to views similar to those stated in the case in 109 U. S. and 3 Sup. Ct., *supra*, is the case of *Railroad Co. v. Hambly*, 154 U. S., 349, 14 Sup. Ct., 983. It seems to us that the *Randall* and *Hambly* cases are conclusive, and necessitate a reversal of this judgment. In the *Hambly* case it was held that a common day laborer in the employ of a railroad company who, while working for the company, under the orders and direction of a section boss or foreman, on a culvert on the line of the company's road, received an injury through the negligence of a conductor and of an engineer in moving a particular passenger train upon the company's road, was a fellow-servant with such engineer and with such conductor, in such a sense as exempts the railroad company from liability for the injury so inflicted. We are unable to distinguish any difference in principle arising from the facts in these two cases.

The question of the negligence of the hands upon the extra freight train should not have been submitted to the jury as constituting any right to a recovery against the corporation on the ground of such negligence.

2. We also regard it as erroneous to have submitted to the jury the general question whether Kirk, the section foreman, was negligent in running his hand car at too high a speed just prior to the accident. Kirk and the plaintiff below were coemployees of the company, and the neglect of Kirk, if it existed, in driving his hand car too fast (assuming it was in proper condition), was not such negligence as would render the company responsible to Kirk's coemployee. It was not the neglect of any duty which the company, as master, was bound itself to perform. This we have held in the *Peterson* case, and for the reasons there stated. While it may be assumed that the master would have been liable if a defective brake had been the cause of the accident, yet the defendant below is, under the charge of the judge, permitted to be

made liable by proof of the speed of the hand car, if the jury found that Kirk, the foreman, knew it to be dangerous, and that the accident happened because of that speed, even though it would have happened if the brake had been the regular kind, and in good order. The language of the court does not separate the question of general negligence in running a hand car which was in good order, too fast, from that which might be negligence with reference to running a hand car with a defective brake at the same rate of speed. For using in a negligent manner a defective appliance furnished by the master the latter might be liable if a coemployee were thereby and in consequence thereof injured. As the master furnished the defective appliance it would be no answer to say that it was negligently used. But, on the other hand, the master would not be responsible for the negligent use of a proper appliance. From the language used by the court, the company might have been held liable if Kirk were running the hand car at a dangerous rate of speed, although the jury found the brake actually used to have been sufficient. A dangerous rate of speed was therefore held to be negligence. That neglect, we hold, the company was not responsible for.

Upon the other question of the negligence of the employees on the freight train, the error in the charge is not rendered harmless by any explanation given by the learned judge. The difficulty remains uncured. The jury might have found from the evidence that this hand car, while going at the rate of speed stated, could have been stopped with the extemporized brake in time to prevent any danger of a collision, in case the proper signals had been given by the hands on the freight train, but that the accident resulted from their failure to give those signals, and that such failure was negligence on their part. The verdict may have been based upon such negligence. We hold the company was not liable for the negligence of the hands on the freight train in failing to give proper signals.

The judgment entered upon the verdict of the jury must be reversed and the cause remanded, with instructions to grant a new trial.

SEAMEN—EXTRA WAGES—*The Potomac—Niagara Falls Paper Co. v. Crouckett et al.* 72 *Federal Reporter*, page 535.—This case was a libel, brought in the district court of the United States for the southern district of New York, by James Crouckett and James Hanley, against the barge *Potomac* (*Niagara Falls Paper Company*, claimant), to recover extra wages. The district court made a decree in favor of libelants, and the claimant appealed to the United States circuit court of appeals, second circuit. Said court rendered its decision February 18, 1896, and reversed the decree of the lower court. Its opinion, delivered by Circuit Judge Shipman, and containing a statement of the facts in the case, is given below:

The libelants shipped, in September, 1894, on board the barge *Potomac*, one as mate and the other as seaman, and each upon wages by the month. The barge left Buffalo in September, bound for Parry Sound, in Canada. On her return trip, she was laden with lumber below and on deck, consigned to Tonawanda, N. Y., and left Parry Sound on the morning of September 23, in tow of the tug *Sequine*. The next

morning she encountered a violent gale, and after passing Cove Island light the towline parted, the barge drifted, shipped heavy seas, became waterlogged, lost part of her deck load, dropped anchor in the night near Flower Pot Island, and stayed there till morning, when the tug came and towed her to a small harbor in Canada called "Tubmerry," between 1 and 2 miles from the larger Tubmerry port. The vessel was tied up near the lighthouse, where there was a hamlet of 8 families, containing about 75 people. In order to free the barge from water, it was necessary to remove the lumber from the deck, put on steam pumps, box them in, and afterwards reload the cargo. The captain hired men from the shore to assist in this work, but the sailors exacted extra compensation before they would touch the cargo for the purpose of unloading, and demanded and received from the captain a promise to pay extra wages of 30 cents per hour. The barge was placed in proper condition, and was towed to Tonawanda. The extra compensation of each of the libelants amounted to \$10.50. The owners paid the extra amount to all the sailors except the two libelants. There was no apparent reason for this discrimination. To recover the extra wages this libel was brought.

The district judge in deciding in favor of the libelants was undoubtedly influenced by the seeming unfairness of the claimants in paying a part only of the men in accordance with the promise of the captain. He furthermore says:

"If I thought that a decree for the libelants involved a departure from the old and salutary rule that seamen must not expect extra compensation for services rendered in their capacity as seamen, no matter how arduous or meritorious they may be, I should dismiss the libel. It would lead to gross insubordination, and increase the difficulties and dangers of navigation immeasurably if the court should sanction the idea that a seaman may refuse to obey the master's order on the ground that the work he is directed to perform is 'extra' and entitled him to additional compensation."

He thought that the facts took the case out of the general rule, because the *Potomac* was in port at the time in question, and says:

"The work was partly on the vessel and partly on shore and consisted in unloading and reloading a part of her cargo."

No question is made as to the general rule which the district judge stated, or that seamen are bound, without extra compensation, to render extra labor and services to save the vessel and cargo in case of wreck or impending calamity, and that a contract for extra pay "made when the ship is in distress, or obtained by any unfair practices or advantage taken by the seamen, is wholly void." (Curt. Merch. Seam., 28.) In this case the barge had become disabled, and was taken to a harbor of refuge, so as to be enabled to prosecute her voyage. She was compelled by stress of weather to stop at Tubmerry, in order to gain ability to go to her place of destination. We think that the district judge was in error in considering that, at the time in question, the barge was in port. She was neither in her port of destination, nor in a port where the voyage was at an end. She was in a temporary harbor of refuge, where the duties of seamen in relation to the care of her cargo and the safety of the vessel still continued. The unloading of the vessel was necessary, in order to enable her to be freed from water, and to complete her trip and earn her freight; and in her distress this service was a part of the sailors' duty. It follows that the contract was void.

The decree of the district court is reversed, without costs, and the cause is remanded to the district court, with instructions to dismiss the libel, without costs.

LAWS OF VARIOUS STATES RELATING TO LABOR ENACTED SINCE
JANUARY 1, 1896.

IOWA.

ACTS OF 1896.

CHAPTER 37.—*Free text-books in public schools.*

SECTION 1. Whenever a petition signed by one-third or more of the legal voters, to be determined by the school board of any school township or independent district, shall be filed with the secretary, thirty days or more before the annual meeting of the electors, asking that the question of providing free text-books, for the use of pupils in the public schools thereof, be submitted to the voters at the next annual meeting, he shall cause notice of such proposition to be given in the call for such meeting.

SEC. 2. If at such meeting a majority of the legal voters present and voting by ballot thereon shall authorize the board of directors of said school township or independent district to loan text-books to the pupils free of charge, then the board shall procure such books, as shall be needed, in the manner provided by law for the purchase of text-books, and loan them to the pupils.

SEC. 3. The board shall hold pupils responsible for any damage to, loss of, or failure to return any such books, and shall adopt such rules and regulations as may be reasonable and necessary for the keeping and preservation thereof.

SEC. 4. Any pupil shall be allowed to purchase any text-book used in the school at cost.

SEC. 5. No pupil already supplied with text-books shall be supplied with others without charge until needed.

SEC. 6. The electors may at any election called as herein provided direct the board to discontinue the loaning of text-books to pupils.

Approved March 7, 1896.

CHAPTER 86.—*Bureau of labor statistics.*

SECTION 1. Section 3 of chapter 132 of the Laws of the Twentieth General Assembly [shall] be amended by inserting after the word "annum" in the second line thereof, the following: "And shall be allowed a deputy at a salary of one thousand dollars per annum, in lieu of clerk hire"; and by inserting after the word "for," in the fourth line thereof, the following: "The commissioner or any officer or employee of the bureau of labor statistics shall be allowed, in addition to their salaries, their actual and necessary traveling expenses while in the performance of their duties; said expenses to be audited by the executive council and paid out of the general fund of the State upon a voucher verified by the commissioner; *Provided*, That the total of such expenses for officers and employees shall not exceed \$500 per annum."

SEC. 2. Section 6 of chapter 132, of the Laws of the Twentieth General Assembly [shall] be repealed and the following enacted in lieu thereof:

SECTION 6. The commissioner of the bureau of labor statistics shall have the power to issue subpoenas, administer oaths, and take testimony in all matters relating to the duties herein required by said bureau; said testimony to be taken in some suitable place in the vicinity to which testimony is applicable. Witnesses subpoenaed and testifying before the commissioner of the bureau shall be paid the same fees as witnesses before a justice court, such payment to be made out of the contingent fund of the bureau in advance, but such expense for witnesses shall not exceed \$100 annually. Any person duly subpoenaed under the provisions of this section, who shall willfully neglect or refuse to attend or testify at the time and place named in the subpoena shall be deemed guilty of a misdemeanor, and upon conviction thereof before any court of competent jurisdiction, shall be punished by a fine not exceeding \$50 and costs of prosecution, or by imprisonment in the county jail not exceeding thirty days; *Provided, however*, That no witness shall be compelled to go outside the county in which he resides to testify.

SEC. 3. Said chapter [shall] be further amended by adding thereto as section 7 the following:

SECTION 7. The commissioner of the bureau of labor shall have the power upon the complaint of two or more persons, or upon his failure to otherwise obtain information in accordance with the provisions of this act, to enter any factory or mill, workshop, mine, store, business house, public or private work, when the same is open or in operation, upon a request being made in writing, for the purpose of gathering facts and statistics such as are contemplated by this act, and to examine into the methods of protection from danger to employees, and the sanitary conditions in and around such buildings and places, and make a record thereof; and any owner or occupant of such factory or mill, workshop, mine, store, business house, public or private work, or any agent or employee of such owner or occupant who shall refuse to allow any officer or employee of said bureau to so enter, or who shall hinder him, or in any way deter him from collecting information, shall be deemed guilty of a misdemeanor, and upon conviction thereof before any court of competent jurisdiction, shall be punished by a fine of not exceeding \$100 and costs of prosecution or by imprisonment in the county jail not exceeding thirty days.

SEC. 4. Said chapter [shall] be further amended by adding thereto as section 8 the following:

SECTION 8. The expressions "factory," "mill," "workshop," "mine," "store," "business house," and "public or private work," as used in this act, shall be construed to mean any factory, mill, workshop, mine, store, business house, public or private work, where five or more wage earners are employed for a certain stipulated compensation.

SEC. 5. Said chapter [shall] be further amended by adding thereto as section 9 the following:

SECTION 9. It shall be the duty of every owner, operator, or manager of every factory, mill, workshop, mine, store, business house, public or private work, or any other establishment where labor is employed as herein provided, to make to the bureau, upon blanks furnished by said bureau, such reports and returns as said bureau may require for the purpose of compiling such labor statistics as are contemplated by this act; and the owner, operator, or business manager shall make such reports or returns within sixty days from the receipt of blanks furnished by the commissioner, and shall certify under oath to the correctness of the same. Any owner, operator, or manager of such factory, mill, workshop, mine, store, business house, public or private work, as herein stated who shall neglect or refuse to furnish to the commissioner of labor such reports or returns as may be required by the following blank shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine not exceeding \$100 and cost of prosecution, or imprisoned in the county jail not exceeding thirty days.

BLANK.

Name of firm or corporation..... Number of hands employed during year ending December 31,.....; males.....; females.....; apprentices..... Total amount of wages paid during the year ending December 31,.....\$. Total amount of wages paid previous year.....\$. Any general increase or reduction of wages during the past year? If so, what per cent of increase or reduction?..... Cause of increase or reduction..... Any increase or decrease of business during past year, \$..... What means are provided for the escape of employees in case of fire?..... What measures are taken to prevent accidents to employees from machinery?..... How are buildings ventilated?..... Are separate water-closets and wash rooms provided for the different sexes?..... Number of weeks during past year business was run on full time with full force,..... Number of weeks during past year business was run on short time or with reduced force,..... Number of weeks during past year business was suspended,..... Number of strikes during year ending December 31,.... Number involved,.....; alleged cause,.....; result,.....; how many days did strike continue, and what was loss of wages in consequence thereof?.....; was any property destroyed, and if so its value?.....

SEC. 6. Said chapter [shall] be further amended by adding thereto as section 10 the following:

SECTION 10. In the reports of the commissioner no use shall be made of names of individuals, firms or corporations supplying the information called for by sections 5 and 6 of this act, such information being deemed confidential and not for the purpose of disclosing personal affairs, and any officer or employee of the bureau of labor statistics violating this provision shall be deemed guilty of a misdemeanor and upon conviction thereof shall be fined in a sum not exceeding five hundred dollars and costs of prosecution, or by imprisonment in the county jail not exceeding one year.

Sec. 7. Said chapter [shall] be further amended by adding thereto as section 11 the following:

SECTION 11. No report or return made to said bureau in accordance with the provisions of this act, and no schedule, record or document gathered or returned by its officers or employees, shall be destroyed within two years of the collection or receipt thereof. At the expiration of two years all records, schedules, or papers accumulating in said bureau during said period that may be considered of no value by the commissioner may be destroyed, provided the authority of the executive council be first obtained for such destruction.

Sec. 8. This act being deemed of immediate importance shall be in force and take effect from and after its publication in the Iowa State Register and Des Moines Leader, newspapers published in Des Moines, Iowa.

Approved April 14, 1896.

I hereby certify that the foregoing act was published in the Iowa State Register, April 24, and Des Moines Leader, April 21, 1896.

W. M. MCFARLAND,
Secretary of State.

MARYLAND.

ACTS OF 1896.

CHAPTER 133.—*Payment of wages—Coal mines.*

SECTION 1. All corporations incorporated under the laws of Maryland, hereafter engaged in mining and shipping coal in Allegany County, are hereby required to pay each and all their employees their wages earned in said employment semimonthly; that is to say, all wages earned on and before the 15th of each month shall be paid not later than upon the 25th day of said month; and all wages earned from the 16th to the end of each month, shall be paid not later than the 10th day of the succeeding month, unless said 25th day or 10th day of any month shall fall on Sunday or a legal holiday, in which case the time for payment shall be extended to the next day.

SEC. 2. Any such corporation, willfully refusing to make said payments of wages at the times hereinbefore specified, or willfully withholding said wages from said employees beyond said times, shall be deemed guilty of a misdemeanor, and upon indictment and conviction thereof shall be fined not less than \$50 nor more than \$300, in the discretion of the court.

SEC. 3. This act shall take effect on or before the 5th day of April, 1896.

Approved April 4th, 1896.

CHAPTER 147.—*Seats for female employees.*

SECTION 1. The following section is hereby added to article twenty-seven of the Maryland Code of Public General Laws, to come in after section one hundred and fifty-one, and to be designated as "Section one hundred and fifty-one A."

151 A. All proprietors or owners of any retail, jobbing or wholesale dry goods store, notions, millinery or any other business where any female help are employed for the purpose of serving the public in the capacity of clerks or salesladies, shall provide a chair or stool for each one of such female help or clerks, in order that during such period as they are not actively engaged in making sales or taking stock they may have an opportunity to rest.

SEC. 2. Any owner or proprietor, as mentioned in the foregoing section, who shall neglect to obey or observe the provisions of said section, shall be considered to have committed a misdemeanor, and shall, upon conviction thereof, be fined in an amount not less than ten dollars, and not exceeding one hundred dollars for the first offense; and in the event said owner or proprietor shall continue to disobey said section, he shall be subjected to a fine at the rate of one dollar a day, daily, for every chair he fails to so furnish his said employees.

SEC. 3. This act shall take effect from the date of its passage.

Approved April 2, 1896.

CHAPTER 363.—*Factories and workshops in Baltimore—Protection of employees from fire.*

[NOTE.—This chapter was published in Bulletin No. 5 of the Department of Labor, page 564, and is therefore omitted here.]

CHAPTER 467.—*Factories and workshops—Sweating system.*

SECTION 1. Article 27 of the Code of Public General Laws, title "Crimes and punishments," subtitle "Health, workshops and factories," is hereby amended by the striking out of section 149A, and reenacting the same, to read as follows:

149A. If any individual or body corporate engaged in the manufacture or sale of clothing or of any other article whereby disease may be transmitted, shall, with

reasonable means of knowledge, by purchase, contract or otherwise, directly or indirectly, cause or permit any garments, or such other articles as aforesaid, to be manufactured or made up, in whole or in part, or any work to be done thereupon within this State, and in place or under circumstances involving danger to the public health, the said individual or corporation, upon conviction in any court of competent jurisdiction, shall be fined not less than ten dollars or more than one hundred dollars for each garment manufactured, made up or worked upon.

SEC. 2. This act shall take effect from the date of its passage.

Approved April 4, 1896.

MASSACHUSETTS.

ACTS OF 1896.

CHAPTER 241.—*Weekly payment of wages.*

SECTION 1. No person or partnership engaged in this Commonwealth in manufacturing business and having more than twenty-five employees shall, by a special contract with persons in his or its employ or by any other means, exempt himself or itself from the provisions of chapter four hundred and thirty-eight of the acts of the year eighteen hundred and ninety-five relative to the weekly payment of wages.

SEC. 2. Whoever violates the provisions of this act shall be punished by a fine not exceeding fifty dollars and not less than ten dollars.

SEC. 3. This act shall take effect upon its passage.

Approved April 6, 1896.

CHAPTER 334.—*Weekly payment of wages.*

SECTION 1. Section one of chapter four hundred and thirty-eight of the acts of the year eighteen hundred and ninety-five is hereby amended by inserting after the word "to," in the fourth line, the words:—all contractors and to,—also by inserting after the word "such," in the eighth line, the word:—contractors,—so that the section as amended will read as follows:—*Section 1.* Sections fifty-one to fifty-four, inclusive, of chapter five hundred and eight of the acts of the year eighteen hundred and ninety-four, relative to the weekly payment of wages by corporations, shall apply to all contractors and to any person or partnership engaged in this Commonwealth in any manufacturing business and having more than twenty-five employees. And the word "corporation," as used in said sections, shall include such contractors, persons and partnerships.

SEC. 2. This act shall take effect upon its passage.

Approved April 28, 1896.

CHAPTER 343.—*Traversing machinery in cotton factories.*

SECTION 1. No traversing carriage of any self-acting mule in any cotton factory shall be allowed to travel within twelve inches of any pillar, column, pier or fixed structure: *Provided,* That this section shall only apply to factories erected after the passage of this act.

SEC. 2. If the provisions of this act are violated in any such cotton factory the owner of such factory shall be punished by a fine of not less than twenty dollars nor more than fifty dollars for each offense.

Approved April 28, 1896.

CHAPTER 444.—*Suits for wages.*

In actions of contract for the recovery of money due for manual labor two or more persons may join in one action against the same defendant or defendants when the claim of no one of such persons exceeds the sum of twenty dollars, although the claims of such persons are not joint; and each of such persons so joining may recover the sum found to be due to him personally. The claim of each person so joining shall be stated in a separate count in the declaration, and the court may make such order for the trial of issues as shall be found most convenient and may enter separate judgments and issue one or more executions, and may make such order concerning costs as in its opinion justice may require.

Approved May 28, 1896.

CHAPTER 449.—*Employment of laborers by cities.*

SECTION 1. So much of chapter three hundred and twenty of the acts of the year eighteen hundred and eighty-four and the amendments thereto as relates to the employment of laborers by cities, and that portion of the civil service rules of the Commonwealth and the cities thereof as authorized by said acts and designated

therein as the "Labor service," shall not take effect in cities of less than one hundred thousand population, except upon acceptance by the city council of such city, with the approval of its mayor: *Provided*, That the city council of such cities shall establish rules under which veterans of the late war of the rebellion shall be given the preference in employment.

SEC. 2. This act shall take effect upon its passage.

Approved May 28, 1896.

CHAPTER 494.—*Employment of laborers, etc., on public works.*

SECTION 1. Hereafter, in the employment of mechanics and laborers in the construction of public works by the Commonwealth, or by any municipal corporation therein, or by persons contracting with the Commonwealth or with such corporation, preference in said employment shall be given to citizens of the United States; and every contract hereafter made by the Commonwealth or by any municipal corporation therein shall require the giving of such preference in said employment.

SEC. 2. Any contractor who knowingly and willfully violates the provisions of this act shall be fined not more than one hundred dollars for each offense.

SEC. 3. This act shall not take effect until January first in the year eighteen hundred and ninety-seven.

Approved June 5, 1896.

CHAPTER 546.—*Examination, etc., of stationary engineers and firemen.*

SECTION 1. It shall be unlawful for any person to have charge of, or to operate a steam boiler or engine in this Commonwealth (except locomotive boilers and engines, boilers in private residences, boilers under the jurisdiction of the United States, boilers used for agricultural purposes exclusively, boilers of less than eight horsepower, and boilers used for heating purposes only, provided with a device approved by the chief of the district police limiting the pressure carried to fifteen pounds to the square inch), unless he holds a license as hereinafter provided; and it shall be unlawful for any owner or user of any steam boiler or engine (other than those above excepted) to operate or cause to be operated a steam boiler or engine, for a period of more than one week, without a duly licensed engineer or fireman in charge: *Provided, however*, That every person who has been employed continuously as a steam engineer in this Commonwealth for the period of five years next prior to the passage of this act, and who files with his application a certificate of such fact under oath, accompanied by a statement from his employer or employers verifying the same fact, shall be entitled to a license without further examination.

SEC. 2. Any person desiring to act as an engineer or fireman, shall make application for a license to so act to an examiner of engineers, upon blanks to be furnished by the examiner, and if upon examination the applicant is found trustworthy and competent, a license shall be granted to him. Such license shall continue in force for three years, unless for a sufficient cause, affecting the trustworthiness or competency of the person licensed, and after a hearing, the same is sooner revoked; and the said license unless so revoked shall at the end of said three years be renewed by an examiner of engineers, upon application, and without examination.

SEC. 3. All applications for licenses shall be accompanied by a fee of one dollar, and a like sum shall be paid for all renewals of licenses. All fees so paid shall be accounted for by the examiners to the chief of the district police, who shall return the same monthly to the treasurer of the Commonwealth.

SEC. 4. The members of the boiler inspection department of the district police shall act as examiners, and shall enforce the provisions of this act, and the governor of the Commonwealth is authorized to appoint two additional inspectors to act as examiners of engineers, under this act, at an annual salary of fifteen hundred dollars and their actual traveling and necessary expenses.

SEC. 5. Any person dissatisfied with the action of any examiner in refusing or revoking a license, may appeal from his decision to the five other examiners, who shall together act as a board of appeal, and a majority of whom shall have power to hear the parties and pass upon the subjects of appeal. The decision of said majority of the remaining examiners so acting shall be final, if approved by the chief of the district police.

SEC. 6. It shall be the duty of the examiners to notify every person whose names and addresses are known to them, and who will require licenses under the provisions of this act, to apply for said licenses, and to give such persons a reasonable opportunity to be examined within the city or town where they reside or are employed.

SEC. 7. Whoever intentionally violates the provisions of section one of this act shall be punished by fine not exceeding three hundred dollars, or by imprisonment not exceeding three months.

SEC. 8. All acts or parts of acts inconsistent herewith are hereby repealed. The provisions of this act, so far as they are the same as those of chapter four hundred and seventy-one of the acts of the year eighteen hundred and ninety-five, shall be construed as a continuation of that chapter and not as new enactments.

SEC. 9. This act shall take effect upon its passage.

Approved June 9, 1896.

MISSISSIPPI.

ACTS OF 1896.

CHAPTER 86.—*Liability of employers for death of employees.*

SECTION 1. Section 663 of the Annotated Code of 1892 [shall] be so amended as to read as follows: Whenever the death of any person shall be caused by any real, wrongful or negligent act or omission, or by such unsafe machinery, ways or appliances, as would, if death had not ensued, have entitled the party injured or damaged thereby to maintain an action and recover damages in respect thereof, and such deceased person shall have left a widow or children, or both, or husband or father or mother or sister or brother, the person or corporation, or both, that would have been liable if death had not ensued, and the representative of such person, shall be liable for damages, notwithstanding the death, and the fact that death is instantaneous shall, in no case, affect the right of recovery. The action for such damages may be brought in the name of the widow for the death of the husband, or by the husband for the death of his wife, or by a parent for the death of a child, or in the name of a child for the death of a parent, or by a brother for the death of a sister, or by a sister for the death of a brother, or by a sister for the death of a sister, or a brother for the death of a brother, or all parties interested may join in the suit, and there shall be but one suit for the same death, which suit shall inure to the benefit of all parties concerned, but the determination of such suit shall not bar another action unless it be decided upon its merits. In such action the party or parties suing shall recover such damages as the jury may assess, taking into consideration all damages of every kind to the decedent and all damages of every kind to any and all parties interested in the suit. Executors or administrators shall not sue for damages for injuries causing death except as below provided; but every such action shall be commenced within one year after the death of such deceased person.

SEC. 2. This act shall apply to all personal injuries of servants or employees received in the service or business of the master or employer, where such injuries result in death.

SEC. 3. Damages recovered under the provisions of this act shall not be subject to the payment of the debts or liabilities of the deceased, and such damages shall be distributed as follows: Damages for the injury and death of a married man shall be equally distributed to his wife and children, and if he has no children all shall go to his wife; damages for the injury and death of a married woman shall be equally distributed to her husband and children, and if she has no children all shall go to her husband; if the deceased has no husband nor wife, the damages shall be distributed equally to the children; if the deceased has no husband nor wife nor children the damages shall be distributed equally to the father, mother, brothers and sisters or to such of them as the deceased may have living at his or her death. If the deceased leave neither husband or wife or children or father or mother or sister or brother, then the damages shall go to the legal representative subject to debts and general distribution, and the executor may sue for and recover such damages on the same terms as are prescribed for recovery by the next of kin in section 1 of this act, and the fact that deceased was instantly killed shall not affect the right of the legal representative to recover.

SEC. 4. This act shall take effect immediately.

Approved March 23, 1896.

CHAPTER 87.—*Liability of corporations for injuries of employees.*

SECTION 1. Section 3559 of the Annotated Code of 1892 [shall] be amended so that the same shall read as follows, to wit: Every employee of any corporation shall have the same rights and remedies for an injury suffered by him from the act or omission of the corporation or its employees, as are allowed by [to?] other persons not employees, where the injury results from the negligence of a superior agent or officer, or of a person having the right to control or direct the services of the party injured, and also when the injury results from the negligence of a fellow-servant engaged in another department of labor from that of the party injured, or of a fellow-servant on another train of cars, or one engaged about a different piece of work. Knowledge by an employee injured of the defective or unsafe character or condition of any

machinery, ways or appliances, or for the improper loading of cars, shall not be a defense to an action for injury caused thereby, except as to conductors or engineers in charge of dangerous or unsafe cars or engines voluntarily operated by them. Where death ensues from an injury to an employee an action may be brought in the name of the widow of such employee for the death of her husband, or by the husband for the death of his wife, or by the parent for the death of a child, or in the name of a child for the death of an only parent, for such damages as may be suffered by them respectively by reason of such death, the damages to be for the use of such widow, husband or child, except that in case the widow should have children the damages shall be distributed as personal property of the husband. The legal or personal representatives of the person injured shall have the same rights and remedies as are allowed by law to such representatives of other persons. In every such action the jury may give such damages as shall be fair and just with reference to the injury resulting from such death to the persons suing. Any contract or agreement, expressed or implied, made by an employee to waive the benefit of this section, shall be null and void; and this section shall not deprive an employee of a corporation or his legal personal representative of any right or remedy that he now has by law.

Approved March 11, 1896.

OHIO.

ACTS OF 1896.

PAGE 186.—*Factories and workshops—Blowers for emery wheels, etc.*

SECTION 1. All persons, companies or corporations operating any factory or workshop, where emery wheels or emery belts of any description are used, either solid emery, leather, leather covered, felt, canvas, linen, paper, cotton, on wheels or belts rolled or coated with emery or corundum, or cotton wheels, used as buffs, shall provide the same with blowers, or similar apparatus, which shall be placed over, beside or under such wheels or belts in such manner as to protect the person or persons using the same from the particles of dust produced and caused thereby, and to carry away the dust arising from, or thrown off by such wheels or belts while in operation, directly to the outside of the building or to some receptacle placed so as to receive and confine such dust; *Provided, however,* Small emery wheels that are used temporarily for tool grinding, that do not create dust enough in the opinion of [the] inspector of workshops and factories to be injurious to the operator, shall be exempt from the conditions of this act.

SEC. 2. Any such person or persons and the managers or directors of any such corporation who shall have the charge or management of such factory, or workshop, who shall fail to comply with the provisions of this act, shall be deemed guilty of a misdemeanor, and upon conviction thereof before any court of competent jurisdiction shall be punished by a fine of fifty dollars and not exceeding two hundred dollars for each offense, or imprisonment in the county jail not less than thirty days or exceeding ninety days, or both such fine and imprisonment, in the discretion of the court.

SEC. 3. It shall be the duty of the inspector of workshops and factories to enforce the provisions of the above act, and to prosecute all violations thereof in any court of competent jurisdiction, and all fines shall be collected by the court in which conviction is had, the same to be turned over to the chief inspector of workshops and factories, he to pay same to treasurer of State to be credited to the general revenue fund.

SEC. 4. In all prosecutions brought by or under the direction of the inspector of workshops and factories for the violation of the above act, he shall not be required to give security for costs, but in all cases where the accused be acquitted, or if convicted and found to be indigent, then the costs to be paid out of the treasury of the county in which proceedings are brought, the same as the costs in all cases for misdemeanors are paid.

SEC. 5. This act shall take effect and be in force on and after its passage.
Passed April 17, 1896.

PAGE 317.—*Factories and workshops—Sweating system.*

SECTION 1. No dwelling or building, or any room or apartment of itself, in, or connected with any tenement or dwelling or other building, shall be used except by the immediate members of the family living therein for carrying on any process of making any kind of wearing apparel, or goods for male or female wear, use, or adornment, or for the manufacture of cigars, cigarettes, or tobacco goods in any form, when such wearing apparel or other goods are to be exposed for sale, or to be sold by manufacturer, wholesaler or jobber, to the trade or by retail, unless such room or apartment shall have been made to conform to the requirements and regulations provided for in this act.

SEC. 2. Each such room or apartment used for the purposes aforesaid, shall be regarded [regarded] as a workshop or factory, and shall be separate from and have no door, window or other opening into any living or sleeping room of any tenement or dwelling, and no such workshop or factory shall be used at any time for living or sleeping purposes, and shall contain no bed, bedding, cooking or other utensils, excepting what is required to carry on the work therein; and every such shop or factory shall have an entrance from the outside direct, and if above the first floor shall have a separate and distinct stairway leading thereto, and every such workshop or factory shall be well and sufficiently lighted, heated and ventilated by ordinary, or, if necessary, by mechanical appliance, and shall provide for each person employed therein, no less than 250 cubic feet of air space in day time, and 400 cubic feet at night, and shall have suitable closet arrangements for each sex employed therein, as follows: Where there are ten or more persons, and three or more to the number of twenty, are of either sex, a separate and distinct water-closet, either inside the building, with adequate plumbing connections, or on the outside at least twenty feet from the building, shall be provided for each sex; when the number employed is more than twenty-five of either sex, there shall be provided an additional water-closet for such sex up to the number of fifty persons, and above that number in the same ratio, and all such closets shall be kept strictly and exclusively for the use of the employees and employer or employers of such workshop or factory; *Provided*, That where more than one room is used under the direction of one employer, all such rooms are to be regarded as one shop, or factory, and every such workshop or factory shall be kept in a clean and wholesome condition, all stairways and the premises within a radius of thirty feet shall be kept clean, and closets shall be regularly disinfected and supplied with disinfectants, and the inspector of factories or his assistants may require all necessary changes, or any process of cleaning, painting or whitewashing which he may deem essential to assure absolute freedom from obnoxious odor, filth, vermin, decaying matter or any condition liable to impair health or breed infectious or contagious diseases; he shall prevent the operation of such shops and factories that do not conform to the provisions of this act, and cause the arrest and prosecution of the person or persons operating the same.

SEC. 3. No person, for himself or for any other person, firm or corporation, shall give out work to or contract with any other person to perform such work necessary to make such goods mentioned in section one, after having received notice from the inspector of factories or his assistants, that said latter person has not complied with the provisions of section two of this act which notice shall remain in force, until said person has complied with this law, of which notice must be given to the employer by the inspector of factories or his assistants.

SEC. 4. Every such person, firm or corporation heretofore mentioned shall obtain and keep a record of all persons to whom work is given out or contracted for, including their names and addresses which record shall be opened to inspection of the State inspector of workshops and factories, when called for.

SEC. 5. No person, firm or corporation shall receive, handle, or convey to others, or sell, hold in stock or expose for sale any goods mentioned in section one, unless made under the sanitary conditions provided for and prescribed in this act; but this act shall not include the making of garments or other goods by any person for another by personal order, and when received for wear or use direct from the maker's hands, and all violations of the provisions of this act shall be prosecuted by the inspector with the advice and consent of the chief inspector of workshops and factories.

SEC. 6. Any person, firm or corporation who shall violate any of the provisions of this act shall, upon conviction thereof, be fined in any sum not less than fifty dollars nor more than one hundred dollars for each offense, or imprisoned not less than thirty nor more than sixty days or both, at the option of the court, such fine to be collected by the court in which conviction is had and turned over to the chief inspector of workshops and factories, and by him to be paid into the State treasury to be credited to the general revenue fund; and in all prosecutions brought by or under the direction of the inspector of workshops and factories for the violation of this act, he shall not be held to give security for costs, or adjudged to pay any costs, but in all cases where the accused be acquitted or is found to be indigent, the costs shall be paid out of the county treasury of the county in which proceedings are brought, the same as the costs in all other cases of misdemeanor.

SEC. 7. This act shall take effect and be in force on and after its passage.
Passed April 27, 1896.

PAGE 324.—*State board of arbitration, etc.*

SECTION 1. Sections 4, 13, and 14 of said above entitled act [act passed March 14, 1893, page 83, acts of 1893] shall be amended so as to read as follows:

SEC. 4. Whenever any controversy or difference not involving questions which may be the subject of a suit or action in any court of the State exists between an

employer (whether an individual, copartnership or corporation) and his employees, if, at the time, he employs not less than twenty-five persons in the same general line of business in this State, the board shall, upon application as hereinafter provided and as soon as practical thereafter, visit the locality of the dispute and make careful inquiry into the cause thereof, hear all persons interested therein who may come or be subpoenaed before them, advise the respective parties what, if anything, ought to be done or submitted to by either or both to adjust said dispute. The term employer in this act includes several employers cooperating with respect to any such controversy or difference, and the term employees includes aggregations of employees of several employers so cooperating. And where any strike or lockout extends to several counties the expenses incurred under this act not payable out of the State treasury shall be apportioned among and paid by such counties as said board may deem equitable and may direct.

SEC. 13. Whenever it is made to appear to a mayor or probate judge in this State that a strike or lockout is seriously threatened, or has actually occurred, in his vicinity, he shall at once notify the State board of the fact, giving the name and location of the employer, the nature of the trouble, and the number of employees involved, so far as his information will enable him to do so. Whenever it shall come to the knowledge of the State board, either by such notice or otherwise, that a strike or lockout is seriously threatened, or has actually occurred, in this State, involving an employer and his present or past employees, if at the time he is employing, or, up to the occurrence of the strike or lockout, was employing not less than twenty-five persons in the same general line of business in the State, it shall be the duty of the State board to put itself in communication, as soon as may be, with such employer and employees.

SEC. 14. It shall be the duty of the State board in the above-described cases to endeavor, by mediation or conciliation, to affect [effect] an amicable settlement between them, or, if that seems impracticable, to endeavor to persuade them, to submit the matters in dispute to a local board of arbitration and conciliation, as above provided, or to the State board; and said board may, if it deem it advisable, investigate the cause or causes of such controversy and ascertain which party thereto is mainly responsible or blameworthy for the existence or continuance of the same, and may make and publish a report finding such cause or causes, and assigning such responsibility or blame. The board shall have the same powers for the foregoing purposes as are given it by section 9 of this act: *Provided*, if neither a settlement nor an arbitration be had because of the opposition thereto of one party to the controversy, such investigation and publication shall, at the request of the other party, be had. And the expense of any publication under this act shall be certified and paid as provided therein for payment of fees.

SECTION 2. Said [original] sections 4, 13, and 14 are repealed, and this act shall take effect on its passage.

Passed April 27, 1896.

VIRGINIA.

ACTS OF 1895-96.

CHAPTER 286.—*Assignment, eto, of claims to avoid effect of exemption laws as regards wages, unlawful.*

SECTION 1. It shall be unlawful for any person to institute, or permit to be instituted, proceedings in his own name, or in the name of any other person, or to assign or transfer, either for or without value, any claim for debt, or liability of any kind, held by him against a resident of this State, who is a laboring man and a householder, for the purpose of having payment of the same, or any part thereof, enforced out of the wages exempted by section thirty-six hundred and fifty-two of the Code of Virginia, by proceedings in attachment or garnishment, in courts or before justices of the peace in any other State than in the State of Virginia, or to send out of this State by assignment, transfer, or in any other manner whatsoever, either for or without value, any claim or debt against any resident thereof, for the purpose or with the intent of depriving such person of the right to have his wages exempt from distress, levy or garnishment according to the provisions of section thirty-six hundred and fifty-two of the Code of Virginia. And the person instituting such suit, or permitting such suit to be instituted, or sending, assigning, or transferring any such claim or debt for the purpose or with the intent aforesaid, shall be liable in an action of debt to the person from whom payment of the same, or of any part thereof, shall have been enforced by attachment or garnishment, or otherwise, elsewhere than in the State of Virginia, for the full amount, payment whereof shall have been so enforced, together with interest thereon and the costs of the attachment or garnishee proceedings, as well as the costs of said action.

SEC. 2. The amount recovered in such action shall stand on the same footing with the wages of the plaintiff under section thirty-six hundred and fifty-two of the Code, and shall also be exempt and free from any and all liability of the plaintiff to the defendant in the way of set-off or otherwise.

SEC. 3. The fact that the payment of a claim or debt against any person entitled to the exemption provided for by section thirty-six hundred and fifty-two of the Code has been enforced by legal proceedings in some State other than the State of Virginia, in such manner as to deprive such person to any extent of the benefit of such exemption, shall be prima facie evidence that any resident of this State, who may at any time have been owner or holder of said claim or debt, has violated this law.

SEC. 4. This act shall be in force from the date of its passage.

Approved February 11, 1896.

CHAPTER 351.—*Protection of debts due laborers on buildings, etc.*

SECTION 1. No assignment or transfer of any debt, or any part thereof, due or to become due to a general contractor by the owner for the construction, erection or repairing of any building, structure, or railroad for such owner, shall be valid or enforceable in any court of law or equity by any legal process, or in any other manner, by the assignee of any such debt, unless and until the claims of all subcontractors, supply men and laborers against such general contractor for labor performed and materials furnished in and about the construction, erection and repairing of such building, structure or railroad shall have been satisfied; *Provided*, That if such subcontractors, supply men and laborers shall give their assent in writing to such assignment, it shall be thereby made valid as to them, but the payment or appropriation of such assignment by the owner without such assent in writing shall not protect such owner from the demands of such subcontractors, supply men and laborers to the extent of such assignment.

SEC. 2. No debt or demand, or any part thereof, due or to become due by the owner of any building, structure or railroad to a general contractor for the construction, erection or repairing of such building, structure or railroad, shall be subject to the payment of any debt or the lien of any judgment, writ of fieri facias or any garnishee proceeding obtained or sued out upon any debt due such general contractor which shall have been contracted in any other manner or for any other purpose than in the construction, erection or repairing of such building, structure or railroad for such owner unless and until the claims due by such general contractor to all subcontractors, supply men and laborers for materials furnished and labor performed in and about the construction, erection or repairing of such building, structure or railroad shall have been paid.

SEC. 3. All acts and parts of acts in conflict with this act are hereby repealed.

SEC. 4. This act shall be in force from its passage.

Approved February 17, 1896.

RECENT GOVERNMENT CONTRACTS.

[The Secretaries of the Treasury, War, and Navy Departments have consented to furnish statements of all contracts for constructions and repairs entered into by them. These, as received, will appear from time to time in the Bulletin.]

The following contracts have been made by the office of the Supervising Architect of the Treasury:

OMAHA, NEBR.—October 1, 1896. Contract with J. J. Hanighen for plumbing and gas piping, including marble work, plastering, and partitions in toilet rooms in courthouse, customhouse, and post office, \$8,625. Work to be completed within ninety days.

BUFFALO, N. Y.—October 8, 1896. Contract with D. H. Hayes & Co., Chicago, Ill., for erection and completion of extension to post office (old building), \$3,900. Work to be completed within seventy-five days.

SIOUX CITY, IOWA.—October 10, 1896. Contract with E. D. Briggs, Aurora, Ill., for the labor and materials for the approaches to courthouse, post office, and customhouse, \$7,049. Work to be completed within ninety working days.

ALLEGHENY, PA.—October 24, 1896. Contract with the Pittsburg Heating Supply Company, Pittsburg, Pa., for steam heating and ventilating apparatus for the post office, \$3,273. Work to be completed within sixty days.

OMAHA, NEBR.—October 30, 1896. Contract with Mahoney & Stenger for external drainage ditch for courthouse, customhouse, and post office, \$4,710.75. Work to be completed within sixty days.

WASHINGTON, D. C.—October 31, 1896. Contract with E. F. Gobel, Chicago, Ill., for interior finish of basement, first, and mezzanine stories, and all outside windows of post office building, \$181,167. Work to be completed within eight months.

NEWBERN, N. C.—November 6, 1896. Contract with Chafer & Becker, Cleveland, Ohio, for steam heating and ventilating apparatus for post office, courthouse, and customhouse, \$3,190.

NEW YORK CITY.—November 10, 1896. Contract with George Telfer for intermediate floors, etc., in certain court and office rooms in courthouse and post office, \$27,490. Work to be completed before January 20, 1897.

NEW LONDON, CONN.—November 13, 1896. Contract with Murdock Campbell Company, Chicago, Ill., for the erection and completion, except heating apparatus, of the post office and customhouse, \$34,943. Work to be completed within ten months.

NEW YORK CITY.—November 14, 1896. Contract with D. H. Hayes, Chicago, Ill., for stone and brick work, roof covering, interior finish, etc., of appraiser's warehouse, \$322,500. Work to be completed within twelve months.

RICHMOND, KY.—November 25, 1896. Contract with the Pittsburg Heating Supply Company, Pittsburg, Pa., for low-pressure, return-circulation, steam heating, and ventilating apparatus for post office, \$3,465. Work to be completed within sixty days.

SAGINAW, MICH.—November 25, 1896. Contract with Charles W. Gindele, Chicago, Ill., for erection and completion of post office, except heating apparatus, \$70,900. Work to be completed within twelve months.

NEWBURG, N. Y.—November 25, 1896. Contract with Sproul & McGurrin, Grand Rapids, Mich., for low-pressure, return-circulation, steam heating, and ventilating apparatus for post office, \$2,344. Work to be completed within sixty working days.