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INDUSTRIAL COMMUNITIES.^(a)

BY W. F. WILLOUGHBY.

CHAPTER III.

COAL MINING COMPANY OF BLANZY, FRANCE.

The consideration of the Coal Mining Company of Blanzy will be somewhat briefer than that of Anzin. The company of Anzin, as has been stated, was selected for investigation not because it represented a peculiar type of the organization of an industry, but, quite the reverse, because it was typical of the conditions under which one of the most important industries is carried on. Its prominence and age, it being by far the largest coal mining company of France, and one whose history is contemporary with the history of coal mining in that country, were the particular reasons for giving it the preference over other companies. In its consideration, all the conditions influencing the welfare of the workmen have been considered in the greatest possible detail. It will be unnecessary to enter into the same amount of detail in the case of the mining center now to be described, for the conditions in the latter are quite similar to those existing at Anzin. The chief value of the consideration of the Blanzy company lies in the opportunity offered for the study of other forms of workmen's institutions, and in the fact that it supplements the description of Anzin and emphasizes the fact that the description there given of conditions and institutions is not that of an exceptional coal mine, but of all of the most important coal mining companies of France.

In this report an especial interest attaches to the experiences of the company of Blanzy. The company at first attempted the system of pure patronage, where everything was done directly by the company.

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

The far from satisfactory results of its efforts led to a complete change and the adoption of a more liberal system. The testimony of a company of such importance as that of Blanzv on this vital point of the policy to be pursued in the organization of workingmen's institutions is deserving of serious attention. The company describes, in a brochure published by it in 1894, on its workingmen's institutions, the results of its efforts under the two policies pursued. The following is a condensed translation:

From its very foundation the Coal Mining Company of Blanzv has appreciated the peculiar duties that it owes toward its employees. It has always been among those who thought that the duties of an employer toward his employees did not cease with the payment of their wages, but that there were social and moral duties as well that should be regarded. The company, therefore, as early as 1834, commenced the creation of institutions for the welfare of its employees that have since developed until their maintenance requires an expenditure of over 1,000,000 francs (\$193,000) annually. These "company institutions," however, while rendering important service, have not given results proportionate to the sacrifices made by the company. Benefits obtained without efforts are rarely appreciated. Favors soon get to be considered as rights, and selfish interests are thought to have dictated their granting. Worse still, the workingman ceases to depend upon himself; he loses the habit of foresight and economy; individual initiative is lost; self-dignity is lessened. These results, which are the consequences of a patronage too highly developed, commenced to be felt a few years ago by the company of Blanzv.

At the same time, by a natural reaction, the spirit of association was awakened among the employees. Cooperative stores, mutual aid and kindred societies developed rapidly throughout the country. The new movement denoted a certain spirit and the presence of aspirations which the company of Blanzv could not afford to disregard. It appreciated the situation, and, while preserving its institutions that had a real *raison d'être*, resolved to take advantage of the new spirit. It took as its principle that the employer should make use of associations of employees wherever possible. With this system the company is no longer solely responsible for the welfare of its employees. Associations, also, when well directed, contribute powerfully to the maintenance of social peace.

We can not but felicitate ourselves upon the results of our new policy. The interest of the workingmen has exceeded our expectations. Associations are increasing in number and importance, and the day can be anticipated when they will replace all the institutions now controlled by the company, or, at least, so modify them that the workingmen will share with the company in their management.

The coal basin of Blanzv is situated in the central portion of the department of Saône-et-Loire, and next to the coal basin in the north is the most important coal deposit of France. Authority was first given to mine coal here in 1769, under the title of Concession of Monteenis. In 1832 the concession was divided into two parts, named respectively Concession of Blanzv and Concession of Creusot. During these years coal was mined by various companies, among which a constant organization and reorganization was taking place. The present Blanzv

Coal Mining Company was organized in 1831, but has since undergone several modifications. The actual capital of the company is now 15,000,000 francs (\$2,895,000), and the property covered by its concessions embraces 21,660 hectares (53,522 acres). Though the company still bears the name of Blanzy, the place where coal was first mined, and from which its concession is named, the real seat of its operations, is at Montceau-les-Mines.

Montceau, though not a company's town in the sense of being specially created by the company, is so entirely dominated by and dependent upon that company that it possesses all the characteristics of a special industrial village. Before the commencement of mining operations Montceau was represented on the maps as a farm. In 1834, when the present company commenced its operations, the commune of Montceau numbered but 315 inhabitants. In 1856 this number had increased to 1,300, in which year it was incorporated as a separate village. In 1861 the number of inhabitants was 3,337; in 1866, 5,548; in 1872, 8,287; and in 1876, 11,010. Its present population, according to the latest official census, is 19,612. In the meantime Montceau has become, chiefly through the efforts of the company, a substantially built town.

The new village had in the beginning no resources, no property, and no municipal buildings. During a good many years the company supplied everything. It rectified and improved the most important roads and constructed bridges and aqueducts. It laid out, most of them on its own land, the streets and squares of the new town. It built and furnished entirely at its own expense several very pretty churches. When there was a question of erecting a town hall, it contributed 60,000 francs (\$11,580) to the building fund and donated the ground upon which it was erected. It supported the whole expense of building the new gendarmerie—in the opinion of the state inspectors one of the finest in France—at a cost of between 300,000 (\$57,900) and 400,000 francs (\$77,200). For a long time it paid the salaries of the officials of the municipal board and provided the necessary buildings for their accommodation. The great efforts made by the company to provide educational facilities to all the inhabitants will be described in another place.

The development of the company itself is best shown by the amount of coal mined from year to year and the total number of its employees. The yearly production, which from 1833 to 1850 had never exceeded 150,000 tons (*a*), reached 300,000 tons in 1860, 400,000 in 1870, 700,000 in 1880, 881,218 in 1887, 1,107,523 in 1892, and 1,105,317 in 1893.

As in the case of the other more important colliery companies of France, the production of coal represents but a part of the activities of the company. Ovens for the manufacture of coke have been installed, factories for the manufacture of bricks of coal dust are operated, and a glass factory is also operated by the company, though its management

^a French ton equals 2,204.6 pounds.

and accounts are kept entirely independent of the company's mining operations. The number of workmen employed has followed the increasing production. The total number of employees in 1883 was 5,321; in 1890 the number had increased to 7,011, and in 1893 to 7,834.

THE GENERAL CONDITIONS OF LABOR.

The system of recruitment of employees is similar to that at Anzin. The underground workmen are taken from among the surface workers, and the latter from among the children of employees who have just left the company's schools. Strangers are occasionally hired as surface workmen, but very rarely as pitmen. Women have never been allowed to work below ground. Young girls and unmarried women in good health were, until late years, employed in great numbers in the operation of sifting and sorting coal. In consequence, however, of the improvements made in the methods of sorting and sifting coal, by which mechanical contrivances are made to take the place of manual labor, the number of girls thus employed has greatly diminished in recent years. Married women, with rare exceptions, are never employed by the company. Coal mining affords opportunities for the employment of workmen of all ages. The following table shows the number of employees of the company December, 1892, classified according to their ages:

AGE OF EMPLOYEES OF THE COAL MINING COMPANY OF BLANZY, DECEMBER, 1892.

Ages.	Employees.			Ages.	Employees.		
	Below ground.	Above ground.	Total.		Below ground.	Above ground.	Total.
13 or under 18 years.	644	734	1, 378	48 or under 53 years .	182	126	308
18 or under 23 years.	934	364	1, 298	53 or under 58 years .	125	24	149
23 or under 28 years.	819	447	1, 266	58 or under 63 years .	116	41	157
28 or under 33 years.	726	403	1, 129	63 or under 68 years .	56	52	108
33 or under 38 years.	487	297	784	68 years or over	40	21	61
38 or under 43 years.	344	185	532	Total	4, 711	2, 959	7, 670
43 or under 48 years.	238	262	500				

The hours of labor for workmen employed below ground are nine per day, including the time for the descent and return, which requires, on an average, one hour. Deducting, therefore, an interruption for luncheon, there remains less than eight full hours' actual labor. The pitmen work from 4 a. m. to 1 p. m., after which the necessary repairs and blasting are done. On the surface the length of a day's work varies somewhat, according to the time of year. As a rule, work begins at 6 a. m. and ends at 6 p. m., with an hour and a half's rest at midday. No work of any kind is done on Sundays.

In the operation of mining proper the fixing of wages is according to the system of small contracts, according to which from two to six workmen are associated together and undertake to work a certain gallery, and are paid so much per yard or ton mined. The rate paid, of course, varies according to the difficulty of cutting coal. These workmen

are called "jobbers," and they hire at their own expense one or two assistant hands. This class of labor, as a rule, is settled for by the month. As regards surface work, employees are paid either by the day or by the job, according to circumstances. As explained in the case of the company of Anzin, only average wages for a series of years can be given. This the following table gives for the years 1872-73 to 1891-92:

AVERAGE DAILY WAGES OF EMPLOYEES OF THE COAL MINING COMPANY OF BLANZY, 1872-73 TO 1891-92.

Year.	Average daily wages of—			Year.	Average daily wages of—		
	Employees at pits, below and above ground.	Other employees.	All employees.		Employees at pits, below and above ground.	Other employees.	All employees.
1872-73.....	\$0.58	\$0.57	\$0.58	1882-83.....	\$0.72	\$0.63	\$0.68
1873-74.....	.59	.60	.60	1883-84.....	.74	.63	.68
1874-75.....	.59	.58	.58	1884-85.....	.72	.63	.68
1875-76.....	.60	.60	.60	1885-86.....	.73	.63	.68
1876-77.....	.61	.62	.61	1886-87.....	.76	.63	.70
1877-78.....	.63	.59	.61	1887-88.....	.78	.64	.71
1878-79.....	.63	.59	.61	1888-89.....	.78	.64	.71
1879-80.....	.65	.60	.62	1889-90.....	.79	.67	.75
1880-81.....	.67	.60	.64	1890-91.....	.80	.69	.77
1881-82.....	.69	.62	.66	1891-92.....	.80	.71	.79

WORKINGMEN'S INSTITUTIONS.

The social work undertaken by the company of Blanzv, and by the employees themselves, at Montceau follows along the same general lines as that at Anzin. As at the latter place, the main efforts of the company take the form of the provision of houses and of facilities for workingmen to become house owners, the organization of pension funds, the maintenance of schools, etc.; and those of the employees, the organization of a mutual aid society, in which, however, the company largely participates, and other societies. There are, of course, important points of difference. The policy of the company of Blanzv in encouraging house ownership has been particularly liberal and has met with remarkably successful results. The company, again, has done a very useful work in its efforts to provide employment for miners' wives and daughters, maintaining for that purpose workshops, in connection with its schools, for the making of articles of wearing apparel, and a completely equipped silk-weaving mill for the older women. On the other hand, its system of old-age pensions, whereby the workingmen are not permitted to contribute in any way to the maintenance of the fund, is one that does not so readily commend itself as that practiced at Anzin.

Among institutions organized by the workingmen themselves, the society called La Prudence, which the workingmen have organized for the management of their business affairs, serves a useful purpose, while, on the other hand, the province of distributive cooperation seems to be practically neglected, though the field is apparently one offering every opportunity for its successful introduction.

THE HOUSING OF EMPLOYEES.

The situation of the mines of Blanzy, located, as they are, in a purely agricultural community, of necessity demanded that the first efforts of the company should be directed toward the provision of dwellings for their employees. The work of the Blanzy company in this direction deserves especial attention, both on account of the extent of its operations and because of the liberal policy that it has pursued in regard to house ownership.

M. Simonin, a mining engineer, writing concerning workingmen's institutions at Montceau, after a visit in 1867, says:

The question of lodgings for its employees has almost from the beginning been an object of solicitude to the Blanzy Coal Mining Company. In 1834 it established dwellings for workingmen; but having soon discovered all the drawbacks that the old system of barrack dwellings has as regards tranquillity, hygiene, and morals, especially for miners who relieve each other by turns, it adopted for the future the system of separate houses, each surrounded by a garden. Each house includes two tenements, having each two rooms on the ground floor, a loft and a cellar, and a pigsty attached. In front of the house there is a yard, and at the back a garden, the whole well fenced in. The yard opens on the street, which is broad and well kept. * * * The garden covers an area of from 400 to 500 square meters (4,306 to 5,382 square feet). The workingman raises vegetables for his table and flowers to adorn his home. A garden is absolutely necessary to the coal miner, who is connected by his birthplace and by the nature of his work with the agricultural population. * * * The village looks cheerful; the isolated houses, with their roofs of red tile, produce a picturesque effect.

Since the time that M. Simonin wrote the above important changes, all in the nature of improvements, have been made. The style of cottage described by that author has now been completely abandoned. A new and more graceful model was adopted in 1867. It comprises three, and in some cases four rooms. The gardens have also been enlarged, their average area being now about 700 square meters (7,535 square feet). Instead of grouping the houses all together in one place, they have been erected in separate groups, and in many cases scattered about the country as isolated dwellings, but in close proximity to the mines.

The following table, prepared by the company for this report, shows the condition of affairs in 1894 as regards the direct provision of houses by the company:

NUMBER AND COST OF HOUSES ERECTED FOR EMPLOYEES BY THE COAL MINING COMPANY OF BLANZY, 1894.

Groups of houses.	Dates of erection.	Houses.	Tenements.	Cost.			Annual loss of interest.
				Land.	Construction.	Total.	
Alouettes	1844-1859	99	220	\$6,635.22	\$68,680.53	\$75,315.75	\$3,012.64
Magny	1859-1876	96	209	3,164.28	92,923.57	96,087.85	3,843.52
Bel-Air	1859-1876	74	129	6,525.21	70,948.77	77,473.98	3,098.95
Bois-du-Verne	1859-1876	101	220	5,804.78	88,047.82	93,852.60	3,754.10
Other houses .....	.....	120	386	44,060.04	149,972.35	194,032.39	7,761.29
Total .....	.....	490	1,164	66,189.53	470,573.04	536,762.57	21,470.50

The picturesque aspect of Montceau, so aptly described by M. Simonin, has, as a matter of course, improved. Well-kept carriage roads run through the workingmen's quarters; trees and plants of all kinds have sprung up, and the green of their foliage makes a pleasant contrast with the red tiled roofs. Here and there a cottage somewhat larger than the rest and inhabited by a boss miner, gang leader or checker, or some other employee of the company breaks the monotony. In the center the schools and a chapel of Romanesque style give to the various groups a pleasing aspect peculiar to the small towns of Burgundy.

No attempt has been made by the company to obtain a commercial return on its investment in lodgings. While an ordinary workingman's house rents for about 12 francs (\$2.32) per month in the neighboring villages, the average rent charged by the company of Blanzay is from 4.50 to 6 francs (\$0.87 to \$1.16). Thirty-nine cottages are let at 2.50 francs (48 cents), 7 at 3 francs (58 cents), 534 at 4.50 francs (87 cents), 13 at 5 francs (97 cents), 149 at 6 francs (\$1.16), 4 at 9 francs (\$1.74), and the others under various special arrangements.

The direct provision of houses by the company, such as has been described above, forms, however, the least interesting part of its efforts for the housing of its employees. Much greater interest attaches to the means that it has adopted for encouraging the workingmen to become the owners of their own homes. To do this, the first step taken by the company was to acquire several tracts of ground adjoining its mines. These it subdivided into lots of from 20 to 25 ares (21,528 to 26,910 square feet) in size, after having laid out the streets of a village. These lots it placed at the disposition of its miners at their cost price, which is only one-fifth or one-tenth as much as they would have to pay elsewhere in the neighborhood. Any miner could ask for the concession of a lot, and if his request was granted an advance of 1,000 francs (\$193) with which to build was at the same time made to him, the whole being repayable in ten annual installments.

That the workingmen have appreciated the advantages offered to them is shown by the following figures: In 1888 the total number of workingmen having received concessions of ground was 316, and the area of ground sold to them was 77.7393 hectares (192 acres), at an average value of 2,629.14 francs (\$507.42) per hectare. To enable them to build there had been advanced to 303 of their number 235,492 francs (\$45,449.96), an average of 777.20 francs (\$150) each. In 1893, five years later, these figures had risen to 400 for the total number of workingmen having received concessions and to 88.9936 hectares (220 acres) for the area of ground sold, at an average value of 2,721.95 francs (\$525.34) per hectare, and 242,019 francs (\$46,709.67) had been advanced to 387 workingmen, or an average of about 625 francs (\$120.63) each.

The system by which land was provided and money advanced to workingmen with which to build was adopted in 1857. To supplement this the company, by regulations dated May 2, 1874, offered to advance money, with which to build, to workingmen who were either the owners

of land elsewhere or for any reason desired to build on land other than that offered by the company. Including those who took advantage of these later regulations the total number of workmen having received advances in 1893 was 540, and the total amount of the advances 469,792 francs (\$90,669.86).

The system of grants of land and advances of money under the two regulations that have just been described developed, however, several serious drawbacks. Many of the workmen, when they undertook to build, were in possession of totally inadequate means for that purpose, and the advances of the company did not suffice to pay all the building expenses. The workmen were, nevertheless, so desirous of availing themselves of the advantages offered that they would borrow elsewhere relatively large sums, sometimes at high rates of interest, and, as a result, they would be kept a long time under the burden of a heavy debt. The houses, likewise, were occasionally of a totally unsuitable character. The greatest hardship, however, was occasioned in those cases where death intervened before either the company or other creditors had been repaid their advances. The property, in consequence, would be sold or otherwise disposed of under unfavorable circumstances; lawyers' fees would often have to be paid, and the families would be left in great distress. It was desirable, therefore, to devise some means by which these disadvantages could be obviated. As a result important modifications were made in 1893 in the regulations of 1874. Henceforth the amount of the advance allowed to workmen with a view to building was not limited to 1,000 francs (\$193), but, if need be, could equal the total value of the house to be built, without, however, exceeding the sum of 2,500 francs (\$482.50). The maximum delay for the repayment of the advance was at the same time extended to fifteen years. The essential innovation, however, was that by which the prospective builder was required to contract a mixed or tontine life insurance policy to the amount of his advance.

The premiums paid on this policy, therefore, take the place of the annual installments formerly paid to the company. The borrowing workman pays, or rather agrees that there shall be deducted from his wages, during the time indicated in his policy, first, the amount of his insurance premiums, and, second, interest at 3 per cent on the sum that has been advanced to him. At the date fixed upon, or at the death of the workman, if his death takes place before the expiration of the term, the insurance money serves to repay the amount advanced and a complete title to the property is secured.

A most important feature of the new regulations is that whereby the administration of the whole system of advances is turned over to La Prudence, a society that the laborers and officials of the company have organized to take charge of their business interests, and of which a description is given in another place. The workman who wishes to build addresses himself to La Prudence instead of to the company.

This society, after making an investigation, allows the advance. The policy of insurance is taken out in favor of the society, and it advances the money necessary for building. On this, as has already been stated, it receives interest at the rate of 3 per cent. In order to stimulate the society to encourage the acquiring of homes the company pays to it annually 45 francs (\$8.69) during fifteen years for every house built by a workman under these auspices.

The granting of these encouragements and aid by the company has been productive of remarkably successful results. A number of important individual settlements have grown up that have an appearance quite different from that of a regular workmen's village. In 1889 there were 1,079 workmen who were owners of the houses that they occupied and of the surrounding ground. In 1892 this number had increased to 1,306, or over 25 per cent of the total number of workmen who were heads of families. But the new regulations have succeeded in a yet more remarkable degree. In the year succeeding the date of their application, April 15, 1893, 113 workmen took out insurance policies and commenced the acquisition of homes, representing a total amount borrowed of 266,456 francs (\$51,426.01). The popularity of the new system is very natural if one takes into consideration that in this way a workman can become the owner of a house of the value of about 2,500 francs (\$482.50) in fifteen years while making an annual payment of little if any in excess of an ordinary rent. The figures given above concerning house ownership represent, moreover, only those workmen who have become house owners by profiting by the advantages offered by the company. As to those who have bought with their own savings or have acquired homes in any other way, they are not represented in the total as given, though their number is believed to be an important one.

OLD-AGE PENSIONS.

Next to the matter of housing, that of the care of their old employees has been and must continue to be the subject of the greatest solicitude on the part of the large employers of labor in Europe. The company of Blanz had the honor to be the first mining company to establish at its own expense a fund for the pensioning of its workmen in their old age. Its creation dates from January 25, 1854. Until 1882, however, the benefits of the fund were limited to employees working below ground. As constituted during this period, provision was made for pensions of from 180 to 240 francs (\$34.74 to \$46.32) a year to unmarried and of from 240 to 300 francs (\$46.32 to \$57.90) to married workmen when they had reached a certain age and had worked a certain number of years for the company, half of the pension to be continued to the wife on the death of the pensioner. In 1881 the company determined to modify its regulations so that, dating from January 1, 1882, all of its employees, in whatever capacity they were employed, should participate

in the benefits of the insurance fund. At the same time the amount of the pension granted was considerably increased.

In pursuance of these regulations the company established the following schedule of pensions:

SCHEDULE OF ANNUAL PENSIONS PAID TO WORKINGMEN BY THE COAL MINING COMPANY OF BLANZY.

Occupations.	Annual pensions paid to workingmen after—					
	55 years of age and 30 years of service.	56 years of age and 31 years of service.	57 years of age and 32 years of service.	58 years of age and 33 years of service.	59 years of age and 34 years of service.	60 years of age and 35 years of service.
Master miners, or head foremen	\$130.28	\$138.96	\$147.65	\$156.33	\$165.02	\$173.70
Gang leaders, foremen, underground checkers, and masters of tugs	101.33	108.08	114.84	121.59	128.35	135.10
Underground workingmen, underground mechanics, wharf and surface checkers, and yard foremen	86.85	92.64	98.43	104.22	110.01	115.80
Blacksmiths, fitters, modelers, carpenters, wheelwrights, engineers, etc.	57.90	61.76	65.62	69.48	73.34	77.20
Surface workmen working in yards, wharf laborers, navvies, and railway hands	46.32	49.41	52.50	55.58	58.67	61.76
Widows, women, and girls whose names are on the pay rolls	34.74	37.06	39.37	41.69	44.00	46.32

As the pensions are purely in the nature of a grant on the part of the company, there is no special account of receipts and expenditures of a fund. The results are shown only by a statement of the number of pensioners from year to year and the total and average amount of the pensions. This is done for the ten years from 1884-85 to 1893-94 in the table that follows:

EXPENDITURES FOR PENSIONS BY THE WORKINGMEN'S PENSION FUND AT BLANZY, 1884-85 TO 1893-94.

Year.	Pen-sioners.	Total pensions.	Average pension.	Year.	Pen-sioners.	Total pensions.	Average pension.
1884-85.....	216	\$14,531.93	\$67.28	1889-90.....	308	\$19,606.18	\$63.66
1885-86.....	242	16,480.25	68.10	1890-91.....	327	20,604.72	63.01
1886-87.....	249	17,418.29	69.95	1891-92.....	360	21,715.83	60.32
1887-88.....	263	17,764.87	67.55	1892-93.....	393	24,368.71	62.01
1888-89.....	280	18,213.75	65.05	1893-94.....	410	25,970.54	63.34

The enactment of the law of 1894, regarding the insurance of miners, has necessitated the reorganization of this system of old-age pensions to some extent. The essential provisions of the law have been stated in the preceding chapter, and need not be repeated here. At Anzin practically no reorganization of system was required. At Blanzly, however, there was necessitated the fundamental change from a company supported fund to a regular insurance institution, in both the conduct and support of which the workingmen would participate.

In thus making provision for the pensioning of old employees, the company seems to have pursued its accustomed liberal policy as far as the voluntary subjection of itself to pecuniary sacrifices is concerned; but it has by no means kept in line with the general trend of the modern movement for the insurance of workingmen, regarding the manner

in which the pensions are accorded. There is almost a consensus of opinion that the best system of free insurance is that whereby the workmen are required to contribute to an equal extent if possible with the employers in the constitution of an insurance fund. They are at the same time allowed to participate in the management of the fund; and the pension is one that when acquired the recipient accepts with a feeling that he is receiving not a bounty but rather a return for his years of sacrifice and economy.

In determining this question much depends on the character of the workmen in each locality, but it is difficult to believe that workmen who could to so large an extent become house owners are not in a position to participate actively in the constitution and management of an insurance fund as is done by their brother miners in the north. It is more than ever difficult to understand, as these principles have been exactly carried out in the insurance fund for the higher grades of employees of the company.

In 1880 the company organized a second pension fund for the benefit of its engineers, physicians, and office employees. In this case, however, the expense is not entirely borne by the company. The receipts of the fund consist of an annual payment by each member of a sum equal to 2½ per cent of the total amount he has received in wages, a subsidy by the company of an equivalent amount, and miscellaneous receipts, such as interest on funds invested, fines, etc. A member may retire and receive a pension after he is 55 years of age and has been employed twenty-five years. The value of the pension equals one-half the average annual salary that the pensioner has earned during the last five years of his employment, and is increased by one-fifteenth for each additional year of service if he remains in the employ of the company longer than twenty-five years before retiring, but this pension shall not exceed two-thirds of the average annual salary based upon the last five years of service. The minimum and maximum pensions are 1,200 francs (\$231.60) and 9,000 francs (\$1,737), respectively, per annum. In case of death the pension to half the amount is continued to the widow.

The following table gives the results of the operation of this fund during the ten years 1884-85 to 1893-94:

FINANCIAL OPERATIONS OF THE PENSION FUND FOR HIGHER EMPLOYEES AT BLANZY, 1884-85 TO 1893-94.

Year.	Total receipts.	Total expenditures for pensions.	Surplus.	Capital at end of year.	Pensioners.	Average pension.
1884-85.....	\$4,247.75	\$616.57	\$3,631.18	\$26,129.62	7	\$88.08
1885-86.....	4,361.71	820.49	3,541.22	29,670.84	8	102.56
1886-87.....	4,628.39	2,466.37	2,162.02	31,832.87	13	189.72
1887-88.....	5,792.28	2,874.35	2,917.93	34,750.80	14	205.31
1888-89.....	6,914.48	2,673.89	4,240.59	38,991.39	16	167.12
1889-90.....	7,132.44	3,978.42	3,154.02	42,145.42	18	221.02
1890-91.....	11,606.75	4,114.36	7,492.39	49,637.81	19	216.55
1891-92.....	12,376.03	4,477.91	7,898.12	57,535.93	19	235.68
1892-93.....	8,968.32	4,073.67	4,894.65	62,430.58	18	226.32
1893-94.....	9,340.87	3,904.74	5,436.13	67,866.72	19	205.51

MUTUAL AID SOCIETY.

A provident and relief fund was the first institution created by the company for the benefit of its employees. It was organized in 1834. Its constitution has been repeatedly modified, notably in 1854, 1865, 1868, and 1875. Its present constitution dates from the year 1885. By it there is organized a regularly incorporated society under the title of Société de Secours Mutuels des Employés et Ouvriers des mines de Houille de Blanzv.

In its organization the company has given to it a character that differentiates it widely from the ordinary mutual aid society of France. The company has made it the instrumentality for the administration of all its various forms of aid and relief, not only such as the granting of relief to sick and injured workmen, but the provision of educational facilities, the administration of the medical service, and the granting of direct pecuniary aid to widows and orphans.

The society is therefore a mutual aid society in that the employees contribute by the payment of dues to the constitution of a relief fund; and at the same time a company's aid fund, as a number of the branches of aid are declared by the constitution to be entirely at the charge of the company.

The policy of thus giving its aid through an independent and mutual aid society has been productive of very beneficial results.

The constitution of this society sets forth in the most detailed way the objects of the society, the amount of relief and the conditions under which it is granted, and the organization and administration of the society. These provisions can here be given in only the most summary way.

The objects of the society are stated to be: The assistance of employees of the company in cases of accidents and sickness, through the granting of free medical attendance and medical supplies, and the payment of cash benefits to such sufferers during the time that they are unable to work; the providing for old and incapacitated workmen, the aiding of the widows, children, and parents of workmen killed during the progress of the work of mining, or wholly or partially disabled; the provision free of cost of text-books and stationery to children of workmen attending the elementary schools maintained by the company, and the relief of workmen and their families in various ways in cases of need and distress.

The membership of the society consists of all employees of the company, whatever their age or sex.

The receipts of the society are derived from dues of members, subsidies granted by the company, and miscellaneous sources, such as fines, interest on the permanent fund, and gifts. The members are divided into two classes, viz, engineers and office employees and workmen proper. The dues of members of the first class consist of a sum

equal to 1 per cent, and those of the second class of a sum equal to 2½ per cent of the amount of their wages. The subsidies of the company must equal the total sum paid in as dues by the second class. In addition to this subsidy, the company obligates itself to maintain, at its own expense, infant schools for the children and primary schools in connection with workshops, where all the children of employees will be received gratuitously; to provide the necessary ground and buildings and to keep in repair a hospital for workmen injured by accidents, and in certain cases for those suffering from serious illness, a pharmacy with laboratory and pharmaceutic stock, a sufficient number of consultation rooms for physicians, and also the payment of the salaries of physicians, pharmacists, nurses, etc.

The first great category of relief granted by the society is that to members when sick. In general all members have a right to receive medical attendance and medicines gratuitously after they have been enrolled one month. The wives and children of members who have been enrolled two months are likewise entitled to similar aid.

The second class of assistance afforded by the society is that of cash benefits to members during the time they are incapacitated for work as the result of sickness or accident. The constitution contains elaborate regulations and schedules, showing when such benefits are due and the standards according to which their amounts are determined. These schedules are shown in the following table:

SCHEDULE OF BENEFITS FOR SICKNESS AND ACCIDENT PAID TO MEMBERS OF THE MUTUAL AID SOCIETY AT BLANZY.

Beneficiaries.	Daily benefit for—	
	Injury or sickness resulting from work.	Ordinary sickness lasting more than seven days.
Workingman, unmarried or widower, 17 years of age or over	\$0.24 to \$0.34	\$0.14 to \$0.19
Workingman, married, living with his wife. . . . .	.29 to .34	.19 to .24
Each legitimate child under 13 years of age, as supplement to parents' indemnity. . . . .	.06 to .07	.05 to .06
Wife, widow, or girl 17 years of age or over employed by company. .	.14 to .19	.12 to .14
Child 13 to 17 years of age employed by company. . . . .	.14	.10 to .12

It will be noticed that a distinction is made between sickness or accident resulting from the prosecution of the work and that contracted under other conditions, the benefits being greater in the former than in the latter case. In exceptional cases, where the injured or sick workman has an unusually large number of persons dependent upon him for support, the amount of the benefit as fixed in the regular schedules can be slightly increased. In no case, however, can the pecuniary aid accorded to a married man, for himself, his wife, and children, exceed 2.25 francs (43 cents) in case of injury from an accident, or 1.75 francs (34 cents) in case of sickness. No benefit is paid for an injury or sickness resulting from drunkenness or other misconduct.

When a sickness, not occasioned directly by the work, continues more

than one hundred days the right to pecuniary aid ceases. Nevertheless the administrative council may by special act accord three successive continuances of thirty days each, but not more.

The third branch of relief work of the society is the pensioning of disabled workingmen. The society provides for a comprehensive scheme of pensions for disabled workingmen and for their widows or children in case they are killed as the result of accidents occurring during work. The following statement shows the value of invalidity pensions:

SCHEDULE OF PENSIONS FOR INVALIDITY PAID TO MEMBERS OF THE MUTUAL AID SOCIETY AT BLANZY.

Beneficiaries.	Partial invalidity (per day).	Total invalidity (per day).
Workingman 17 years of age or over.....	\$0.19	\$0.24
Working woman 17 years of age or over.....	.14	.19
Child 13 to 17 years of age.....	.12	.14

A member who is married at the time he becomes entitled to a pension receives in addition, during the life of his wife, an increase of 0.30 francs (6 cents) per day to his pension, and for each legitimate child under 13 years of age, 0.25 francs (5 cents) additional. After the death of the husband or father such additional pensions will continue to the widow until her remarriage, and to the children until they become 13 years of age. Save in exceptional cases, however, no pensioner can receive more than 1.75 francs (34 cents) for partial or 2 francs (39 cents) for total invalidity.

The widow of a workingman killed by an accident received in his work is entitled to a pension from the day of her husband's death of 20 francs (\$3.86) per month if she is under 60 years of age or 25 francs (\$4.83) if she is over that age. In addition the expenses of the funeral of her husband are defrayed by the society. Children of pensioned widows, moreover, receive 6 francs (\$1.16) per month until they are 5 years of age and 8 francs (\$1.54) thereafter until 13 years old. Orphans, having neither father nor mother, of workingmen killed by accident while at work receive 10 francs (\$1.93) per month until 13 years old.

Provisions are also made for the granting of aid to persons or their dependents injured by accidents occurring otherwise than during work, though their payment is left largely to the discretion of the managing council of the society, to be determined according to the merits of each case.

Finally, provision is made for the pensioning of employees who are no longer able to work on account of the infirmities of old age. The section of the constitution regarding this point provides that when aged workingmen become infirm and unable to provide for their needs by labor, if they have no claim either to a pension from the old-age pension fund or to the aid extended to the sick and injured, the administrative

council may, in their option, grant them a monthly pension not to exceed the amounts shown in the following table:

SCHEDULE OF PENSIONS FOR OLD AGE PAID TO MEMBERS OF THE MUTUAL AID SOCIETY AT BLANZY.

Beneficiaries.	Years of service.	Minimum age.	Maximum aid (per month).
Workingmen.....	15	45	\$2.90
Working women.....	15	45	1.93
Workingmen.....	20	50	3.86
Working women.....	20	50	2.51
Workingmen.....	25	55	4.83
Working women.....	25	55	3.09

Additional provisions are likewise made for the pensioning of the widows and children of workingmen pensioned according to these provisions.

In the foregoing résumé of the conditions under which relief is granted, by no means all of the cases under which such aid is granted have been enumerated, or the special conditions under which relief is increased or discontinued. To do so would have necessitated the translation of the constitution in extenso. Only the general classes of aid could be mentioned.

The society, it should be said, is administered by a council of 23 members, of which the general manager, the engineer in chief, and the general secretary of the company are ex officio president, and first and second vice-presidents, respectively. The other members consist of a treasurer and a secretary, chosen from among the office force, and 18 other members, three of whom are elected from among the engineers, chief clerks, and office force; three from among the master miners, foremen, gang leaders, checkers, overseers, and yard masters; six from among the miners proper; two from among the laborers and other employees working below ground; two from among the workingmen engaged in building construction, and watchmen and doorkeepers, and two from among the railway employees and other surface workingmen.

The great variety of conditions under which relief is given, and the number of objects of expenditure, render it impossible to give statistics of the operations of the society in detail. The following table, however, shows for three recent years the receipts and expenditures of the society, according to the main objects for which such expenditures were made:

RECEIPTS AND EXPENDITURES OF THE MUTUAL AID SOCIETY AT BLANZY, 1888, 1891, AND 1893.

	1888.	1891.	1893.
RECEIPTS.			
Subsidy of company.....	\$27,931.86	\$41,191.41	\$41,545.21
Dues of members.....	28,537.75	41,939.51	42,331.76
Interest on capital.....	4,226.70	5,008.66	5,543.85
Other receipts.....	1,097.17	811.52	854.83
Total.....	61,793.48	88,951.10	90,315.65

RECEIPTS AND EXPENDITURES OF THE MUTUAL AID SOCIETY AT BLANZY, 1888, 1891, AND 1893—Concluded.

	1888.	1891.	1893.
EXPENDITURES.			
Relief in money:			
Wounded and sick	\$23,831.76	\$34,467.50	\$37,431.06
Widows	7,304.28	7,574.39	7,453.72
Orphans	1,490.51	1,564.29	1,258.70
Infirm	14,739.93	15,568.80	17,023.87
Total	47,366.48	59,174.98	63,167.35
Medicines and medical supplies	7,454.79	12,721.09	14,477.27
Funeral expenses	397.64	467.46	430.17
Schools	5,020.54	2,768.42	4,022.24
Expenses of administration	1,001.72	966.63	2,994.68
Other expenses	82.36	1,715.85	1,566.11
Balance	469.95	11,136.67	3,657.83
Total	61,793.48	88,951.10	90,315.65
Assets December 31	107,804.32	132,105.77	143,464.94

MEDICAL SERVICE.

The company has carried out the obligations imposed upon it by the constitution of the mutual aid society in the most liberal spirit. The most important of these are those for the organization of a medical service and the provision of educational facilities. A medical service of high efficiency has been created. Four physicians, paid by the company, give their entire attention to the care of the health of the employees of the company.

The following classes are entitled to both medical help and medicines: All employees a part of whose wages are reserved for the relief fund; their wives when living and residing with them; their children when residing with them and under 12 years of age, and also children over that age if they are unable to work and have no means of their own; their parents residing with them when without means of their own; all pensioners of the company, their wives, and children under 12 years of age and those over 12 if unable to work; widows and children drawing a pension by virtue of the regulations of the benefit society.

At Montceau the workmen when sick prefer, if possible, to be treated in their own homes. This is encouraged by the company, and only the most severe cases of illness are therefore treated at the hospital. The care of the physicians is supplemented by that of nurses taken from among the Sisters of Charity, whose services may be secured on the certificate of the physician.

At the present time there are 11 nuns in the service. The nurses are not allowed to accept any remuneration for their services from their patients. Previous to 1871 Montceau possessed a small hospital, the care of which was intrusted to the Sisters of Saint Vincent de Paul, a surgeon and a physician, both of whom had their consulting rooms, being in attendance. The increase in the number of employees caused this hospital to become insufficient. In 1869 the Blanzly company began,

at its own expense, the building of a new edifice. In 1871 it was finished and formally opened. It has a very imposing appearance, and its interior arrangement appears to be perfect. M. Burat, writing about the coal-mining industries in 1872, says of it:

This establishment, all the details of which are studied most carefully, may be considered as a perfect model. It covers 533 square meters (5,737 square feet), the main building measuring 22 by 11 meters (72 by 36 feet) and the wings 17 by 8.50 meters (56 by 28 feet). Two stories of well heated and ventilated rooms are fitted up to accommodate 30 patients, and could accommodate twice as many if necessary. From the main wards large doors open into a chapel, which allows the sick patients to receive the instructions and consolations of the church. Halls for consultation, bathrooms, surgery, pharmacy, and dispensary—everything has been foreseen and skillfully arranged. There is a garden and terrace for convalescent patients. It seems as though one had sought to take from the word "hospital" the unpleasant associations which it arouses in the mind of the workingman, but which are less repugnant to him when he is the recipient of so much kindness.

The Sisters of Saint Vincent de Paul have charge of the new hospital, as they had of the old one. Mention should also here be made of a fine new building just opened that is intended both as a hospital and as a home for old workingmen. Several months before his death M. Léonce Chagot, the general manager of the company, commenced the construction of this building at his own expense. After his death his widow completed it and donated it to the company, with the proviso that it should be used for the care of the old workingmen who, through any casualty, were left alone in the world. Its objects are exactly analogous to those of the Soldiers' Homes in this country. No expense has been spared to make it a comfortable and attractive home. It will accommodate 40 persons. The company has accepted the gift, and in the future will support all the expenses connected with its maintenance.

SCHOOLS.

Few, if any, mining companies have exceeded that of Blanzky in the sacrifices made for the provision of educational facilities for the children of their employees. The company at the present time supports 21 schools, 6 of which are infant, 8 boys', and 7 girls' primary schools. August 1, 1893, there were in attendance a total of 6,292 scholars—1,830 in the infant, 2,197 in the girls' primary, and 2,265 in the boys' primary schools. The instructors number 148, of whom 61 are Marist Brothers and 87 Sisters of Saint Vincent de Paul and of Saint Joseph de Cluny. Examinations are held every year, and scholarships of 450 and 225 francs (\$86.85 and \$43.43) are awarded to those making the best record of efficiency to enable them to continue their studies in advanced schools.

The first expense of the establishment of these schools and of the workshops attached to them, an account of which follows, amounted to

1,007,492.54 francs (\$194,446.06). The furniture and apparatus for their equipment cost 31,698 francs (\$6,117.71), and the equipment of the workshops 52,231.65 francs (\$10,080.71). The cost of operation of both schools and workshops amounted in 1891-92 to 171,749.94 francs (\$33,147.74), of which 107,534.44 francs (\$20,754.15) were for salaries of teachers and repairs of furniture, and 64,215.50 francs (\$12,393.59) for the keeping in repair of the buildings themselves.

As a rule the company's schools are intended only for the children of their own employees, but a goodly number of outside children have always been admitted upon the request of their parents. On the other hand the employees of the company are at perfect liberty to send their children to other schools, though few avail themselves of this option.

TRADE SCHOOL SHOPS FOR GIRLS.

From a number of points of view the most admirable feature of the work of the company regarding education is the existence of workshops in connection with the girls' schools. In these young girls can learn a trade, or more frequently learn to make and repair family clothing. There are seven shops in all; knitting by hand machines is taught in four, shoemaking in another, and in all the chief occupation is sewing and clothes making. Each girl can either work for herself and family or for sale to the public as she chooses. The company pays for all the machines and tools and remunerates the directors. The system is being constantly extended. In 1888 there were 219 girls attending the workrooms, their average earnings being 16.55 francs (\$3.19) a month, though some earned as much as 50 francs (\$9.65) or more. In 1892 the number of girls was 289, with average earnings of 17.50 francs (\$3.38), and in 1893 their number had increased to 355, and their average earnings to 22 francs (\$4.25) per month. In addition to wages certain gratuities are given to the most proficient and industrious. The demand for admittance to the workrooms far exceeds their capacity, and admission is therefore considered almost in the nature of a scholarship as the result of satisfactory work in the schools proper.

LA PRUDENCE, A WORKINGMEN'S BUSINESS SOCIETY.

Under the encouragement of the company, the workingmen have organized, for the management of their business affairs, a society called La Prudence that is unique in its way and deserves a careful consideration. About the year 1885 the employees of the company were severely victimized by various agents purporting to sell lottery and other bonds. The workingmen complained that they were without defense against dishonest representations, that they were unfamiliar with business methods and great hardships were often in consequence endured. Little by little there arose the conception of a workingmen's society which would undertake the care of all the business affairs of its members, such as investments, loans, discounts, buying of title

deeds, management of lawsuits, settling of estates, conduct of correspondence, and other kinds of business.

To secure this La Prudence was organized March, 1887, as a joint stock company. The capital stock, amounting originally to 12,000 francs (\$2,316), has been increased from time to time until now it amounts to 118,000 francs (\$22,774), divided into shares of 50 francs (\$9.65) each. There are now 880 shareholders, three-fourths of whom at least are workmen. They are divided into two classes of honorary and ordinary shareholders. The former pledge themselves not to receive a dividend exceeding 5 per cent. They have a right to their share in the reserve fund and can subscribe to any number of shares, and have in the general assemblies the number of votes that their shares confer upon them.

The ordinary shareholders can not possess more than 20 shares each. The management of the society is intrusted to a general manager elected by the general assembly of shareholders, assisted by a board of 15 members elected in a similar way.

In the beginning the intention of the founders was that the society would simply be the business manager of its members, while at the same time offering a means for the investment of savings. This bringing together of workmen in business relations has, however, been productive of further results. The demonstration of the advantages of association has been such that the members have been led to use their society for the creation of various other institutions for their mutual benefit. Thus there have been organized within the society several quite distinct departments.

The first of these is that of the business agency, for which the society was originally created. In the beginning, business was transacted only with members of the society, all of whom were employees of the Blanzly company. But by degrees the work spread, and to-day La Prudence draws its patrons from every calling, and deals with the public at large. The business of members is transacted gratuitously. Outsiders pay according to a fixed schedule of charges. This department is very much appreciated by the members and by the public as well.

A second department is that of the bank. This department has now become the most important part, at least from the financial point of view, of the activities of the society.

The following figures, contrasting the operations of the bank during the years 1891 and 1892, will serve to convey an idea of its importance and the character of the work that it performs:

CASH STATEMENT.

Balance on hand January 1, 1892.....	\$19,504.44
Balance on hand January 1, 1893.....	15,171.80
Receipts during 1892.....	724,373.52
Paid out during 1892.....	728,706.17
Total financial operations, 1892.....	1,453,079.69
Total financial operations, 1891.....	1,127,986.53
Increase	325,093.16

PAPER DISCOUNTED.

Value of paper discounted, 1892.....	\$220, 455. 29
Value of paper discounted, 1891.....	198, 850. 26
Increase.....	21, 605. 03

NEGOTIATION OF PROMISSORY NOTES.

On hand January 1, 1892, 79 promissory notes, amounting to.....	1, 992. 62
On hand January 1, 1893, 142 promissory notes, amounting to.....	6, 899. 22
Loaned on 3,636 promissory notes.....	254, 079. 94
Received on 3,573 promissory notes canceled.....	249, 173. 34
Total of operations during year 1892.....	503, 253. 28
Total of operations during year 1891.....	403, 572. 10
Increase.....	99, 681. 18

COLLECTION OF BILLS.

On hand January 1, 1892, 1,198 bills for collection, amounting to.....	35, 422. 19
On hand January 1, 1893, 1,108 bills for collection; amounting to.....	35, 832. 20
Received for collection during year, 19,896 bills, amounting to.....	628, 732. 34
Collected during year, 19,986 bills, amounting to.....	628, 322. 33
Total of operations during year 1892.....	1, 257, 054. 67
Total of operations during year 1891.....	989, 876. 49
Increase.....	267, 178. 18

DEPOSITORS' ACCOUNTS.

Deposits on hand January 1, 1892.....	21, 063. 91
Deposits on hand January 1, 1893.....	17, 497. 88
Deposited during year.....	193, 620. 46
Withdrawn during year.....	197, 186. 49
Total of operations during year 1892.....	390, 806. 95
Total of operations during year 1891.....	256, 923. 05
Increase.....	133, 883. 90

The third branch of La Prudence is the savings bank department. Two distinct savings banks have been created. The first, called La Tirelire (The Money Box), is a schools' savings bank. Depositors must be under 21 years of age and either attend the company's schools or be employed in the company's works. Deposits bear interest at 4 per cent, compounded annually. As soon, however, as an account amounts to 200 francs (\$38.60) the society has the option of converting it into a savings certificate in the ordinary shareholders' savings bank. This latter bank, called La Fourmi (The Ant), after a similar organization in Paris, is similar in its operations to other savings banks. The following figures concerning the operations of the two banks during the years 1891 and 1892 illustrate the importance of their operations:

Cash on hand January 1, 1892.....	\$12, 258. 98
Cash on hand January 1, 1893.....	14, 141. 23
Receipts during year 1892.....	24, 764. 89
Paid out during year 1892.....	22, 882. 64
Total of operations during year 1892.....	47, 647. 53
Total of operations during year 1891.....	29, 942. 80
Increase.....	17, 704. 73

A fourth department is the relief fund. Participation in this is purely optional. The fund is constituted through the payment of dues, the receipt of gifts, etc. It is unnecessary to analyze its operations.

The Society of La Prudence has had an unprecedented success among the members of the Blanzly company, and it has exercised a notable influence throughout the surrounding country. Its progress has surpassed all expectations, and it is still increasing. It has established a kind of brotherhood and solidarity between employers and workingmen and other inhabitants of the locality that has been very influential in the maintenance of friendly relations.

The Blanzly company has fully appreciated all these facts, and has encouraged the society in every possible way. It has provided for it a very fine building, the upper story of which is fitted up as a club room for the shareholders. It has with it a running account, borrowing from the society at 4 per cent interest, thus insuring that the society shall never have on hand unproductive money. It pays a small subsidy for trifling services, such as letters, consultations, representation in the law courts, and in general makes it a medium for the transaction of business whenever possible.

Its most notable employment, however, is that whereby it has been made the agent for managing the system lately inaugurated by the company, of advancing money to workingmen with which to build homes. The operation of this scheme, as well as the relation of La Prudence to it, has been fully described under the section devoted to workingmen's homes. This work has already become one of the most important services rendered by the society.

The following general statement of the assets and liabilities of the society for the years 1889 and 1893 shows the growth in importance of the society during these years:

ASSETS AND LIABILITIES OF LA PRUDENCE, 1889 AND 1893.

	1889.	1893.
ASSETS.		
Cash	\$168. 89	\$17, 243. 46
Real estate		2, 085. 06
Running accounts	6, 631. 91	37, 829. 97
Loans	2, 288. 32	10, 697. 50
Stocks, bonds, etc.	5, 856. 33	66, 520. 12
Miscellaneous credits	2, 004. 60	21, 021. 28
Money advanced to workingmen to build homes		29, 555. 14
Total	16, 950. 05	184, 952. 53
LIABILITIES.		
Obligations on account of advances made for building		17, 389 30
Capital	7, 729. 65	26 219. 15
Deposits	7, 243. 06	64, 488. 44
Deposits in La Tirelire	1, 033. 59	2, 700. 36
Miscellaneous liabilities	943. 75	74, 155. 28
Total	16, 950. 05	184, 952. 53

WEAVING FACTORY FOR THE EMPLOYMENT OF WOMEN.

The steps taken by the company to furnish work to the female inhabitants of Montceau, the wives and daughters of their employees, deserves the heartiest commendation. The establishment of workshops for girls in connection with their schools has already received consideration. This, however, provides for but a comparatively small number. Married women, with rare exceptions, are never employed by the company. But widows, enjoying good health, and young girls from their thirteenth year to their marriage, which takes place generally when they are very young, were until late years employed in great numbers in sifting and sorting coal. They have never been allowed to work below ground in the mines. In consequence of improvements made in the methods of sorting and sifting coal, the number of girls thus employed has been greatly diminished during the last few years. This has led the company to devise other means for their employment. As the most important step, the company built in 1882 a fully equipped steam weaving factory. The total cost of erection was 607,441.31 francs (\$117,236.17), divided as follows: Purchase of ground and erection of buildings, warehouses, sheds, etc., 180,835.29 francs (\$34,901.21); purchase of machinery and stock, 421,128.32 francs (\$81,277.76); purchase of furniture, 5,477.70 francs (\$1,057.20). The buildings and yard cover 2 hectares (4.9 acres) of ground. The factory is equipped with 254 looms, of which 154 are for the weaving of plain and embroidered silks and 100 for the weaving of calicoes (Roanne goods style).

The number of working women and workmen furnished employment in this factory in 1892 was 442, and the total amount of their wages 175,590.05 francs (\$33,888.88). At the present time a large addition is in the course of erection, which, when completed, will afford opportunities for the employment of 600 additional working women, or about 1,000 for the whole establishment. It is unnecessary to more than call attention to the great additions that can thus be made to the total family income of the company's employees.

Within the last two or three years the company has commenced the system of giving out work that can be done by the women in their own homes, and at the present time an extension of the system and its further organization is under consideration. The object sought is to permit mothers of families while they are taking care of their children to at the same time increase the family income by the proceeds from light work that can be performed notwithstanding frequent interruptions.

MISCELLANEOUS AID TO WORKINGMEN.

In a community where the influence of the employing company is so all-pervading as at Montceau it is impossible to follow with equal detail all the directions in which the company has exercised its power to

better the condition of the inhabitants. A glance at the table giving the annual sacrifices entailed upon the company by its social work shows how diversified are its activities in this direction. The following paragraph can only attempt to recapitulate briefly the most important features of its work that have not yet been described:

The climate of Montceau is a somewhat rigorous one, and the item of expense for fuel is an important one. The company allows all underground workmen 72 hectoliters (204.3 bushels) of coal, representing a market value of 72 francs (\$13.90), free of cost annually. Other workmen enjoy the privilege of buying coal at reduced rates. During the year 1891-92 there were distributed to underground workmen 296,005 hectoliters (839,973 bushels), worth 296,005 francs (\$57,128.97). Surface workmen received 8,918 fuel grants, worth 12 francs (\$2.32) each, and for which they pay 3 francs (58 cents), representing, therefore, a sacrifice by the company of 80,262 francs (\$15,490.57). In addition, the company provides the pensioned and superannuated workmen, the schools, the hospital, the vicarage, and a great many poor with coal free of cost. During the year 1891-92 the total value of the coal given away amounted to 396,716.20 francs (\$76,566.23). To but mention other objects, the company defrays the expense of a band organized among its employees; it has built and kept in repair several churches; it has provided free bathing establishments; it conducts a small circulating library; it has erected a large flouring mill, in order to cheapen the cost of flour to its employees, and it contributes materially to the support of the various societies for sport and recreation that the workmen have organized among themselves. Among the latter may be mentioned the gun club, the gymnastic club, the fencing club, and young men's and girls' social clubs.

EXPENDITURES OF THE COAL MINING COMPANY OF BLANZY FOR THE BENEFIT OF EMPLOYEES, BY OBJECTS OF EXPENDITURE, 1887-88, 1891-92, AND 1892-93.

Object of expenditure.	1887-88.	1891-92.	1892-93.
Housing of workmen	\$36,562.90	\$47,997.80	\$42,083.68
Mutual aid society	<i>a</i> 27,931.86	42,423.95	44,925.56
Pension fund, workmen	<i>b</i> 19,251.48	21,715.83	24,368.71
Pension fund, higher employees	2,096.28	6,988.05	4,778.67
Schools and workrooms	33,701.11 ^a	42,659.00	45,229.10
Health service	7,776.96	11,121.63	9,257.46
Free fuel	61,716.86	76,566.23	94,955.20
Other subsidies to workmen's societies (direct aid, etc.)	26,889.98	48,318.68	48,225.73
Total	215,927.41	297,191.17	313,824.11

a It will be noticed that these figures agree with those given for the calendar year 1888, page 349. The explanation is not known. The figures in both cases are as furnished by the company.

b These figures do not agree with those given on page 344. The explanation is not known. The figures in both cases are as furnished by the company.

CONCLUSION.

In the preceding account of the conditions at Anzin a general summary has been given of the influences surrounding the life of the workmen, especially from the standpoint of a comparison of past with

existing conditions. The conclusions there reached apply in almost every particular to Blanzy as well. In every respect the workingman's conditions seem to have improved, and while the tendency is for the employer to make greater sacrifices for his employees, the latter are allowed a constantly increasing participation in the management of institutions intended for their benefit. The most important series of tables given in the conclusion for Anzin was that showing the stability of employment. A similar set of tables is here given for Blanzy. An analysis of them along the same lines shows almost identical results. These can be easily seen from an inspection of the tables themselves, as they are very simple in construction.

EMPLOYEES OF THE COAL MINING COMPANY OF BLANZY AT WORK BELOW GROUND, BY AGES AND YEARS OF SERVICE, DECEMBER, 1892.

Ages.	Years of service.													Total.
	Under 1.	1 or under 2.	2 or under 5.	5 or under 10.	10 or under 15.	15 or under 20.	20 or under 25.	25 or under 30.	30 or under 35.	35 or under 40.	40 or under 45.	45 or over.		
13 y'rs or under 18.	61	99	484	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	644
18 y'rs or under 23.	55	198	295	386	.....	.....	.....	.....	.....	.....	.....	.....	.....	934
23 y'rs or under 28.	63	191	172	179	214	.....	.....	.....	.....	.....	.....	.....	.....	819
28 y'rs or under 33.	37	147	151	143	105	113	25	5	.....	.....	.....	.....	.....	726
33 y'rs or under 38.	33	78	63	86	81	97	49	.....	.....	.....	.....	.....	.....	487
38 y'rs or under 43.	14	51	26	41	57	49	65	37	4	.....	.....	.....	.....	344
43 y'rs or under 48.	15	11	14	22	26	43	35	49	23	.....	.....	.....	.....	238
48 y'rs or under 53.	.....	.....	15	20	21	28	32	23	24	19	.....	.....	.....	182
53 y'rs or under 58.	.....	.....	.....	.....	17	15	23	14	24	15	17	.....	.....	125
58 y'rs or under 63.	.....	.....	.....	.....	14	13	21	25	17	11	15	.....	.....	116
63 y'rs or under 68.	.....	.....	.....	.....	.....	.....	12	14	9	12	7	2	.....	56
68 y'rs or over.	.....	.....	.....	.....	.....	7	8	7	8	7	3	.....	.....	40
Total.....	278	775	1,220	877	535	365	270	174	100	64	42	2	.....	4,711

EMPLOYEES OF THE COAL MINING COMPANY OF BLANZY AT WORK ABOVE GROUND, BY AGES AND YEARS OF SERVICE, DECEMBER, 1892.

Ages.	Years of service.													Total.
	Under 1.	1 or under 2.	2 or under 5.	5 or under 10.	10 or under 15.	15 or under 20.	20 or under 25.	25 or under 30.	30 or under 35.	35 or under 40.	40 or under 45.	45 or over.		
13 y'rs or under 18.	215	297	222	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	734
18 y'rs or under 23.	65	89	121	89	.....	.....	.....	.....	.....	.....	.....	.....	.....	364
23 y'rs or under 28.	86	104	84	101	60	12	.....	.....	.....	.....	.....	.....	.....	447
28 y'rs or under 33.	92	123	72	52	36	28	.....	.....	.....	.....	.....	.....	.....	403
33 y'rs or under 38.	77	97	40	23	32	24	4	.....	.....	.....	.....	.....	.....	297
38 y'rs or under 43.	37	35	39	24	16	15	11	11	.....	.....	.....	.....	.....	188
43 y'rs or under 48.	23	24	19	73	36	39	8	19	17	4	.....	.....	.....	262
48 y'rs or under 53.	.....	.....	.....	12	27	32	18	15	9	13	.....	.....	.....	126
53 y'rs or under 58.	.....	.....	.....	.....	.....	9	7	5	3	.....	.....	.....	.....	24
58 y'rs or under 63.	.....	.....	.....	.....	4	5	3	12	9	5	3	.....	.....	41
63 y'rs or under 68.	.....	.....	.....	.....	12	9	15	13	3	.....	.....	.....	.....	52
68 y'rs or over.	.....	.....	.....	.....	5	7	2	.....	7	.....	.....	.....	.....	21
Total.....	595	769	597	374	228	180	68	75	48	22	3	.....	.....	2,959

EMPLOYEES OF THE COAL MINING COMPANY OF BLANZY AT WORK BELOW AND ABOVE GROUND, BY AGES AND YEARS OF SERVICE, DECEMBER, 1892.

Ages.	Years of service.												Total.
	Under 1.	1 or under 2.	2 or under 5.	5 or under 10.	10 or under 15.	15 or under 20.	20 or under 25.	25 or under 30.	30 or under 35.	35 or under 40.	40 or under 45.	45 or over.	
13 y'rs or under 18.	276	396	706	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,378
18 y'rs or under 23.	120	287	416	475	.....	.....	.....	.....	.....	.....	.....	.....	1,298
23 y'rs or under 28.	149	295	256	280	274	12	.....	.....	.....	.....	.....	.....	1,266
28 y'rs or under 33.	129	270	223	185	141	141	25	5	.....	.....	.....	.....	1,129
33 y'rs or under 38.	110	175	163	109	113	121	53	.....	.....	.....	.....	.....	784
38 y'rs or under 43.	51	86	65	65	73	64	76	48	4	.....	.....	.....	532
43 y'rs or under 48.	38	35	33	95	62	82	43	68	40	4	.....	.....	500
48 y'rs or under 53.	.....	.....	15	32	48	60	50	38	33	32	.....	.....	308
53 y'rs or under 58.	.....	.....	.....	.....	17	24	30	19	27	15	17	.....	149
58 y'rs or under 63.	.....	.....	.....	.....	18	18	24	37	26	16	18	.....	157
63 y'rs or under 68.	.....	.....	.....	.....	12	9	27	27	12	12	7	2	108
68 y'rs or over.....	.....	.....	.....	.....	5	14	10	7	15	7	3	.....	61
Total.....	873	1,544	1,817	1,251	763	545	338	249	157	86	45	2	7,670

NUMBER AND PER CENT OF EMPLOYEES OF THE COAL MINING COMPANY OF BLANZY AT WORK BELOW AND ABOVE GROUND, BY YEARS OF SERVICE, DECEMBER, 1892.

Years of service.	Employees below ground.	Employees above ground.	Total.	Employees below ground (per cent).	Employees above ground (per cent).	Total (per cent).
Under 1 year	278	595	873	5.90	20.11	11.38
1 or under 2 years.....	775	769	1,544	16.45	25.99	20.13
2 or under 5 years.....	1,220	597	1,817	25.90	20.18	23.69
5 or under 10 years.....	877	374	1,251	18.62	12.64	16.31
10 or under 15 years.....	535	228	763	11.36	7.71	9.95
15 or under 20 years.....	265	180	545	7.75	6.08	7.10
20 or under 25 years.....	270	68	338	5.73	2.30	4.41
25 or under 30 years.....	174	75	249	3.69	2.53	3.25
30 or under 35 years.....	109	48	157	2.31	1.62	2.05
35 or under 40 years.....	64	22	86	1.36	0.74	1.12
40 or under 45 years.....	42	3	45	0.89	0.10	0.59
45 years or over.....	2	.....	2	0.04	0.00	0.02
Total	4,711	2,959	7,670	100.00	100.00	100.00

EMPLOYEES ENTERING AND LEAVING THE SERVICE OF THE COAL MINING COMPANY OF BLANZY, 1883 to 1893.

Year.	Total employees.	Employees entering.	Employees leaving.	Per cent of employees leaving of total employees.
1883.....	5,321	684	376	7.07
1884.....	5,138	174	357	6.95
1885.....	5,080	205	313	6.22
1886.....	5,092	400	338	6.64
1887.....	5,213	469	348	6.68
1888.....	5,565	708	356	6.40
1889.....	5,996	807	376	6.27
1890.....	7,011	1,417	402	5.73
1891.....	7,932	1,289	368	4.64
1892.....	8,014	419	337	4.21
1893.....	7,834	406	586	7.48
Average	6,195	634	378	6.10

THE SWEATING SYSTEM.

BY HENRY WHITE, GENERAL SECRETARY, UNITED GARMENT WORKERS OF AMERICA.

The sweating system, which makes of the home a workshop, even in the crowded tenement, and drafts the members of the family into service, presents a problem so serious as to command the attention of reformers and statesmen in all nations having the modern industrial system fully developed.

The term "sweating system" has a general meaning, but is specifically used to describe a condition of labor in which a maximum amount of work in a given time is performed for a minimum wage, and in which the ordinary rules of health and comfort are disregarded. It is inseparably associated with contract work, and it is intensified by subcontracting in shops conducted in homes. Such conditions prevail to a distressing degree in localities having a large, herded foreign population, and among people known for excessive industry and thrift—virtues otherwise considered indispensable to prosperity and happiness. Recently arrived foreign working people crowded into the big cities are the most helpless, and, in order to barely live, are willing to submit to almost incredible exactions. It is thus that this form of labor soon outcompetes and displaces all other forms and becomes the standard for the particular industry in which it is introduced.

The use of machinery in the making of garments has not figured largely in displacing labor and reducing the standard of skill formerly required, but rather the subdivision of labor, especially in the cheaper grades of work. This has made the garment-making industry an easy refuge for immigrants, and enables them to work in small shops which in many other industries would be inadequate to compete with larger and better-equipped factories. This class of workers, therefore, become wholly dependent upon the knowledge that they have acquired of one small part of the trade, and are incapable of advancement through individual effort.

High rents contribute their share of responsibility for the sweating system. If rents were cheap there would be a distinct advantage in working in separate rooms or shops. This is invariably the result, for in localities where rents are lower, the shops are larger and the evils not so acute. The saving in rent is an important item. To combine a kitchen, bedroom, and workshop, to utilize a garret or a loft over a

stable, saves rent even though it sacrifices the health of the worker and the products of such shops spread sickness and death among the consumers.

The conditions that make the sweating system possible may be summed up as follows: First, crowded population in large cities; second, high rent; third, contract work.

The sweat shop as we know it, if stripped of some of its obnoxious features, represents in a degree the small shop of the master and journey-men, conducted in connection with the household, before the advent of the factory system. In the small towns and villages of eastern and southern Europe this system still continues, particularly in the tailoring trade. The similarity is heightened by the fact that nearly all of the sweaters and sweat-shop workers, and many of the clothing and cloak manufacturers, are natives of eastern Europe, and it is thus that this most undesirable form of industry, the sweating system, became so easy of development and was engrafted on our manufacturing system. In comparison with the more primitive workshop, the sweat shop differs materially. In the former the employer was also the dealer, and the contracting of work did not exist. As the shopkeeper or master depended for patronage upon his immediate neighbors, the keen competition of modern business enterprise was not a factor, and the present leveling struggle for employment was unknown. Neither were the social contrasts so great. The workers labored more leisurely, their wages were naturally lower, and their wants were but few.

The opportunities for cheap labor afforded by the sweat shop were in time taken advantage of by those manufacturers who evidently eased their conscience under the plea of necessity, and apparently it was nobody's business how the work was done as long as a certain price was agreed upon with the sweater who begged for the work.

American enterprise, always alert to introduce the newest productive methods, is credited with first making an extensive use of the labor-cheapening sweating system. Immediately after the close of the civil war a large immigration followed, coming largely from the countries of eastern and southern Europe. An excessive demand also at that time existed for clothing, due to the revival in trade, and the limited capacity of the shops induced the making of garments in homes and by contract. This is how, in all probability, the sweating system received its first impulse. The wholesale manufacture and selling of clothing was then in its infancy. England, Ireland, France, and Germany followed the undertaking, and with it came the sweat shop to the large cities having favorable surroundings for its development.

In Europe the excess of ready-made over custom work is not so large as in this country, and although considerable custom work is made in homes, very little outside help is employed. This distinction is important. Merely working at home on some article of manufacture is not in itself so objectionable. The combination of living apartment and

factory and the employment of outsiders therein constitute the detrimental features which in time become a menace to the community. Much has been done by modern medical science and sanitation to prevent the spread of disease, but, paradoxical as it may seem, the sweat shop as a source of disease in our great centers of population has developed at the same time.

In order to fully comprehend this subject, it is necessary to know the extent and status of the industries in which the sweating evil prevails. Although the sweating system exists in a number of occupations, it is the garment-making industry (comprising men's clothing, ladies' cloak and suit, undergarment, and shirt-making branches) that has given it its real significance. The manufacture of clothing and cloaks at wholesale is the most concentrated of all the garment-making branches, and is confined mainly to the following large cities in the order of their rank, viz: New York and vicinity (including Brooklyn and Newark), Chicago, Philadelphia, Rochester, Baltimore, Boston, Cincinnati, Syracuse, Cleveland, St. Louis, Utica, and Milwaukee. One hundred thousand people, in round numbers, are engaged in this industry in these cities, of whom fully 40,000 are in the vicinity of New York City. By including the shirt and undergarment branches, there are at least 60,000 persons employed at garment making in New York and vicinity, and about 70 per cent of these work in small shops and on contract work. In the ladies' cloak and suit trade the seasons of work are short, and work is usually rushed. The frequent interruptions caused by strikes in this branch have induced many of the wholesale firms to conduct large shops of their own. This is considered to be an improvement.

The clothing and cloak cutters and trimmers number about 8,000, and are credited with being the most intelligent and skilled workmen in the trade. They are employed directly by the firms, usually on the premises, and their condition is in marked contrast to that of the other branches. The hours of labor are nine per day, with the exception of a half holiday on Saturdays during five months. In Chicago, however, the hours of labor are eight per day. The standard wages are from \$15 to \$24 per week, but the usual rate is \$20 per week. This is an indication of the difference between direct employment and indirect contract work. When the latter is undertaken, the middleman as contractor becomes a factor and his profits must be taken from wages. Of course, with subcontracting wages must be reduced still more; so the worker suffers at every appearance of the contractor or subcontractor.

Conditions of labor as degrading, perhaps, as those of the sweat shop exist in many industries, but no class of laborers is so desperately situated, owing to the difficulty of introducing reforms in the numerous small shops abounding in the dark corners of the great cities, the helplessness of the victims, and the ignorant tenacity with which they cling to their tasks.

There are many model shops in which garments are made, having all the latest appliances for the comfort and health of the employees, but

these are exceptions and are mainly due to the generosity and philanthropic motives of the employers or to special business tact and able management. Even the contract method of manufacturing is not in itself injurious so long as such work is carried on in large, healthy shops; but it is the intensifying of competition through this means and the opportunities afforded for petty contractors to successfully compete that make the contract system so disadvantageous.

The petty contractor has made possible the sweating evil, and he is inseparable from it. As little capital and not much general knowledge of the trade are required to become a contractor, almost any ordinary workman can enter the field and compete with the others on even ground. This soon results in such keen competition between the contractors for the opportunity to obtain work that prices are reduced to a ruinous figure.

It is often asked, Why do not the wholesale manufacturers conduct their own large shops just as the cutting of the clothing is done? The manufacturers themselves frankly acknowledge that that would cost them more, even though the contractor makes a profit, and, besides, under the present system the trouble and expense of supervision are avoided. This really means that the wholesale merchant under the contract system shirks all responsibility for the conditions under which the employees work. Moreover, large shops would become more amenable to the State factory laws, and it would then be impossible to impose conditions of work so near the very life line.

This evil does not end here, however, for the contractors in turn subcontract the buttonhole making and finishing or "felling" to others. The "felling" is usually done by women at their homes, and very often by the whole family. Under such an arrangement it is easily seen that, aided by competition, prices and wages must continue to fall, and the work day to be lengthened until the limit of human endurance is reached. This limit, it seems, has been touched through the task system, an arrangement in the coat-making branch by which the contractor and the employees engage in a sort of cooperation, under which the contractor agrees with his employees to solicit work from the warehouses at a figure perhaps refused by another, provided they (a set of hands—usually four or five persons) are willing to do a certain task for a "day's work" for so much wages, even though it takes two or three days to do the specified "day's work." This "set," of course, can work as many hours in a day as it chooses, the only limit being that of endurance. Can a more objectionable plan be devised to obtain all the labor possible from a human being, whether man, woman, or child, the return for which is insufficient to maintain such a high pressure of energy? This is truly the very height of the sweating system. It seems as though its victims are grasping at a chance to preserve life for the time being at any cost. Piecework, which is the rule in the vest, pants, cloak, and shirt-making trades, has been brought, also, to the same level through the contract method of work. The above

description I have endeavored to give temperately and accurately, based upon careful observation. In fact, it would be difficult to exaggerate the unfavorable conditions of this system of labor and its vicious effects.

It is usually supposed that only cheap and common clothing is made in sweat shops and in homes, but such is not the fact, because cheap clothing is generally manufactured on a large scale so that the work can be systematically divided into many divisions—in some cases as many as 12—in order that it may be turned out very quickly; but the well-made garments require the long, continuous, and careful work that the workers at home or in small shops can give.

Factory legislation is now generally recognized as being of practical value and in accord with public policy. The factory acts of England have been largely copied in this country with marked success, and there is a decided tendency in all manufacturing States toward a greater efficiency in the factory inspection service, and the sanitary laws applied to workshops are being made more stringent. The strides made in such regulations, particularly in regard to minors and limitation of working hours, can best be realized when compared with the factory act of England, introduced in 1833, which prohibited children under 11 years of age from working longer than nine hours per day and obliged them to attend school two hours a day. What a story of wretchedness does this tell! The act was passed only after the most intense opposition notwithstanding the fearful disclosures made by a Parliamentary committee.

The limitations set for such protective legislation are confined at present to the enforcement of sanitary rules and rules for personal safety, the employment of minors, and the limitation of the hours of labor for women and children, and even for men in special vocations, but do not touch the contract system, wages, etc.; consequently this great gap can only be filled by the working people themselves through their own endeavors. Factory laws promote the cause of education by keeping children of school age from replacing adults in the factories and by providing rules framed in the interest of cleanliness and morality. All this must naturally have a wholesome tendency to increase self-respect, independence, and self-help, and to make a higher standard of living possible. Some manufacturers have pursued the short-sighted policy of opposing all factory restrictions which eventually proved to be of benefit to the fair manufacturer and the industry in general.

The possibility of contagion spreading through infected clothing coming from filthy shops has been widely discussed, and prominent physicians have acknowledged this to be an imminent danger. In the beginning of 1894 in Chicago a smallpox epidemic prevailed, and was confined mainly to the clothing districts. Two hundred and seventy-three different tenement houses were reported by the factory inspectors to be infected, and the health officials had only a small number of these on their list.

The sweat shop as a menace to health in addition to the other important considerations has led to radical special legislation aiming at the suppression of the sweat shop. New York, Massachusetts, Illinois, and Pennsylvania have thus grappled with the problem, and the results of the measures adopted by these States are watched with close interest by the lawmakers of the other States, and similar legislation is now being proposed in Ohio. The laws of Massachusetts, Illinois, and Pennsylvania are modeled after the following section of the New York factory laws of 1893:

No room or apartment in any tenement or dwelling house shall be used, except by the immediate members of the family living therein, for the manufacture of coats, vests, trousers, knee pants, overalls, cloaks, hats, caps, suspenders, jerseys, blouses, waists, waistbands, underwear, neckwear, furs, fur trimmings, fur garments, shirts, purses, feathers, artificial flowers, cigarettes, or cigars. No person, firm or corporation shall hire or employ any person to work in any room or apartment, in any rear building or building in the rear of a tenement or dwelling house at making in whole or in part any of the articles mentioned in this section, without first obtaining a written permit from the factory inspector, his assistant, or one of his deputies, stating the maximum number of persons allowed to be employed therein. Such permit shall not be granted until an inspection of such premises is made by the factory inspector, his assistant, or one of his deputies, and may be revoked by the factory inspector at any time the health of the community or of those so employed may require it. It shall be framed and posted in a conspicuous place in the room or in one of the rooms to which it relates. Every person, firm, company or corporation, contracting for the manufacture of any of the articles mentioned in this section, or giving out the incomplete material from which they or any of them are to be made, or to be wholly or partially finished, shall keep a written register of the names and addresses of all persons to whom such work is given to be made, or with whom they may have contracted to do the same. Such register shall be produced for inspection and a copy thereof shall be furnished on demand made by the factory inspector, his assistant, or one of his deputies. No person shall knowingly sell or expose for sale any of the articles mentioned in this section which were made in any dwelling house, tenement house, or building in the rear of a tenement or dwelling house, without the permit required by this section, and any officer appointed to enforce the provisions of this act who shall find any of such articles made in violation of the provisions hereof, shall conspicuously affix to such article a label containing the words "tenement made" printed in small pica capital letters on a tag not less than two inches in length; and such officer shall notify the person owning or alleged to own such articles that he so labeled them. No person shall remove or deface any tag or label so affixed. When any article mentioned in this section is found by the factory inspector, his assistant, or any of his deputies, to be made under unclean or unhealthy conditions, he shall affix thereto the label prescribed by this section, and shall immediately notify the local board of health whose duty it shall be to disinfect the same and thereupon remove such label.

The above provisions prohibit not only the manufacture of garments in living apartments (except by the immediate members of the family) and unsanitary workshops, but seek to interfere with the sale of such

goods by making it necessary to have a label attached and by forbidding their sale until properly disinfected and the label removed.

The Massachusetts law is similar in its provisions, but permits goods made in violation of the law to be sold upon the following conditions:

Whoever knowingly sells or exposes for sale any ready-made coats, vests, trousers or overcoats which have been made in a tenement house used as a workshop, as specified in section forty-four of this act, shall have affixed to each of said garments a tag or label not less than two inches in length and one inch in width, upon which shall be legibly printed or written the words "tenement made" and the name of the State and the town or city where said garment or garments were made.

No person shall sell or expose for sale any of said garments without a tag or label as aforesaid affixed thereto, nor sell or expose for sale any of said garments with a false or fraudulent tag or label, nor willfully remove, alter or destroy any such tag or label upon any of said garments when exposed for sale.

The special laws of Illinois dealing with the sweat shops are similar to those of New York and Massachusetts with the exception of the tag or label provision. The factory inspectors, however, are given the power to order garments destroyed when found infectious or containing vermin, and to prevent the employment in any dwelling room of any person not a member of the family living therein. These distinctions are of considerable importance, as in New York and Massachusetts the inspector is first obliged to make complaint to the board of health before goods can be so destroyed, and persons can only be prohibited from being employed in dwelling rooms through process of law.

Pennsylvania last year adopted a special sweat-shop law worded similarly to the New York law, with the exception that it omits the tag or label provision.

The age limitations for the employment of children in these four States are: New York, 14 years; Massachusetts, 13 years; Illinois, 14 years; Pennsylvania, 13 years.

The hours of labor in New York are limited to 60 per week for persons under 18 years of age and women under 21 years of age. No person under 18 years of age and no woman under 21 can be employed before 6 a. m. or after 9 p. m.

In Massachusetts the law limits the hours of work to 58 a week for minors under 18 years and women. No child under 14 years of age can be employed before 6 a. m. or after 7 p. m. In Illinois the law of 1893 provided that no female could be employed more than 8 hours in any day, but the supreme court, in November, 1894, declared this provision unconstitutional. In Pennsylvania minors must not be employed in any one day longer than 12 hours nor in any one week more than 60 hours.

Ohio, Maryland, and Missouri have not enacted any special remedial legislation, although the sweating evil flourishes in their territory. The general factory laws in Ohio are above the average standard. The age at which children may be employed in manufacturing establishments is 14 years, with the provision that children of more than 12 years of age may

be employed at nondangerous employment during the time they are not required by law to attend school. The number of inspectors employed in Ohio is 13, including a chief inspector and a clerk. The Missouri law makes no special provision for the age limitation of child labor, except that minors shall not be required to clean machinery, etc. Maryland does not employ a single inspector; it simply makes violations of the very lenient factory laws subject to prosecution by individuals and the health departments.

Sanitary rules at their best can deal only with one phase of the subject, and can not lessen the tasks of the sweating classes. Neither can the health officials, in addition to other duties, hope to maintain supervision over the evasive sweater. It is only by those who have made factory conditions, particularly in the tenement districts, a study that sanitary rules can be properly enforced and the spread of disease prevented. The evil is so extensive and so difficult to reach that the ordinary factory inspectors, whose duties are not alone to investigate the sweating evil, are plainly unable to cope with the abuses. Legislation preventing the employment of minors, restricting the hours of labor of women and children, and specifying the amount of air space required for each person employed all tends to make the sweat shops as such less profitable. All of the manufacturing States have legislated in this direction, but there is a most remarkable laxity in enforcing these laws or providing for their enforcement. A large, populous State has a force of factory inspectors not as large as the force required to police a city ward, and yet the duties of each inspector are as important and more arduous certainly than those of a policeman.

As the factory inspectors' work is still regarded as experimental, large and quick results are expected, and public criticism is based upon the impression made on the whole vast factory system of the State. To fully extirpate all the workshop evils, very careful and close inspection is required. Besides, the prosecutions for violations are made very troublesome, owing to the difficulty of obtaining sufficient evidence. The employees of a sweat shop, usually through intimidation and ignorant fear, when giving testimony endeavor to shield the employer, even where a flagrant infringement of the law is apparent. The ease with which a sweater can change his abode, thus necessitating a new inspection, is another great obstacle. As the tenement shop is the cheapest method of manufacturing, it is the fittest under the sharp competition which originated it, and consequently the tendency is irresistibly that way. The well-regulated clothing workshop, being at a disadvantage, often gives way to the combination of dwelling and workshop, which neither deserves the name of the one nor is suited to the other. Thus the factory inspectors are called upon to stem this tide—not alone to introduce reforms. To judge what really has been accomplished in this respect, we can only deal with New York, Massachusetts, Illinois, and Pennsylvania, the only States that have made a serious attempt at suppressing the sweat-shop evil.

The State of New York has 24 deputy inspectors (9 of whom are women), a chief, and an assistant to inspect the 65,840 factories in the State. Of these factories 25,400 are located in the vicinity of New York City, and the subfactory-inspection department of New York City has 14 inspectors attached (7 being women).

Massachusetts is better provided in this respect, having 26 inspectors for 26,923 factories.

Illinois has 11 inspectors (including 4 women and a chief) for 20,482 factories in the State.

In 1895 Pennsylvania had 20 deputy inspectors (including 4 women) for 39,339 factories.

From the forthcoming Tenth Annual Report of the Factory Inspectors of New York is taken the following list of prosecutions in New York City for violations of the law regulating the manufacture of clothing in tenement workshops during the year 1895:

PROSECUTIONS FOR VIOLATIONS OF THE LAW REGULATING THE MANUFACTURE OF CLOTHING IN TENEMENT WORKSHOPS, NEW YORK CITY, 1895.

Offense.	Cases.	Fines.
Working in tenement houses	46	\$875
Employing children under 14 years of age.....	20	330
Having unclean water-closets	9	325
Having insufficient water-closets	5	140
Employing children without certificates.....	3	80
Working in rear buildings without permit	2	50
Employing illiterate children	1	30
Overcrowding	1	20
Obscene writing in water-closets	1	20
Total	88	1,870

The report for the State for 1894 shows that 10,425 notifications were issued requiring changes to be made in or about the places visited, of which the following represent the most important:

Factories ordered to stop overworking minors	188
Children under 14 years of age ordered discharged.....	182
Illiterate children under 16 years of age ordered discharged.....	238
Elevators and hoistways ordered guarded	587
Fire escapes ordered erected.....	262
Machines ordered protected	1,320
Separate toilet rooms for women ordered	1,148
Factories ordered renovated.....	638
Running water for workrooms ordered provided.....	75
Buildings condemned as unsafe.....	52
Ordered to cease making clothing in sweat shops	718
Overcrowding ordered stopped.....	53
Better ventilation ordered.....	118

Since the enactment of the law prohibiting manufacturing in homes other than by members of the family, in 1892, and up to January, 1894 (one year and a half), there were erected 59 factory buildings on sites formerly occupied by tenements swarming with people engaged in the

manufacture of clothing. These new factory buildings were built expressly to accommodate the clothing trade under the new conditions. They contain 483 separate shops, and have legal space for 15,477 work people. Besides this, 371 tenements, formerly used for both working and living purposes, were cleared entirely of workers not members of the families living therein, and these tenements are now used for domestic purposes only. There were also 85 tenement buildings, which were cleared of residents and remodeled into shop buildings. These changes improved the condition of 17,147 persons who manufacture clothing in New York City. This was during the "hard times," when the trade was at a standstill, and the number of the persons given as having had their conditions improved is very low. The figures were obtained by actual count. But this relates only to their sanitary welfare, and has nothing to do with the serious question of their ill-paid labor.

The factory-inspection department of Massachusetts reported for 1895 the inspection of 5,069 manufacturing, mechanical, and mercantile establishments in which 13,892 children were employed (302 of these being between 13 and 14 years of age), and 232,317 adult males and 157,122 adult females, making a total of 403,331. Orders were issued to 2,905 workshops.

The Pennsylvania inspection department reports the following work done from December 1, 1893, to November 30, 1894:

Deputy inspectors on outside work.....	11
Inspections made.....	4,234
Males employed where inspections have been made.....	175,791
Females employed where inspections have been made.....	84,945
Persons between 13 and 16 years of age employed where inspections have been made.....	22,397
Children under 13 years of age found employed and discharged.....	21
Total employees in establishments that have been inspected.....	260,736
Sweat-shop inspections.....	648
Persons employed in sweat shops where inspections have been made.....	2,914
Orders given.....	2,516
Orders complied with.....	1,480

The Illinois report for the year 1894 shows by statistical tables the inspection of 3,440 factories and workshops, employing 97,600 men, 24,335 women, and 8,130 children, a total of 130,065 employees. In 1893 there were inspected 2,362 factories and workshops, employing 52,480 men, 17,288 women, and 6,456 children, a total of 76,224 employees. This shows an increase of 1,078 factories and workshops inspected, employing 45,120 men, 7,047 women, and 1,674 children more than in 1893. Of the 3,440 places inspected in 1894, 1,437 were sweat shops, employing 4,461 men, 5,921 women, and 721 children, an increase over 1893 of 733 shops, 2,250 men, 2,304 women, and 121 children.

The number 3,440 does not indicate the number of inspections made, because some places have been inspected monthly and others semi-

monthly. On the other hand, no account is made in the tables of the many places visited but not found working at any time during the year.

The above summaries, taken from the factory inspectors' annual reports, show much salutary work being done. Each one of the cases enumerated is tabulated and separately described in voluminous books indicating painstaking methods in the compiling of facts and the enforcement of the laws. Each prosecution in addition serves as an object lesson to other violators who take for granted that such laws exist only to be ignored. It is evident that if factory inspection was extended and the force of inspectors increased commensurate with the vast importance of the work, many of the detrimental features of the workshops would be removed, children of school age would be replaced by adults in the factories, reasonable hours of labor would prevail, and the health of the workers and of the public would be protected and further reforms through the employees themselves would thus be rendered easier.

The lack of uniformity in the factory laws of the different States interferes very seriously with the efficiency of the laws enacted; and as an inducement is given for sweaters to remove to States where more leniency exists, sweat shops are thus spreading to localities where they were never known. As a means of securing uniform legislation throughout the country, the inspectors of thirteen States and two provinces of Canada have formed the International Association of Factory Inspectors, which has held nine annual conventions. In matters of factory legislation their opinions based upon expert knowledge are of much consequence.

At the meeting of this association in Chicago, September, 1893, the following resolution in reference to the restrictions of the hours of labor was adopted:

Recognizing the inequality of the existing laws regulating the employment of women and minors in the different States and Territories, and with a view of bringing into effect more uniformity in the same, which would be just and profitable to all engaged in industrial pursuits; first, by placing the employers in the different States on an equal basis of competition so far as hours of labor are concerned, and by affording to the employed the same protection from the evils which follow the overworking of women and children, wherever practiced; therefore we recommend the adoption by the several States of laws regulating the hours of labor of women and minors to 48 per week.

The State of Illinois subsequently adopted the eight-hour law in substance. An appeal was made to the supreme court, and in November, 1894, the part pertaining to women was declared unconstitutional, on the grounds that adult women were not wards of the State, that the law gave special privileges to one sex as against the other, and was an interference with the right of women to work longer than eight hours if they choose or to contract for or dispose of their work. This decision naturally handicaps further legislation in this direction.

The opponents of factory legislation contend that this policy tends to drive manufacturers from States enacting such laws by handicapping and crippling industries in competition with the products of other States not subject to these restrictions. If, for argument's sake, it is admitted that such laws interfere with cheapness, surely the benefits accruing to the entire community by the prevention of injustice, by the obliteration of sweating dens, and the protection of the health of the people in general are worthy of greater consideration. As an answer, however, to the first proposition, it is only necessary to refer to the United States censuses of 1880 and 1890 to show that the State of New York has actually doubled its manufacturing resources and capacity, within that decade, notwithstanding the stringent factory laws adopted, in which New York has been a pioneer. In 1880 the census gives 42,739 factories, in 1890 65,840, and an increase of the capital invested from \$514,246,575 to \$1,130,161,195. The same relative increase is true of the other States having stricter factory legislation.

It is self-evident that the prosperity of a community depends upon the increased productive and consumptive power of the people, and that the impoverishment of a particular class of toilers is a disease of the body politic which must be cured by such remedies as are available.

While the community was enacting measures for the alleviation of the misery due to the sweat shop, and was seeking its suppression as a public menace, the operatives themselves, whose poverty seemed to have sapped their courage and mentality, became aroused, and after a strike lasting three weeks abolished the worst features of the sweating evil. This strike was akin to a revolution in its suddenness and sweep. It began in New York, Brooklyn, and Newark in September, 1894, and was continued in Boston and Baltimore. Similar disputes, with varying success, occurred in Philadelphia, Rochester, Chicago, and St. Louis.

Prior to this movement organization among the tailors existed and large strikes took place, but all of a spasmodic nature. Some of these contests were announced as victories, but the unions were unable to maintain the advantages gained and suffered a relapse. But the rebellious spirit was only dormant, waiting favorable opportunities.

In April, 1891, in New York City, the foundation for a successful movement was laid through the formation of a national union comprising all branches of the industry, known as the United Garment Workers of America. The clothing cutters, who had a long trade-union experience, and were more favorably circumstanced, identified themselves with this national movement, took an active interest, and thus gave permanency to the organization.

A vigorous agitation was begun for the abolition of the sweating system, but met with no immediate visible results. The industrial prostration of 1893 and 1894 set in, and during that period the tailors were reduced to a condition bordering on pauperism. Special relief

works were started in the large clothing cities to prevent actual starvation. The task system sets no limitation, however, and the tasks were so increased that the amount of work exacted from the few employed further deprived others of work. When the revival in the trade came, in August and September, 1894, the tailors had learned to exist somehow without the task. The unions, which acted as relief bureaus during the depression, issued a manifesto for the overthrow of the task system and ordered a general strike. About 16,000 coat makers in 950 shops in New York, Brooklyn, and Newark responded. The competing contractors, who were used by the manufacturers as implements to increase the daily tasks, formed an association, but granted the demands and signed individual agreements with the unions after the third week. The terms granted provided for weekly work on a basis of ten hours per day; a minimum rate of wages of from \$9 to \$15 per week, according to the branch of work; no overtime to be permitted, and the employment of members of the union. So fearful were the now emancipated operatives that the task system would be again returned, that every contractor was obliged to furnish a real-estate bond as security that all the terms of the agreement would be lived up to. The legal standing of the agreements and bonds obtained are now under consideration by the higher courts of New York through several test cases brought against employers for violation of agreement.

The improvements made through these strikes can not be solely estimated by the great material gain. Hope and ambition have taken the place of the characteristic supineness of the clothing operative. Since the first strike the agreements were renewed, with additions, through another struggle the following year, and a few months ago the organized contractors caused a lockout which was successfully resisted. The other branches of the tailoring trade, although still working under the piecework system, accomplished corresponding results. It is estimated that 40,000 tailors, about 70 per cent of the total number affected by the sweating system in the different cities, are working in shops conducted under similar conditions, and in Boston the work day is but nine hours. The hours of labor have been thus shortened by from two to five hours per day, and this has had the noticeable effect of prolonging the working seasons and giving steadier employment. A number of small contractors were obliged to give up their shops, owing to the refusal of the unions to make terms with them. It is remarkable that the wholesale manufacturing trade has not suffered through the increased cost of production because of the uniformity of the increase, and the manufacturers have now expressed themselves favorable to the change, which has removed much of the odium from the trade and raised the method of manufacturing to a higher plane. There are still many small shops hidden away in the teeming tenements in which the sweating system exists, and these are most difficult to reach, but the improved conditions obtained in the

trade naturally have made an impression even there. While the State factory laws prohibit manufacturing in rooms not separate from living apartments, work still can be done by a family in the homes as long as outside help is not employed. While this is very detrimental, still it is limited.

It is specially worthy of note that the marked improvement made in the condition of the clothing workers during the past two years has been accomplished notwithstanding the comparative depression existing, the trade not having fully recovered from the general industrial prostration which was at its worst between two and three years ago. The number of unemployed in the trade has usually been large. There was an improvement about a year ago, but a relapse has taken place recently which has enabled the manufacturers to make encroachments upon the standard rate of wages, hours of labor, etc., established and maintained by the unions. This caused a very dissatisfied and restless spirit. The clothing manufacturers in the different cities formed associations to oppose the unions. This led to the recent large general strikes in Baltimore, Chicago, and Cincinnati which began at the end of February of this year and involved about 11,000 persons, including all the branches of the trade, both cutters and tailors, of which number 7,400 were in Chicago, 3,300 in Baltimore, and 300 in Cincinnati. The manufacturers in these three important clothing cities acted concertedly and the contests were stubborn and prolonged. The manufacturers naturally held the advantage, owing to the extreme dullness in the trade.

The trouble originated with the cutters in each city. In Baltimore the tailors stopped work mainly in support of the cutters, who demanded recognition and the usual minimum rate of wages. The strike was abandoned after five weeks. In Cincinnati the cutters' union ordered a strike in the shop of one firm and the other manufacturers resented by locking out all the others. The unions thereupon declared for the eight-hour workday. After seven weeks the cutters returned to work individually after the manufacturers rescinded the resolution not to employ members of the union.

In Chicago the Manufacturers' Association precipitated the conflict with the Cutters' Union by declaring for the "merit system" instead of the minimum rate of wages, and the nine-hour workday in place of the eight hours observed for three years. The tailors also made issue with the contractors, were partially successful, and in shops employing about 2,300 persons enforced the ten-hour workday and minimum rate of wages in place of the "task" system. Ten firms, employing about 100 cutters out of 900 in the city, conceded the terms of the union, and at the end of the eighth week the others returned to work under the conditions stipulated by the employers.

While the results of these contests which involved so many persons are most unfavorable to the employee, this fact signifies only a check

to the many gains that have been made. The sweating system is being grappled with in all earnestness, and all facts plainly show that this detrimental system of labor is steadily being suppressed, both in this and in other countries. The reforms introduced in the tailor shops of this country helped to stir up the tailors and seamstresses of Germany, who, after immense strikes in the large cities in February last, succeeded in effecting a compromise through a board of conciliation, by which the manufacturers agreed to pay an increase of $12\frac{1}{2}$ per cent, and to fix a list of minimum rates under which each of the various articles of clothing should not be given out either to contractors or workers. The contractors agreed to pay the workers the full amount of the increase. Manufacturers agreed not to deal with contractors who violated the above conditions. Wages were to be paid weekly. The workers' demand for the erection of special workshops was withdrawn. These concessions were granted to 34,000 persons.

Another factor used in the warfare waged against the sweating system is the influence of the public as purchasers. Quite a number of large manufacturers have been obliged to withdraw work sent to sweating contractors, through the systematic appeals made by unions of the trade upon members of other unions and sympathizers to withhold patronage from dealers handling or keeping such goods on sale. Usually a retail clothier would cease dealing with an objectionable manufacturer rather than incur the opposition of patrons. In line with this method the union label has been of service. It is designed to enable sympathizers to distinguish and give preference to goods guaranteed to be made under union, fair, and sanitary conditions. A number of large manufacturers have adopted this label, which has been actively agitated for during the past three years.

The substantial reform work being done in the clothing industry both by legislation and the trade unions is doing much to correct the evils resulting from the laissez-faire policy which regarded all such interferences with free competition, so called, as pernicious and despotic. To-day the principle of factory legislation is seldom disputed, but for nearly a century, ever since the advent of the factory system in England, there has been a most vigorous and bitter contest waged between the advocates and the opponents of factory laws. Some of the ablest economists and legislators were arrayed against what was called the pernicious interference with supply and demand, even in the face of the degrading conditions existing in the workshops and the mines. But surely and steadily the humanizing influences inspired by Shaftsbury gained the ascendancy, and now such protective legislation as well as trade-union regulations are generally conceded to be beneficial, as being conducive to more equity in the dealings of mankind and therefore in accord with public policy.

Social theories and policies, as in physics, depend upon experimental results for their value, and our perfected method of gathering data does much to enable us to form more correct conclusions.

Our methods of production resemble so closely those of England that even the detrimental features are similar. In dealing with the important question of the sweating system, a comparison made with the sweating evil of England is therefore of value, and is applicable also to every country manufacturing on a large scale.

The British Parliament, through a select committee of the House of Lords, made a most searching investigation into the sweating system and its causes and effects, and the exhaustive report published in 1890 gives a graphic description of the extent of the evil. Most of the recommendations made by the committee have since been enacted into law. The following extracts are taken from that report:

Our inquiry embraced—

I. The means employed to take advantage of the necessities of the poorer and more helpless class of workers.

II. The conditions under which such workers live.

III. The causes that have conduced to the state of things disclosed.

IV. The remedies proposed.

Such having been the scope of our inquiry, and ample evidence having been brought before us on every matter comprised within its scope, we are of opinion that, although we can not assign an exact meaning to "sweating," the evils known by that name are shown in the pages of the report to be, (1) an unduly low rate of wages; (2) excessive hours of labor; (3) the insauitary state of the houses in which the work is carried on.

These evils can hardly be exaggerated. The earnings of the lowest class of workers are barely sufficient to sustain existence. The hours of labor are such as to make the lives of the workers periods of almost ceaseless toil, hard and unlovely to the last degree.

The sanitary conditions under which the work is conducted are not only injurious to the health of the persons employed, but are dangerous to the public, especially in the case of the trades concerned in making clothes, as infectious diseases are spread by the sale of garments made in rooms inhabited by persons suffering from smallpox and other diseases.

We make the above statements on evidence of the truth of which we are fully satisfied, and we feel bound to express our admiration of the courage with which the sufferers endure their lot, of the absence of any desire to excite pity by exaggeration, and of the almost unbounded charity they display toward each other in endeavoring by gifts of food and other kindnesses to alleviate any distress for the time being greater than their own.

As a rule, however, it must be remembered that the observations made with respect to sweating apply, in the main, to unskilled or only partially skilled workers, as the thoroughly skilled workers can almost always obtain adequate wages.

When we come to consider the causes of and the remedies for the evils attending the conditions of labor which go under the name of sweating, we are immediately involved in a labyrinth of difficulties. First, we are told that the introduction of subcontractors, or middlemen, is the cause of the misery. Undoubtedly, it appears to us that employers are regardless of the moral obligations which attach to capital when they take contracts to supply articles and know nothing of the condition of the workers by whom such articles are made, leaving to a subcontractor the duty of selecting the workers, and giving him

by way of compensation a portion of the profit. But it seems to us that the middleman is the consequence, not the cause of the evil; the instrument, not the hand which gives motion to the instrument, which does the mischief.

Machinery, by increasing the subdivision of labor, and consequently affording great opportunities for the introduction of unskilled labor, is also charged with being the cause of sweating. The answer to this charge seems to be, that in some of the largest clothing and other factories in which labor is admitted to be carried on under favorable conditions to the workers, machinery and subdivision of labor to the greatest possible extent, are found in every department of the factory.

With more truth it may be said that the inefficiency of many of the lower class of workers, early marriages and the tendency of the residuum of the population in large towns to form a helpless community, together with a low standard of life and the excessive supply of unskilled labor, are the chief factors in producing sweating. Moreover, a large supply of cheap female labor is available in consequence of the fact that married women working at unskilled labor in their homes, in the intervals of attendance on their domestic duties and not wholly supporting themselves, can afford to work at what would be starvation wages to unmarried women. Such being the conditions of the labor market, abundant materials exist to supply an unscrupulous employer with his wretched dependent workers.

The most important question is whether any remedy can be found for this unhappy state of a portion of the laboring class. With respect to the low wages and excessive hours of labor, we think that good may be effected by cooperative societies and combination amongst the workers. We are aware that home workers form a great obstacle in the way of combination, inasmuch as they can not readily be brought to combine for the purpose of raising wages. To remove this obstacle we have been urged to recommend the prohibition by legislation of working at home; but we think such a measure would be arbitrary and oppressive.

We now proceed to make recommendations in respect of the evils, which appear to us, under existing circumstances, to require immediate Parliamentary interference.

Under the factory law work places for the purposes of sanitation are divided into three classes—(1) factories; (2) workshops; (3) domestic workshops.

We are of opinion that all work places included under the above descriptions should be required to be kept in a cleanly state, to be lime-washed or washed throughout at stated times, to be kept free from noxious effluvia, and not to be overcrowded; in other words to be treated for sanitary purposes as factories are treated under the factory law.

We are also of the opinion that as respects administration an adequate number of inspectors should be appointed to enforce a due observance of the law. It has been suggested that the inspector should be assisted by workmen having practical knowledge of the trades inspected, and paid only the wages of artisans, but we doubt whether the disadvantages arising from the division of responsibility would not outweigh any advantages to be derived from their technical knowledge.

We think that inspectors should have power to enter all work places within their jurisdiction at reasonable times without a warrant.

We consider that the establishment of county councils provides in every county a body capable of being trusted with the superintendence of the inspection by sanitary authorities and of making such inspection efficient.

To carry into effect the foregoing recommendations, amendments will be required of the factory and workshop act, 1878, the public health act, 1875, and the local government act, 1888.

We are of the opinion that greater facilities should be given to factory inspectors for inspecting the work places within their jurisdiction by registration of owners, or by requiring notice to be given to the inspectors of the establishment of new work places and the discontinuance of old. Some means should also be devised for enabling sanitary inspectors to discover readily the names and addresses of the owners of insanitary work places and houses.

We think it a disadvantage that different Departments of the Government should be concerned with matters relating to the labor question. The factory inspectors are appointed by and under the control of the home office. The board of trade supplies the public, through its labor correspondent, with information as to the conditions of labor and the state of the industrial classes, and requires for that purpose the aid and cooperation of the factory inspectors. The local government board have a medical department, which, for the purpose of promoting hygiene, ought to be in constant communication with the factory inspectors.

We suggest that it would be advisable to bring the officers employed in the above-mentioned functions into closer relations with each other by placing them under the control of one department, or otherwise providing them with a unity of administration.

We have received considerable evidence attributing, to the disuse of the apprenticeship system, the incompleteness of the education of the workman. The remedies suggested are, on the one hand, a renewal of the apprenticeship system; and, on the other, the promotion of a larger system of technical education. We think that the encouragement of technical education for all classes of artisans is more likely to prove an efficient remedy than a recurrence to the old system of apprenticeship.

We are of the opinion that it is incumbent on all Departments of the Government and on municipal and other public bodies to take care that in placing their contracts they are satisfied that the workmen by whom the contract is to be worked out are paid proper wages. We recommend this course not only in the interest of the workman, but also in the belief that it will insure to the public a corresponding advantage in the excellence of the work. This recommendation may be effected by requiring the contractor to show the scale of wages which he proposes to pay, and, supposing such scale to be satisfactory, by having copies served on the workmen, or otherwise making known to them the rate of wages to be paid.

We can not conclude without expressing our earnest hope that the exposure of evils which have been brought to our notice will induce capitalists to pay closer attention to the conditions under which the labor which supplies them with goods is conducted, and that the public will withhold their custom from traders who are known to conduct their business on a system which regards neither the welfare of the workman nor the quality of the work produced.

The following is a brief summary of some of the provisions of the factory and workshop acts from 1878 to 1895, enacted by Parliament, which particularly apply to sweat shops:

Every factory, workshop, or laundry must be kept clean, well ventilated, free from bad smells and overcrowding, and at a reasonable temperature. Not less than 250 cubic feet of space (400 in overtime) must be allowed for each worker,

In all factories and steam laundries the duty of seeing that these provisions are carried out belongs to the factory inspector, in workshops and hand laundries, to the local sanitary authority.

The working hours are variously limited for children, young persons, and women. A "child" means a person between 11 and 14 years of age; a "young person" means a person between 14 and 18 years of age; a "woman" means a woman of 18 years of age and upward. The period of employment for young persons and women in factories and workshops is limited to the hours between 6 a. m. and 6 p. m., or 7 a. m. and 7 p. m., or 8 a. m. and 8 p. m. In textile factories two hours must be allowed for meals (one of them before 3 p. m.), and work must not be carried on for more than two and one-half hours without an interval of one-half hour for meals. In nontextile factories and workshops one and one-half hours must be allowed for meals (one of them before 3 p. m.), and work must not be carried on for more than five hours without an interval of one-half hour for meals. In textile factories when work begins on Saturdays at 6 a. m. manufacturing processes must cease at 1 p. m. if not less than one hour is allowed for meals. If less than one hour is allowed for meals, manufacturing processes must cease at 12.30 p. m. When work begins at 7 a. m. manufacturing processes must cease at 1.30 p. m. In nontextile factories and workshops the hours of employment on Saturdays may be between 6 a. m. and 2 p. m., or 7 a. m. and 3 p. m., or 8 a. m. and 4 p. m. In every case an interval of not less than one-half hour must be allowed for meals.

Children employed in factories and workshops may only work half-time, that is, either in the morning or afternoon or on alternate days.

Special provisions with regard to employment on Saturday and Sunday are made for young persons and women of the Jewish religion.

Employment outside a factory or workshop, in the business of that factory or workshop, before or after working on the same day inside, is forbidden for children. It is also forbidden for young persons and women who are employed inside both before and after the dinner hour. Work given out, or allowed to be taken out, is treated as employment on that day.

The occupier of a factory or workshop or laundry may not, to his knowledge, employ a woman within four weeks after she has given birth to a child.

Notice must be sent to the inspector within one month of the time when work is begun in any factory or workshop.

All occupiers of existing workshops must, before the expiration of twelve months from January 1, 1896 (unless they have already done so), send their names and addresses, and particulars of the work carried on in such workshops, to the inspector.

On any evening when it is intended that women shall work overtime notice must be sent to the inspector before 8 p. m.

An abstract of the factory and workshop acts, with the names and addresses of the inspector and surgeon of the district, the hours of employment and times of meals, also a notice stating the total cubic space and the number of persons who may be employed, must be affixed in every factory, workshop, and laundry in such a position as to be easily read. Occupiers of "domestic workshops" are not required to send or affix notices.

The occupier of every factory and workshop, and every contractor employed by such occupier, shall, if the trade is included in the order of the home secretary, keep lists of the names and addresses of all persons employed as outworkers, such lists to be open to inspection

by an officer of a sanitary authority, or any inspector under the act; also, he shall on or before the 1st of March and the 1st of September in each year, send such lists to the inspector of the district. This regulation includes as a "workshop" any place from which wearing apparel is given out to be made.

Any person obstructing or delaying an inspector in the performance of his duty is subject to a penalty of not more than £5 (\$24.33), or when the offense is committed at night £20 (\$97.33). It is deemed that an inspector is obstructed if a child, young person, or woman is concealed or prevented from appearing before an inspector, or if any person fails to comply with a requisition of the inspector made in accordance with the act.

For not complying with any of the foregoing provisions the act has fixed penalties which may be inflicted when a conviction is obtained.

The English factory laws have the advantage of being applied uniformly throughout the country, while in the United States the efficiency of the laws are much interfered with by the separate legislation enacted in each State, but there is a tendency in the manufacturing States to adopt more harmonious laws in this respect, and while they compare favorably with the English factory acts they are not so exacting. As the population of Great Britain is generally more homogeneous and settled, the industrial conditions not being so changeable, the enforcement of the factory laws are thus rendered easier. In dealing with the sweating evil, however, the same conditions are apparent. In the very large cities there is a large, helpless, dependent population, and much overcrowding, caused mainly through immigration and the tendency of the rural population to migrate to the large cities. Englishmen are thus forced in turn to emigrate to other countries.

RECENT REPORTS OF STATE BUREAUS OF LABOR STATISTICS.
MASSACHUSETTS.

Twenty-fifth Annual Report of the Bureau of Statistics of Labor. March, 1895. Horace G. Wadlin, Chief. xvii, 337 pp.

This report treats of the following subjects: Compensation in certain occupations of graduates of colleges for women, 47 pages; the distribution of wealth, 254 pages; labor chronology, 33 pages.

COMPENSATION IN CERTAIN OCCUPATIONS OF GRADUATES OF COLLEGES FOR WOMEN.—This investigation was not confined to graduates of colleges, and is more accurately described as “The compensation in certain occupations of women who have received college or other special training.” The presentation is based upon an investigation conducted by a committee of the Association of Collegiate Alumnae.

There were 451 schedules received from women employees and 104 from employers of women. These returns were distributed as follows: Massachusetts, 59; Minnesota, 55; Connecticut, 44; Rhode Island, 40; California, 61; New York, 90; Indiana, 39; Illinois, 14; and the remaining 153 from various other States.

Of the schedules received from employees, 437 contained information concerning occupation, residence, and conjugal condition, and the totals are summarized as follows:

RESIDENCE AND CONJUGAL CONDITION OF WOMEN WHO HAVE RECEIVED COLLEGE OR OTHER SPECIAL TRAINING.

Conjugal condition.	Residence.		Total.
	At home.	Elsewhere.	
Single	209	180	389
Married	24	4	28
Widowed	11	9	20
Total	244	193	437

Seventy-eight of the women from whom schedules were received failed to state their age. The others are classified according to age periods, and 313 were 20 but under 40 years of age.

The following statement gives the totals of the answers to questions concerning occupation and means of support:

OCCUPATION AND MEANS OF SUPPORT OF WOMEN WHO HAVE RECEIVED COLLEGE OR OTHER SPECIAL TRAINING.

Question.	Answer.		Not answered.	Total.
	Yes.	No.		
Have you any remunerative occupation besides your main work?.....	338	74	39	451
Are you occupied with domestic or other outside cares?..	117	289	45	451
Do your wages supply your entire support?.....	350	43	58	451

Of the whole number of women reporting, 6 were paid less than \$25 per month; 88, \$25 and under \$50; 144, \$50 and under \$75; 88, \$75 and under \$100; 73, \$100 and under \$200; 2, \$200 and under \$300, and 2 a salary in excess of \$300 per month. Forty-eight failed to answer the questions concerning compensation.

One hundred and fifty reports stated that men received more pay than women for the same grade of work, 95 reported the same pay for women and men, while 5 reported that men received less pay than women, and 201 failed to answer the question.

It is alleged as one of the reasons for paying women less than men in similar employments that a man is called upon to support others besides himself, while, as a rule, women in industry do not aid in the support of others. Of the 379 women who answered the question on this subject 157, or 41.42 per cent, aided in the support of others. Another reason given is that women do not remain continuously in one employment. Of the 333 who answered the question on this subject 214 had been in but 1 employment, their average term of service being seven years and eight months, 88 had been in 2 employments, 19 in 3, 9 in 4, 2 in 5, and 1 in 8 employments since beginning work.

There were 4,697 males and 3,097 females, a total of 7,794 persons employed by the employers who made returns. Ninety employers replied to the question, "Are the services of men and women equally valuable to you?" Of this number 46 answered yes, 29 no, and 7 indefinitely, while 8 stated that for some work they were as desirable and for other work they were not.

Out of 67 replies, 29 indicate that the fact of supply and demand, or competition, is one reason for the difference in compensation of the sexes, while 21 consider physical and mental differences, or differences in general ability, to be the real reason. In 17 replies no other reason than custom is offered.

The statistics summarized in the above statements are shown in the report by occupations, so that the conditions prevailing in each industry can be determined, and are followed by condensed text statements of the opinions of both employees and employers.

THE DISTRIBUTION OF WEALTH.—Of the 254 pages devoted to this subject, 218 contain statistical tables. The information presented is intended to form part of a general inquiry into wealth distribution, and in fact simply covers the initial stage of a projected investigation upon that subject. The statistics were obtained from the records of the probate courts of the State and cover four periods of three years each, viz, 1829 to 1831, 1859 to 1861, 1879 to 1881, and 1889 to 1891.

The probate courts of the State administer substantially all the estates of persons who die possessing property worth taking account of. The estates of which no trace can be obtained in these courts are almost entirely very small. In a number of instances no inventory is filed when the estate is admitted to probate. For this reason it is impossi-

ble to determine the total value of all property admitted to probate, and to that extent the value of the statistics is limited. The following statement indicates exactly how far this limitation affects the results:

PROBATES FILED WITH AND WITHOUT INVENTORIES, BY SELECTED PERIODS.

Period.	Inventory filed.		Inventory not filed.		Total.
	Number.	Per cent.	Number.	Per cent.	
1829 to 1831 (3 years).....	3, 698	76. 95	1, 108	23. 05	4, 806
1859 to 1861 (3 years).....	6, 922	70. 13	2, 948	29. 87	9, 870
1879 to 1881 (3 years).....	11, 142	65. 56	5, 854	54. 44	16, 996
1889 to 1891 (3 years).....	14, 608	57. 97	10, 592	42. 03	25, 200
Total.....	36, 370	63. 95	20, 502	36. 05	56, 872

For the State as a whole, and for each county except Dukes, it appears that in recent years the number of probates registered without inventories has considerably increased, and in the comparison of the values for different periods this should be borne in mind. It is probably true that the estates unaccompanied by inventories are, as a rule, larger than those for which inventories are filed. In the following statements only inventoried probates are referred to, and the total for the State by periods considered. The statistics are shown in the report by counties for the different years.

The total number and value of probates, classified according to the sex of the deceased, are shown in the following statement:

NUMBER AND VALUE OF INVENTORIED ESTATES PROBATED DURING EACH SELECTED PERIOD, BY SEX OF DECEASED.

Period.	Males.			Females.			Total.		
	Num-ber.	Value.		Num-ber.	Value.		Num-ber.	Value.	
		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.
1829 to 1831..	3, 102	\$13, 590, 099	\$4, 352	596	\$994, 008	\$1, 668	3, 698	\$14, 494, 107	\$3, 919
1859 to 1861..	5, 103	45, 847, 981	8, 985	1, 819	7, 408, 813	4, 073	6, 922	53, 256, 794	7, 694
1879 to 1881..	7, 030	114, 747, 943	16, 323	4, 112	22, 626, 316	5, 503	11, 142	137, 374, 259	12, 329
1889 to 1891..	8, 349	114, 032, 780	13, 658	6, 259	41, 526, 008	6, 635	14, 608	155, 558, 788	10, 649
Total..	23, 584	288, 128, 803	12, 217	12, 786	72, 555, 145	5, 675	36, 370	360, 683, 948	9, 917

Out of the 36,370 probates represented by inventories, 14,310 were testate and 22,060 were intestate. In the first period considered, 74.34 per cent of the probates were intestate; the percentages in the other three periods being, respectively, as follows: 64.07, 57.06, and 58.31. The larger number of the estates were distributed without disposition by will—that is, to heirs in accordance with the provisions of the statutes—but the tendency to dispose of estates by will appears to increase.

Of the total number of estates considered, 35,304, or 97.07 per cent, were solvent, and 1,066, or 2.93 per cent, were insolvent. In the three-year period ending with 1831, 8.14 per cent of the probates were insolvent, the percentages for the other periods being 3.77, 2.52, and 1.53, respectively.

The inventoried probates are classified in the following statement with respect to the value of real and personal estate:

NUMBER AND VALUE OF INVENTORIED REAL AND PERSONAL ESTATES PROBATED, BY SELECTED PERIODS.

Period.	Real estate.			Personal estate.		
	Num-ber.	Value.		Num-ber.	Value.	
		Total.	Average.		Total.	Average.
1829 to 1831 (3 years).....	2, 257	\$7, 059, 947	\$3, 128	3, 624	\$7, 434, 160	\$2, 051
1859 to 1861 (3 years).....	4, 526	21, 754, 769	4, 807	6, 065	31, 502, 025	4, 726
1879 to 1881 (3 years).....	6, 872	44, 273, 982	6, 443	10, 600	93, 100, 277	8, 783
1889 to 1891 (3 years).....	9, 157	60, 190, 946	6, 573	13, 334	95, 367, 842	7, 152
Total	22, 812	133, 279, 644	5, 843	34, 223	227, 404, 304	6, 645

The total property represented in all of the probates considered is presented in the following statement by classes. Within the classes shown, averages are given applicable to each class, estates of approximately the same value being averaged together. In order that the basis of this average may be clearly seen, the number of estates within each class is shown, with the aggregate value which these estates represent:

NUMBER AND VALUE OF INVENTORIED ESTATES PROBATED DURING FOUR SELECTED PERIODS, BY CLASSES.

Class.	Males.			Females.			Total.		
	Num-ber.	Value.		Num-ber.	Value.		Num-ber.	Value.	
		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.
Under \$500	4, 301	\$950, 182	\$221	2, 654	\$655, 193	\$247	6, 955	\$1, 605, 375	\$231
\$500 but under \$1,000.....	2, 649	1, 938, 257	732	1, 963	1, 415, 692	721	4, 612	3, 353, 949	727
\$1,000 but under \$5,000.....	9, 415	23, 423, 433	2, 488	5, 471	12, 739, 018	2, 328	14, 886	36, 162, 451	2, 429
\$5,000 but under \$10,000.....	3, 178	22, 176, 399	6, 978	1, 304	8, 998, 485	6, 901	4, 482	31, 174, 884	6, 956
\$10,000 but under \$25,000.....	2, 286	35, 701, 145	15, 617	899	13, 453, 932	14, 965	3, 185	49, 155, 077	15, 433
\$25,000 but under \$50,000.....	807	27, 956, 000	34, 642	293	9, 930, 463	33, 892	1, 100	37, 886, 463	34, 442
\$50,000 but under \$100,000.....	479	33, 343, 881	69, 611	121	8, 731, 739	72, 163	600	42, 075, 620	70, 126
\$100,000 but under \$200,000.....	249	34, 146, 659	137, 135	54	7, 171, 567	132, 807	303	41, 318, 226	136, 364
\$200,000 but under \$300,000.....	88	21, 314, 303	242, 208	12	3, 024, 924	252, 077	100	24, 339, 227	243, 392
\$300,000 but under \$400,000.....	43	14, 787, 010	343, 884	10	3, 321, 683	332, 168	53	18, 108, 693	341, 673
\$400,000 but under \$500,000.....	25	11, 266, 481	450, 659	2	841, 173	420, 587	27	12, 107, 654	448, 432
\$500,000 and over	64	61, 125, 053	955, 079	3	2, 271, 276	757, 092	67	63, 396, 329	946, 214
Total	23, 584	288, 128, 803	12, 217	12, 786	72, 555, 145	5, 675	36, 370	360, 683, 948	9, 917

The report contains tables similar to the above for the different years, periods, and counties. For the three-year period ending with 1831 the average value of all inventoried probates was \$3,919, but 1,431, or not quite half of the 3,698 estates considered, were valued at less than \$500, and two estates were of greater value than \$500,000. Comparing these figures with the three-year period ending with 1891, in which 14,608 estates with an average value of \$10,649 were considered, it appears that 2,217, or about one-seventh, were valued at less than \$500, while 30 estates exceeded \$500,000 in value.

The average value of the real and personal estates of males and females, respectively, is shown for the classes given in the above statement by counties for each year and period covered by the report. The following statement reproduces the average values given for real and personal estates, respectively, by periods of years:

AVERAGE VALUE OF INVENTORIED REAL AND PERSONAL ESTATES PROBATED DURING EACH SELECTED PERIOD, BY CLASSES.

Class.	Real estate.				Personal estate.			
	1829 to 1831.	1859 to 1861.	1879 to 1881.	1889 to 1891.	1829 to 1831.	1859 to 1861.	1879 to 1881.	1889 to 1891.
Under \$500.....	\$220	\$238	\$233	\$249	\$182	\$202	\$210	\$209
\$500 but under \$1,000.....	725	721	713	717	706	717	718	713
\$1,000 but under \$5,000.....	2,317	2,326	2,397	2,394	2,066	2,137	2,275	2,285
\$5,000 but under \$10,000.....	6,803	6,727	6,801	6,796	6,824	7,039	6,864	7,071
\$10,000 but under \$25,000.....	15,176	15,132	14,980	14,956	15,249	14,942	15,583	15,366
\$25,000 but under \$50,000.....	33,859	33,731	34,045	33,680	34,736	35,196	34,639	35,216
\$50,000 but under \$100,000.....	60,944	66,812	71,348	69,813	64,412	67,210	69,720	70,795
\$100,000 but under \$200,000.....	179,000	139,754	132,828	141,873	127,087	140,895	142,340	137,549
\$200,000 but under \$300,000.....	257,411	237,310	246,897	231,825	236,371	226,614	246,235	251,260
\$300,000 but under \$400,000.....	.....	341,779	348,690	339,503	.....	326,368	339,600	344,540
\$400,000 but under \$500,000.....	.....	.....	422,900	439,142	.....	449,316	437,330	437,344
\$500,000 and over.....	.....	.....	845,939	758,063	595,194	866,225	1,141,034	713,294
Total.....	3,128	4,807	6,443	6,573	2,051	4,726	8,783	7,152

In the following statement real and personal property have been combined and similar averages shown, together with the number of probates in each class:

NUMBER AND AVERAGE VALUE OF INVENTORIED ESTATES PROBATED DURING SELECTED PERIODS, BY CLASSES.

Class.	1829 to 1831.		1859 to 1861.		1879 to 1881.		1889 to 1891.	
	Num-ber.	Average value.						
Under \$500.....	1,431	\$186	1,485	\$233	1,822	\$245	2,217	\$247
\$500 but under \$1,000.....	463	732	960	726	1,451	722	1,738	731
\$1,000 but under \$5,000.....	1,274	2,372	2,827	2,403	4,568	2,458	6,197	2,432
\$5,000 but under \$10,000.....	295	6,799	797	6,909	1,421	6,988	1,969	6,974
\$10,000 but under \$25,000.....	157	15,455	507	15,361	1,023	15,443	1,498	15,449
\$25,000 but under \$50,000.....	42	35,170	168	34,880	410	33,986	480	34,615
\$50,000 but under \$100,000.....	25	73,166	92	69,448	218	70,497	265	69,769
\$100,000 but under \$200,000.....	6	134,244	52	128,908	111	139,638	134	136,639
\$200,000 but under \$300,000.....	.....	.....	18	237,513	37	239,809	45	248,690
\$300,000 but under \$400,000.....	2	326,032	7	340,995	22	346,316	22	339,215
\$400,000 but under \$500,000.....	1	415,371	3	474,523	10	438,342	13	452,715
\$500,000 and over.....	2	633,909	6	848,109	29	1,144,758	30	794,729
Total.....	3,693	3,919	6,922	7,694	11,142	12,329	14,608	10,649

If \$50,000 is arbitrarily assumed as the dividing line between large and small estates, the following statement shows the number, value, and average value of probates above and below the line, respectively, for the different periods:

ESTATES PROBATED AND INVENTORIED ABOVE AND BELOW \$50,000 IN VALUE,
BY SELECTED PERIODS.

Period and classification.	Number.		Value.	
	Total.	Per cent.	Total.	Average.
1829 to 1831.				
Under \$50,000.....	3,662	99.03	\$9,536,245	\$2,604
\$50,000 and over.....	36	0.97	4,957,862	137,718
Total	3,698	100.00	14,494,107	3,919
1859 to 1861.				
Under \$50,000.....	6,744	97.43	28,989,881	4,002
\$50,000 and over.....	178	2.57	26,266,913	147,567
Total	6,922	100.00	53,256,794	7,694
1879 to 1881.				
Under \$50,000.....	10,715	96.17	58,432,701	4,893
\$50,000 and over.....	427	3.83	84,941,558	198,926
Total	11,142	100.00	137,374,259	12,329
1889 to 1891.				
Under \$50,000.....	14,099	96.52	70,379,372	4,992
\$50,000 and over.....	509	3.48	85,179,416	167,347
Total	14,608	100.00	155,558,788	10,649

The total amount represented by the estates above the \$50,000 line in the three-year period ending with 1831 was only slightly in excess of one-half the total amount represented by the estates below the line.

In the three-year period ending with 1891, the value of the estates above the line was 54.76 per cent and the value of those below the line 45.24 per cent of the total value of all the estates considered.

The average holding in the estates below the line nearly doubled in the sixty years, while the number of persons who died worth less than \$50,000 in the last period was nearly four times as great as in the first. The deceased owners of these estates represented one person in every 476 of the population in the period centering in 1890 and one in every 500 in the period centering in 1830. The average holding in the estates above the line has only exhibited a moderate increase, while the number of persons who died worth \$50,000, or over, during the period centering in 1890, was more than 14 times as great as during the period centering in 1830. There was but one such inventoried estate probated in every 50,867 of the population in 1830, as against one in every 13,170 in 1890.

In order to enable a comparison of the probate statistics with those showing death, tables are introduced which give the total number of deaths by sex for the different counties for each year covered by the three periods from 1859 to 1891. The totals for the State are summarized as follows:

TOTAL DEATHS IN THE STATE, BY SELECTED PERIODS.

Period.	Deaths.
1859 to 1861 (3 years)	68, 129
1879 to 1881 (3 years)	103, 551
1889 to 1891 (3 years)	130, 490
Total	302, 170

Out of 68,129 deaths in the State during the three years 1859 to 1861 there were registered 6,744 inventoried estates below \$50,000 in value, and 178 estates above. Out of 130,490 deaths during the three years 1889 to 1891 there were registered 14,099 inventoried estates below \$50,000 in value, and 509 estates above.

LABOR CHRONOLOGY.—Under this title the resolutions and other actions of the labor organizations throughout the State on various subjects are grouped by dates.

MISSOURI.

Seventeenth Annual Report of the Bureau of Labor Statistics of the State of Missouri, being for the year ending November 1, 1895. Lee Meriwether, Commissioner. 354, v pp.

The following are the subjects treated in this report: Truck stores and "checks," 87 pages; machine versus hand labor, 5 pages; franchises and taxation, 4 pages; surplus products, 3 pages; Plasterers' Union, Kansas City, 18 pages; factory inspection, 48 pages; statistics of manufactures, 169 pages. An appendix of 12 pages contains a synopsis of Missouri laws relating to labor.

The presentation concerning truck stores and "checks," machine versus hand labor, franchises and taxation, and the Plasterers' Union of Kansas City, consists almost entirely of a textual discussion. The truck-store system is explained and remedies suggested. A brief account is given of an investigation made by the bureau in September, 1895, respecting the system as conducted in Missouri and the efforts made to have legal proceedings instituted against those who were violating the laws on this subject. The opinions of the courts in four leading cases, construing State laws relating to checks and truck stores, are given in full.

The displacement of labor by reason of the introduction of type-setting machines is treated. The evidence taken by the commissioner and his decision on investigating certain charges against the Plasterers' Union of Kansas City made by nonunion men, and as to the condition of the cigar business in that city, are given.

SURPLUS PRODUCTS.—The statistics showing the surplus agricultural products and other commodities shipped from each county during 1894 are presented in the form of a map, in which the quantities of the different products are printed in the respective counties. The totals for some of the principal products are given in the following statement:

SURPLUS PRODUCTS, 1894.

Product.	Quantity.	Counties marketing.
Apples..... bushels.....	1,406,048	71
Butter..... pounds.....	2,810,880	94
Canned goods..... do.....	33,461,155	12
Cattle..... head.....	864,823	107
Corn..... bushels.....	10,960,732	91
Eggs..... dozen.....	23,765,835	107
Flax..... pounds.....	20,136,336	17
Flour..... barrels.....	2,676,277	90
Hides..... pounds.....	6,755,177	91
Hogs..... head.....	2,596,077	107
Logs..... feet.....	39,042,000	33
Lumber..... do.....	296,130,430	97
Poultry..... pounds.....	44,160,662	107
Wheat..... bushels.....	12,203,502	92
Wool..... pounds.....	2,503,660	86

FACTORY INSPECTION.—Statistics under this title are shown for 8 cities throughout the State, in which 600 establishments employing 15,877 men, 10,517 women, 1,431 boys over 12 and under 18 years of age, 1,590 girls over 14 and under 18, 10 boys under 12, and 88 girls under 14 were inspected. There were 554 establishments in operation on full time, 45 less than full time, and 1 closed entirely; 252 with full force, 179 with less than full force, and 169 part of the time with full force of employees. The statistics are shown in detail for each establishment inspected.

STATISTICS OF MANUFACTURES.—Schedules were sent to 3,000 manufacturers, and of this number 864 made returns sufficiently complete to be presented in the report. The statistics are shown in detail for each industry. The following statement gives the totals for St. Louis, Kansas City, the State exclusive of these cities, and the total:

STATISTICS OF MANUFACTURES, 1895.

Items.	St. Louis.	Kansas City.	State, exclusive of the two cities.	Total for State.
Corporations.....	283	40	59	382
Private firms.....	297	69	116	482
Total.....	580	109	175	864
Capital invested.....	\$64,539,206	\$4,845,100	\$6,233,170	\$75,617,476
Value of buildings and grounds.....	\$28,034,990	\$2,882,296	\$1,857,322	\$32,774,608
Value of machinery.....	\$10,978,386	\$1,285,408	\$1,582,894	\$13,846,688
Cost of materials.....	\$46,173,357	\$10,217,655	\$5,079,013	\$61,470,025
Cost of supplies.....	\$5,485,690	\$1,385,099	\$473,560	\$7,044,349
Selling value of goods made.....	\$89,727,625	\$14,617,585	\$9,503,853	\$113,849,063
Clerks and salesmen.....	3,370	417	449	4,236
Salaries.....	\$4,283,449	\$493,835	\$517,667	\$5,294,951
Wage earners.....	34,821	4,144	4,041	43,006
Wages.....	\$14,810,075	\$1,726,457	\$1,317,516	\$17,854,028
Horsepower employed.....	54,506	5,412	7,094	67,012

With a view to giving statements concerning wages that may be considered fairly accurate, the pay rolls of 16 factories throughout the

State were carefully examined, and the amount received by each individual employee noted. In this manner there was obtained the actual amount received in 15 different industries, by 4,401 employees, 3,098 of whom were men and 1,303 women. The average daily income is shown for the different occupations in each industry. Comparison is also made of the daily incomes in certain industries as shown by the reports of 1890 and 1895. The daily income during 1895 is further indicated by assigning the employees in the different occupations of the various industries to classes according to the amount of income from 50 cents to \$5. The average daily income and the estimated net yearly wages of each employee in the different occupations in each industry is given with the average wages received for each working day, amount received for days worked, number of days worked, and number of working days in period considered.

UTAH.

First Triennial Report of the Bureau of Statistics of Utah, for the year ended December 31, 1894, with Census, 1895. Joseph P. Bache, Statistician; H. W. Griffith, Chief Clerk. 54 pp.

The bureau issuing this report was organized under an act of the legislature of the Territory, approved March 10, 1892, which designates the statistical year as 1895, and each triennial year thereafter, defines the duties of the Territorial statistician, indicates the character of the statistics to be gathered, and provides for the publication of the reports for each statistical year.

The statistics are presented in detail for cities, towns, and counties. The totals are shown in the following summaries:

POPULATION, 1895.	
Males.....	126, 803
Females	120, 521
	<hr/>
Native born.....	194, 825
Foreign born	52, 499
	<hr/>
White	245, 985
Colored.....	571
Chinese.....	768
	<hr/>
Total.....	247, 324
INDUSTRIAL AND COMMERCIAL STATISTICS, 1894.	
Industrial:	
Establishments	880
Horsepower employed.....	11, 280
Laborers	5, 054
Wages.....	\$2, 027, 118
Capital invested.....	\$5, 476, 246
Value of plant.....	\$5, 986, 215
Cost of materials.....	\$2, 640, 038
Value of products.....	\$6, 678, 118
Commercial:	
Stores	1, 974
Capital invested	\$14, 551, 345
Sales	\$32, 865, 611
Employees.....	5, 023
Wages.....	\$2, 814, 314

MINING STATISTICS, 1894.

Gold and silver:	
Mines patented	271
Mines unpatented	275
Average number of employees	2,534
Wages	\$2,809,817
Output, tons	251,924
Value of output	\$4,289,606
Cost of plant	\$4,592,187
Cost of development work	\$7,991,186
Coal:	
Mines patented	4
Mines unpatented	8
Employees	139
Wages	\$59,775
Output, tons	62,101
Cost of plant	\$46,708
Cost of development work	\$43,600

FARM STATISTICS.

Free of incumbrance	17,684
Mortgaged	2,132
<hr/>	
Total	19,816
Amount of mortgages	\$1,971,352
Expended for buildings, 1894	\$721,229
Acreage, 1894:	
Under cultivation	467,162
Irrigated	417,455
Pasturage, fenced	294,725
Improved	806,650
Unimproved	979,182
Hired laborers	5,960
Wages paid laborers	\$1,015,366
Expenses:	
Repairs	\$226,879
Fertilizers	\$110,621
Interest and taxes	\$610,820
Sundries	\$303,145
Live stock:	
Milch cows	60,595.
Other cattle	238,974
Horses	99,895
Swine over 6 months old	47,703
Mules	1,308
Asses	835
Goats	2,966
Sheep, 1894:	
Number	2,422,802
Value	\$3,686,934
Wool, pounds	12,119,763
Value	\$864,260
Value per pound	\$0.07½

PRINCIPAL FARM PRODUCTS, 1894.

Name.	Acreage.	Yield.		
		Bushels.	Value.	Average per acre (bushels).
Wheat.....	144,717	3,113,073	\$1,440,096	21.5
Corn.....	13,893	260,697	151,433	18.8
Oats.....	49,334	1,387,710	470,658	28.1
Barley.....	8,754	271,866	100,207	31.0
Rye.....	3,791	42,352	20,094	11.2
Lucerne.....	163,544	a 462,459	1,851,639	a 2.8
Hay.....	89,255	a 133,646	604,399	a 1.4
Potatoes.....	13,526	1,649,239	522,855	121.9

a Tons.

SECOND ANNUAL REPORT ON THE BUILDING AND LOAN ASSOCIATIONS OF CALIFORNIA.

Second Annual Report on the Building and Loan Associations of the State of California. By the Board of Commissioners of the Building and Loan Associations. May 31, 1895. xiv, 387 pp.

This report is for the year ending May 31, 1895, and comprises statements in detail from the 144 associations doing business in the State. Forty-three pages are devoted to an analysis of the statistics and a discussion of exceptional methods prevailing in some associations. An appendix of 31 pages presents the laws of the State for the formation, government, control, and existence of corporations.

The number and the proportional amount of business done by each of the three classes into which the associations are divided is given in the following statement:

NUMBER AND PERCENTAGE OF BUSINESS OF DIFFERENT CLASSES OF BUILDING AND LOAN ASSOCIATIONS.

Class of association.	Number.	Per cent of business.
Local	135	86.62
National	7	7.66
Cooperative banks	2	5.72
Total	144	100.00

Of the 135 local associations reported, 134 are on the serial and 1 on the terminating plan.

The aggregate resources and liabilities and the aggregate receipts and disbursements of the different classes of associations are shown in the following table:

RESOURCES AND LIABILITIES, RECEIPTS AND DISBURSEMENTS OF BUILDING AND LOAN ASSOCIATIONS.

Items.	Locals.	Nationals.	Cooperative banks.	Total.
RESOURCES.				
Loans	\$17,254,762.34	\$1,458,370.86	\$1,065,533.25	\$19,778,666.45
Arrearages	395,654.10	45,730.04	7,990.00	449,374.14
Cash on hand	273,866.62	54,778.45	27,789.80	356,434.87
Real estate	637,836.61	47,676.92	5,966.79	691,480.32
Other assets	61,154.78	42,460.17	120,949.28	224,564.23
Total	18,623,274.45	1,649,016.44	1,228,229.12	21,500,520.01

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RESOURCES AND LIABILITIES, RECEIPTS AND DISBURSEMENTS OF BUILDING AND LOAN ASSOCIATIONS—Concluded.

Items.	Locals.	Nationals.	Cooperative banks.	Total.
LIABILITIES.				
Dues	\$12,386,570.51	\$1,127,926.22	\$846,902.89	\$14,361,399.62
Earnings	4,321,368.91	308,682.94	113,804.81	4,743,856.66
Advances	37,187.22	32,950.62	.....	70,137.84
Overdrafts and bills payable	1,038,046.31	67,090.91	100,000.00	1,205,137.22
Undivided profits and unearned premiums	494,401.90	33,180.83	2,775.52	530,358.25
Other liabilities	345,699.60	79,184.92	164,745.90	589,630.42
Total	18,623,274.45	1,649,016.44	1,228,229.12	21,500,520.01
RECEIPTS.				
Balance on hand	119,716.44	16,625.44	34,413.46	170,755.34
Dues	3,069,687.66	394,803.45	288,608.77	3,753,099.88
Paid-up stock	45,050.00	47,021.15	87,225.15	179,296.30
Premiums	364,799.93	72,904.19	45,554.12	483,258.24
Interest	1,219,125.62	73,648.17	57,621.05	1,350,394.84
Fines	24,855.78	7,928.51	3,063.22	35,847.51
Fees	4,950.98	1,762.80	2,952.05	9,665.83
Loans repaid	2,948,619.45	175,610.50	323,844.94	3,448,074.89
Overdrafts and bills payable	1,042,544.61	71,534.79	40,861.30	1,154,940.70
Deposits	185,880.61	10,233.05	1,800,817.66	1,946,931.32
All other sources	163,417.85	72,190.97	31,166.83	266,775.15
Total	9,138,648.93	944,263.02	2,716,128.05	12,799,040.00
DISBURSEMENTS.				
Overdrafts and bills payable	1,520,057.41	65,356.04	91,516.01	1,676,929.46
Loans	2,554,913.69	365,350.25	315,833.92	3,236,097.86
Interest	112,598.50	6,235.93	12,794.01	131,568.44
Dues refunded	2,672,313.83	271,348.57	291,113.11	3,234,775.51
Profits on surrendered shares	771,019.35	44,911.73	24,166.65	840,097.73
Salaries	132,660.40	37,630.92	14,355.00	184,646.32
Taxes	191,175.56	10,745.02	16,195.22	218,115.80
Other expenses	41,909.15	25,482.61	24,509.93	91,901.69
Deposits repaid	100,977.81	5,223.78	1,786,130.37	1,892,336.96
All other disbursements	767,156.61	57,194.72	111,784.03	936,135.36
Balance on hand	273,866.62	54,778.45	27,789.80	356,434.87
Total	9,138,648.93	944,263.02	2,716,128.05	12,799,040.00

The following table presents miscellaneous statistical information that is shown in separate statements, arranged under appropriate heads, and accompanied with proper explanation and analysis:

MISCELLANEOUS STATISTICS OF BUILDING AND LOAN ASSOCIATIONS.

Items.	Locals.	Nationals.	Cooperative banks.	Total.
STOCK AND MEMBERSHIP.				
Authorized capital	\$254,200,000	\$232,500,000	\$100,000,000	\$586,700,000
Shares authorized	1,605,600	2,325,000	1,000,000	4,930,600
Shares outstanding, last report	267,053 ¹⁷ / ₁₆	83,086 ¹ / ₂	48,778	398,923 ¹⁷ / ₁₆
Shares issued since last report	37,517 ¹ / ₂	31,815 ¹ / ₂	8,887	78,220
Total shares issued	304,575¹⁷/₁₆	114,902	57,665	477,142¹⁷/₁₆
Shares canceled since last report	54,248 ¹ / ₂	31,518 ¹ / ₂	22,024	107,791 ¹ / ₂
Shares outstanding	250,327 ⁷ / ₁₆	83,383 ¹ / ₂	35,641	369,351 ⁷ / ₁₆
Shares pledged	89,143 ¹ / ₂	25,444 ¹ / ₂	12,609	127,257 ⁷ / ₁₆
Shares free	161,183 ¹ / ₂	57,939	22,972	242,094 ¹ / ₂
Surrender value of all shares	\$14,089,893.80	\$1,298,857.30	\$910,665.54	\$16,299,416.64
Number of members	20,439	7,160	2,585	30,184
Number of borrowers	7,222	1,643	526	9,391

MISCELLANEOUS STATISTICS OF BUILDING AND LOAN ASSOCIATIONS—Concluded.

Items.	Locals.	Nationals.	Cooperative banks.	Total.
LOANS.				
Mortgage loans for year.....	1,356	405	125	1,886
Amount of mortgage loans for year..	\$2,264,458.68	\$284,024.74	\$228,003.73	\$2,776,487.15
Amount of stock loans for year.....	290,455.01	81,325.51	87,830.19	459,610.71
Total	2,554,913.69	365,350.25	315,833.92	3,236,097.86
Present worth of mortgages (taxable value)	11,778,257.96	1,242,967.45	906,143.44	13,927,368.85
Foreclosures since organization.....	205	17	3	225
Amount due on foreclosures	\$683,175.96	\$47,386.17	\$5,966.79	\$736,528.92
SECURITIES.				
Appraised value of land.....	11,352,691.97	1,811,171.25	1,210,781.00	14,374,644.22
Appraised value of improvements...	13,895,500.94	1,679,128.60	753,030.00	16,327,659.54
Appraised value of stock pledged...	5,476,504.38	215,403.41	159,389.81	5,851,297.60
Total	30,724,697.29	3,705,703.26	2,123,200.81	36,553,601.36
PROFITS.				
Net profits of year.....	1,116,285.07	139,613.63	50,287.96	1,306,186.66
MISCELLANEOUS.				
Paid on withdrawn and matured shares—				
Dues	2,672,313.83	271,348.57	291,113.11	3,234,775.51
Profits.....	771,019.35	44,911.73	24,166.65	840,097.73
Total	3,443,333.18	316,260.30	315,279.76	4,074,873.24
Book value of—				
Dues paid in.....	12,386,570.51	1,127,926.22	846,902.89	14,361,399.62
Apportioned earnings	4,321,368.91	308,682.94	113,804.81	4,743,856.66
Total	16,707,939.42	1,436,609.16	960,707.70	19,105,256.28
Deduct surrender value of all shares.	14,089,893.80	1,298,857.30	910,665.54	16,299,416.64
Profits to associations if all shares were withdrawn.....	2,618,045.62	137,751.86	50,042.16	2,805,839.64
Loans, face value.....	17,254,762.34	1,458,370.86	1,065,533.25	19,778,666.45
Book value of pledged stock.....	5,476,504.38	215,403.41	159,389.81	5,851,297.60
Present worth of loans	11,778,257.96	1,242,967.45	906,143.44	13,927,368.85
Houses built by members to Dec. 31, 1894—				
Since organization.....	7,414	1,329	328	9,071
During 1894.....	586	344	71	1,001
Membership Dec. 31, 1894—				
Males.....	15,369	6,611	2,425	24,405
Females	4,867	1,345	400	6,612
Corporations and societies.....	25	.....	.....	25
Total	20,261	7,956	2,825	31,042

ANNUAL REPORT ON THE COOPERATIVE SAVINGS AND LOAN ASSOCIATIONS OF NEW YORK.

Annual Report of the Superintendent of Banks Relative to Cooperative Savings and Loan Associations for the year 1894. Transmitted to the Legislature March 1, 1895. Charles M. Preston, Superintendent. 978 pp.

This report opens with 20 pages devoted to a summarization of the statistics, discussion of exceptional methods prevailing in some associations, and the names and addresses of associations that came into existence and of those that were closed during the year. Nine hundred and fifty-eight pages are contained in the appendix and index. The returns for each of the 393 associations reported are presented in detail in the appendix, and the returns for 368 associations are summarized by county totals. The returns for "lot associations" (25) and for the foreign association doing business in the State are shown separately. The laws of the State governing the organization and supervision of associations are given in full.

The following statements give the aggregate assets and liabilities, receipts and disbursements, and the earnings account of the 368 associations the reports of which have been tabulated:

ASSETS.

Loans on bond and mortgage (face value)	\$39,584,944
Loans on other securities	1,085,326
Real estate	1,636,995
Cash on hand and in bank	1,799,967
Furniture and fixtures	75,728
Installments due and unpaid	572,872
Other assets	267,426
Add for cents	477
	<hr/>
Total	45,023,735

LIABILITIES.

Due shareholders, due installments paid	\$33,491,406
Due shareholders, installments paid in advance	2,582,569
Due shareholders, earnings credited	4,451,835
Borrowed money	475,583
Balance to be paid out on loans made	666,557
Undivided earnings	3,017,499
Other liabilities	337,726
Add for cents	560
	<hr/>
Total	45,023,735
	393

RECEIPTS (FROM ALL SOURCES).

Cash on hand January 1, 1894	\$923, 288
Subscriptions on shares, installment	10, 892, 115
Subscriptions on shares, single payment	1, 417, 710
Money borrowed	913, 867
Mortgages redeemed (in whole or in part)	4, 802, 779
Other loans redeemed	499, 905
Premiums received	667, 958
Interest received	1, 956, 913
Fines received	81, 996
Initiation, entrance, or membership fees	68, 579
Other receipts	747, 826
Add for cents	1, 055
Total	22, 973, 991

DISBURSEMENTS.

Loaned on mortgage	\$8, 966, 034
Loaned on other securities	802, 531
Paid on withdrawals, dues	7, 696, 403
Paid on withdrawals, dividends	915, 137
Salaries, advertising, printing, and rent	532, 166
Other disbursements	2, 285, 158
Cash on hand	1, 775, 738
Add for cents	824
Total	22, 973, 991

EARNINGS ACCOUNT.

Dr.

Interest	\$2, 011, 807. 70
Premium	748, 576. 54
Fines	87, 711. 14
Transfer fees	2, 285. 01
Passbooks and initiation, membership, or share fee	58, 897. 32
Other earnings	172, 596. 79
Total	3, 081, 874. 50

Cr.

Expenses	\$946, 778. 64
Earnings over expenses	2, 135, 095. 86
Total	3, 081, 874. 50

The following is a statement of miscellaneous items of interest compiled from the tabulated reports of the 368 associations:

Foreclosures for the year	454
Shares issued during the year	476, 850 $\frac{3}{8}$
Shares in force at the close of the year	1, 336, 882 $\frac{3}{8}$
Shares pledged or borrowed on	299, 983 $\frac{3}{8}$
Borrowing members	28, 112
Nonborrowing members	134, 726
Female members	35, 069
Shares held by female members	245, 724 $\frac{3}{8}$
Loans now secured by mortgages in the State	\$31, 484, 730. 86
Total expenses	\$946, 778. 64

DECENNIAL CENSUS OF KANSAS FOR 1895.

Report of the Kansas State Board of Agriculture for the month ending December 31, 1895. Part I.—State decennial census, 1895. Part II.—Farm, crop, and live-stock statistics. F. D. Coburn, Secretary. 136 pp.

In Part I, which embraces statistics of population for 1895, the returns are presented by counties and minor civil divisions. The aggregate population by counties for prior census years is also shown. The following statement gives the totals for the State for 1885 and 1895:

POPULATION, 1885 AND 1895.

Items.	1885.	1895.
Males	679, 300	693, 928
Females	589, 230	640, 806
Total	1, 268, 530	1, 334, 734
Native born:		
Males	601, 946	621, 185
Females	533, 909	585, 147
Total	1, 135, 855	1, 206, 332
Foreign born:		
Males	77, 354	72, 744
Females	55, 321	55, 658
Total	132, 675	128, 402
White:		
Males	654, 825	644, 804
Females	565, 498	640, 945
Total	1, 220, 323	1, 285, 749
Colored:		
Males	24, 379	24, 411
Females	23, 655	24, 300
Total	48, 034	48, 711
Chinese and Indians:		
Males	96	148
Females	77	126
Total	173	274
Number of families	251, 661	279, 816
Average number of persons to family	5. 04	4. 77
Children of school age, 5 to 20 years, inclusive:		
Males	244, 440	252, 264
Females	232, 437	247, 059
Total	476, 877	499, 323
Males of military age	273, 628	280, 693
Males of voting age, 21 years and over	336, 371	359, 663
Persons 21 years of age and over	600, 183	668, 568
Persons engaged in agriculture	202, 279	185, 394
Persons engaged in professional and personal services	49, 746	63, 694
Persons engaged in trade and transportation	32, 549	42, 574
Persons engaged in manufacturing and mechanical industries	43, 421	43, 719
Persons engaged in mining	3, 699	7, 195

Part II relates to farm, crop, and live-stock statistics.

RECENT FOREIGN STATISTICAL PUBLICATIONS.

General Report on the Wages of the Manual Labor Classes in the United Kingdom, with Tables of the Average Rates of Wages and Hours of Labor of Persons Employed in Several of the Principal Trades in 1886 and 1891. 1893. xlviii, 481 pp. (Published by the Labor Department of the Board of Trade.)

This report is the final one of a series on this subject prepared by the labor department of the British Board of Trade, which are based on a census of wages taken in conformity with a resolution of the House of Commons of March 2, 1886. The data were obtained by means of schedules sent by mail to employers calling for a statement as to "the weekly rates of wages actually earned in a particular week in October, 1886, by the numbers actually at work in that week, divided according to the varied classification of their occupations, and distinguishing in all cases the wages paid to men, to lads and boys, to women, and to girls, respectively;" half-timers were also designated, and a distinction made between wages earned by "piece" and wages earned by "time" work. The "numbers and rates of wages for each occupation" were also required. A distinct set of questions called for the total wages paid during 1885, with particulars as to the maximum amount paid as wages in one week with the number employed for that week; also the minimum amount paid as wages in one week with the number employed for that week.

From these reports the actual earnings for 1886 were estimated by multiplying the wages for a given week by 52 and making any deductions that might seem expedient, the totals being verified by the totals reported for 1885. The results obtained from the two processes are summarized in the following statement, which shows the general average annual earnings of men, women, and children:

AVERAGE ANNUAL WAGES IN VARIOUS MANUFACTURING INDUSTRIES, OBTAINED BY DIFFERENT METHODS, COMPARED.

Industry.	Total wages for 1885 divided by number employed Oct. 1, 1886.	Average rate for a week in 1886 multiplied by 52.
Pig iron	\$356. 23	\$301. 48
Engineering, etc	286. 39½	277. 14½
Iron and steel shipbuilding	370. 34	328. 73
Tin plate	268. 87½	283. 47½
Brass work and metal wares	266. 68½	282. 01½
Sawmills	256. 95	271. 06½
Wood shipbuilding	277. 63½	261. 82
Cooperage	276. 41½	292. 96½
Coach and carriage building.....	255. 73½	273. 98½

AVERAGE ANNUAL WAGES IN VARIOUS MANUFACTURING INDUSTRIES, OBTAINED BY DIFFERENT METHODS, COMPARED—Concluded.

Industry.	Total wages for 1885 divided by number employed Oct. 1, 1886.	Average rate for a week in 1886 multiplied by 52.
Boot and shoe factories.....	(a)	\$231.64½
Breweries.....	\$290.28½	296.64
Distilleries.....	261.09	255.98
Brick and tile.....	219.48	272.03½
Chemical manure.....	321.67½	272.03½
Railway-carriage and wagon building.....	372.04½	285.17½
Printing and engraving trades:		
Large establishments.....	256.22	255.73½
Small establishments.....	204.39½	211.20½
Newspapers.....	355.74	375.45

a Not ascertained.

There is a rough correspondence between the high annual average rates for a normal year of fifty-two weeks and the high percentage of men employed. This comparison, however, is not likely to hold in dissimilar trades in which the rates of wages of men are very different. In the following statement, which shows the average weekly wages for, and the percentage of, men, lads and boys, women, and girls, respectively, the industries are arranged according to the annual wages for a normal year of fifty-two weeks:

AVERAGE WEEKLY WAGES AND PERCENTAGE OF MEN, LADS AND BOYS, WOMEN, AND GIRLS IN VARIOUS MANUFACTURING INDUSTRIES.

Industry.	Com-puted wages for 52 weeks in 1886.	Men.		Lads and boys.		Women.		Girls.	
		Wages.	Per cent.	Wages.	Per cent.	Wages.	Per cent.	Wages.	Per cent.
Printing and engraving, small establishments..	\$211.20½	\$7.09½	43.6	\$1.70½	49.1	\$2.57½	2.0	\$1.50	5.3
Boot and shoe factories..	231.64½	5.90	59.2	2.03	16.3	3.04	17.7	1.34	6.8
Brick and tile.....	237.97	5.55½	71.0	2.19	22.2	2.27	5.8	1.84½	1.0
Printing and engraving, large establishments..	255.73½	8.19	46.5	2.09	37.6	2.86	7.0	1.36	8.9
Distilleries.....	255.98	4.95	98.7	2.39½	7	2.29	.6	.....	.....
Wood shipbuilding.....	261.82	6.89½	65.0	1.56	35.0	.....	.....	.....	.....
Sawmills.....	271.06½	5.90	81.7	2.15	18.3	.....	.....	.....	.....
Chemical manure.....	272.03½	5.59½	88.7	2.39½	8.5	2.13	2.8	.....	.....
Coach and carriage building.....	273.98½	6.45	75.4	1.62	24.6	.....	.....	.....	.....
Engineering, etc.....	277.14½	6.26½	76.9	2.21	23.1	.....	.....	.....	.....
Brass work and metal wares.....	282.01½	7.20	65.0	2.05	29.6	3.14½	3.9	1.50	1.5
Tin plate.....	283.47½	8.13	52.2	2.73½	24.1	2.51½	17.5	1.68½	6.2
Railway-carriage and wagon building.....	285.17½	6.12½	82.3	2.55½	17.1	3.22½	.4	1.70½	.2
Cooperage.....	292.96½	7.40	68.1	1.83½	31.9	.....	.....	.....	.....
Breweries.....	295.64	5.90	94.0	2.37	6.0	.....	.....	.....	.....
Pig iron.....	301.48	5.96	95.2	2.59½	4.8	.....	.....	.....	.....
Iron and steel shipbuilding.....	328.73	7.11½	80.8	2.96	19.2	.....	.....	.....	.....
Newspapers.....	375.45	9.02½	74.3	2.03	22.9	2.96	.8	1.58	2.0

The percentage of men employed at stated weekly wages in different industries is shown in the following statement:

PERCENTAGE OF MEN EMPLOYED IN VARIOUS MANUFACTURING INDUSTRIES, BY STATED WEEKLY WAGES.

Industry.	Percentage of men earning—						Total.
	Under \$4.86½.	\$4.86½ or under \$6.08½.	\$6.08½ or under \$7.30.	\$7.30 or under \$8.51½.	\$8.51½ or under \$9.73½.	\$9.73½ or over.	
Printing and engraving, small establishments.....	4.8	15.7	30.6	29.3	11.2	8.4	100.0
Boot and shoe factories.....	11.9	49.0	22.9	10.9	3.3	2.0	100.0
Brick and tile.....	27.8	39.6	18.4	11.5	1.6	1.1	100.0
Printing and engraving, large establishments.....	3.1	8.7	16.4	27.5	23.9	20.4	100.0
Distilleries.....	52.5	30.4	8.0	4.8	3.1	1.2	100.0
Wood shipbuilding.....	11.5	18.5	14.5	43.6	9.9	2.0	100.0
Sawmills.....	26.0	31.4	19.3	15.8	4.9	2.6	100.0
Chemical manure.....	33.4	27.7	25.7	8.6	2.9	1.7	100.0
Coach and carriage building.....	15.0	26.3	23.9	22.6	6.3	5.9	100.0
Engineering, etc.....	29.5	16.9	28.9	15.2	5.9	3.6	100.0
Brass work and metal wares.....	8.2	18.1	23.6	28.4	10.8	10.9	100.0
Tin plate.....	16.1	13.3	7.1	8.8	21.5	33.2	100.0
Railway-carriage and wagon building.....	24.0	24.5	22.6	26.0	1.6	1.3	100.0
Cooperage.....	6.4	14.1	23.2	27.2	19.0	10.1	100.0
Breweries.....	26.2	37.0	18.9	8.2	4.4	5.3	100.0
Pig iron.....	33.5	23.1	22.5	15.0	2.1	3.8	100.0
Iron and steel shipbuilding.....	18.9	14.2	20.5	21.9	11.4	13.1	100.0
Newspapers.....	.4	8.9	13.5	18.0	21.8	37.4	100.0

Comparing different districts it is found that higher rates of wages prevail in Great Britain than in Ireland, and higher in England than in Scotland. The following statement is a comparison between the average annual wages in England, Scotland, and Ireland, and the United Kingdom in certain industries for which the necessary particulars were secured:

AVERAGE ANNUAL WAGES IN VARIOUS MANUFACTURING INDUSTRIES IN ENGLAND, SCOTLAND, IRELAND, AND THE UNITED KINGDOM, COMPARED.

[The averages in this table were obtained by multiplying the average for a week in 1886 by 52.]

Industry.	England.	Scotland.	Ireland. (a)	United Kingdom.
Engineering, etc.....	\$285.66½	\$264.98	\$223.37	\$277.14½
Brass work and metal wares.....	290.04½	266.44	248.68	282.01½
Sawmills.....	281.04	255.25	241.62	271.06½
Coach and carriage building.....	279.33½	258.90	257.44	273.98½
Breweries.....	300.99½	266.92½	246.49	295.64
Distilleries.....	313.64½	254.27½	229.70	255.98
Chemical manure.....	285.17½	243.32½	228.72½	272.03½
Printing and engraving:				
Large establishments.....	269.84½	228.72½	214.85½	255.73½
Small establishments.....	214.37	204.15	179.33	211.20½

a Most of the returns used came from Dublin, Belfast, and other large towns.

Particulars of rates of wages, etc., are also given for indoor workers in the tailoring, dressmaking, millinery, mantle making, and linen-underclothing industries. The total amount of wages returned for the year 1885, and the numbers employed, included in many cases persons working at their own homes and only partially employed by the firms who made the returns. The details for 1885 were further complicated in the

case of the industries referred to by the wages and numbers of those who were boarded and lodged not being distinguished. For these reasons it is impossible to give annual rates based on the total wages and numbers for 1885.

AVERAGE ANNUAL WAGES OF INDOOR WORKERS IN TAILORING, DRESSMAKING, AND SIMILAR INDUSTRIES.

[The averages in this table were obtained by multiplying the average for a week in 1886 by 52.]

Industry.	Men.	Lads and boys.	Women.	Girls.	Total.
Tailoring.....	\$399.54	\$67.40	\$192.95½	\$62.29	\$339.68
Dressmaking (a).....			170.08½	29.68½	136.26
Millinery (a).....			167.41	28.47	94.65½
Mantle making (a).....			182.49½	46.96	165.70½
Baby linen, etc.....			160.11	47.93½	143.32

a Not including women and girls who, in addition to money wages, were allowed full or partial board and lodging.

The average annual wages shown for tailoring are subject to considerable deduction for lost time, and are also affected by the number of cutters who are engaged in cutting out garments that are made up not only by the persons employed on the premises, but by large numbers of outworkers. A complete average for the trade would include outworkers as well as indoor workers, but this can not be arrived at from the data obtained. In the case of girls, the average for dressmaking and millinery is much below the averages for the other industries, owing to the fact that in these two industries a large proportion of the young girls were not paid any wages, as will be seen by the following statement, which relates exclusively to those who were not provided with lodging or food in addition to money wages:

PERCENTAGE OF WOMEN AND GIRLS EMPLOYED AT STATED WEEKLY WAGES IN TAILORING, DRESSMAKING, AND SIMILAR INDUSTRIES.

Industry.	Women.						Girls.			
	\$1.70½ or under \$2.43½.	\$2.43½ or under \$3.65.	\$3.65 or under \$4.86½.	\$4.86½ or under \$6.08½.	\$6.08½ or over.	Total.	Unpaid appren- tices.	\$0.48½ or under \$1.21½.	\$1.21½ or under \$1.70½.	Total.
Tailoring.....	15.6	27.4	37.5	19.5	.....	100.0	.....	26.7	73.3	100.0
Dressmaking.....	16.4	54.5	25.2	2.6	1.3	100.0	42.5	30.8	26.7	100.0
Millinery.....	25.5	34.9	29.2	7.6	2.8	100.0	47.0	36.8	16.2	100.0
Mantle making.....	8.0	52.7	35.3	2.7	1.3	100.0	14.3	52.4	33.3	100.0
Baby linen, etc.....	24.6	24.9	50.0	.5	.....	100.0	.....	a 92.1	7.9	100.0
Total.....	17.3	43.4	34.4	3.9	1.0	100.0	33.3	43.3	23.4	100.0

a This percentage is made up of 76.2 per cent of full-timers, paid 73 cents to \$1.21½ per week, and 15.9 per cent of half-timers, paid 61 cents to 85 cents.

The number of women provided with board or lodging in the dressmaking, mantle making, and millinery industries is only about 12 per cent of the total number employed in all three industries, and their average annual earnings are considerably higher than those of the women who do not receive either board or lodging. The explanation

of this seeming anomaly is that those who are given board and lodging, or partial board, are skilled workers, viz, fitters, heads of tables, cutters, etc.

The following statement shows the number, percentage, and average annual wages of the women who are not allowed board or lodging, allowed full board and lodging, and allowed partial board, respectively:

NUMBER, PERCENTAGE, AND AVERAGE ANNUAL WAGES OF WOMEN EMPLOYED IN THE DRESSMAKING, MILLINERY, AND MANTLE MAKING INDUSTRIES, BY METHOD OF PAYMENT.

Industry.	Without board or lodging.			With full board and lodging.			With partial board.			Total.	
	Num-ber.	Per cent.	Average wages.	Num-ber.	Per cent.	Average wages.	Num-ber.	Per cent.	Average wages.	Num-ber.	Per cent.
Dressmaking	616	87.6	\$170.08½	43	6.1	\$238.46	44	6.3	\$268.14½	703	100.0
Millinery	106	75.2	167.41	32	22.7	232.13	3	2.1	314.13½	141	100.0
Mantle making.....	300	94.9	182.49½	7	2.2	285.42	9	2.9	411.95	316	100.0
Total	1,022	88.1	173.49	82	7.1	239.92	56	4.8	293.69½	1,160	100.0

The data concerning wages and employees on railways, in shipping, domestic service, the building trades, and various public employments, such as the army, navy, and hospitals, were obtained in a somewhat different manner than that for the other industries. Of this group only the statistics concerning the building trades will be referred to in this synopsis. The information concerning the building trades was obtained from employers, the National Association of Master Builders, and trade union reports, as well as other sources, and covers the years 1886 and 1891.

The first statement presented deals with the total number of employees reported for all occupations coming under this general group, and shows the percentage of men employed at stated weekly rates of wages.

PERCENTAGE OF MEN EMPLOYED IN BUILDING TRADES, BY WEEKLY WAGES, 1886 AND 1891.

Weekly wages.	Per cent of total.			
	January.		July.	
	1886.	1891.	1886.	1891.
Under \$4.86½.....	22.1	14.8	6.3	6.8
\$4.86½ or under \$6.08½.....	12.9	22.3	23.2	27.5
\$6.08½ or under \$7.30.....	23.7	13.5	14.6	10.1
\$7.30 or under \$8.51½.....	33.1	32.0	30.2	19.8
\$8.51½ or under \$9.73½.....	6.1	14.0	21.0	28.2
Above \$9.73½.....	2.1	3.4	4.7	7.6
Total	100.0	100.0	100.0	100.0

The average weekly rate for the year would not be the mean of the rates given for January and July, but a figure arrived at on the basis of taking about 37 weeks of the summer rate, and 15 weeks of the winter rate, and dividing the result by 52. That would yield the average rate for a normal week, the result being subject, as in the case of all

other trades, to some deductions for lost time, owing to irregularity of employment, bad weather, and other causes. The deductions to be made from the above rates will not exceed 10 per cent. In a good year, the time lost in the building trades during bad weather is made up to some extent by overtime during the summer months. The overtime pay is excluded from the rates of wages given.

The following statement shows the number of employees and the average weekly wages for the principal classes of occupations included in the group of building trades:

EMPLOYEES AND AVERAGE WEEKLY WAGES IN BUILDING TRADES, IN JANUARY AND JULY, FOR THE YEARS 1886 AND 1891.

Occupations.	January.				July.			
	1886.		1891.		1886.		1891.	
	Em- ployees.	Average weekly wages.	Em- ployees.	Average weekly wages.	Em- ployees.	Average weekly wages.	Em- ployees.	Average weekly wages.
Masons	442	\$6. 79½	402	\$7. 50½	451	\$7. 95	610	\$8. 39½
Bricklayers	232	7. 54½	428	7. 84½	337	8. 64	888	8. 98½
Carpenters and Joiners	1, 094	7. 70½	1, 419	8. 21	1, 139	8. 31½	1, 516	8. 57½
Painters	277	6. 69	469	7. 09½	468	7. 72½	813	8. 17
Laborers	1, 092	4. 64½	1, 740	4. 80½	1, 401	5. 25	2, 845	5. 53½

While the numbers shown in the above statement as having been employed in July are larger than the numbers for January, there is no regular proportionate increase, the rise in a year like 1891 being more marked than in a year of depression like 1886. There is an increase shown in the wages for each occupation presented. This increase has occurred at a time when the standard weekly hours of labor have been on the decline, although the reduction in hours of work has not been as general as the increase in rates of wages.

The number of employees and total wages paid per week in 1886 and 1891 are shown in the following statement. The figures given in this statement relate to all occupations included in the returns received for building trades.

EMPLOYEES AND WAGES IN ALL BUILDING TRADES OCCUPATIONS, 1886 AND 1891.

	1886.	1891.
Employees:		
Highest number employed	5, 068	8, 743
Lowest number employed	3, 596	5, 576
Mean of the 52 weeks	4, 538	8, 088
Wages:		
Highest weekly amount	\$33, 783. 24½	\$57, 025. 64½
Lowest weekly amount	17, 339. 34	28, 191. 63½
Mean of the 52 weeks	27, 923. 97½	50, 197. 94½

The information summarized in the preceding statements is presented in detail in the report, so that similar data can be obtained for each occupation in the given industries in different districts of the United Kingdom.

In conclusion, the statistics for all classes of labor in different industries are summarized. With the exception of the statistics for railways, mercantile marine, building, and other trades referred to as having been treated separately, this summary includes all data gathered at or in connection with the census of wages of 1886. The totals are representative of perhaps three-fourths of the manual laboring classes of the United Kingdom.

"The general effect of this summary is to show an average rate of wages per head of 24s. 7d. (\$5.98) per week, equal to £64 (\$311.45½) per annum, if the weekly rate were multiplied by 52. Questions of course arise upon such a statement as to regularity of employment, overtime, and the like; * * * but considering that the year 1886, to which the census primarily relates, was a year of depression, and the great number of trades dealt with where employment is not irregular, I should not myself consider that any great mistake would be made in assuming average earnings for men for the average of the last few years to be not far short of 24s. 7d. (\$5.98) per week. The point may also be raised that the rates are for a year a considerable way back; but there has been enough experience in the department to show that rates of wages change rather slowly, and as the tendency has, on balance, been upward since 1886, there is the more reason to believe that even if an average rate, as shown above, was rather above the average earnings of 1886 in particular, it would not be above the average of 1886-1892." Similar averages for women, lads and boys, and girls show the weekly wages to have been \$3.08, \$2.17, and \$1.54, respectively.

The following statement, which includes all industries, as indicated above, shows the percentage of men, women, lads and boys, and girls, respectively, employed at stated weekly wages:

PERCENTAGE OF MEN, WOMEN, LADS AND BOYS, AND GIRLS EMPLOYED IN ALL INDUSTRIES, BY STATED WEEKLY WAGES.

Weekly wages.	Men.	Women.	Lads and boys.	Girls.
Half-timers			11.9	27.2
Under \$2.43½	0.1	26.0	49.7	62.5
\$2.43½ to \$3.65	2.4	50.0	32.5	8.9
\$3.65 to \$4.86½	21.5	18.5	5.8	1.4
\$4.86½ to \$6.08½	33.6	5.4	.1	
\$6.08½ to \$7.30	24.2	.1		
\$7.30 to \$8.51½	11.6			
\$8.51½ to \$9.73½	4.2			
Above \$9.73½	2.4			
Total	100.0	100.0	100.0	100.0

In the following statement 8,073 returns, relating to 816,106 employees, exclusive of those in Government works, are summarized so as to show the actual number and percentage employed at stated yearly rates of wages:

NUMBER AND PER CENT OF EMPLOYEES REPORTED FOR ALL INDUSTRIES, BY ANNUAL WAGES, OCTOBER 1, 1886.

Annual wages.	Employees.	
	Number.	Per cent.
Under \$194.66.....	349, 832	42.9
\$194.66 to \$243.32½.....	67, 818	8.3
\$243.32½ to \$291.99.....	268, 295	32.9
\$291.99 to \$340.65½.....	67, 320	8.2
Of and above \$340.65½.....	62, 841	7.7
Total.....	816, 106	100.0

The average annual wages of all employees, obtained by dividing the total wages in 1885, exclusive of those paid in Government works, by the total number of employees October 1, 1886, as shown in the above table, was \$228.72½.

The numbers in the above statement under \$194.66 may be considered to represent the trades in which female or child labor is mainly employed.

The average annual earnings for men in the industries referred to as having been treated separately are given as follows: Railways (1891), \$291.99; building trades (1891), \$355.25½; seamen (mercantile marine), \$316.32½ (a); seamen royal navy (petty officers and seamen), \$316.32½ (a); army (noncommissioned officers and men), \$233.59 (a); domestic servants (large households), \$330.92 (a); employees in lunatic asylums, \$291.99 (a); employees in hospitals and infirmaries, \$296.85½ (a).

Erhebung über Verhältnisse im Handwerk veranstaltet im Sommer 1895.
Bearbeitet im kaiserlichen statistischen Amt. 579 pp.

This work, an investigation in reference to the condition of skilled trades, was undertaken by the German Government for the use of members of the Reichstag and other officials. According to the introductory remarks there exists among German artisans a desire that the skilled trades should be organized on a firmer basis than the present voluntary trade guilds, especially with the view of obtaining greater efficiency in the technical training of apprentices. In response to this desire, the German Government, before taking any stand in the matter, deemed it advisable to ascertain the condition of the skilled trades at the present time, and for that purpose instituted an investigation calling for certain information concerning skilled artisans, and concerning other matters of interest in connection with the organization of the skilled trades.

^a Including estimated value of food and lodging where necessary.

A selection was made of 37 localities in Prussia, Bavaria, Saxony, Württemberg, Baden, Hesse, and Lübeck, having an aggregate population in 1890 of 2,292,525 persons and an area of 18,700 square kilometers (7,220 square miles), care being taken to select such districts as would be typical of the industrial conditions of the Empire generally.

In each of the districts a census enumeration was made of all persons coming under the following three categories: First, all occupations which may be regarded as purely skilled; second, those in which there is a doubt as to whether the labor may be regarded as skilled or factory work; third, those in which skilled work is done at the workman's home, but where he is in the employ of others. The work was done by means of blank schedules distributed by the communal and police authorities and collected by them within five days. In this manner 64,899 blanks were distributed, of which 61,257 were returned in such shape that they could be used. These give information concerning 134,712 persons. The enumeration was made in the summer of 1895.

The report consists of an introduction explaining the object of and methods pursued in the investigation and an analysis of the results obtained, and a series of statistical tables showing by enumeration districts and for each skilled trade, respectively, the number and sex of employers and independent master workmen, foremen, journeymen, apprentices, and unskilled laborers covered by the investigation, the number of trades learned, and length of apprenticeship of all male employers and independent master workmen, etc.

The results of this investigation of most general interest, as far as those engaged in undoubtedly skilled trades are concerned, can be summarized in two tables. The first of these shows the distribution of these workingmen according to whether they are employers or independent master workmen, journeymen, apprentices, or other employees for each trade separately.

NUMBER OF PROPRIETORS IN THE SKILLED TRADES AND THEIR EMPLOYEES.

Skilled trades.	Proprietors.			Foremen.	Journeymen.			Apprentices.			Other employees.	Total persons occupied.
	Employing labor.	Working alone.	Total.		At trades specified.	At other trades.	Total.	At trades specified.	At other trades.	Total.		
Barbers and hairdressers	613	591	1,204	3	451	2	453	583	.....	583	11	2,254
Wigmakers and hairdressers	55	17	72	.....	67	.....	67	52	.....	52	4	195
Bakers	2,958	1,559	4,517	117	2,706	25	2,731	1,775	.....	1,788	483	9,636
Surgical instrument and bandagemakers	77	39	116	4	96	1	97	117	.....	117	9	343
Coopers	329	566	895	6	329	2	331	211	.....	213	24	1,469
Brewers	264	73	337	51	380	.....	380	126	.....	126	178	1,072
Well diggers	30	29	59	.....	48	2	50	9	.....	9	29	147
Bookbinders and paper-box makers	200	160	360	5	203	3	206	177	.....	179	74	824
Brushmakers	72	98	170	4	86	.....	86	46	.....	46	7	313
Confectioners	219	65	284	9	264	.....	264	246	.....	246	78	881
Rooters	320	361	681	12	590	5	595	166	.....	167	88	1,543
Wire drawers .....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	1

NUMBER OF PROPRIETORS IN THE SKILLED TRADES AND THEIR EMPLOYEES—
Continued.

Skilled trades.	Proprietors.			Foremen.	Journeymen.			Apprentices.			Other employees.	Total persons occupied.
	Employing labor.	Working alone.	Total.		At trades specified.	At other trades.	Total.	At trades specified.	At other trades.	Total.		
Wood turners, pipecutters, etc.	163	227	390	2	190	10	200	139	.....	139	7	738
Printers (book) ..	116	11	127	9	246	10	256	248	6	254	65	711
Printers (on stone, zinc, copper, etc.)	24	9	33	.....	37	3	40	45	1	46	22	141
Color printers	3	1	4	.....	5	.....	5	4	.....	4	.....	13
Dyers	58	54	112	5	86	.....	86	17	.....	17	81	301
File cutters	48	19	67	3	62	.....	62	31	.....	31	8	171
Fitters (gas, water pipes, heating apparatus) ..	31	11	42	3	69	4	73	30	1	31	6	155
Brass and copper molders	35	20	55	.....	52	6	58	46	3	49	8	170
Tanners	126	67	193	4	228	7	235	50	.....	50	52	534
Pewter, zinc, and metal molders ..	23	25	48	.....	40	6	46	21	7	28	5	127
Glaziers	173	221	394	4	212	6	218	101	.....	101	4	721
Bell molders	1	.....	1	.....	.....	.....	.....	1	.....	1	.....	2
Jewelry workers.	67	79	146	1	80	6	86	40	1	41	9	283
Engravers, chasers	16	20	36	.....	14	.....	14	17	.....	17	5	72
Glove makers	15	30	45	.....	11	1	12	8	1	9	5	71
Hat and cap makers	44	82	126	.....	56	.....	56	15	.....	15	12	209
Comb makers	5	18	23	.....	6	.....	6	.....	.....	.....	1	30
Tinsmiths	505	342	847	4	553	10	563	503	.....	503	33	1,950
Basket makers	441	901	1,342	4	445	.....	445	221	.....	221	16	2,028
Furriers	66	121	187	3	75	6	81	32	.....	32	23	326
Coppersmiths	100	46	146	5	140	22	162	110	8	118	13	444
Sign and house painters, lacquerers	973	807	1,780	17	1,898	11	1,909	1,014	5	1,019	126	4,851
Masons	1,114	1,576	2,690	254	7,771	782	8,553	1,526	164	1,690	2,607	15,794
Butchers	2,012	1,460	3,472	41	1,818	17	1,835	1,345	1	1,346	290	6,984
Millers	978	452	1,430	104	1,127	120	1,247	248	3	251	275	3,307
Millwrights	30	28	58	2	81	4	85	15	.....	15	4	164
Musical-instrument makers ..	17	23	40	3	29	.....	29	5	.....	5	2	79
Pin and needle makers	8	12	20	2	6	.....	6	6	.....	6	1	35
Nail smiths	27	177	204	.....	33	.....	33	4	.....	4	.....	241
Fringe makers	16	14	30	.....	15	.....	15	5	.....	5	21	71
Saddlers and harness makers ..	519	587	1,106	6	472	10	482	426	1	427	10	2,031
Ship carpenters ..	15	77	92	3	156	.....	156	35	.....	35	2	288
Grinders (knives, scissors, tools).	726	991	1,717	1	404	.....	404	576	.....	576	11	2,709
Iron workers (not specialists) ..	552	239	791	22	593	.....	593	1,214	.....	1,214	40	2,660
House and lock smiths	170	20	190	11	215	.....	215	413	1	414	3	833
Safe makers	7	.....	7	1	28	.....	28	26	.....	26	.....	62
Range makers	13	.....	13	4	34	.....	34	30	.....	30	1	82
Ornamental iron workers	11	5	16	2	31	.....	31	13	.....	13	10	72
Iron workers on vehicles .....	.....	2	2	.....	.....	.....	.....	.....	.....	.....	.....	2
Iron workers on machinery	28	13	41	.....	54	.....	54	57	.....	57	.....	152
Iron turners .....	.....	6	6	.....	.....	.....	.....	.....	.....	.....	.....	6
Tool makers	2	3	5	.....	6	.....	6	1	.....	1	.....	12
Blacksmiths (not specialists) ..	1,490	1,049	2,539	23	1,191	.....	1,191	1,069	.....	1,069	42	4,864
Axle and spring makers	8	4	12	.....	8	.....	8	10	.....	10	.....	30
Anchor, anvil, and ship smiths	13	6	19	.....	11	.....	11	9	.....	9	1	40
Shapers (façon-schmiede) ..	1	.....	1	.....	2	.....	2	.....	.....	.....	.....	3
Horseshoers and gunsmiths	381	195	576	11	367	2	369	256	.....	256	12	1,224
Chainsmiths	3	2	5	.....	10	.....	10	1	.....	1	3	19
Cutlers	52	90	142	2	54	.....	54	18	.....	18	4	220
Scythe and sickle smiths	1	1	2	.....	1	.....	1	.....	.....	.....	.....	3
Tool smiths	31	26	57	.....	23	.....	23	24	.....	24	4	108

NUMBER OF PROPRIETORS IN THE SKILLED TRADES AND THEIR EMPLOYEES—
Concluded.

Skilled trades.	Proprietors.			Foremen.	Journeyman.			Apprentices.			Other employees.	Total persons occupied.
	Employing labor.	Working alone.	Total.		At trades specified.	At other trades.	Total.	At trades specified.	At other trades.	Total.		
Tailors	2, 168	3, 462	5, 630	55	2, 734	1	2, 735	1, 726	1, 726	113	10, 259	
Chimney sweeps.	103	22	125	6	102	1	103	42	42	2	278	
Joiners (not special- lists)	1, 704	2, 013	3, 717	32	2, 386	2	2, 386	1, 448	1, 448	74	7, 657	
House joiners	333	217	550	9	612	2	614	304	306	15	1, 494	
Wooden toy and ornamentmak- ers	1	2	3	.....	2	.....	2	.....	.....	1	6
Trunk makers	11	4	15	1	19	.....	19	4	4	1	40
Cabinet makers ..	8	4	12	.....	18	.....	18	10	10	1	41
Cabinet makers, fancy inlaid and scroll work.	2	1	3	.....	9	.....	9	3	3	.....	15
Pattern makers ..	7	8	15	.....	8	.....	8	2	2	.....	25
Furnituremakers	238	168	406	6	457	6	463	237	1	238	1, 132	
Floor carpenters.	1	.....	1	.....	1	.....	1	1	1	.....	3
Coffin makers	15	5	20	.....	27	.....	27	9	9	1	57
Chair makers	15	22	37	.....	27	.....	27	9	9	.....	73
Loom makers	1	.....	1	.....	2	.....	2	.....	.....	.....	3
Wooden tool makers	4	.....	4	.....	5	.....	5	.....	.....	.....	9
Shoe and slipper makers	2, 696	6, 710	9, 406	31	2, 787	3	2, 790	1, 754	1, 754	120	14, 101	
Soap and candle makers	28	25	53	3	32	.....	32	5	5	38	131
Rope makers	88	97	185	5	110	.....	110	34	34	27	361
Sieve makers	11	19	30	.....	16	.....	16	1	1	.....	47
Spur and screw makers and ri- flers	34	23	57	.....	47	1	48	36	36	.....	141
Umbrella and parasolmakers.	15	12	27	2	18	.....	18	8	8	35	90
Toy and wood- work finishers.	2	5	7	1	6	.....	6	4	4	1	19
Stone cutters	176	107	283	26	865	4	869	182	1	183	1, 449	
Stone setters	57	37	94	5	207	.....	207	31	31	160	497
Knitters and em- broiderers	72	151	223	1	85	.....	85	17	17	12	338
Stucco workers ..	67	46	113	.....	223	4	227	82	1	83	474
Paper hangers, decorators	155	122	277	7	176	11	187	158	3	161	643	
Potters	172	137	309	4	311	.....	311	148	148	53	825
Cloth makers	82	111	193	.....	77	.....	77	29	29	14	313
Watch and clock makers	231	352	583	3	186	2	188	164	1	165	944	
Gilders	22	8	30	.....	30	2	32	20	20	5	87
Finishers of rough wooden ware	101	314	415	2	93	.....	93	47	47	27	584
Wagonmakers	773	1, 222	1, 995	8	640	19	659	474	3	477	3, 180	
Weavers	883	3, 800	4, 683	2	736	2	738	151	.....	151	5, 904
Carpenters	586	988	1, 574	48	2, 870	713	3, 583	693	126	819	6, 530	
Total	27, 257	33, 942	61, 199	1, 024	40, 189	1, 854	42, 043	21, 366	359	21, 725	6, 589	132, 580

Of the total number of persons engaged in the skilled trades, as shown in this table, 46 per cent were proprietors of establishments, 1 per cent were foremen, 32 per cent were journeymen, 16 per cent were apprentices, and 5 per cent were employed at unskilled labor. Of the proprietors, 44½ per cent employed labor and 55½ per cent worked alone.

As regards sex, the enumeration shows that out of the 61,199 proprietors in the above table, 1,607 were females. Of the proprietresses there were 567 who worked alone, that is, who did not employ labor, of whom 325 were tailoresses, 144 weavers, 19 bakers, 17 shoe and slipper makers, 16 knitters and embroiderers, 9 butchers, 8 millers, 7 basket

makers, 6 hairdressers, 3 brush makers, 2 furriers, 2 watchmakers, 1 confectioner, 1 hat and cap maker, 1 saddler, 1 joiner, 1 grinder (cutlery), 1 furniture maker, 1 sieve maker, 1 umbrella maker, and 1 stonemason. The remaining 1,040 proprietresses were employers of labor. They represent almost every trade enumerated, though the greater part fall within the classes of tailoresses, of whom there were 231, bakers 206, butchers 98, millers 71, weavers 45, shoe and slipper makers 43, blacksmiths (not specialists) 28, joiners (not specialists) 24, and barbers and hairdressers 23. Of the total of 1,024 foremen, but 5 were females. Among the employees there were 803 female journeymen, 405 female apprentices, and 1,262 females employed at occupations other than skilled trades.

The next table shows the degree of technical training undergone by male proprietors of establishments engaged in purely skilled trades.

DURATION OF APPRENTICESHIP OF MALE PROPRIETORS IN SKILLED TRADES.

Skilled trades.	Male proprietors.	Number who have served an apprenticeship of years specified.									Number who have served apprenticeships in—	
		1 or under.	Over 1, but not over 2.	Over 2, but not over 3.	Over 3, but not over 4.	Over 4, but not over 5.	Over 5, but not over 6.	Over 6.	Not reported.	Total.	Their present trades.	Other trades.
Barbers and hairdressers	1,175	133	153	605	187	21	.....	1	11	1,111	1,103	8
Wig makers and hairdressers	72	1	4	44	19	3	.....	.....	1	72	72	.....
Bakers	4,292	126	979	2,513	313	35	9	10	39	4,024	3,983	41
Surgical instrument and bandage makers	113	1	2	46	49	4	3	2	3	110	94	16
Coopers	879	10	114	484	169	65	14	4	8	868	866	2
Brewers	326	16	92	149	18	1	2	2	1	281	278	3
Well diggers	59	2	9	27	9	.....	1	1	.....	49	46	3
Bookbinders and paper-box makers	352	2	10	170	122	30	2	.....	3	339	339	.....
Brush makers	165	5	9	60	62	12	4	1	.....	153	148	5
Confectioners	272	2	10	185	55	6	2	.....	4	262	259	3
Roofers	673	21	97	423	71	13	4	8	5	642	640	2
Wire drawers	1	.....	.....	1	.....	.....	.....	.....	.....	1	1	.....
Wood turners, pipe cutters, etc.	385	8	30	198	109	28	3	1	2	379	376	3
Printers (book)	123	.....	3	31	53	14	.....	2	2	105	102	3
Printers (on stone, zinc, copper, etc.)	30	.....	.....	10	12	5	.....	.....	1	28	28	.....
Color printers	4	.....	.....	2	2	.....	.....	.....	.....	4	3	1
Dyers	106	3	8	66	17	2	.....	1	1	98	96	2
File cutters	63	.....	2	26	26	5	.....	.....	3	62	62	.....
Fitters (gas, water pipes, heating apparatus)	41	.....	1	33	4	2	1	.....	.....	41	28	13
Brass and copper molders	55	2	1	26	17	5	1	.....	1	53	50	3
Tanners	191	2	18	127	28	4	3	1	4	187	187	.....
Pewter, zinc, and metal molders	47	.....	3	18	17	3	2	.....	1	44	43	1
Glaziers	388	12	28	238	78	14	5	.....	1	376	374	2
Bell molders	1	.....	.....	.....	1	.....	.....	.....	.....	1	.....	1
Jewelry workers	141	.....	1	20	65	39	7	5	1	138	138	.....
Engravers, chasers	36	.....	1	3	22	8	1	1	.....	36	35	1
Glove makers	44	.....	1	15	24	4	.....	.....	.....	44	43	1
Hat and cap makers	123	3	7	54	45	6	2	.....	1	118	116	2
Comb makers	23	2	.....	12	4	3	.....	.....	.....	21	21	.....
Tinsmiths	836	5	13	451	296	45	11	2	5	828	823	5
Basket makers	1,325	143	410	532	114	27	12	9	10	1,257	1,248	9
Furriers	182	.....	1	86	78	16	1	.....	.....	182	180	2
Coppersmiths	142	.....	1	66	57	11	4	.....	2	141	141	.....
Sign and house painters, lacquerers	1,771	40	156	896	471	86	24	11	26	1,710	1,692	18
Masons	2,682	62	364	1,793	272	62	19	19	19	2,610	2,598	12
Butchers	3,365	107	601	2,154	223	44	3	7	24	3,163	3,139	24

DURATION OF APPRENTICESHIP OF MALE PROPRIETORS IN SKILLED TRADES—
Continued.

Skilled trades.	Male proprietors.	Number who have served an apprenticeship of years specified.								Total	Number who have served apprenticeships in—	
		1 or under.	Over 1, but not over 2.	Over 2, but not over 3.	Over 3, but not over 4.	Over 4, but not over 5.	Over 5, but not over 6.	Over 6.	Not reported.		Their present trades.	Other trades.
Millers	1,351	39	198	632	67	16	7	5	29	1,043	1,016	27
Millwrights	58		2	38	9	5	1	1		56	53	3
Musical-instrument makers	40		1	4	12	11	3	3	2	36	35	1
Pin and needle makers	18	1	1	8	6	2				18	18	
Nailsmiths	203	19	36	40	21	10	1			127	125	2
Fringe makers	26			8	5	5	1		1	20	20	
Saddlers and harness makers	1,095	3	22	752	251	52	4		3	1,087	1,086	1
Ship carpenters	92			80	5	2				87	86	1
Grinders (knives, scissors, tools)	1,713	12	37	276	1,098	209	23	1	35	1,691	1,689	2
Iron workers (not specialists)	780	3	29	516	190	22	3	6	4	773	767	6
House and locksmiths	187		2	127	53	3			1	186	184	2
Safe makers	7		1	4	2					7	6	1
Rauge makers	13		2	7	3					12	12	
Ornamental iron workers	16			12	1	1	1			15	15	
Iron workers on vehicles	2				1				1	2	2	
Iron workers on machinery	41		2	25	10	4				41	41	
Iron turners	6			4	2					6	5	1
Tool makers	5			4	1					5	5	
Blacksmiths (not specialists)	2,511	7	136	1,757	420	132	10	11	18	2,491	2,483	8
Axle and spring makers	12			12						12	12	
Anchor, anvil, and ship smiths	19		1	11	4	2	1			19	19	
Shapers (façon-schmiede)	1			1						1	1	
Horseshoers and gunsmiths	570	2	36	430	68	20	1	3	7	567	566	1
Chainsmiths	5			3	2					5	5	
Cutters	140	3	3	74	43	10	1		2	136	135	1
Scythe and sickle smiths	2			1		1				2	2	
Toolsmiths	56	1	7	26	19	3				56	55	1
Tailors	5,074	42	453	3,160	1,152	169	18	20	18	5,033	5,026	7
Chimney sweeps	121		2	45	32	21	7	9		117	117	
Joiners (not specialists)	3,692	19	290	2,303	841	132	20	13	22	3,645	3,615	30
House joiners	546	3	32	347	129	23	4	2	5	545	543	2
Wooden toy and ornament makers	3			2	1					3	3	
Trunk makers	12			8	2					10	6	4
Cabinetmakers	12			7	4	1				12	12	
Cabinetmakers, fancy inlaid and scroll work	3			2				1		3	3	
Pattern makers	15			9	5				1	15	15	
Furniture makers	401		22	247	108	11	2		7	397	396	1
Floor carpenters	1			1						1	1	
Coffin makers	19			6	10	1	1			18	18	
Chair makers	37		6	18	7	3	2			36	36	
Loom makers	1			1						1	1	
Wooden tool makers	4			2	2					4	4	
Shoe and slipper makers	9,346	68	920	5,589	2,127	409	83	36	38	9,270	9,254	16
Soap and candle makers	51	4	4	28	3	1			4	44	44	
Rope makers	181		8	103	53	10	2	1	1	178	178	
Sieve makers	29	1	6	11	4	2				24	22	2
Spur and screw makers and riflers	57		1	37	15	2			2	57	56	1
Umbrella and parasol makers	26	3	5	9	4	2		1		24	22	2
Toy and wood work finishers	7	1	1		2	1				5	3	2
Stonecutters	277	7	33	122	66	16	1	1	4	250	236	14

DURATION OF APPRENTICESHIP OF MALE PROPRIETORS IN SKILLED TRADES—
Concluded.

Skilled trades.	Male proprietors.	Number who have served an apprenticeship of years specified.								Number who have served apprenticeships in—		
		1 or under.	Over 1, but not over 2.	Over 2, but not over 3.	Over 3, but not over 4.	Over 4, but not over 5.	Over 5, but not over 6.	Over 6.	Not reported.	Total.	Their present trades.	Other trades.
Stone setters	92	1	12	67	6	2	1	.....	1	90	89	1
Knitters and embroiderers	199	22	48	97	17	.....	.....	.....	2	186	182	4
Stucco workers	113	10	24	53	17	3	.....	1	1	110	105	5
Paper hangers, decorators	272	.....	4	137	101	27	1	.....	.....	270	269	1
Potters	502	.....	7	137	89	50	14	2	2	301	300	1
Cloth makers	192	1	25	80	64	14	2	.....	.....	186	183	3
Watch and clock makers	566	7	15	122	304	80	10	4	2	544	542	2
Gilders	30	.....	1	9	12	5	1	.....	1	29	29	.....
Finishers of rough wooden ware	414	105	119	114	7	6	3	.....	7	361	353	8
Wagon makers	1,980	39	237	1,291	315	48	3	3	25	1,961	1,949	12
Weavers	4,494	819	1,116	2,132	173	56	22	26	38	4,382	4,365	17
Carpenters	1,571	22	163	1,125	148	16	7	10	24	1,515	1,502	13
Total	59,592	1,972	7,199	33,886	11,222	2,244	402	253	488	57,666	57,274	392

It is interesting to note that of the 59,592 male proprietors enumerated 97 per cent served apprenticeships. Of those who served apprenticeships, 3.4 per cent served one year or under, 12.5 per cent over one year but not more than two years, 58.8 per cent over two but not more than three years, 19.5 per cent over three but not more than four years, 3.9 per cent over four but not more than five years, 0.7 per cent over five but not more than six years, and 0.4 per cent over six years. In the case of 0.8 per cent the time was not reported.

Drucksachen der Kommission für Arbeiterstatistik: Hefte I, III.—Erhebung über die Arbeitszeit in Bäckereien und Konditoreien (I Theil, 1892; II Theil, 1893). Hefte II, V, VII.—Erhebung über Arbeitszeit, Kündigungsfristen und Lehrlings-Verhältnisse im Handelsgewerbe (I Theil, 1893; II Theil, 1894; III Theil, 1894). Hefte IV, VIII.—Erhebung über die Arbeitszeit in Getreidemühlen (I Theil, 1894; II Theil, 1895). Hefte VI, IX.—Erhebung über die Arbeits- und Gehalts-Verhältnisse der Kellner und Kellnerinnen (I Theil, 1894; II Theil, 1895).

The foregoing investigations were conducted by the commission on labor statistics of the German Empire. The duties of the commission, as defined in the official decree, are (1) to undertake the collection and preparation of statistics of labor, and to give an opinion on the results whenever requested by the imperial council or the chancellor of the Empire; (2) to make recommendations to the chancellor regarding the best means of carrying out this object.

In pursuance of these duties, the commission has thus far issued the nine reports above enumerated.

The first and third reports (Vols. I, III) are the results of an investigation concerning the hours of labor in bakeries and confectioneries, conducted by means of schedules of inquiry. The information collected relates chiefly to hours of labor for a regular day's work, and at extra time, in all bakeries and confectioneries; conditions of apprenticeship, contract of employment, tuition, length of service, education, and hours of labor of apprentices; housing conditions of employees; application of machinery in the bakery industries. The second part of the inquiry relates to an analysis of replies received from master-bakers' and journeymen's associations in reference to the introduction of the twelve-hour working day, the regulation of the hours of labor of apprentices and children, and Sunday rest. It also contains opinions in reference to the influence of the work of bakers upon their health.

The second, fifth, and seventh reports (Vols. II, V, VII) of the commission contain the results of an investigation covering inquiries regarding the hours of labor, notice given in case of discontinuance of employment, and conditions of apprenticeship of employees in the mercantile industries. The first part contains a series of statistical tables showing the number of employers and employees in each locality enumerated, the sex and standing of the latter (whether apprentices or journeymen), hours of opening and of closing the establishments, actual working hours at regular and at extra time for each sex, length required of notice of discontinuance of employment, and the number of employees boarding or lodging with their employers, or living in dwellings rented of the latter. The inquiry covers 8,235 establishments in 389 localities, and employing 23,725 persons. The second and third parts of this inquiry contain a presentation and discussion of replies to inquiries sent to mercantile associations throughout Germany regarding the extent to which the existing hours of labor may be regarded as detrimental to the physical and intellectual condition of employees; in what manner, under existing conditions, the time of labor may be reduced without being harmful to the business interests and to the public; the reasons for or against the enactment of a law fixing a minimum period of notice to be required for the severance of the relations of employers and their employees; and, finally, the advisability and practicability of adopting a uniform hour for closing establishments.

The fourth and eighth reports (Vols. IV, VIII) relate to similar inquiries regarding the hours of labor in flour mills. Statistics cover chiefly the hours of labor and Sunday rest in steam, water power, and wind mills.

The sixth and ninth reports (Vols. VI, IX) contain the results of inquiries regarding the labor and wage conditions of waiters and waitresses, the influence of the present working day upon the health, education, and domestic life of employees, the regulation of working hours

for adults and children, Sunday rest, gratuities, fines, and employment agencies. The replies were received from hotel and restaurant proprietors' associations and waiters' and cooks' unions. Statistics of sickness and mortality collated from local sick funds are also presented.

Die Belegschaft der Bergwerke und Salinen im Oberbergamtsbezirk Dortmund, nach der Zählung vom 16. Dezember 1893. Zusammengestellt von O. Taeglichsbeck, königlichen Berghauptmann und Oberbergamtsdirektor zu Dortmund. Erster Theil, 1895, xxxi, 461 pp.: Zweiter Theil, 1896, lxii, 663 pp.

This report is the result of a census enumeration taken by the central mining office of Dortmund with the cooperation of the Mine Operators' Association at Essen, on December 16, 1893. It relates to the economic and social conditions of the officials and employees at the mines and salt works within the jurisdiction of the central mining office (Oberbergamtsbezirk) at Dortmund. The territory covered by the report includes the provinces of Westphalia and Hanover, the principality of Siegen, the districts of Osnabrück and Aurich, the counties of Wittgenstein-Wittgenstein and Wittgenstein-Berleburg, the towns of Burbach and Neunkirchen, and in Rhenish Prussia, the subdivisions of Rees, Duisburg, Essen, and parts of Dusseldorf and Elberfeld.

Within this territory are found deposits of coal, iron, zinc, lead, sulphur, and salt. The chief mining industry is that of coal, over one-half of the total output of Germany coming from this section.

According to the enumeration of December 16, 1893, the total number of persons engaged in the mines, salt works, and mineral baths of the Dortmund district was 158,368. These were distributed as follows: 155,934, or 98.46 per cent, in 164 coal mines; 2,147, or 1.36 per cent, in 24 ore mines; 225, or 0.14 per cent, in 5 salt works; 62, or 0.04 per cent, at the Government mineral baths at Oeynhausen.

As the number of persons employed in other than coal-mining industries is comparatively insignificant, about 1½ per cent of the whole, the information is chiefly valuable as regards coal-mine workers. Concerning female labor, the enumeration shows that of the total employees of all the industries treated, only 27 were females. These were engaged at various mineral mines. There were no women engaged in any capacity at the coal mines and salt works.

The two volumes comprising this report consist mainly of statistical tables, but 93 out of a total of 1,217 pages being devoted to text. The figures are given in the greatest detail, each establishment being separately treated. A review of the more important facts is presented below.

In the establishments considered the ages of employees and officials vary from 14 to over 60 years, as shown in the following table:

AGE OF OFFICIALS AND EMPLOYEES.

Age (years).	Officials.	Engi- neers and firemen.	Actual mine workers.	Day laborers.	Other occupa- tions.	Total.
14.....	11	137	982	313	513	1,956
15.....	16	168	1,479	488	631	2,782
16.....	12	97	3,930	309	228	4,576
17.....	20	100	4,913	317	139	5,489
18.....	13	88	5,712	367	138	6,318
19.....	20	77	6,230	356	128	6,811
20.....	11	51	4,784	276	112	5,234
21.....	17	69	4,156	260	87	4,589
22.....	27	48	3,097	202	92	3,466
23.....	51	78	4,713	301	139	5,282
24.....	56	116	5,136	374	156	5,838
25.....	85	100	5,118	336	170	5,809
26.....	80	137	5,087	294	167	5,715
27.....	111	141	5,164	293	198	5,907
28.....	131	131	4,747	257	165	5,431
29.....	141	134	4,751	284	175	5,485
30.....	140	151	4,525	277	187	5,280
31.....	133	126	3,920	283	167	4,629
32.....	144	140	3,656	279	162	4,381
33.....	163	160	3,675	264	148	4,410
34.....	170	143	3,727	276	170	4,486
35.....	187	154	3,410	250	166	4,167
36.....	177	155	3,183	250	148	3,913
37.....	164	154	2,725	226	107	3,376
38.....	141	139	2,508	226	133	3,147
39.....	165	152	2,533	228	112	3,180
40.....	165	161	2,598	237	121	3,282
41.....	158	139	2,389	247	125	3,053
42.....	165	147	2,325	251	113	3,001
43.....	153	163	2,202	189	120	2,827
44.....	160	153	2,091	210	121	2,735
45.....	157	133	1,873	193	112	2,468
46 to 47.....	242	276	2,096	403	157	3,774
48 to 50.....	332	345	3,565	580	236	5,058
51 to 55.....	589	479	3,749	794	307	5,918
56 to 60.....	286	281	1,602	565	191	2,925
Over 60.....	183	163	701	466	142	1,655
Total.....	4,976	5,586	129,602	11,721	6,483	158,368

The age of 19 years, which immediately precedes entry upon military service, is best represented, there being a much smaller number of employees of each age from 20 to 23 years, which are the ages of military service. After the period of military service, the age of 27 years is best represented. From that age onward there is an almost steady decrease in number for each succeeding year, especially in the case of mine workers.

The number of married employees is comparatively large when it is considered that over one-half of all employees were under 30 years of age. Of the 158,368 persons reported 91,648, or 57.87 per cent, were married; 2,466, or 1.56 per cent, were widowed and divorced, and 64,254, or but 40.57 per cent, were single.

STABILITY OF OCCUPATIONS.—This subject receives more attention than any other, and is illustrated by tables showing the number of officials and employees who follow the occupations of their fathers, the length of service in the same occupation of all officials and employees, and the number remaining in the same establishment during their entire period of service.

It is shown that 59,256, or 37.42 per cent, of the officials and employees in all the industries considered followed the same occupation as their fathers. In coal mining the per cent was greatest, being 37.60; in other mines it was 27.11 per cent, and in the salt works it was 16.89 per cent.

The percentage was greatest in sections where the industries were of longest duration. Thus, for instance, the percentage of coal mine employees whose fathers were also miners was, in South Dortmund, 47.17; in Hattingen, 52.06; and in Werden, 55.69, while in Gelsenkirchen, Recklinghausen, and Herne, districts in which coal mining is of more recent development, the percentages were, respectively, 23.36, 27.34, and 27.12.

The following table shows the length of service of officials and employees at their present occupations, and the number of these who remained in the same establishments during the entire period specified in each case:

YEARS OF SERVICE OF OFFICIALS AND EMPLOYEES AT THE SAME OCCUPATIONS AND IN THE SAME ESTABLISHMENTS.

Years of service.	Officials.		Engineers and firemen.		Actual mine workers.		Day laborers.		Other occupations.		Total.	
	At same occupation.	In same estab-lish-ment.	At same occupation.	In same estab-lish-ment.	At same occupation.	In same estab-lish-ment.	At same occupation.	In same estab-lish-ment.	At same occupation.	In same estab-lish-ment.	At same occupation.	In same estab-lish-ment.
1.....	88	88	692	692	14,284	14,284	2,970	2,970	2,172	2,172	20,206	20,206
2.....	84	74	385	334	8,995	6,671	1,279	1,085	841	689	11,584	8,853
3.....	94	68	394	315	10,601	7,180	1,093	875	618	473	12,800	8,911
4.....	77	51	314	230	9,825	5,676	761	562	493	334	11,470	6,853
5.....	72	51	216	142	7,581	3,802	499	330	345	224	8,713	4,549
6.....	59	36	148	96	5,448	2,147	350	234	206	115	6,211	2,628
7.....	63	36	124	73	4,381	1,435	247	152	170	91	4,985	1,787
8.....	56	30	136	67	4,126	1,168	258	160	136	66	4,712	1,491
9.....	108	54	132	62	4,189	1,141	243	135	133	67	4,805	1,459
10.....	127	51	174	87	5,596	1,347	325	184	186	105	6,408	1,774
11.....	144	55	145	83	4,573	1,124	279	171	152	70	5,293	1,503
12.....	160	44	161	75	4,589	940	275	155	125	62	5,310	1,276
13.....	169	43	156	75	4,351	836	245	142	109	53	5,030	1,149
14.....	154	31	110	53	3,355	541	182	84	70	25	3,871	734
15.....	153	34	122	49	3,093	390	175	83	71	25	3,614	581
16.....	139	25	102	43	2,342	301	132	74	51	19	2,766	462
17.....	142	32	95	48	2,291	331	150	78	56	25	2,734	514
18.....	175	50	144	56	2,697	405	168	89	63	28	3,247	628
19.....	162	39	133	44	2,351	343	178	92	48	20	2,872	538
20.....	227	57	205	91	3,666	504	273	123	67	20	4,438	795
21.....	171	51	145	64	2,445	326	168	80	56	17	2,985	538
22.....	175	45	125	48	2,266	294	131	60	49	17	2,746	464
23.....	181	43	133	41	2,399	275	130	51	26	9	2,869	419
24.....	134	26	88	25	1,879	173	95	30	28	9	2,224	263
25.....	146	22	120	28	1,843	163	114	29	30	9	2,253	251
26.....	138	26	95	16	1,484	152	120	48	33	7	1,870	249
27.....	141	24	86	22	1,430	168	93	18	26	10	1,776	242
28.....	143	15	85	23	1,319	139	76	16	16	7	1,639	200
29.....	129	18	79	29	1,103	102	65	18	17	5	1,393	172
30.....	136	16	71	13	1,156	92	108	16	16	5	1,487	142
31.....	100	18	43	8	569	62	54	15	3	2	769	105
32.....	87	13	42	9	537	46	52	10	9	.....	727	78
33.....	88	13	50	7	526	50	51	15	7	3	722	88
34.....	63	13	33	7	387	40	40	6	6	1	529	67
35.....	93	13	49	10	381	41	57	10	9	.....	589	74
36.....	88	12	46	8	376	35	48	7	10	.....	568	62
37.....	93	14	49	13	280	28	42	4	5	.....	469	59
38.....	90	15	45	8	223	24	35	8	3	.....	396	55
39.....	66	8	28	6	182	15	34	4	3	2	313	35
40.....	56	6	23	5	186	7	30	7	5	1	300	26
41.....	39	3	9	1	78	4	19	2	3	.....	148	10
42.....	26	1	13	2	57	4	9	1	2	.....	107	8
43.....	31	6	9	1	46	2	14	1	1	1	101	11

YEARS OF SERVICE OF OFFICIALS AND EMPLOYEES AT THE SAME OCCUPATIONS AND IN THE SAME ESTABLISHMENTS—Concluded.

Years of service.	Officials.		Engineers and firemen.		Actual mine workers.		Day laborers.		Other occupations.		Total.	
	At same occupation.	In same establishment.	At same occupation.	In same establishment.	At same occupation.	In same establishment.	At same occupation.	In same establishment.	At same occupation.	In same establishment.	At same occupation.	In same establishment.
44.....	13	2	6	1	35	.....	10	3	1	.....	65	6
45.....	22	2	7	1	28	2	17	6	2	.....	76	11
46.....	13	1	8	2	16	.....	7	1	.....	44	4	
47.....	14	2	4	.....	12	.....	4	.....	1	.....	35	2
48.....	9	1	2	.....	7	.....	4	.....	.....	.....	22	1
49.....	5	1	2	.....	3	.....	1	1	.....	.....	12	2
50.....	9	.....	3	.....	7	.....	4	1	1	.....	24	1
51.....	6	1	.....	.....	4	.....	2	2	.....	.....	12	3
52.....	5	.....	.....	.....	.....	.....	2	.....	.....	.....	7	.....
53.....	6	.....	.....	.....	1	.....	1	.....	.....	.....	8	.....
54.....	2	1	.....	.....	1	.....	.....	.....	1	.....	4	1
55.....	1	.....	.....	.....	1	.....	1	.....	1	.....	4	.....
56.....	2	1	.....	.....	.....	.....	.....	.....	.....	.....	2	1
57.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
58.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....
59.....	1	.....	.....	.....	.....	.....	1	.....	.....	.....	1	2
Total.	4,976	1,382	5,586	3,113	129,602	52,810	11,721	8,248	6,483	4,788	158,368	70,341

As the industries in this section are largely in a stage of rapid development, a greater number of employees are found to have been engaged in their present occupations for one year or under than for any other period of service. There is an almost steady decrease for each succeeding period. The only decided exception is found in the number employed seven, eight, and nine years. The abnormal decrease shown here is due to military service, for if the persons mostly entered upon their occupations at the minimum age, 14 years, they would have attained the ages of 21, 22, and 23 years, respectively, which ages, as has been shown, correspond to the period of military service.

Of all the employees and officials, 70,341, or 44.42 per cent, remained in the service of the same establishments during the entire time of employment at their present occupations.

The enumeration showed that out of the total number of employees and officials 154,517, or 97.57 per cent, had completed their elementary education. This percentage would undoubtedly have been greater were it not for the large influx of foreigners, which is always present where industries are rapidly developing. In some other sections of this mining district, where the industries are older, the illiterates comprise less than one-half of 1 per cent.

In the accompanying table is given a general review of the housing conditions of the employees and officials as regards house ownership and tenancy:

OFFICIALS AND EMPLOYEES OWNING HOUSES AND LIVING IN THEIR OWN AND IN RENTED HOUSES AND LODGINGS.

Officials and employees in—	House owners.	Living in their own houses.	Living in rented houses, lodgings, etc.					Total officials and employees.	
			Tenants of employers.	Tenants of others.	In-mates of lodging houses.	Lodged with private families.	Lodged with parents.		Total.
Coal mines:									
Married	14,532		2,327		431	3,564			89,953
Single	770		73		494	27,604			63,580
Widowed and divorced	394		60		22	641			2,401
Total	15,696	13,417	2,460	73,018	947	31,809	34,283	142,517	155,934
Ore mines:									
Married	381		35		7	17			1,467
Single	12				19	168			623
Widowed and divorced	11		2		2	19			57
Total	404	389	37	1,060	28	204	429	1,758	2,147
Salt works:									
Married	73	70	43						181
Single	2	2	4			4			37
Widowed and divorced	6	5	1			1			7
Total	81	77	48	66		5	29	148	225
Mineral baths:									
Married	30	30	3						47
Single						3			14
Widowed and divorced	1	1							1
Total	31	31	3	14		3	11	31	62
Total officials and employees	16,212	13,914	2,548	74,158	975	32,021	34,752	144,454	158,368

It is interesting to note the comparatively large proportion of house owners, namely, 16,212 or 10.24 per cent. These, however, did not all occupy their own homes, 14.17 per cent of their number living in rented houses or lodgings. Of the total officials and employees, 8.79 per cent lived in their own homes, 1.61 per cent were tenants of their employers, 46.83 per cent lived in other rented houses, 0.61 lived in lodging houses, 21.94 lived with their parents, and 20.22 per cent boarded with strangers. Seven hundred and eighty-four of the house owners were single men. On an average, each family occupied three rooms.

The distance from residence to place of work is shown for each person in the accompanying table:

DISTANCE BETWEEN RESIDENCE AND PLACE OF WORK OF OFFICIALS AND EMPLOYEES.

Distance of residence from place of work.	Coal mines.		Ore mines.		Salt works.		Mineral baths.		Total.	
	Per-sons.	Per-cent.	Per-sons.	Per-cent.	Per-sons.	Per-cent.	Per-sons.	Per-cent.	Per-sons.	Per-cent.
2.5 miles and under	133,780	85.79	1,332	64.37	207	92.00	59	95.16	135,428	85.51
Over 2.5 and not exceeding 4.7 miles.	18,969	12.16	663	30.88	13	5.78	3	4.84	19,648	12.41
Over 4.7 and not exceeding 6.8 miles.	2,641	1.70	93	4.33	2	0.89			2,736	1.73
Over 6.8 and not exceeding 9.3 miles.	332	0.21	5	0.23					337	0.21
Over 9.3 miles	212	0.14	4	0.19	3	1.33			219	0.14
Total	155,934	100.00	2,147	100.00	225	100.00	62	100.00	158,368	100.00
Persons living over 4.7 miles:										
In their own houses	630	19.78	14	13.73	1	20.00			645	19.59
In rented dwellings	1,205	37.83	55	53.92	4	80.00			1,264	38.40
Lodging with parents	697	21.89	20	19.61					717	21.78
Lodging with strangers	653	20.50	13	12.74					666	20.23
Total living over 4.7 miles	3,185	100.00	102	100.00	5	100.00			3,292	100.00
Average distance of residence from place of work (miles)....	1.5		2.2		1.4		1.4		1.5	

It appears from the preceding table that as a rule the employees live within walking distance of their places of work, 85.51 per cent having not over 4 kilometers (2.5 miles) to go. The average distance of all was 2.4 kilometers (1.5 miles). Of those who lived so far distant as to be compelled to use conveyances, namely, 7.5 kilometers (4.7 miles) and over, only 19.59 lived in their own homes. Nearly twice the number, 38.40 per cent, lived in rented dwellings, 21.78 per cent boarded with their parents, and 20.23 per cent boarded with strangers.

The next table shows the number of persons depending upon officials and employees for their support.

PERSONS DEPENDENT UPON OFFICIALS AND EMPLOYEES.

Industries.	Wives.	Children.						Par-ents and grand-par-ents.	Broth-ers and sisters.	Total de-pend-ents.	Total offi-cials and em-ploy-ees.	Total sup-ported by the indus-tries.
		Under 14 years of age.		Over 14 years of age.		Total.	Whol-ly depend-ent.					
		Sons.	Daugh-ters.	Sons.	Daugh-ters.							
Coalmining.	89,955	114,101	109,051	35,290	32,047	290,489	237,496	24,776	6,739	411,959	155,934	567,893
Ore mining.	1,466	1,849	1,869	875	784	5,377	4,054	545	118	7,506	2,147	9,653
Salt works.	180	218	204	107	93	622	522	36	8	846	225	1,071
Mineral baths.....	47	55	72	28	29	184	164	9	1	241	62	303
Total.	91,648	116,223	111,196	36,300	32,953	296,672	242,236	25,366	6,866	420,552	158,368	578,920

The average number of persons depending upon an official or employee was 2.66. Of the dependents, 21.79 per cent were wives, 70.55 per cent children, 6.03 per cent parents and grandparents, and 1.63 per cent brothers and sisters. Over three-fourths of the dependent children were under 14 years of age.

ANNUAL STATISTICAL ABSTRACTS.

In the first issue of the Bulletin a brief note was given indicating the Governments of the world which had created statistical bureaus, the sole or special object of which was to investigate and report on the conditions under which labor is prosecuted. In all cases the creation of these bureaus is of recent date. The nations of Europe and America have not waited, however, for the establishment of these special bureaus before entering upon the collection and presentation of statistical information concerning labor and social conditions, and the reports of such bureaus are by no means the sole source of statistical information concerning these questions. The various departments of the different Governments, especially those departments concerned with industry, commerce, or public works, have sooner or later found it necessary to organize more or less complete statistical services, and within the field of their investigations it has often been advisable to include the collection of information concerning matters purely social. Scattered through the various reports of the independent departments or bureaus of all Governments there is, therefore, information of a strictly statistical character of immediate and important bearing upon labor conditions.

The great number and variety of these publications and the greater or less difficulty in obtaining access to them renders it almost impossible to gain even a knowledge of their existence, much less a familiarity with their nature and contents. Recognizing this, practically every nation of importance has undertaken the publication of an annual statistical abstract in which are presented in summary form the most important statistical tables appearing in all of the various official reports of the Government. These abstracts, therefore, do not in themselves represent original investigations, but only brief summaries of the results of inquiries made by various bureaus. In the great majority of cases where information is sought, a reference to these compilations is sufficient.

The following, made from the latest accessible abstracts, is given in order to show for at least the more important nations the periods during which such abstracts have been issued and in a general way the nature of the subjects concerning which information is given.

In this presentation no effort is made to enter into particulars. Only the most general headings are employed. Thus, for instance, the single caption "Agricultural Statistics" is made to embrace all the information bearing in any way upon agricultural matters.

BELGIUM.

Annuaire Statistique de la Belgique [Ministère de l'Intérieur et de l'Instruction Publique].

Published since 1870.

CONTENTS.

Area and population:	Administration of justice—Concluded.
Territorial extent, division of property.	Jails, reformatories, etc.
Population, ages, nationality, education, occupations, etc.	Army.
Houses.	Government finance (receipts, expenditures, debt, etc.).
Families.	Production:
Births, deaths, marriages, divorces.	Agriculture and forestry.
Immigration and emigration.	Mines and mining (includes statistics of number of employees, wages, accidents, etc.).
Political statistics (elections).	Manufactures (includes statistics of number of employees, wages, accidents, boards of arbitration, etc.).
Education.	Trade and commerce:
Publications, libraries, and schools of art and music.	Foreign commerce (imports, exports, customs receipts).
Savings and benevolent institutions:	Navigation.
Savings banks.	Fisheries.
People's banks (cooperative societies).	Wealth.
Pawnshops.	Insurance.
Mutual aid societies.	Financial institutions (banks, currency).
Employment bureaus.	Transportation:
Workingmen's houses.	Railways (includes statistics of accidents).
Miners' relief and pension funds.	Tramways.
Religious statistics.	Waterways.
Statistics of insane and idiotic.	Postal, telegraph, and telephone services.
Medical profession.	
Administration of justice:	
Court records.	
Crime.	

The authorities are indicated by footnotes.

HOLLAND.

Jaarcijfers [uitgegeven door de Centrale Commissie voor de Statistiek]:
Annuaire Statistique des Pays-Bas [Publié par la Commission Centrale de Statistique].

Published since 1881.

CONTENTS.

Area.	Defective classes (blind, deaf and dumb, etc.).
Meteorology.	Education.
Population:	Economic statistics:
Houses.	Occupations.
Families.	Prices of commodities.
Births, deaths, marriages, divorces.	Public charity.
Emigration.	

CONTENTS—concluded.

Economic statistics—Concluded.	Production—Concluded.
Savings and relief institutions.	Sugar.
Insurance.	Commerce (includes prices of principal commodities).
Wealth, debt, inheritances, etc.	Navigation.
Administration of justice:	Financial institutions (banks, currency, etc.).
Court records.	Transportation:
Failures.	Roads and canals.
Prisons and crime.	Railroads (includes statistics of accidents).
Production:	Tramways.
Mines and mining.	Postal and telegraph services.
Fisheries.	Government finances (receipts, expenditures, taxation, debt).
Agriculture (includes statistics of prices).	Army and navy.
Manufactures (includes statistics of inspection of factories).	
Spirituous liquors.	

FRANCE.

Annuaire Statistique de la France [Office du Travail, Ministère du Commerce, de l'Industrie, des Postes et des Télégraphes].

Published since 1878.

CONTENTS.

List of publications of the Bureau de la Statistique Générale (General Statistical Bureau) since 1833.	Production:
List of official publications from which material for the abstract was taken.	Agriculture and forestry.
Area and population:	Mines and manufactures.
Territorial extent and geographical distribution of population.	Manufactures by the Government (tobacco and matches).
Population by age, sex, conjugal condition, occupation, etc.	Labor:
Marriages, births, deaths.	Labor exchanges.
Emigration and immigration.	Employment bureaus.
Religious denominations.	Wages and hours of work.
Administration of justice:	Strikes.
Criminal cases.	Labor unions.
Civil and commercial cases.	Accidents and factory inspection.
Military cases.	Cooperation.
Maritime cases.	Transportation:
Administrative tribunals.	Waterways.
Prison statistics.	Public roads.
Public assistance and benevolent institutions.	Railways.
Provident institutions:	Tramways.
National and private savings banks.	Postal, telegraph, and telephone services.
Mutual aid societies.	Domestic and foreign commerce.
Old-age pension fund.	Navigation and fisheries.
Civil pensions.	Government finance:
Relief work in cases of disasters, etc.	Receipts and expenditures.
Pawnshops.	Direct and indirect taxes.
Education (includes schools of art and music).	Public debt.
	Financial institutions, banks, currency, real estate values, etc.
	Election statistics.
	Newspapers and periodicals.
	Military and naval statistics.
	Algeria, Tunis, and the colonies.

GREAT BRITAIN.

Statistical Abstract for the United Kingdom [Commercial, Labor, and Statistical Department, Board of Trade].

Published since 1853.

CONTENTS.

Government receipts, expenditures, debts.	Banking:
Imports and exports.	Savings banks.
Finance:	Bank of England.
Bullion and specie.	Clearing house, etc.
Coinage.	Provident institutions:
Accumulative Government stocks.	Building societies.
Traffshippments.	Industrial and provident societies.
Prices of products, imports, and ex-	Life assurance.
ports.	Postal service.
Production:	Population.
Agriculture.	Births, deaths, and marriages.
Fisheries.	Emigration and immigration.
Textiles.	Army and police service.
Mines.	Education.
Shipping.	Administration of justice:
Transportation:	Crime.
Railways.	Bankruptcy.
Tramways.	Patents and trade-marks.
Joint-stock companies.	Wrecks and lives lost.

GERMANY.

Statistisches Jahrbuch für das Deutsche Reich [Kaiserliches statistisches Amt].

Published since 1880.

CONTENTS.

Area and population:	Consumption and prices—Concluded.
Territorial extent of the German States.	Wholesale prices.
Population by age, sex, place of birth, and religion.	Government finance (receipts, expenditures, debts, etc.).
Marriages, births, and deaths.	Administration of justice:
Emigration.	Court records.
Production:	Crime.
Agriculture and forestry.	Bankruptcy.
Mines and mining.	Workingmen's insurance:
Manufactures.	Sick-benefit insurance.
Trade and transportation:	Accident insurance.
Internal commerce.	Invalid and old-age insurance.
Foreign commerce.	German colonies.
Railways.	Parliamentary elections.
Postal and telegraph services.	Army and navy.
Consumption and prices:	Meteorological data.
Consumption of products.	Medical statistics.

An appendix contains a list of sources of information and a series of graphic charts.

AUSTRIA.

Oesterreichisches statistisches Handbuch für die im Reichsrathe vertretenen Königreiche und Länder [k. k. statistische Central-Commission].

Published since 1882.

CONTENTS.

Area and population:	Health service and benevolent institutions:
Territorial extent, division of property.	Physicians, surgeons, and apothecaries.
Population, ages, places of birth, domicile, sex, religion, etc.	Hospitals
Marriages, births, and deaths.	Asylums for the insane, blind, deaf and dumb, and foundlings.
Immigration and emigration.	Causes of death.
Production:	Benevolent institutions.
Agriculture and forestry (includes prices of agricultural products and wages).	Societies.
Mines and mining (includes number of employees, accidents, and benevolent institutions).	Business corporations.
Manufactures (includes workingmen's accident and sick-benefit insurance).	Administration of justice:
Trade and transportation:	Court records.
Fisheries.	Crime.
Foreign commerce.	Prison service.
Waterways.	Financial institutions and Government finance:
Railways (includes statistics of accidents).	Banks.
Postal, telegraph, and telephone services.	Currency.
Education.	Government receipts, expenditures, and debt.
Religion.	Stock quotations.
	Army and navy.
	Newspapers and other periodicals.
	Damages by fire and hail.

SWITZERLAND.

Statistisches Jahrbuch der Schweiz [Statistisches Bureau des eid. Departements des Innern]: *Annuaire Statistique de la Suisse* [Bureau de Statistique du Département Fédéral de l'Intérieur].

Published since 1891.

CONTENTS.

Area and population:	Transportation:
Territorial extent.	Railways.
Population.	Tramways.
Marriages, births, divorces, deaths, etc.	Steam navigation.
Emigration.	Commerce, domestic and foreign (includes income from customs duties, etc.)
Production:	Insurance (life, accident, marine, and fire).
Agriculture.	Banks.
Forestry.	Prices of food products.
Pisciculture.	Hygiene, sanitary police, and assistance:
Mining.	Asylums for epileptics, insane, alcoholism, etc.
Manufactures.	Hospitals.
Postal, telegraph, and telephone services.	Diseases.

CONTENTS—concluded.

Accidents.	Prison system.
Education.	Army.
Government finance:	Political statistics (elections).
Receipts, expenditures, etc.	Meteorology.
Coinage and currency.	

ITALY.

Annuario Statistico Italiano [Ministero di Agricoltura, Industria e Commercio, Direzione Generale Della Statistica].

Published since 1878.

CONTENTS.

Meteorology.	Duties on certain imports and exports.
Area and population:	Mortgage debts.
Territorial extent.	Production:
Population.	Agriculture.
Marriages, births, deaths.	Manufactures.
Emigration.	Mines.
Public health:	Fisheries.
Physicians, surgeons, and apothecaries.	Prices of certain food products.
Diseases.	Workingmen's wages in certain industries.
Causes of deaths.	Postal, telegraph, and telephone services.
Education.	Political statistics (elections).
Libraries.	Money and credit:
Administration of justice:	Coinage.
Civil cases.	Paper currency.
Criminal cases.	Government bonds and exchange.
Prison service.	Banks and credit institutions.
Publications:	Transportation:
Periodicals.	Public roads.
Other publications.	Tramways.
Mutual aid and cooperative associations:	Railways.
Mutual benefit societies.	Government finance:
Cooperative banks, stores, manufactories, etc.	Commercial receipts, expenditures, debts, etc.
Public assistance and benevolent institutions.	Provincial receipts, expenditures, debts, etc.
Army and navy.	National receipts, expenditures, debts, etc.
Foreign commerce.	Colonial possessions and protectorates.
Navigation.	

The authorities are given in connection with each chapter.

RUSSIA.

Annuaire Statistique de la Russie [Publication du Comité Central de Statistique, Ministère de l'Intérieur].

Published since 1882.

CONTENTS.

Area and population :	Production—Concluded.
Territorial extent.	Mines.
Population.	Trade and commerce :
Marriages, births, and deaths.	Number and tonnage of vessels.
Emigration.	Imports and exports.
Health service :	Coinage and currency.
Hospitals.	Transportation (railways).
Physicians, apothecaries, etc.	Postal, telegraph, and telephone services.
Number of blind.	Government finance (receipts, expenditures, public debt, etc).
Epidemics.	Banks and savings institutions.
Political statistics :	Real estate :
Elections.	Peasant proprietorship.
Officials and members of assemblies.	Mortgage debts.
Rural police.	Publishing houses, libraries, reading rooms, etc.
Insurance (fire, marine, and life).	Churches, convents, etc.
Production :	Military statistics.
Agriculture (includes statistics of wages and prices).	Education.
Manufactures (includes statistics of employees and accidents in the metal industry).	Criminal statistics.
	Meteorological data.

NORWAY.

Statistisk Aarbog for Kongeriget Norge [Udgiven af Det Statistiske Central-Bureau]: *Annuaire Statistique de la Norvège*.

Published since 1879.

CONTENTS.

Area and population :	Production :
Territorial extent.	Agriculture and forestry.
Population by sex, age, conjugal condition, etc.	Manufactures (includes statistics of wages).
Marriages, births, and deaths.	Fisheries.
Emigration.	Mining.
Health service :	Commerce and navigation (imports, exports, customs duties).
Hospitals.	Transportation :
Causes of deaths.	Public roads.
Diseases and epidemics.	Railways.
Administration of justice :	Postal and telegraph services.
Court records.	Banking institutions.
Crimes.	Fire and marine insurance.
Failures.	Finance (local and national Government receipts, expenditures, debts, etc.).
Public assistance.	
Education.	

SWEDEN.

Sveriges Officiela Statistik i Sammandrag [Statistisk Tidskrift utgifven af Kungl. Statistiska Centralbyrån].

Published since 1860.

CONTENTS.

Area and population :	Production—Concluded.
Territorial divisions.	Forestry.
Population by sex, age, conjugal condition, religious persuasion, etc.	Manufactures.
Marriages, births, and deaths.	Mining.
Immigration and emigration.	Commerce and navigation :
Occupations by sex.	Tariff rates.
Blind, deaf and dumb, and insane.	Foreign commerce.
Education.	Prices.
Administration of justice :	Pilotage, life-saving and light-house service.
Court records.	Transportation (railways).
Crimes and misdemeanors.	Postal, telegraph, and telephone services.
Prison service.	Government finance (receipts, expenditures, debts, etc.).
Public health.	Banks.
Statistics of pauperism and public charities.	Election statistics.
Production :	Wages.
Agriculture.	

DENMARK.

Danmarks Statistik; Statistisk Aarbog [Udgivet af Statens Statistiske Bureau] ; *Statistique du Danemark; Annuaire Statistique* [Publié par le Bureau de Statistique de l'État].

Publication commenced in 1896.

CONTENTS.

Sources of information.	Shipwrecks.
Money, weights, and measures.	Transportation (railways).
Area and population :	Postal and telegraph services.
Territorial divisions.	Finance :
Population by sex, age, conjugal condition, place of birth, religion, etc.	Banks.
Births, marriages, and deaths.	Joint-stock companies.
Emigration.	Mortgage statistics.
Occupations according to sex.	Pawnshops.
Agricultural statistics (including prices of cereals).	Insurance (fire, marine, and life).
Manufactures.	Administration of justice.
Imports and exports.	Education.
Production of brandy, beer, artificial butter, and beet sugar.	Publications.
Production of principal articles of consumption.	Subsidies for old-age pensions.
Navigation.	Mutual aid societies.
Fisheries.	Recruitment of army.
	Election statistics.
	Finances of the communes.
	Finances of the State.
	Meteorology.

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.

CONSTITUTIONALITY OF ACT PROVIDING FOR ATTORNEYS' FEES IN SUITS FOR WAGES.—The constitutionality of the act of June 1, 1889, of Illinois, providing for taxing attorneys' fees as costs in actions brought by servants for wages which they have previously demanded in writing, was drawn in question in the case of *Vogel et al. v. Pekoc* (Northeastern Reporter, vol. 42, p. 386), and its validity was sustained by the supreme court of the State on June 15, 1895, the opinion of the court being delivered by Chief Justice Craig.

A petition for rehearing was filed which emphasized the previous contention that the act in question is a partial and special statute, working deprivation of property without due process of law, and therefore unconstitutional, and reliance was placed on decisions in a number of cases by the Illinois supreme court adverse to the constitutionality of certain legislative enactments as sustaining the position taken. On the rehearing, October 28, 1895, the court again sustained the validity of the law, Judge Magruder dissenting, and in their opinion said:

Those cases do not, however, control the present case, or decide the question here involved. Without discussing separately the facts of the cases relied upon, it may be said generally, that in each of those cases a principal and controlling question was the right of miners of coal (no less than their employers) to make contracts regulating the time and manner of the payment of wages and the method of computing such wages, and in each case cited a law restricting in some manner this important right of contract was held invalid.

The statute here in question interferes with no one's right to contract. It embraces a well defined class of cases and persons, not singled out, as is contended, wholly without reason and arbitrarily; but upon grounds which may, we think, properly serve as a basis for valid legislative action. Those to whom the wages of labor are due, and who, after demand in writing of a sum no greater than that subsequently recovered, are compelled to establish, and do establish, their rights as demanded by judgment of court, are within the provisions of the act; and we can not say that this classification is so arbitrary and unreasonable, and the law so partial and unequal, as to be beyond legislative

discretion and power. Indeed, if this law were to be held unconstitutional for the reasons assigned, then many other acts long in force in this State, hitherto deemed to be salutary, and against which no constitutional objection has been heard, would certainly fall with it. Why, for instance, should the seller of materials for a building have by law a lien for their price, not only upon the specific things sold, but upon the whole structure, with the land it stands on, while the seller of a horse, a piano, or a cornsheller is denied any lien even on the specific thing sold? Why should he whose labor constructs a house be secured by a lien on his product, while he who raises a crop must look only to the personal responsibility of his hirer? Surely, it could be said the lien law makes classes of beneficiaries quite as arbitrary in character as that marked out to receive benefit by the act under discussion.

Again, why should the wages of a defendant, who is head of a family, to an amount not exceeding \$50, be exempt from garnishment (Hurds St., p. 783, sec. 14), while sums due other defendants are protected by no such exemption? And why, again, it might be asked, should heads of families earning wages be made the subject of advantageous provisions not applied to all other wage earners if not to all other persons? The general exemption law also makes heads of families a distinct class, who may claim as exempt \$300 worth more property than others are allowed, while a further section (*id.*, p. 727, sec. 4) declares that where a judgment is for the wages of a laborer or servant, and noted by the court as such, no personal property whatever shall be free from levy, whatever the estate or condition of the debtor. An analogous case for this purpose is found in the provisions of the general assignment law that "all claims for the wages of any laborer or servant which have been earned within three months next preceding the making of the assignment," etc., "be preferred and first paid to the exclusion of all other demands" (*id.*, p. 166, sec. 6). It is difficult to see how any of these statutes, and many similar ones which might be named, could be sustained if the strict rule of constitutional validity, so strenuously urged in this case, were applied to them.

In dissenting from the foregoing opinion Judge Magruder cited the case of *Coal Co. v. Rosser* (41 N. E., 263), in which the supreme court of Ohio had occasion to consider and condemn a statute similar to the one sustained by his colleagues. He said that the opinion in that case expressed what seemed to him to be the correct view of the subject, and made the following quotation therefrom as sufficiently indicating the reasons for his dissent:

Upon what principle can a rule of law rest which permits one party, or class of people, to invoke the action of our tribunals of justice at will, while the other party, or another class of citizens, does so at the peril of being mulct in an attorney's fee, if an honest but unsuccessful defense should be interposed? A statute that imposes this restriction upon one citizen, or class of citizens, only denies to him or them the equal protection of the law. It is true that no provision of the constitution of 1851 declares in direct and express terms that this may not be done; but nevertheless it violates the fundamental principles upon which our Government rests, as they are enunciated and declared by that instrument in the bill of rights. The first section of the constitution declares that the right to acquire, possess, and protect property is inalienable, and the next section declares, among other things, that "government is instituted for the equal protection and benefit" of every person, while

section 16 of article 1 provides that "all courts shall be open, and every person, for an injury done him in his lands, goods, person, or reputation, shall have remedy by due course of law, and justice shall be administered without denial or delay." The right to protect property is declared, as well as that justice shall not be denied, and everyone is entitled to equal protection. Judicial tribunals are provided for the equal protection of every suitor. The right to retain property already in possession is as sacred as the right to recover it when dispossessed. The right to defend against an action to recover money is as necessary as the right to defend one brought to recover specific real or personal property. An adverse result in either case deprives the defeated party of property.

If the general assembly has power to enact the statute in question, it could also enact one providing that lawyers, doctors, grocers, or any other class of citizens might make out their accounts, demand in writing their payment within a short time, which, if not complied with, would entitle the plaintiff to an attorney fee in addition to his claim, if he recovered the amount demanded. We do not think the general assembly has power to discriminate between persons or classes respecting the right to invoke the arbitrament of the courts in the adjustment of their respective rights. The legislative power to compel an unsuccessful party to an action—generally the defendant—to pay an attorney fee to his opponent has received the attention of a number of courts of last resort as well as laws which impose as a penalty double damages or some similar penalty for some wrongful or negligent act injurious to another. Where the penalty has been imposed for some tortious or negligent act, the statute has generally, though not always, been sustained; but, on the contrary, where no wrongful or negligent conduct was imputed to the defeated party, any attempt to charge him with a penalty has not prevailed. [At this point in the decision a number of cases are cited as sustaining the foregoing propositions.] Various phases of this subject have received attention in the foregoing cases, as well as in some others to which we do not deem it necessary to refer. The general tendency of these authorities is toward the result which we have reached; but whether they do or do not support our conclusions, we are satisfied that the fundamental principles of government declared by our bill of rights clearly and unequivocally prohibit legislation of the character of that involved in this case.

CORPORATIONS—LIABILITY OF STOCKHOLDERS FOR WAGES.—Section 4161c8 of volume 3, Howell's Annotated Statutes of Michigan, provides that stockholders of manufacturing corporations "shall be individually liable for all labor performed for such corporations, which said liability may be enforced against any stockholder by action founded on this statute, at any time after an execution shall be returned unsatisfied in whole or in part against the corporation," etc.

Under this statute suit was brought before a justice of the peace by Ralph Kamp against Peter Wintermute, a stockholder in the Cheesman and Kelly Manufacturing Company, to recover for personal work and labor performed by Kamp for the company before Wintermute became a stockholder therein. The justice gave judgment for Kamp, and the cause was removed to the circuit court of Muskegon County by

writ of certiorari and there the judgment of the justice was reversed. The case was then carried to the supreme court of Michigan, which affirmed the judgment of the circuit court, holding that the statute in question does not make a stockholder liable for labor performed before he became a stockholder.

The opinion of the supreme court was delivered by Judge Long, and is published in volume 65 of the Northwestern Reporter, page 570. In the course of the opinion Judge Long said:

It is conceded in this court that the defendant was not a stockholder in the corporation at the time the labor was performed; but, as shown on the trial before the justice, he was a stockholder at the time suit was commenced. The claim is that those who are stockholders in a corporation at the time of the commencement of an action against the corporation upon the labor claims are liable upon such demands, although not stockholders at the time corporate liability accrued; that such stockholders impliedly assume all the obligations which rested upon former holders as members of the company, and are liable to the same extent as the former holders.

Whether statutory liability attaches to a stockholder in respect of debts contracted before he became a member of the corporation, is a question turning upon the words of the statute. While the persons who were stockholders at the time the debt was contracted may be held liable, we think the liability is confined to such stockholders, and not to those who thereafter purchase. The stockholders mentioned in this section of the statute must be construed to mean those who were such at the time the liability attaches to the corporation. The statutes of many of the States prescribe when such liability is to attach. Our statute fixes no such time by any express words, but, by necessary implication, was not intended to apply to one who became a purchaser after liability was incurred.

The general doctrine seems to be that a stockholder does not avoid a statutory liability to creditors who were such at the time he transfers his stock; and there is good reason for holding the rule being thus settled that the transferee does not take the stock subject to such statutory liability.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES.—In the case of *Caron v. Boston and Albany Railroad Company*, the superior court of Hampden County, Mass., gave judgment for damages against the railroad company in favor of Marie Caron for the death of her husband, an employee of said company, resulting from injuries received in a collision caused by the alleged negligence of some person who had charge or control of a certain train in shifting it over upon the track where Caron was at work.

The railroad company carried the case, on exceptions, to the supreme judicial court of Massachusetts, and the exceptions were sustained by that tribunal on November 26, 1895. The opinion of the court (reported in vol. 42 of the Northeastern Reporter, p. 112) was delivered by Judge Morton.

The action arose under chapter 270 of the acts of 1887 of Massachusetts, section 1, which provides as follows: "Where, after the passage of this act, personal injury is caused to an employee, who is himself in the exercise of due care and diligence at the time, (1) by reason of any defect in the condition of the ways, works, or machinery connected with or used in the business of the employer, which arose from or had not been discovered or remedied owing to the negligence of the employer or of any person in the service of the employer and intrusted by him with the duty of seeing that the ways, works, or machinery were in proper condition, or * * * (3) by reason of the negligence of any person in the service of the employer who has the charge or control of any signal, switch, locomotive, engine, or train upon a railroad, the employee, or in case the injury results in death, the legal representative of such employee, shall have the same right of compensation and remedies against the employer as if the employee had not been an employee of nor in the service of the employer, nor engaged in its work."

In the course of the opinion sustaining the exceptions of the railroad company, Judge Morton said:

The defendant contends that the plaintiff's intestate was not in the exercise of due care. There was nothing to show that he had any warning or knowledge that the cars which caused the collision were coming down the track, or that he could see them; and, for aught that appears, he was engaged in the discharge of his duty when injured. Due care may be inferred from the absence of negligence as well as from positive acts of diligence. We think that there was evidence which justified the jury in finding that he was in the exercise of due care.

The defendant contends further that the plaintiff's intestate assumed the risk. But we do not think it fairly can be held that he assumed the risk of accident from cars which were sent in, as there was evidence tending to show that the colliding cars were moving at the rate of ten or twelve miles an hour, and with such force as to throw off the track one car of the train which Collins [the conductor] and his men were making up, and to break the draw bars of others. Such a manner of doing the business would be unreasonable, and not within any risk which the plaintiff's intestate assumed.

The defendant also contends that the cars which were switched onto the track where Caron was working did not constitute a train at the time of the accident. It is not easy to define what, under all circumstances, would constitute a train, within the meaning of the statute. A locomotive, with one or more cars attached to it, with or without passengers or freight, in motion upon a railroad from one point to another by means of power furnished by the locomotive, would undoubtedly constitute a train. So it would if the steam was shut off from the locomotive and the train was moving by its own momentum. The word "train" as used in the railroad act (Pub. St., c. 112) generally signifies cars in motion. Usually the power would be furnished by a locomotive. But whether a number of cars coupled together and in motion, and forming one connected whole, do or do not constitute a train, does not depend, we think, upon whether a locomotive engine is attached to them at the time, and they are moved by the power thus supplied. The liability to accident for which St. 1887, c. 270, was

designed to furnish a remedy would be the same in kind, though perhaps not so great in degree, whether the motive power was furnished by a locomotive attached to the cars or in some other manner. And it seems to us that a number of cars, coupled together as these were, forming one connected whole and moving from one point to another upon a railroad, in the ordinary course of its traffic, under an impetus imparted to them by a locomotive, which, shortly before the accident, had been detached, constitute a train within the meaning of the statute.

The next and more difficult question is whether either of the two brakemen or Mozier, the foreman of the switching gang, was in "the charge or control" of the train when the accident occurred. The words "the charge or control" do not seem to have received a final construction anywhere. The implication of our own decisions, so far as they can be said to have given rise to one, is that they are to be regarded, not, perhaps, as synonymous, but as explanatory of each other, and as used together for the purpose of describing more fully one and the same thing; and we think that this is the better construction. If "control" is one thing and "charge" is another, then, inasmuch as to some extent every brakeman upon a train would have "control" of it, every employee injured by an accident resulting from the carelessness of a brakeman would have a right of action against the corporation which employed him, and the defense of common employment as to brakemen would be done away with, even though the brakeman might be acting under an immediate superior. The statute is to be fairly construed, and, while it removes the defense of common employment in some cases, it does not extinguish it altogether; and we do not think that the legislature intended that it should be abolished in all cases where injuries were sustained by the carelessness of a brakeman. We think, therefore, that by the words, "any person * * * who has the charge or control," is meant a person who, for the time being at least, has immediate authority to direct the movements and management of the train as a whole and of the men engaged upon it. It is not necessary that the person in charge or control should be actually upon the train itself. On the other hand, the mere fact that a laborer or brakeman is put in such a position that for the moment he physically controls and directs its movements under the eye of his superior does not constitute him a person in "the charge or control" of the train, though there may be circumstances under which he would have such charge or control. It is possible that more than one person may have "the charge or control" of a train at the same time. The case of the engineer is expressly provided for, and it is not likely that any negligence of his which would affect the train would not be negligence in the management of the locomotive engine of which at the time he had "the charge or control."

Applying these principles to the case before us, we do not think that either O'Brien or Desloury had "the charge or control" of the train as it went onto the side track, and after the engine and caboose had been detached, but that they were fellow-servants of the plaintiff's intestate. They certainly had not before that, and after it they were still acting, as before, under the supervision and direction of Stickle, the conductor, who was on the ground or in the caboose, and had at no time given up the direction or control. The duty of each was to take care of the brakes on the cars at his own end of the train, and to stop it seasonably, in conjunction with the other, when it had cleared the No. 6 switch. They did not have the charge, and, except in a very limited sense, and one, as we think, not meant, they did not have the control. We doubt, also, whether, quoad this train, Mozier, the foreman of the

switching gang, could be said to have had "the charge or control." All that he did was to direct on which track it should be put. "The charge or control" of the train and of the men on it remained in the hands of Stickles, and it was his duty to see that it was switched onto the designated track. There is nothing to show that after he had given the direction Mozier had anything further to do with the train. But, even if he had "the charge or control," we see no evidence of negligence on his part.

The second count was for a defect in the ways, works, and machinery, which, it was alleged, "consisted in an improper and inefficient method of allowing cars to be switched upon the track where said Caron was at work at the time while said track was in use by another train, and in allowing said cars to be so switched without any lights or other signals or warnings to persons while on said track." We are of opinion that, even if the method adopted was a dangerous one, the plaintiff's intestate must be held to have taken the risk of it. There is nothing to show that it had not been customary to switch cars onto tracks already occupied, without warnings or signals save such as would naturally be given to each other by those engaged in the work; during the whole time that the plaintiff's intestate had been working in the yard, which, as his widow testified, was two years and four months. It does not appear that any change had been made in the mode of doing the business so as to make it more dangerous after he entered the defendant's service. The law is well settled that under such circumstances the servant assumes the risk of such dangers as ordinarily are connected with the service in which he is engaged. He enters the business as it is, and can not be heard to complain that it might have been made safer, or that it was conducted in a hazardous manner.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES.—Section 2701 of the General Statutes of 1894 of Minnesota, known as the "fellow servant act," provides that "every railroad corporation owning or operating a railroad in this State shall be liable for all damage sustained by an agent or servant thereof by reason of the negligence of any other agent or servant thereof, without contributory negligence on his part, when sustained within this State, and no contract, rule, or regulation between such corporation and any agent or servant shall impair or diminish such liability."

The supreme court of Minnesota decided on December 9, 1895, in the case of *Karl Mikkelson v. William H. Truesdale*, receiver of the Minneapolis and St. Louis Railway Company (vol. 65, *Northwestern Reporter*, p. 260), that Mikkelson, who was a wiper in the defendant's roundhouse and was injured while assisting in coaling an engine by its being negligently moved, as he claimed, by a coemployee, was injured by reason of exposure to the hazards peculiar to the operation of railroads; also, that a receiver operating a railroad under the appointment and direction of a court of equity is within the provisions of the "fellow servant act," and is liable to an employee who is injured by the negligence of a coemployee.

In deciding as to the liability of the receiver under the statute, against which the defendant contended, Chief Justice Start, who delivered the opinion of the court, said:

It is true that the word "receiver" is not used in this statute, and that its language is, "every railroad corporation owning or operating a railroad;" but the statute is a police regulation intended to protect life, person, and property, by securing a more careful selection of servants and a more rigid enforcement of their duties by railroad companies, by making them pecuniarily responsible to those of their servants who are injured by the negligence of incompetent or careless fellow-servants. It is remedial in its nature, and must be construed, if not liberally, certainly in accordance with its obvious purpose and spirit. It would be a most unreasonable construction of the statute, if we were to adopt the one claimed for it by the defendant. We are aware that able courts have adopted such a construction of similar statutes, but we are of the opinion that they have taken a narrow view of the statute, and we must decline to follow their conclusions.

If this police regulation does not apply to receivers of railroad corporations, it is difficult to see why such receivers are not absolved from a compliance with each and all of the police regulations made applicable by statute to railroad corporations. Can it be true that a railroad corporation whose road is operated for it by a general manager is, and one whose road is managed for it by a receiver is not, subject to the police regulations of the State? or that the employees of the one have, and those of the other have not, a remedy, when injured by the negligence of a fellow-servant? or that the employees of a corporation whose road is operated by a general manager to-day have such remedy, but if injured to-morrow they will have it not, because a receiver has taken the place of the manager? It would seem that an affirmative answer must be given to these questions, if we held that this statute has no application to receivers of railway corporations. Manifestly, such is not the fair and reasonable construction to be given to the statute. It is only in a technical sense that a receiver manages a railroad for the court appointing him. He operates it subject to the direction of the court, not for its benefit, but for the owners of the road, the corporation and its creditors. In doing so he necessarily exercises the franchises, rights, and powers of the corporation, and discharges its functions as a common carrier, and appropriates the income received from the operation of the road for the benefit of the corporation; and it logically follows that in so operating the road the receiver stands, in respect to duty and liability, just where the corporation would if it was operating the road. A distinction in this respect has been made between the common-law duties and liabilities of the corporation and those imposed on it by statute, but there can be no distinction in principle, for wherein is the duty and liability more imperative or sacred in the one case than in the other? A receiver can not, while exercising the franchises and powers of a corporation, claim immunity from the police regulations and liabilities which have been imposed upon the corporation by the State.

These general considerations lead to the conclusion that the provisions of the fellow-servant statute, here in question, apply to a receiver operating a railroad under the appointment and direction of the court.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES.—In the State of Montana the liability of railroad companies for injuries of employees is defined by section 697, page 817, of the Montana Compiled Statutes of 1887, which provides: "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 employee not appointed or controlled by him, as if such servant or employee were a passenger." The same provision is found in the Montana Codes and Statutes, Sanders Edition, 1895, Civil Code, section 905.

Under the statute above quoted the supreme court of Montana decided, on November 25, 1895, in the case of *Crisswell v. Montana Central Railway Company* (*Pacific Reporter*, vol. 42, p. 767), that both the conductor and engineer of a train are the superiors of a brakeman on the same train, and that the railroad company is liable for injuries sustained by such brakeman in a collision caused by the negligence of the conductor in running his train into the depot yard at night without a sufficient headlight, or without sending a flagman to see if the tracks were clear, as required by the rules of the company.

The case was brought before the supreme court on appeal by the railway company from the judgment of the district court of Cascade County in favor of the plaintiff, Crisswell, who had been injured while in the employ of the company as a brakeman, under the circumstances outlined above.

It was contended by the defendant's counsel that the railway corporation, under the common law, had performed its whole duty to the plaintiff as its employee when it had used ordinary and reasonable care in providing (1) safe machinery, (2) furnishing a safe place to work, and (3) competent fellow-servants to prosecute the common employment; and that the statute in question does not increase or change the defendant's liability at common law; that it does not change the common law in relation to fellow-servants; that it does not establish the superior-servant doctrine and enlarge the common-law liability of the defendant in any respect, and was not so intended by the legislature.

Chief Justice Pemberton, in delivering the opinion of the supreme court, quoted at considerable length from the opinion of the United States circuit court for the northern district of Iowa, in the case of *Ragsdale v. Railroad Co.* (42 Fed., 383), and from the opinion of the United States circuit court of appeals, eighth circuit, in the case of *Railroad Company v. Mase* (63 Fed., 114), in both of which cases the interpretation of the statute in question was directly involved. In the course of the opinion in the *Ragsdale* case the court said, "Under this section the corporation is made liable to any one of its employees who, without negligence on his part, is injured by the default or wrongful act of a superior, even though the latter has no control over the former;" and in the *Mase* case, "It goes without saying that the pur-

pose of this statute was to extend the liability of railroad companies to their servants for the negligence of servants of a higher grade;" also "The effect of the statute is to give a cause of action against the railroad company to every servant who is himself without fault, for the default or wrongful act of any superior servant, whether or not the latter appointed or exercised any control over the former before or at the time of the infliction of the injury."

After quoting from the cases above referred to Chief Justice Pemberton said:

We think from the interpretation given to the statute in question by the above authorities that it can not be doubted that the common-law rule contended for by the defendant was modified and changed thereby, and that such was the intention of that legislation. And it is no less plain that this statute establishes the principle that there is a difference in the grade of the employees engaged in a common employment, and gives a right of action to a servant, injured through the negligence of a superior employee or servant, against a master, when such injured servant is without fault or negligence on his part. In view of the extent to which the common-law rule has been carried, the enactment of such legislation is not surprising, nor are we prepared to reprobate the wisdom of the policy of establishing a legislative rule that relaxes the rigor of the common law in such cases.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES.—In the case of *Missouri, Kansas and Texas Railway Company v. Whittaker* (vol. 33, *Southwestern Reporter*, p. 716) the court of civil appeals of Texas, on November 23, 1895, reversed the judgment of the district court of Grayson County, by which Whittaker, a boiler washer in the company's employ, had been awarded \$1,000 damages for injuries sustained by him through the negligence of a hostler employed by the company.

The court of civil appeals held, in effect, that under section 2 of chapter 24 of the General Laws of 1891 of Texas, relating to fellow-servants, the provisions of which were reenacted in section 2 of chapter 91 of the General Laws of 1893, a hostler, whose duty it is to bring the engines into the roundhouse and take them out when necessary, and a boiler washer, whose duty it is to clean the boilers of the engine so as to fit them for further service, both being under the orders of the roundhouse foreman and without authority over each other, are, as a matter of law, fellow-servants, and, hence, that one of them was not entitled to recover damages from their common employer, the railroad company, for injuries sustained through the negligence of the other.

Judge Finley, in delivering the opinion of the court of civil appeals, said:

The evidence, so far as it touches the relation of plaintiff and the hostler who was in charge of the engine and whose negligence, it is alleged, caused the injury, to the railway company and to each other, and as to the material circumstances under which the injury occurred, is entirely without conflict.

Plaintiff was employed at the roundhouse as a boiler washer, and his duty was to wash out the boilers of engines brought in there to be overhauled between their trips upon the road. The hostler was employed at the roundhouse, and his duty was to bring the engines into the roundhouse, and take them out again when they were sent out for use on the road. Both were employed by, and worked under the supervision of, the foreman of the roundhouse. Neither of them had any control, authority, direction, or superintendence over the other in his work. They were employed, though in different capacities, about the same work—that is, the care of the engines at the roundhouse when not in use upon the road.

Section 2 of our fellow-servant act reads as follows: "That all persons who are engaged in the common service of such railway corporations and who while so engaged are working together at the same time and place to a common purpose, of same grade, neither of such persons being intrusted by such corporations with any superintendence or control over their fellow-employees, are fellow-servants with each other; provided, that nothing herein contained shall be so construed as to make employees of such corporation, in the service of such corporation, fellow-servants with other employees of such corporation, engaged in any other department or service of such corporation. Employees who do not come within the provisions of this section shall not be considered fellow-servants."

At common law employees who serve the same master, labor under the same control and to a common purpose, and derive their authority and receive their pay from the same general source, are fellow-servants, although they be of different grades or labor in different and distinct departments of service. Our statute now fixes the relation of fellow-servant, as to railway employees, only between those who serve the same master, are of the same grade, are working together at the same time and place to a common purpose, in the same department, and neither being intrusted with superintendence or control over his fellow-employees. If they are of different grades, or different departments of service, or one is intrusted with the power to superintend or control his fellow-employees, then, under the statute, the relation of fellow-servant does not exist.

In the case before us for determination, unquestionably, the plaintiff and the hostler were serving the same master, at the same time and place, to a common purpose, were of the same grade, and neither had superintendence or control over fellow-employees. Were they in the same department or service? They were both employed by the foreman of the roundhouse, they were under the same special control, their duties called them to the same place of service at the same time, and their labors alike related to engines while they were not in actual service upon the road. The hostler brought the engines into the roundhouse and carried them out when necessary. The plaintiff cleaned out the boilers to make the same ready for further service. They were clearly in the same department. It is not necessary that they should be doing exactly the same kind of work, and getting the same compensation therefor, to be servants of the same grade or to be employees in the same department.

The court charged the substance of the statute, and left the jury to apply the evidence, and determine whether the plaintiff and the hostler were fellow-servants. Where the evidence clearly and without conflict shows the relation of the employees to be that of fellow-servants, the court should instruct the jury, as a matter of law, that they are such.

EMPLOYERS' LIABILITY—RAILROAD COMPANIES.—The supreme court of Wisconsin decided, on November 26, 1895, in the case of *Smith v. Chicago, Milwaukee and St. Paul Railway Company*, that, under chapter 220 of the laws of 1893 of Wisconsin, a railway company is not liable for injuries to one of its car repairers caused by a switchman negligently running a train into the stationary car in which the repairer was at work.

The statute referred to provides that "Every railway company operating any railroad or railway, the line of which shall be in whole or in part within this State, shall be liable for all damages sustained within this State by any employee of such company, without contributory negligence on his part, * * * while any such employee is so engaged in operating, running, riding upon or switching, passenger or freight or other trains, engines or cars, and while engaged in the performance of his duties as such employee, and which such injury shall have been caused by the carelessness or negligence of any other employee, officer or agent of such company in the discharge of, or for failure to discharge his duties as such."

The opinion of the supreme court in this case, published in volume 65 of the *Northwestern Reporter*, page 183, was delivered by Judge Marshall, who in the course of it said:

It has been too long and too well settled that persons working for the same employer, bearing such relations to each other and to the business they are jointly engaged in for such employer as a switchman and a car repairer, are fellow-servants, and that the master is not liable for an injury to one through the negligence of the other, unless made so by statute, to need any discussion of the subject here.

Therefore, if there be any liability of defendant to plaintiff, it is under chapter 220, laws of 1893. The words [in the statute referred to] "while engaged in the performance of his duties as such employee," refer to the words, "while operating, running, riding upon or switching, passenger or freight or other trains, engines or cars." This, we think, is very clear. It is a familiar principle that statutes in derogation of the common law should be strictly construed, and not given any effect beyond the plain legislative intent; but whether the statute under consideration is tested by that rule, or by the more liberal one applicable to purely remedial laws, the result must be the same, for the legislative intent must govern, and that is to be determined "by considering the entire statute, looking at every part, having regard to the legislative idea or purpose of the whole instrument." The legislative idea of that part of the law under consideration plainly is to give a right of action to the class of employees engaged in operating and moving trains, engines, and cars, while actually so engaged; and the words used to express such idea are too plain to leave any room for a resort to the rules for judicial construction to determine their meaning. Plaintiff was not an employee engaged in the branch of railway service, when injured, entitled to the benefits of the statutory liability.

DECISIONS UNDER COMMON LAW.

BLACKLISTING.—In the United States circuit court, southern district of Florida, on January 21, 1896, in the case of *W. E. Willett v. Jacksonville, St. Johns and Indian River Railroad Company*, a jury awarded Willett the sum of \$1,700 as damages against the railroad company for blacklisting him, which amount, together with the costs in the case, the company paid.

From information furnished the Department of Labor by the clerk of the court in which the case was tried, the facts upon which the suit was based appear to have been as follows: Willett, while employed as a conductor by the defendant company, sought employment on another railroad, the Savannah, Florida and Western (formerly the South Florida). He was notified that employment would be given him, and directed to report for duty immediately, and passes were sent him to enable him to go over the road of the Savannah, Florida and Western Railroad Company and learn the route before entering regularly upon the duties of his new position. He at once telegraphed to the proper official of the Jacksonville, St. Johns and Indian River Railroad Company, asking to be relieved from duty at a certain station, but was requested by the company to remain in its employ and take out another train. He finished the run he was then making and made the return run, telegraphing the official that he would leave the employ of the company upon arrival at its terminus, which he did, and proceeded to go over the line of the Savannah, Florida and Western Railroad Company to learn the route.

Before he had finished the preliminary trip he received a telegram from the officers of the last-named company directing him to "come back." He complied with this order, and upon returning was informed that he could not be employed. He subsequently ascertained the reason for this refusal to employ him to have been that the superintendent of the company whose service he had left, had written a letter to the superintendent of the company whose service he was about to enter, cautioning him against Willett, who, the letter stated, had left their employ with certain charges pending against him.

The principal defense of the railroad company was that the letter was a personal one, and not written officially, but this defense was of no avail, and, as before stated, Mr. Willett successfully prosecuted his suit against the company whose superintendent had prevented his employment by another company.

So far as the Department of Labor is advised, this is the first case of the kind ever tried in the United States in which an award of damages has been made and paid for blacklisting.

EMPLOYERS' LIABILITY.—The supreme judicial court of Massachusetts decided on November 29, 1895, in the case of *O'Connor v. Rich*, that a master, having furnished suitable material, is not responsible for injuries to a servant resulting from the negligence of another servant in putting a defective plank into a scaffold, though the scaffold was erected and the defective plank placed therein before the injured servant entered the master's service.

The facts in the case are stated in the opinion of the court which was delivered by Judge Knowlton. Said decision is published in volume 42 of the *Northeastern Reporter*, page 111, and is as follows:

The plaintiff fell and was injured by reason of the breaking of a plank in a temporary staging on which he was working in the defendant's building. It is not disputed that the staging was of a kind the construction of which is ordinarily left to the servants of the builder, and that the duty of the master concerning it was performed if he furnished a sufficient supply of suitable materials from which to construct it. In this case there was uncontradicted evidence that there were plenty of planks furnished by the defendant from which to build the staging, and the negligence, if there was any, was on the part of the workmen who put the planks in place, in taking one which was not adapted to such a use. Upon these facts, if the plaintiff had been in the defendant's service at the time when the staging was built, it would be very clear that he could not maintain his claim.

But it appears that, although he had previously worked for a considerable time upon the building, he was away working for another person four days before the day of the accident, and this staging was erected a day or two before his last engagement in the defendant's service began. Under these circumstances, the question is whether the defendant is liable to him for the previous negligence of a servant in doing work which may properly be intrusted to servants. We are of opinion that an employer, under such circumstances, owes one who is about to enter his service no duty to inspect all the work which has been done by his servants previously, and which ordinarily may be intrusted to them, without liability to their fellow-servants for their negligence. If he owes no such duty, the risk of accident from previous negligence of servants in their own field is one of the ordinary risks of the business which the employee assumes by virtue of his contract on entering the service.

EMPLOYERS' LIABILITY — RAILROAD COMPANIES.—The supreme court of appeals of West Virginia, by decision of November 29, 1895, reversed the judgment of the circuit court of Braxton County in the case of *Skidmore v. West Virginia and Pittsburg Railroad Company*, by which \$6,000 had been awarded Skidmore as damages for injuries sustained by him while in the performance of his duty as a section hand in the employ of the railroad company.

The opinion of the supreme court of appeals was delivered by Judge English and is published in volume 23 of the *Southeastern Reporter*, page 713. The syllabus of said opinion, prepared by the court, which

shows the circumstances of the case and the legal grounds upon which the judgment of the circuit court was reversed, is as follows:

1. Where a section hand in the employ of a railroad company, in company with other section hands, is engaged in clearing away a wreck under the supervision of a section boss and the supervisor of the road, and it is thought necessary to move a tender which lies on its side near the main track farther from said track, and said tender inclines a little toward the main track, but nothing in its appearance indicates that the bottom of said tender had been broken loose from the body, and neither the section boss nor supervisor could by ordinary diligence discover any such fracture, or any separation from the main body, and while the section hands are engaged in moving such tender the bottom falls out and injures said section hand, he is not entitled to recover from said railroad company damages for the injury so received.

2. Where a foreman and his assistants have equal knowledge of the danger accompanying an act about to be done, even if the foreman requests its performance, and injury ensues to the assistant, the employer can not be made liable. Notwithstanding the request, the assistant can comply or not, as he chooses, and if he does comply, he takes his chances of the peril surrounding the situation.

3. It is only when the servant is ignorant of the impending danger, and the employer is not, and the employer fails to warn the servant of such danger, that the master's liability attaches.

4. When one enters upon a service he assumes to understand it and takes all the ordinary risks that are incident to the employment; and where the employment presents special features of danger, such as are plain and obvious, he also assumes the risk of those.

5. Where the danger consists in some latent defect, which is not apparent by the use of ordinary diligence on the part of the master, and a servant in performing his work is thereby injured, when he had the same chances of observation as the master, no liability attaches to the master.

STRIKES, CONSPIRACY, LABOR COMBINATIONS NOT UNLAWFUL.—In the circuit court of Greene County, Ind., Benjamin F. Watson recovered damages in an action against Thomas Clemitt and others for having been driven from his employment as workman in a coal mine by an alleged wrongful conspiracy among other workmen in the mine, who agreed with each other not to work with him and to quit work unless he was discharged, pursuant to which they did quit work upon their employer's refusing to discharge Watson, by reason whereof the business was suspended and he was thrown out of work.

The defendants appealed to the appellate court of Indiana, which tribunal reversed the decision of the circuit court and held that such a combination among workmen is not actionable in the absence of malice, intimidation, or violence, or evidence that they were bound to continue work, or that the employer was obliged to retain the plaintiff in his service.

The opinion of the appellate court, delivered by Chief Justice Gavin

December 10, 1895, is published in full in volume 42 of the *Northeastern Reporter*, page 367. In the course of the opinion it is said:

While it is true that, under all civilized forms of government, every man surrenders for the general good a certain amount of that absolute freedom of action which may adhere to the individual in an independent or natural state, yet, under our institutions, it is a cardinal principle that each man retains the greatest freedom of action compatible with the general welfare. The right to control his own labor, and to bestow or withhold it where he will, belongs to every man. Even though he be under contract to render services, the courts will not interfere to compel him to specifically perform them. (*Arthur v. Oakes*, 11 C. C. A., 209; 63 Fed., 310.)

So far as appears by these instructions [of the circuit court to the jury] none of the appellants were under any continuing contract to labor for their employer. Each one could have quit without incurring any civil liability to him. What each one could rightfully do certainly all could do if they so desired, especially when their concerted action was taken peaceably, without any threats, violence, or attempts at intimidation. There is no law to compel one man or any body of men to work for or with another who is personally obnoxious to them. If they can not be by law compelled to work, I am wholly unable to see how they can incur any personal liability by simply ceasing to do that which they have not agreed to do, and for the performance of which they are under no obligation whatever.

Under our law every workman assumes many risks arising from the incompetency or negligence of his fellow-workmen. It would be an anomalous doctrine to hold that after his fellows have concluded that he was not a safe or even a desirable companion they must continue to work with him under the penalty of paying damages if by their refusal to do so the works are for a time stopped and he thrown out of employment. We can not believe it to be in accordance with the spirit of our institutions or the law of the land to say that a body of workmen must respond in damages because they, without malice or any evil motive, peaceably and quietly quit work which they are not required to continue rather than remain at work with one who is for any reason unsatisfactory to them. To so hold would be subversive of their natural and legal rights, and tend to place them in a condition of involuntary servitude.

STRIKES, INTIMIDATION, ETC.—RIGHT OF COURT TO INTERFERE BY INJUNCTION.—The supreme court of Missouri, on November 26, 1895, affirmed the judgment of the circuit court of the city of St. Louis in the case of *Hamilton-Brown Shoe Company v. Saxey et al.*, and adopted as its own the opinion delivered in said case by Hon. L. B. Valliant, one of the judges of the circuit court, by which A. J. Saxey and others were prevented by injunction from attempting by intimidation, threats of personal violence, and other unlawful means to force the employees of the *Hamilton-Brown Shoe Company* to quit work and join in a strike.

The opinion in this case is published in volume 32 of the *Southwestern Reporter*, page 1106, and sufficient portions of it are here repro-

duced to give a clear understanding of the facts in the case and the reasoning upon which the judgment of the court was based:

The amended petition states in substance that the plaintiff conducts a large shoe manufactory in this city, and has in its employ some eight or nine hundred persons, all of whom are earning their living in plaintiff's employment, and are desirous of so continuing; that the defendants, except two of them, were lately in plaintiff's employ, but have gone out of the same, on a strike, and are now, with the other two defendants, engaged in an attempt to force the other employees of plaintiff to quit their work and join in the strike, and that to accomplish this purpose they are intimidating them with threats of personal violence; that among the plaintiff's employees who are thus threatened are about three hundred women and girls and two or three hundred other young persons; that the effect of all this on the plaintiff's business, if the defendants are allowed to proceed, would be to inflict incalculable damage.

The defendants have appeared by their counsel, and, by their demurrer filed, admit that all the statements of the amended petition are true; but they take the position that, even if they are doing the unlawful acts that they are charged with doing, still this court has no right to interfere with them, because they say that what they are doing is a crime, by the State law of this State, and that for the commission of a crime they can only be tried by a jury in a court having criminal jurisdiction. It will be observed that the defendants do not claim to have the right to do what the injunction forbids them doing. Their learned counsel even quotes the statute to show that it is a crime to do so. But he contends that the Constitution of the United States and the constitution of the State of Missouri guarantee them the right to commit crime, with only this limitation, to wit, that they shall answer for the crime, when committed, in a criminal court, before a jury, and that to restrain them from committing crime is to rob them of their constitutional right of trial by jury. If that position be correct, then there can be no valid statute to prevent crime. But that position is contrary to all reason. The right of trial by jury does not arise until the party is accused of having already committed the crime. If you see a man advancing upon another with murderous demeanor and a deadly weapon, and you arrest him—disarm him—you have perhaps prevented an act which would have brought about a trial by jury, but can you be said to have deprived him of his constitutional right of trial by jury? The train of thought put in motion by the argument of the learned counsel for defendants on this point leads only to this end, to wit, that the Constitution guarantees to every man the right to commit crime, so that he may enjoy the inestimable right of trial by jury.

Passing now to the question relating to the particular jurisdiction of a court of equity, we are brought to face the proposition that a court of equity has no criminal jurisdiction, and will not interfere by injunction to prevent the commission of a crime. These two propositions are firmly established; and as to the first, that a court of equity has no criminal jurisdiction, there is no exception. As to the second, that a court of equity will not interfere by injunction to prevent the commission of a crime, that, too, is perhaps without exception, when properly interpreted, but it is sometimes misinterpreted. When we say that a court of equity will never interfere by injunction to prevent the commission of a crime, we mean that it will not do so simply for the purpose of preventing a violation of a criminal law. But when the act complained of threatens an irreparable injury to the property of an individual a court of equity

will interfere to prevent that injury, notwithstanding the act may also be a violation of a criminal law. In such case the court does not interfere to prevent the commission of a crime, although that may incidentally result, but it exerts its force to protect the individual's property from destruction, and ignores entirely the criminal portion of the act. There can be no doubt of the jurisdiction of a court of equity in such a case.

Equity will not interfere when there is an adequate remedy at law. But what remedy does the law afford that would be adequate to the plaintiffs' injury? How would their damages be estimated? How compensated? The defendants' learned counsel cites us to the criminal statute, but how will that remedy the plaintiffs' injury? A criminal prosecution does not propose to remedy a private wrong.

What a humiliating thought it would be if these defendants were really attempting to do what the amended petition charges, and what their demurrer confesses—that is, to destroy the business of these plaintiffs, and to force the eight or nine hundred men, women, boys, and girls, who are earning their livings in the plaintiffs' employ, to quit their work against their will—and yet there is no law in the land to protect them. The injunction in this case does not hinder the defendants doing anything that they claim they have a right to do. They are free men, and have a right to quit the employ of the plaintiffs whenever they see fit to do so, and no one can prevent them; and whether their act of quitting is wise or unwise, just or unjust, it is nobody's business but their own. And they have a right to use fair persuasion to induce others to join them in their quitting. But when fair persuasion is exhausted they have no right to resort to force or threats of violence. The law will protect their freedom and their rights, but it will not permit them to destroy the freedom and rights of others. The same law which guarantees the defendants in their right to quit the employment of the plaintiffs at their own will and pleasure also guarantees the other employees the right to remain at their will and pleasure. These defendants are their own masters, but they are not the masters of the other employees, and not only are they not the masters of the other employees, but they are not even their guardians. There is a maxim of our law to the effect that one may exercise his own right as he pleases, provided that he does not thereby prevent another exercising his right as he pleases. This maxim or rule of law comes nearer than any other rule in our law to the golden rule of Divine authority: "That which you would have another do unto you, do you even so unto them." Whilst the strict enforcement of the golden rule is beyond the mandate of a human tribunal, yet courts of equity, by injunction, do restrain men who are so disposed from so exercising their own rights as to destroy the rights of others.