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**COST OF LIVING OF FAMILIES OF MODERATE INCOME IN GERMANY IN 1907-8.**

**SCOPE OF THE INVESTIGATION.**

The Imperial Statistical Office of Germany recently published a detailed study of the cost of living of 852 families of wage-earners and salaried persons in Germany during 1907 and part of 1908.<sup>(a)</sup> Because of the importance of the topic and the thoroughness of its treatment, a statement of the results obtained in this investigation is here given for the benefit of American readers.

Except in five cases, the 852 families included had incomes of not more than 5,000 marks (\$1,190), and the period covered by the investigation was from January 1, 1907, to April 30, 1908. To secure the data, the families included were given account books, in which were to be entered the individual items of expenditure as they were made, without any attempt at classification of kinds of expenditure. These accounts were to be kept for a period of twelve months, and were to be collected at the end of each month by the statistical or other office in charge of the family's accounts. The classes of persons included were not restricted to workmen, but included salaried persons, such as teachers, government officials, officials in private employ, etc., selected on the basis of income. The usual experience was met with of having a large number of families undertake the keeping of accounts with a much smaller number to finish out the year. Schedules were distributed in 30 cities, though not all of these were included in the final tabulation of the schedules obtained.

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<sup>a</sup> Erhebung von Wirtschaftsrechnungen minderbemittelter Familien im Deutschen Reiche. Sonderheft zum Reichs-Arbeitsblatte. Bearbeitet im Kaiserlichen Statistischen Amte, Abteilung für Arbeiterstatistik. Berlin, 1909.

The families included in the investigation were selected by the various municipal statistical offices, with the aid of sick insurance funds, workmen's associations, and similar organizations. Many of the accounts used in the investigation were paid for, the rates varying from 5 marks to 25 marks (\$1.19 to \$5.95) per set of accounts for twelve months. As a result of the work undertaken, 960 complete accounts, for one year, were finally collected, and of these 852 were included in the tabulation. The schedules excluded were in part those in which the presence of income in kind prevented a clear discussion of the relation of income and expenditure, in part those of families which had received special pecuniary aid (charitable relief, etc.), and in part of single persons not conducting "normal" households. The tabulation of the information obtained was done in part by the Imperial Statistical Office and in part by the various municipal statistical offices which cooperated in the investigation.

Of the 852 families included in the study, 840 had married couples as the heads of the family; in 8 cases the head of the family was a widower, in 2 cases a widow, and in 2 cases adult sons. The total number of persons included was 3,952 or an average of 4.64 persons per household. This included the persons who received board and lodging in the family, but not those who received only lodging. In other words, there were 840 husbands, 840 wives, 8 widowers, 2 widows, and 2 sons as heads of families. There were 1,948 children under 15 years of age, 174 children over 15 years of age, and 138 other persons. The number of children under 15 years of age was 2.29 per family, while the number of children of all ages was 2.49 per family. The 138 other persons consisted of 12 male and 48 female relatives, 50 female house servants, and 22 male and 6 female persons not relatives who received board and lodging. No family had more than one domestic servant, so that there were 50 families which employed help of this kind; of the families employing servants, 24 were families of teachers, 24 of subordinate officials, and 1 of the widow of a commercial employee; 1 servant was housekeeper for a widower. For the whole Empire, the number of persons per household in the year 1905 was 4.7, as compared with 4.6 in the present investigation of 1907-8. The composition of the families included in the investigation is, however, somewhat different from the average family shown by the census for the whole Empire; the census showed that 8.5 per cent of persons in the household consisted of nonrelated persons, including 2.2 per cent of servants, while in the investigation only 3.5 per cent of the persons were nonrelated, including 1.2 per cent of servants. These variations are due principally to the fact that the families included in this investigation did not include

the lodgers to whom rooms, etc., were sublet. The number of children in the families included in the investigation is somewhat higher than that of the average for the whole Empire, although this may be due, in part, to the fact that foster children, etc., are classed in the investigation with other children, while in the census they are classified separately.

### GENERAL SUMMARY OF RESULTS.

As shown in the tables on pages 725 and 726, the total income of the 852 families was \$444,501.21, while the total expenditure was \$453,006.07, leaving a total deficit of \$8,504.86. This general presence of a deficit is discussed at some length, because it would not disappear if certain items classed for bookkeeping purposes as expenditures, but which are really savings and which amount to \$5,206.62, were deducted. In fact, the households which show items of savings among the expenditures usually do not show a deficit, so that by omitting the families with items marked "savings" in their expenditures, the sum of the deficit would be even greater. The sum of all the deficits in the 439 families having deficits amounted to \$20,046.05, or an average of \$45.66 per family having a deficit. On the other hand, the sum of the surpluses was \$11,541.19, distributed among 406 families, or an average per household having a surplus of \$28.43.

The presence or absence of deficits in the 852 families grouped by amount of total expenditures is shown in the following table:

NUMBER OF FAMILIES HAVING A SURPLUS OR DEFICIT, CLASSIFIED BY TOTAL FAMILY EXPENDITURE.

Classification of expenditure.	Number of families in each class.	Number of families having—	
		Surplus.	Deficit.
Under 1,200 M. (\$285.60).....	13	9	4
1,200 to 1,600 M. (\$285.60 to \$380.80).....	171	91	79
1,600 to 2,000 M. (\$380.80 to \$476).....	234	119	114
2,000 to 2,500 M. (\$476 to \$595).....	190	93	97
2,500 to 3,000 M. (\$595 to \$714).....	103	43	60
3,000 to 4,000 M. (\$714 to \$952).....	102	38	59
4,000 to 5,000 M. (\$952 to \$1,190).....	34	11	23
Over 5,000 M. (\$1,190).....	5	2	3

It should be noted that the deficits occur more frequently in the families having a higher grade of expenditure. The general presence of deficits according to the accounts furnished has caused some doubt as to the accuracy of the statements in the schedules, and the general conclusion is that in many cases this apparent deficit is due to the failure to make a complete return of the income. The present

report mentions the following as some of the omissions in the income accounts: Workmen's income from gratuities, tips, etc., the earnings from housework of wives of men in salaried positions, and the various small additions to the incomes of husbands which have not been reported to the families, while gifts of food, etc., from relatives and other persons are often likewise not included. Attention is also called to the fact that in some instances municipal employees are included in the investigation, and it is believed that such employees did not care to have the officials of the municipal statistical offices know the full extent of their outside incomes. Other sources of income frequently not reported consist of loans, withdrawals from savings banks or other cooperative sources, income from the selling of clothing and furniture, and the like. On the other hand, many items of expenditure also have not been included, either consciously or otherwise, though it may be said that counterbalancing these items are often those which are accounted for, as arrears of rent, articles obtained on credit, etc. Attention should, however, be called to the fact that the larger the household budget, the more numerous and more diversified will be the income and expenditure items, and naturally omissions will occur more frequently. It is noteworthy that the accounts of officials and teachers in many cases show only the salary received and do not include any receipts from subsidiary income or unusual income. Taken altogether, however, it is probable that expenditures are reported more accurately than receipts, and this fact probably accounts for at least a part of the deficit shown by the accounts. It should be stated that in discussing the household budgets of families of moderate incomes it is not unusual for the actual consumption to exceed the income, the widespread credit system of the country being the cause of the excess of expenditures. In view of the fact that the expenditures of workmen's families must be carefully restricted in order to remain within the income under normal circumstances, it is easy to understand that the unexpected stopping of income on account of unemployment, sickness, etc., will at once disturb the whole balance of the budget. For social reasons many expenditures are regarded by some of the families as almost unavoidable, this being particularly the case with families of officials and teachers, which show a larger number of deficits and deficits of larger amounts than is the case with workmen's families.

For all of the 852 households the average income was \$521.72, the average expenditure was \$531.70, and the average deficit was \$9.98.

The average income of the 852 families included in the study was received from the sources specified in the following table:

## AVERAGE INCOME PER FAMILY OF 852 FAMILIES, BY SOURCE OF INCOME.

Source of income.	Number of families.	Average income.	
		Amount.	Per cent of total.
Principal earnings of husband.....	850	\$429.67	82.4
Subsidiary earnings of husband.....	826	12.16	2.3
Earnings of wife.....	278	14.34	2.7
Contributions of children.....	112	8.76	1.7
Subletting.....	207	10.49	2.0
Miscellaneous cash income.....	652	41.63	8.0
Income in kind:			
Owns home, or house free of rent.....	40	2.91	.6
Farm or garden.....	75	.70	.1
Cattle keeping.....	31	.59	.1
Other returns.....	22	.47	.1

As shown by the preceding table, the principal earnings of the husband form over 80 per cent of the family income. The average income as given in the table is affected by the presence of large amounts in the sources other than the income of the husbands, as, for instance, of two widows whose accounts show no income under the first of the items in the above table. Income of husbands from subsidiary sources is shown in over one-third of the cases, while in less than one-third of the families income from earnings of the wife is shown. The term "children," as used in this table, includes children under 15 years of age, and income has been received from them in about one-eighth of the families. That this source of income is not more frequent is explained by the presence of a large number of families of salaried officials and of teachers among the households included, but even among workmen's families and those engaged in the better-paid skilled trades families without income from earnings of children predominate; in addition, a considerable number of young married couples and of childless couples are included in the list of families. It is also quite possible that the income from children's earnings has not been fully and completely reported. The income from the subletting of rooms is perhaps concealed less frequently than the subsidiary income from other sources. From this source about one-fourth of the families derive part of their income. More than three-fourths of the families reported income received from miscellaneous sources, the average of which, except earnings of husband, is the highest of any source of income cited in the table. The items included under this head consist of interest on capital, withdrawals from savings, receipts in payment of loans, from articles sold, dividends, etc., from cooperative societies, winnings in games and lotteries, benefits from trade-unions and other benefits, and the like. They may be summed up as consisting mainly of increases of assets, using up of property, loss of property, and the like.

For the 852 families the average expenditure, according to the principal groups of expenditure, is shown in the following table:

AVERAGE EXPENDITURE PER FAMILY OF 852 FAMILIES, BY PRINCIPAL GROUPS OF EXPENDITURES.

Expenditure for—	Amount.	Per cent.
Foods and drinks.....	\$242.17	45.55
Clothing, laundry, etc.....	67.22	12.64
Dwelling (rent and maintenance of).....	95.50	17.96
Heating and lighting.....	21.62	4.07
Miscellaneous.....	105.19	19.78

According to the preceding table, not far from one-half of the total expenditures of the families included in the tabulation is required for food, drinks, etc. This is the well-known ratio of expenditure for this purpose in families of small means, and occurs in families of this class in practically all countries. The following table gives the per cent of the ratio of expenditure for various purposes shown by six different investigations of families of small means made since the year 1897 in Germany, Denmark, and the United States:

DISTRIBUTION OF EXPENDITURES, BY PRINCIPAL GROUPS OF EXPENDITURES, IN FAMILIES OF MODERATE MEANS, AS SHOWN BY SIX INVESTIGATIONS.

	852 families in Germany in 1907-8.	14 teachers' families in Hamburg in 1903. (a)	908 families in Berlin in 1903. (b)	44 families in Nuremberg in 1899. (c)	50 families in Denmark in 1897. (d)	11,156 families in the United States in 1903. (e)
Per cent of total expenditure per family for—						
Foods and drinks.....	45.55	37.28	49.7	49.63 to 58.69	48.36	43.13
Clothing, laundry, etc.....	12.64	11.41	8.1	8.53	16.14	12.95
Dwelling (rent and maintenance of).....	17.96	18.66	20.3	14.08 to 15.07	13.29	18.12
Heating and lighting.....	4.07	3.97		(f)	4.43	5.09
Other expenditures.....	19.78	28.68	21.9	(f)	17.78	20.11
Amount of expenditure.....	\$531.70	\$788.71	\$420.75	\$178.58 to \$522.32	\$369.48	\$617.80

<sup>a</sup> Haushalts-Rechnungen hamburgischer Volksschullehrer. Hamburg, 1906.

<sup>b</sup> Lohnermittlungen u. Haushaltrechnungen der minderbemittelten Bevölkerung im Jahre, 1903. (Berliner Statistik, herausgegeben vom Statistischen Amte der Stadt Berlin.)

<sup>c</sup> Haushalts-Rechnungen Nürnberger Arbeiter. Bearbeitet im Arbeiter-Sekretariat Nürnberg von A. Braun. Nürnberg, 1901.

<sup>d</sup> Danske Arbejderfamiliers Forbrug, 1. Afdeling: Byarbejdere, 2. Afdeling: Landarbejdere, Danmarks Statistik, Statistiske Meddelelser, 4. series, vol. 6, part 6, and vol. 11, part 2. Copenhagen, 1900, 1901.

<sup>e</sup> Cost of Living and Retail Prices of Food. Eighteenth Annual Report of the Commissioner of Labor. Washington, 1904.

<sup>f</sup> Not reported.

The per cents shown for the five other investigations cited are strikingly similar to the per cents shown in the present investigation. In all but one of the investigations the expenditure for house rent and maintenance of the house ranks next to expenditure for food and food products, the proportion being 17.96 per cent in the present investigation. If to this item be added the related expenditures for heat and light, consisting of about 4 per cent, the total expenditure



under this head will amount to approximately 22 per cent of all expenditures. The item next in rank is that for clothing, linen, laundry, cleaning, etc., which amounts to about 13 per cent of the total. The items named of course are the necessities of existence and only after these needs have been supplied can other economic needs be considered.

The items which compose the average of 45.5 per cent for food products are of especial interest. The following table shows for the 852 families this average distributed among the various items of food:

AVERAGE AMOUNT AND PER CENT OF EXPENDITURES FOR FOOD, ETC., OF 852 FAMILIES.

Kind.	Average expenditures.		
	Amount.	Per cent of all expenditures.	Per cent of expenditures for food.
Meat (including ham, bacon, etc.).....	\$45.36	8.5	18.7
Sausage.....	14.00	2.7	5.8
Fish (including smoked fish).....	3.79	.7	1.6
Butter.....	21.37	4.0	8.8
Suet, margarine, etc.....	9.16	1.7	3.8
Cheese.....	3.97	.8	1.6
Eggs.....	7.47	1.4	3.1
Potatoes.....	7.90	1.5	3.3
Green vegetables.....	6.24	1.2	2.6
Salt, spices, oils.....	2.29	.4	.9
Sugar, sirup, honey.....	6.31	1.2	2.6
Flour, rice, legumes, etc.....	7.07	1.3	2.9
Fruit.....	7.01	1.3	2.9
Bread and pastry.....	39.31	7.4	16.2
Coffee and coffee substitutes.....	6.29	1.2	2.6
Tea, chocolate, cocoa.....	2.12	.4	.9
Milk.....	24.46	4.6	10.1
Other drinks at home:			
Alcoholic.....	7.89		
Nonalcoholic.....	.26		
Total.....	8.15	1.5	3.4
Other food products.....	.61	.1	.3
Cigars and tobacco.....	4.92	.9	2.0
Expenditure in restaurants:			
Meals.....	4.38		
Alcoholic drinks.....	8.37		
Nonalcoholic drinks.....	1.28		
Not specified.....	.34		
Total.....	14.37	2.7	5.9
Total for foods and drinks.....	242.17	45.5	100.0
Total expenditure.....	531.70	100.0	

The most important item of expenditure for food products is that for meat, the average for all families being \$45.36, or if the item of sausage be added to that for meat, which is \$14, and that of fish, which is \$3.79, the total for meats and similar products would be \$63.15, or 26.1 per cent of all the expenditures for food. The next item of importance is that of bread and baker's wares, which take 16.2 per cent of the expenditure for food, and which is followed by milk with 10.1 per cent, butter with 8.8 per cent, while expenditures

in restaurants take 5.9 per cent of food expenditures. These expenditures for food products may be summed up by stating that 53.5 per cent are for animal food products, 30.5 per cent are for vegetable food products, while 16 per cent is an expenditure for miscellaneous foods, including luxuries, such as tobacco, beverages, etc. If the items of expenditure for alcoholic beverages, consisting principally of beer, consumed at home and in restaurants, be added together, the sum is found to be 6.7 per cent of the expenditures for food and 3.1 per cent of the total expenditures for all purposes.

The group of miscellaneous expenditures, the total of which is nearly 20 per cent of all expenditures of the 852 families, is composed of the following items:

AVERAGE AMOUNT AND PER CENT OF EXPENDITURES FOR MISCELLANEOUS PURPOSES OF 852 FAMILIES.

Item.	Average expenditures.	
	Amount.	Per cent of all expenditures.
Health and physical care.....	\$12.11	2.28
Education, school fees, etc.....	7.36	1.38
Intellectual and social purposes.....	21.13	3.97
State, commune, church, etc. (including taxes).....	7.61	1.43
Provident (insurance, relief funds, etc.).....	18.06	3.40
Transportation.....	6.89	1.30
Personal service.....	3.25	.61
Presents, gifts, etc.....	3.18	.60
Debts and interest.....	5.52	1.04
Trade and occupational expenses.....	2.09	.39
Other cash expenditures.....	11.51	2.16
Expenditures in kind.....	.37	.07
Savings.....	6.11	1.15
Total miscellaneous.....	105.19	19.78

The largest amount in the preceding table is that spent for intellectual and social purposes, being almost 4 per cent of the total expenditure for all purposes; the average amount of this expenditure per family is \$21.13, which consists of \$12.54 for newspapers, for books, and for organizations, while \$8.59 was expended for recreation. The item of expenditure for provident purposes, including insurance, as stated above, is lower than it is in reality, as many of the workmen and others have had deductions made from their wages and salaries under the compulsory insurance system, and the item as given in the table includes only expenditure for voluntary insurance. The item marked expenditures for health and similar purposes consists principally of payments for physicians' services, for medicines, care for lying-in, etc. Because of the provision made by the compulsory sick insurance funds, invalidity insurance institutes, and accident insurance organizations under the compulsory insurance system which relieve families of expenses under this head, the aver-

age of expenditures for this purpose is not high. The item of expenditure for state, municipal, and church purposes, including taxes, rates, etc., is small, which is in part explained by the fact that workmen's expenditures for legal purposes are usually for cases which come before the industrial courts, where the cost to the workman is but small. The expenditure for education, for school fees, and for school supplies is 1.38 per cent of the total expenditure, though here there is a marked distinction between expenditures of workmen's families and those of families of officials and salaried persons. The expenditures of the workmen's families for this purpose are but 0.6 per cent, while those for officials, teachers, and salaried persons range from 1.2 to 2.4 per cent of the total expenditures for all purposes.

The report shows for selected families fluctuations in income from month to month; thus, for instance, one workman's family shows an income of 326.17 marks (\$77.63) in March and 122.99 marks (\$29.27) in January; another family had 170.97 marks (\$40.69) in June and 57.70 marks (\$13.73) in April; still another family showed 356.56 marks (\$84.86) in August and 117.36 marks (\$27.93) in June. The fluctuations in expenditure are not as great as in the case of the income; thus, for instance, one family shows expenditures of 250.20 marks (\$59.55) in October and 81.99 marks (\$19.51) in July; another family has 303.99 marks (\$72.35) in August and 138.21 marks (\$32.89) in February, etc.

#### INCOME AND EXPENDITURES OF FAMILIES, BY SIZE OF FAMILY AND AMOUNT OF EXPENDITURE.

##### INCOME, ACCORDING TO SIZE OF FAMILY.

Of the 852 families included in the investigation, the number of families classified by the size of family, together with the average income of each class, is shown in the following table:

CLASSIFICATION OF 852 FAMILIES, BY SIZE OF FAMILY, WITH AVERAGE INCOME OF EACH CLASS.

Number of persons in the family.	Number of families.	Average annual income.	Number of persons in the family.	Number of families.	Average annual income.
2.....	74	\$492.28	7.....	66	\$543.27
3.....	150	480.10	8.....	30	528.06
4.....	197	502.36	9.....	14	611.50
5.....	205	530.84	10.....	3	657.87
6.....	112	583.19	11.....	1	720.82

According to the preceding table, the general tendency is for larger families to have larger incomes. The influence which the size of the family exerts upon the income of the family is shown in a variety of ways. Naturally the increase in the size of the family requires the

heads of the families to make greater exertions to seek new sources of income to supply the increasing needs, while on the other hand the increase in the size of the family occurs at the same time with the increase in the age of the head of the family, and in the case of officials, teachers, salaried persons, etc., the income tends to increase with length of service in the position. In the case of workmen, also, up to a certain point there is to be expected an increase in the wage-earner's income with advancing years. The greater needs of the larger families tend to force the children to seek employment at an earlier age, though the presence of a large number of children usually indicates that the older children are of working age. To show the influence of the size of the family upon the source of income the following table gives the income by sources according to the size of the family:

AVERAGE AMOUNT AND PER CENT OF INCOME FROM SPECIFIED SOURCES OF 852 FAMILIES, BY SIZE OF FAMILY.

AMOUNT.

Number of persons in the family.	Number of families reporting.	Income from—						
		Principal earnings of hus- band.	Subsidi- ary earn- ings of husband.	Earnings of wife.	Contri- bution of children.	Sub- letting.	Other cash income.	Income in kind.
2.....	74	\$429.49	\$5.75	\$22.98	.....	\$5.56	\$26.68	\$1.82
3.....	150	414.92	7.11	12.90	\$3.19	9.60	27.30	5.08
4.....	197	418.85	14.24	12.73	3.30	11.21	37.28	4.75
5.....	205	435.84	12.05	15.17	8.85	10.64	45.23	3.06
6.....	112	454.20	17.97	16.48	9.65	13.03	67.50	4.36
7.....	66	432.44	10.85	11.33	21.06	7.96	52.57	7.06
8.....	30	412.00	12.99	9.83	28.58	20.95	36.87	6.83
9.....	14	464.61	14.50	2.36	64.17	3.20	39.15	23.51
10.....	3	490.05	34.76	14.86	76.71	12.38	29.11	.....
11.....	1	451.64	168.50	.....	60.21	.....	16.66	23.30
2 to 4.....	421	419.33	10.21	14.59	2.68	9.64	31.86	4.35
5 to 6.....	317	442.33	14.14	15.63	9.14	11.48	53.10	3.52
Over 6.....	114	432.70	13.88	9.82	30.14	10.84	45.86	8.98
All families.....	852	429.67	12.16	14.34	8.76	10.49	41.63	4.66

PER CENT.

Number of persons in the family.	Number of families reporting.	Income from—						
		Principal earnings of hus- band.	Subsidi- ary earn- ings of husband.	Earnings of wife.	Contri- bution of children.	Sub- letting.	Other cash income.	Income in kind.
2.....	74	87.2	1.2	4.7	.....	1.1	5.4	0.4
3.....	150	86.4	1.5	2.7	0.7	2.0	5.7	1.0
4.....	197	83.4	2.8	2.5	.7	2.2	7.4	1.0
5.....	205	82.1	2.3	2.9	1.7	2.0	8.5	.5
6.....	112	77.9	3.1	2.8	1.7	2.2	11.6	.7
7.....	66	79.6	2.0	2.1	3.9	1.5	9.7	1.2
8.....	30	78.0	2.4	1.9	5.4	4.0	7.0	1.3
9.....	14	76.0	2.4	.4	10.5	.5	6.4	3.8
10.....	3	74.5	5.3	2.2	11.7	1.9	4.4	.....
11.....	1	62.7	23.4	.....	8.3	.....	2.3	3.3
2 to 4.....	421	85.1	2.1	3.0	.5	1.9	6.5	.9
5 to 6.....	317	80.5	2.6	2.8	1.7	2.1	9.7	.6
Over 6.....	114	78.3	2.5	1.8	5.5	2.0	8.3	1.6
All families.....	852	82.4	2.3	2.7	1.7	2.0	8.0	.9

According to the preceding table, the income of the head of the family is in general higher in the case of the larger families, this being

true both for the main and subsidiary sources of income. The income of the wife, on the other hand, shows a tendency to decrease when the number of children is large, this being partly due to the need for her services in the care of the smaller children. On the other hand, the income provided by the children shows a tendency to increase with the larger number of children. The income from the subletting of the dwelling fluctuates in an irregular manner. Miscellaneous cash income tends to increase with the size of the family up to families with 6 persons, when it shows a tendency to decrease. The income received from articles in kind shows a general tendency to increase with the increase in the size of the family.

Throughout the report, the 852 families are classified by amount of expenditure. In the following table these classes of expenditure are shown, together with the average income of the families in each grade of expenditure:

AVERAGE INCOME OF 852 FAMILIES, CLASSIFIED BY TOTAL FAMILY EXPENDITURE.

Classification of expenditure.	Grade of expenditure.	Number of families in each class.	Average income of families in each grade.
Under 1,200 M. (\$285.60) .....	1	13	\$266. 83
1,200 to 1,600 M. (\$285.60 to \$380.80) .....	2	171	345. 05
1,600 to 2,000 M. (\$380.80 to \$476) .....	3	234	432. 23
2,000 to 2,500 M. (\$476 to \$595) .....	4	190	522. 83
2,500 to 3,000 M. (\$595 to \$714) .....	5	103	629. 22
3,000 to 4,000 M. (\$714 to \$952) .....	6	102	771. 87
4,000 to 5,000 M. (\$952 to \$1,190) .....	7	34	921. 81
Over 5,000 M. (\$1,190) .....	8	5	1, 333. 29
Under 2,000 M. (\$476) .....	1 to 3	418	391. 42
2,000 to 3,000 M. (\$476 to \$714) .....	4 to 5	293	560. 23
Over 3,000 M. (\$714) .....	6 to 8	141	827. 93

In the preceding table and throughout the report the families are classified rather by the amount of expenditure than by the amount of income. This method of classification is followed principally because expenditures have been more accurately reported than income, and because as a matter of fact the income as herein reported shows approximately the same classification of families as the expenditures. The fact that some families show an excess of expenditures over receipts indicates that a few have attempted to live on a higher scale than was warranted by the income, but according to the writers of the report practically none of the families have lived greatly in excess of the standard which their income warranted. In one case in the preceding table, that of the families of the grade marked "7," whose income is from 4,000 (\$952) to 5,000 marks (\$1,190), the average income was less than the expenditures,

but except for this one instance the average income of each group was not far from the average amount of expenditure.

The following table gives the number of families in which the sources of income of the kind specified appear, the families being classified by grades of expenditure:

NUMBER OF FAMILIES IN WHICH THE SPECIFIED SOURCES OF INCOME ARE SHOWN,  
CLASSIFIED BY TOTAL FAMILY EXPENDITURE.

Classification of expenditure.	Number of families reporting.	Number of families receiving an income from—								Income in kind, derived from—			
		Principal earnings of husband.	Subsidiary earnings of husband.	Earnings of wife.	Contribution of children.	Subletting.	Other cash income.	Owns home or has house free from rent.	Farm or garden.	Keeping of cattle.	Other income in kind.		
Under 1,200 M. (\$285.60).....	13	12	4	7	1	2	8	.....	.....	.....	.....	1	
1,200 to 1,600 M. (\$285.60 to \$380.80).....	171	171	67	79	9	23	114	3	8	3	4	4	
1,600 to 2,000 M. (\$380.80 to \$476).....	234	234	103	96	24	77	182	6	13	6	6	6	
2,000 to 2,500 M. (\$476 to \$595).....	190	190	77	77	44	65	153	11	13	9	6	6	
2,500 to 3,000 M. (\$595 to \$714).....	103	102	34	13	17	20	83	8	18	8	2	2	
3,000 to 4,000 M. (\$714 to \$952).....	102	102	31	6	15	13	83	10	16	4	3	3	
4,000 to 5,000 M. (\$952 to \$1,190).....	34	34	8	.....	2	6	24	1	5	1	.....	.....	
Over 5,000 M. (\$1,190).....	5	5	2	.....	.....	1	5	.....	.....	.....	.....	.....	
Under 2,000 M. (\$476).....	418	417	174	182	34	102	304	9	21	9	11	11	
2,000 to 3,000 M. (\$476 to \$714).....	293	292	111	90	61	85	236	19	31	17	8	8	
Over 3,000 M. (\$714).....	141	141	41	6	17	20	112	12	23	5	3	3	
All families.....	852	850	326	278	112	207	652	40	75	31	22	22	

In the preceding table the husband has a subsidiary source of income most frequently in the families with expenditures of 1,600 to 2,000 marks (\$380.80 to \$476) and 2,000 to 2,500 marks (\$476 to \$595), these families comprising approximately one-half of all the households. The income from the wife's earnings appears most frequently in the case of families with the two lowest grades of income, and, in fact, such income appears in over one-half of the families in the lowest class, while in the two highest grades of expenditure the income from this source does not appear. The income from the earnings of children is less frequent in the families with the lowest grade of expenditure and most frequent where the expenditures are from 2,000 to 2,500 marks (\$476 to \$595); in the highest grade such income appears either not at all or only seldom. The income from subletting occurs most frequently in the case of expenditures of from 1,600 to 2,000 and 2,000 to 2,500 marks (\$380.80 to \$595), and in the last-named grade occurs in over one-third of the families in that class.

The amount of income derived from sources specified for families with varying degrees of expenditures is shown in the following table:

## AVERAGE AMOUNT AND PER CENT OF INCOME FROM SPECIFIED SOURCES OF 852 FAMILIES, CLASSIFIED BY TOTAL FAMILY EXPENDITURE.

## AMOUNT.

Classification of expenditure.	Number of families reporting.	Income from—						
		Principal earnings of husband.	Subsidiary earnings of husband.	Earnings of wife.	Contribution of children.	Subletting.	Other cash income.	Income in kind.
Under 1,200 M. (\$285.60) .....	13	\$220.99	\$1.31	\$30.03	\$0.20	\$1.97	\$11.95	\$0.38
1,200 to 1,600 M. (\$285.60 to \$380.80) .....	171	304.94	5.24	13.88	1.94	2.01	15.34	1.70
1,600 to 2,000 M. (\$380.80 to \$476) .....	234	363.39	11.81	11.96	3.39	13.09	26.59	2.01
2,000 to 2,500 M. (\$476 to \$595) .....	190	420.15	9.84	22.86	12.35	15.69	35.77	6.17
2,500 to 3,000 M. (\$595 to \$714) .....	103	509.31	16.55	13.90	16.96	12.87	52.26	7.36
3,000 to 4,000 M. (\$714 to \$952) .....	102	629.43	18.07	8.63	19.71	7.46	77.82	10.75
4,000 to 5,000 M. (\$952 to \$1,190) .....	34	752.33	18.06	.....	6.75	7.38	134.48	2.81
Over 5,000 M. (\$1,190) .....	5	792.28	130.93	.....	.....	37.41	356.44	16.23
Under 2,000 M. (\$476) .....	418	335.05	8.79	13.31	2.70	8.21	21.53	1.83
2,000 to 3,000 M. (\$476 to \$714) .....	293	451.50	12.20	19.71	13.97	14.70	41.57	6.59
Over 3,000 M. (\$714) .....	141	664.84	22.07	6.25	15.89	8.50	101.37	9.03
Total .....	852	429.67	12.16	14.34	8.76	10.49	41.63	4.66

## PER CENT.

Under 1,200 M. (\$285.60) .....	13	82.8	0.5	11.3	0.1	0.7	4.5	0.1
1,200 to 1,600 M. (\$285.60 to \$380.80) .....	171	88.4	1.5	4.0	.6	.6	4.4	.5
1,600 to 2,000 M. (\$380.80 to \$476) .....	234	84.1	2.7	2.8	.8	3.0	6.2	.4
2,000 to 2,500 M. (\$476 to \$595) .....	190	80.4	1.9	4.4	2.4	3.0	6.8	1.1
2,500 to 3,000 M. (\$595 to \$714) .....	103	80.9	2.6	2.2	2.7	2.0	8.3	1.3
3,000 to 4,000 M. (\$714 to \$952) .....	102	81.5	2.3	1.1	2.6	1.0	10.1	1.4
4,000 to 5,000 M. (\$952 to \$1,190) .....	34	81.6	1.9	.....	.7	.8	14.6	.4
Over 5,000 M. (\$1,190) .....	5	59.4	9.8	.....	.....	2.8	26.7	1.3
Under 2,000 M. (\$476) .....	418	85.6	2.3	3.4	.7	2.1	5.5	.4
2,000 to 3,000 M. (\$476 to \$714) .....	293	80.6	2.2	3.5	2.5	2.6	7.4	1.2
Over 3,000 M. (\$714) .....	141	80.3	2.7	.8	1.9	1.0	12.2	1.1
Total .....	852	82.4	2.3	2.7	1.7	2.0	8.0	.9

## EXPENDITURES, ACCORDING TO SIZE OF FAMILY.

The average expenditure per family of the 852 families included in the study was \$531.70, distributed among the following items:

Food .....	\$242.17
Clothing .....	67.22
Dwelling .....	95.50
Heating and lighting .....	21.62
Miscellaneous .....	105.19

Classified according to the size of the family, the average amount of expenditure in each family is shown in the following table:

## AVERAGE EXPENDITURE OF 852 FAMILIES, BY SIZE OF FAMILY.

Number of persons in the family.	Expenditure per family.		Number of persons in the family.	Expenditure per family.	
	Number of families.	Average amount.		Number of families.	Average amount.
2 .....	74	\$490.51	7 .....	66	\$570.40
3 .....	150	483.58	8 .....	30	555.78
4 .....	197	507.43	9 .....	14	668.65
5 .....	205	539.28	10 .....	3	654.45
6 .....	112	600.75	11 .....	1	727.30

In general the expenditures of the family increase with the size of the family, and on the whole the tendencies correspond with those mentioned on pages 705 to 707 regarding income. The purposes for which these expenditures are made are shown in the following table, giving the amount and the percentage of income expended for each purpose, the families being classified by size:

AVERAGE AMOUNT AND PER CENT OF EXPENDITURES FOR SPECIFIED PURPOSES OF 852 FAMILIES, BY SIZE OF FAMILY.

AMOUNT.

Expenditure for—	74 fam- ilies of 2 persons each.	150 fam- ilies of 3 persons each.	197 fam- ilies of 4 persons each.	205 fam- ilies of 5 persons each.	112 fam- ilies of 6 persons each.	66 fam- ilies of 7 persons each.	30 fam- ilies of 8 persons each.	14 fam- ilies of 9 persons each.	3 fam- ilies of 10 persons each.	All fam- ilies. <sup>(a)</sup>
Foods, drinks, etc....	\$198.98	\$213.31	\$226.89	\$252.43	\$268.82	\$277.12	\$281.52	\$340.52	\$380.84	\$242.17
Clothing, laundry, etc.....	59.26	55.80	64.06	68.01	79.92	76.48	70.88	104.91	79.28	67.22
Dwelling (rent and maintenance of)...	101.84	96.07	94.10	94.41	100.99	92.36	85.58	88.06	84.62	95.50
Heating, lighting....	19.66	20.15	21.06	21.68	24.31	22.51	23.78	22.85	21.00	21.62
All other.....	110.77	98.25	101.32	102.75	126.71	101.93	94.02	112.31	88.71	105.19
Total.....	490.51	483.58	507.43	539.28	600.75	570.40	555.78	668.65	654.45	531.70

PER CENT.

Food, drink, etc....	40.6	44.1	44.7	46.8	44.7	48.6	50.7	50.9	58.2	45.5
Clothing, laundry, etc.....	12.1	11.5	12.6	12.6	13.3	13.4	12.7	15.7	12.1	12.6
Dwelling (rent and maintenance of)...	20.8	19.9	18.5	17.5	16.8	16.2	15.4	13.2	12.9	18.0
Heating, lighting....	4.0	4.2	4.2	4.0	4.0	3.9	4.3	3.4	3.2	4.1
All other.....	22.5	20.3	20.0	19.1	21.2	17.9	16.9	16.8	13.6	19.8

<sup>a</sup> Including 1 family of 11 persons.

The expenditures for foods, etc., increase regularly with the size of the family, though the amount of the increase is not exactly proportionate to the increase in the size of the family. The expenditures for clothing, however, do not increase as rapidly as the number of persons in the family, nor as regularly as in the case of expenditures for food. The expenditures for dwelling, which form one of the most elastic items in the budget, show, on the contrary, a tendency to decrease with the increase in the size of families. The effect of the size of a family on the several items of expenditure is shown in the following summary table, in which the families are classed by the number of persons in the family:



## AVERAGE AMOUNT AND PER CENT OF EXPENDITURE FOR SPECIFIED PURPOSES OF 852 FAMILIES, BY FAMILY GROUPS.

Expenditure for—	Average expenditure per family for—				Per cent of expenditure for—			
	421 families of 2 to 4 persons each.	317 families of 5 or 6 persons each.	114 families of more than 6 persons each.	852 families of 2 to 11 persons each.	421 families of 2 to 4 persons each.	317 families of 5 or 6 persons each.	114 families of more than 6 persons each.	852 families of 2 to 11 persons each.
Foods, drinks, etc.....	\$217. 15	\$258. 22	\$289. 95	\$242. 17	43. 8	46. 0	49. 8	45. 5
Clothing, laundry, etc.....	60. 27	72. 22	78. 97	67. 22	12. 2	12. 9	13. 6	12. 6
Dwelling (rent and maintenance of).....	96. 16	96. 73	89. 64	95. 50	19. 4	17. 2	15. 4	18. 0
Heating, lighting.....	20. 49	22. 61	23. 03	21. 62	4. 1	4. 0	4. 0	4. 1
All other.....	101. 89	111. 21	100. 61	105. 19	20. 5	19. 9	17. 2	19. 8
Total.....	495. 96	560. 99	582. 20	531. 70	100. 0	100. 0	100. 0	100. 0

The increase in the size of the family is accompanied by a more rapid increase in the amount expended for food than in the total amount of all expenditures, so that in the case of families with two persons the expenditures for food are approximately 40 per cent, and in the case of the families of the largest size, but not including those with ten persons, the expenditures for food are about 50 per cent of the total expenditures.

The expenditures for foods according to the number of persons in the family is shown in the following table:

## AVERAGE AMOUNT AND PER CENT OF EXPENDITURE FOR FOOD OF 851 FAMILIES (a), BY SIZE OF FAMILY.

## AMOUNT.

Item.	74 families of 2 persons each.	150 families of 3 persons each.	197 families of 4 persons each.	205 families of 5 persons each.	112 families of 6 persons each.	66 families of 7 persons each.	30 families of 8 persons each.	14 families of 9 persons each.	3 families of 10 persons each.
Meat (including ham, bacon, etc.).....	\$38. 02	\$42. 14	\$44. 53	\$46. 58	\$48. 56	\$49. 56	\$44. 69	\$61. 88	\$63. 33
Sausage.....	12. 36	12. 89	14. 21	14. 54	14. 88	14. 49	14. 51	12. 37	21. 16
Fish (including smoked fish).....	3. 80	3. 43	3. 72	3. 68	4. 08	3. 67	4. 21	7. 13	7. 10
Butter.....	18. 83	18. 12	18. 87	22. 22	25. 49	25. 16	26. 37	27. 52	42. 93
Suet, margarine, etc.....	3. 92	6. 09	8. 07	9. 71	11. 60	12. 78	17. 28	16. 95	17. 80
Cheese.....	3. 54	3. 87	3. 75	4. 20	4. 15	3. 92	3. 91	5. 03	7. 82
Eggs.....	6. 28	7. 28	7. 55	8. 21	7. 69	6. 81	5. 40	9. 32	6. 41
Potatoes.....	5. 07	6. 39	6. 89	8. 23	9. 75	10. 46	10. 83	13. 79	10. 23
Green vegetables.....	6. 06	6. 13	5. 81	6. 58	6. 66	6. 03	6. 31	6. 24	8. 03
Salt, spices, oil.....	1. 45	2. 03	2. 03	2. 37	2. 73	3. 14	3. 04	2. 52	3. 59
Sugar, sirup, honey.....	4. 52	4. 66	5. 79	6. 95	6. 90	8. 25	7. 94	14. 02	7. 59
Flour, rice, legumes, etc.....	4. 21	5. 57	6. 65	7. 44	8. 61	8. 47	10. 74	11. 47	7. 40
Fruit.....	7. 75	6. 40	6. 64	7. 67	7. 47	6. 32	6. 32	6. 13	7. 19
Bread and pastry.....	21. 94	28. 10	34. 12	40. 68	48. 83	58. 67	62. 50	75. 17	72. 98
Coffee and coffee substitutes.....	5. 29	5. 59	5. 69	6. 54	7. 09	7. 51	6. 98	8. 74	9. 16
Tea, chocolate, cocoa.....	2. 12	1. 96	2. 01	2. 22	2. 18	2. 14	2. 33	2. 94	. 99
Milk.....	16. 09	22. 23	24. 12	26. 25	27. 51	27. 03	25. 21	31. 67	31. 16
Other drinks at home.....	8. 17	9. 12	8. 03	8. 68	7. 38	7. 49	5. 76	5. 92	8. 87
Other food products.....	. 49	. 40	. 53	. 60	. 43	. 76	. 60	5. 30	. 43
Cigars and tobacco.....	6. 85	5. 04	4. 74	4. 90	4. 58	4. 39	3. 22	4. 97	5. 67
Expenditures in restaurants.....	22. 22	15. 87	13. 14	14. 18	12. 25	10. 06	13. 38	11. 44	41. 00
Animal foods.....	102. 84	116. 05	124. 82	135. 39	143. 96	143. 42	141. 58	171. 87	197. 71
Vegetable foods.....	49. 55	57. 25	65. 90	77. 55	88. 22	98. 20	104. 63	126. 82	113. 42
Other foods and drinks.....	46. 59	40. 01	36. 17	39. 49	36. 64	38. 49	35. 31	41. 83	69. 71
All expenditure for foods.....	198. 98	213. 31	226. 89	252. 43	268. 82	277. 11	281. 52	340. 52	380. 84
Total expenditure.....	490. 51	483. 58	507. 43	539. 28	600. 75	570. 40	555. 78	668. 65	654. 45

\* One family of 11 persons is not included.

## AVERAGE AMOUNT AND PER CENT OF EXPENDITURE FOR FOOD OF 851 FAMILIES (a), BY SIZE OF FAMILY—Concluded.

## PER CENT OF TOTAL EXPENDITURES.

Item.	74 fam- ilies of 2 per- sons each.	150 fam- ilies of 3 per- sons each.	197 fam- ilies of 4 per- sons each.	205 fam- ilies of 5 per- sons each.	112 fam- ilies of 6 per- sons each.	66 fam- ilies of 7 per- sons each.	30 fam- ilies of 8 per- sons each.	14 fam- ilies of 9 per- sons each.	3 fam- ilies of 10 per- sons each.
Meat (including ham, bacon, etc.).....	7.8	8.7	8.8	8.7	8.1	8.7	8.0	9.3	9.7
Sausage.....	2.5	2.7	2.8	2.7	2.5	2.5	2.6	1.9	3.2
Fish (including smoked fish).....	.8	.7	.7	.7	.7	.6	.8	1.1	1.1
Butter.....	3.8	3.7	3.7	4.1	4.2	4.4	4.8	4.1	6.6
Suet, margarine, etc.....	.8	1.3	1.6	1.8	1.9	2.2	3.1	2.5	2.7
Cheese.....	.7	.8	.7	.8	.7	.7	.7	.8	1.2
Eggs.....	1.3	1.5	1.5	1.5	1.3	1.2	1.0	1.4	1.0
Potatoes.....	1.0	1.3	1.4	1.5	1.6	1.8	2.0	2.1	1.6
Green vegetables.....	1.2	1.3	1.2	1.2	1.1	1.1	1.1	.9	1.2
Salt, spices, oil.....	.3	.4	.4	.4	.5	.6	.6	.4	.5
Sugar, sirup, honey.....	.9	1.0	1.1	1.3	1.1	1.5	1.4	2.1	1.2
Flour, rice, legumes, etc.....	.9	1.1	1.3	1.4	1.4	1.5	1.9	1.7	1.1
Fruit.....	1.6	1.3	1.3	1.4	1.2	1.1	1.1	.9	1.1
Bread and pastry.....	4.5	5.8	6.7	7.6	8.1	10.3	11.3	11.2	11.1
Coffee and coffee substitutes.....	1.1	1.2	1.1	1.2	1.2	1.3	1.3	1.3	1.4
Tea, chocolate, cocoa.....	.4	.4	.4	.4	.4	.4	.4	.4	.1
Milk.....	3.3	4.6	4.8	4.9	4.6	4.7	4.5	4.7	4.8
Other drinks at home.....	1.7	1.9	1.6	1.6	1.2	1.3	1.0	.9	1.3
Other food products.....	.1	.1	.1	.1	.1	.1	.1	.8	.1
Cigars and tobacco.....	1.4	1.0	.9	.9	.8	.8	.6	.7	.9
Expenditures in restaurants.....	4.5	3.3	2.6	2.6	2.0	1.8	2.4	1.7	6.3
Animal foods.....	21.0	24.0	24.6	25.2	24.0	25.0	25.5	25.8	30.3
Vegetable foods.....	10.1	11.8	13.0	14.4	14.5	17.3	18.8	18.9	17.3
Other foods and drinks.....	9.5	8.3	7.1	7.2	6.2	6.3	6.4	6.2	10.6
Expenditure for foods.....	40.6	44.1	44.7	46.8	44.7	48.6	50.7	50.9	58.2

a One family of 11 persons is not included.

In the preceding table the most important items of expenditure are those for meat and for bread, and it is especially noticeable in the preceding groups that in the case of the larger families the per cent expended for bread, etc., is larger than that expended for meat, while in the case of the smaller families the contrary is true. On the whole, however, the proportion expended for animal foods increases with the size of the family, and the same is true for vegetable foods.

In the following table the average amount expended for clothing, etc., by size of family, is given for three classes of families.

## AVERAGE EXPENDITURES FOR CLOTHING, LAUNDRY, ETC., OF 852 FAMILIES, BY FAMILY GROUPS.

Item.	Average expenditure per family of—			
	2 to 4 persons.	5 or 6 persons.	Over 6 persons.	All families.
Clothing.....	\$47.94	\$58.40	\$65.54	\$54.18
Linen (including bed linen).....	5.54	6.18	5.97	5.84
Laundry and cleaning of clothing and linen.....	6.79	7.64	7.46	7.19
Total.....	60.27	72.22	78.97	67.22

In spite of the increased need for additional clothing, linen, etc., of the larger families, the amount of the increase as shown in the preceding table is but small, and similarly the increases in expenditures for laundry, cleaning, etc., show but slight increases in the larger families as compared with the smaller families.

The expenditures for miscellaneous purposes are shown in the following table for 852 families, classified into three groups.

AVERAGE AMOUNT AND PER CENT OF EXPENDITURES FOR MISCELLANEOUS PURPOSES OF 852 FAMILIES, BY FAMILY GROUPS.

Item.	Average amount per family.			Per cent of total expenditures.		
	421 families of 2 to 4 persons each.	317 families of 5 or 6 persons each.	114 families of over 6 persons each.	421 families of 2 to 4 persons each.	317 families of 5 or 6 persons each.	114 families of over 6 persons each.
Health and physical care.....	\$12.87	\$11.80	\$10.14	2.6	2.1	1.7
Education, school fees, etc.....	4.18	9.87	12.14	.8	1.8	2.1
Intellectual and social purposes.....	22.45	20.29	18.59	4.5	3.6	3.2
State, commune, church, etc. (including taxes).....	7.50	8.07	6.72	1.5	1.4	1.1
Provident (insurance, relief funds, etc.).....	17.66	19.33	16.00	3.6	3.5	2.7
Transportation.....	7.49	6.78	4.95	1.5	1.2	.8
Personal service.....	2.71	3.98	3.23	.6	.7	.6
Present, gifts, etc.....	3.22	3.27	2.70	.7	.6	.5
Debts and interest.....	4.17	6.81	6.90	.8	1.2	1.2
Trade and occupational expenses.....	1.49	3.23	1.12	.3	.6	.2
Other cash expenditures.....	11.43	11.32	12.35	2.3	2.0	2.1
Expenditures in kind.....	.13	.36	1.31	(a)	.1	.2
Savings.....	6.57	6.09	4.46	1.3	1.1	.8

<sup>a</sup> Less than 0.1 per cent.

In the preceding table the most important item is that of expenditures for health and for physical care, this item including physician's services, medicines, etc., baths, and similar purposes. It shows a regular decrease in the actual amounts and in the proportional amounts with the increase in the size of the family. The item of expenditures for education, school fees, school supplies, etc., naturally increases with the size of the family, both as to the actual amounts expended and the per cent of total expenditures. As was to be expected, the amount expended for intellectual and social purposes decreases as the size of the family increases. The two items of expenditure for state, commune, etc., and for insurance, relief funds, etc., both increase from the smaller families up to the families with six persons, but are smaller for families with more than six persons. The expenditures for payment of debts and for payment of interest show a tendency to increase with the size of the family, as the larger families would be expected to incur debts more frequently than the smaller.

In the preceding table the data relating to expenditures for miscellaneous purposes are given for families classed into three groups. In the following table the same averages are given for families classed into nine groups.

**AVERAGE AMOUNT AND PER CENT OF EXPENDITURES FOR MISCELLANEOUS PURPOSES OF 851 FAMILIES, (a) BY SIZE OF FAMILY.**

**AMOUNT.**

Item.	74 families of 2 persons each.	150 families of 3 persons each.	197 families of 4 persons each.	205 families of 5 persons each.	112 families of 6 persons each.	66 families of 7 persons each.	30 families of 8 persons each.	14 families of 9 persons each.	3 families of 10 persons each.
Health and physical care.....	\$15.65	\$11.64	\$12.75	\$11.20	\$12.91	\$9.54	\$12.10	\$10.50	\$3.98
Education, school fees, etc....	1.57	3.70	5.52	6.92	15.25	13.65	10.68	10.87	3.29
Intellectual and social purposes.....	26.87	20.88	21.98	20.38	20.13	18.28	18.12	19.29	26.94
State, commune, church, etc. (including taxes).....	7.73	7.40	7.50	7.71	8.73	6.47	6.30	8.69	8.90
Provident (insurance, relief funds, etc.).....	14.02	17.79	18.94	18.34	21.14	15.93	15.51	18.99	10.76
Transportation.....	10.92	7.27	6.38	6.72	6.90	4.47	4.19	7.83	8.86
Personal service.....	3.76	2.74	2.29	3.90	4.14	3.51	2.67	3.85	.21
Presents, gifts, etc.....	3.72	3.83	2.58	3.32	3.18	2.83	2.09	2.48	6.84
Debts and interest.....	4.14	3.69	4.56	3.98	12.00	8.21	3.99	8.95	.....
Trade and occupational expenses.....	2.00	1.10	1.59	2.63	4.34	.84	1.93	.23	1.70
Other cash expenditures.....	11.82	11.03	11.59	11.33	11.29	12.39	10.64	17.03	7.71
Expenditures in kind.....	.23	.06	.14	.29	.49	1.06	2.31	.68	.....
Savings.....	8.36	7.12	5.49	6.04	6.19	4.75	3.50	2.92	9.52

**PER CENT OF TOTAL EXPENDITURES.**

Health and physical care....	3.2	2.5	2.5	2.1	2.2	1.7	2.2	1.6	0.6
Education, school fees, etc....	.3	.8	1.1	1.3	2.5	2.4	1.9	1.6	.5
Intellectual and social purposes.....	5.5	4.3	4.3	3.8	3.4	3.2	3.3	2.9	4.1
State, commune, church, etc. (including taxes).....	1.6	1.5	1.5	1.4	1.5	1.1	1.1	1.3	1.4
Provident (insurance, relief funds, etc.).....	2.9	3.7	3.7	3.4	3.5	2.8	2.8	2.8	1.6
Transportation.....	2.2	1.5	1.3	1.3	1.2	.8	.8	1.2	1.4
Personal service.....	.8	.5	.5	.7	.7	.6	.5	.6	(b)
Presents, gifts, etc.....	.7	.8	.5	.6	.5	.5	.4	.4	1.0
Debts and interest.....	.8	.7	.9	.7	2.0	1.4	.7	1.3	.....
Trade and occupational expenses.....	.4	.2	.3	.5	.7	.2	.3	(b)	.3
Other cash expenditures.....	2.4	2.3	2.3	2.1	1.9	2.2	1.9	2.6	1.2
Expenditures in kind.....	(b)	(b)	(b)	.1	.1	.2	.4	.1	.....
Savings.....	1.7	1.5	1.1	1.1	1.0	.8	.6	.4	1.5

<sup>a</sup> One family of 11 persons not included.

<sup>b</sup> Less than 0.1 per cent.

In the following table the per capita expenditures for the principal purposes are shown according to the size of the family:

## EXPENDITURES PER CAPITA FOR PRINCIPAL ITEMS OF EXPENDITURE OF 852 FAMILIES, BY SIZE OF FAMILY.

Number of persons in family.	Per capita expenditure for—					
	Food.	Clothing.	Dwelling (rent and maintenance of).	Heating and lighting.	Other expenses.	Total expenses.
2 persons.....	\$99.49	\$29.63	\$50.92	\$9.83	\$55.38	\$245.25
3 persons.....	71.10	18.60	32.02	6.72	32.75	161.19
4 persons.....	56.72	16.02	23.52	5.26	25.33	126.85
5 persons.....	50.49	13.60	18.88	4.34	20.55	107.86
6 persons.....	44.80	13.32	16.88	4.05	21.12	100.12
7 persons.....	39.59	10.83	13.19	3.21	14.56	81.48
8 persons.....	35.19	8.86	10.70	2.97	11.75	69.47
9 persons.....	37.83	11.66	9.78	2.54	12.48	74.29
10 persons.....	38.09	7.93	8.46	2.10	8.87	65.45
11 persons.....	37.24	11.05	6.25	3.96	7.62	66.12
2 to 4 persons.....	65.96	18.31	29.21	6.22	30.95	150.65
5 or 6 persons.....	48.24	13.49	18.07	4.22	20.77	104.79
Over 6 persons.....	38.04	10.36	11.76	3.02	13.20	76.38
All families.....	52.21	14.49	20.59	4.66	22.68	114.63

In the preceding table the last column shows that for all of the 852 families the per capita expenditure for all purposes was \$114.63. There is, of course, a tendency to a gradual decrease in the amount expended per capita in the larger families, though this does not hold true in the case of the very large families.

**EXPENDITURES OF FAMILIES, CLASSIFIED BY AMOUNT OF EXPENDITURE.**

The objects for which the family income is expended, according to the amount of income of the family, is given special consideration in the report. The following table gives the classification used in grouping the families by amount of expenditure, together with the average expenditure of the families in each class:

**AVERAGE EXPENDITURES OF 852 FAMILIES, CLASSIFIED BY TOTAL FAMILY EXPENDITURE.**

Classification of expenditure.	Number of families in each group.	Average expenditure per family.
Under 1,200 M. (\$285.60).....	13	\$255.65
1,200 to 1,600 M. (\$285.60 to \$380.80).....	171	342.07
1,600 to 2,000 M. (\$380.80 to \$476).....	234	428.86
2,000 to 2,500 M. (\$476 to \$595).....	190	526.64
2,500 to 3,000 M. (\$595 to \$714).....	103	645.85
3,000 to 4,000 M. (\$714 to \$952).....	102	805.96
4,000 to 5,000 M. (\$952 to \$1,190).....	34	1,031.19
Over 5,000 M. (\$1,190).....	5	1,396.69

Classified into the five principal groups of expenditure, the average amounts expended by the families as grouped in the preceding table are shown in the following table both for the amounts and for the percentage distribution of the total expenditures.

**AVERAGE AMOUNT AND PER CENT OF EXPENDITURES FOR SPECIFIED PURPOSES,  
OF 852 FAMILIES, CLASSIFIED BY TOTAL FAMILY EXPENDITURE.**

**AMOUNT.**

Items.	13 fam- ilies ex- pend- ing under 1,200 M. (\$285.60).	171 fam- ilies ex- pend- ing 1,200 to 1,600 M. (\$285.60 to \$380.80).	234 fam- ilies ex- pend- ing 1,600 to 2,000 M. (\$380.80 to \$476).	190 fam- ilies ex- pend- ing 2,000 to 2,500 M. (\$476 to \$595).	103 fam- ilies ex- pend- ing 2,500 to 3,000 M. (\$595 to \$714).	102 fam- ilies ex- pend- ing 3,000 to 4,000 M. (\$714 to \$952).	34 fam- ilies ex- pend- ing 4,000 to 5,000 M. (\$952 to \$1,190).	5 fam- ilies ex- pend- ing over 5,000 M. (\$1,190).	All fam- ilies.
Foods and drinks....	\$138.64	\$186.71	\$218.53	\$253.21	\$275.60	\$307.17	\$338.70	\$423.74	\$242.17
Clothing, laundry, etc .....	23.50	32.44	49.37	66.39	92.23	113.26	151.77	208.33	67.22
Dwelling (rent and maintenance of)....	51.00	58.90	77.01	92.62	116.54	149.17	198.78	207.52	95.50
Heating and lighting.....	15.53	16.62	19.10	20.94	25.42	29.44	32.00	42.60	21.62
Miscellaneous ex- penditures .....	26.68	47.41	64.86	93.47	136.05	206.93	309.93	514.49	105.19
Average total..	255.65	342.07	428.86	526.64	645.85	805.96	1,031.19	1,396.69	531.70

**PER CENT OF TOTAL EXPENDITURES.**

Foods and drinks.....	54.2	54.6	51.0	48.1	42.7	38.1	32.8	30.3	45.5
Clothing, laundry, etc.....	9.2	9.5	11.5	12.6	14.3	14.0	14.7	14.9	12.6
Dwelling (rent and main- tenance of) .....	20.0	17.2	18.0	17.6	18.0	18.5	19.3	14.9	18.0
Heating and lighting.....	6.2	4.8	4.5	4.0	3.9	3.6	3.1	3.1	4.1
Miscellaneous expenditures..	10.4	13.9	15.0	17.7	21.1	25.8	30.1	36.8	19.8

All five kinds of expenditure show an increase with the grade of expenditure of the family, but the degree of increase shows considerable variation for the different items. The outlay for foods in the families of highest grade of expenditure is approximately three times that of the families with the lowest grade of expenditure. The expenditures for clothing, etc., show a much more rapid increase, being approximately nine times as much in the family with the highest expenditures as compared with the families having the lowest expenditures. The third item, that for dwelling, in the families with the highest grade of expenditure is approximately four times what it is in the families with the lowest grade. The expenditure for heating and lighting shows the least increase of any of the classes of expenditure here given, while that for miscellaneous purposes shows the largest increase of all, the families with the highest grade of expenditure having approximately twenty times that of families of the lowest grade. In other words, the families with the highest amount of expenditure show the lowest percentage disbursed for absolute necessities in each instance and a marked increase in the items for other purposes. The most irregular item is that for house rent, etc.; in the families with the lowest grade of expenditures this item comprises about 20 per cent of the expenditures, in the next five grades of expenditure it fluctuates between 17.2 and 18.5 per cent, while in families with the very highest grade of expenditure it is much less than in any of the others, though in the grade of expenditures next to the highest it is practically the same as in the lowest grade.

As by far the most important item in all of the families is that of expenditures for food, the following table shows the average amounts

spent on the principal items of food, with the 852 families grouped into eight classes of expenditure:

AVERAGE AMOUNT AND PER CENT OF EXPENDITURES FOR FOOD, OF 852 FAMILIES, CLASSIFIED BY TOTAL FAMILY EXPENDITURE.

## AMOUNT.

Kind.	13 fam- ilies ex- pend- ing under 1,200 M. (\$285.60).	171 fam- ilies ex- pend- ing 1,200 to 1,600 M. (\$285.60 to \$380.80).	234 fam- ilies ex- pend- ing 1,600 to 2,000 M. (\$380.80 to \$476).	190 fam- ilies ex- pend- ing 2,000 to 2,500 M. (\$476 to \$595).	103 fam- ilies ex- pend- ing 2,500 to 3,000 M. (\$595 to \$714).	102 fam- ilies ex- pend- ing 3,000 to 4,000 M. (\$714 to \$952).	34 fam- ilies ex- pend- ing 4,000 to 5,000 M. (\$952 to \$1,190).	5 families expend- ing over 5,000 M. (\$1,190).
Meat (including ham, bacon, etc.)	\$23.24	\$32.12	\$38.75	\$46.37	\$56.86	\$62.08	\$69.27	\$85.94
Sausage	5.86	12.72	13.46	14.27	14.96	15.60	16.76	23.98
Fish (including smoked fish)	1.28	2.85	3.44	3.89	4.06	5.20	5.50	9.72
Butter	11.80	13.43	18.43	21.15	27.56	30.25	36.84	50.55
Suet, margarine, etc.	4.55	8.30	10.28	9.78	9.84	7.56	7.19	6.99
Cheese	2.15	3.12	3.88	4.45	4.21	4.33	4.71	6.28
Eggs	4.08	5.17	6.39	7.66	9.16	10.81	10.28	13.74
Potatoes	6.80	6.78	7.59	8.63	8.42	8.41	8.46	11.69
Green vegetables	4.51	4.28	5.02	6.28	7.43	9.29	11.07	14.36
Salt, spices, oil	2.38	2.13	1.86	2.41	2.69	2.66	2.70	4.15
Sugar, sirup, honey	3.54	5.01	5.98	6.64	6.67	8.14	7.83	6.37
Flour, rice, legumes, etc.	5.78	6.42	6.41	7.13	7.48	8.55	9.23	8.60
Fruit	2.52	3.63	5.86	6.64	8.75	11.27	15.98	17.58
Bread and pastry	25.53	32.51	37.62	41.08	42.36	46.11	48.80	53.38
Coffee and coffee substitu- tutes	4.92	5.27	5.56	6.84	7.14	7.34	8.03	6.83
Tea, chocolate, cocoa	1.86	1.08	1.79	2.03	2.73	3.76	3.70	2.85
Milk	14.82	20.26	22.83	25.16	25.47	30.51	33.90	35.49
Other drinks at home	5.92	7.49	6.51	8.78	9.58	9.42	10.59	16.77
Other food products	.06	.35	.37	.52	.74	1.40	1.39	1.28
Cigars and tobacco	2.75	3.27	4.05	5.22	5.61	7.00	8.75	12.95
Expenditures in restau- rants	5.29	10.52	12.45	18.28	13.88	17.48	17.72	34.24
Animal foods	67.78	97.97	117.46	132.73	152.12	166.34	184.45	232.69
Vegetable foods	48.68	58.63	68.48	76.40	81.11	91.77	101.37	111.98
Other foods and drinks	22.18	30.11	32.59	44.08	42.37	49.06	52.88	79.07
Expenditures for foods	138.64	186.71	218.53	253.21	275.60	307.17	338.70	423.74
Total expenditures	255.65	342.07	428.86	526.64	645.85	805.96	1,031.19	1,396.69

## PER CENT OF TOTAL EXPENDITURES.

Meat (including ham, bacon, etc.)	9.1	9.4	9.0	8.8	8.8	7.7	6.7	6.2
Sausage	2.3	3.7	3.1	2.7	2.3	1.9	1.6	1.7
Fish (including smoked fish)	.5	.8	.8	.7	.6	.6	.5	.7
Butter	4.6	3.9	4.3	4.0	4.3	3.8	3.6	3.0
Suet, margarine, etc.	1.8	2.4	2.4	1.9	1.5	.9	.7	.5
Cheese	.8	.9	.9	.8	.7	.5	.5	.4
Eggs	1.6	1.5	1.5	1.4	1.4	1.3	1.0	1.0
Potatoes	2.6	2.0	1.8	1.6	1.3	1.0	.8	.8
Green vegetables	1.8	1.3	1.2	1.2	1.2	1.2	1.1	1.0
Salt, spices, oil	.9	.6	.4	.5	.4	.3	.3	.3
Sugar, sirup, honey	1.4	1.5	1.4	1.3	1.0	1.0	.8	.5
Flour, rice, legumes, etc.	2.3	1.9	1.5	1.3	1.2	1.1	.9	.6
Fruit	2.0	1.1	1.4	1.3	1.4	1.4	1.5	1.3
Bread and pastry	10.0	9.5	8.8	7.8	6.6	5.7	4.7	3.8
Coffee and coffee substitu- tutes	1.9	1.5	1.3	1.3	1.1	.9	.8	.5
Tea, chocolate, cocoa	.3	.3	.4	.4	.4	.5	.4	.2
Milk	5.8	5.9	5.3	4.8	3.9	3.8	3.3	2.5
Other drinks at home	2.3	2.2	1.5	1.7	1.5	1.2	1.0	1.2
Other food products	(a)	.1	.1	.1	.1	.2	.1	.1
Cigars and tobacco	1.1	1.0	1.0	1.0	.9	.9	.8	.9
Expenditures in restau- rants	2.1	3.1	2.9	3.5	2.1	2.2	1.7	2.5
Animal foods	26.5	28.5	27.3	25.1	23.5	20.5	17.9	16.6
Vegetable foods	19.1	17.3	16.1	14.5	12.7	11.4	9.8	8.0
Other foods and drinks	8.6	8.8	7.6	8.5	6.5	6.2	5.1	5.7
Expenditures for foods	54.2	54.6	51.0	48.1	42.7	38.1	32.8	30.3

(a) Less than 0.1 per cent.

At the bottom of each of the preceding tables the food products are classed into animal, vegetable, and other foods; the expenditure for each of these three classes increases with the prosperity of the family, while with the exception of expenditures for animal food in the case of families having the lowest expenditures, the percentage of the total expenditures regularly decreases for each of them. The most conspicuous change in these three groups is that shown in the proportion of income spent on vegetable food products; for the family with the lowest grade of expenditure this item takes 19.1 per cent of the total expenditures, while in the highest grade of expenditures it is less than one-half of this proportion. The expenditures for animal food comprise 26.5 per cent of all the expenditures in the families of the lowest grade, and this shows a general tendency to decrease, and in the family with the highest grade of expenditure comprises only 16.6 per cent of the total expenditures.

The separate items of food are also of special interest on account of their importance in the total expenditures of the families. The amounts paid for meats, etc., increased from \$23.24 in the families with the lowest grade of expenditure to \$85.94 in the families with the highest grade of expenditure. The amounts expended for sausage fluctuate considerably, but show the same tendency to an increase as for other meat products. Expenditures for fish increase gradually with the various classes, and the difference between the extremes of expenditure for this item of food is quite marked, the families of the highest grade showing approximately eight times the amount expended for this item by the families of the lowest grade of expenditure. The absolute amounts expended for potatoes increase but slightly, while the expenditures for green vegetables rise quite rapidly. Next to meat products, the amount expended for bread and pastry is the most important of the expenditures for foods; this item averages \$25.53 in the families with the lowest grade of expenditure, and rises to \$53.38 in families with the highest grade of expenditure. Furthermore, while it comprises 10 per cent of all expenditures of families of the lowest grade, it comprises only 3.8 per cent in the case of families of the highest grade of expenditure. For milk the expenditures increase from \$14.82 in the lowest grade to \$35.49 in the highest grade of expenditure, the increase being constant throughout the classes of increasing expenditures. The item of expenditures for cigars, tobacco, etc., is \$2.75 in families of the lowest grade, and increases regularly up to \$12.95 in families of the highest grade of expenditure; it is interesting to note that this expenditure forms almost the same per cent of the total expenditures



throughout all the classes of expenditures used in the preceding tables.

In the preceding table the families were classed into eight groups according to expenditures. The same data presented in summary form for three classes of families grouped according to their expenditures are presented in the following table, which also gives the ratios which the items of food comprise of the total expenditure and of the expenditure for food:

AVERAGE EXPENDITURES FOR FOOD IN 852 FAMILIES, GROUPED BY TOTAL FAMILY EXPENDITURE.

Kind.	Expenditure for food in families, with total expenditures of—								
	Under 2,000 M. (\$476).			2,000 to 3,000 M. (\$476 to \$714).			Over 3,000 M. (\$714).		
	Average amount.	Per cent of total.	Per cent of food expenditures.	Average amount.	Per cent of total.	Per cent of food expenditures.	Average amount.	Per cent of total.	Per cent of food expenditures.
Meat, (including ham, bacon, etc.).....	\$35.56	9.2	17.5	\$50.06	8.8	19.2	\$64.66	7.3	20.3
Sausage.....	12.91	3.3	6.4	14.51	2.6	5.6	16.17	1.8	5.1
Fish (including smoked fish).....	3.13	.8	1.5	3.95	.7	1.5	5.43	.6	1.7
Butter.....	16.17	4.2	8.0	23.40	4.1	9.0	32.56	3.7	10.2
Suet, margarine, etc.....	9.29	2.4	4.6	9.80	1.7	3.7	7.45	.9	2.3
Cheese.....	3.52	.9	1.7	4.37	.8	1.7	4.49	.5	1.4
Eggs.....	5.82	1.5	2.9	8.18	1.4	3.1	10.79	1.2	3.4
Potatoes.....	7.23	1.9	3.6	8.56	1.5	3.3	8.54	1.0	2.7
Green vegetables.....	4.70	1.2	2.3	6.69	1.2	2.6	9.89	1.1	3.1
Salt, spices, oil.....	1.99	.5	1.0	2.51	.4	.9	2.72	.3	.9
Sugar, sirup, honey.....	5.51	1.4	2.7	6.65	1.2	2.5	8.00	.9	2.5
Flour, rice, legumes, etc.....	6.39	1.6	3.1	7.25	1.3	2.8	8.72	1.0	2.7
Fruit.....	4.84	1.2	2.4	7.39	1.3	2.8	12.63	1.4	4.0
Bread and pastry.....	35.16	9.1	17.3	41.63	7.3	15.9	47.02	5.3	14.7
Coffee and coffee substitutes.....	5.42	1.4	2.7	6.94	1.2	2.7	7.49	.9	2.3
Tea, chocolate, cocoa.....	1.47	.4	.7	2.27	.4	.9	3.71	.4	1.2
Milk.....	21.53	5.5	10.6	25.27	4.5	9.7	31.51	3.6	9.9
Other drinks at home.....	6.89	1.8	3.4	9.06	1.6	3.5	9.97	1.1	3.1
Other food products.....	.35	.1	.2	.60	.1	.2	1.39	.2	.4
Cigars and tobacco.....	3.69	1.0	1.8	5.36	.9	2.0	7.64	.9	2.4
Expenditures in restaurants.....	11.44	2.9	5.6	16.73	2.9	6.4	18.13	2.1	5.7
Animal foods.....	107.94	27.8	53.2	139.55	24.6	53.5	173.06	19.6	54.3
Vegetable foods.....	63.84	16.4	31.4	78.06	13.8	29.9	94.80	10.7	29.7
Other foods and drinks.....	31.25	8.1	15.4	43.47	7.5	16.6	51.05	5.9	16.0
Expenditure for foods.....	203.03	52.3	100.0	261.08	45.9	100.0	318.91	36.2	100.0
Total expenditures.....	387.97			568.54			881.22		

Next to the expenditure for food as presented in the two preceding tables, the expenditures for miscellaneous purposes are of especial interest. The following table shows the data relating to the expenditures for miscellaneous purposes in which the families are grouped into eight classes.

## AVERAGE AMOUNT AND PER CENT OF EXPENDITURES FOR MISCELLANEOUS PURPOSES OF 852 FAMILIES, CLASSIFIED BY TOTAL FAMILY EXPENDITURE.

## AMOUNT.

Items.	13 families expending under 1,200 M. (\$285.60).	171 families expending 1,200 to 1,600 M. (\$285.60 to \$380.80).	234 families expending 1,600 to 2,000 M. (\$380.80 to \$476).	190 families expending 2,000 to 2,500 M. (\$476 to \$595).	103 families expending 2,500 to 3,000 M. (\$595 to \$714).	102 families expending 3,000 to 4,000 M. (\$714 to \$952).	34 families expending 4,000 to 5,000 M. (\$952 to \$1,190).	5 families expending over 5,000 M. (\$1,190).
Health and physical care...	\$3.39	\$4.33	\$6.36	\$9.29	\$16.03	\$27.55	\$47.93	\$36.73
Education, school fees, etc.	.62	1.44	2.27	4.85	8.45	18.33	37.89	107.44
Intellectual and social purposes.....	7.20	11.86	15.52	20.52	27.14	35.11	48.39	65.78
State, commune, church, etc. (including taxes)....	1.82	3.92	5.24	5.87	9.95	15.98	17.45	39.74
Provident (insurance, relief funds, etc.).....	3.70	10.90	13.46	16.90	21.91	28.98	44.14	80.80
Transportation.....	1.62	4.06	5.39	8.10	8.17	9.54	13.11	18.80
Personal service.....	.13	.30	.64	1.93	5.52	9.66	13.72	36.41
Presents, gifts, etc.....	.25	1.11	1.45	3.16	2.98	9.37	7.62	9.90
Debts and interest.....	1.77	1.06	1.63	3.99	11.09	15.15	18.71	7.14
Trade and occupational expenses.....	1.94	1.11	1.79	1.93	2.01	1.97	1.60	63.38
Other cash expenditures...	2.21	5.40	6.89	10.69	13.93	23.93	34.98	29.75
Expenditures in kind.....	.....	.59	.37	.20	.47	.....	1.27	.....
Savings.....	2.02	1.34	8.84	6.05	8.41	11.36	23.12	18.61

## PER CENT OF TOTAL EXPENDITURES.

Health and physical care...	1.3	1.3	1.5	1.8	2.5	3.4	4.7	2.6
Education, school fees, etc.	.2	.4	.5	.9	1.3	2.3	3.7	7.7
Intellectual and social purposes.....	2.8	3.5	3.6	3.9	4.2	4.4	4.7	4.7
State, commune, church, etc. (including taxes)....	.7	1.1	1.2	1.1	1.5	2.0	1.7	2.9
Provident (insurance, relief, funds, etc.).....	1.4	3.2	3.1	3.2	3.4	3.6	4.3	5.8
Transportation.....	.6	1.2	1.3	1.5	1.3	1.2	1.3	1.4
Personal service.....	.1	.1	.1	.4	.8	1.2	1.3	2.6
Presents, gifts, etc.....	.1	.3	.3	.6	.5	1.2	.7	.5
Debts and interest.....	.7	.3	.4	.8	1.7	1.9	1.8	.6
Trade and occupational expenses.....	.8	.3	.4	.4	.3	.2	.2	4.5
Other cash expenditures...	.9	1.6	1.6	2.0	2.2	3.0	3.4	2.1
Expenditures in kind.....	.....	.2	.1	(a)	.1	.....	.1	.....
Savings.....	.8	.4	.9	1.1	1.3	1.4	2.2	1.3

(a) Less than 0.1 per cent.

As shown by the preceding table, the average expenditure for health and for physical care increases rapidly with the increase in the standard of living of the family, though families with the highest expenditures show a smaller average for this purpose than families in the two lower classes. This increase is probably explained by the fact that the families with the higher grades of expenditures are officials, teachers, etc., who, as a rule, are not connected with compulsory insurance funds or other relief funds providing medical attendance, medicines, etc. The detailed items included in this average, but not given in the above table, show that the families with expenditures of less than 2,000 marks (\$476) have average expenditures of \$3.62 for health, etc., and an average of \$1.82 for physical care, the latter item being about one-half the former. On the other hand, families with expenditures of over 3,000 marks (\$714) have an average expenditure of \$29.40 for health, etc., purposes, and an average expenditure of only

\$3.40 for physical care, etc. The expenditures for education, school fees, school supplies, etc., show a very rapid increase with the increase in the standard of living. In the families with the higher expenditures, this is explained by the fact that children are sent to schools where fees are required instead of to free schools. The amount expended for intellectual and social purposes increases gradually with the increase in the total expenditures, and the per cent of the total expenditures formed by this item shows a similar tendency to increase gradually. The detailed statements furnished by the report on this topic show that the amount expended under this head for newspapers, books, clubs, etc., does not increase very rapidly and that the large increase in the total is due principally to the expenditures for what is designated "pleasure purposes." The expenditures for provident purposes, such as insurance, relief funds, etc., indicate that in all the families about the same amount of the income is put aside for this purpose except in the case of the families with the lowest grade of expenditures and those with the highest grade. One of the most interesting items included in the table is that of savings; it would be expected that the absolute amount put aside would increase with the standard of living of the family, though the proportion of total expenditures devoted to this purpose does not increase as rapidly as one might expect. This may in part be due to the fact that the families with the higher grades of expenditures are principally the families of officials, teachers, etc., who are usually entitled to retirement pensions for which they are not required to contribute.

The data in the preceding table are reproduced in briefer form in the following table in which the 852 families are grouped into 3 classes according to the amount of their expenditures:

AVERAGE EXPENDITURES FOR MISCELLANEOUS PURPOSES OF 852 FAMILIES, GROUPED BY TOTAL FAMILY EXPENDITURE.

Item.	Average amount.			Per cent of total.		
	418 fam- ilies expend- ing under 2,000 M. (\$476).	293 fam- ilies expend- ing from 2,000 to 3,000 M. (\$476 to \$714).	141 fam- ilies expend- ing over 3,000 M. (\$714).	418 fam- ilies expend- ing under 2,000 M. (\$476).	293 fam- ilies expend- ing from 2,000 to 3,000 M. (\$476 to \$714).	141 fam- ilies expend- ing over 3,000 M. (\$714).
Health and physical care.....	\$5.44	\$11.66	\$32.79	1.4	2.0	3.7
Education, school fees, etc.....	1.88	6.11	26.20	.5	1.1	3.0
Intellectual and social purposes.....	13.77	22.85	39.40	3.6	4.0	4.5
State, commune, church, etc. (including taxes).....	4.59	7.30	17.18	1.2	1.3	2.0
Provident (insurance, relief funds, etc.).....	12.11	18.66	34.47	3.1	3.3	3.9
Transportation.....	4.73	8.12	10.73	1.2	1.4	1.2
Personal service.....	.48	3.19	11.59	.1	.6	1.3
Presents, gifts, etc.....	1.27	3.10	8.97	.3	.5	1.0
Debts and interest.....	1.40	6.49	15.73	.4	1.1	1.3
Trade and occupational expenses.....	1.52	1.95	4.06	.4	.3	.5
Other cash expenditure.....	6.14	11.83	26.80	1.6	2.1	3.0
Expenditures in kind.....	.45	.30	.30	.1	.1	(a)
Savings.....	2.76	6.88	14.45	.7	1.2	1.6

<sup>a</sup> Less than 0.1 per cent.

The expenditures of the 852 families, classified by grade of expenditure, are shown in the following table in the form of per capita statements for the five principal groups of expenditure:

EXPENDITURES PER CAPITA FOR SPECIFIED PURPOSES OF 852 FAMILIES, CLASSIFIED BY TOTAL FAMILY EXPENDITURE.

Classification of families and expenditures.	Expenditure per capita for—					
	Foods and drinks.	Clothing, laundry, etc.	Dwelling (rent and maintenance of).	Heating and lighting.	Miscellaneous purposes.	Total.
13 families expending under 1,200 M. (\$285.60).....	\$37.55	\$6.37	\$13.81	\$4.29	\$7.22	\$69.24
171 families expending 1,200 to 1,600 M. (\$285.60 to \$380.80).....	43.68	7.59	13.78	3.88	11.09	80.02
234 families expending 1,600 to 2,000 M. (\$380.80 to \$476).....	48.52	10.96	17.09	4.24	14.40	95.21
190 families expending 2,000 to 2,500 M. (\$476 to \$595).....	54.18	14.20	19.82	4.48	20.00	112.68
103 families expending 2,500 to 3,000 M. (\$595 to \$714).....	56.43	18.89	23.86	5.21	27.86	132.25
102 families expending 3,000 to 4,000 M. (\$714 to \$952).....	60.48	22.30	29.37	5.80	40.75	158.70
34 families expending 4,000 to 5,000 M. (\$952 to \$1,190).....	63.98	28.67	37.55	6.04	58.54	194.78
5 families expending over 5,000 M. (\$1,190).....	70.62	34.72	34.59	7.10	85.75	232.78
418 families expending under 2,000 M. (\$476).....	46.30	9.49	15.69	4.10	12.89	88.47
293 families expending 2,000 to 3,000 M. (\$476 to \$714).....	55.00	15.90	21.28	4.74	22.84	119.76
141 families expending over 3,000 M. (\$714).....	61.77	24.39	31.61	5.91	47.00	170.68
Average for 852 families.....	52.21	14.49	20.59	4.66	22.68	114.63

With the increase in the standard of living of the families, there is at once an increase in the per capita amount expended in the groups which may be designated as those in which substitutions or economies are possible. Thus, in the group of clothing, laundry, etc., the families with the lowest grade of expenditure spend \$6.37 per capita, while the families with the highest grade spend \$34.72 per capita; this is especially marked in the case of the expenditures for miscellaneous purposes, where the families with the lowest grade spend \$7.22 per capita, as compared with \$85.75 per capita in families with the highest grade of expenditure. The per capita expenditures for food are not quite doubled, while the per capita expenditures for dwelling are not quite three times in the families with the highest grade of expenditure as compared with those in the lowest grade.

#### INCOME AND EXPENDITURES OF FAMILIES, ACCORDING TO SIZE OF LOCALITY.

The 852 families included in the investigation come from 125 localities. It is interesting to know that by far the great majority of the families included in the investigation come from large cities having a population of 100,000 or over. The following table presents a summary of the information on this point:

## NUMBER OF FAMILIES LOCATED IN PLACES OF EACH CLASSIFIED SIZE.

Classification.	Population.	Number of families furnishing schedules.
I. Large cities.....	100,000 and more.....	701
II. Medium-size cities.....	20,000 to 100,000.....	81
III. Small towns.....	5,000 to 20,000.....	34
IV. Villages.....	2,000 to 5,000.....	16
V. Rural districts.....	Less than 2,000.....	20

It is obvious that the average expenditures of the families included will be strongly influenced by the fact that the study is principally one of families residing in large cities, and furthermore that the study of the expenditures of families residing in places other than great cities will show greater fluctuations because of the smaller number of instances from each type of community. The cities in which the largest number of families resided are shown in the following list:

## CITIES FROM WHICH TEN OR MORE FAMILY SCHEDULES WERE OBTAINED.

City.	Number of families included.	City.	Number of families included.
Hamburg.....	179	Cassel.....	23
Greater Berlin.....	73	Cologne.....	21
Breslau.....	67	Munich.....	19
Dresden.....	64	Dusseldorf.....	12
Schöneberg.....	52	Deutsch-Wilmersdorf.....	11
Lubeck.....	46	Altona.....	10
Nuremberg.....	45	Barmen.....	10
Kiel.....	43	Frankfort on the Main.....	10
Strassburg.....	29	Magdeburg.....	10
Chemnitz.....	26		

It should be mentioned that of the above cities, Schöneberg and Deutsch-Wilmersdorf are municipalities practically adjoining Berlin but with separate governments.

The average income of the families according to the size of the locality is shown in the following table:

## AVERAGE INCOME OF FAMILIES AND AVERAGE EARNINGS OF THE HUSBAND, ACCORDING TO SIZE OF LOCALITY.

Classification.	Average income per family.	Average salary or earnings of the husband.
I. Large cities.....	\$509.31	\$420.25
II. Medium-size cities.....	522.72	433.18
III. Small towns.....	646.42	559.54
IV. Villages.....	718.05	542.01
V. Rural districts.....	583.52	435.17
All localities.....	521.72	429.67

According to the preceding table the average income of the family shows a tendency to be larger in the smaller localities, though an exception to this rule is formed by the rural district; this, however, is due to the fact that in the large cities the majority of the families reporting were workmen's families, while in the smaller localities the greater number of schedules was received from families of salaried persons, such as officials, teachers, etc.

It is of interest to compare the family income and the husband's income in the large cities. In the following table these data for 17 cities are shown:

AVERAGE INCOME OF FAMILIES AND AVERAGE EARNINGS OF HUSBAND IN 17 CITIES.

Cities from which at least 10 schedules were received.	Average income per family.	Average salary or earnings of the hus- band.	Cities from which at least 10 schedules were received.	Average income per family.	Average salary or earnings of the hus- band.
Greater Berlin.....	\$712. 56	\$622. 95	Chemnitz.....	\$438. 59	\$369. 99
Hamburg.....	516. 29	435. 67	Magdeburg.....	394. 85	321. 73
Munich.....	392. 25	310. 21	Altona.....	438. 96	354. 63
Dresden.....	425. 25	338. 26	Strassburg.....	436. 98	347. 90
Breslau.....	508. 23	409. 97	Kiel.....	443. 71	355. 39
Cologne.....	506. 22	430. 72	Barmen.....	396. 97	341. 70
Frankfort on the Main.....	632. 84	458. 75	Cassel.....	573. 55	412. 98
Nuremberg.....	443. 28	342. 11	Lubeck.....	410. 51	343. 92
Dusseldorf.....	402. 24	378. 92			

In the preceding table are included the cities from which at least ten schedules were received, the cities being arranged according to the number of inhabitants as reported by the census of 1905. On the whole, the data in the table show that there is considerable variation in the earnings of the husband as compared with the total income of the family when arranged by size of locality.

The following tables show the total income, the total expenditure, and the expenditures for items of food of the 852 families included in the study. The families are grouped by size of locality in which they reside, but in addition a special group is given of localities with less than 30,000 inhabitants, to permit of a comparison of communities of this size with all other communities.

AMOUNT AND PER CENT OF INCOME FROM SPECIFIED SOURCES OF 852 FAMILIES,  
ACCORDING TO SIZE OF LOCALITY OF RESIDENCE.

## AMOUNT.

Source.	Localities with less than 30,000 inhabitants.	Large cities.	Medium-size cities.	Small towns.	Villages.	Rural districts.	All localities.
	70 families with 335 persons. <sup>(a)</sup>	701 families with 3,212 persons. <sup>(b)</sup>	81 families with 405 persons. <sup>(c)</sup>	34 families with 161 persons. <sup>(d)</sup>	16 families with 71 persons. <sup>(e)</sup>	20 families with 103 persons. <sup>(f)</sup>	852 families with 3,952 persons. <sup>(g)</sup>
Principal earnings of husband.....	\$36,399.91	\$294,593.37	\$35,087.70	\$19,024.33	\$8,672.18	\$8,703.40	\$366,080.98
Subsidiary earnings of husband.....	1,149.01	8,434.43	778.27	280.66	224.83	643.53	10,361.72
Earnings of wife.....	114.24	11,715.88	389.18	57.12	11.42	45.70	12,219.30
Contribution of children.....	59.95	7,022.50	377.46	.....	.....	59.95	7,459.91
Subletting.....	487.78	7,874.87	573.97	30.94	244.19	212.65	8,936.62
Other cash income.....	5,012.33	25,958.63	4,501.21	2,116.00	1,812.32	1,084.01	35,472.17
Income in kind.....	1,914.29	1,423.58	632.65	469.18	523.86	921.24	3,970.51
Total.....	45,137.51	357,023.26	42,340.44	21,978.23	11,488.80	11,670.48	444,501.21

## PER CENT.

Principal earnings of husband.....	80.6	82.5	82.9	86.6	75.5	74.6	82.4
Subsidiary earnings of husband.....	2.6	2.3	1.8	1.3	1.9	5.5	2.3
Earnings of wife.....	.3	3.3	.9	.3	.1	.4	2.7
Contribution of children.....	.1	2.0	.9	.....	.....	.5	1.7
Subletting.....	1.1	2.2	1.4	.1	2.1	1.8	2.0
Other cash income.....	11.1	7.3	10.6	9.6	15.8	9.3	8.0
Income in kind.....	4.2	.4	1.5	2.1	4.6	7.9	.9

<sup>a</sup> Consisting of 67 married couples, 2 widowers, 1 son as head of family, 155 children under 15, 6 grown children, 37 other persons.

<sup>b</sup> Consisting of 692 married couples, 6 widowers, 2 widows, 1 son as head of family, 1,586 children under 15, 148 grown children, 85 other persons.

<sup>c</sup> Consisting of 81 married couples, 207 children under 15, 20 grown children, 16 other persons.

<sup>d</sup> Consisting of 32 married couples, 1 widower, 1 son as head of family, 74 children under 15, 4 grown children, 17 other persons.

<sup>e</sup> Consisting of 15 married couples, 1 widower, 30 children under 15, 1 grown daughter, 9 other persons.

<sup>f</sup> Consisting of 20 married couples, 51 children under 15, 1 grown daughter, 11 other persons.

<sup>g</sup> Consisting of 840 married couples, 8 widowers, 2 widows, 2 sons as heads of families, 1,948 children under 15, 174 grown children, 138 other persons.

**AMOUNT AND PER CENT OF EXPENDITURES FOR SPECIFIED PURPOSES OF 852 FAMILIES, ACCORDING TO SIZE OF LOCALITY OF RESIDENCE.**

**AMOUNT.**

Groups.	Localities with less than 30,000 inhabitants.	Large cities.	Medium-size cities.	Small towns.	Villages.	Rural districts.	All localities.
	70 families with 335 persons. (a)	701 families with 3,212 persons. (b)	81 families with 405 persons. (c)	34 families with 161 persons. (d)	16 families with 71 persons. (e)	20 families with 103 persons. (f)	852 families with 3,952 persons. (g)
Foods and drinks.....	\$17,792.08	\$169,386.04	\$19,150.66	\$3,698.49	\$4,043.62	\$5,049.97	\$206,328.78
Clothing and cleaning.....	6,991.10	44,254.21	6,027.59	3,300.16	1,643.67	2,047.27	57,272.90
Dwelling (rent and maintenance of).....	7,577.19	66,523.89	7,266.11	4,029.58	1,945.00	1,602.61	81,367.19
Heating and lighting.....	2,105.75	14,402.02	1,911.08	956.34	537.17	612.24	18,418.85
Health and physical care.....	1,475.54	7,768.91	1,069.10	758.37	242.96	474.21	10,313.55
Education, school fees, etc.....	839.82	4,492.40	937.95	512.38	276.25	51.19	6,270.17
Intellectual and social purposes.....	2,405.81	13,744.10	1,852.96	1,120.80	713.87	571.15	18,002.88
State, commune, church, etc. (including taxes).....	994.25	4,754.26	734.24	530.18	234.53	229.54	6,482.75
Insurance, relief funds, etc.....	2,424.82	11,288.06	1,675.82	1,110.68	767.16	546.97	15,388.69
Transportation.....	474.04	5,134.55	260.58	167.74	117.94	188.36	5,869.17
Personal service.....	816.08	1,719.37	236.02	447.67	202.49	165.92	2,771.47
Presents, gifts, etc.....	323.13	2,248.26	132.62	133.10	128.40	61.63	2,704.01
Debts and interest.....	1,053.06	2,830.21	820.99	306.86	392.14	354.06	4,704.26
Occupational expenses.....	31.93	1,388.15	359.69	15.36	11.19	5.38	1,779.77
Other cash expenses.....	1,744.00	7,225.63	838.88	1,091.91	356.96	295.13	9,808.51
Expenditures in kind.....	91.15	90.39	134.96	9.52	50.69	30.94	316.50
Savings.....	763.38	3,891.62	551.62	573.71	51.87	137.80	5,206.62
Total.....	47,903.13	361,142.07	43,960.87	23,762.85	11,715.91	12,424.37	453,006.07
Surplus (+) or deficit (-).....	-2,765.62	-4,118.81	-1,620.43	-1,784.62	-227.11	-753.89	-8,504.86

**PER CENT.**

Foods and drinks.....	37.1	46.9	43.6	36.6	34.5	40.6	45.5
Clothing and cleaning.....	14.6	12.3	13.7	13.9	14.0	16.5	12.6
Dwelling (rent and maintenance of).....	15.8	18.4	16.5	17.0	16.6	12.9	18.0
Heating and lighting.....	4.4	4.0	4.4	4.0	4.6	4.9	4.1
Health and physical care.....	3.1	2.2	2.4	3.2	2.1	3.8	2.3
Education, school fees, etc.....	1.7	1.2	2.1	2.1	2.4	.4	1.4
Intellectual and social purposes.....	5.0	3.8	4.2	4.7	6.1	4.6	4.0
State, commune, church, etc. (including taxes).....	2.1	1.3	1.7	2.2	2.0	1.9	1.4
Insurance, relief funds, etc.....	5.1	3.1	3.8	4.7	6.6	4.4	3.4
Transportation.....	1.0	1.4	.6	.7	1.0	1.5	1.3
Personal service.....	1.7	.5	.5	1.9	1.7	1.3	.6
Presents, gifts, etc.....	.7	.6	.3	.6	1.1	.5	.6
Debts and interest.....	2.2	.8	1.9	1.3	3.4	2.9	1.0
Occupational expenses.....	.1	.4	.8	.1	.1	(h)	.4
Other cash expenses.....	3.6	2.0	1.9	4.6	3.0	2.4	2.2
Expenditures in kind.....	.2	(h)	.3	(h)	.4	.3	.1
Savings.....	1.6	1.1	1.3	2.4	.4	1.1	1.1

a Consisting of 67 married couples, 2 widowers, 1 son as head of family, 155 children under 15, 6 grown children, 37 other persons.

b Consisting of 692 married couples, 6 widowers, 2 widows, 1 son as head of family, 1,586 children under 15, 148 grown children, 85 other persons.

c Consisting of 81 married couples, 207 children under 15, 20 grown children, 16 other persons.

d Consisting of 32 married couples, 1 widower, 1 son as head of family, 74 children under 15, 4 grown children, 17 other persons.

e Consisting of 15 married couples, 1 widower, 30 children under 15, 1 grown daughter, 9 other persons.

f Consisting of 20 married couples, 61 children under 15, 1 grown daughter, 11 other persons.

g Consisting of 840 married couples, 8 widowers, 2 widows, 2 sons as heads of families, 1,948 children under 15, 174 grown children, 138 other persons.

h Less than 0.1 per cent.



## AMOUNT EXPENDED FOR FOOD BY 852 FAMILIES, ACCORDING TO SIZE OF LOCALITY OF RESIDENCE.

Items.	Amount expended for food by families residing in—						
	Localities with less than 30,000 inhabitants.	Large cities.	Medium-size cities.	Small towns.	Villages.	Rural districts.	All localities.
	70 families with 335 persons. (a)	701 families with 3,212 persons. (b)	81 families with 405 persons. (c)	34 families with 161 persons. (d)	16 families with 71 persons. (e)	20 families with 103 persons. (f)	852 families with 3,952 persons. (g)
Meat (incl. ham, bacon, etc.)...	\$3,597.92	\$31,533.45	\$3,514.81	\$1,655.46	\$786.38	\$1,156.09	\$38,646.19
Sausage.....	918.90	9,984.71	1,028.06	467.42	244.06	207.42	11,931.67
Fish (incl. smoked fish).....	447.69	2,595.23	357.46	165.40	59.76	55.94	3,233.79
Butter.....	1,893.38	14,147.12	2,169.36	912.31	456.25	524.82	18,209.86
Suet, margarine, etc.....	409.83	6,739.23	657.07	185.12	84.09	140.63	7,806.14
Cheese.....	209.17	2,826.44	346.29	118.64	46.73	43.80	3,381.90
Eggs.....	704.47	5,026.60	621.05	330.16	126.21	248.10	6,352.12
Potatoes.....	557.72	5,547.80	628.91	289.89	112.74	155.09	6,734.43
Green vegetables.....	441.59	4,416.96	460.33	254.38	100.59	86.62	5,318.88
Salt, spices, oil.....	202.57	1,570.98	176.50	95.47	44.35	62.75	1,950.05
Sugar, sirup, honey.....	618.94	4,199.93	560.22	250.93	152.15	215.86	5,379.09
Flour, rice, legumes, etc.....	556.69	4,939.14	531.10	269.19	129.21	158.29	6,026.93
Fruit.....	599.57	4,866.60	504.16	305.29	146.95	147.33	5,970.33
Bread and pastry.....	2,659.48	27,585.37	3,247.46	1,303.12	624.92	731.43	33,492.30
Coffee and coffee substitutes...	443.77	4,403.62	510.12	210.83	112.48	120.46	5,357.51
Tea, chocolate, cocoa.....	210.34	1,440.82	152.81	96.77	61.60	51.97	1,803.97
Milk.....	1,671.95	17,060.41	2,112.37	906.16	324.49	441.30	20,844.73
Other drinks at home.....	588.90	5,766.12	585.85	323.61	134.05	131.24	6,940.87
Other food products.....	64.12	409.70	43.11	19.05	14.13	30.94	516.93
Cigars and tobacco.....	400.01	3,427.55	361.08	174.71	103.69	121.62	4,188.65
Expenditures in restaurants...	761.63	10,898.27	582.53	364.57	178.79	218.27	12,242.43
Total.....	\$17,792.08	\$169,386.05	\$19,150.65	\$8,698.48	\$4,043.62	\$5,049.97	\$206,328.77

a Consisting of 67 married couples, 2 widowers, 1 son as head of family, 155 children under 15, 6 grown children, 37 other persons.

b Consisting of 692 married couples, 6 widowers, 2 widows, 1 son as head of family, 1,586 children under 15, 148 grown children, 85 other persons.

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d Consisting of 32 married couples, 1 widower, 1 son as head of family, 74 children under 15, 4 grown children, 17 other persons.

e Consisting of 15 married couples, 1 widower, 30 children under 15, 1 grown daughter, 9 other persons.

f Consisting of 20 married couples, 51 children under 15, 1 grown daughter, 11 other persons.

g Consisting of 840 married couples, 8 widowers, 2 widows, 2 sons as heads of families, 1,948 children under 15, 174 grown children, 138 other persons.

h Figures do not add, but are reproduced as given in original report.

Unfortunately the number of families in the two smallest groups of communities is so small that special circumstances unduly affect the distribution of the items under each head. The proportion of income derived from various sources has already been discussed, but a comparison of the relative proportion of the family income derived from the sources mentioned in the large cities, as contrasted with localities with less than 30,000 inhabitants, is of interest. The item of principal earnings of husband shows a tendency to be higher in the large cities, that of subsidiary earnings of husband shows but little difference, while the proportion of income derived from the earnings of the wife and the contribution of the children is distinctly higher

in the large cities as compared with the localities with less than 30,000 inhabitants. Miscellaneous cash income and income in kind are distinctly higher in the last named localities.

A similar comparison of the expenditures shows a marked decrease in the proportion devoted for food, etc., 46.9 per cent being expended in the large cities and 37.1 per cent in the localities with less than 30,000 inhabitants, while the proportion expended for clothing, etc., in the last named localities, is larger than that spent in the large cities. The difference is more than made up by the smaller percentage devoted to expenditures for dwelling.

In the following table the average expenditures of the 852 families for the three principal groups of expenditures according to the size of the locality are shown:

AVERAGE EXPENDITURES FOR FOOD, CLOTHING, AND DWELLING OF 852 FAMILIES, ACCORDING TO SIZE OF LOCALITY.

Classification.	Average expenditures for—			Total expenditures.
	Food.	Clothing.	Dwelling (rent and maintenance of).	
Large cities .....	\$241.63	\$63.13	\$94.90	\$515.18
Medium-size cities .....	236.43	74.42	89.70	542.73
Small towns .....	255.84	97.06	118.52	698.91
Villages .....	252.73	102.73	121.56	732.25
Rural districts .....	252.50	102.36	80.13	621.22
All localities .....	242.17	67.22	95.50	531.70

The total expenditures naturally show the same general tendencies as the total income. In the separate items, as given in the preceding table, the expenditures for food are smallest in the medium-size cities, and are less in the villages and rural districts than they are in the small towns. The expenditures for clothing are larger in the smaller localities, being highest in the village and rural districts. The expenditures for dwelling show a tendency to be higher in the smaller localities, though the expenditures in the rural districts, where they are lowest of all, form an exception to this rule. These facts are in all probability due to the presence of families with the higher grades of expenditure in the smaller communities.

The following table shows the same information for 17 large cities:

AVERAGE EXPENDITURES FOR FOOD, CLOTHING, AND DWELLING OF 852 FAMILIES IN 17 CITIES.

Locality.	Average expenditures per family for—			Total expenditures.
	Food.	Clothing.	Dwelling (rent and maintenance of).	
Greater Berlin.....	\$284.21	\$102.13	\$171.29	\$750.41
Hamburg.....	246.13	55.80	92.90	502.76
Munich.....	216.59	37.88	61.73	392.15
Dresden.....	209.56	44.22	69.55	422.12
Breslau.....	239.67	65.23	95.06	519.11
Cologne.....	262.85	76.53	90.69	522.56
Frankfort on the Main.....	267.06	77.02	128.84	643.53
Nuremberg.....	234.34	47.36	75.91	451.55
Dusseldorf.....	214.52	51.61	80.88	412.43
Chemnitz.....	239.15	54.87	57.05	440.86
Magdeburg.....	201.98	43.06	54.59	378.64
Altona.....	208.97	61.85	85.48	435.14
Strassburg.....	248.72	59.71	69.88	462.99
Kiel.....	223.08	58.91	80.33	451.63
Barmen.....	222.68	46.83	60.03	392.79
Cassel.....	258.91	72.43	99.13	566.44
Lubeck.....	209.95	48.63	61.03	411.80

The distribution of the family expenditure for various purposes is shown in the following table for the five classes of localities:

PER CENT OF EXPENDITURES FOR SPECIFIED PURPOSES OF 852 FAMILIES IN CLASSIFIED LOCALITIES.

Item.	Per cent of total expenditures for specified purposes in—					
	Large cities.	Medium size cities.	Small towns.	Villages.	Rural districts.	All localities.
Foods and drinks.....	46.9	43.6	36.6	34.5	40.6	45.5
Clothing, laundry, etc.....	12.3	13.7	13.9	14.0	16.5	12.6
Dwelling (rent and maintenance of).....	18.4	16.5	17.0	16.6	12.9	18.0
Heating, lighting.....	4.0	4.4	4.0	4.6	4.9	4.1
Health and physical care.....	2.2	2.4	3.2	2.1	3.8	2.3
Education, school fees, etc.....	1.2	2.1	2.1	2.4	.4	1.4
Intellectual and social purposes.....	3.8	4.2	4.7	6.1	4.6	4.0
State, commune, church, etc. (including taxes).....	1.3	1.7	2.2	2.0	1.9	1.4
Provident (insurance, relief funds, etc.).....	3.1	3.8	4.7	6.6	4.4	3.4
Transportation.....	1.4	.6	.7	1.0	1.5	1.3
Personal service.....	.5	.5	1.9	1.7	1.3	.6
Presents, gifts, etc.....	.6	.3	.6	1.1	.5	.6
Debts and interest.....	.8	1.9	1.3	3.4	2.9	1.0
Trade and occupational expenses.....	.4	.8	.1	.1	(a)	.4
Other cash expenditures.....	2.0	1.9	4.6	3.0	2.4	2.2
Expenditures in kind.....	(a)	.3	(a)	.4	.3	.1
Savings.....	1.1	1.3	2.4	.4	1.1	1.1

(a) Less than 0.1 per cent.

It must be remembered that the families in the large cities are principally workmen's families, while the families in the smaller places are principally those of officials and of teachers. This explains why the expenditures for the items other than the necessities of existence are so much higher in the smaller than in the larger localities.

# INCOME AND EXPENDITURES, ACCORDING TO OCCUPATION OF HEAD OF FAMILY.

## INCOME, BY OCCUPATIONS.

The occupation of the head of the family influences the family budget to almost the same degree as the size of the family and its standard of living. The occupation is not only of great importance in determining the amount of the income, but also strongly influences the direction and amount of the expenditures. In the present study two principal groups of occupations are recognized; the first group consists of wage-earners, or workmen engaged in industrial, commercial, or other establishments, while the second large group comprises persons who are designated as salaried persons or officials, and includes government officials of various ranks, teachers in either public or private institutions, and salaried persons in the employ of private establishments. The following table gives a summary statement of the income of each class of occupation, together with a statement of the source of income:

AVERAGE INCOME OF FAMILIES, CLASSIFIED BY OCCUPATION OF HEAD OF FAMILY, WITH AMOUNT AND PER CENT OF INCOME FROM SPECIFIED SOURCES.

### AMOUNT.

Occupation of head of family.	Number of families in each class.	Total.	Income from—						
			Husband.		Earnings of wife.	Contribution of the children.	Subletting.	Other cash income.	Income in kind.
			Principal earnings.	Subsidiary earnings.					
All families.....	852	\$521.72	\$429.67	\$12.16	\$14.34	\$8.76	\$10.49	\$41.64	\$4.66
A. Workmen.....	522	436.82	358.88	9.77	18.86	10.59	12.61	24.32	1.79
I. Industrial establishments.....	436	444.10	365.68	10.25	17.60	10.20	13.32	25.15	1.90
a. Skilled.....	382	448.79	373.53	10.63	15.61	10.10	12.42	24.93	1.57
b. Unskilled.....	54	410.91	310.12	7.57	31.70	10.91	19.69	26.70	4.22
II. Commercial establishments.....	53	413.48	327.06	6.55	26.46	15.75	10.90	24.80	1.96
III. Not classified.....	33	378.14	320.27	8.64	23.31	7.36	6.02	12.54	.....
B. Salaried persons in private employ.....	36	581.12	478.88	7.69	18.97	7.87	6.11	59.17	2.43
C. Teachers.....	79	784.05	655.23	42.91	1.67	.....	1.35	66.97	15.92
D. Officials of secondary rank.....	139	681.09	565.66	6.47	2.43	3.33	8.24	87.85	7.11
E. Subordinate officials.....	67	496.07	403.16	9.79	5.88	16.61	10.61	40.85	9.17

### PER CENT.

Occupation of head of family.	Number of families in each class.	Total.	Principal earnings.	Subsidiary earnings.	Earnings of wife.	Contribution of the children.	Subletting.	Other cash income.	Income in kind.
All families.....	852	100	82.4	2.3	2.7	1.7	2.0	8.0	0.9
A. Workmen.....	522	100	82.2	2.2	4.3	2.4	2.9	5.6	.4
I. Industrial establishments.....	436	100	82.3	2.3	4.0	2.3	3.0	5.7	.4
a. Skilled.....	382	100	83.2	2.4	3.5	2.2	2.8	5.6	.3
b. Unskilled.....	54	100	75.5	1.8	7.7	2.7	4.8	6.5	1.0
II. Commercial establishments.....	53	100	79.1	1.6	6.4	3.8	2.6	6.0	.5
III. Not classified.....	33	100	84.7	2.3	6.2	1.9	1.6	3.3	.....
B. Salaried persons in private employ.....	36	100	82.4	1.3	3.3	1.4	1.0	10.2	.4
C. Teachers.....	79	100	83.6	5.5	.2	.....	.2	8.5	2.0
D. Officials of secondary rank.....	139	100	83.1	.9	.4	.5	1.2	12.9	1.0
E. Subordinate officials.....	67	100	81.3	2.0	1.2	3.3	2.1	8.2	1.9

According to the preceding table the highest income reported by the families is that of the teachers; this is followed by the officials of secondary rank, salaried persons in private employ, subordinate officials, skilled industrial workmen, workmen in commercial establishments, unskilled industrial workmen, and workmen not classified. The principal source of income, of course, consists of the earnings of the husband, which ranges from 84.7 per cent of the total family income in the case of workmen not classified to 75.5 per cent in the case of unskilled industrial workmen. The subsidiary income of the husband is most important in the case of teachers, where it forms 5.5 per cent of the total family income. This subsidiary income, according to the report, is principally derived from giving private instruction and from services rendered in connection with churches. The subsidiary income of the husband is of least importance in the families of officials of secondary rank, where it forms only 0.9 per cent of the total family income. The income of the wife is of greatest importance in the case of the families of unskilled industrial workmen, where it forms 7.7 per cent of the total family income, and is of least importance in the families of teachers. The highest per cents of the family income derived from the earnings of the children are shown in the families of workmen engaged in commercial establishments and in the families of subordinate officials, in both cases being over 3 per cent of the total family income, while the children of teachers show no contribution at all to the family income. The income derived from subletting of the dwelling is most important in the case of the workmen and of the lower grade officials. It should be stated that the teachers and the officials, but especially the teachers, live principally in the smaller communities, where the opportunities of securing an income from subletting are not so frequent as in the case of the workmen who live in the large cities, which may perhaps explain the relative unimportance of this item of income in the families of officials.

The income of 40 different occupations included in the investigation, with the source of income, is shown in the following table:

AVERAGE AMOUNT OF INCOME AND PER CENT DERIVED FROM SPECIFIED SOURCES, OF 852 FAMILIES, CLASSIFIED BY OCCUPATION OF HEAD OF FAMILY.

Occupation of head of family.	Number of families.	Average income per family.	Per cent of family income from—						
			Principal earnings of husband.	Subsidiary earnings of husband.	Earnings of wife.	Contribution of children.	Subletting.	Other cash income.	Income in kind.
Civil engineers, constructors.....	3	\$881.99	85.5	1.4	.....	.....	.....	13.1	.....
Teachers.....	79	784.05	83.6	5.5	0.2	.....	0.2	8.5	2.0
Officials of secondary rank.....	129	698.13	83.2	.6	.3	0.5	1.0	13.3	1.1
Salaried persons in private firms.....	17	616.94	83.4	2.3	2.8	1.0	.2	9.5	.8
Molders.....	11	495.96	94.4	.6	.7	1.2	.....	3.1	.....
Printers, lithographers.....	10	523.33	83.8	1.7	.....	.....	3.8	5.6	.1
Independent business men (industrial).....	4	525.74	87.5	.1	2.0	.....	5.4	.7	4.3
Machinery setters up, mounters, etc.....	6	578.29	79.4	.2	1.2	13.5	4.5	1.2	.....
Commercial employees.....	19	549.07	81.4	.3	3.7	1.8	1.9	10.9	.....
Compositors.....	16	471.56	89.7	4.6	.5	.3	.....	4.9	.....
Subordinate officials.....	67	496.07	81.3	2.0	1.2	3.3	2.1	8.2	1.9
Locksmiths.....	21	442.24	88.9	1.3	.9	.8	4.0	4.1	.....
Skilled workmen in building trades (not including masons, carpenters, painters).....	18	477.41	81.4	.3	2.7	5.0	3.4	7.0	.2
Skilled workmen in various trades.....	31	450.59	85.9	1.2	1.6	2.8	1.9	5.7	.9
Carpenters.....	20	480.47	80.5	2.3	4.3	3.0	2.9	6.8	.2
Masons.....	41	462.48	82.4	2.2	3.7	4.1	1.5	5.0	1.1
Dock and wharf laborers.....	17	459.93	82.4	.....	4.5	5.4	3.7	3.7	.3
Skilled workmen in metal industries (not including molders, tinmiths, blacksmiths, locksmiths).....	21	450.32	83.5	2.0	5.7	.2	2.4	6.0	.2
Skilled workmen in machinery trades (not including shipwrights, machine builders).....	11	437.32	85.2	.8	7.1	.....	3.2	3.7	.....
Officials of secondary rank not permanently appointed.....	10	461.27	80.0	8.2	2.3	.....	5.1	4.4	.....
Gardeners.....	12	447.66	82.3	5.5	.5	3.7	2.8	3.4	1.8
Skilled workmen in food industries (not including bakers).....	7	479.11	75.7	3.0	6.3	.....	9.2	5.8	.....
Blacksmiths.....	12	432.93	81.6	5.2	5.2	.8	2.3	3.2	1.7
Tinmiths.....	10	444.70	79.1	.5	6.1	1.8	3.7	8.8	(9)
Cabinetmakers.....	42	432.00	81.4	1.9	4.4	3.1	3.7	5.5	.....
Painters.....	26	424.98	81.5	3.8	6.6	.3	2.0	5.7	.1
Saddlers.....	11	423.49	81.2	3.9	2.6	.....	5.2	7.1	.....
Bakers and confectioners.....	7	446.77	76.3	9.6	2.7	.8	6.6	4.0	.....
Shipwrights, ship carpenters.....	10	426.85	79.4	7.4	3.7	.2	.9	8.4	.....
Skilled workmen in woodworking (not including cabinetmakers).....	15	388.52	87.2	.9	4.6	.6	.8	5.9	.....
Street-railway workers.....	7	412.10	79.4	1.0	2.2	3.2	5.3	8.0	.9
Tailors.....	8	397.13	81.3	1.6	.5	.5	7.8	8.2	.1
Laborers, not specified.....	33	398.14	84.7	2.3	6.2	1.9	1.6	3.3	.....
Textile workers.....	10	402.84	79.4	.4	6.7	5.3	.7	7.4	.1
House servants, messengers.....	9	379.87	82.1	1.7	2.6	2.0	1.5	8.5	1.6
Skilled workmen in clothing trades (not including tailors).....	6	399.83	78.0	2.1	2.9	4.0	2.9	10.1	.....
Unskilled industrial workmen.....	54	410.91	75.5	1.8	7.7	2.7	4.8	6.5	1.0
Coachmen, teamsters.....	7	350.80	82.8	2.2	(9)	2.3	.4	12.3	.....
Street laborers.....	13	410.49	70.5	3.8	16.9	3.7	1.3	3.8	.....
Women (widows, heads of families).....	2	482.03	.....	.....	81.6	7.7	5.8	4.9	.....

<sup>a</sup> Less than 0.1 per cent.

In the preceding table the occupations are arranged in the order of the amount of the principal earnings of the husband. It is noticeable that, arranged in this order, the arrangement of the families is different from what it would be if they were placed in order of total family income, indicating that the degree to which the husband's income is supplemented by income from other sources varies greatly in the different occupations. Among the workmen included in

the lists of the preceding table the highest earnings are shown by molders, printers, lithographers, machine mounters, compositors, locksmiths, and other skilled workmen. Attention should be called to the fact that the earnings of the workmen included in this investigation are by no means typical earnings or average earnings for persons engaged in the occupations specified; the fact that the persons were able to furnish household accounts for a year indicates that an automatic selection was made of the more intelligent and thrifty workmen. On the other hand, by far the great majority of the workmen came from large cities, where the rates of wages are above the average, which accounts for the earnings of the persons included being somewhat above the average. In the preceding table the percentages show that the subsidiary income of the husband is most important in the case of the bakers, who apparently use their spare time to engage in some subsidiary occupation, while this item is lacking altogether in only one occupation, namely, that of wharf and dock laborers. The income from the earnings of the wife is most important in the case of families of unskilled workmen, where, on account of the low income received, all possible sources of income must be utilized. The contribution of the children to the income of the family shows the highest amount and the highest percentage in the case of machine builders and machine mounters. It is interesting to note that such contribution is entirely absent in the case of the civil engineers, teachers, printers and lithographers, independent business men, skilled workers in the machine industry, officials of secondary rank not permanently appointed, skilled workmen in the food industries, and saddlers.

#### EXPENDITURES, BY OCCUPATIONS.

In the following table are shown the absolute amounts and the relative amounts of the average expenditures of the families classified according to groups of occupations:

AVERAGE EXPENDITURES OF FAMILIES, CLASSIFIED BY OCCUPATION OF HEAD OF FAMILY, WITH AMOUNT AND PER CENT OF EXPENDITURES FOR SPECIFIED PURPOSES.

#### AMOUNT.

Occupation of head of family.	Number of families in each class.	Total expenditure.	Foods and drinks.	Clothing and laundry.	Dwelling (rent and maintenance of).	Heating and lighting.	All other expenditure.
All families.....	852	\$531.70	\$242.17	\$67.22	\$95.50	\$21.62	\$105.19
A. Workmen.....	522	436.74	227.30	48.71	74.38	18.56	67.79
I. Industrial.....	436	443.05	228.79	49.12	75.30	18.53	71.31
a. Skilled.....	382	447.90	230.64	49.93	75.32	18.80	73.21
b. Unskilled.....	54	408.72	215.65	43.36	75.24	16.62	57.85
II. Commercial.....	53	417.06	222.55	50.14	71.47	19.20	53.70
III. Not classified.....	33	385.01	215.29	41.06	66.79	17.94	43.93
B. Salaried persons in private firms.....	36	572.40	234.03	72.93	107.09	19.83	138.52
C. Teachers.....	79	815.57	283.05	120.53	171.17	30.27	210.55
D. Officials of secondary rank.....	139	726.38	275.25	103.35	130.71	28.56	188.51
E. Subordinate officials.....	67	503.69	246.80	69.77	91.45	21.29	74.38

## AVERAGE EXPENDITURES OF FAMILIES, CLASSIFIED BY OCCUPATION OF HEAD OF FAMILY, ETC.—Concluded.

## PER CENT.

Occupation of head of family.	Number of families in each class.	Total expenditure.	Foods and drinks.	Clothing and laundry.	Dwelling (rent and maintenance of.	Heating and lighting.	All other expenditure.
All families.....	852	100	45.5	12.6	18.0	4.1	19.8
A. Workmen.....	522	100	52.0	11.2	17.0	4.3	15.5
I. Industrial.....	436	100	51.6	11.1	17.0	4.2	16.1
a. Skilled.....	382	100	51.5	11.2	16.8	4.2	16.3
b. Unskilled.....	54	100	52.8	10.6	18.4	4.1	14.1
II. Commercial.....	53	100	53.4	12.0	17.2	4.6	12.8
III. Not classified.....	33	100	55.9	10.7	17.3	4.7	11.4
B. Salaried persons in private firms.....	36	100	40.9	12.7	18.7	3.5	24.2
C. Teachers.....	79	100	34.7	14.8	21.0	3.7	25.8
D. Officials of secondary rank.....	139	100	37.9	14.2	18.0	3.9	26.0
E. Subordinate officials.....	67	100	49.0	13.9	18.2	4.2	14.7

According to the preceding table, the lowest total expenditures are shown by the workmen not classified; next to these come the unskilled industrial workmen, both as regards amount of the total expenditure and the expenditure for food and for clothing. Among the workmen the skilled industrial workmen have the highest total expenditures, as well as the highest expenditures for food and dwelling; next to these follow the subordinate officials, while the highest of the total expenditures as well as the highest expenditures in the various groups are shown by the officials of subordinate rank and by the teachers. Arranged in the form of per cent of total expenditure, the highest proportion of the total expenditure spent for food products is shown by the workmen not classified, who expend 55.9 per cent of their total expenditures for this purpose. The lowest expenditure for food purposes is shown by teachers, with 34.7 per cent of the total expenditures. The expenditures for clothing are highest in the case of teachers, where it is 14.8 per cent of the total expenditures, followed by the officials of secondary rank and the subordinate officials, while the unskilled industrial workers show the smallest outlay for clothing, having devoted 10.6 per cent of their total expenditure to this purpose. The expenditures for dwelling show the influence of the different sizes of the localities as well as the influence of the occupation of the family reported; thus, teachers devote 21.0 per cent of their total expenditures for the purposes of dwelling, while the proportion spent by the skilled industrial workers is the lowest of any of the groups. The proportion of the total expenditures devoted to the miscellaneous items is highest in the case of officials of secondary rank, where it is 26.0 per cent, with the teachers 25.8 per cent, and with salaried persons in private employ 24.2 per cent.



In the following table, the absolute amounts as well as the relative amounts expended for the principal groups is shown for 40 occupations, the different occupations being arranged in the order of total average expenditures:

AVERAGE AMOUNT OF EXPENDITURES AND PER CENT EXPENDED FOR SPECIFIED PURPOSES OF 852 FAMILIES, CLASSIFIED BY OCCUPATION OF HEAD OF FAMILY.

Occupation of head of family.	Number of families.	Average expenditure per family.	Per cent of expenditure for—				
			Food and drink.	Clothing and laundry.	Dwelling (rent and maintenance of).	Heating and lighting.	All other expenditures.
Civil engineers, constructors.....	3	\$837.81	33.2	16.4	17.1	3.1	30.2
Teachers.....	79	815.57	34.7	14.8	21.0	3.7	25.8
Officials of secondary rank.....	129	744.38	37.4	14.3	17.9	3.9	26.5
Salaries persons in private firm.....	17	611.14	41.5	13.4	18.1	3.0	24.0
Printers, lithographers.....	10	566.91	47.7	13.1	14.7	4.3	20.2
Machinery setters up, mounters, etc.....	6	561.77	55.9	11.3	16.5	2.8	13.5
Commercial employees.....	19	537.74	40.2	12.1	19.3	3.9	24.5
Subordinate officials.....	67	503.69	49.0	13.9	18.2	4.2	14.7
Officials of secondary rank not permanently appointed.....	10	494.20	48.3	12.3	20.7	4.2	14.5
Independent business men (industrial).....	4	484.26	43.5	9.1	17.5	4.7	25.2
Masons.....	41	477.84	53.4	11.8	15.5	3.8	15.5
Skilled workmen in food industries (not including bakers).....	7	476.89	47.6	11.0	17.1	3.6	20.7
Carpenters.....	20	476.18	51.3	11.8	17.8	3.9	15.2
Skilled workmen in building trades (not including masons, carpenters, painters).....	18	474.29	54.4	10.8	15.4	4.6	14.8
Molders.....	11	471.35	53.8	10.7	15.1	4.3	16.1
Compositors.....	16	456.83	46.6	10.7	16.7	4.7	21.3
Gardeners.....	12	454.96	54.0	10.3	19.1	4.5	12.1
Dock and wharf laborers.....	17	448.76	48.0	11.7	20.0	4.1	16.2
Skilled workmen in various trades.....	31	448.48	50.8	11.2	17.0	4.4	16.6
Skilled workmen in metal industries (not including molders, tinsmiths, blacksmiths, locksmiths).....	21	445.97	48.9	11.3	17.2	3.8	18.8
Tinsmiths.....	10	440.34	51.9	10.2	16.4	3.8	17.7
Bakers and confectioners.....	7	435.93	52.9	11.9	17.4	5.1	14.7
Blacksmiths.....	12	435.41	51.8	11.7	16.0	4.1	16.3
Street-railway workers.....	7	432.87	50.2	14.1	17.5	4.6	13.6
Cabinetmakers.....	42	431.75	52.5	11.5	16.1	4.1	15.3
Skilled workmen in machinery trades (not including shipwrights, machine builders).....	11	429.84	49.3	11.5	18.7	4.1	16.4
Shipwrights, ship carpenters.....	10	429.14	49.7	10.9	17.9	3.7	17.8
Painters.....	26	428.85	49.3	11.5	17.3	4.4	17.5
Street laborers.....	13	428.13	58.1	12.0	14.8	4.6	10.5
Locksmiths.....	21	427.93	51.9	9.5	18.3	4.5	15.8
Saddlers.....	11	420.29	49.9	11.3	20.7	4.2	13.9
Women (widows, heads of families).....	2	412.22	50.7	8.4	12.0	7.0	21.9
Unskilled industrial workmen.....	54	408.72	52.8	10.6	18.4	4.1	14.1
Tailors.....	8	403.37	50.8	10.4	14.5	5.8	18.5
Skilled workmen in clothing trades (not including tailors).....	6	399.04	54.1	7.8	17.2	4.2	16.7
Textile workers.....	10	391.04	54.5	11.2	17.1	4.8	12.4
Laborers not specified.....	33	385.01	55.9	10.7	17.3	4.7	11.4
Skilled workmen in woodworking (not including cabinetmakers).....	15	381.17	53.9	10.1	17.4	4.0	14.6
House servants, messengers.....	9	376.32	51.9	12.7	16.2	5.3	13.9
Coachmen, teamsters.....	7	356.12	65.2	9.7	14.5	5.2	5.4

The highest expenditures for food are shown by the machine mounters, who are followed by the teachers, the officials of secondary rank, the civil engineers, etc., while it is of interest to note that the independent business men, who show one of the lowest rates of expenditure for food, rank tenth in the order of total expenditures. Throughout the table it is noticeable that the occupations which

require the greatest physical exertion are accompanied by the highest expenditures for food. The extremes of the expenditures for food show that the machine mounters spent \$313.81, while the house servants had the lowest amount, with \$195.16. In the percentage table the general rule is that the higher the total expenditures the lower will be the proportion of the total for food. Thus, the occupations of engineer, teacher, and secondary official have the highest total expenditures, but show the lowest proportion of expenditures for food; the engineers have 33.2 per cent, the teachers 34.7 per cent, and the secondary officials have 37.4 per cent of their total expenditures devoted to this purpose. The greatest proportion of their total expenditures devoted to foods is shown in the case of coachmen, teamsters, etc., who have 65.2 per cent, street laborers with 58.1 per cent, workmen not classified and machine mounters with 55.9 per cent, while the following all show over 52 per cent of the total expenditures devoted to food: Textile workers, building-trades workers, clothing workers, gardeners, woodworkers, molders, masons, unskilled industrial workmen, and cabinetmakers.

The expenditures for clothing are highest in the 5 groups showing the highest total expenditures. These are civil engineers with \$137, or 16.4 per cent of the total, teachers with \$120, or 14.8 per cent of the total, and secondary officials with \$106, or 14.3 per cent of the total, etc. The lowest expenditures for clothing are the expenditures of workers in clothing trades (not including tailors) with \$31, or 7.8 per cent, who most probably prepare much of their own clothing; these are followed by coachmen, etc., with \$34, or 9.7 per cent, women who are heads of families with \$34, or 8.4 per cent, etc.

The expenditures for dwelling are the highest in the case of the four occupations having the highest total expenditures. The occupation of teacher shows the highest amount with \$171, or 21 per cent of the total expenditures, being followed by the civil engineers with \$143, or 17.1 per cent of the total expenditures. On the other hand, the lowest expenditures are shown in the case of women who are heads of families with \$49, or 12 per cent of the total expenditures, and by the coachmen with \$51, or 14.5 per cent of the total expenditures. In general, the order of the families arranged by amount of expenditure for dwelling is the same as the order in the case of total expenditures.

The highest amount expended for heat and light is shown in the case of the teachers with \$30, or 3.7 per cent, and secondary officials with \$29, or 3.9 per cent, then by the women conducting households with \$29, or 7 per cent.

The expenditures for miscellaneous purposes include items which are not absolutely necessary for existence, and their amount is

naturally greatest in the case of families with the largest expenditures. In the families included in the preceding table the highest amount for this purpose is \$253, in the case of civil engineers, and it is the lowest in the case of coachmen, etc., where it is only \$19. The highest proportion of total expenditures devoted to this purpose occurs in the case of civil engineers with 30.2 per cent, followed by officials of secondary rank with 26.5 per cent, teachers with 25.8 per cent, independent business men with 25.2 per cent, and salaried persons in private employ with 24 per cent of the total expenditures. The lowest proportion devoted to this purpose occurs in the case of coachmen with only 5.4 per cent, street laborers with 10.5 per cent, workmen not otherwise specified with 11.4 per cent, gardeners with 12.1 per cent, and textile workers with 12.4 per cent of the total expenditures.

The average expenditures for food of the persons included in the study, classified as industrial workmen, as commercial workmen, as other workmen, as salaried persons in private firms, as teachers, as officials of secondary rank, and as subordinate officials, are shown in the following table:

AVERAGE EXPENDITURES FOR FOOD OF 852 FAMILIES, CLASSIFIED BY GROUPS OF OCCUPATION OF HEAD OF FAMILY.

Item.	Average expenditure per family.								
	Workmen.				Salaried persons in private firms.	Teachers.	Officials of secondary rank.	Subordinate officials.	All families.
	Industrial.		Commercial.	Laborers not specified.					
	Skilled.	Unskilled.							
Meat (incl. ham, bacon, etc.) .	\$41.08	\$38.84	\$39.10	\$38.25	\$44.61	\$59.49	\$55.31	\$45.85	\$40.47
Sausage .	13.83	11.20	13.32	14.17	13.41	15.84	14.79	14.16	13.52
Fish (incl. smoked fish) . . . .	3.66	3.18	2.94	3.22	3.56	5.11	4.08	4.06	3.51
Butter .	19.09	12.39	14.44	13.93	22.54	30.83	27.92	24.83	17.60
Suet, margarine, etc. . . . .	10.32	11.12	10.60	11.73	6.77	5.21	6.07	11.48	10.52
Cheese .	4.13	3.29	4.73	3.84	3.36	3.45	3.74	4.62	4.09
Eggs .	6.67	6.08	6.29	5.00	6.95	8.57	10.71	7.39	6.47
Potatoes .	8.10	8.86	8.19	8.35	6.66	6.13	8.18	8.03	8.20
Green vegetables . . . . .	5.46	4.78	5.75	4.57	6.80	8.77	8.22	5.63	5.36
Salt, spices, oil . . . . .	2.05	2.40	2.55	2.20	1.94	2.04	3.12	2.23	2.15
Sugar, sirup, honey . . . . .	5.82	6.14	5.78	5.14	5.55	7.64	7.27	6.98	5.81
Flour, rice, legumes, etc. . . .	6.70	7.20	7.21	6.16	6.09	6.67	8.37	7.92	6.77
Fruit .	6.05	4.36	4.68	4.00	7.57	12.21	9.64	5.87	5.61
Bread and pastry . . . . .	38.76	40.20	38.61	36.13	37.89	38.87	39.91	44.55	38.73
Coffee and coffee substitutes .	5.85	6.08	6.43	7.14	6.29	6.46	6.92	7.08	6.01
Tea, chocolate, cocoa . . . .	1.84	1.28	1.12	1.20	1.94	3.64	3.05	1.86	1.67
Milk .	22.69	22.11	24.10	20.68	23.73	26.84	29.86	25.29	22.64
Other drinks at home . . . .	7.02	8.98	9.82	10.29	7.40	8.76	9.52	8.92	7.71
Other food products . . . . .	.54	.45	.25	.20	.57	1.15	.83	.48	.48
Cigars and tobacco . . . . .	4.75	4.02	2.89	4.78	4.54	8.53	5.57	3.26	4.49
Expenditures in restaurants .	16.24	12.67	13.76	14.30	15.83	16.85	12.16	6.31	15.49
Animal foods . . . . .	121.47	108.22	115.51	110.82	124.94	155.33	152.49	137.68	118.82
Vegetable foods . . . . .	70.89	71.55	70.22	64.34	70.57	80.30	81.58	78.97	70.48
Other foods and drinks . . . .	38.29	35.88	36.82	40.13	38.52	47.42	41.18	30.15	38.00
Expenditures for foods . . . .	230.65	215.65	222.55	215.29	234.03	283.05	275.25	246.80	227.30
Total expenditures . . . . .	447.90	408.72	417.06	385.01	572.40	815.57	726.38	503.69	436.74

In the preceding table the average expenditures for food for the classes mentioned show that the highest expenditure occurs in the case of the teachers; following this group come secondary officials, subordinate officials, salaried persons in private firms, skilled industrial workmen, workmen in commercial establishments, unskilled industrial workmen, and workmen not specified. There is, however, a wide variation in the separate articles of food used by the different classes of persons just mentioned. The most important item of expenditure for food is that for meat, etc., and the variations in expenditures for this item follow closely the general expenditure for all food. It varies between \$59.49 in the case of teachers and \$38.25 in the case of workmen not specified. The highest expenditures for sausage and fish combined are shown in the case of the teachers, and the lowest in the case of unskilled industrial workmen. The expenditures for suet, margarine, etc., are lowest in the case of the teachers, who have only \$5.21 for this item, and highest in the case of the laborers not specified, who averaged \$11.73 for this item; apparently these articles are substitutes for butter, the highest expenditures for which are shown by the teachers, with \$30.83, and the lowest by the unskilled industrial workmen, with \$12.39. The expenditures for eggs are highest in the three classes of persons where the expenditures for meat are highest, though the variation between the group using the highest amount, namely, officials of secondary rank, who expend \$10.71 for this purpose, and the group expending the smallest amount, namely, the workmen not specified, where the amount is \$5, is noticeable. The same thing is true of the expenditures for milk, where the variation, however, is not as great.

In the case of potatoes, a high expenditure for this item seems to indicate that potatoes are used in place of meat; this expenditure is highest in the case of the unskilled workmen, where it is \$8.86, and lowest in the case of the teachers, where it is \$6.13. Practically the same thing applies in the case of flour, rice, legumes, etc. The most important item of vegetable foods, bread, fluctuates but little in the various groups of persons. The highest expenditure for this item is shown in the case of subordinate officials, where it is \$44.55 and the lowest in the case of the workmen not specified, where it is \$36.13. The importance of bread as an item of food in the households where the expenditures for meat are low is therefore a matter of relative importance rather than a question of the absolute amounts expended. From the data in the table it may be concluded that green vegetables are regarded as items which can most readily be dispensed with among the vegetable foods, though the statements of

expenditures here given do not always include articles grown in the home garden and therefore probably do not include all of this type of food consumed by the families included in the study.

The expenditures for coffee seem to indicate that this article is often used as a substitute for more nutritious foods; the highest expenditures for this item being shown in the case of the workmen not specified, where it is \$7.14, and the lowest in the case of the skilled industrial workmen, where it is \$5.85. The items marked "Other drinks at home" and "Expenditures in restaurants" are principally expenditures for beer; if the two items of expenditure be added together, the highest amount paid on this account is shown by the teachers, where it is \$25.61, followed by workmen not specified, where it is \$24.59, workmen in commercial establishments, with \$23.58, skilled industrial workmen, with \$23.26, salaried persons in private employ, with \$23.23, officials of secondary rank, with \$21.68, unskilled workmen, where it is \$21.65, and subordinate officials \$15.23. On the whole, the variation in the amounts expended by the various groups is slight, except in the case of subordinate officials, which show an unusually low expenditure. A somewhat similar arrangement of the groups of persons is found in the expenditures for cigars and tobacco. The highest expenditure is shown by the teachers, where it is \$8.53, followed by the officials of secondary rank, with a much smaller expenditure of \$5.57. The lowest expenditure is shown by the workmen in commercial establishments, with \$2.89.

At the bottom of the preceding table is given a summary of the expenditures for food, in which the articles are classified as animal foods, vegetable foods, and other foods. The highest expenditures for animal foods, as well as for vegetable foods, are found in the case of the teachers and the two classes of officials. The lowest expenditures for animal foods are shown in the case of the unskilled industrial workmen, the workmen in commercial establishments, and the workmen not specified.

Next to the expenditures for food, the items of expenditure for "miscellaneous" purposes show the greatest variation for the five groups of families classified by occupation. The average expenditures for this purpose and the per cent of the total expenditures which they form are shown in the following table:

**AVERAGE AMOUNT AND PER CENT OF EXPENDITURES FOR MISCELLANEOUS PURPOSES, OF 852 FAMILIES, CLASSIFIED BY GROUPS OF OCCUPATION OF HEAD OF FAMILY.**

**AMOUNT.**

Item.	Expenditures for miscellaneous purposes in families of—										
	Workmen.						Salaried persons in private firms.	Teachers.	Officials of secondary rank.	Subordinate officials.	All families.
	All workmen.	Industrial.			Commercial.	Not classified.					
		All classes.	Skilled.	Unskilled.							
Health and physical care . . . . .	\$5.70	\$5.96	\$6.07	\$5.17	\$4.59	\$4.10	\$13.90	\$33.76	\$25.38	\$7.78	\$12.10
Education, school fees, etc. . . . .	2.77	2.92	3.12	1.49	2.57	1.13	7.90	18.70	17.45	6.17	7.36
Intellectual and social purposes . . . . .	17.30	18.68	19.31	14.21	10.11	10.69	20.55	43.89	28.43	10.31	21.13
State, commune, church, etc. (including taxes) . . . . .	4.57	4.90	5.05	3.82	3.05	2.75	9.30	14.93	15.06	5.94	7.61
Provident (insurance, relief funds, etc.) . . . . .	13.21	13.48	13.59	12.69	12.05	11.60	21.13	27.35	32.62	13.08	18.06
Transportation . . . . .	6.13	6.32	6.69	3.68	5.33	4.82	9.67	10.86	7.47	4.92	6.89
Personal service . . . . .	.49	.41	.45	.15	1.31	.17	6.43	12.30	8.01	.18	3.25
Presents, gifts, etc. . . . .	1.88	2.12	2.20	1.52	.94	.34	6.45	8.63	4.65	1.63	3.17
Debts and interest . . . . .	1.86	1.93	1.79	3.00	1.99	.63	8.05	5.39	16.07	8.95	5.52
Trade and occupational expenses . . . . .	1.85	1.89	1.97	1.31	1.74	1.49	1.40	1.23	3.37	2.16	2.09
Other cash expenditures . . . . .	7.53	7.88	8.10	6.35	5.52	6.04	16.78	24.85	18.91	8.49	11.51
Expenditures in kind . . . . .	.31	.33	.14	1.66	.35	-----	-----	.70	.46	.50	.37
Savings . . . . .	4.18	4.49	4.73	2.80	4.15	.18	16.95	7.97	10.62	4.27	6.11

**PER CENT OF TOTAL EXPENDITURES.**

Health and physical care....	1.3	1.4	1.4	1.3	1.1	1.1	2.4	4.1	3.5	1.5	2.3
Education, school fees, etc....	.6	.7	.7	.4	.6	.3	1.4	2.3	2.4	1.2	1.4
Intellectual and social purposes.....	4.0	4.2	4.3	3.5	2.4	2.8	3.6	5.4	3.9	2.0	4.0
State, commune, church, etc. (including taxes).....	1.1	1.1	1.1	.9	.7	.7	1.6	1.8	2.1	1.2	1.4
Provident (insurance, relief funds, etc.).....	3.0	3.0	3.0	3.1	2.9	3.0	3.7	3.4	4.5	2.6	3.4
Transportation.....	1.4	1.4	1.5	.3	1.3	1.2	1.7	1.3	1.0	1.0	1.3
Personal service.....	.1	.1	.1	(a)	.3	(a)	1.1	1.5	1.1	(a)	.6
Presents, gifts, etc.....	.4	.5	.5	.4	.2	.1	1.1	1.1	.6	.3	.6
Debts and interest.....	.4	.4	.4	.7	.5	.2	1.4	.7	2.2	1.8	1.0
Trade and occupational expenses.....	.4	.4	.4	.3	.4	.4	.3	.1	.5	.4	.4
Other cash expenditures.....	1.7	1.8	1.8	1.5	1.3	1.6	2.9	3.0	2.6	1.7	2.2
Expenditures in kind.....	.1	.1	(a)	.4	.1	.....	.....	.1	.1	.1	.1
Savings.....	1.0	1.0	1.1	.7	1.0	(a)	3.0	1.0	1.5	.9	1.1

a Less than 0.1 per cent.

As was to be expected, the expenditures for health and physical care show that both the greatest absolute amounts and the highest proportion occur in the case of the teachers. Similarly the expenditures for education, school fees, school supplies, etc., are highest in the case of the teachers and officials of secondary rank, due to the fact that the workmen usually avail themselves of the free schools instead of those where fees are charged. The expenditures for intellectual and social purposes are naturally highest in the groups having the highest income, due to the fact that these items are usually regarded as luxuries. The lowest expenditures for this purpose are shown by the workmen in commercial establishments and by the subordinate officials, in whose families they form 2.4 per cent and 2 per

cent of the total expenditures. The expenditures for State, commune, etc. (including taxes and rates), are highest in the case of the highest incomes, where they are not far from 2 per cent of the total expenditures, and are lowest in the case of the lowest incomes, which in this case are the incomes of workmen not classified, where this item forms 0.7 per cent of the total expenditures. The report calls attention to the fact that this is an evidence that the direct taxes in use in most German States and local governments more readily reach incomes which are fixed and definite than incomes which fluctuate greatly. The highest expenditures for provident purposes (insurance, relief funds, etc.), for transportation, and for personal service are found either in the case of the teachers or in the case of the officials of secondary rank. The item marked "savings," as is freely admitted, was probably not reported completely, but as far as the returns go the highest amount is shown in the case of the salaried persons in private employ, where it was \$16.95, or 3 per cent of the total expenditures. The next highest amount for this purpose is shown by the officials of secondary rank, with \$10.62, or 1.5 per cent of the total expenditures, being both absolutely and relatively much less than that of the first-named group. The lowest amount is shown for workmen not classified, where it is 18 cents, or less than one-tenth of 1 per cent of the total expenditures.

The budgets of the 852 families included, classified by occupations, are given in the following table, in which are shown, first, the average income subdivided into 7 groups; second, the average expenditures subdivided into 17 groups; and, third, the expenditures for food divided into 21 subgroups. The expenditures for food are, of course, the items given in the first part of the table, marked "1. Foods and drinks."

AVERAGE INCOME, EXPENDITURE, AND EXPENDITURE FOR FOOD OF  
INCOME.

Marginal number.	Items.	Metal working industry.									
		Gardeners (12 families with 43 persons).		Molders (11 families with 48 persons).		Tinsmiths (10 families with 51 persons).		Blacksmiths (12 families with 44 persons).		Locksmiths (21 families with 89 persons).	
		Amt.	P.ct.	Amt.	P.ct.	Amt.	P.ct.	Amt.	P.ct.	Amt.	P.ct.
1	Principal earnings of husband.	\$368.33	82.3	\$468.04	94.4	\$351.86	79.1	\$353.05	81.6	\$393.46	88.9
2	Subsidiary earnings of husband.	24.50	5.5	2.84	.6	2.04	.5	22.39	5.2	5.61	1.3
3	Earnings of wife.	2.44	.5	3.28	.7	27.35	6.1	22.56	5.2	4.02	.9
4	Contributions of children.	16.36	3.7	6.20	1.2	7.90	1.8	3.28	.8	3.46	.8
5	Subletting.	12.63	2.8	.....	.....	16.29	3.7	10.16	2.3	17.60	4.0
6	Other cash income.	15.39	3.4	15.60	3.1	39.02	8.8	14.03	3.2	18.09	4.1
7	Income in kind.	8.01	1.8	.....	.....	.24	(a)	7.46	1.7	.....	.....
	Total.	447.66	100.0	495.96	100.0	444.70	100.0	432.93	100.0	442.24	100.0

EXPENDITURE.

1	Foods and drinks.	\$245.89	54.0	\$253.46	53.8	\$228.57	51.9	\$225.34	51.8	\$221.89	51.9
2	Clothing and cleaning.	46.86	10.3	50.35	10.7	44.82	10.2	50.80	11.7	40.67	9.5
3	Dwelling (rent and maintenance of).	86.89	19.1	71.12	15.1	72.17	16.4	70.09	16.1	78.35	18.3
4	Heating and lighting.	20.56	4.5	20.41	4.3	16.85	3.8	17.62	4.1	19.33	4.5
5	Health and physical care.	9.55	2.1	5.37	1.1	5.40	1.2	5.73	1.3	6.39	1.5
6	Education, school fees, etc.	1.20	.3	4.35	.9	3.69	.8	.80	.2	2.48	.6
7	Intellectual and social purposes.	10.42	2.3	23.28	4.9	18.68	4.3	19.86	4.6	17.15	4.0
8	State, commune, church, etc. (including taxes).	2.86	.6	8.47	1.8	3.27	.8	6.17	1.4	5.67	1.3
9	Insurance, relief funds, etc.	14.84	3.3	13.40	2.9	19.44	4.4	13.14	3.0	11.21	2.6
10	Transportation.	5.48	1.2	4.20	.9	5.95	1.4	9.75	2.2	6.57	1.5
11	Personal service.	.34	.1	.24	.1	.02	(a)	.18	(a)	.13	(a)
12	Presents, gifts, etc.	.14	(a)	2.45	.5	1.03	.2	.98	.2	1.31	.3
13	Debts and interest.	.75	.2	.....	.....	4.33	1.0	1.19	.3	.24	.1
14	Occupational expenses.	.59	.1	2.08	.4	1.06	.2	.95	.2	.77	.2
15	Other cash expenditures.	6.31	1.4	7.12	1.5	7.20	1.6	6.97	1.6	8.85	2.1
16	Expenditures in kind.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17	Savings.	2.28	.5	5.05	1.1	7.86	1.8	5.83	1.3	6.92	1.6
	Total.	454.96	100.0	471.35	100.0	440.34	100.0	435.41	100.0	427.93	100.0
	Surplus (+) or deficit (-).	-7.30	.....	+24.61	.....	+4.36	.....	-2.48	.....	+14.31	.....

EXPENDITURE FOR FOOD.

1	Meat (including ham, bacon, etc.).	\$50.93	\$41.54	\$39.67	\$45.25	\$40.21
2	Sausage.	19.33	16.63	13.23	16.06	15.54
3	Fish (including smoked fish).	3.91	4.61	4.73	3.85	3.66
4	Butter.	17.66	27.73	17.84	12.71	18.88
5	Suet, margarine, etc.	9.62	8.05	12.38	12.31	11.26
6	Cheese.	5.08	4.47	4.73	5.41	4.04
7	Eggs.	8.25	6.79	5.95	7.34	4.87
8	Potatoes.	8.69	8.89	7.25	7.55	7.83
9	Green vegetables.	6.10	5.79	4.69	5.50	5.71
10	Salt, spices, oil.	1.79	2.24	1.64	2.09	1.51
11	Sugar, sirup, honey.	6.72	6.95	5.27	4.88	5.32
12	Flour, rice, legumes, etc.	7.10	7.50	7.11	5.36	5.97
13	Fruit.	6.82	7.27	5.99	5.12	6.05
14	Bread and pastry.	33.19	39.46	39.27	32.14	36.51
15	Coffee and coffee substitutes.	7.31	6.74	5.64	5.33	5.43
16	Tea, chocolate, cocoa.	2.07	2.63	2.50	2.27	1.64
17	Milk.	31.55	21.52	23.30	21.84	21.74
18	Other drinks at home.	9.44	7.41	6.96	10.00	8.85
19	Other food products.	.16	.24	.96	.21	.35
20	Cigars and tobacco.	2.95	5.77	5.67	5.33	5.41
21	Expenditures in restaurants.	7.22	21.23	8.79	14.79	11.11
	Total.	245.89	253.46	228.57	225.34	221.89

a Less than one-tenth of 1 per cent.



## 852 FAMILIES, CLASSIFIED BY OCCUPATION OF HEAD OF FAMILY.

## INCOME.

Skilled workmen in various trades (21 families with 91 persons).		Industries of machinery, instruments, and apparatus.								Textile workers (10 families with 51 persons).		Leather industry: Saddlers (11 families with 43 persons).		Wood-working: Cabinet-makers (42 families with 210 persons).		Marginal number.
		Ship carpenters and shipwrights (10 families with 39 persons).		Machine builders, mounters, etc. (6 families with 28 persons).		Other skilled workmen (11 families with 44 persons).										
Amt.	P.ct.	Amt.	P.ct.	Amt.	P.ct.	Amt.	P.ct.	Amt.	P.ct.	Amt.	P.ct.	Amt.	P.ct.			
\$376.02	83.5	\$338.88	79.4	\$459.10	79.4	\$372.63	85.2	\$319.75	79.4	\$344.13	81.2	\$351.54	81.4	1		
9.01	2.0	31.55	7.4	1.53	.2	3.43	.8	1.61	.4	16.43	3.9	8.08	1.9	2		
25.63	5.7	16.02	3.7	6.81	1.2	30.87	7.1	26.82	6.7	10.93	2.6	19.16	4.4	3		
.72	.2	.83	.2	77.99	13.5	.....	.....	21.22	5.3	.....	.....	13.50	3.1	4		
10.76	2.4	3.84	.9	25.98	4.5	14.06	3.2	3.02	.7	21.94	5.2	16.02	3.7	5		
27.21	6.0	35.73	8.4	6.88	1.2	16.33	3.7	29.94	7.4	30.06	7.1	23.70	5.5	6		
.97	.2	.....	.....	.....	.....	.....	.....	.48	1.1	.....	.....	.....	.....	7		
450.32	100.0	426.85	100.0	578.29	100.0	437.32	100.0	402.84	100.0	423.49	100.0	432.00	100.0			

## EXPENDITURE.

\$218.02	48.9	\$213.31	49.7	\$313.81	55.9	\$211.85	49.3	\$213.14	54.5	\$209.60	49.9	\$226.53	52.5			1
50.47	11.3	46.76	10.9	63.73	11.3	49.35	11.5	43.75	11.2	47.62	11.3	49.73	11.5			2
76.58	17.2	76.90	17.9	92.44	16.5	80.61	18.7	66.65	17.1	86.82	20.7	69.68	16.1			3
16.77	3.8	16.07	3.7	15.98	2.8	17.60	4.1	18.67	4.8	17.64	4.2	17.83	4.1			4
5.85	1.3	4.00	.9	4.30	.8	6.57	1.5	5.36	1.4	5.30	1.3	5.35	1.2			5
4.54	1.0	2.50	.6	2.97	.5	2.58	.6	2.15	.5	1.38	.3	2.63	.6			6
20.56	4.6	16.97	4.0	20.36	3.6	20.47	4.8	12.68	3.2	17.45	4.1	20.04	4.6			7
6.00	1.3	4.68	1.1	5.41	1.0	3.00	.7	5.05	1.3	3.59	.8	4.67	1.1			8
14.17	3.2	15.29	3.6	15.98	2.8	16.15	3.8	8.37	2.1	12.88	3.1	14.49	3.4			9
7.74	1.7	8.38	2.0	10.03	1.8	4.01	.9	1.93	.5	5.66	1.3	5.14	1.2			10
.21	(a)	.36	.1	.35	.1	.40	.1	.75	.2	.41	.1	.18	(a)			11
2.06	.5	5.22	1.2	2.62	.5	1.93	.4	2.83	.7	.88	.2	2.24	.5			12
1.45	.3	4.91	1.1	.....	.....	.24	.1	.32	.1	.02	(a)	1.25	.3			13
1.92	.4	3.14	.7	1.67	.3	.48	.1	.17	(a)	2.52	.6	1.94	.5			14
10.92	2.5	4.70	1.1	9.71	1.7	9.61	2.2	4.52	1.2	5.70	1.4	7.57	1.8			15
.....	.....	.....	.....	.....	.....	.....	.....	.48	.1	.....	.....	.....	.....			16
8.71	2.0	5.95	1.4	2.41	.4	4.99	1.2	4.22	1.1	2.92	.7	2.48	.6			17
445.97	100.0	429.14	100.0	561.77	100.0	429.84	100.0	391.04	100.0	420.29	100.0	431.75	100.0			
+4.35	.....	-2.29	.....	+16.52	.....	+7.48	.....	+11.80	.....	+3.20	.....	+2.25	.....			

## EXPENDITURE FOR FOOD.

\$40.54		\$41.73		\$70.26		\$41.41		\$30.90		\$39.88		\$36.14		1
14.81		11.33		16.81		16.89		14.05		15.14		15.52		2
3.32		5.52		11.24		3.08		2.20		2.80		3.27		3
14.56		16.61		19.32		15.07		24.13		16.13		19.21		4
11.21		16.07		20.69		10.32		9.75		10.56		8.83		5
4.22		5.64		10.62		3.57		2.81		3.61		3.69		6
6.47		7.56		7.43		8.80		6.20		8.27		6.04		7
7.35		8.00		13.41		7.41		8.96		7.31		8.85		8
5.25		4.67		7.90		5.60		6.61		4.21		5.31		9
1.72		1.23		1.78		2.26		4.09		1.30		2.15		10
5.85		4.60		8.11		5.53		4.93		5.50		6.01		11
5.75		7.45		7.30		5.91		7.35		5.79		6.50		12
5.24		7.49		6.68		6.56		6.66		6.04		5.58		13
35.57		34.49		50.39		32.90		41.73		33.81		43.72		14
5.58		5.26		7.93		4.20		6.88		5.82		5.70		15
1.99		1.42		3.94		1.63		1.28		1.92		2.02		16
20.05		18.32		19.11		19.86		17.37		21.53		22.92		17
5.94		3.47		5.10		6.08		3.94		6.77		7.22		18
.33		.35		.51		.53		.40		.42		.41		19
5.68		5.21		5.99		3.03		3.90		2.43		4.33		20
16.59		6.91		19.30		11.26		9.00		10.36		13.11		21
218.02		213.31		313.81		211.85		213.14		209.60		226.53		

AVERAGE INCOME, EXPENDITURE, AND EXPENDITURE FOR FOOD OF 852  
INCOME.

Marginal number.	Items.	Woodworking: Other skilled workmen (15 families with 78 persons).		Foods and drinks.				Clothing and cleaning.			
				Bakers and confectioners (7 families with 38 persons).		Other skilled workmen (7 families with 26 persons).		Tailors (8 families with 42 persons).		Other skilled workmen (6 families with 29 persons).	
		Amt.	P.ct.	Amt.	P.ct.	Amt.	P.ct.	Amt.	P.ct.	Amt.	P.ct.
1	Principal earnings of husband.....	\$338.58	87.2	\$341.08	76.3	\$362.42	75.7	\$322.83	81.3	\$311.67	78.0
2	Subsidiary earnings of husband.....	3.46	.9	42.77	9.6	14.54	3.0	6.34	1.6	8.30	2.1
3	Earnings of wife.....	17.87	4.6	12.10	2.7	30.10	6.3	2.11	.5	11.50	2.9
4	Contributions of children.....	2.47	.6	3.42	.8	.....	.....	2.05	.5	16.12	4.0
5	Subletting.....	3.10	.8	29.43	6.6	44.08	9.2	31.10	7.8	11.69	2.9
6	Other cash income.....	23.04	5.9	17.97	4.0	27.97	5.8	32.52	8.2	40.55	10.1
7	Income in kind.....	.....	.....	.....	.....	.....	.....	.18	.1	.....	.....
	Total.....	388.52	100.0	446.77	100.0	479.11	100.0	397.13	100.0	399.83	100.0

## EXPENDITURE.

1	Foods and drinks.....	\$205.41	53.9	\$221.86	50.9	\$227.17	47.6	\$205.07	50.8	\$216.50	54.1
2	Clothing and cleaning.....	38.41	10.1	51.77	11.9	52.58	11.0	42.13	10.4	31.03	7.8
3	Dwelling (rent and maintenance of).....	66.36	17.4	75.68	17.4	81.66	17.1	58.56	14.5	68.96	17.2
4	Heating and lighting.....	15.37	4.0	22.12	5.1	17.14	3.6	23.54	5.8	16.79	4.2
5	Health and physical care.....	4.47	1.2	5.24	1.2	8.75	1.8	4.81	1.2	7.75	1.9
6	Education, school fees, etc.....	2.12	.6	2.45	.6	7.96	1.7	2.82	.7	1.65	.4
7	Intellectual and social purposes.....	12.79	3.4	17.07	3.9	26.12	5.5	14.25	3.5	16.39	4.1
8	State, commune, church, etc. (including taxes).....	4.51	1.2	8.06	1.8	4.07	.9	4.32	1.1	6.24	1.6
9	Insurance, relief funds, etc.....	15.00	3.9	17.28	4.0	15.40	3.2	15.95	4.0	15.53	3.9
10	Transportation.....	5.12	1.3	1.71	.4	10.22	2.1	2.87	.7	6.03	1.5
11	Personal service.....	.02	(a)	.13	(a)	2.15	.5	.18	.1	.09	(a)
12	Presents, gifts, etc.....	1.09	.3	1.47	.3	.83	.2	.16	(a)	3.64	.9
13	Debts and interest.....	1.31	.3	1.43	.3	.....	.....	.59	.2	1.15	.3
14	Occupational expenses.....	.84	.2	2.33	.5	.59	.1	19.10	4.7	1.97	.5
15	Other cash expenditures.....	3.68	1.0	6.48	1.5	9.02	1.9	7.09	1.8	4.31	1.1
16	Expenditures in kind.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17	Savings.....	4.67	1.2	.85	.2	13.23	2.8	1.93	.5	1.91	.5
	Total.....	381.17	100.0	435.93	100.0	476.89	100.0	403.37	100.0	399.94	100.0
	Surplus (+) or deficit (-).....	+7.35	.....	+10.84	.....	+2.22	.....	-6.24	.....	-.11	.....

## EXPENDITURE FOR FOOD.

1	Meat (incl. ham, bacon, etc.).....	\$34.26	\$42.40	\$34.11	\$32.81	\$32.33
2	Sausage.....	12.10	14.24	12.01	14.92	11.09
3	Fish (incl. smoked fish).....	1.94	3.54	4.45	3.86	2.00
4	Butter.....	19.62	10.82	13.20	13.92	17.81
5	Suet, margarine, etc.....	8.77	16.26	12.82	13.71	6.16
6	Cheese.....	3.19	6.24	6.16	3.59	2.07
7	Eggs.....	5.89	4.90	7.04	6.13	4.90
8	Potatoes.....	8.33	8.89	7.42	7.94	5.97
9	Green vegetables.....	5.19	4.05	4.04	4.25	5.12
10	Salt, spices, oil.....	1.75	1.95	1.53	1.49	3.19
11	Sugar, sirup, honey.....	5.65	6.35	4.38	6.48	6.73
12	Flour, rice, legumes, etc.....	6.22	6.97	4.82	6.29	7.45
13	Fruit.....	6.15	5.67	4.27	3.46	5.02
14	Bread and pastry.....	42.58	43.76	38.54	37.16	41.66
15	Coffee and coffee substitutes.....	4.95	4.97	6.11	5.61	4.94
16	Tea, chocolate, cocoa.....	1.42	1.72	.58	1.65	1.37
17	Milk.....	21.48	21.45	15.14	27.45	28.60
18	Other drinks at home.....	3.42	6.00	4.53	4.79	7.47
19	Other food products.....	.03	.87	.47	.14	.25
20	Cigars and tobacco.....	1.75	3.85	4.58	2.89	3.76
21	Expenditures in restaurants.....	10.72	6.96	40.97	6.53	18.61
	Total.....	205.41	221.86	227.17	205.07	216.50

<sup>a</sup> Less than one-tenth of 1 per cent.

## FAMILIES, CLASSIFIED BY OCCUPATION OF HEAD OF FAMILY—Continued.

## INCOME.

Building trades.								Publishing and printing.				Skilled workmen in various trades (31 families with 140 persons).		Marginal number.
Masons (41 families with 196 persons).		Carpenters (20 families with 94 persons).		Painters (26 families with 99 persons).		Other skilled workmen (18 families with 90 persons).		Compositors (16 families with 67 persons).		Book printers and lithographers (10 families with 57 persons).				
Amt.	P.ct.	Amt.	P.ct.	Amt.	P.ct.	Amt.	P.ct.	Amt.	P.ct.	Amt.	P.ct.	Amt.	P.ct.	
\$380.94	82.4	\$386.66	80.5	\$346.39	81.5	\$388.44	81.4	\$422.89	89.7	\$464.95	88.8	\$386.95	85.9	1
10.15	2.2	11.34	2.3	15.99	3.8	1.59	.3	21.59	4.6	8.83	1.7	5.31	1.2	2
17.24	3.7	20.58	4.3	28.05	6.6	12.74	2.7	2.49	.5	.....	.....	7.38	1.6	3
19.17	4.1	14.43	3.0	1.15	.3	24.02	5.0	1.65	.3	.....	.....	12.77	2.8	4
6.88	1.5	14.03	2.9	8.44	2.0	16.10	3.4	.....	.....	19.94	3.8	8.59	1.9	5
23.21	5.0	32.54	6.8	24.45	5.7	33.36	7.0	22.94	4.9	29.09	5.6	25.46	5.7	6
4.89	1.1	.89	.2	.51	.1	1.16	.2	.....	.....	.52	.1	4.13	.9	7
462.48	100.0	480.47	100.0	424.98	100.0	477.41	100.0	471.56	100.0	523.33	100.0	450.59	100.0	

## EXPENDITURE.

\$255.23	53.4	\$244.42	51.3	\$211.53	49.3	\$258.13	54.4	\$213.02	46.6	\$270.47	47.7	\$227.97	50.8	1
56.45	11.8	56.09	11.8	49.23	11.5	51.00	10.8	49.02	10.7	74.03	13.1	50.12	11.2	2
74.21	15.5	84.81	17.8	74.01	17.3	73.12	15.4	76.21	16.7	83.60	14.7	76.06	17.0	3
18.33	3.8	18.71	3.9	18.94	4.4	21.83	4.6	21.26	4.7	24.15	4.3	19.55	4.4	4
6.46	1.4	8.15	1.7	5.47	1.3	4.95	1.0	8.06	1.8	6.63	1.2	6.01	1.3	5
4.87	1.0	1.99	.4	2.80	.6	2.39	.5	5.70	1.3	4.03	.7	2.99	.7	6
17.09	3.6	17.80	3.8	16.52	3.8	16.09	3.4	38.02	8.3	43.47	7.7	18.57	4.1	7
3.63	.8	4.01	.9	4.55	1.1	5.10	1.1	7.04	1.5	7.69	1.4	6.36	1.4	8
11.51	2.4	11.92	2.5	13.72	3.2	14.20	3.0	12.35	2.7	12.60	2.2	12.87	2.9	9
7.73	1.6	8.23	1.7	10.49	2.4	7.33	1.5	7.32	1.6	5.99	1.0	6.50	1.4	10
.35	.1	.19	(.1)	.64	.1	.55	.1	.26	.1	4.65	.8	.41	.1	11
4.46	.9	1.00	.2	2.47	.6	1.71	.4	4.05	.9	2.09	.4	1.90	.4	12
2.99	.6	3.95	.8	2.55	.6	.79	.2	1.08	.2	3.37	.6	3.15	.7	13
1.97	.4	2.75	.6	2.43	.6	2.22	.5	.35	.1	.86	.1	1.19	.3	14
9.38	2.0	7.00	1.5	7.99	1.9	9.56	2.0	9.26	2.0	16.92	3.0	8.52	1.9	15
.12	(.1)	.....	.....	.36	.1	1.16	.2	.....	.....	.52	.1	.31	.1	16
3.06	.7	5.16	1.1	5.15	1.2	4.16	.9	3.83	.8	5.84	1.0	6.00	1.3	17
477.84	100.0	476.18	100.0	428.85	100.0	474.29	100.0	456.83	100.0	566.91	100.0	448.48	100.0	
-15.36	.....	+4.29	.....	-3.87	.....	+3.12	.....	+14.73	.....	-43.58	.....	+2.11	.....	

## EXPENDITURE FOR FOOD.

\$50.72	\$38.98	\$37.84	\$43.39	\$34.62	\$44.00	\$42.16	1
12.95	11.63	9.14	13.08	15.06	14.80	11.85	2
4.41	4.00	3.27	3.62	4.00	4.54	2.11	3
23.20	16.99	16.46	23.31	19.99	23.93	22.22	4
10.82	13.36	9.43	8.62	7.85	9.21	6.49	5
3.87	4.11	3.80	3.82	4.12	3.29	3.80	6
7.26	6.24	7.09	7.74	6.06	6.79	6.57	7
9.79	9.11	6.16	7.47	7.37	7.40	7.02	8
5.64	6.37	5.39	5.92	5.44	5.39	5.69	9
2.20	2.81	1.56	3.22	1.83	1.71	2.26	10
5.77	7.01	4.97	6.62	5.73	7.09	5.34	11
7.43	6.65	5.90	7.99	6.71	6.93	7.47	12
5.57	6.37	5.76	5.20	7.44	7.45	7.23	13
41.48	39.61	30.10	44.69	32.68	49.51	38.34	14
7.30	6.37	4.72	6.90	4.51	7.05	5.16	15
1.46	1.80	1.29	1.69	3.10	2.80	2.12	16
22.46	21.81	23.27	25.78	19.07	29.09	24.11	17
7.07	9.06	7.45	10.01	4.95	12.39	5.81	18
.25	.29	.15	.95	.63	.68	2.27	19
5.57	5.22	5.33	5.16	6.27	6.15	4.33	20
19.92	27.93	22.40	22.95	15.59	20.77	15.62	21
255.23	244.42	211.52	258.13	213.02	270.47	227.97	

**AVERAGE INCOME, EXPENDITURE, AND EXPENDITURE FOR FOOD OF 852  
INCOME.**

Marginal number.	Items.	All skilled workmen (382 families with 1,737 persons).		Unskilled industrial workmen (54 families with 264 persons).		All industrial workmen (436 families with 2,001 persons).		Commerce and transportation.			
								House servants, messengers (9 families with 38 persons).		Dock and wharf laborers (17 families with 68 persons).	
		Amt.	P.ct.	Amt.	P.ct.	Amt.	P.ct.				
1	Principal earnings of husband.	\$373.53	83.2	\$310.12	75.5	\$365.68	82.3	\$311.80	82.1	\$379.12	82.4
2	Subsidiary earnings of husband.	10.63	2.4	7.57	1.8	10.25	2.3	6.59	1.7	.....	.....
3	Earnings of wife.	15.60	3.5	31.70	7.7	17.60	4.0	9.67	2.6	20.43	4.5
4	Contributions of children.	10.11	2.2	10.91	2.7	10.20	2.3	7.63	2.0	24.90	5.4
5	Subletting.	12.42	2.8	19.69	4.8	13.32	3.0	5.74	1.5	17.21	3.7
6	Other cash income.	24.93	5.6	26.70	6.5	25.15	5.7	32.23	8.5	16.89	3.7
7	Income in kind.	1.57	.3	4.22	1.0	1.90	.4	6.21	1.6	1.38	.3
	Total.	448.79	100.0	410.91	100.0	444.10	100.0	379.87	100.0	459.93	100.0

**EXPENDITURE.**

1	Foods and drinks.	\$230.65	51.5	\$215.65	52.8	\$228.79	51.6	\$195.16	51.9	\$215.44	48.0
2	Clothing and cleaning.	49.93	11.2	43.36	10.6	49.12	11.1	47.86	12.7	52.45	11.7
3	Dwelling (rent and maintenance of).	75.32	16.8	75.24	18.4	75.31	17.0	60.84	16.2	89.53	20.0
4	Heating and lighting.	18.80	4.2	16.62	4.1	18.53	4.2	19.91	5.3	18.50	4.1
5	Health and physical care.	6.07	1.4	5.17	1.3	5.96	1.4	4.91	1.3	7.26	1.6
6	Education and school fees.	3.12	.7	1.49	.4	2.92	.7	3.49	.9	1.92	.4
7	Intellectual and social purposes.	19.31	4.3	14.21	3.5	18.68	4.2	9.17	2.4	17.17	3.8
8	State, commune, church, etc. (including taxes).	5.05	1.1	3.82	.9	4.89	1.1	5.96	1.6	2.83	.6
9	Provident (insurance, relief funds, etc.).	13.59	3.0	12.69	3.1	13.48	3.0	12.96	3.4	12.44	2.8
10	Transportation.	6.69	1.5	3.68	.9	6.32	1.4	3.11	.8	11.26	2.5
11	Personal service.	.45	.1	.15	(a)	.41	.1	.21	(a)	3.70	.8
12	Presents, gifts, etc.	2.20	.5	1.52	.4	2.12	.5	1.16	.3	1.03	.2
13	Debts and interest.	1.78	.4	3.00	.7	1.93	.4	2.17	.6	2.53	.6
14	Occupational expenses.	1.97	.4	1.31	.3	1.89	.4	.22	.1	1.65	.4
15	Other cash expenditures.	8.10	1.8	6.35	1.5	7.88	1.8	7.37	2.0	7.64	1.7
16	Expenditures in kind.	.14	(a)	1.66	.4	.33	.1	.....	.....	1.08	.3
17	Savings.	4.73	1.1	2.80	.7	4.49	1.0	1.82	.5	2.33	.5
	Total.	447.90	100.0	408.72	100.0	443.05	100.0	376.32	100.0	448.76	100.0
	Surplus (+) or deficit (-).	+ .89	.....	+ 2.19	.....	+ 1.05	.....	+ 3.55	.....	+ 11.17	.....

**EXPENDITURE FOR FOOD.**

1	Meat (including ham, bacon, etc.).	\$41.08		\$38.84		\$40.81		\$34.18		\$38.88	
2	Sausage.	13.83		11.20		13.50		13.43		14.09	
3	Fish (including smoked fish).	3.96		3.18		3.60		2.31		3.81	
4	Butter.	19.09		12.39		18.26		24.71		14.71	
5	Suet, margarine, etc.	10.32		11.12		10.42		7.65		16.61	
6	Cheese.	4.13		3.30		4.03		3.38		6.99	
7	Eggs.	6.67		6.08		6.60		4.19		7.32	
8	Potatoes.	8.10		8.86		8.19		6.36		9.28	
9	Green vegetables.	5.46		4.78		5.38		4.93		5.51	
10	Salt, spices, oil.	2.05		2.40		2.10		1.35		1.32	
11	Sugar, sirup, honey.	5.82		6.14		5.86		4.62		5.43	
12	Flour, rice, legumes, etc.	6.70		7.20		6.76		5.75		5.69	
13	Fruit.	6.05		4.36		5.84		5.39		6.35	
14	Bread and pastry.	38.76		40.20		38.94		37.84		35.06	
15	Coffee and coffee substitutes.	5.85		6.08		5.88		4.82		6.31	
16	Tea, chocolate, cocoa.	1.84		1.28		1.77		1.50		.93	
17	Milk.	22.69		22.11		22.61		16.28		17.87	
18	Other drinks at home.	7.02		8.99		7.26		5.15		4.83	
19	Other food products.	.54		.45		.53		.16		.26	
20	Cigars and tobacco.	4.75		4.02		4.65		3.51		3.28	
21	Expenditures in restaurants.	16.24		12.67		15.80		7.65		10.41	
	Total.	230.65		215.65		228.79		195.16		215.44	

a Less than one-tenth of 1 per cent.

## FAMILIES, CLASSIFIED BY OCCUPATION OF HEAD OF FAMILY—Continued.

## INCOME.

Commerce and transportation.								Laborers not specified (33 families with 145 persons).		Total workmen (522 families with 2,377 persons).		Salaried persons in private employ.		Marginal number.
Coachmen, teamsters (7 families with 26 persons).		Street railway workers (7 families with 39 persons).		Street laborers (13 families with 60 persons).		Total workmen (53 families with 231 persons).						Workmen in commercial establishments (19 families with 76 persons).		
Amt.	P.ct.	Amt.	P.ct.	Amt.	P.ct.	Amt.	P.ct.	Amt.	P.ct.	Amt.	P.ct.	Amt.	P.ct.	
\$290.44	88.2	\$327.29	79.4	\$289.14	70.5	\$327.06	79.1	\$320.27	84.7	\$358.88	82.2	\$446.73	81.4	1
7.62	2.2	4.29	1.0	15.75	3.8	6.56	1.6	8.64	2.3	9.77	2.2	1.69	.3	2
.07	(.6)	9.16	2.2	69.50	16.9	26.46	6.4	23.31	6.2	18.86	4.3	20.61	3.7	3
8.16	2.3	13.00	3.2	14.99	3.7	15.75	3.8	7.36	1.9	10.59	2.4	9.66	1.8	4
1.32	.4	21.79	5.3	5.49	1.3	10.90	2.6	6.02	1.6	12.61	2.9	10.65	1.9	5
43.19	12.3	33.07	8.0	15.62	3.8	24.79	6.0	12.54	3.3	24.32	5.6	59.73	10.9	6
-----		3.50	.9			1.96	.5	-----		1.79	.4	-----		7
350.80	100.0	412.10	100.0	410.49	100.0	413.48	100.0	378.14	100.0	436.82	100.0	549.07	100.0	

## EXPENDITURE.

\$232.11	65.2	\$217.27	50.2	\$248.53	58.1	\$222.55	53.4	\$215.29	55.9	\$227.31	52.0	\$216.32	40.2	1
34.44	9.7	61.13	14.1	51.26	12.0	50.15	12.0	41.06	10.7	48.71	11.2	65.02	12.1	2
51.76	14.5	75.68	17.5	63.57	14.8	71.47	17.2	66.79	17.3	74.38	17.0	103.96	19.3	3
18.52	5.2	20.07	4.6	19.50	4.6	19.19	4.6	17.94	4.7	18.56	4.3	21.19	3.9	4
3.71	1.0	1.92	.5	2.78	.6	4.59	1.1	4.10	1.1	5.70	1.3	13.22	2.5	5
.33	.1	5.13	1.2	2.60	.6	2.57	.6	1.13	.3	2.77	.6	3.84	.7	6
3.22	.9	7.33	1.7	6.72	1.6	10.11	2.4	10.69	2.8	17.30	4.0	22.82	4.3	7
1.71	.5	2.18	.5	2.52	.6	3.05	.7	2.75	.7	4.57	1.1	8.58	1.6	8
4.54	1.3	16.09	3.7	12.80	3.0	12.05	2.9	11.60	3.0	13.21	3.0	17.67	3.3	9
2.16	.6	2.87	.7	2.14	.5	5.33	1.3	4.82	1.2	6.13	1.4	9.03	1.7	10
.47	.1	.10	(.6)	.07	(.6)	1.31	.3	.17	(.6)	.49	.1	1.10	.2	11
.02	(.6)	.16	(.6)	1.59	.4	.94	.2	.33	.1	1.88	.4	7.16	1.3	12
.67	.2	1.15	.3	2.30	.5	1.99	.5	.63	.2	1.86	.4	12.00	2.2	13
.07	(.6)	4.82	1.1	2.13	.5	1.74	.4	1.49	.4	1.85	.4	.26	.1	14
1.71	.5	4.73	1.1	3.96	.9	5.52	1.3	6.04	1.6	7.53	1.7	15.81	2.9	15
.....	.....	.....	.....	.....	.....	.35	.1	.....	.....	.31	.1	.....	.....	16
.68	.2	12.24	2.8	5.66	1.3	4.15	1.0	.18	(.6)	4.18	1.0	19.76	3.7	17
356.12	100.0	432.87	100.0	428.13	100.0	417.06	100.0	385.01	100.0	436.74	100.0	537.74	100.0	
-5.32	.....	-20.77	.....	-17.64	.....	-3.58	.....	-6.87	.....	+ .08	.....	+11.33	.....	

## EXPENDITURE FOR FOOD.

\$39.46	\$43.27	\$40.35	\$39.10	\$38.25	\$40.47	\$45.10	1
9.53	12.05	14.94	13.22	14.17	13.52	12.19	2
2.14	2.60	2.85	2.94	3.21	3.51	3.56	3
9.53	11.13	11.41	14.44	13.92	17.60	22.61	4
8.27	7.90	7.49	10.60	11.73	10.52	5.48	5
3.06	3.46	4.28	4.73	3.83	4.09	2.72	6
5.88	5.37	7.10	6.29	5.00	6.47	5.95	7
8.16	7.71	8.30	8.19	8.34	8.20	4.90	8
5.99	4.07	7.42	5.75	4.57	5.36	6.90	9
4.55	1.94	4.25	2.55	2.19	2.15	1.75	10
4.59	7.19	6.91	5.78	5.14	5.81	4.63	11
8.10	8.54	9.02	7.21	6.16	6.77	5.09	12
2.29	3.74	3.78	4.68	3.99	5.61	6.44	13
32.10	49.36	41.48	38.61	36.12	38.73	32.95	14
5.12	5.37	8.32	6.43	7.14	6.01	5.35	15
.78	1.41	1.12	1.12	1.20	1.67	2.42	16
32.62	22.66	33.83	24.10	20.76	22.64	22.58	17
14.66	13.79	14.85	9.82	10.29	7.71	6.44	18
.34	.51	.07	.24	.20	.48	.64	19
1.37	1.61	3.47	2.89	4.78	4.49	4.84	20
33.47	3.49	17.29	13.76	14.30	15.49	13.78	21
232.11	217.27	248.53	222.55	215.29	227.30	216.32	

## AVERAGE INCOME, EXPENDITURE, AND EXPENDITURE FOR FOOD OF 852

## INCOME.

Marginal number.	Items.	Salaried persons in private employ.				Independent business men (industrial) (4 families with 15 persons).		Civil engineers and constructors (3 families with 16 persons).		Officials of secondary rank.	
		Other industries (17 families with 91 persons).		Total (36 families with 167 persons).						Permanently appointed (129 families with 600 persons).	
		Amt.	P.ct.	Amt.	P.ct.	Amt.	P.ct.	Amt.	P.ct.	Amt.	P.ct.
1	Principal earnings of husband.	\$514.82	83.4	\$478.89	82.4	\$459.89	87.5	\$754.22	85.5	\$580.91	83.2
2	Subsidiary earnings of husband.	14.39	2.3	7.69	1.3	.30	.1	12.68	1.4	4.06	.6
3	Earnings of wife.	17.13	2.8	18.96	3.3	10.55	2.0			1.78	.3
4	Contributions of children.	5.88	1.0	7.87	1.4					3.59	.5
5	Subletting.	1.03	.2	6.11	1.0	28.56	5.4			7.04	1.0
6	Other cash income.	58.55	9.5	59.17	10.2	3.83	.7	115.09	13.1	93.09	13.3
7	Income in kind.	5.14	.8	2.43	.4	22.61	4.3			7.66	1.1
	Total.	616.94	100.0	581.12	100.0	525.74	100.0	881.99	100.0	698.13	100.0

## EXPENDITURE.

1	Foods and drinks.	\$253.82	41.5	\$234.03	40.9	\$210.93	43.5	\$277.95	33.2	\$278.09	37.4
2	Clothing and cleaning.	81.78	13.4	72.93	12.7	44.18	9.1	137.30	16.4	106.06	14.3
3	Dwelling (rent and maintenance of).	110.58	18.1	107.09	18.7	84.58	17.5	143.54	17.1	132.96	17.9
4	Heating and lighting.	18.32	3.0	19.84	3.5	22.76	4.7	26.25	3.1	29.18	3.9
5	Health and physical care.	14.66	2.4	13.90	2.4	6.25	1.3	27.58	3.3	26.79	3.6
6	Education, school fees, etc.	12.44	2.0	7.90	1.4	4.62	.9	47.39	5.6	18.36	2.5
7	Intellectual and social purposes.	18.01	3.0	20.55	3.6	8.30	1.7	21.76	2.6	29.72	4.0
8	State, commune, church, etc. (including taxes).	10.10	1.7	9.30	1.6	13.46	2.8	12.40	1.5	15.79	2.1
9	Insurance, relief funds, etc.	25.00	4.1	21.13	3.7	12.38	2.6	34.35	4.1	33.97	4.6
10	Transportation.	10.40	1.7	9.67	1.7	7.22	1.5	19.89	2.4	7.68	1.0
11	Personal service.	12.39	2.0	6.43	1.1	28.11	5.8	16.46	2.0	8.52	1.1
12	Presents, gifts, etc.	5.66	.9	6.45	1.1	5.60	1.2	5.96	.7	4.77	.6
13	Debts and interest.	3.64	.6	8.05	1.4	30.58	6.3	21.37	2.5	16.49	2.2
14	Occupational expenses.	2.69	.4	1.40	.3	1.42	.3	8.08	1.0	3.63	.5
15	Other cash expenses.	17.85	2.9	16.78	2.9	3.87	.8	30.27	3.6	19.92	2.7
16	Expenditures in kind.	.....	.....	.....	.....	.....	.....	.....	.....	50	.1
17	Savings.	13.80	2.3	16.95	3.0	.....	.....	7.26	.9	11.35	1.5
	Total.	611.14	100.0	572.40	100.0	484.26	100.0	837.81	100.0	744.38	100.0
	Surplus (+) or deficit (-).	+5.80	.....	+8.72	.....	+41.48	.....	+44.18	.....	-46.25	.....

## EXPENDITURE FOR FOOD.

1	Meat (including ham, bacon, etc.).	\$44.07		\$44.62		\$40.14		\$59.20		\$56.38	
2	Sausage.	14.78		13.41		20.69		11.54		14.44	
3	Fish (including smoked fish).	3.56		3.56		3.93		3.57		4.17	
4	Butter.	22.46		22.54		26.44		26.93		28.54	
5	Suet, margarine, etc.	8.22		6.77		3.24		8.43		5.83	
6	Cheese.	4.07		3.36		2.23		4.66		3.77	
7	Eggs.	8.07		6.95		9.33		7.90		10.87	
8	Potatoes.	8.63		6.66		4.85		6.50		8.33	
9	Green vegetables.	6.70		6.80		5.76		8.13		8.31	
10	Salt, spices, oil.	2.16		1.94		.85		2.05		3.19	
11	Sugar, sirup, honey.	6.59		5.56		5.18		8.61		7.27	
12	Flour, rice, legumes, etc.	7.20		6.09		3.94		8.50		8.40	
13	Fruit.	8.84		7.57		4.50		12.16		9.85	
14	Bread and pastry.	43.41		37.89		23.42		40.03		40.01	
15	Coffee and coffee substitutes.	7.34		6.29		5.89		4.28		6.99	
16	Tea, chocolate, cocoa.	1.42		1.95		2.91		3.65		3.09	
17	Milk.	25.01		23.73		24.79		22.74		29.80	
18	Other drinks at home.	8.48		7.40		2.74		5.96		9.67	
19	Other food products.	.49		.57		.64		.82		.85	
20	Cigars and tobacco.	4.20		4.54		3.84		.53		5.63	
21	Expenditures in restaurants.	18.12		15.83		10.62		31.76		12.70	
	Total.	253.82		234.03		210.93		277.95		278.09	

\* Less than one-tenth of 1 per cent.

## FAMILIES, CLASSIFIED BY OCCUPATION OF HEAD OF FAMILY—Concluded.

## INCOME.

Officials of secondary rank.				Subordinate officials (67 families with 339 persons).				Teachers (79 families with 360 persons).				Females, heads of families (2 families with 10 persons).				All families.				Marginal number.			
Not permanently appointed (10 families with 48 persons).		Total (139 families with 648 persons).																					
Amt.	P.ct.	Amt.	P.ct.	Amt.	P.ct.	Amt.	P.ct.	Amt.	P.ct.	Amt.	P.ct.	Total.	Av.	P.ct.									
\$368.98	80.0	\$565.66	83.1	\$403.16	81.3	\$655.23	83.6	.....	.....	\$366,080.98	\$429.68	82.4											
37.60	8.2	6.47	.9	9.79	2.0	42.91	5.5	.....	.....	10,361.72	12.16	2.3											
10.77	2.3	2.43	.4	5.88	1.2	1.67	.2	\$393.28	81.6	12,219.30	14.34	2.7											
.....	.....	3.33	.5	16.61	3.3	.....	.....	36.99	7.7	7,459.91	8.76	1.7											
23.72	5.1	8.24	1.2	10.61	2.1	1.35	.2	27.97	5.8	8,936.62	10.49	2.0											
20.20	4.4	87.85	12.9	40.85	8.2	66.97	8.5	23.79	4.9	35,472.17	41.63	8.0											
.....	.....	7.11	1.0	9.17	1.9	15.92	2.0	.....	.....	3,970.51	4.66	.9											
461.27	100.0	681.09	100.0	496.07	100.0	784.05	100.0	482.03	100.0	444,501.21	521.72	100.0											

## EXPENDITURE.

\$238.64	48.3	\$275.25	37.9	\$246.80	49.0	\$283.05	34.7	\$209.06	50.7	\$206,328.78	\$242.17	45.5	1
60.70	12.3	103.35	14.2	69.77	13.9	120.53	14.8	34.51	8.4	57,272.90	67.22	12.6	2
101.66	20.7	130.71	18.0	91.45	18.2	171.16	21.0	49.54	12.0	81,367.19	95.50	18.0	3
20.57	4.2	28.56	3.9	21.29	4.2	30.27	3.7	29.00	7.0	18,418.85	21.62	4.1	4
7.27	1.5	25.38	3.5	7.78	1.5	33.76	4.1	6.23	1.5	10,313.55	12.11	2.3	5
5.71	1.1	17.45	2.4	6.17	1.2	18.70	2.3	31.62	7.7	6,270.17	7.36	1.4	6
11.86	2.4	28.43	3.9	10.31	2.0	43.89	5.4	11.23	2.7	18,002.88	21.13	4.0	7
5.63	1.1	15.06	2.1	5.94	1.2	14.93	1.8	.12	(a)	6,482.75	7.61	1.4	8
15.24	3.1	32.62	4.5	13.08	2.6	27.35	3.4	3.23	.8	15,388.69	18.06	3.4	9
4.78	.9	7.47	1.0	4.92	1.0	10.86	1.3	3.93	1.0	5,899.17	6.89	1.3	10
1.38	.3	8.01	1.1	.18	(a)	12.30	1.5	12.88	3.1	2,771.47	3.25	.6	11
3.04	.6	4.65	.6	1.63	.3	8.63	1.1	4.88	1.2	2,704.01	3.18	.6	12
10.51	2.1	16.07	2.2	8.95	1.8	5.39	.7	.....	.....	4,704.26	5.52	1.0	13
.....	.....	3.37	.5	2.16	.4	1.23	.1	11.49	2.8	1,779.77	2.09	.4	14
5.96	1.2	18.91	2.6	8.49	1.7	24.85	3.0	4.50	1.1	9,808.51	11.51	2.2	15
.....	.....	.47	.1	.50	.1	.70	.1	.....	.....	316.50	.87	.1	16
1.23	.2	10.62	1.5	4.27	.9	7.97	1.0	.....	.....	5,206.62	6.11	1.1	17
494.20	100.0	726.38	100.0	503.69	100.0	815.57	100.0	412.22	100.0	453,006.07	531.70	100.0	
-32.93	.....	-45.29	.....	-7.62	.....	-31.52	.....	+69.81	.....	.....	-9.98	.....	

## EXPENDITURE FOR FOOD.

\$41.60	\$55.31	\$45.85	\$59.49	\$57.84	\$38,646.18	\$45.36	1
19.38	14.79	14.16	15.84	8.78	11,931.67	14.00	2
2.95	4.08	4.06	5.10	2.49	3,233.79	3.80	3
19.90	27.92	24.83	30.83	23.75	18,209.86	21.37	4
9.24	6.07	11.48	5.21	4.14	7,806.14	9.16	5
3.31	3.74	4.62	3.45	.59	3,381.90	3.97	6
8.63	10.71	7.39	8.57	2.87	6,352.12	7.45	7
6.21	8.18	8.03	6.13	7.58	6,734.43	7.90	8
7.02	8.22	5.63	8.77	6.75	5,318.88	6.24	9
2.23	3.12	2.23	2.04	1.88	1,950.06	2.29	10
7.27	7.27	6.98	7.64	8.54	5,379.09	6.31	11
8.00	8.37	7.92	6.67	6.78	6,026.93	7.07	12
6.92	9.64	5.87	12.21	9.31	5,970.33	7.01	13
38.62	39.91	44.55	38.87	37.40	33,492.30	39.31	14
5.98	6.92	7.08	6.46	4.01	5,357.51	6.29	15
2.47	3.05	1.86	3.64	2.12	1,803.97	2.12	16
30.67	29.86	25.29	26.84	18.76	20,844.73	24.47	17
7.64	9.53	8.92	8.76	3.58	6,940.87	8.15	18
.57	.83	.48	1.15	.72	516.93	.61	19
4.82	5.57	3.26	8.53	.....	4,188.65	4.92	20
5.21	12.16	6.31	16.85	1.17	12,242.43	14.37	21
238.64	275.25	246.80	283.05	209.06	206,328.77	242.17	

### EXPENDITURES IN FAMILIES OF WAGE-EARNERS AND FAMILIES OF SALARIED PERSONS.

As indicated above, there is a marked difference in the character of expenditure of the two groups of persons designated as workmen and as officials of various kinds. The information already presented shows considerable difference in the expenditures of these classes of persons, even where the income is the same. In the investigation there are 522 families the heads of which are clearly workmen and 218 families of officials and teachers.

The average total expenditure in the case of the workmen's families was \$436.74 as compared with a similar average for officials of \$758.70. As a whole, therefore, the families of officials have a much larger income than the families of the workmen, and in any comparison of the two groups of persons not only the difference in social status but also the difference in the standard of living must be considered. The following table shows for 740 families, consisting of 522 workmen's families and 218 officials' families, the principal groups of expenditure of each of these two classes:

AVERAGE AMOUNT AND PER CENT OF SPECIFIED EXPENDITURES IN 740 FAMILIES, CLASSIFIED AS WORKMEN'S AND AS OFFICIALS' FAMILIES.

Group.	Expenditure per family.			
	Amount.		Per cent.	
	522 workmen's families.	218 officials' families.	522 workmen's families.	218 officials' families.
Foods and drinks.....	\$227.30	\$278.07	52.0	36.7
Clothing and cleaning.....	48.71	109.58	11.2	14.4
Dwelling (rent and maintenance of).....	74.38	145.37	17.0	19.2
Heating and lighting.....	18.56	29.18	4.3	3.8
Miscellaneous.....	67.79	196.50	15.5	25.9
Total.....	436.74	758.70	100.0	100.0

According to the preceding table the amount of the total expenditures in the families of officials is approximately 74 per cent higher than the amount in the workmen's families. The groups included in these expenditures show the following variations: The amount of the expenditure for food in officials' families is 22 per cent more than it is in workmen's families; the expenditures for clothing in officials' families is more than double what it is in workmen's families; the expenditure for dwelling in officials' families is not quite double what it is in the workmen's families, while the expenditure for heating and lighting in officials' families is only about 50 per cent higher than it is in workmen's families. The expenditure for miscellaneous purposes is about three times as much in the case of the officials' families as



in the case of the workmen's families. The percentage distribution shows a marked difference. The most conspicuous difference is that over one-half of the expenditures in workmen's families are for food, while about one-third of the expenditures in officials' families are for this purpose.

In order to make a comparison of these types of families according to the size of the family, the following table presents the data for the principal items of expenditure, with the families classified according to the number of persons, but including only the families with less than ten persons:

AVERAGE AMOUNT AND PER CENT OF SPECIFIED EXPENDITURES IN FAMILIES OF WORKMEN AND FAMILIES OF OFFICIALS, CLASSIFIED BY NUMBER OF PERSONS IN FAMILY.

AMOUNT.

Families of—	Number of persons in family.	Number of families reporting.	Expenditures for—					Total.
			Foods and drinks.	Clothing and laundry.	Dwelling (rent and maintenance of).	Heating and lighting.	Other expenses.	
Workmen .....	2	49	\$192.73	\$43.12	\$82.19	\$16.97	\$73.85	\$408.86
Officials.....		19	220.43	93.53	149.66	26.44	170.30	660.36
Workmen .....	3	98	201.97	42.68	73.87	18.28	67.46	404.26
Officials.....		33	239.33	92.95	159.35	26.51	184.76	702.90
Workmen .....	4	127	215.39	46.13	74.18	18.22	67.79	420.71
Officials.....		53	263.04	112.38	142.77	28.13	190.49	736.81
Workmen .....	5	125	238.93	50.79	74.16	18.62	69.19	451.69
Officials.....		56	287.86	105.05	139.70	29.04	179.83	741.48
Workmen .....	6	56	243.15	52.69	74.20	19.69	65.38	455.11
Officials.....		32	316.47	127.05	144.15	32.81	245.97	866.45
Workmen .....	7	36	257.31	55.84	64.87	17.16	61.96	457.14
Officials.....		17	329.74	119.97	156.89	32.96	210.83	850.39
Workmen .....	8	19	267.78	53.81	74.75	22.86	61.90	481.10
Officials.....		4	313.91	127.03	127.45	32.23	231.17	831.79
Workmen .....	9	9	331.16	88.88	81.05	19.58	64.90	585.57
Officials.....		4	371.27	148.09	102.28	31.87	239.25	892.76

PER CENT.

Workmen .....	2	49	47.1	10.5	20.1	4.2	18.1	100.0
Officials.....		19	33.4	14.2	22.7	4.0	25.7	100.0
Workmen .....	3	98	50.0	10.6	18.3	4.5	16.6	100.0
Officials.....		33	34.0	13.2	22.7	3.8	26.3	100.0
Workmen .....	4	127	51.2	10.7	17.6	4.3	16.2	100.0
Officials.....		53	35.7	15.2	19.4	3.8	25.9	100.0
Workmen .....	5	125	52.9	11.3	16.4	4.1	15.3	100.0
Officials.....		56	38.8	14.2	18.8	3.9	24.3	100.0
Workmen .....	6	56	53.4	11.6	16.3	4.3	14.4	100.0
Officials.....		32	36.5	14.7	16.6	3.8	28.4	100.0
Workmen .....	7	36	56.3	12.2	14.2	3.8	13.5	100.0
Officials.....		17	38.8	14.1	18.4	3.9	24.8	100.0
Workmen .....	8	19	55.7	11.2	15.5	4.7	12.9	100.0
Officials.....		4	37.7	15.3	15.3	3.9	27.8	100.0
Workmen .....	9	9	56.6	15.2	13.8	3.3	11.1	100.0
Officials.....		4	41.6	16.6	11.5	3.6	26.7	100.0

On the whole, the facts already mentioned regarding the two types of family apply to families when classified by the number of persons in each. In the following table the families of workmen and

of officials have been classified according to the amount of expenditure, the classes being the same as those used earlier in the discussion.

**AVERAGE AMOUNT AND PER CENT OF EXPENDITURES IN FAMILIES OF WORKMEN AND FAMILIES OF OFFICIALS, CLASSIFIED BY AMOUNT OF EXPENDITURES.**

**AMOUNT.**

Families of—	Classification.	Number of families included.	Expenditure for—					Total.
			Foods and drinks.	Clothing and laundry.	Dwelling (rent and maintenance of).	Heating and lighting.	Other expenditures.	
Workmen..	Under 1,200 M (\$285.60).....	11	\$141.22	\$23.84	\$51.18	\$15.72	\$26.71	\$258.67
Workmen..	From 1,200 to 1,600 M (\$285.60 to \$390.80).....	154	187.51	32.07	57.36	16.65	47.95	341.54
Officials....	.....	2	189.83	28.80	70.69	17.89	37.04	344.35
Workmen..	From 1,600 to 2,000 M (\$390.80 to \$476).....	196	220.70	47.07	75.06	18.35	65.06	426.78
Officials....	.....	10	185.15	65.37	82.26	30.72	82.81	444.31
Workmen..	From 2,000 to 2,500 M (\$476 to \$595).....	127	261.15	62.22	88.16	20.04	88.50	520.07
Officials....	.....	28	226.89	79.75	104.25	23.82	116.39	551.10
Workmen..	From 2,500 to 3,000 M (\$595 to \$714).....	24	320.86	83.87	97.94	20.85	108.45	631.97
Officials....	.....	60	251.67	96.01	127.21	27.45	150.92	653.86
Workmen..	From 3,000 to 4,000 M (\$714 to \$952).....	10	409.81	108.45	106.63	31.14	111.34	767.37
Officials....	.....	82	295.19	113.02	157.06	30.16	216.34	811.77
Officials....	From 4,000 to 5,000 M (\$952 to \$1,190).....	31	342.98	156.05	201.91	32.83	300.25	1,034.02
Officials....	Over 5,000 M (\$1,190).....	5	423.74	208.33	207.52	42.61	514.49	1,396.69
Workmen..	Under 2,000 M (\$476).....	361	204.12	39.97	67.07	17.54	56.59	385.29
Officials....	.....	12	184.26	59.30	80.33	28.58	75.18	427.65
Workmen..	From 2,000 to 3,000 M (\$476 to \$714).....	151	270.64	65.67	89.71	20.16	91.67	537.85
Officials....	.....	88	243.79	91.24	119.90	26.30	139.93	621.16
Workmen..	Over 3,000 M (\$714).....	10	409.81	108.45	106.63	31.14	111.34	767.37
Officials....	.....	118	313.19	128.36	170.98	31.39	251.02	894.94

**PER CENT.**

Workmen..	Under 1,200 M (\$285.60).....	11	54.6	9.2	19.8	6.1	10.3	100.0
Workmen..	From 1,200 to 1,600 M (\$285.60 to \$390.80).....	154	54.9	9.4	16.8	4.9	14.0	100.0
Officials....	.....	2	55.1	8.4	20.5	5.2	10.8	100.0
Workmen..	From 1,600 to 2,000 M (\$390.80 to \$476).....	196	51.7	11.0	17.7	4.3	15.3	100.0
Officials....	.....	10	41.2	14.7	18.5	6.9	18.7	100.0
Workmen..	From 2,000 to 2,500 M (\$476 to \$595).....	127	50.2	12.0	17.0	3.9	16.9	100.0
Officials....	.....	28	41.2	14.5	18.9	4.3	21.1	100.0
Workmen..	From 2,500 to 3,000 M (\$595 to \$714).....	24	50.8	13.3	15.5	3.3	17.1	100.0
Officials....	.....	60	38.5	14.8	19.4	4.2	23.1	100.0
Workmen..	From 3,000 to 4,000 M (\$714 to \$952).....	10	53.4	14.1	13.9	4.1	14.5	100.0
Officials....	.....	82	36.4	13.9	19.3	3.7	26.7	100.0
Officials....	From 4,000 to 5,000 M (\$952 to \$1,190).....	31	33.2	15.1	19.5	3.2	29.0	100.0
Officials....	Over 5,000 M (\$1,190).....	5	30.3	14.9	14.9	3.1	36.8	100.0
Workmen..	Under 2,000 M (\$476).....	361	53.0	10.4	17.4	4.5	14.7	100.0
Officials....	.....	12	43.1	13.9	18.8	6.7	17.5	100.0
Workmen..	From 2,000 to 3,000 M (\$476 to \$714).....	151	50.3	12.2	16.7	3.8	17.0	100.0
Officials....	.....	88	39.2	14.7	19.3	4.2	22.6	100.0
Workmen..	Over 3,000 M (\$714).....	10	53.4	14.1	13.9	4.1	14.5	100.0
Officials....	.....	118	35.0	14.4	19.1	3.5	28.0	100.0

In discussing the preceding table it should be remembered that the workmen's families live principally in the large cities, while the families of officials live principally in the small cities and rural districts. For this reason the prices paid by the workmen's families are probably higher than are paid by families of officials, especially the prices for food and for dwelling. Another factor which should be kept in mind is that the detailed data given elsewhere in the report show that the workmen's families, as a rule, are composed of a

larger number of persons than the officials' families. In the preceding table the amount expended for food is higher in the case of the workmen's families than in the officials' families, and this is true for each grade of expenditure except the second grade, and the difference becomes greater with the increase in the amount of expenditure. The item of expenditure for miscellaneous purposes shows clearly the greater amount expended for such purposes by the officials' than by the workmen's families. The detailed tables presented in the report show, for instance, that the officials frequently take vacation journeys and excursions of considerable extent, which require both larger means and leave of absence.

The difference in the standard of living of wage-earners and of salaried persons was referred to in the discussion of income and expenditures according to occupation of the head of the family. Comparatively few studies have been made of the cost of living of persons receiving salaries of practically the same level as workmen. Some of the differences in the two large groups of occupations have already been pointed out, such, for instance, as the fact that salaried persons show a tendency to select smaller communities as places of residence; the size of the family is, in general, somewhat smaller, and the consumption of certain important articles of food shows a marked difference in the case of salaried persons as compared with workmen. The greater regularity of income of the salaried persons, their higher standard of general education, and the possibility of making better provision in the way of insurance, etc., influence their expenditures in many ways.

To permit the reader to make a more detailed comparison of the two types of families, the following table is presented, in which the families of workmen and the families of salaried officials have their income and expenditures presented in considerable detail, the families being classed according to the grade of expenditure and according to the size of the family.

DETAILED COMPARISON OF AVERAGE EXPENDITURES PER FAMILY  
**I.—FAMILIES, CLASSIFIED BY AMOUNT OF EXPENDITURE.**

Marginal number.	Items.	Under 1,200 M. (\$285.60). Workmen: 11 families. <sup>(a)</sup>		1,200 to 1,600 M. (\$285.60 to \$380.80).		1,600 to 2,000 M. (\$380.80 to \$476).					
				Workmen: 154 families.		Officials: 2 families.		Workmen: 196 families.		Officials: 10 families.	
		Amt.	Per cent.	Amt.	Per cent.	Amt.	Per cent.	Amt.	Per cent.	Amt.	Per cent.
	<b>FOODS AND DRINKS.</b>										
1	Meat (including ham, bacon, etc.) . . .	\$23.16	9.9	\$32.35	9.5	\$18.12	5.3	\$38.55	9.0	\$36.02	8.1
2	Sausage . . .	6.14	2.4	12.68	3.7	17.22	5.0	13.70	3.2	9.07	2.0
3	Fish (including smoked fish) . . .	1.35	.5	2.78	.8	2.86	.8	3.37	.8	2.24	.5
4	Butter . . .	11.94	4.6	13.27	3.9	9.63	2.8	18.24	4.3	15.47	3.5
5	Suet, margarine, etc. . .	4.56	1.8	8.25	2.4	3.98	1.1	10.49	2.5	7.58	1.7
6	Cheese . . .	2.50	1.0	3.11	.9	2.38	.7	3.99	.9	1.93	.4
7	Eggs . . .	4.00	1.5	5.21	1.5	8.02	2.3	6.52	1.5	6.09	1.4
8	Potatoes . . .	7.34	2.8	6.87	2.0	5.52	1.6	7.69	1.8	5.44	1.2
9	Green vegetables . . .	4.94	1.9	4.24	1.2	5.12	1.5	5.02	1.2	4.75	1.1
10	Salt, spices, oil . . .	2.39	.9	2.20	.6	2.46	.7	1.86	.4	1.80	.4
11	Sugar, sirup, honey . . .	3.59	1.4	4.97	1.5	6.75	1.9	5.97	1.4	6.04	1.4
12	Flour, rice, legumes, etc. . .	5.57	2.2	6.40	1.9	13.40	3.9	6.41	1.5	7.48	1.7
13	Fruit . . .	2.68	1.0	3.62	1.1	2.43	.7	5.81	1.4	8.49	1.9
14	Bread and pastry . . .	25.68	9.0	32.80	9.6	29.18	8.5	37.58	8.8	30.14	6.8
15	Coffee and coffee substitutes . . .	5.12	2.0	5.20	1.5	6.45	1.9	5.54	1.3	5.13	1.2
16	Tea, chocolate, cocoa . . .	.71	.3	1.04	.3	.11	(c)	1.74	.4	3.16	.7
17	Milk . . .	14.14	5.5	19.94	5.8	42.07	12.2	22.62	5.3	20.88	4.7
	<b>Other drinks at home:</b>										
18	Alcoholic . . .	6.46	.....	7.63	.....	2.23	.....	6.70	.....	2.89	.....
19	Nonalcoholic . . .	.08	.....	.15	.....	.07	.....	.23	.....	.15	.....
20	Total . . .	6.54	2.5	7.78	2.3	2.30	.7	6.93	1.6	3.04	.7
21	Other food products . . .	.07	(c)	.35	.1	.01	(c)	.37	.1	.67	.1
22	Cigars and tobacco . . .	2.82	1.1	3.35	1.0	4.79	1.4	4.36	1.0	2.71	.6
	<b>Expenditure in restaurants:</b>										
23	Foods . . .	3.18	.....	d 3.89	.....	2.49	.....	e 2.94	.....	1.14	.....
24	Alcoholic drinks . . .	2.73	.....	d 6.32	.....	4.22	.....	e 9.22	.....	2.53	.....
25	Nonalcoholic drinks . . .	.07	.....	d .80	.....	.42	.....	e 1.21	.....	1.35	.....
26	Total . . .	5.98	2.3	11.10	3.3	7.13	2.1	13.94	3.3	5.02	1.1
	<b>Total expenditures for foods and drinks.</b>	141.22	54.6	187.51	54.9	189.83	55.1	220.70	51.7	183.15	41.2
	<b>ALL OTHER.</b>										
	<b>Clothing, linen, cleaning:</b>										
27	Clothing . . .	18.03	.....	24.84	.....	22.43	.....	37.22	.....	52.40	.....
28	Linen (including bed linen) . . .	2.38	.....	3.02	.....	.54	.....	4.65	.....	4.84	.....
29	Cleaning . . .	3.43	.....	4.21	.....	5.93	.....	5.20	.....	8.13	.....
30	Total . . .	23.84	9.2	32.07	9.4	28.90	8.4	47.07	11.0	65.37	14.7
	<b>Dwelling (rent and maintenance of):</b>										
31	Rent . . .	43.08	.....	49.01	.....	66.83	.....	63.40	.....	62.08	.....
32	Gardens, etc. . .	.09	.....	.31	.....	.....	.....	.32	.....	.77	.....
33	Maintenance and cleaning of dwelling . . .	8.01	.....	8.04	.....	3.86	.....	11.88	.....	19.46	.....
34	Total . . .	51.18	19.8	57.36	16.8	70.69	20.5	75.60	17.7	82.26	18.5
	<b>Heating and lighting:</b>										
35	Heating and fires . . .	11.59	.....	12.63	.....	12.13	.....	13.30	.....	25.15	.....
36	Lighting . . .	4.13	.....	4.02	.....	5.76	.....	5.06	.....	5.57	.....
37	Total . . .	15.72	6.1	16.65	4.9	17.89	5.2	18.35	4.3	30.72	6.9

<sup>a</sup> In this grade of expenditure there were no families of officials.

<sup>b</sup> In this grade of expenditure there were no families of workmen.

<sup>c</sup> Less than one-tenth of 1 per cent.

<sup>d</sup> Average for 153 families.

<sup>e</sup> Average for 193 families.

## IN FAMILIES OF WORKMEN AND FAMILIES OF OFFICIALS.

## I.—FAMILIES, CLASSIFIED BY AMOUNT OF EXPENDITURE.

2,000 to 2,500 M. (\$476 to \$595).				2,500 to 3,000 M. (\$595 to \$714 ).				3,000 to 4,000 M. (\$714 to \$952).				4,000 to 5,000 M. (\$952 to \$1,190).				Over 5,000 M. (\$1,190).				Marginal number.
Workmen: 127 families.		Officials: 28 families.		Workmen: 24 families.		Officials: 60 families.		Workmen: 10 families.		Officials: 82 families.		Officials: 31 families.		Officials: 5 families.(b)						
Amt.	Per cent.	Amt.	Per cent.	Amt.	Per cent.	Amt.	Per cent.	Amt.	Per cent.	Amt.	Per cent.	Amt.	Per cent.	Amt.	Per cent.					
\$46.67	9.0	\$48.38	8.8	\$63.40	10.0	\$53.12	8.1	\$88.42	11.5	\$59.23	7.3	\$69.78	6.7	\$85.94	6.2	1				
14.46	2.8	13.16	2.4	14.73	2.3	14.34	2.2	16.24	2.1	15.75	1.9	17.50	1.7	23.98	1.7	2				
4.18	.8	3.49	.6	4.81	.8	3.73	.6	8.20	1.1	4.97	.6	5.30	.5	9.72	.7	3				
20.06	3.8	22.60	4.1	23.88	3.8	27.93	4.3	31.56	4.1	29.26	3.6	38.09	3.7	50.55	3.6	4				
11.45	2.2	3.94	.7	17.32	2.7	5.57	.8	24.56	3.2	5.85	.7	6.89	.7	6.99	.5	5				
4.93	.9	2.51	.5	6.21	1.0	3.28	.5	7.01	.9	3.97	.5	4.65	.4	6.28	.4	6				
7.13	1.4	8.63	1.6	9.98	1.6	9.19	1.4	10.63	1.4	11.08	1.4	10.27	1.0	13.74	1.0	7				
9.43	1.8	7.34	1.3	11.91	1.9	6.77	1.0	15.36	2.0	7.68	.9	8.25	.8	11.69	.8	8				
6.38	1.2	5.97	1.1	7.75	1.2	7.03	1.1	11.21	1.4	9.43	1.2	11.10	1.1	14.36	1.0	9				
2.31	.4	3.24	.6	3.02	.5	2.51	.4	2.68	.3	2.70	.3	2.85	.3	4.15	.3	10				
6.40	1.2	7.09	1.3	6.75	1.1	6.50	1.0	8.39	1.1	8.21	1.0	7.94	.8	6.37	.5	11				
7.13	1.4	6.16	1.1	9.04	1.4	6.34	1.0	10.48	1.4	8.50	1.1	9.56	.9	8.60	.6	12				
6.86	1.3	6.29	1.1	9.31	1.5	8.59	1.3	10.68	1.4	11.42	1.4	16.10	1.6	17.58	1.3	13				
42.95	8.3	31.40	5.7	53.64	8.5	34.99	5.4	77.54	10.1	42.24	5.2	49.97	4.8	53.39	3.8	14				
7.10	1.4	5.75	1.0	8.48	1.4	6.37	1.0	9.11	1.2	7.03	.9	8.20	.8	6.83	.5	15				
1.98	.4	2.35	.4	3.23	.5	2.59	.4	3.15	.4	3.97	.5	3.84	.4	2.84	.2	16				
24.94	4.8	22.55	4.1	29.09	4.6	24.41	3.7	29.24	3.8	32.12	4.0	34.55	3.3	35.50	2.5	17				
8.47	.....	8.13	.....	9.32	.....	8.85	.....	5.69	.....	9.16	.....	10.04	.....	16.68	.....	18				
.24	.....	.38	.....	.35	.....	.35	.....	.37	.....	.40	.....	.36	.....	.08	.....	19				
8.71	1.7	8.51	1.5	9.67	1.5	9.20	1.4	6.06	.8	9.56	1.2	10.40	1.0	16.76	1.2	20				
.43	.1	.88	.2	.54	.1	.84	.1	5.85	.8	.90	.1	1.42	.1	1.28	.1	21				
5.40	1.0	5.85	1.1	7.81	1.2	5.32	.8	6.68	.9	7.19	.9	8.84	.9	12.95	.9	22				
/ 6.54	.....	2.92	.....	4.12	.....	3.53	.....	3.17	.....	4.80	.....	8.01	.....	24.43	.....	23				
/13.57	.....	6.47	.....	14.20	.....	7.12	.....	16.26	.....	6.79	.....	7.47	.....	8.43	.....	24				
/1.44	.....	1.41	.....	1.97	.....	1.44	.....	2.28	.....	2.30	.....	2.00	.....	1.38	.....	25				
22.25	4.3	10.80	2.0	20.29	3.2	13.05	2.0	26.75	3.5	14.13	1.7	17.48	1.7	34.24	2.5	26				
261.15	50.2	226.89	41.2	320.86	50.8	251.67	38.5	409.80	53.4	295.19	36.4	342.98	33.2	423.74	30.3					
48.33	.....	65.37	.....	67.91	.....	79.49	.....	92.00	.....	91.71	.....	130.05	.....	177.42	.....	27				
7.30	.....	6.44	.....	8.36	.....	6.36	.....	6.50	.....	9.05	.....	11.30	.....	13.86	.....	28				
6.59	.....	7.94	.....	7.60	.....	10.76	.....	9.95	.....	12.26	.....	14.70	.....	17.05	.....	29				
62.22	12.0	79.75	14.5	83.87	13.3	96.61	14.8	108.45	14.1	113.02	13.9	156.05	15.1	208.33	14.9	30				
73.18	.....	81.40	.....	74.29	.....	100.99	.....	89.88	.....	122.04	.....	149.42	.....	163.98	.....	31				
.40	.....	.57	.....	.47	.....	1.13	.....	.69	.....	1.47	.....	1.85	.....	2.97	.....	32				
14.58	.....	22.28	.....	23.18	.....	25.09	.....	16.06	.....	33.55	.....	50.64	.....	40.57	.....	33				
88.16	17.0	104.25	18.9	97.94	15.5	127.21	19.4	106.63	13.9	157.06	19.3	201.91	19.5	207.52	14.9	34				
14.84	.....	17.90	.....	14.85	.....	19.12	.....	24.02	.....	18.98	.....	18.55	.....	24.56	.....	35				
5.19	.....	5.93	.....	6.00	.....	8.33	.....	7.12	.....	11.18	.....	14.28	.....	18.05	.....	36				
20.03	3.9	23.83	4.3	20.85	3.3	27.45	4.2	31.14	4.1	30.16	3.7	32.83	3.2	42.61	3.1	37				

/ Average for 125 families.

g Average for 59 families.

^ Average for 9 families.

† Average for 81 families.

**DETAILED COMPARISON OF AVERAGE EXPENDITURE PER FAMILY**  
**I.—FAMILIES, CLASSIFIED BY AMOUNT OF EXPENDITURE—Concluded.**

Marginal number.	Items.	Under 1,200 M. (\$235.60). Workmen: 11 families. (a)		1,200 to 1,600 M. (\$285.60 to \$380.80).		1,600 to 2,000 M. (\$380.80 to \$476).					
				Workmen: 154 families.		Officials: 2 families.		Workmen: 196 families.		Officials: 10 families.	
		Amt.	Per cent.	Amt.	Per cent.	Amt.	Per cent.	Amt.	Per cent.	Amt.	Per cent.
	ALL OTHER—concluded.										
38	Health and physical care:										
39	Health expenditures.....	\$2.17		\$2.62		\$4.06		\$3.58		\$6.96	
	Physical care.....	1.50		1.57		2.22		2.16		1.87	
40	Total.....	3.67	1.4	4.19	1.2	6.28	1.8	5.74	1.3	8.83	2.0
41	Education, school fees, etc.....	.66	.2	1.47	.4	.03 (c)		1.94	.5	1.19	.3
42	Intellectual and social expenditures:										
43	Newspapers, books, clocks, etc.....	6.93		9.28		6.42		12.48		9.04	
	Recreation.....	1.07		2.88		4.64		4.18		8.70	
44	Total.....	8.00	3.1	12.16	3.6	11.06	3.2	16.66	3.9	17.74	4.0
	State, commune, church, etc. (including taxes):										
45	Taxes and rates.....	1.78		3.80		4.72		5.19		6.14	
46	Legal protection.....	.24		.03							
47	Total.....	2.02	.8	3.83	1.1	4.72	1.4	5.19	1.2	6.14	1.4
48	Insurance, relief funds, etc.....	4.27	1.6	11.04	3.2	9.49	2.7	13.83	3.2	18.92	4.3
49	Transportation.....	1.28	.5	4.16	1.2	.30	.1	5.61	1.3	5.87	1.3
50	Personal service.....	.16	.1	.31	.1	.22	.1	.42	.1	5.72	1.3
51	Gifts, presents, etc.....	.29	.1	1.02	.3	1.28	.4	1.33	.3	3.19	.7
52	Debts and interest.....	2.09	.8	1.16	.3			1.14	.3	1.67	.4
53	Trade and occupational expenses.....	.20	.1	1.19	.4			2.02	.5	.20	.1
54	Miscellaneous expenses.....	2.26	.9	5.54	1.6	3.66	1.1	6.75	1.6	7.22	1.6
55	Expenditures in kind.....			.61	.2			.24	.1	2.86	.6
56	Savings.....	1.81	.7	1.27	.4			4.19	1.0	3.26	.7
57	Grand total.....	258.67	100.0	341.54	100.0	344.35	100.0	426.78	100.0	444.31	100.0

**II.—FAMILIES, CLASSIFIED BY NUMBER OF PERSONS.**

Marginal number.	Items.	Families with 2 persons.				Families with 3 persons.			
		Workmen: 49 families.		Officials and teachers: 19 families.		Workmen: 98 families.		Officials and teachers: 33 families.	
		Amt.	Per cent.	Amt.	Per cent.	Amt.	Per cent.	Amt.	Per cent.
	<b>FOODS AND DRINKS.</b>								
1	Meat (including ham, bacon, etc.).....	\$35.96	8.8	\$45.22	6.8	\$38.91	9.6	\$50.26	7.1
2	Sausage.....	12.76	3.1	12.45	1.9	12.06	3.0	14.22	2.0
3	Fish (including smoked fish).....	3.34	.8	5.04	.8	3.21	.8	4.04	.6
4	Butter.....	17.70	4.3	22.25	3.4	15.90	3.9	23.45	3.3
5	Suet, margarine, etc.....	4.59	1.1	2.52	.4	6.92	1.7	4.63	.7
6	Cheese.....	3.98	1.0	2.81	.4	3.93	1.0	3.54	.5
7	Eggs.....	5.90	1.4	7.08	1.1	6.33	1.6	8.65	1.2
8	Potatoes.....	5.57	1.4	4.04	.6	6.77	1.7	6.21	.9
9	Green vegetables.....	4.95	1.2	8.07	1.2	5.25	1.3	8.84	1.2
10	Salt, spices, oil.....	1.32	.3	1.87	.3	1.92	.5	2.59	.4
11	Sugar, sirup, honey.....	4.43	1.1	4.39	.7	4.59	1.1	4.91	.7
12	Flour, rice, legumes, etc.....	3.96	1.0	4.57	.7	5.79	1.4	5.37	.8
13	Fruit.....	6.04	1.5	11.19	1.7	5.51	1.4	8.86	1.3
14	Bread and pastry.....	21.90	5.3	23.04	3.5	27.69	6.8	28.86	4.1
15	Coffee and coffee substitutes.....	5.47	1.3	5.06	.8	5.50	1.4	5.77	.8
16	Tea, chocolate, cocoa.....	1.90	.5	2.84	.4	1.60	.4	2.95	.4
17	Milk.....	16.74	4.1	14.28	2.1	21.11	5.2	23.80	3.4

<sup>a</sup> In this grade of expenditure there were no families of officials.

<sup>b</sup> In this grade of expenditure there were no families of workmen.

## IN FAMILIES OF WORKMEN AND FAMILIES OF OFFICIALS—Continued.

## I.—FAMILIES, CLASSIFIED BY AMOUNT OF EXPENDITURE—Concluded.

2,000 to 2,500 M. (\$476 to \$595).				2,500 to 3,000 M. (\$595 to \$714).				3,000 to 4,000 M. (\$714 to \$952).				4,000 to 5,000 M. (\$952 to \$1,190).		Over 5,000 M. (\$1,190).		Marginal number.
Workmen: 127 families.		Officials: 28 families.		Workmen: 24 families.		Officials: 60 families.		Workmen: 10 families.		Officials: 82 families.		Officials: 31 families.		Officials: 5 families.(b)		
Amt.	Per cent.	Amt.	Per cent.	Amt.	Per cent.	Amt.	Per cent.	Amt.	Per cent.	Amt.	Per cent.	Amt.	Per cent.	Amt.	Per cent.	
\$4.99	.....	\$13.85	.....	\$2.88	.....	\$19.17	.....	\$6.32	.....	\$28.14	.....	\$46.01	.....	\$32.85	.....	38
2.51		2.29		2.48		3.04		2.18		3.47		3.49		3.89		39
7.50	1.4	16.14	2.9	5.36	.8	22.21	3.4	8.50	1.1	31.61	3.9	49.50	4.8	36.74	2.6	40
4.67	.9	3.67	.7	8.13	1.3	6.76	1.0	4.10	.5	19.29	2.4	40.77	3.9	107.44	7.7	41
14.85		12.98		16.66		13.36		15.62		17.48		20.92		23.93		42
7.25		14.05		12.75		14.55		13.74		18.86		26.80		41.85		43
22.10	4.2	27.03	4.9	29.41	4.6	27.91	4.3	29.36	3.8	36.34	4.5	47.72	4.6	65.78	4.7	44
4.48	.....	8.90	.....	4.47	.....	12.76	.....	7.58	.....	16.87	.....	17.39	.....	39.05	.....	45
.05		.33		.01		.03				.52		.37		.69		46
4.53	.9	9.23	1.7	4.48	.7	12.79	1.9	7.58	1.0	17.39	2.1	17.76	1.7	39.74	2.9	47
15.32	2.9	21.73	3.9	14.73	2.3	25.88	4.0	14.09	1.8	31.35	3.8	43.58	4.2	80.80	5.8	48
8.75	1.7	7.19	1.3	9.93	1.6	7.25	1.1	9.44	1.2	8.62	1.1	12.92	1.3	13.80	1.4	49
29	(c)	6.00	1.1	1.93	.3	7.69	1.2	5.32	.7	9.51	1.2	14.05	1.4	36.41	2.6	50
3.32	.6	2.43	.4	3.46	.6	2.55	.4	5.73	.8	9.61	1.2	7.58	.7	9.90	.7	51
2.71	.5	2.65	.5	5.04	.8	14.19	2.2	7.89	1.0	14.83	1.8	14.98	1.5	7.14	.5	52
2.37	.5	.22	(c)	2.25	.3	1.09	.2	2.94	.4	1.74	.2	1.04	.1	63.38	4.5	53
10.26	2.0	15.19	2.8	13.05	2.1	14.33	2.2	11.26	1.5	24.12	3.0	35.51	3.4	29.75	2.1	54
.17	(c)					.80	.1					1.39	3.1			55
6.61	1.3	4.90	.9	10.63	1.7	7.46	1.1	5.14	.7	11.93	1.5	13.45	1.3	18.61	1.3	56
520.07	100.0	551.10	100.0	631.97	100.0	653.85	100.0	767.37	100.0	811.77	100.0	1,034.02	100.0	1,396.69	100.0	57

## II.—FAMILIES, CLASSIFIED BY NUMBER OF PERSONS.

Families with 4 persons.				Families with 5 persons.				Families with 6 persons.				Marginal number.
Workmen: 127 families.		Officials and teachers: 53 families.		Workmen: 125 families.		Officials and teachers: 56 families.		Workmen: 56 families.		Officials and teachers: 32 families.		
Amt.	Per cent.	Amt.	Per cent.	Amt.	Per cent.	Amt.	Per cent.	Amt.	Per cent.	Amt.	Per cent.	
\$39.69	9.4	\$57.91	7.9	\$42.06	9.3	\$57.90	7.8	\$40.13	8.8	\$59.64	6.9	1
14.51	3.5	14.46	2.0	13.89	3.1	16.24	2.2	13.79	3.0	16.28	1.9	2
3.34	.8	4.60	.6	3.49	.8	3.93	.5	3.64	.8	4.90	.6	3
15.20	3.6	27.82	3.8	18.21	4.0	30.72	4.2	20.49	4.5	33.13	3.8	4
9.37	2.2	4.73	.6	11.74	2.6	5.96	.8	12.98	2.8	8.65	1.0	5
3.87	.9	3.55	.5	4.21	.9	3.73	.5	4.01	.9	4.12	.5	6
6.83	1.6	9.80	1.3	7.05	1.6	11.08	1.5	5.93	1.3	10.74	1.2	7
7.11	1.7	6.64	.9	8.83	1.9	7.55	1.0	9.79	2.1	10.07	1.2	8
5.09	1.2	8.34	1.1	5.74	1.3	8.45	1.1	5.36	1.2	9.38	1.1	9
2.01	.5	2.22	.3	2.35	.5	2.51	.3	2.27	.5	3.71	.4	10
5.50	1.3	6.75	.9	6.27	1.4	8.29	1.1	6.76	1.5	7.07	.8	11
6.48	1.5	7.35	1.0	7.27	1.6	7.34	1.0	7.64	1.7	11.21	1.3	12
5.25	1.3	10.68	1.5	5.89	1.3	11.85	1.6	6.08	1.3	9.93	1.1	13
34.11	8.1	34.26	4.7	41.28	9.1	40.70	5.5	48.07	10.6	49.87	5.8	14
5.70	1.4	5.85	.8	6.24	1.4	7.39	1.0	6.37	1.4	8.09	.9	15
1.55	.4	3.31	.4	1.70	.4	3.19	.4	1.88	.4	2.79	.3	16
22.66	5.4	28.22	3.8	23.83	5.3	32.10	4.3	25.09	5.5	33.10	3.8	17

c Less than one-tenth of 1 per cent.

DETAILED COMPARISON OF AVERAGE EXPENDITURE PER FAMILY  
**II.—FAMILIES, CLASSIFIED BY NUMBER OF PERSONS—Continued.**

Marginal number.	Items.	Families with 2 persons.				Families with 3 persons.			
		Workmen: 49 families.		Officials and teachers: 19 families.		Workmen: 98 families.		Officials and teachers: 33 families.	
		Amt.	P. ct.	Amt.	P. ct.	Amt.	P. ct.	Amt.	P. ct.
	<b>FOOD AND DRINKS—concluded.</b>								
	Other drinks at home:								
18	Alcoholic .....	\$7.54		\$9.47		\$7.56		\$9.24	
19	Nonalcoholic .....	.34		.33		.12		.17	
20	Total .....	7.88	1.9	9.80	1.5	7.68	1.9	9.41	1.3
21	Other food products .....	.25	.1	.91	.1	.34	.1	.58	.1
22	Cigars and tobacco .....	6.12	1.5	9.24	1.4	4.12	1.0	7.25	1.0
	Expenditures in restaurants:								
23	Food .....	7.57		10.47		5.43		4.10	
24	Alcoholic drinks .....	12.53		9.57		9.98		9.49	
25	Nonalcoholic drinks .....	1.87		3.72		1.43		1.55	
26	Total .....	21.97	5.4	23.76	3.6	16.84	4.2	15.14	2.2
	Total expenditures for foods and drinks.	192.73	47.1	220.43	33.4	201.97	50.0	239.33	34.0
	<b>ALL OTHER.</b>								
	Clothing, linen, cleaning:								
27	Clothing .....	32.67		76.74		33.31		74.73	
28	Linen (including bed linen) .....	5.87		6.04		4.35		7.50	
29	Cleaning .....	4.58		10.75		5.02		10.72	
30	Total .....	43.12	10.5	93.53	14.2	42.68	10.6	92.95	13.2
	Dwelling (rent and maintenance of):								
31	Rent .....	65.73		119.64		62.01		117.99	
32	Gardens, etc. ....	.61		1.72		.37		1.47	
33	Maintenance and cleaning of dwelling.	15.85		23.30		11.49		39.89	
34	Total .....	82.19	20.1	149.66	22.7	73.87	18.3	159.35	22.7
	Heating and lighting:								
35	Heating and fires .....	11.88		17.20		13.45		16.92	
36	Lighting .....	5.09		9.24		4.83		9.59	
37	Total .....	16.97	4.2	26.44	4.0	18.29	4.5	26.51	3.8
	Health and physical care:								
38	Health expenditures .....	6.05		31.79		3.46		24.45	
39	Physical care .....	2.42		4.07		1.95		3.06	
40	Total .....	8.47	2.1	35.86	5.4	5.41	1.3	27.51	3.9
41	Education, school fees, etc. ....	.80	.2	3.22	.5	1.74	.4	9.45	1.3
	Intellectual and social expenditures:								
42	Newspapers, books, clocks, etc. ....	13.36		17.43		12.50		17.72	
43	Recreation .....	5.53		24.58		5.42		17.37	
44	Total .....	18.89	4.6	42.01	6.4	17.92	4.4	35.09	5.0
	State, commune, church, etc. (including taxes):								
45	Taxes and rates .....	4.62		13.19		4.52		15.35	
46	Legal protection .....	.08				.04		.07	
47	Total .....	4.70	1.2	13.19	2.0	4.56	1.1	15.42	2.2
48	Insurance, relief funds, etc. ....	12.31	3.0	20.83	3.1	13.24	3.3	27.67	3.9
49	Transportation .....	10.46	2.6	10.56	1.6	7.20	1.8	8.18	1.2
50	Personal service .....	.48	.1	5.31	.8	.37	.1	6.54	.9
51	Gifts, presents, etc. ....	2.15	.5	4.72	.7	2.61	.6	7.07	1.0
52	Debts and interest .....	.86	.2	5.91	.9	1.73	.2	10.93	1.6
53	Trade and occupational expenses .....	2.12	.5	1.87	.3	1.45	.4	12	(a)
54	Miscellaneous expenses .....	8.82	2.2	15.45	2.3	7.50	1.9	20.89	3.0
55	Expenditures in kind .....			.88	.1		(a)		
56	Savings .....	3.79	.9	10.49	1.6	4.02	1.1	15.89	2.3
57	Grand total .....	408.86	100.0	680.36	100.0	404.26	100.0	702.90	100.0

a Less than one-tenth of 1 per cent.



## IN FAMILIES OF WORKMEN AND FAMILIES OF OFFICIALS—Continued.

## II.—FAMILIES, CLASSIFIED BY NUMBER OF PERSONS—Continued.

Families with 4 persons.				Families with 5 persons.				Families with 6 persons.				Marginal number.
Workmen: 127 families.		Officials and teachers: 53 families.		Workmen: 125 families.		Officials and teachers: 56 families.		Workmen: 56 families.		Officials and teachers: 32 families.		
Amt.	P.ct.	Amt.	P.ct.	Amt.	P.ct.	Amt.	P.ct.	Amt.	P.ct.	Amt.	P.ct.	
\$7.93 .21	.....	\$7.86 .38	.....	\$7.92 .21	.....	\$10.26 .44	.....	\$5.74 .24	.....	\$9.20 .50	.....	18
8.14	1.9	8.25	1.1	8.13	1.8	10.70	1.5	5.98	1.3	9.70	1.1	19
.34 4.60	.1 1.1	1.05 5.58	.1 .8	.43 4.64	.1 1.0	.93 6.45	.1 .9	.27 3.63	.1 .8	.71 7.04	.1 .8	21 22
3.72 8.42 .98	..... ..... .....	3.90 5.74 2.03	..... ..... .....	3.79 9.80 1.21	..... ..... .....	3.55 5.80 1.50	..... ..... .....	2.49 9.52 .98	..... ..... .....	7.97 6.20 1.64	..... ..... .....	23 24 25
14.04	3.3	11.67	1.6	15.68	3.5	10.85	1.5	12.99	2.9	16.34	1.9	26
215.39	51.2	263.04	35.7	238.93	52.9	287.86	38.8	243.15	53.4	316.47	36.5	
35.38 4.37 5.38	..... ..... .....	91.56 9.58 11.23	..... ..... .....	39.94 5.35 5.50	..... ..... .....	85.18 7.69 12.17	..... ..... .....	41.27 5.94 5.48	..... ..... .....	106.97 7.48 12.60	..... ..... .....	27 28 29
45.13	10.7	112.37	15.2	50.79	11.3	105.04	14.2	52.69	11.6	121.05	14.7	30
61.94 .28 11.96	..... ..... .....	108.20 1.39 33.18	..... ..... .....	62.03 .38 11.75	..... ..... .....	111.28 .88 27.54	..... ..... .....	63.14 .20 10.86	..... ..... .....	115.49 1.13 27.53	..... ..... .....	31 32 33
74.18	17.6	142.77	19.4	74.16	16.4	139.70	18.8	74.20	16.3	144.15	16.6	34
13.58 4.63	..... .....	18.22 9.91	..... .....	13.76 4.87	..... .....	18.90 10.14	..... .....	14.55 5.14	..... .....	21.76 11.06	..... .....	35 36
18.21	4.3	28.13	3.8	18.63	4.1	29.04	3.9	19.69	4.3	32.82	3.8	37
3.33 2.20	..... .....	28.19 3.44	..... .....	3.38 2.09	..... .....	21.05 3.26	..... .....	3.96 1.91	..... .....	24.84 2.49	..... .....	38 39
5.53	1.3	31.63	4.3	5.47	1.2	24.31	3.3	5.87	1.3	27.33	3.2	40
2.76	.7	12.52	1.7	3.21	.7	14.42	1.9	4.21	.9	36.35	4.2	41
12.52 4.59	..... .....	15.87 19.99	..... .....	12.14 5.75	..... .....	14.71 14.67	..... .....	11.94 4.91	..... .....	16.00 17.08	..... .....	42 43
17.11	4.1	35.86	4.9	17.89	4.0	29.38	4.0	16.85	3.7	33.08	3.8	44
4.45 .02	..... .....	14.82 .19	..... .....	4.75 .03	..... .....	14.07 .72	..... .....	4.47 .02	..... .....	16.60 .11	..... .....	45 46
4.47	1.1	15.01	2.0	4.78	1.1	14.79	2.0	4.49	1.0	16.71	1.9	47
14.88 5.96 .22 1.37 2.28 1.81 6.96 .19 4.26	3.5 1.4 .1 .3 .5 .4 1.7 1.0	30.05 7.50 7.95 5.78 10.41 59 24.02 .05 9.13	4.1 1.0 1.1 .8 1.4 1.1 3.3 (a) 1.2	12.49 5.70 1.00 1.97 1.10 2.76 7.70 .11 5.00	2.8 1.3 .2 .4 .2 .6 1.7 (a) 1.1	31.75 8.21 11.33 6.17 8.18 1.84 20.47 .26 8.73	4.3 1.1 1.5 .8 1.1 .3 2.8 (a) 1.2	12.92 4.58 .42 1.42 2.96 1.27 7.36 .25 2.78	2.8 1.0 .1 .3 .7 3 1.6 .1 .6	41.19 10.97 12.16 6.67 25.38 11.32 17.53 1.19 6.08	4.8 1.3 1.4 .8 2.9 1.3 2.0 .1 .7	48 49 50 51 52 53 54 55 56
420.71	100.0	736.81	100.0	451.69	100.0	741.48	100.0	455.11	100.0	866.45	100.0	57

DETAILED COMPARISON OF AVERAGE EXPENDITURES PER FAMILY  
**II.—FAMILIES, CLASSIFIED BY NUMBER OF PERSONS—Continued.**

Marginal number.	Items.	Families with 7 persons.			
		Workmen: 36 families.		Officials and teachers: 17 families.	
		Amount.	Per cent.	Amount.	Per cent.
	<b>FOODS AND DRINKS.</b>				
1	Meat (including ham, bacon, etc.).....	\$42.25	9.2	\$68.21	8.0
2	Sausage.....	15.06	3.3	14.63	1.7
3	Fish (including smoked fish).....	3.28	.7	4.75	.6
4	Butter.....	19.62	4.3	33.64	4.0
5	Suet, margarine, etc.....	14.82	3.2	8.04	.9
6	Cheese.....	4.20	.9	3.84	.4
7	Eggs.....	6.06	1.3	10.24	1.2
8	Potatoes.....	10.95	2.4	8.65	1.0
9	Green vegetables.....	4.97	1.1	7.40	.9
10	Salt, spices, oil.....	2.87	.6	4.36	.5
11	Sugar, sirup, honey.....	7.19	1.6	10.69	1.3
12	Flour, rice, legumes, etc.....	7.71	1.7	9.75	1.1
13	Fruit.....	4.45	1.0	10.98	1.3
14	Bread and pastry.....	57.46	12.6	60.26	7.1
15	Coffee and coffee substitutes.....	6.91	1.5	7.86	.9
16	Tea, chocolate, cocoa.....	1.47	.3	4.16	.5
17	Milk.....	24.15	5.3	33.73	4.0
	Other drinks at home:				
18	Alcoholic.....	8.86	.....	6.82	.....
19	Nonalcoholic.....	.21	.....	.14	.....
20	Total.....	9.07	2.0	6.96	.8
21	Other food products.....	.68	.2	1.36	.2
22	Cigars and tobacco.....	4.12	.9	6.53	.8
	Expenditure in restaurants:				
23	Food.....	2.66	.....	3.67	.....
24	Alcoholic drinks.....	6.78	.....	8.53	.....
25	Nonalcoholic drinks.....	.58	.....	1.50	.....
26	Total.....	10.02	2.2	13.70	1.6
	Total expenditures for foods and drinks.....	257.31	56.3	329.74	38.8
	<b>ALL OTHER.</b>				
	Clothing, linen, cleaning:				
27	Clothing.....	44.76	.....	99.95	.....
28	Linen (including bed linen).....	4.57	.....	8.71	.....
29	Cleaning.....	6.51	.....	11.31	.....
30	Total.....	55.84	12.2	119.97	14.1
	Dwelling (rent and maintenance of):				
31	Rent.....	54.98	.....	114.74	.....
32	Gardens, etc.....	.11	.....	2.19	.....
33	Maintenance and cleaning of dwelling.....	9.78	.....	39.96	.....
34	Total.....	64.87	14.2	156.89	18.4
	Heating and lighting:				
35	Heating and fires.....	12.80	.....	21.89	.....
36	Lighting.....	4.36	.....	11.07	.....
37	Total.....	17.16	3.8	32.96	3.9
	Health and physical care:				
38	Health expenditures.....	2.33	.....	22.63	.....
39	Physical care.....	1.58	.....	2.57	.....
40	Total.....	3.91	.9	25.20	3.0
41	Education, school fees, etc.....	3.81	.8	40.35	4.7
	Intellectual and social expenditures:				
42	Newspapers, books, clocks, etc.....	11.05	.....	16.14	.....
43	Recreation.....	3.26	.....	16.83	.....
44	Total.....	14	3.1	32.97	3.9

## IN FAMILIES OF WORKMEN AND FAMILIES OF OFFICIALS—Continued.

## II.—FAMILIES, CLASSIFIED BY NUMBER OF PERSONS—Continued.

Families with 8 persons.				Families with 9 persons.				Families with 10 persons.		Families with 11 persons.		Marginal number.
Workmen: 19 families.		Officials and teachers: 4 families.		Workmen: 9 families.		Officials and teachers: 4 families.		Workmen: 2 families.		Workmen: 1 family.		
Amt.	Per cent.	Amount.	Per cent.	Amount.	Per cent.	Amount.	Per cent.	Amount.	Per cent.	Amount.	Per cent.	
\$38.77	8.1	\$53.02	6.4	\$59.29	10.1	\$69.67	7.8	\$64.63	9.5	\$85.93	11.8	1
10.74	2.2	24.05	2.9	10.88	1.9	15.05	1.7	22.93	3.4	8.72	1.2	2
4.21	.9	5.41	.7	8.01	1.4	4.53	.5	7.42	1.1	4.37	.6	3
21.49	4.5	36.22	4.4	23.16	4.0	36.90	4.1	39.03	5.8	4.91	.7	4
18.59	3.9	8.33	1.0	22.96	3.9	5.95	.7	19.48	2.9	70.63	9.7	5
4.42	.9	3.35	.4	5.58	.9	3.68	.4	10.65	1.6	4.88	.7	6
4.41	.9	8.11	1.0	7.79	1.3	13.83	1.6	5.77	.8	1.37	.2	7
10.91	2.3	12.69	1.5	15.61	2.7	10.95	1.2	11.97	1.7	25.33	3.5	8
5.93	1.2	7.34	.9	6.89	1.2	4.85	.5	7.46	1.1	11.41	1.5	9
3.10	.6	2.59	.3	2.38	.4	3.07	.3	3.29	.5	3.51	.5	10
7.99	1.7	8.05	1.0	8.31	1.4	26.60	3.0	6.00	.9	7.97	1.1	11
11.08	2.3	12.00	1.4	10.70	1.8	13.47	1.5	6.42	.9	12.94	1.8	12
6.00	1.2	7.71	.9	5.28	.9	8.60	1.0	8.73	1.3	8.65	1.2	13
62.71	13.0	58.24	7.0	77.09	13.2	69.91	7.8	92.87	13.7	107.02	14.7	14
6.43	1.3	6.52	.8	7.54	1.3	10.91	1.2	8.81	1.3	15.35	2.1	15
1.78	.4	5.71	.6	1.91	.3	5.61	.6	1.10	.2	.42	(a)	16
24.12	5.0	31.61	3.8	27.97	4.8	40.68	4.6	31.21	4.6	28.30	3.9	17
5.29	.....	5.69	.....	4.75	.....	7.35	.....	10.56	.....	3.39	.....	18
.23	.....	.24	.....	.25	.....	.28	.....	.10	.....	.20	.....	19
5.52	1.2	5.93	.7	5.00	.9	7.63	.9	10.66	1.6	3.59	.5	20
.37	.1	.79	.1	6.73	1.1	3.34	.4	.42	.1	.12	(a)	21
3.16	.7	4.25	.5	4.87	.8	5.91	.7	7.62	1.1	2.20	.3	22
2.78	.....	3.47	.....	.70	.....	1.41	.....	11.17	.....	.....	.....	23
12.37	.....	7.49	.....	4.45	.....	8.30	.....	38.45	.....	2.06	.....	24
.90	.....	1.03	.....	.66	.....	.42	.....	2.16	.....	.....	.....	25
16.06	3.3	11.99	1.4	13.21	2.3	10.13	1.1	51.78	7.6	2.06	.3	26
267.78	55.7	313.91	37.7	331.16	56.6	371.27	41.6	418.25	61.7	409.68	56.3	
43.03	.....	112.00	.....	76.85	.....	122.63	.....	62.50	.....	99.15	.....	27
4.81	.....	6.96	.....	5.37	.....	14.37	.....	4.06	.....	13.20	.....	28
5.97	.....	8.07	.....	6.66	.....	11.09	.....	6.93	.....	9.25	.....	29
53.81	11.2	127.03	15.3	88.88	15.2	148.09	16.6	73.49	10.9	121.60	16.7	30
61.83	.....	107.30	.....	68.00	.....	85.77	.....	71.40	.....	59.50	.....	31
.62	.....	1.42	.....	.23	.....	.24	.....	.57	.....	1.17	.....	32
12.30	.....	18.73	.....	12.82	.....	16.27	.....	7.80	.....	8.02	.....	33
74.75	15.5	127.45	15.3	81.05	13.8	102.28	11.5	79.77	11.8	68.69	9.4	34
17.51	.....	24.04	.....	15.04	.....	26.20	.....	17.28	.....	36.68	.....	35
5.35	.....	8.18	.....	4.53	.....	5.67	.....	7.85	.....	6.83	.....	36
22.86	4.7	32.22	3.9	19.57	3.3	31.87	3.6	25.13	3.7	43.51	6.0	37
4.31	.....	39.28	.....	2.70	.....	23.47	.....	.28	.....	3.57	.....	38
2.21	.....	1.88	.....	2.06	.....	1.77	.....	1.76	.....	1.05	.....	39
6.52	1.4	41.16	5.0	4.76	.8	25.24	2.8	2.04	.3	4.62	.6	40
3.44	.7	24.00	2.9	4.16	.7	28.61	3.2	3.14	.5	.98	.1	41
10.99	.....	15.80	.....	10.05	.....	9.98	.....	12.16	.....	17.50	.....	42
3.56	.....	27.11	.....	4.89	.....	21.62	.....	14.58	.....	.79	.....	43
14.55	3.0	42.91	5.2	14.94	2.6	31.60	3.5	26.74	3.9	18.29	2.5	44

\* Less than one-tenth of 1 per cent.

## DETAILED COMPARISON OF AVERAGE EXPENDITURES PER FAMILY

## II.—FAMILIES, CLASSIFIED BY NUMBER OF PERSONS—Concluded.

Marginal number.	Items.	Families with 7 persons.			
		Workmen: 36 families.		Officials and teachers: 17 families.	
		Amount.	Per cent.	Amount.	Per cent.
	ALL OTHER—concluded.				
	State, commune, church, etc. (including taxes):				
45	Taxes and rates.....	\$3. 73		\$13. 13	
46	Legal protection.....			. 68	
47	Total.....	3. 73	0. 8	13. 81	1. 6
48	Insurance, relief funds, etc.....	12. 49	2. 7	24. 97	2. 9
49	Transportation.....	3. 25	. 7	7. 78	. 9
50	Personal service.....	. 15	. 0	13. 20	1. 6
51	Gifts, presents, etc.....	1. 72	. 4	6. 62	. 8
52	Debts and interest.....	4. 71	1. 0	14. 44	1. 7
53	Trade and occupational expenses.....	. 73	. 2	. 28	(a)
54	Miscellaneous expenses.....	8. 81	1. 9	19. 62	2. 3
55	Expenditures in kind.....	. 87	. 2	2. 28	. 3
56	Savings.....	3. 47	. 8	9. 31	1. 1
57	Grand total.....	457. 14	100. 0	850. 39	100. 0

(a) Less than one-tenth of 1 per cent.

## IN FAMILIES OF WORKMEN AND FAMILIES OF OFFICIALS—Concluded.

## II.—FAMILIES, CLASSIFIED BY NUMBER OF PERSONS—Concluded.

Families with 8 persons.				Families with 9 persons.				Families with 10 persons.		Families with 11 persons.		Marginal number.
Workmen: 19 families.		Officials and teachers: 4 families.		Workmen: 9 families.		Officials and teachers: 4 families.		Workmen: 2 families.		Workmen: 1 family.		
Amt.	Per cent.	Amt.	Per cent.	Amount.	Per cent.	Amount.	Per cent.	Amount.	Per cent.	Amount.	Per cent.	
\$4.10	.....	\$16.94	.....	\$7.28	.....	\$12.75 .22	.....	\$6.90	.....	\$1.78	.....	45
4.10	0.8	16.94	2.0	7.28	1.2	12.97	1.4	6.90	1.0	1.78	0.3	46
11.74	2.4	34.23	4.1	13.60	2.3	34.11	3.8	8.79	1.3	9.12	1.3	48
3.98	.8	4.43	.5	4.36	.8	17.05	1.9	7.44	1.1	7.08	1.0	49
.38	.1	12.15	1.5	.46	.1	12.43	1.4	.01	(a)	1.83	.3	50
.51	.1	6.59	.8	3.76	.6	.22	(a)	7.47	1.1	3.08	.4	51
2.75	.6	8.36	1.0	4.52	.8	21.14	2.4	.....	.....	.36	.1	52
1.75	.4	6.03	.7	.36	.1	.....	.....	2.55	.4	6.08	.8	53
6.54	1.4	27.48	3.3	5.43	.9	46.36	5.2	1.46	.2	10.08	1.4	54
3.65	.8	.....	.....	.....	.....	2.38	.3	.....	.....	.....	.....	55
1.99	.4	6.90	.8	1.28	.2	7.14	.8	14.28	2.1	20.52	2.8	56
481.10	100.0	831.79	100.0	585.57	100.0	892.76	100.0	677.46	100.0	727.30	100.0	57

**UNITS OF EXPENDITURE IN NORMAL FAMILIES.**

In any discussion of the cost of living, as shown by household accounts, the difficulty is always met of having to compare families composed of entirely different types of persons. In discussing the income and expenditures of a family it is naturally of importance to know whether at the head of the family there is a married couple, a widower, or a widow; whether the principal support of the family is the husband or the wife, whether there are grown children or only small children in the home; whether there are relatives or servants belonging to the household, and whether there are boarders or lodgers in the home. If families which are compared have the same number of persons, the facts just mentioned are even of greater importance in studying the differences in families.

In order to distinguish families composed of different types of persons, Engel adopted the now well-known method of distinguishing the family members according to age and sex, and classifies the families, not according to the number of persons, but according to the number of "units," computed on the basis of the cost of living for a new-born child. If the cost of maintenance of such a child is assumed to be 1, with each year of life the cost will increase one-tenth, and in the case of males will reach a stationary point at the age of 25, and in the case of females will reach the stationary point at the age of 20. On this basis Engel computes the cost of maintenance of a full-grown male at 3.5, and that of a full-grown female at 3.0. A number of studies of the cost of living have followed this method of using "units" to show the cost of living in certain types of families, usually designated as normal families; this was done, for instance, in the investigation of the United States Department of Labor in 1903, the Danish investigation of 1897, and the study of the household accounts of public-school teachers in Hamburg, made in 1903. In each of these investigations different types of units have been used. As a matter of fact, the standards adopted by Engel are open to criticism in certain respects: In the first place, for each separate year of age, Engel uses a different number of units, and in the second place, the minuteness of the measurements he adopted produces inaccurate proportions, because at best the standards used are only an approximation of the actual conditions. In addition, it is doubtful whether Engel's assumption that the relative cost of maintenance of adults is two or three times that of children is not too high for the adults, since for such a comparison not only the expenditures for food but the total cost of living should determine the proportions adopted. In the opinion of the writers of the present report, both the United

States and the Danish reports also overestimate the importance of expenditures for nutrition.

In the present report the system of units adopted consists of the following: For a grown male person (15 years of age and over) the unit is 1, while for a grown female person (15 years of age and over) the unit is 0.8. For children under 15, the units are—

	Units.
Children 13 to 14 years of age.....	0.5
Children 10 to 12 years of age.....	.4
Children 7 to 9 years of age.....	.3
Children 4 to 6 years of age.....	.2
Children under 4 years of age.....	.1

In the following table a comparison is made of the four studies just mentioned with the present study:

COMPARISON OF STANDARD UNITS OF CONSUMPTION PER PERSON USED IN FIVE RECENT INVESTIGATIONS OF THE COST OF LIVING.

Age (years).	Number of standard units of consumption per person of specified age as used in—								
	Engel's studies of Belgian families. <sup>(a)</sup>		U. S. Department of Labor, 1903. <sup>(b)</sup>		Danish report of 1897. <sup>(c)</sup>		Hamburg report, 1903. <sup>(d)</sup>	German Imperial Statistical Office report, 1907-8. <sup>(e)</sup>	
	Male.	Female.	Male.	Female.	Male.	Female.	Male and female.	Male.	Female.
Under 1...	28.6	28.6	15	15	22	17.6	50.0	10	10
1.....	31.4	31.4	15	15	22	17.6	50.0	10	10
2.....	34.3	34.3	15	15	30	24.0	50.0	10	10
3.....	37.1	37.1	15	15	36	28.8	50.0	10	10
4.....	40.0	40.0	40	40	39	31.2	50.0	20	20
5.....	42.9	42.9	40	40	43	34.4	50.0	20	20
6.....	45.7	45.7	40	40	44	35.2	50.0	20	20
7.....	48.6	48.6	75	75	45	36.0	50.0	30	30
8.....	51.4	51.4	75	75	47	37.6	50.0	30	30
9.....	54.3	54.3	75	75	48	38.4	50.0	30	30
10.....	57.1	57.1	75	75	50	40.0	62.5	40	40
11.....	60.0	60.0	90	90	55	44.0	62.5	40	40
12.....	62.9	62.9	90	90	60	48.0	62.5	40	40
13.....	65.7	65.7	90	90	66	52.8	62.5	50	50
14.....	68.6	68.6	90	90	71	56.8	100.0	50	50
15.....	71.4	71.4	100	90	74	59.2	100.0		
16.....	74.3	74.3	100	90	76	60.8	100.0		
17.....	77.1	77.1	100	90	79	63.2	100.0		
18.....	80.0	80.0	100	90	82	65.6	100.0		
19.....	82.9	82.9	100	90	100	80.0	100.0		
20.....	85.7	85.7	100	90	100	80.0	100.0		
21.....	88.6	85.7	100	90	100	80.0	100.0		
22.....	91.4	85.7	100	90	100	80.0	100.0	100	80
23.....	94.3	85.7	100	90	100	80.0	100.0	100	80
24.....	97.1	85.7	100	90	100	80.0	100.0	100	80
25.....	100.0	85.7	100	90	100	80.0	100.0	100	80
Over 25...	100.0	85.7	100	90	100	80.0	100.0	100	80

<sup>a</sup> Engel, Die Lebenskosten belgischer Arbeiterfamilien früher und jetzt. Dresden, 1895, page 4ff.

<sup>b</sup> Eighteenth Annual Report of the Commissioner of Labor, 1903. Cost of Living and Retail Prices of Food. Washington, 1904, page 19.

<sup>c</sup> Danske Arbejderfamiliers Forbrug. 1. Afdeling. Byarbejdere, Danmarks Statistik, Statistiske Meddelelser, 4. series, vol. 6. Part 6, Copenhagen, 1900, page 18f.

<sup>d</sup> Haushaltungsrechnungen hamburgischer Volksschullehrer, Hamburg, 1906, page 24.

<sup>e</sup> 391 normal families only.

<sup>f</sup> Families with grown up children are not considered as normal families.

It should be noted that in the present investigation the unit adopted for children of the youngest age is the lowest of any of the

investigations included. The report states that in the opinion of the writers the consumption by children of the items other than food makes a much smaller demand on the family income as compared with an adult than is the case in the consumption of food of children as compared with that of a grown person. Estimating the needs of small children at about one-tenth and of half-grown children at about one-half of the total needs of an adult male is, according to the report, not placing their consumption at too low a rate, and under any circumstances such a classification is necessarily more or less arbitrary.

The unit standard adopted in the present investigation is regarded as being too arbitrary to be applied to all of the families included in the report. For instance, this standard can not be used in the case of families where there are boarders, lodgers, or other nonmembers of the family in the household. The principle is therefore adopted that in making a computation by units only such families should be included in which all of the members participate with their full incomes and full expenditures in the cost of maintaining the household. For this reason families with grown children were not regarded as normal families, since in such cases the children usually pay to the parents a certain amount for household expenses, but in part maintain themselves from the residue of their incomes. Selected on this basis, there were 391 so-called "normal" families out of the total of 852 families included in the study. The average number of persons for a normal family was 4.3, and the number of "units" was 2.34 per normal family. The principal features of expenditure in such families are shown in the following table, giving the average expenditures of the 391 normal families for the five groups of expenditure in the form of averages per family, per person, and per male adult.

AVERAGE EXPENDITURES FOR SPECIFIED PURPOSES PER FAMILY, PER PERSON, AND PER ADULT MALE IN 391 NORMAL FAMILIES.

Classification.	In 391 normal families the average expenditure was—		
	Per family.	Per person.	Per male adult.
Foods and drinks.....	\$227.98	\$53.35	\$97.43
Clothing and laundry.....	64.99	15.21	27.77
Dwelling (rent and maintenance of).....	90.49	21.17	38.67
Heating and lighting.....	20.38	4.77	8.71
Miscellaneous.....	98.43	23.03	42.07
Total.....	502.27	117.53	214.65



In order to show more clearly the average expenditure in the 391 normal families, arranged in the form of average expenditure per adult male, the data for the normal families are given, first, for these families classified by the number of persons in the family, and, second, by the grade of expenditure of the family. Classified according to the number of persons in the family, the average expenditure for an adult male for the principal classes of expenditure are as follows:

AVERAGE EXPENDITURES FOR SPECIFIED PURPOSES PER ADULT MALE IN 391 NORMAL FAMILIES, CLASSIFIED BY NUMBER OF PERSONS IN FAMILY.

Number of persons in family.	Number of normal families.	Computed expenditures per adult male for—					
		Foods and drinks.	Clothing and laundry.	Dwelling (rent and maintenance of).	Heating and lighting.	All other expenditure.	Total.
2.....	43	\$113.66	\$34.26	\$57.38	\$10.42	\$69.67	\$285.39
3.....	89	103.55	28.54	46.50	10.20	48.88	237.67
4.....	93	97.70	28.87	39.08	9.27	43.45	218.37
5.....	93	97.04	26.79	34.56	7.79	36.21	202.39
6.....	43	88.95	23.79	29.06	7.34	31.67	180.81
7.....	21	83.26	27.78	34.18	7.54	32.03	184.79
8.....	5	91.77	22.25	23.42	6.97	29.21	173.62
9.....	4	78.02	22.54	19.35	6.48	30.55	156.94
2 to 4.....	225	102.61	29.64	44.98	9.82	49.91	236.96
5 to 6.....	136	94.32	25.78	32.71	7.63	34.63	195.12
Over 6.....	30	83.91	26.04	30.09	7.28	31.33	178.65

According to the preceding table, in families of larger size the average expenditure per adult male shows a decrease, or, in other words, there is an actual restriction of the expenditures as compared with the need. For instance, the average total expenditure per adult male in families with 9 persons is 46 per cent less than the average in the case of the families containing 2 persons. This restriction appears in all the groups of expenditures, though it is least in the case of expenditure for food, where, in the case of families containing 9 persons, it is 31 per cent less than in the case of families containing 2 persons. The average expenditures for clothing per adult male in the families with 9 persons are 34 per cent less than the same expenditures in families containing 2 persons, and the expenditures per adult male for heating and lighting in the case of the families with 9 persons are 38 per cent less than is the case with the families containing 2 persons. The greatest restriction is shown in the average expenditure per adult male for dwelling, where the families with 9 persons show an expenditure of 66 per cent less than the same expenditure in the case of families with 2 persons. For miscellaneous expenditures per adult male, the families with 9 persons show an expenditure 56 per cent less than the families with 2 persons.

The average expenditure per adult male for the 391 normal families classified according to the grade of expenditure is shown in the following table:

AVERAGE EXPENDITURES FOR SPECIFIED PURPOSES PER ADULT MALE IN 391 NORMAL FAMILIES, CLASSIFIED BY TOTAL FAMILY EXPENDITURE.

Classification of expenditure.	Number of normal families.	Average number of persons per family.	Computed expenditure per adult male for—					
			Foods and drinks.	Clothing and laundry.	Dwelling (rent and maintenance of).	Heating and lighting.	All other expenditures.	Total.
Under 1,200 M. (\$285.60).....	6	2.8	\$69.76	\$12.87	\$24.90	\$7.32	\$15.76	\$130.61
1,200 M. to 1,600 M. (\$285.60 to \$380.80)...	110	4.2	80.93	14.62	25.45	7.22	20.57	148.78
1,600 M. to 2,000 M. (\$380.80 to \$476).....	108	4.3	92.69	21.64	31.63	7.98	28.60	182.54
2,000 M. to 2,500 M. (\$476 to \$595).....	72	4.4	102.88	28.97	37.29	8.48	42.27	219.89
2,500 M. to 3,000 M. (\$595 to \$714).....	39	4.1	109.31	44.65	52.37	11.11	65.79	283.23
3,000 M. to 4,000 M. (\$714 to \$952).....	43	4.4	123.91	49.25	63.34	11.60	87.67	335.78
4,000 M. to 5,000 M. (\$952 to \$1,190).....	13	4.6	124.83	59.97	89.93	11.69	108.39	394.81
Under 2,000 M. (\$476).....	224	4.2	86.42	18.01	28.45	7.59	24.39	164.86
2,000 M. to 3,000 M. (\$476 to \$714).....	111	4.3	105.07	34.32	42.43	9.37	50.29	241.48
3,000 M. to 5,000 M. (\$714 to \$1,190).....	56	4.4	124.14	51.89	69.88	11.62	92.77	350.30

With the higher standard of consumption, the expenditures computed in the form of average expenditures per adult male show an increase both in the total and in each group of expenditures given in the table. While the families with the lowest grade of expenditure have a total expenditure of less than 1,200 marks (\$285.60), and the families with the highest grade of expenditures have a total of from 4,000 to 5,000 marks (\$952 to \$1,190); in other words, more than three times the lowest amount, the average expenditure per adult male for heating and lighting is approximately two-thirds greater in the families with the highest grade of expenditure as compared with those of the lowest, and the expenditures for food are about 96 per cent higher in the families with the highest grade of expenditures as compared with the lowest. On the other hand, the average expenditure per adult male for dwelling is more than three times in the highest grade what it is for the lower, the expenditure for clothing is more than five times, and the expenditure for miscellaneous purposes is more than seven times the amount expended by the lowest grade. The data in the table may be summed up by stating that, while the total expenditure per adult male increased more than three times, the expenditures for heating and lighting and for food increased less than 100 per cent, while the other expenditures increased from 300 to 700 per cent.

Since the greatest increase in expenditures took place in the class of miscellaneous expenditures, it is of interest to show the particular items on which these expenditures were made. The following table

shows for the 391 families, classified by the number of persons, the amount expended per adult male for the items included in the miscellaneous group:

**AVERAGE EXPENDITURES FOR MISCELLANEOUS PURPOSES PER ADULT MALE IN 391 NORMAL FAMILIES, CLASSIFIED BY NUMBER OF PERSONS IN FAMILY.**

Miscellaneous expenditure.	Computed expenditure per adult male in families of—			
	2 to 4 persons.	5 or 6 persons.	Over 6 persons.	All normal families.
Health and physical care.....	\$5.91	\$3.33	\$3.12	\$4.63
Education, school fees, etc.....	2.36	2.58	5.21	2.75
Intellectual and social purposes.....	11.44	6.96	5.92	9.13
State, commune, church, etc. (including taxes).....	3.76	2.82	2.32	3.24
Provident (insurance, relief funds, etc.).....	8.87	6.50	4.59	7.50
Transportation.....	3.72	2.13	1.92	2.91
Personal service.....	.94	.42	.83	.73
Presents, gifts, etc.....	1.70	.85	.59	1.25
Debts and interest.....	2.52	1.79	1.80	2.16
Trade and occupational expenses.....	.59	.84	.15	.64
Other cash expenditures.....	5.14	3.74	3.42	4.42
Expenditures in kind.....	.05	.10	.39	.11
Savings.....	2.91	2.62	1.07	2.60
Total miscellaneous .....	49.91	34.68	31.33	42.07

For the most of the expenditures shown in the preceding table the average amount expended per adult male decreases as the size of the family increases.

Arranged according to the grade of expenditure, the average expenditures per adult male are shown in the following table:

**AVERAGE EXPENDITURES FOR MISCELLANEOUS PURPOSES PER ADULT MALE IN 391 NORMAL FAMILIES, CLASSIFIED BY TOTAL FAMILY EXPENDITURE.**

Miscellaneous expenditure.	Computed expenditure per adult male in families having total expenditure of—		
	Under 1,200 M. (\$285.60), 224 families.	2,000 M. to 3,000 M. (\$476 to \$714), 111 families.	Over 3,000 M. (\$714), 56 families.
Health and physical care.....	\$2.01	\$5.08	\$13.59
Education, school fees, etc.....	.87	2.82	9.65
Intellectual and social purposes.....	6.45	10.61	16.36
State, commune, church, etc. (including taxes).....	2.06	3.67	6.91
Provident (insurance, relief funds, etc.).....	5.35	9.36	12.03
Transportation.....	2.14	3.77	4.15
Personal service.....	.13	.78	2.88
Presents, gifts, etc.....	.60	1.39	3.47
Debts and interest.....	.60	2.65	7.09
Trade and occupational expenses.....	.50	.50	.86
Other cash expenditures.....	2.41	5.71	9.50
Expenditures in kind.....	.11	.15	.....
Savings.....	1.17	3.50	6.28
Total miscellaneous.....	24.40	50.29	92.77

In the preceding table the total expenditures per adult male in the highest class of expenditure are approximately four times the average for the families with the lowest grade of expenditure. Of the various items included in the table, the least increase in the highest grade as compared with the lowest grade of expenditure is shown in the item for transportation, while the greatest increase is shown in the item for personal service, which in the highest grade is approximately twenty times the average per adult male in the lowest grade.

Because of the importance of this type of family, the data are given in greater detail in order to present a full statement of the consumption of such families. The following table gives for the 391 normal families the total expenditures, the average expenditures per family, and the average expenditures per adult male for the items specified, with the families grouped according to the grade of expenditure and according to the number of persons in each family.

## EXPENDITURES IN 391 NORMAL FAMILIES.

Marginal number.		Expenditures for specified purpose in families expending—		
		Under 1,200 M. (\$285.60).	From 1,200 to 1,600 M. (\$285.60 to \$380.80).	From 1,600 to 2,000 M. (\$380.80 to \$476).
	Number of families.....	6	110	108
	Number of persons.....	17	465	464
	Average number of persons per family.....	2.8	4.2	4.3
	Persons expressed in units (adult male=1).....	11.9	251.1	251.3

## TOTAL EXPENDITURES.

1	Foods, drinks, etc.....	\$830.10	\$20,321.83	\$23,294.21
2	Clothing, cleaning, etc.....	153.15	3,670.47	5,438.18
3	Dwelling (rent and maintenance of).....	296.31	6,389.45	7,948.10
4	Heat and light.....	87.11	1,812.73	2,004.88
5	Health and physical care.....	21.03	391.82	620.37
6	Education, school fees, etc.....	5.80	183.18	260.21
7	Intellectual and social purposes.....	48.78	1,382.74	1,886.23
8	State, commune, church, etc. (including taxes).....	15.72	433.36	608.76
9	Insurance, relief funds, etc.....	29.58	1,252.00	1,468.47
10	Transportation.....	16.37	487.07	598.92
11	Personal service.....	.82	26.74	39.31
12	Presents, gifts, etc.....	1.88	118.79	184.78
13	Debts and interest.....	18.68	110.23	178.83
14	Occupational expenses.....	1.24	105.16	149.39
15	Other cash expenditures.....	9.57	514.41	714.05
16	Expenditures in kind.....	.....	31.30	23.77
17	Savings.....	18.11	128.19	453.97
	Total.....	1,554.25	37,359.47	45,872.43

## EXPENDITURE PER FAMILY.

1	Foods, drinks, etc.....	\$138.35	\$184.74	\$215.69
2	Clothing, cleaning, etc.....	25.52	43.37	50.35
3	Dwelling (rent and maintenance of).....	49.39	58.09	73.59
4	Heat and light.....	14.52	16.48	18.56
5	Health and physical care.....	3.50	3.56	5.75
6	Education, school fees, etc.....	.97	1.67	2.41
7	Intellectual and social purposes.....	8.13	12.57	17.46
8	State, commune, church, etc. (including taxes).....	2.62	3.94	5.64
9	Insurance, relief funds, etc.....	4.93	11.38	13.60
10	Transportation.....	2.73	4.43	5.55
11	Personal service.....	.14	.24	.36
12	Presents, gifts, etc.....	.31	1.08	1.71
13	Debts and interest.....	3.11	1.00	1.66
14	Occupational expenses.....	.21	.96	1.38
15	Other cash expenditures.....	1.59	4.68	6.61
16	Expenditures in kind.....	.....	.28	.22
17	Savings.....	3.02	1.16	4.20
	Total.....	259.04	339.63	424.74

## EXPENDITURE PER ADULT MALE.

1	Foods, drinks, etc.....	\$69.76	\$80.93	\$92.69
2	Clothing, cleaning, etc.....	12.87	14.62	21.64
3	Dwelling (rent, maintenance of).....	24.90	25.45	31.63
4	Heat and light.....	7.32	7.22	7.98
5	Health and physical care.....	1.77	1.56	2.47
6	Education, school fees, etc.....	.49	.73	1.04
7	Intellectual and social purposes.....	4.10	5.51	7.51
8	State, commune, church, etc. (including taxes).....	1.32	1.72	2.42
9	Insurance, relief funds, etc.....	2.48	4.98	5.84
10	Transportation.....	1.38	1.94	2.38
11	Personal service.....	.07	.11	.16
12	Presents, gifts, etc.....	.16	.47	.74
13	Debts and interest.....	1.57	.44	.71
14	Occupational expenses.....	.10	.42	.59
15	Other cash expenditures.....	.80	2.05	2.84
16	Expenditures in kind.....	.....	.12	.09
17	Savings.....	1.52	.51	1.81
	Total.....	130.61	148.78	182.54

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CLASSIFIED BY TOTAL FAMILY EXPENDITURE.

Expenditures for specified purpose in families expending—								Marginal number.
From 2,000 to 2,500 M. (\$476 to \$595).	From 2,500 to 3,000 M. (\$595 to \$714).	From 3,000 to 4,000 M. (\$714 to \$952).	From 4,000 to 5,000 M. (\$952 to \$1,190).	Under 2,000 M. (\$476).	From 2,000 to 3,000 M. (\$476 to \$714).	Over 3,000 M. (\$714).	All families.	
72	39	43	13	224	111	56	391	
319	158	188	60	946	477	248	1,671	
4.4	4.1	4.4	4.6	4.2	4.3	4.4	4.3	
174.0	90.0	103.0	33.6	514.3	264.0	136.6	914.9	

## TOTAL EXPENDITURES.

\$17,901.24	\$9,837.86	\$12,762.65	\$4,194.23	\$44,446.13	\$27,739.10	\$16,956.88	\$89,142.11	1
5,041.00	4,018.84	5,073.03	2,014.89	9,261.79	9,059.84	7,087.92	25,409.55	2
6,487.78	4,713.64	6,524.37	3,021.77	14,633.85	11,201.41	9,546.14	35,381.40	3
1,474.99	999.51	1,194.79	392.96	3,904.72	2,474.51	1,857.75	7,966.98	4
649.59	691.40	1,293.36	562.99	1,033.22	1,340.99	1,586.35	4,230.55	5
360.90	384.04	911.39	407.09	449.18	744.94	1,318.48	2,512.60	6
1,670.12	1,131.17	1,554.93	680.43	3,317.75	2,801.28	2,235.36	8,354.40	7
475.70	491.68	756.18	187.41	1,057.85	967.38	943.60	2,968.82	8
1,330.35	1,140.62	1,065.37	577.97	2,750.04	2,470.97	1,643.34	6,864.35	9
735.26	259.86	409.29	157.25	1,102.36	995.12	566.53	2,664.02	10
65.43	139.78	362.73	30.22	66.87	205.20	392.95	665.02	11
286.45	81.01	354.15	119.89	305.46	367.46	474.04	1,146.95	12
265.26	433.18	781.90	186.95	307.75	698.44	968.84	1,975.03	13
127.82	83.86	89.80	27.21	255.79	211.69	117.01	584.49	14
890.77	617.33	982.18	315.12	1,238.04	1,508.10	1,297.30	4,043.44	15
7.14	34.03	.....	.....	55.07	41.17	.....	96.25	16
490.59	432.56	468.84	389.35	600.28	923.15	858.20	2,381.63	17
38,260.39	25,490.35	34,584.96	13,265.73	84,786.15	63,750.75	47,850.69	196,387.59	

## EXPENDITURE PER FAMILY.

\$248.63	\$252.25	\$296.81	\$322.63	\$198.42	\$249.90	\$302.80	\$227.99	1
70.01	103.05	117.98	154.99	41.35	81.62	126.57	64.99	2
90.11	120.86	151.73	232.45	65.33	100.91	170.47	90.49	3
20.48	25.63	27.79	30.23	17.43	22.30	28.35	20.38	4
9.02	17.73	30.08	43.31	4.61	12.08	33.15	10.82	5
5.01	9.85	21.20	31.31	2.01	6.71	23.54	6.45	6
23.29	29.01	36.16	52.34	14.81	25.44	39.92	21.37	7
6.61	12.61	17.58	14.42	4.72	8.72	16.85	7.59	8
18.48	29.24	24.77	44.46	12.28	22.26	29.35	17.55	9
10.21	6.66	9.52	12.10	4.92	8.97	10.12	6.81	10
91	3.58	8.43	2.32	3.30	1.55	7.02	1.70	11
3.98	2.08	8.24	9.22	1.36	3.21	8.46	2.93	12
3.68	11.11	13.18	14.38	1.37	6.29	17.80	5.05	13
1.78	2.15	2.09	2.09	1.14	1.91	2.09	1.49	14
12.37	15.83	22.84	24.24	5.53	13.58	23.17	10.34	15
10	.87	.....	.....	.25	.37	.....	.25	16
6.81	11.09	10.90	29.95	2.68	8.31	15.32	6.09	17
531.39	653.60	804.30	1,020.44	378.51	574.33	854.48	502.27	

## EXPENDITURE PER ADULT MALE.

\$102.88	\$109.31	\$123.91	\$124.83	\$86.42	\$105.08	\$124.14	\$97.43	1
28.97	44.65	49.25	59.97	18.01	34.32	51.89	27.80	2
37.29	52.37	63.35	89.93	28.45	42.43	69.88	38.67	3
8.48	11.11	11.60	11.69	7.59	9.35	11.62	8.71	4
3.73	7.68	12.56	16.75	2.01	5.08	13.59	4.62	5
2.07	4.27	8.85	12.12	.87	2.82	9.65	2.75	6
9.60	12.57	15.10	20.25	6.45	10.61	16.37	9.13	7
2.73	5.46	7.34	5.58	2.06	3.67	6.91	3.24	8
7.64	12.67	10.34	17.20	5.35	9.36	12.03	7.50	9
4.22	2.89	3.97	4.68	2.14	3.77	4.14	2.91	10
.38	1.55	3.52	.90	.13	.78	2.88	.72	11
1.65	.90	3.44	3.57	.59	1.39	3.47	1.25	12
1.53	4.81	7.59	5.56	.60	2.65	7.09	2.16	13
.73	.93	.87	.81	.50	.80	.86	.64	14
5.12	6.86	9.54	9.38	2.41	5.71	9.50	4.42	15
.04	.38	.....	.....	.11	.16	.....	.10	16
2.83	4.81	4.55	11.59	1.17	3.50	6.28	2.60	17
219.89	283.22	335.78	394.81	164.86	241.48	350.30	214.65	

## EXPENDITURES IN 391 NORMAL FAMILIES.

Marginal number.		Expenditures for families composed of following number of persons:			
		2 persons.	3 persons.	4 persons.	5 persons.
	Number of families.....	43	89	93	93
	Number of persons.....	86	267	372	465
	Average number of persons per family.....	2	3	4	5
	Persons expressed in units (adult male=1).....	77.4	179.2	208.6	234.2

## TOTAL EXPENDITURE.

1	Foods, drinks, etc.....	\$8,797.23	\$18,555.66	\$20,379.26	\$22,728.07
2	Clothing, cleaning, etc.....	2,652.16	5,115.11	6,022.39	6,275.33
3	Dwelling (rent and maintenance of).....	4,441.19	8,332.89	8,152.55	8,093.06
4	Heat and light.....	806.29	1,827.58	1,823.61	1,823.91
5	Health and physical care.....	715.50	950.07	1,086.02	868.70
6	Education, school fees, etc.....	77.65	460.23	559.59	585.16
7	Intellectual and social purposes.....	1,393.35	1,892.78	2,037.18	1,769.02
8	State, commune, church, etc. (including taxes).....	337.51	657.61	754.88	731.53
9	Insurance, relief funds, etc.....	661.26	1,623.82	1,840.72	1,621.28
10	Transportation.....	534.32	686.77	507.48	521.72
11	Personal service.....	63.22	228.63	146.44	124.26
12	Presents, gifts, etc.....	200.85	368.81	220.64	184.29
13	Debts and interest.....	251.21	321.51	598.44	351.11
14	Occupational expenses.....	92.83	67.98	111.53	226.80
15	Other cash expenditures.....	577.40	956.82	856.94	925.25
16	Expenditures in kind.....	16.66	.....	5.00	13.80
17	Savings.....	470.30	544.49	340.17	555.87
	Total.....	22,088.93	42,590.76	45,553.14	47,399.16

## EXPENDITURE PER FAMILY.

1	Foods, drinks, etc.....	\$204.59	\$208.49	\$219.13	\$244.39
2	Clothing, cleaning, etc.....	61.68	57.47	64.76	67.48
3	Dwelling (rent and maintenance of).....	103.28	93.63	87.66	87.02
4	Heat and light.....	18.75	20.54	20.79	19.61
5	Health and physical care.....	16.64	10.67	11.68	9.34
6	Education, school fees, etc.....	1.81	5.17	6.02	6.29
7	Intellectual and social purposes.....	32.40	21.27	21.91	19.02
8	State, commune, church, etc. (including taxes).....	7.85	7.39	8.12	7.87
9	Insurance, relief funds, etc.....	15.38	18.25	19.79	17.43
10	Transportation.....	12.42	7.72	5.46	5.61
11	Personal service.....	1.47	2.57	1.58	1.34
12	Presents, gifts, etc.....	4.67	4.14	2.37	1.98
13	Debts and interest.....	5.84	3.61	6.43	3.77
14	Occupational expenses.....	2.16	76	1.20	2.44
15	Other cash expenditures.....	13.43	10.75	9.21	9.95
16	Expenditures in kind.....	.39	.....	.05	.15
17	Savings.....	10.94	6.12	3.66	5.98
	Total.....	513.70	478.55	489.82	509.67

## EXPENDITURE PER ADULT MALE.

1	Foods, drinks, etc.....	\$113.66	\$103.55	\$97.70	\$97.05
2	Clothing, cleaning, etc.....	34.27	28.54	23.87	26.79
3	Dwelling (rent and maintenance of).....	57.38	46.50	39.08	34.56
4	Heat and light.....	10.42	10.20	9.27	7.79
5	Health and physical care.....	9.24	5.30	5.21	3.71
6	Education, school fees, etc.....	1.00	2.57	2.68	2.50
7	Intellectual and social purposes.....	18.00	10.56	9.77	7.55
8	State, commune, church, etc. (including taxes).....	4.36	3.67	3.62	3.12
9	Insurance, relief funds, etc.....	8.54	9.06	8.82	6.92
10	Transportation.....	6.91	3.83	2.43	2.23
11	Personal service.....	.82	1.28	.70	.53
12	Presents, gifts, etc.....	2.59	2.06	1.06	.79
13	Debts and interest.....	3.25	1.79	2.87	1.50
14	Occupational expenses.....	1.20	.38	.53	.67
15	Other cash expenditures.....	7.46	5.34	4.11	3.95
16	Expenditures in kind.....	.21	.....	.02	.06
17	Savings.....	6.08	3.04	1.63	2.37
	Total.....	285.39	237.67	218.37	202.39



## CLASSIFIED BY NUMBER OF PERSONS IN FAMILY.

Expenditures for families composed of following number of persons:							Marginal number.
6 persons.	7 persons.	8 persons.	9 persons.	2 to 4 persons.	5 or 6 persons.	Over 6 persons.	
43 258 6 118.9	21 147 7 C5.4	5 40 8 16.5	4 36 9 14.7	225 725 3.2 465.2	136 723 5.3 353.1	30 223 7.4 96.6	391 1,671 4.3 914.9

## TOTAL EXPENDITURE.

\$10,575.91	\$5,444.86	\$1,514.29	\$1,146.84	\$47,732.16	\$33,303.98	\$8,105.98	\$89,142.11	1
2,829.08	1,816.98	367.13	331.38	13,789.66	9,104.41	2,515.48	25,409.55	2
3,455.43	2,235.45	386.39	284.43	20,926.63	11,548.50	2,906.28	35,381.40	3
872.04	493.39	114.94	95.22	4,567.47	2,695.95	703.55	7,966.98	4
308.28	201.28	23.16	77.55	2,751.58	1,176.98	301.99	4,220.55	5
327.27	372.38	105.41	24.92	1,097.47	912.43	502.71	2,512.60	6
690.13	457.50	61.71	52.73	5,323.30	2,459.15	571.94	8,354.40	7
262.89	159.13	33.68	31.59	1,750.00	994.42	224.40	2,968.82	8
673.43	250.56	80.74	112.53	4,125.81	2,294.71	443.84	6,864.35	9
228.74	117.96	22.86	44.16	1,728.58	750.46	184.98	2,664.02	10
22.78	53.65	23.67	2.37	438.29	147.04	79.69	665.02	11
115.05	39.72	16.58	1.01	790.30	299.34	57.31	1,146.95	12
279.18	82.32	30.24	61.02	1,171.16	630.28	173.58	1,975.03	13
70.12	12.79	.39	1.74	272.64	296.92	14.92	584.49	14
396.98	233.64	57.37	39.05	2,391.15	1,322.23	330.06	4,043.44	15
23.42	37.37	.....	.....	21.66	37.22	37.37	96.25	16
367.66	76.48	26.18	.48	1,354.96	923.53	103.14	2,381.63	17
21,498.39	12,085.46	2,864.74	2,307.02	110,232.82	68,897.55	17,257.22	196,387.59	

## EXPENDITURE PER FAMILY.

\$245.95	\$259.28	\$302.86	\$286.71	\$212.14	\$244.88	\$270.20	\$227.99	1
65.79	86.52	73.43	82.85	61.29	66.95	83.85	64.99	2
80.36	106.45	77.28	71.11	93.01	84.92	96.88	90.49	3
20.28	23.50	22.99	23.80	20.30	19.83	23.45	20.38	4
7.17	9.58	4.63	19.39	12.23	8.66	10.07	10.82	5
7.61	17.73	21.08	6.23	4.88	6.71	16.76	6.43	6
16.05	21.79	12.34	13.18	23.66	18.08	19.06	21.37	7
6.11	7.58	6.72	7.90	7.78	7.31	7.48	7.59	8
15.66	11.93	16.15	28.13	18.34	16.87	14.79	17.55	9
5.32	5.62	4.57	11.04	7.68	5.52	6.17	6.81	10
.53	2.55	4.74	.59	1.95	1.08	2.66	1.70	11
2.68	1.89	3.32	.25	3.51	2.20	1.91	2.93	12
6.49	3.92	6.05	15.26	5.20	4.63	5.78	5.05	13
1.63	.61	.08	4.43	1.21	2.18	.50	1.49	14
9.23	11.13	11.47	9.76	10.63	9.72	11.00	10.34	15
.55	1.78	.....	.....	.09	.27	1.24	.25	16
8.55	3.64	5.24	.12	6.02	6.79	3.44	6.09	17
499.96	575.50	572.95	576.75	489.92	506.60	575.24	502.27	

## EXPENDITURE PER ADULT MALE.

\$88.95	\$83.25	\$91.78	\$78.02	\$102.61	\$94.32	\$83.91	\$97.44	1
23.79	27.78	22.25	22.54	29.64	25.78	26.04	27.77	2
29.06	34.18	23.42	19.35	44.98	32.71	30.09	38.67	3
7.34	7.54	6.97	6.48	9.82	7.64	7.28	8.71	4
2.59	3.08	1.40	5.27	5.91	3.33	3.12	4.62	5
2.75	5.70	6.39	1.70	2.36	2.58	5.21	2.75	6
5.81	7.00	3.74	3.59	11.44	6.96	5.92	9.13	7
2.21	2.43	2.04	2.15	3.76	2.82	2.32	3.24	8
5.66	3.83	4.89	7.65	8.87	6.50	4.59	7.50	9
1.92	1.80	1.39	3.00	3.72	2.13	1.92	2.91	10
.19	.82	1.43	.16	.94	.42	.83	.73	11
.97	.61	1.00	.07	1.70	.85	.59	1.25	12
2.35	1.26	1.83	4.15	2.52	1.78	1.80	2.16	13
.59	.20	.02	.12	.59	.84	.15	.64	14
3.34	3.57	3.48	2.66	5.14	3.74	3.42	4.42	15
.20	.57	.....	.....	.05	.10	.39	.11	16
3.09	1.17	1.59	.03	2.91	2.02	1.07	2.60	17
180.81	184.79	173.62	156.94	236.96	195.12	178.65	214.65	

## QUANTITIES OF FOOD CONSUMED.

It is evident that information relating to the quantities of food consumed is at least as important as the amount of expenditures for food, since the quantities show the purchasing power of the money expended and form what might be called the physiological budget of the family. Unfortunately the household accounts kept for the present investigation reported the quantities only imperfectly. For this reason the investigation makes no attempt to show the quantities of the food articles consumed for all of the articles, and only data for 150 workmen's families, with an average of 4.76 persons, and 60 officials' families, with an average of 4.68 persons in each, were compiled for 9 articles of food.

The following tables show the quantities of these 9 articles of food consumed, the families being classed as workingmen's families and as families of officials. The first table gives a summary of the data contained in the second table.

## AVERAGE QUANTITY OF SPECIFIED ARTICLES OF FOOD CONSUMED PER FAMILY AND PER PERSON.

Item.	Quantities consumed—				
	Unit of quantity.	Per family.		Per individual.	
		Work-men (150 families).	Officials (60 families).	Work-men (150 families).	Officials (60 families).
Meats.....	Pounds.	222.66	281.74	46.74	60.19
Sausage.....	do.....	65.70	65.70	13.89	14.11
Meats and sausage together.....	do.....	288.36	347.44	60.63	74.30
Butter.....	do.....	77.60	97.66	16.31	20.94
Other fats.....	do.....	62.83	47.40	13.23	10.14
Cheese.....	do.....	40.34	28.22	8.38	5.95
Eggs.....	Number				
Potatoes.....	Pounds.	965.39	1,040.57	202.82	222.22
Coffee.....	do.....	32.41	32.19	6.83	6.83
Milk.....	Quarts..	532.89	687.07	111.90	146.67

QUANTITIES OF SELECTED ARTICLES OF  
TOTAL QUANTITIES CONSUMED.

a. FAMILIES, CLASSIFIED BY AMOUNT OF EXPENDITURE.

Marginal number.	Classification.	Number of families.	Total expenditure.	Expenditures for food and drinks.	
				Amount.	Per cent of total.
	Families with expenditure of—				
1	900 to 1,200 M. (\$214.20 to \$285.60).....	4	\$995.79	\$555.53	55.8
2	1,200 to 1,600 M. (\$285.60 to \$380.80).....	35	11,973.08	6,463.37	54.0
3	1,600 to 2,000 M. (\$380.80 to \$476).....	71	20,374.53	16,110.47	53.0
4	2,000 to 3,000 M. (\$476 to \$714).....	40	21,696.05	10,722.40	49.4
	All families.....	150	65,039.45	33,851.77	52.1

b. FAMILIES, CLASSIFIED BY NUMBER OF PERSONS.

	Families of—				
1	2 persons.....	10	\$3,892.55	\$1,795.04	46.1
2	3 persons.....	23	9,617.92	4,673.10	48.6
3	4 persons.....	36	15,172.36	7,795.51	51.4
4	5 persons.....	36	15,464.71	8,120.56	52.5
5	6 persons.....	26	11,511.49	6,270.64	54.5
6	7 persons.....	10	5,032.09	2,691.73	53.5
7	8 persons.....	6	2,759.85	1,606.65	58.2
8	9 persons.....	3	1,588.48	898.54	56.6
	All families.....	150	65,039.45	33,851.77	52.1

AVERAGE QUANTITIES CONSUMED PER FAMILY.

a. FAMILIES, CLASSIFIED BY AMOUNT OF EXPENDITURE.

	Families with expenditure of—				
1	900 to 1,200 M. (\$214.20 to \$285.60), average size of family 3.50 persons.....	4	\$248.95	\$138.88	55.8
2	1,200 to 1,600 M. (\$285.60 to \$380.80), average size of family 4.23 persons.....	35	342.09	184.67	54.0
3	1,600 to 2,000 M. (\$380.80 to \$476), average size of family 4.55 persons.....	71	427.81	226.91	53.0
4	2,000 to 3,000 M. (\$476 to \$714), average size of family 5.20 persons.....	40	542.40	268.06	49.4
	All families, average size 4.76 persons.....	150	433.60	225.68	52.1

b. FAMILIES, CLASSIFIED BY NUMBER OF PERSONS.

	Families of—				
1	2 persons.....	10	\$389.25	\$179.50	46.1
2	3 persons.....	23	418.17	203.18	48.6
3	4 persons.....	36	421.46	216.54	51.4
4	5 persons.....	36	429.58	225.57	52.5
5	6 persons.....	26	442.75	241.18	54.5
6	7 persons.....	10	503.21	269.17	53.5
7	8 persons.....	6	459.98	267.78	58.2
8	9 persons.....	3	529.49	299.51	56.6
	All families.....	150	433.60	225.68	52.1

## FOOD CONSUMED BY WORKINGMEN'S FAMILIES.

## TOTAL QUANTITIES CONSUMED.

## a. FAMILIES, CLASSIFIED BY AMOUNT OF EXPENDITURE.

Quantities consumed of the following articles:									Marginal number.
Meat (pounds).	Sausage (pounds).	Butter (pounds).	Suet, etc. (pounds).	Cheese (pounds).	Eggs (number).	Potatoes (pounds).	Coffee (pounds).	Milk (quarts).	
815.0	120.6	286.8	101.9	135.6	986	3,102.7	82.2	1,526.3	1
6,628.6	2,077.2	2,047.4	2,134.0	1,081.6	11,840	31,312.4	1,014.8	16,873.3	2
15,540.6	4,498.9	6,148.6	4,025.6	3,183.4	24,993	64,023.6	2,303.8	38,929.6	3
10,405.3	3,156.5	3,172.9	3,163.6	1,651.7	20,983	46,366.3	1,462.5	22,598.8	4
33,389.5	9,853.2	11,655.7	9,425.1	6,052.3	58,802	144,805.0	4,863.3	79,928.0	

## b. FAMILIES, CLASSIFIED BY NUMBER OF PERSONS.

1,746.0	541.9	649.7	289.7	352.1	2,862	5,066.2	226.0	4,121.4	1
5,291.0	1,504.2	1,937.6	875.0	921.5	8,470	17,781.2	640.0	11,330.3	2
8,321.5	2,131.2	2,525.1	1,821.9	1,099.2	15,902	30,137.1	1,010.1	18,993.2	3
7,458.6	2,258.4	2,816.6	2,090.8	1,334.1	15,039	35,176.4	1,278.9	19,218.6	4
6,110.0	1,856.7	2,151.7	1,931.9	1,134.9	9,660	27,609.7	973.3	16,849.9	5
2,172.0	916.2	753.3	1,450.4	447.5	3,867	14,440.6	411.6	5,344.3	6
1,509.1	407.4	638.7	534.2	592.0	1,707	7,912.5	190.2	2,098.5	7
781.3	237.2	183.0	431.2	121.0	1,295	6,681.3	133.2	1,971.8	8
33,389.5	9,853.2	11,655.7	9,425.1	6,052.3	58,802	144,805.0	4,863.3	79,928.0	

## AVERAGE QUANTITIES CONSUMED PER FAMILY.

## a. FAMILIES, CLASSIFIED BY AMOUNT OF EXPENDITURE.

203.7	30.2	71.6	25.6	34.0	247	775.8	20.5	381.6	1
189.4	59.3	58.4	61.1	30.9	338	894.6	29.1	482.1	2
218.9	63.3	86.6	56.7	44.8	352	901.9	32.4	548.3	3
260.1	78.9	79.4	79.1	41.2	525	1,159.2	36.6	565.0	4
222.7	65.7	77.6	62.8	40.3	392	965.4	32.4	532.9	

## b. FAMILIES, CLASSIFIED BY NUMBER OF PERSONS.

174.6	54.2	65.0	28.9	35.3	286	506.6	22.7	412.1	1
229.9	65.5	84.2	38.1	40.1	368	773.2	27.8	492.6	2
231.3	59.3	70.1	50.7	30.6	442	837.1	28.0	527.6	3
207.2	62.8	78.3	58.0	38.4	418	977.1	35.5	533.8	4
235.0	71.4	82.7	74.3	43.7	372	1,061.7	37.5	648.1	5
217.2	91.7	75.4	145.1	44.8	387	1,444.0	41.2	534.5	6
251.5	67.9	106.5	89.1	98.8	285	1,318.8	31.7	349.8	7
260.4	79.1	61.1	143.7	40.3	432	2,227.1	44.3	657.3	8
222.7	65.7	77.6	62.8	40.3	392	965.4	32.4	532.9	

QUANTITIES OF SELECTED ARTICLES OF  
TOTAL QUANTITIES CONSUMED.

a FAMILIES, CLASSIFIED BY AMOUNT OF EXPENDITURE.

Marginal number.		Number of families.	Total expenditure.	Expenditure for foods and drinks.	
				Amount.	Per cent of total expenditure.
	Families with expenditure of—				
1	1,200 to 1,600 M. (\$285.60 to \$380.80).....	4	\$1,407.63	\$687.88	48.9
2	1,600 to 2,000 M. (\$380.80 to \$476).....	12	5,200.71	2,507.48	48.2
3	2,000 to 3,000 M. (\$476 to \$714).....	28	17,143.10	6,805.73	39.7
4	3,000 to 4,000 M. (\$714 to \$952).....	14	11,620.06	4,364.18	37.6
5	4,000 to 5,000 M. (\$952 to \$1,190).....	2	1,994.29	686.16	34.4
	All families.....	60	37,365.79	15,051.43	40.3

b FAMILIES, CLASSIFIED BY NUMBER OF PERSONS.

	Families of—				
1	2 persons.....	1	\$726.54	\$228.15	31.4
2	3 persons.....	12	7,311.25	2,683.79	36.7
3	4 persons.....	16	9,487.12	3,622.26	38.2
4	5 persons.....	15	9,784.41	3,964.12	40.5
5	6 persons.....	9	5,511.64	2,511.97	45.6
6	7 persons.....	6	4,104.13	1,779.85	43.4
7	8 persons.....	1	440.70	261.29	59.3
	All families.....	60	37,365.79	15,051.43	40.3

AVERAGE QUANTITIES CONSUMED PER FAMILY.

a. FAMILIES, CLASSIFIED BY AMOUNT OF EXPENDITURE.

	Families with expenditure of—				
1	1,200 to 1,600 M. (\$285.60 to \$380.80), average size of family 4.25 persons.....	4	\$351.91	\$171.97	48.9
2	1,600 to 2,000 M. (\$380.80 to \$476), average size of family 5.25 persons.....	12	433.39	208.96	48.2
3	2,000 to 3,000 M. (\$476 to \$714), average size of family 4.39 persons.....	28	612.25	243.06	39.7
4	3,000 to 4,000 M. (\$714 to \$952), average size of family 4.79 persons.....	14	830.00	311.73	37.6
5	4,000 to 5,000 M. (\$952 to \$1,190), average size of family 5.50 persons.....	2	997.14	343.08	34.4
	All families, average size of family 4.68 persons....	60	622.76	250.86	40.3

b. FAMILIES, CLASSIFIED BY NUMBER OF PERSONS.

	Families of—				
1	2 persons.....	1	\$726.54	\$228.15	31.4
2	3 persons.....	12	609.27	223.65	36.7
3	4 persons.....	16	592.95	226.39	38.2
4	5 persons.....	15	652.29	264.28	40.5
5	6 persons.....	9	612.40	279.11	45.6
6	7 persons.....	6	684.02	296.64	43.4
7	8 persons.....	1	440.70	261.29	59.3
	All families.....	60	622.76	250.86	40.3

## FOOD CONSUMED BY OFFICIALS' FAMILIES.

## TOTAL QUANTITIES CONSUMED.

## FAMILIES, CLASSIFIED BY AMOUNT OF EXPENDITURE.

Quantities consumed of the following articles:									Marginal number.
Meat (pounds).	Sausage (pounds).	Butter (pounds).	Suet, etc. (pounds).	Cheese (pounds).	Eggs (number).	Potatoes (pounds).	Coffee (pounds).	Milk (quarts).	
773.6	182.7	240.5	362.9	145.9	1,131	3,172.0	126.5	1,761.0	1
2,568.6	622.6	952.8	684.9	322.5	4,498	11,643.2	360.2	7,648.4	2
8,043.3	1,955.5	2,913.4	1,073.0	570.8	15,828	28,917.7	821.9	17,779.1	3
4,710.6	1,002.9	1,464.5	659.2	598.8	11,725	16,915.0	568.9	12,658.8	4
813.0	184.3	287.3	69.2	49.2	2,129	1,794.1	52.7	1,278.4	5
16,909.1	3,948.0	5,858.5	2,849.2	1,687.2	35,311	62,442.0	1,929.2	41,225.7	

## b. FAMILIES, CLASSIFIED BY NUMBER OF PERSONS.

198.4	73.2	107.8	5.5	33.5	572	420.0	26.0	296.5	1
2,947.6	744.5	784.4	366.6	350.3	5,735	10,122.9	311.5	5,741.2	2
4,313.5	790.1	1,436.7	820.8	359.4	8,404	13,504.7	416.0	10,252.9	3
4,352.8	1,165.0	1,502.0	704.4	265.7	10,731	15,122.2	502.6	11,144.1	4
2,723.8	669.1	1,016.3	524.0	328.9	5,296	12,742.2	377.9	6,972.7	5
2,045.4	428.6	688.3	391.3	329.6	4,206	9,027.6	269.8	5,919.9	6
327.6	76.5	123.0	36.6	19.8	367	1,502.4	25.4	898.4	7
16,909.1	3,948.0	5,858.5	2,849.2	1,687.2	35,311	62,442.0	1,929.2	41,225.7	

## AVERAGE QUANTITIES CONSUMED PER FAMILY.

## a. FAMILIES, CLASSIFIED BY AMOUNT OF EXPENDITURE.

193.3	45.6	60.2	90.8	36.6	283	793.2	31.7	440.2	1
214.1	51.8	79.4	57.1	26.9	375	970.3	30.1	637.4	2
287.3	69.9	104.1	38.4	20.3	565	1,032.9	29.3	635.0	3
336.4	71.7	104.7	47.2	42.8	838	1,208.1	40.6	904.2	4
406.5	92.2	143.7	34.6	24.7	1,065	897.1	26.5	689.2	5
231.8	65.7	97.7	47.4	28.2	589	1,040.6	32.2	687.1	

## b. FAMILIES, CLASSIFIED BY NUMBER OF PERSONS.

198.5	73.2	107.8	5.5	33.5	572	420.0	26.0	296.5	1
245.6	61.9	82.0	30.6	29.1	478	843.5	26.0	478.5	2
269.6	49.4	89.7	51.4	22.5	525	844.1	26.0	640.3	3
290.1	77.8	100.1	47.0	17.7	715	1,008.2	33.5	743.0	4
302.7	74.4	112.9	58.2	36.6	588	1,415.8	41.9	774.8	5
340.8	71.4	114.6	65.3	54.9	701	1,504.7	45.0	986.6	6
327.6	76.5	123.0	36.6	19.8	367	1,502.4	25.4	898.4	7
281.8	65.7	97.7	47.4	28.2	589	1,040.6	32.2	687.1	

The item in the preceding tables of greatest interest is that for meats. The official statistics show that the average per capita consumption of meat for the whole Empire was 52.41 kilograms (115.54 pounds) in the year 1907; per individual in workmen's families the average consumption of meat, including sausage, according to the present investigation was 27.5 kilograms (60.63 pounds), and per individual in officials' families the average was 33.7 kilograms (74.30 pounds), or in each case much lower than the average for the whole country. In the report this difference is explained: First, because the families included in the investigation comprise many young children and few unmarried young persons; in the second place, the present investigation does not include meats consumed in restaurants, nor is the quantity given of meats produced by the families themselves, such as home-slaughtered swine, etc. Furthermore, the families included in the investigation are families of moderate means, as compared with an average for the population of the whole Empire.

The consumption of meats in the families of officials is higher than in the families of workmen, and is of a higher grade in so far as the officials' families consume smaller quantities of sausage. The amounts of meat and sausage consumed by these two classes of families, arranged by total expenditures, are as follows:

AVERAGE AMOUNT OF MEAT AND SAUSAGE CONSUMED IN FAMILIES OF WORKMEN AND OF OFFICIALS, CLASSIFIED BY TOTAL FAMILY EXPENDITURE.

Classification of expenditure.	Workmen's families (pounds).	Officials' families (pounds).
Under 1,200 M. (\$235.00).....	233.91	.....
1,200 M. to 1,600 M. (\$285.00 to \$380.80).....	248.68	238.98
1,600 M. to 2,000 M. (\$380.80 to \$476).....	282.19	225.00
2,000 M. to 3,000 M. (\$476 to \$714).....	339.07	357.15
3,000 M. to 4,000 M. (\$714 to \$952).....	.....	408.07
4,000 M. to 5,000 M. (\$952 to \$1,190).....	.....	498.68

The amounts given in the above statement of the consumption of meat in officials' families are somewhat lower than the actual consumption, because in some cases meat (including poultry) produced on the home farm is not included in the reports.

When arranged by number of persons in the family, the per capita consumption of meat decreases with the increase in the size of the family. Thus, in workmen's families composed of two persons the consumption is 103.8 kilograms (228.84 pounds), while in the case of families containing 9 persons the consumption is 154 kilograms (339.51 pounds), while in the case of the families of officials containing 3 persons the consumption is 139.5 kilograms (306.77 pounds),



and in the case of families containing 7 persons the consumption is 187 kilograms (412.26 pounds). The consumption of meat, therefore, does not increase in proportion with the size of the family, which is explained by the fact that the larger families must necessarily restrict expenditures, and in the second place, that the number of persons in excess of 2 is usually composed of small children.

The consumption of butter and of suet and other fats shows that the last-named articles are frequently used as substitutes for butter. The consumption in workmen's families and in families of officials is as follows:

AVERAGE AMOUNT OF BUTTER AND OF SUET AND OTHER FATS CONSUMED BY FAMILIES OF WORKMEN AND OF OFFICIALS.

Article.	Workmen's families (pounds).	Officials' families (pounds).
Butter.....	77.60	97.66
Suet, fats, etc.....	62.83	47.40
Total.....	140.43	145.06

In the case of officials' families the consumption of suet, etc., is highest in the large families.

The consumption of cheese, which is regarded as a cheap and nutritious substitute for meat, is considerably higher in the workmen's families than in the officials' families.

Eggs, which are comparatively high in price in the large cities, are consumed in much greater quantities by the officials than by the workmen; this is in part due to the fact that the officials live in rural districts, where the eggs produced on the home farm are used, and where eggs are comparatively low in price.

The consumption of potatoes is much higher among the workmen's families than among the families of the officials, even when the same grades of expenditure are considered.

The consumption of coffee, including coffee substitutes, is approximately the same by the two types of families, being 32.41 pounds in the workmen's families and 32.19 pounds in the case of the officials' families. The quantity consumed seems, however, to vary with the income in the case of the workmen's families, while in the case of the officials' families the consumption does not seem to vary in the same degree.

The consumption of milk is an item of special importance in families of moderate means. The statistics of the imperial health office show that in 1907 the per capita consumption for the whole popula-

tion of Berlin was 112.54 quarts, in Munich 138.53 quarts, in Hamburg 145.3 quarts. As compared with these averages, the present investigation shows that the per capita consumption in the workmen's families was 111.9 quarts, and in the case of the families of officials was 146.67 quarts. The per capita consumption of milk is higher in the larger families, being caused by the presence of young children.

### CONSUMPTION OF ALCOHOL.

The information relating to the consumption of alcoholic drinks is, on the whole, given very inaccurately. For 155 workmen's families and 60 officials' families sufficiently detailed information was obtained to make the data available for separate tabulation. In the following table the percentage which expenditures for alcohol forms of the total expenditures is shown for the 155 families of workmen and 60 families of officials, classified by the amount of expenditure:

PROPORTION OF TOTAL EXPENDITURES FOR ALCOHOLIC BEVERAGES IN FAMILIES OF WORKMEN AND OF OFFICIALS.

Classification of expenditure.	Per cent of total expenditure for alcoholic drinks in families of—	
	Workmen (155 families).	Officials (60 families).
Families with expenditure of—		
900 M. to 1,200 M. (\$214.20 to \$285.60).....	5.6	.....
1,200 M. to 1,600 M. (\$285.60 to \$380.80).....	5.7	.....
1,600 M. to 2,000 M. (\$380.80 to \$476).....	4.6	2.5
2,000 M. to 3,000 M. (\$476 to \$714).....	4.3	2.7
3,000 M. to 4,000 M. (\$714 to \$952).....	.....	2.3
4,000 M. to 5,000 M. (\$952 to \$1,190).....	.....	2.4
All families.....	4.8	2.5

According to the preceding table the absolute amounts expended for alcoholic beverages increase with the grade of expenditure in families, but as compared with the total expenditures in the case of workmen's families there is a tendency for the percentages of total expenditures to decrease, while in the case of the families of officials the variation is but slight.

As this topic is of considerable interest, the following tables give in detail the expenditures for alcoholic beverages in a selected number of workmen's families and officials' families:

## CONSUMPTION OF ALCOHOLIC BEVERAGES IN WORKMEN'S FAMILIES.

## I.—TOTAL CONSUMPTION.

FAMILIES WITH A TOTAL EXPENDITURE OF 900 TO 1,200 M. (\$214.20 TO \$285.60).

Classification.	Number of families.	Total expenditure.	Expenditure for alcoholic beverages.		Kind of beverage.			
			Amount.	Per cent of total expenditure.	Beer.		Wine.	Brandy.
					Quantity (quarts).	Cost.		
Families of—								
3 persons.....	2	\$535.82	\$40.67	7.6	687.4	\$40.10	.....	\$0.57
4 persons.....	3	804.52	41.42	5.1	599.1	35.84	\$1.01	4.57
5 persons.....	1	282.83	8.31	2.9	92.6	8.31	.....	.....
All families.....	6	1,622.97	90.40	5.6	1,379.1	84.25	1.01	5.14

FAMILIES WITH A TOTAL EXPENDITURE OF 1,200 TO 1,600 M. (\$285.60 TO \$380.80).

Families of—								
2 persons.....	4	\$1,309.01	\$78.92	6.0	1,185.6	\$72.49	.....	\$6.42
3 persons.....	15	5,292.73	333.05	6.3	4,611.1	316.34	\$3.98	12.73
4 persons.....	21	7,144.17	366.36	5.1	5,743.6	338.08	5.88	22.41
5 persons.....	8	2,772.40	157.89	5.7	2,259.0	142.88	3.60	11.41
6 persons.....	2	687.55	20.46	3.0	322.3	19.41	.....	1.05
7 persons.....	2	708.68	60.64	8.6	946.0	56.06	.09	4.49
All families.....	52	17,914.54	1,017.32	5.7	15,667.6	945.26	13.55	58.51

FAMILIES WITH A TOTAL EXPENDITURE OF 1,600 TO 2,000 M. (\$380.80 TO \$476).

Families of—								
2 persons.....	4	\$1,649.00	\$79.48	4.8	1,049.3	\$74.26	\$2.08	\$3.13
3 persons.....	10	4,361.70	208.68	4.8	3,203.8	195.62	2.88	10.18
4 persons.....	14	6,101.80	316.10	5.2	4,515.4	279.58	6.34	30.17
5 persons.....	17	7,262.75	340.40	4.7	4,286.4	315.66	9.25	15.50
6 persons.....	7	3,092.96	137.03	4.4	1,857.7	125.11	2.04	9.89
7 persons.....	3	1,287.20	28.81	2.2	379.9	26.19	2.33	.29
9 persons.....	1	459.67	7.38	1.6	108.1	7.04	.10	.24
All families.....	56	24,215.08	1,117.88	4.6	15,400.6	1,023.46	25.02	69.40

FAMILIES WITH A TOTAL EXPENDITURE OF 2,000 TO 3,000 M. (\$479 TO \$714).

Families of—								
2 persons.....	1	\$523.68	\$35.26	6.7	421.3	\$33.55	\$1.36	\$0.35
3 persons.....	6	3,066.69	116.94	3.8	1,604.6	97.71	14.20	5.03
4 persons.....	5	2,617.62	125.34	4.8	1,648.9	112.79	4.80	7.75
5 persons.....	16	8,780.17	419.84	4.8	5,648.6	379.20	11.39	22.25
6 persons.....	2	1,060.95	37.55	3.5	441.8	33.12	2.63	1.75
7 persons.....	5	2,921.63	112.38	3.8	1,415.3	102.84	3.97	5.57
8 persons.....	4	2,150.07	80.32	3.7	1,154.3	78.29	.48	1.55
9 persons.....	2	1,136.00	30.62	2.7	389.1	30.47	.....	.05
Total.....	41	22,256.81	958.15	4.3	12,723.9	867.97	38.88	51.30

## CONSUMPTION OF ALCOHOLIC BEVERAGES IN WORKMEN'S FAMILIES—Concluded.

## I.—TOTAL CONSUMPTION—Concluded.

SUMMARY: TOTAL EXPENDITURE FOR ALCOHOLIC BEVERAGES IN FAMILIES, CLASSIFIED BY TOTAL FAMILY EXPENDITURE.

Classification.	Number of families.	Total expenditure.	Expenditure for alcoholic beverages.		Kind of beverage.			
			Amount.	Per cent of total expenditure.	Beer.		Wine.	Brandy.
					Quantity (quarts).	Cost.		
Families with expenditure of—								
900-1,200 M. (\$214.20 to \$285.60).....	6	\$1,622.97	\$90.40	5.6	1,379.1	\$84.25	\$1.01	\$5.14
1,200-1,600 M. (\$285.60 to \$380.80).....	52	17,914.54	1,017.32	5.7	15,067.6	945.26	13.55	58.51
1,600-2,000 M. (\$380.80 to \$476).....	56	24,215.08	1,117.88	4.6	15,400.6	1,023.47	25.02	69.40
2,000-3,000 M. (\$476 to \$714).....	41	22,556.81	958.16	4.3	12,723.9	837.97	38.88	51.29
All families.....	155	66,009.40	3,183.76	4.8	44,571.2	2,920.95	78.46	184.34

SUMMARY: TOTAL EXPENDITURE FOR ALCOHOLIC BEVERAGES IN FAMILIES, CLASSIFIED BY NUMBER OF PERSONS.

Families of—								
2 persons.....	9	\$3,481.69	\$193.65	5.6	2,656.2	\$180.31	\$3.44	\$9.90
3 persons.....	33	13,256.93	699.36	5.3	10,106.9	649.77	21.07	28.51
4 persons.....	43	16,667.91	849.22	5.1	12,507.0	766.29	18.03	64.90
5 persons.....	41	18,815.32	918.13	4.9	12,194.0	837.73	24.24	56.16
6 persons.....	12	5,124.29	203.35	4.0	2,714.4	185.96	4.71	12.68
7 persons.....	10	4,917.51	201.83	4.1	2,741.2	185.09	6.40	10.35
8 persons.....	4	2,150.08	80.32	3.7	1,154.3	78.29	.48	1.55
9 persons.....	3	1,595.67	37.90	2.4	497.2	37.51	.09	.29
All families.....	155	66,009.40	3,183.76	4.8	44,571.2	2,920.95	78.46	184.34

## II.—AVERAGE CONSUMPTION.

FAMILIES CLASSIFIED BY GRADE OF EXPENDITURE.

Families with expenditure of—								
900 to 1,200 M. (\$214.20 to \$285.60), average size of family 4.00 persons.....	6	\$270.49	\$15.07	5.6	229.8	\$14.04	\$0.17	\$0.86
1,200 to 1,600 M. (\$285.60 to \$380.80), average size of family 3.90 persons.....	52	344.51	19.56	5.7	289.7	18.18	.26	1.13
1,600 to 2,000 M. (\$380.80 to \$476), average size of family 4.48 persons.....	56	432.41	19.96	4.6	275.1	18.28	.45	1.24
2,000 to 3,000 M. (\$476 to \$714), average size of family 5.29 persons.....	41	542.85	23.37	4.3	310.4	21.17	.95	1.25
All families, average size of family 4.48 persons.....	155	425.87	20.54	4.8	287.5	18.84	.51	1.19

FAMILIES CLASSIFIED BY NUMBER OF PERSONS.

Families of—								
2 persons.....	9	\$386.85	\$21.52	5.6	295.1	\$20.03	\$0.38	\$1.10
3 persons.....	33	401.72	21.19	5.3	306.2	19.69	.64	.86
4 persons.....	43	387.63	19.75	5.1	290.9	17.82	.42	1.51
5 persons.....	41	458.91	22.39	4.9	297.5	20.43	.59	1.37
6 persons.....	12	427.02	16.95	4.0	226.2	15.50	.39	1.06
7 persons.....	10	491.75	20.18	4.1	274.1	18.51	.64	1.04
8 persons.....	4	537.52	20.08	3.7	288.6	19.57	.12	.39
9 persons.....	3	531.89	12.63	2.4	165.7	12.50	.03	.10
All families.....	155	425.89	20.54	4.8	287.5	18.84	.50	1.19

## CONSUMPTION OF ALCOHOLIC BEVERAGES IN FAMILIES OF OFFICIALS.

## I.—TOTAL CONSUMPTION.

FAMILIES WITH A TOTAL EXPENDITURE FROM 1,600 TO 2,000 M. (\$380.80 TO \$476).

Classification.	Number of families.	Total expenditure.	Expenditure for alcoholic drinks.		Kind of beverage.			
			Amount.	Per cent of total expenditure.	Beer.		Wine.	Brandy
					Quantity (quarts).	Cost.		
Families of—								
2 persons.....	1	\$467.22	\$22.62	4.8	219.4	\$16.47	\$5.00	\$1.15
4 persons.....	2	932.19	22.49	2.4	381.6	20.77	.23	1.50
5 persons.....	1	395.59	10.60	2.7	99.3	6.76	2.46	1.38
6 persons.....	2	923.68	10.13	1.1	105.4	7.19	1.70	2.24
8 persons.....	1	440.70	13.37	3.0	134.0	10.22	1.07	2.07
All families.....	7	3,164.38	79.21	2.5	939.7	61.41	9.46	8.34

FAMILIES WITH A TOTAL EXPENDITURE FROM 2,000 TO 3,000 M. (\$476 TO \$714).

Families of—								
2 persons.....	1	\$686.89	\$18.93	2.8	262.7	\$15.66	\$0.50	\$2.77
3 persons.....	10	6,180.17	266.84	4.3	3,023.2	225.36	30.06	11.41
4 persons.....	6	3,793.56	77.33	2.0	879.7	60.73	5.20	11.49
5 persons.....	10	6,023.89	131.86	2.2	1,377.1	100.09	24.37	7.41
6 persons.....	3	1,865.72	21.98	1.2	256.6	19.08	.65	2.25
8 persons.....	1	639.89	4.81	.8	48.4	4.45	.36	.....
All families.....	31	19,190.12	521.75	2.7	5,847.7	425.37	61.14	35.24

FAMILIES WITH A TOTAL EXPENDITURE FROM 3,000 TO 4,000 M. (\$714 TO \$952).

Families of—								
2 persons.....	1	\$726.55	\$28.68	3.9	220.5	\$23.75	\$3.71	\$1.23
3 persons.....	2	1,789.77	54.73	3.1	416.9	43.21	10.08	1.44
4 persons.....	6	4,752.91	102.27	2.2	1,097.2	79.97	16.41	5.89
5 persons.....	4	3,304.87	90.08	2.7	863.7	68.42	15.80	5.85
6 persons.....	4	3,419.93	63.82	1.9	656.6	58.39	3.06	2.38
7 persons.....	3	2,445.17	46.92	1.9	519.4	31.55	6.30	9.07
8 persons.....	1	877.71	7.76	.9	101.1	7.32	.....	.44
All families.....	21	17,316.91	394.26	2.3	3,875.4	312.61	55.36	26.30

FAMILIES WITH A TOTAL EXPENDITURE FROM 4,000 TO 5,000 M. (\$952 TO \$1,190).

Families of—								
4 persons.....	1	\$1,039.32	\$24.89	2.4	192.2	\$18.21	\$5.01	\$1.67

SUMMARY: TOTAL EXPENDITURE FOR ALCOHOLIC BEVERAGES IN FAMILIES, CLASSIFIED BY TOTAL FAMILY EXPENDITURE.

Families with—								
1,600 to 2,000 M. (\$380.80 to \$476).....	7	\$3,164.38	\$79.21	2.5	939.7	\$61.41	\$9.46	\$8.34
2,000 to 3,000 M. (\$476 to \$714).....	31	19,190.11	521.75	2.7	5,847.7	425.37	61.14	35.24
3,000 to 4,000 M. (\$714 to \$952).....	21	17,316.91	394.26	2.3	3,875.5	312.60	55.36	26.30
4,000 to 5,000 M. (\$952 to \$1,190).....	1	1,039.32	24.89	2.4	192.2	18.21	5.01	1.67
All families.....	60	40,710.72	1,020.11	2.5	10,855.1	817.59	130.97	71.55

## CONSUMPTION OF ALCOHOLIC BEVERAGES IN FAMILIES OF OFFICIALS—Concluded.

## I.—TOTAL CONSUMPTION—Concluded.

## SUMMARY: TOTAL EXPENDITURES FOR ALCOHOLIC BEVERAGES IN FAMILIES BY NUMBER OF PERSONS.

Classification.	Number of families.	Total expenditure.	Expenditure for alcoholic drinks.		Kind of beverage.			
			Amount.	Per cent of total expenditure.	Beer.		Wine.	Brandy
					Quantity (quarts).	Cost.		
Families of—								
2 persons.....	3	\$1,890.66	\$70.23	3.7	702.6	\$55.87	\$9.21	\$5.15
3 persons.....	12	7,969.94	321.56	4.0	3,440.1	268.57	40.15	12.85
4 persons.....	15	10,517.98	226.98	2.2	2,550.7	179.68	26.85	20.46
5 persons.....	15	9,724.34	232.55	2.4	2,840.2	175.27	42.63	14.64
6 persons.....	9	6,214.33	95.94	1.5	1,018.6	84.66	4.41	6.87
7 persons.....	3	2,445.17	46.92	1.9	519.4	31.55	6.28	9.07
8 persons.....	3	1,958.30	25.93	1.3	283.5	21.99	1.43	2.51
All families.....	60	40,710.72	1,020.11	2.5	10,855.1	817.59	130.97	71.55

## II.—AVERAGE CONSUMPTION.

## FAMILIES CLASSIFIED BY AMOUNT OF EXPENDITURE.

Families with total expenditures of—								
1,600 to 2,000 M. (\$380.80 to \$476)	7	\$452.05	\$11.31	2.5	134.2	\$8.77	\$1.35	\$1.19
2,000 to 3,000 M. (\$476 to \$714)	31	619.04	16.83	2.7	188.6	13.72	1.97	1.14
3,000 to 4,000 M. (\$714 to \$952)	21	824.62	18.77	2.3	184.5	14.89	2.64	1.25
4,000 to 5,000 M. (\$952 to \$1,190)	1	1,039.32	24.89	2.4	192.2	18.21	5.01	1.67
All families.....	60	678.51	17.00	2.5	180.9	13.63	2.18	1.19

## FAMILIES CLASSIFIED BY NUMBER OF PERSONS.

Families of—								
2 persons.....	3	\$626.88	\$23.41	3.7	234.2	\$18.62	\$3.07	\$1.72
3 persons.....	12	664.16	26.80	4.0	286.7	22.38	3.35	1.07
4 persons.....	15	701.20	15.13	2.2	170.0	11.98	1.79	1.36
5 persons.....	15	648.29	15.50	2.4	156.0	11.69	2.84	.98
6 persons.....	9	690.48	10.66	1.5	113.2	9.41	.49	.76
7 persons.....	3	815.06	15.64	1.9	173.1	10.52	2.10	3.02
8 persons.....	3	652.77	8.64	1.3	94.5	7.33	.48	.84
All families.....	60	678.51	17.00	2.5	180.9	13.63	2.18	1.19

The household accounts secured in the case of 155 workmen's families and 60 officials' families had fairly complete statements of expenditures for alcoholic beverages, and these were used in the preceding tables.

In the case of workmen, the consumption of alcoholic beverages per family was \$15.07 in case of families with the lowest grade of expenditure, and \$23.37 in case of families with from \$476 to \$714. While these amounts show a considerable increase, the proportion which they formed of the total expenditure for all purposes gives one a different impression of the variation in expenditure. The table may

be summed up by stating that the average expenditure per family for families of less than \$380.80 expenditure is approximately 5½ per cent of all expenditures, while for families with over \$380.80 total expenditure the average expenditure for these beverages is approximately 4½ per cent of the total expenditures. Of the amounts expended on the different kinds of alcoholic beverages, the amount spent for wines is extremely small, but increases with the prosperity of the family; the amount expended for brandy is likewise small, but considerably larger than that devoted to wines. All but a small part of the expenditure for alcoholic beverages is therefore devoted to beer, in the case of workmen being \$18.84 out of an average of \$20.54 per family for all alcoholic beverages. In the workmen's families classified by the size of the family, there is a constant decrease in the proportion of the total expenditures devoted to beverages as the family increases in size.

In the families of officials the percentage of total expenditure devoted to alcoholic beverages is much smaller than in the case of workmen, and this is true for families with the same grade of expenditure and families of the same number of persons. The most marked difference in the consumption of beverages in officials' families, as compared with workmen's families, consists in the larger amount expended for wines by the former; the average per family for all families expended for wines is 51 cents in the case of workmen, and \$2.18 in the case of officials. The amounts expended for brandy, on the other hand, are practically identical.

#### PARTIAL BIBLIOGRAPHY OF STUDIES ON THE COST OF LIVING.

The report also gives a partial bibliography of recent studies on the cost of living of workmen's families in Germany, and makes reference to a few of the better known studies in foreign countries. The list, with brief summaries of the contents of each volume, is as follows:

##### STUDIES OF COST OF LIVING IN GERMANY.

Frief, Die wirtschaftliche Lage der Fabrikarbeiter in Schlesien und die zum Besten derselben bestehenden Einrichtungen. Breslau, 1876.

Contains budgets of 235 Silesian workingmen's families, the data being collected in the year 1875 by means of schedules.

Ausgaben der arbeitenden Klasse. Statistisches Jahrbuch der Stadt Berlin. VII. Jahrgang (1879), Berlin, 1881, page 136 ff., and VIII. Jahrgang (1880), Berlin, 1882, page 164.

Statistik von Haushaltrechnungen minderbemittelter Bevölkerungsklassen im Jahre 1900. (Veröffentlichungen des Statistischen Amtes der Stadt Berlin. Beilage, 1902.)

Lohnermittlungen u. Haushaltrechnungen der minderbemittelten Bevölkerung im Jahre 1903. (Berliner Statistik, herausgegeben vom Statistischen Amte der Stadt Berlin.)

The first of the three preceding Berlin studies included 15 families whose expenditures were ascertained in the year 1879 after the close of the year. For the second study the Berlin statistical office distributed household account books in the summer of 1880 for the preceding year, but published the accounts of 2 families only. The study of the year 1900 included the income and expenditures of 142 families; the returns included wage-workers, artisans, a few subordinate officials, and mercantile employees. The 1903 report was also a schedule study, but included families which had kept not only accounts but also data from estimates; the report included 1,155 families, of which 908 were tabulated. The occupations included wage-earners, artisans, and subordinate officials, with expenditures ranging from 600 to 4,000 marks (\$142.80 to \$952).

Schnapper-Arndt, Gottlieb, *Ausgaben einer Familie von 6 Personen auf einer Hallig.* (Zeitschrift für die gesamte Staatswissenschaft. 35. Bd.) Tübingen, 1879.

Schnapper-Arndt, Gottlieb, *Monographie und Wirtschaftsrechnung einer armen Weisszeugnäherin in einer kleinen Stadt Suddeutschlands.*

Schnapper-Arndt, Gottlieb, *Beschreibung der Wirtschaft und Statistik der Wirtschaftsrechnungen der Familie eines Uhrschildmalers im badischen Schwarzwald.* (Zeitschrift für die gesamte Staatswissenschaft. Bd. 36. Jahrg. 1880, page 133.)

Schnapper-Arndt, Gottlieb, *Fünf Dorfgemeinden auf dem Hohen Taunus.* (Staats und sozialwissenschaftliche Forschungen. 4. Bd., 2. Heft.) Leipzig, 1883.

Schnapper-Arndt, Gottlieb, *Zur Theorie und Geschichte der Privatwirtschaftsstatistik.* (Sonderabdruck aus dem Bulletin de l'Institut International de Statistique. Bd. XIII., 2.) Leipzig, 1903.

Sozialstatistik. (Abschnitt Privatwirtschaftsstatistik.) Leipzig, 1908.

The first three of the preceding reports are accounts of investigations made by Professor Schnapper-Arndt. The third volume gives an inventory of a household, a description of the method of living, and a discussion of the sources of income and of the expenditures. The volume describing the five village communities of Upper Taunus contains a minute description of the conditions of a road worker and of a nail maker who also conducted a farm; the latter family kept full accounts for a number of months.

Concordia, *Zeitschrift des Vereins zur Förderung des Wohles der Arbeiter.* Mainz. 1879 ff.

Contains a series of household accounts.

Ballin, Paul, *Der Haushalt der arbeitenden Klassen.* Berlin, 1883.

The volume contains a discussion of various investigations of the cost of living of workmen, gives a bibliography, and compares the results of a series of statistical studies on the cost of living; it also contains a statement of the expenditures of 6 families made in the years 1880, 1881, and 1882, among the families being 3 living in Berlin, one an official, one a retired person, and one a merchant.

Schlieben, *Untersuchungen über das Einkommen und die Lebenshaltung der Handwerker im Bezirke der Amtshauptmannschaft Zittau.* (Zeitschrift des Kgl. Sächs. Statistischen Büreaus. XXXI. Jahrg.) Dresden, 1885.

Contains the accounts of 52 families of hand weavers in 18 localities.

*Jahres-Berichte der Königl. Sächsischen Gewerbe- und Berg-Inspektoren für das Jahr 1885.* Dresden, 1886.

Contains the accounts of expenditures of 5 families of wage-earners and artisans, based on data for one or two weeks.

Hampke, Karl, *Das Ausgabebudget der Privatwirtschaften.* Jena, 1888.

Gives a discussion of the literature on cost of living, together with the accounts of 6 families living in Halle; the families were wage-earners, artisans, factory workers,



retired persons, and officials of secondary rank. The basis for the information consisted of family account books kept for periods of from one to four years during the period 1882 to 1886.

Frankfurter Arbeiterbudgets. (Schriften des Freien Deutschen Hochstifts.) Frankfurt a. M., 1890.

Contains the complete household accounts of 3 families for the year 1888, discussed by members of the society named; an inventory of the household effects is also given.

Nasse, R., Über die Haushaltung der Bergarbeiter im Saarbrückenschen und in Grossbritannien (Jahrbücher für Nationalökonomie und Statistik, III. Fge., IV. Bd.) Januar 1891.

Contains the yearly expenditures of 10 mine workers' families for the year 1889, taken from account books.

Die soziale Lage der Zigarrenarbeiter im Grossherzogtume Baden. (Beilage zum Jahresberichte des Grossh. Badischen Fabrikinspektors für das Jahr 1889; bearbeitet von Wörrishoffer). Karlsruhe 1890.

Contains the income and expenditure accounts of 39 families, prepared by the heads of the families.

Die soziale Lage der Fabrikarbeiter in Mannheim und dessen nächster Umgebung. (Herausgegeben von Wörrishoffer, Vorstand der Grossh. Badischen Fabrikinspektion.) Karlsruhe, 1891.

Contains the income accounts of 25 city and 25 rural workmen's families, together with the account of 30 unmarried workingmen. Also gives the household accounts of 12 city and 16 rural workmen's families, obtained by personal interviews with the workingmen.

May, Max, Zehn Arbeiter-Budgets. Berlin, 1891.

May, Max, Wie der Arbeiter lebt. Berlin, 1897.

The first of the two preceding volumes contains 10 budgets of workmen employed in a textile establishment; the establishment employed 1,200 persons who had been requested by the employer to keep full accounts; the volume gives the accounts of a wage period of two weeks.

The second volume gives the accounts of 20 families, together with a description of the dwellings; the report includes wage-earners, artisans, and working women in large, medium, and small cities and in rural districts. The data were taken from household account books, most of which were kept for an entire year. The incomes ranged from 647 marks to 2,019 marks (\$153.99 to \$480.52).

Kuhna, Die Ernährungsverhältnisse der industriellen Arbeiterbevölkerung in Oberschlesien. Leipzig, 1894.

Contains a statement of the expenditures for food and the consumption of food products for 407 workingmen's families in Upper Silesia and for 43 workingmen's families in other districts; the data relate to November and December, 1891.

Jahresbericht der Gewerbe-Aufsichtsbeamten im Königreiche Württemberg für das Jahr 1898. Page 147ff.

Contains 5 household budgets of workingmen's families in Württemberg; the data were obtained by personal interviews.

Abelsdorff, W., Beiträge zur Sozialstatistik der Deutschen Buchdrucker. (Volkswirtschaftliche Abhandlungen der badischen Hochschulen. IV. Bd. 4. Heft.) Leipzig, 1900.

Contains the accounts of 15 printers, machine foremen, and compositors in Munich, Stuttgart, Karlsruhe, Heidelberg, Schwetzingen, Metz, Berlin, Hamburg, Leipzig, and Bromberg. The basis for the study consisted of household accounts which were kept by the families during the two months of October and November, 1897.

Haushaltungs-Rechnungen Nürnberger Arbeiter. Bearbeitet im Arbeiter-Sekretariat Nürnberg von A. Braun. Nürnberg, 1901.

Contains the household accounts of 44 workingmen's families in Nuremberg, which were kept for the year February 1, 1899, to January 31, 1900. The annual expenditures ranged from 725 marks to 2,194 marks (\$172.55 to \$522.17), and the number of persons in a family ranged from 2 to 10.

Die soziale Lage der Pforzheimer Bijouteriearbeiter. Bearbeitet von Fabrikinspektor Fuchs and herausgegeben von der Grossh.-Badischen Fabrikinspektion. Karlsruhe, 1901.

Gives the total income of 37 families and the expenditures of 19 families, the data being obtained by interviews.

Die Verhältnisse der Industriearbeiter in 17 Landgemeinden bei Karlsruhe. Bearbeitet von Fabrikinspektor Fuchs and herausgegeben von der Grossh.-Badischen Fabrikinspektion. Karlsruhe, 1904.

Contains a discussion of the population, the industries, the working classes, the sources of income, the housing conditions, the health conditions, and the moral and intellectual conditions of working families in the territory specified, as well as the household accounts of 14 families. The basis for the last-named data was obtained from account books kept by 14 workingmen's families during six weeks of May and June, the accounts, however, including the expenditures for nutrition only. An appendix gives a full statement of the conditions of 50 workmen's families, together with the same data for 8 single men and 6 single women workers.

Inventarien von 87 Dresdner Arbeiterhaushaltungen. (Mitteilungen des Statistischen Amtes der Stadt Dresden. 13. Heft.) Dresden, 1904.

Die Dresdner Kleinverkaufspreise der wichtigsten Lebensmittel in den letzten Jahren und der Einfluss der eingetretenen Preisänderungen auf das Ausgabebudget einer Arbeiterfamilie. (Mitteilungen des Statistischen Amtes der Stadt Dresden. 16. Heft.) Dresden, 1907.

The first of the two preceding volumes gives an inventory of the property of workmen's families, intended to be used as the preliminary account for current statistics of the cost of living. The data were obtained by personal interviews upon findings of schedules, the information being obtained relating to occupation, average income, number of persons belonging to the household, size, location, and rental of the dwelling, property, debts, supplies of food and fuel, number and value of the pieces of furniture, number of the household and kitchen utensils, number of pieces of clothing, of linen, etc., as well as of other articles of value. The report contains the accounts of 87 families, of which 41 were kept for the full year from April 1, 1903, to March 31, 1904. From the accounts of 25 of these families, the families containing from 4 to 7 persons, the cost of the principal items of expenditure—especially food—was obtained and reproduced in No. 16 of the publication specified.

Feuerstein, H., Lohn und Haushalt der Uhrenfabrikarbeiter des badischen Schwarzwaldes. (Volkswirtschaftliche Abhandlungen der badischen Hochschulen. VII. Bd., 4. Ergänzungsband.) Karlsruhe, 1905.

Contains the accounts of 26 families, of which 21 are based on account books kept for periods ranging from two to twelve months in the years 1903 and 1904.

Erhebung der Königl. Bayerischen Fabriken- und Gewerbe-Inspektoren über die wirtschaftliche Lage der gewerblichen Arbeiter Bayerns. Beilageheft zu den Jahresberichten für 1905.

Gives the cost of living of 36 families, part of the information being based on family account books kept for one or more months.

Haushaltungs-Rechnungen hamburgischer Volksschullehrer. Hamburg, 1906.

The statistical committee of the Hamburg society, "Gesellschaft der Freunde des vaterländischen Schul- und Erziehungswesens," obtained the household accounts

for 14 families, which were kept for the whole of the year 1903 by 14 permanently appointed school-teachers. The accounts of 20 other families, which were not entirely complete, are reproduced in the appendix.

Keller, Karl v., *Wirtschaftsrechnungen*. (Zeitschrift für die gesamte Staatswissenschaft. 62. Jahrg., 4. Heft.) Tübingen, 1906.

Keller, Karl v., *Wirtschaftsrechnungen*. Leipzig, 1908.

The first volume gives the household accounts of the author for the ten-year period 1895 to 1905. The second volume gives the same accounts for the year 1906-7; the income ranged from 2,057 to 3,569 marks (\$489.57 to \$849.42).

Fürth, Henriette, *Ein mittelbürgerliches Budget über einen zehnjährigen Zeitraum*. Jena, 1907.

Contains the family accounts of a merchant in the city of Frankfort on the Main for the period 1896 to 1905.

Mulert, O., *Vierundzwanzig ostpreussische Arbeiter und Arbeiterfamilien*. Jena, 1908.

Reproduces the budgets of 10 workmen's families in rural districts; the data were obtained by interviews.

Gerloff, W., *Haushaltungsrechnungen zweier Volksschullehrer*. (Annalen des Deutschen Reichs. 41. Jahrg. No. 3.) München, 1908.

Gives the household accounts of a teacher in Stettin for the years 1901 to 1906, as well as of a teacher in Crefeld for the years 1904 to 1906.

Cost of living in German towns. Report of an enquiry by the British Board of Trade into working class rents, housing, and retail prices. London, 1908.

Contains 5,046 budgets of workmen for a "normal" week in the year 1905.

## STUDIES OF COST OF LIVING IN OTHER COUNTRIES.

### BELGIUM.

Salaires et budgets ouvriers en Belgique. Brussels, 1892.

An official investigation of the accounts of 188 workingmen's families who kept full accounts for the month of April, 1891.

Engel, E., *Die Lebenskosten belgischer Arbeiterfamilien früher und jetzt*. Dresden, 1895.

Gives a discussion of the Belgian investigation of 1891.

### DENMARK.

Danske Arbejderfamiliers Forbrug, 1. Afdeling: Byarbejdere, 2. Afdeling: Landarbejdere, Danmarks Statistik, Statistiske Meddelelser. Series 4, vol. 6, part 6 and vol. 11, part 2. Kopenhagen, 1900, 1901.

Contains the yearly accounts of 50 city and 218 rural workingmen in the year 1897, obtained from account books.

Rubin, M., *Consommation de familles d'ouvriers danois*. (Bulletin de l'Institut International de Statistique. XIII. 3.) Rom, 1903.

Gives a discussion of the preceding investigation.

### FRANCE.

Le Play: *Les ouvriers européens*. Paris, 1855.

Le Play: *Les ouvriers des deux mondes*. Sammelwerk, seit, 1856. Paris.

The first of the preceding volumes gives a minute description of 36 accounts and budgets of workingmen's families in different countries. The second volume, published by the "Société internationale des études pratiques d'économie sociale," founded by Le Play, contains current household accounts of workingmen's families in different countries.

**Cost of Living in French Towns.** Report of an enquiry by the British Board of Trade into working class rents, housing, and retail prices. London, 1909.

Contains 5,605 workmen's budgets for a "normal" week in the year 1905.

**Enquête sur le travail à domicile dans l'industrie de la lingerie.** Office du Travail. Bd. I, 1907; Bd. II, 1908. Paris.

Volume I contains 66, and volume II contains 9 household accounts of female home workers, obtained from interviews.

#### GREAT BRITAIN.

**Returns of expenditure by workingmen.** Labor statistics. London, 1889.

Contains 34 weekly budgets obtained by means of schedules.

**Booth, Charles:** Life and Labor of the People in London. London, 1892.

The first volume contains 30 household accounts of London families, the accounts having been kept for five weeks.

**Cost of Living of the Working Classes.** Report of an enquiry by the Board of Trade into working class rents, housing, and retail prices. London, 1903.

Contains 1,944 workingmen's budgets for one week in the year 1905.

#### SWITZERLAND.

**Landolt, Carl,** Zehn Baseler Arbeiterhaushaltungen (Zeitschrift für Schweizerische Statistik. 27. Jahrg., 3. Heft). Bern, 1891.

**Landolt, Carl,** Methode und Technik der Haushaltsstatistik. Leipzig, 1894.

**Landolt, Carl,** Lohnstatistik und Haushaltsbudgets (Schweizerische Blätter für Wirtschafts- und Sozialpolitik. III. Jahrg., Nr. 19). Bern und Leipzig, 1895.

The first volume contains the household accounts of 10 workingmen's families in Basel, which were kept for one year; the second gives the accounts of the family of a designer in a lace factory in St. Gall; in the third volume are given the household accounts of 11 families, together with 4 families in Thurgau.

#### UNITED STATES.

**Cost of Production.** Sixth and seventh annual reports of the Commissioner of Labor. Washington, 1890 and 1892.

**Cost of Living and Retail Prices of Food.** Eighteenth annual report of the Commissioner of Labor. Washington, 1904.

The first two volumes give the budgets of 8,544 families containing 44,158 persons, the third volume gives the cost of living for 25,440 families containing 128,108 persons. These are the costs for one year computed from interviews made by officials; in only a few cases were household accounts used as a basis for the data. The investigation was restricted to families whose annual income did not exceed \$1,200.

**More, Louise Bolard,** Wage-earners' budgets. (Greenwich House series of social studies, No. 1.) New York, 1907.

Contains 200 family budgets and 50 household accounts, the latter being based on account books kept for periods varying from one week to one year.

## TREND OF WAGES IN GERMANY, 1898 TO 1907.

For Germany there is no official compilation of wage statistics in the various industries, and until recently there was no comprehensive unofficial study of the rates of wages. In connection with the revision of the imperial financial system, the imperial treasury department commissioned Dr. R. R. Kuczynski, director of the municipal statistical office of Schöneberg, to prepare a memorial on the trend of wages in Germany since the founding of the Empire.<sup>(a)</sup> Part of the statistics contained in this study are herewith presented in summary form for the ten-year period 1898-1907 for the information of American readers.

In preparing this study a variety of sources was used, but they consist principally of publications of federations of trade unions, of publications of employers' associations, of trade agreements, and in a few cases of official reports such as those relating to mines, railroads, and the mercantile marine. In a few instances wage data were secured from the pay rolls of establishments, but on the whole the information secured in this manner forms an unimportant part of the study.

As far as possible the writer of the report has endeavored to give the "prevailing" rate of wages in the industries discussed, meaning thereby the rate received by the majority of the workers. As stated below, this in many cases was not feasible and instead the "median" (*mittlere*) rates are given whenever no one of the rates in use was received by a majority of the workers. The "median" rate, as used in this discussion, is found by arranging the rates of wages in a column ranging from lowest to highest with the number of workingmen receiving each rate attached; that rate which has just as many workers above it as below it, is the "median" rate.

Since the study is one of the trend of wages, the writer has not given the approximate number of persons receiving the rates of wages cited, and in only a few instances was he able to obtain the number of hours per day worked by the persons in receipt of the daily wages given. As, however, the tables in every case give both the rates per hour and the rates per day, the information clearly indicates

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<sup>a</sup> Die Entwicklung der gewerblichen Löhne seit der Begründung des Deutschen Reiches von Dr. R. R. Kuczynski, Direktor des Statistischen Amtes der Stadt Schöneberg, Berlin, 1909. Gedruckt in der Reichsdruckerei.

the general trend of wages in the industries for which information could be secured.

The study relates to the wage development in the mining industry, the building trades, the stoneworking industries, the woodworking industries, the printing trades, and the transportation industries. Some information is also given as to the large metal working establishments, but as the statistics furnished are the wages taken from the pay rolls of a single establishment only, the present summary gives only the average rates as disclosed by the books of the largest German establishment in this industry.

Throughout the study the writer has been careful not to make a comparison between the cities for which he compiled wage data. As the present summary is for the purpose of showing the general trend of wages only and not the actual rates in use in the various industries, such a comparison has been made in the following pages to emphasize the general trend.

#### MINING.

Statistics of wages of mine employees have not been published for the German Empire as a whole. The only complete statistics of earnings of a large number of mine employees relate to Prussia and appear in an official periodical of the Prussian Government entitled "*Zeitschrift für das Berg-, Hütten- und Salinenwesen im Preussischen Staate.*" By a ministerial decree, dated July 22, 1872, the superior mining offices of Prussia are authorized to require periodical reports of earnings from the mines within their districts. In pursuance of this decree, statistics of mine workers' earnings have been compiled by the various superior mining offices, and since 1882 have been published in the Annual Report of the Department of Mines of Prussia, and in the annual supplement to the periodical just mentioned. Since 1886 the statistics of the mine workers in the various branches have been published in complete and comparable form for the whole of Prussia.<sup>(a)</sup>

In the present report the official Prussian statistics have been used to show the trend of wages of mine workers, the data being given by the branches of industry, and with the earnings per shift of the different classes of workers in each district. The table relating to the hard-coal industry gives the earnings per shift and per year and the relative earnings, with 1907 as the basis, in the various mining districts where this product is obtained, for the decade 1898-1907.

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<sup>a</sup> The statistics of wages of coal-mine workers for the period 1886-1903 are given in some detail in the Twelfth Special Report of the Commissioner of Labor, entitled, *Coal Mine Labor in Europe*, pp. 310-325.

## EARNINGS OF EMPLOYEES IN HARD-COAL MINES, 1898 TO 1907.

## ACTUAL EARNINGS.

Year.	Miners.		Other underground workers.		Male adult surface workers.		Boys.		Women.		All workers.	
	Per shift.	Per an-num.	Per shift.	Per an-num.	Per shift.	Per an-num.	Per shift.	Per an-num.	Per shift.	Per an-num.	Per shift.	Per an-num.
UPPER SILESIAN DISTRICT.												
1898.....	\$0.74	\$204	\$0.64	\$191	\$0.56	\$162	\$0.22	\$60	\$0.23	\$64	\$0.65	\$183
1899.....	.78	213	.68	197	.58	168	.24	62	.24	66	.68	191
1900.....	.85	234	.75	218	.63	183	.26	70	.26	74	.74	209
1901.....	.84	231	.75	219	.64	186	.27	72	.27	76	.74	208
1902.....	.80	215	.73	208	.63	181	.25	69	.26	73	.70	195
1903.....	.80	220	.73	208	.63	182	.24	66	.26	73	.71	198
1904.....	.81	222	.73	209	.63	183	.23	65	.26	74	.71	199
1905.....	.83	231	.77	221	.64	187	.24	67	.27	75	.73	206
1906.....	.88	247	.82	240	.67	197	.25	71	.28	79	.77	220
1907.....	.95	269	.89	264	.71	213	.28	78	.30	85	.82	239
LOWER SILESIAN DISTRICT.												
1898.....	.69	208	.66	201	.57	174	.24	73	.32	98	.64	193
1899.....	.72	218	.69	211	.59	181	.25	74	.34	104	.67	201
1900.....	.78	236	.74	226	.63	193	.27	79	.36	110	.71	217
1901.....	.75	223	.72	216	.64	193	.27	79	.37	112	.69	207
1902.....	.69	202	.67	196	.61	181	.25	72	.35	103	.65	190
1903.....	.70	210	.68	203	.62	187	.24	71	.35	104	.65	197
1904.....	.71	214	.68	206	.63	190	.24	73	.35	105	.66	201
1905.....	.75	224	.72	217	.65	199	.25	76	.37	110	.70	210
1906.....	.78	236	.75	227	.67	206	.27	81	.37	112	.73	220
1907.....	.85	257	.80	242	.71	216	.28	84	.38	115	.78	236
DORTMUND DISTRICT.												
1898.....	1.08	330	.71	229	.72	243	.29	84	.....	.....	.89	280
1899.....	1.15	355	.75	244	.76	256	.30	86	.....	.....	.94	299
1900.....	1.23	379	.80	261	.79	268	.30	88	.....	.....	.99	317
1901.....	1.19	344	.80	244	.79	257	.30	84	.....	.....	.97	291
1902.....	1.09	313	.77	227	.77	249	.28	79	.....	.....	.91	269
1903.....	1.10	336	.78	242	.78	260	.28	81	.....	.....	.92	287
1904.....	1.14	337	.79	239	.80	266	.29	81	.....	.....	.95	288
1905.....	1.15	326	.81	235	.81	272	.29	80	.....	.....	.96	282
1906.....	1.26	396	.87	275	.86	299	.30	87	.....	.....	1.04	334
1907.....	1.42	445	.96	307	.92	323	.33	95	.....	.....	1.16	372
SAARBRÜCK DISTRICT.												
1898.....	.93	273	.64	203	.67	200	.27	61	.....	.....	.81	242
1899.....	.95	276	.65	200	.68	201	.26	66	.....	.....	.82	243
1900.....	.98	284	.67	201	.71	219	.26	72	.....	.....	.85	248
1901.....	.97	283	.69	203	.72	221	.27	75	.....	.....	.84	248
1902.....	.97	283	.70	207	.72	221	.27	74	.....	.....	.85	250
1903.....	.98	289	.70	209	.72	223	.27	75	.....	.....	.86	254
1904.....	1.00	293	.73	217	.75	235	.29	80	.....	.....	.88	261
1905.....	1.02	295	.75	223	.78	240	.31	85	.....	.....	.90	265
1906.....	1.05	305	.76	228	.80	249	.31	86	.....	.....	.92	272
1907.....	1.09	317	.81	242	.84	260	.33	91	.....	.....	.96	282
AIX-LA-CHAPELLE DISTRICT.												
1898.....	.89	267	.67	210	.65	216	.26	76	.....	.....	.78	240
1899.....	.94	282	.71	224	.67	226	.28	79	.....	.....	.82	254
1900.....	1.06	320	.79	252	.72	240	.30	84	.....	.....	.92	284
1901.....	1.03	309	.80	248	.74	244	.29	82	.....	.....	.90	277
1902.....	1.00	294	.78	238	.75	243	.28	80	.....	.....	.88	266
1903.....	1.01	301	.79	244	.77	252	.28	80	.....	.....	.90	274
1904.....	1.04	304	.81	250	.79	257	.30	83	.....	.....	.93	278
1905.....	1.09	319	.86	262	.82	268	.31	86	.....	.....	.97	292
1906.....	1.18	353	.95	290	.87	292	.34	96	.....	.....	1.05	322
1907.....	1.26	381	1.02	323	.89	309	.37	106	.....	.....	1.10	346

## EARNINGS OF EMPLOYEES IN HARD-COAL MINES, 1898 TO 1907—Concluded.

## RELATIVE EARNINGS (1907=100).

Year.	Miners.		Other underground workers.		Male adult surface workers.		Boys.		Women.		All workers.	
	Per shift.	Per an-num.	Per shift.	Per an-num.	Per shift.	Per an-num.	Per shift.	Per an-num.	Per shift.	Per an-num.	Per shift.	Per an-num.
UPPER SILESIAN DISTRICT.												
1898.....	77	76	72	72	78	76	81	77	78	76	78	77
1899.....	82	79	76	75	81	79	83	79	82	78	82	80
1900.....	89	87	84	83	89	86	93	90	90	87	90	87
1901.....	88	86	85	83	90	88	94	92	92	90	89	87
1902.....	84	80	82	79	88	85	91	88	90	86	85	82
1903.....	84	82	82	79	88	86	88	85	89	86	86	83
1904.....	85	82	82	79	88	86	86	84	90	87	86	83
1905.....	88	86	86	84	90	88	87	86	91	88	89	86
1906.....	92	92	91	91	94	93	91	92	94	93	93	92
1907.....	100	100	100	100	100	100	100	100	100	100	100	100
LOWER SILESIAN DISTRICT.												
1898.....	81	81	83	83	80	81	86	87	84	86	82	82
1899.....	85	85	87	87	83	84	87	88	89	91	86	85
1900.....	92	92	93	94	89	89	94	94	95	96	92	92
1901.....	88	87	90	89	90	89	94	94	98	97	89	88
1902.....	82	79	84	81	86	84	87	85	92	90	83	81
1903.....	82	82	85	84	87	87	85	84	91	90	84	84
1904.....	84	83	85	85	88	88	86	86	91	91	85	85
1905.....	88	87	90	90	92	92	90	90	96	95	90	89
1906.....	92	92	94	94	95	95	95	95	98	97	93	93
1907.....	100	100	100	100	100	100	100	100	100	100	100	100
DORTMUND DISTRICT.												
1898.....	76	74	74	75	78	75	87	88	.....	.....	77	75
1899.....	81	80	78	80	82	79	90	90	.....	.....	81	80
1900.....	86	85	83	85	86	83	93	92	.....	.....	86	85
1901.....	83	77	83	79	86	80	91	89	.....	.....	84	78
1902.....	76	70	80	74	84	77	86	83	.....	.....	78	72
1903.....	78	75	81	79	85	81	86	86	.....	.....	80	77
1904.....	80	76	83	78	86	82	87	85	.....	.....	82	77
1905.....	81	73	84	77	88	84	88	84	.....	.....	83	76
1906.....	88	89	90	90	93	93	92	92	.....	.....	90	90
1907.....	100	100	100	100	100	100	100	100	.....	.....	100	100
SAARBRÜCK DISTRICT.												
1898.....	85	86	79	84	80	77	82	67	.....	.....	85	86
1899.....	87	87	80	83	81	77	81	72	.....	.....	86	86
1900.....	90	90	83	82	85	84	80	79	.....	.....	89	88
1901.....	89	90	85	84	85	85	82	83	.....	.....	88	88
1902.....	89	89	86	85	85	85	83	82	.....	.....	89	89
1903.....	90	91	86	86	86	86	82	83	.....	.....	90	90
1904.....	92	92	89	89	90	90	88	88	.....	.....	92	93
1905.....	94	93	92	92	92	92	94	94	.....	.....	95	94
1906.....	96	96	94	94	95	96	95	95	.....	.....	97	97
1907.....	100	100	100	100	100	100	100	100	.....	.....	100	100
AIX-LA-CHAPELLE DISTRICT.												
1899.....	71	70	66	65	73	70	71	72	.....	.....	70	69
1890.....	74	74	70	69	75	73	75	74	.....	.....	74	73
1900.....	84	84	77	78	81	78	79	79	.....	.....	83	82
1901.....	82	81	77	77	82	79	77	78	.....	.....	81	80
1902.....	80	77	76	74	84	79	75	75	.....	.....	80	77
1903.....	81	79	77	75	86	82	75	76	.....	.....	82	79
1904.....	83	80	80	77	88	83	79	79	.....	.....	84	80
1905.....	87	84	85	81	91	87	83	82	.....	.....	88	84
1906.....	94	93	93	90	98	95	92	91	.....	.....	95	93
1907.....	100	100	100	100	100	100	100	100	.....	.....	100	100



According to the data just given, if the average annual earnings for 1907 in Upper Silesia, Lower Silesia, the Dortmund, and the Aix-la-Chapelle districts are taken as one hundred, the averages in 1907 are from 9 to 22 per cent higher than in 1900; in the same way in the Saar district, the average annual earnings in 1907 were about 14 per cent higher than in 1900. On the whole there is a steady increase in the annual earnings since 1897 in all the districts producing hard coal.

Earnings in the soft coal or bituminous mines relate only to the superior mining district of Halle and for the various classes of workers are as follows:

## EARNINGS OF EMPLOYEES IN SOFT-COAL MINES, 1898 TO 1907.

## ACTUAL EARNINGS.

Year.	Miners.		Other underground workers.		Male adult surface workers.		Boys.		Women.		All workers.	
	Per shift.	Per an-num.	Per shift.	Per an-num.	Per shift.	Per an-num.	Per shift.	Per an-num.	Per shift.	Per an-num.	Per shift.	Per an-num.
HALLE DISTRICT.												
1898.....	\$0. 75	\$228	\$0. 63	\$193	\$0. 61	\$186	\$0. 33	\$97	\$0. 37	\$110	\$0. 65	\$198
1899.....	. 79	239	. 66	199	. 64	195	. 34	101	. 37	111	. 68	207
1900.....	. 85	258	. 71	216	. 69	209	. 37	111	. 40	118	. 73	222
1901.....	. 85	256	. 71	216	. 69	210	. 37	110	. 40	119	. 73	221
1902.....	. 80	242	. 69	210	. 67	202	. 36	105	. 39	117	. 70	212
1903.....	. 81	246	. 69	209	. 68	207	. 35	104	. 40	119	. 71	215
1904.....	. 83	254	. 71	215	. 70	213	. 36	107	. 40	119	. 73	222
1905.....	. 87	264	. 73	222	. 72	219	. 37	109	. 40	121	. 75	228
1906.....	. 92	281	. 77	236	. 77	234	. 39	117	. 42	124	. 80	243
1907.....	. 98	297	. 83	252	. 79	240	. 42	124	. 45	134	. 86	260

## RELATIVE EARNINGS (1907=100).-

HALLE DISTRICT.												
1898.....	77	77	76	77	78	77	79	78	81	82	76	76
1899.....	81	81	79	79	82	81	82	81	83	83	80	80
1900.....	87	87	86	86	87	87	90	89	88	88	85	85
1901.....	87	86	86	86	88	88	89	89	89	89	85	85
1902.....	82	81	84	84	85	84	86	85	87	87	82	81
1903.....	83	83	83	83	86	86	85	83	88	89	83	83
1904.....	85	86	86	87	89	89	86	86	88	89	85	85
1905.....	89	89	88	88	92	91	89	83	90	91	87	88
1906.....	95	95	93	94	98	98	94	94	93	93	93	93
1907.....	100	100	100	100	100	100	100	100	100	100	100	100

For all workers included in the preceding table the average annual earnings show a rapid increase in the decade included, being more than 30 per cent higher in 1907 than they were in the year 1898.

For salt mining and salt making the earnings are for the superior mining district of Halle and are as follows:

## EARNINGS OF EMPLOYEES IN SALT MINES AND WORKS, 1898 TO 1907.

## ACTUAL EARNINGS.

Year.	Miners.		Other underground workers.		Male adult surface workers.		Boys.		All workers.	
	Per shift.	Per an-num.	Per shift.	Per an-num.	Per shift.	Per an-num.	Per shift.	Per an-num.	Per shift.	Per an-num.
HALLE DISTRICT.										
1898.....	\$0.91	\$274	\$0.82	\$250	\$0.83	\$255	\$0.29	\$87	\$0.85	\$259
1899.....	.92	275	.85	258	.83	256	.30	91	.87	262
1900.....	.95	287	.89	271	.87	265	.31	93	.90	272
1901.....	.97	292	.89	269	.88	269	.30	90	.91	275
1902.....	.91	268	.84	249	.83	251	.29	87	.85	254
1903.....	.92	269	.84	251	.81	243	.29	82	.85	253
1904.....	.93	278	.83	249	.81	247	.26	78	.85	258
1905.....	.96	287	.85	257	.83	250	.28	82	.88	264
1906.....	.99	296	.88	265	.84	255	.28	82	.90	271
1907.....	1.04	309	.91	272	.87	265	.30	90	.94	282

## RELATIVE EARNINGS (1907=100).

HALLE DISTRICT.										
1898.....	88	89	90	92	95	96	95	96	91	92
1899.....	89	89	94	95	95	97	100	101	92	93
1900.....	92	93	98	100	99	100	102	103	95	96
1901.....	94	94	98	99	101	102	98	100	96	97
1902.....	88	87	92	92	95	95	96	97	91	90
1903.....	89	87	93	92	93	92	94	92	91	90
1904.....	90	90	91	92	93	93	87	87	91	91
1905.....	93	93	94	95	95	94	91	91	93	94
1906.....	95	96	96	98	96	96	91	91	96	96
1907.....	100	100	100	100	100	100	100	100	100	100

Since 1898 the average annual earnings of salt workers show a rise up to the year 1901, followed by a drop in the years 1902 and 1903, and a gradual increase from that time until 1907.

The trend of wages of ore miners is shown first for copper ore miners, and second for iron ore miners. For the copper ore miners in the superior mining district of Halle, the earnings per shift and the average annual earnings are as follows:

## EARNINGS OF EMPLOYEES IN COPPER MINES, 1893 TO 1907.

## ACTUAL EARNINGS.

Year.	Miners.		Other underground workers.		Male adult surface workers.		Boys.		All workers.	
	Per shift.	Per an-num.	Per shift.	Per an-num.	Per shift.	Per an-num.	Per shift.	Per an-num.	Per shift.	Per an-num.
HALLE DISTRICT.										
1893.....	\$0.77	\$232	\$0.76	\$233	\$0.70	\$213	\$0.29	\$87	\$0.73	\$220
1899.....	.81	245	.79	244	.72	219	.32	96	.76	230
1900.....	.86	258	.85	260	.75	229	.32	96	.80	241
1901.....	.83	253	.85	258	.76	232	.32	98	.79	238
1902.....	.71	216	.76	231	.68	206	.28	85	.68	206
1903.....	.74	224	.77	235	.69	212	.27	83	.70	213
1904.....	.78	238	.81	250	.71	219	.28	86	.73	225
1905.....	.81	248	.81	246	.75	230	.32	96	.77	235
1906.....	.87	263	.83	254	.78	240	.32	97	.81	248
1907.....	.89	271	.86	262	.82	252	.34	104	.84	257

## EARNINGS OF EMPLOYEES IN COPPER MINES. 1898 TO 1907—Concluded.

## RELATIVE EARNINGS (1907=100).

Year.	Miners.		Other underground workers.		Male adult surface workers.		Boys.		All workers.	
	Per shift.	Per an-num.	Per shift.	Per an-num.	Per shift.	Per an-num.	Per shift.	Per an-num.	Per shift.	Per an-num.
HALLE DISTRICT.										
1898.....	86	86	89	89	85	85	85	84	86	86
1899.....	91	90	92	93	88	87	94	92	90	90
1900.....	96	95	99	99	92	91	95	92	95	94
1901.....	94	93	99	99	93	92	95	94	93	93
1902.....	80	80	88	88	83	82	82	82	80	80
1903.....	83	83	90	90	85	84	80	80	83	83
1904.....	87	88	95	96	87	87	82	83	87	88
1905.....	91	91	94	94	92	91	93	93	92	91
1906.....	97	97	97	97	96	95	94	93	97	97
1907.....	100	100	100	100	100	100	100	100	100	100

The rates given in the above table are for the well-known Mansfeld copper mines which are subject to the jurisdiction of the superior mining office of Halle. According to the data in the table, the earnings of all workers increased from 1898 up to 1900 and 1901, when a heavy decrease occurred, but since that time each year has shown a large increase over the preceding.

The earnings of the iron ore workers for the three mining districts of Siegen-Nassau, of the rest of the district on the right of the Rhine and of the district on the left of the Rhine, are as follows:

## EARNINGS OF EMPLOYEES IN IRON MINES, 1898 TO 1907.

## ACTUAL EARNINGS.

Year.	Miners.		Other underground workers.		Male adult surface workers.		Boys.		Women.		All employees.	
	Per shift.	Per an-num.	Per shift.	Per an-num.	Per shift.	Per an-num.	Per shift.	Per an-num.	Per shift.	Per an-num.	Per shift.	Per an-num.
SIEGEN-NASSAU DISTRICT.												
1898.....	\$0. 75	\$214	\$0. 66	\$207	\$0. 62	\$184	\$0. 33	\$89	\$0. 30	\$81	\$0. 69	\$197
1899.....	. 85	245	. 72	218	. 69	206	. 37	99	. 33	89	. 78	225
1900.....	. 90	257	. 77	238	. 74	220	. 40	106	. 35	94	. 83	237
1901.....	. 82	229	. 75	230	. 70	208	. 37	99	. 34	89	. 76	215
1902.....	. 72	196	. 70	206	. 64	187	. 33	88	. 31	83	. 68	187
1903.....	. 75	215	. 71	218	. 66	196	. 33	89	. 33	89	. 70	203
1904.....	. 76	213	. 74	227	. 66	197	. 33	92	. 33	88	. 71	202
1905.....	. 82	232	. 76	237	. 70	207	. 35	99	. 34	88	. 76	217
1906.....	. 97	277	. 83	261	. 78	237	. 40	109	. 37	101	. 88	256
1907.....	1. 05	300	. 85	264	. 83	249	. 44	119	. 39	105	. 95	274
DISTRICT TO THE RIGHT OF THE RHINE (EXCEPT SIEGEN-NASSAU).												
1898.....	. 72	202	. 58	171	. 58	171	. 32	87	. 28	74	. 65	184
1899.....	. 77	214	. 63	196	. 61	181	. 34	91	. 31	83	. 69	196
1900.....	. 81	226	. 69	215	. 65	194	. 36	96	. 33	84	. 73	207
1901.....	. 75	208	. 71	219	. 63	187	. 34	93	. 31	86	. 68	193
1902.....	. 71	199	. 67	204	. 59	181	. 31	88	. 31	86	. 64	186
1903.....	. 73	205	. 65	200	. 60	182	. 31	88	. 31	84	. 66	189
1904.....	. 74	208	. 66	198	. 62	186	. 32	90	. 31	84	. 67	193
1905.....	. 80	223	. 67	207	. 64	191	. 33	92	. 34	92	. 71	204
1906.....	. 91	253	. 76	231	. 70	209	. 36	100	. 33	87	. 80	229
1907.....	. 97	277	. 82	249	. 74	229	. 39	110	. 35	94	. 86	250

## EARNINGS OF EMPLOYEES IN IRON MINES, 1898 TO 1907—Concluded.

## ACTUAL EARNINGS—Concluded.

Year.	Miners.		Other underground workers.		Male adult surface workers.		Boys.		Women.		All employees.	
	Per shift.	Per an-num.	Per shift.	Per an-num.	Per shift.	Per an-num.	Per shift.	Per an-num.	Per shift.	Per an-num.	Per shift.	Per an-num.
DISTRICT TO THE LEFT OF THE RHINE.												
1898.....	\$0.62	\$175	\$0.60	\$179	\$0.55	\$162	\$0.25	\$68	\$0.27	\$79	\$0.57	\$164
1899.....	.66	184	.62	185	.57	163	.26	69	.29	85	.60	169
1900.....	.67	188	.63	194	.57	167	.26	74	.30	87	.60	173
1901.....	.65	185	.63	198	.57	168	.26	69	.31	89	.59	172
1902.....	.63	175	.64	192	.54	156	.26	69	.31	85	.57	162
1903.....	.64	182	.64	199	.55	161	.27	73	.31	86	.58	166
1904.....	.66	189	.63	206	.56	166	.27	74	.33	94	.59	173
1905.....	.68	193	.65	205	.59	173	.28	78	.34	95	.62	179
1906.....	.74	214	.67	215	.62	185	.30	82	.36	98	.66	193
1907.....	.79	222	.66	205	.64	198	.32	89	.38	102	.70	205

## RELATIVE EARNINGS (1907=100).

SIEGEN-NASSAU DISTRICT.												
1898.....	71	71	78	78	74	74	75	75	79	77	72	72
1899.....	81	82	85	83	83	83	84	83	85	84	82	82
1900.....	86	86	90	90	89	88	91	90	91	90	87	87
1901.....	78	76	88	87	85	84	85	84	87	85	80	79
1902.....	69	65	82	78	77	75	75	74	80	79	71	68
1903.....	72	72	83	82	80	79	75	75	85	84	74	74
1904.....	72	71	87	86	80	79	76	78	85	84	74	74
1905.....	78	77	89	90	84	83	81	83	87	84	80	79
1906.....	92	92	97	99	94	95	91	92	94	96	93	93
1907.....	100	100	100	100	100	100	100	100	100	100	100	100
DISTRICT TO THE RIGHT OF THE RHINE (EXCEPT SIEGEN-NASSAU).												
1898.....	74	73	71	69	78	75	83	79	82	79	75	74
1899.....	79	77	77	79	82	79	87	83	89	88	80	78
1900.....	84	82	84	87	88	85	92	87	94	89	85	83
1901.....	77	75	87	88	85	82	88	84	91	92	80	77
1902.....	73	72	82	82	79	79	80	80	89	91	75	75
1903.....	75	74	80	80	80	80	81	80	90	90	77	76
1904.....	76	75	81	79	83	81	83	81	91	89	78	77
1905.....	82	81	83	83	85	83	85	83	98	98	83	82
1906.....	93	91	93	93	94	91	93	91	94	93	94	92
1907.....	100	100	100	100	100	100	100	100	100	100	100	100
DISTRICT TO THE LEFT OF THE RHINE.												
1898.....	79	79	90	87	86	82	79	77	71	78	81	80
1899.....	84	83	93	90	89	82	79	77	77	83	85	83
1900.....	85	85	95	95	90	84	81	83	79	86	86	85
1901.....	82	83	95	97	89	85	81	77	81	87	85	84
1902.....	80	79	96	93	85	79	81	78	81	84	82	79
1903.....	82	82	96	97	86	81	83	83	82	85	83	81
1904.....	84	85	95	100	88	83	82	83	86	92	85	85
1905.....	87	87	98	100	93	87	87	87	88	93	88	87
1906.....	95	96	101	105	98	93	93	92	96	96	94	94
1907.....	100	100	100	100	100	100	100	100	100	100	100	100

In each of the three districts the maximum earnings in the period preceding 1907 occurred about the year 1900; in 1907 the average annual earnings of all employees were from 15 to 21 per cent higher than in 1900.

To sum up the general trend of earnings in all of the mining districts referred to above it may be stated that there are two high points in the earnings, occurring in the years 1900 and 1907, and that in the last-named year the earnings were uniformly higher than in any preceding year.

## BUILDING TRADES.

In the following tables either the "prevailing" rates or the "median" rates of wages are used. The term "median" is defined on page 795; the "prevailing" rate of wages is the rate received by the majority of the workers included in the table.

The data relating to the earnings of building-trade workers were obtained principally from trade-union investigations and studies made by employers' associations, though the pay rolls of a few establishments were also used.

## MASONS.

In the following table is shown the wages per hour and per day for masons in five large cities:

WAGES OF MASONS, 1899 TO 1908.

## ACTUAL WAGES.

Year.	Berlin (median rates).		Hamburg (pre- vailing rates).		Dresden (pre- vailing rates).		Nuremberg (median rates).		Elberfeld (median rates).	
	Per hour.	Per day.	Per hour.	Per day.	Per hour.	Per day.	Per hour.	Per day.	Per hour.	Per day.
1899.....	\$0.143	\$1.29	\$0.143	\$1.43	\$0.109	\$1.09	\$0.102	\$1.02	\$0.102	\$1.07
1900.....	.149	1.34	.155	1.47	.107	1.07	.102	1.02	.109	1.09
1901.....	.155	1.39	.155	1.47	.102	1.02	.102	1.02	.109	1.09
1902.....	.155	1.39	.155	1.47	.102	1.02	.102	1.02	.109	1.09
1903.....	.161	1.44	.155	1.47	.108	1.08	.102	1.02	.109	1.09
1904.....	.167	1.50	.167	1.50	.115	1.15	.112	1.06	.109	1.09
1905.....	.174	1.56	.179	1.61	.121	1.21	.121	1.13	.117	1.17
1906.....	.179	1.61	.190	1.71	.131	1.24	(a)	(a)	.117	1.17
1907.....	.179	1.61	.190	1.71	.138	1.24	.133	1.24	.136	1.29
1908.....	.179	1.61	.190	1.71	.140	1.26	.140	1.31	.136	1.29

## RELATIVE WAGES (1908=100).

	80	80	75	83	78	87	73	78	75	83
1899.....	80	80	75	83	78	87	73	78	75	83
1900.....	83	83	81	86	76	85	73	78	81	85
1901.....	87	87	81	86	73	81	73	78	81	85
1902.....	87	87	81	86	73	81	73	78	81	85
1903.....	90	90	81	86	77	86	73	78	81	85
1904.....	93	93	88	88	82	91	80	81	81	85
1905.....	97	97	94	94	86	96	86	86	86	90
1906.....	100	100	100	100	93	98	(a)	(a)	86	90
1907.....	100	100	100	100	98	98	95	95	100	100
1908.....	100	100	100	100	100	100	100	100	100	100

a Not reported.

In the preceding table the rates for Berlin, Nuremberg, and Elberfeld are the "median" rates of wages, while those for Hamburg and Dresden are the "prevailing" rates. In Berlin both the hourly and daily rates show the same tendency for the period included in the table. In Hamburg, on the other hand, for the ten-year period there is a larger increase in the rates per hour than in the rates per day, indicating a shortening of the working day. The same tendency is observed in Dresden and Elberfeld.

The average rates per hour for masons for the various sections of the empire were compiled by a special investigation of the central

federation of masons. The following table, taken from the report of this investigation, shows these rates for 16 sections of the country for the years 1895, 1900, and 1905.

AVERAGE HOURLY WAGES OF MASONS, 1895, 1900, AND 1905.

District.	Rates per hour.		
	1895.	1900.	1905.
Silesia.....	\$0.063	\$0.080	\$0.083
Thuringian states.....	.062	.080	.086
Mecklenburg (both duchies).....	.068	.074	.087
Pomerania.....	.066	.068	.089
Province of Saxony and Anhalt.....	.069	.089	.090
Bavaria (including the Palatine).....	.080	.093	.094
Wurttemberg.....	.075	.086	.095
Posen, East and West Prussia.....	.076	.090	.096
Kingdom of Saxony.....	.077	.097	.099
Baden, Alsace-Lorraine, etc.....	.077	.093	.102
Hessen-Nassau and Hessen-Darmstadt.....	.078	.097	.102
Rhine Province.....	.085	.099	.107
Hanover, Bremen, Brunswick, etc.....	.088	.100	.108
Westphalia, Lippe.....	.082	.098	.111
Province of Brandenburg.....	.100	.130	.138
Sleswick-Holstein, Hamburg, Lübeck.....	.120	.123	.148
Average.....	.082	.099	.109

In the preceding table it will be noticed that the sections of the country are arranged in the order of the rates as prevailing in the year 1905. The highest rates are shown for Sleswick-Holstein, Nuremberg, Lübeck, and for the province of Brandenburg; in these districts, the rates are apparently determined by the large cities of Hamburg, Lübeck, and Berlin and the rate is considerably above the average for all the areas included.

An interesting indication of the trend of wages of masons is also given in the source used in the preceding table; this report gives the data for 1,406 areas in which wage agreements existed in 1895, 1900, and 1905. The following tables show the prevailing rates of wages per hour and the average annual income of masons for the three years already used in the 1,406 areas for which wage agreements existed.

RATES OF WAGES AND AVERAGE ANNUAL EARNINGS OF MASONS, 1895, 1900, AND 1905.

Rates per hour.	Wage agreement areas.			Average annual earnings.	Wage agreement areas.		
	1895.	1900.	1905.		1895.	1900.	1905.
25 Pf. (\$0.06) and under.....	272	52	8	400 to 500 M. (\$.95 to \$1.19).....	22	—	—
25 to 30 Pf. (\$0.06 to \$0.071)....	509	307	131	500 to 600 M. (\$1.19 to \$1.43).....	228	53	4
30 to 35 Pf. (\$0.071 to \$0.083)....	365	437	397	600 to 700 M. (\$1.43 to \$1.67).....	419	218	92
35 to 40 Pf. (\$0.083 to \$0.095)....	178	237	352	700 to 800 M. (\$1.67 to \$1.90).....	344	357	279
40 to 45 Pf. (\$0.095 to \$0.107)....	55	229	252	800 to 900 M. (\$1.90 to \$2.14).....	215	325	379
45 to 50 Pf. (\$0.107 to \$0.119)....	15	59	143	900 to 1,000 M. (\$2.14 to \$2.38).....	131	225	275
50 to 55 Pf. (\$0.119 to \$0.131)....	7	21	81	1,000 to 1,100 M. (\$2.38 to \$2.62).....	25	155	162
55 to 60 Pf. (\$0.131 to \$0.143)....	1	7	16	1,100 to 1,200 M. (\$2.62 to \$2.86).....	12	55	135
60 to 65 Pf. (\$0.143 to \$0.155)....	2	2	12	1,200 to 1,300 M. (\$2.86 to \$3.09).....	—	8	40
65 to 70 Pf. (\$0.155 to \$0.167)....	—	3	4	1,300 to 1,400 M. (\$3.09 to \$3.33).....	1	3	26
70 to 75 Pf. (\$0.167 to \$0.179)....	—	—	7	1,400 to 1,500 M. (\$3.33 to \$3.57).....	7	5	4
75 to 80 Pf. (\$0.179 to \$0.190)....	—	—	1	1,500 to 1,600 M. (\$3.57 to \$3.81).....	—	—	5
				1,600 to 1,700 M. (\$3.81 to \$4.05).....	—	—	3

A superficial examination of the preceding table shows at once a distinct movement of the trade-agreement areas from the lower rates to the higher rates in each of the years mentioned. For the hourly rates in 1895 there are but very few areas with a rate in excess of 40 Pf. (\$.0095), while in 1900 and 1905 the localities with rates in excess of 40 Pf. (\$.0095) are quite numerous. Similarly with the average annual earnings; in 1895 very few areas showed annual earnings in excess of 1,000 marks (\$238), in 1900 a large number of areas showed much higher earnings, while in 1905 over one-fourth of all areas had earnings in excess of 1,000 marks (\$238), and for the first time a few areas with annual earnings in excess of 1,500 marks (\$357) were reported.

**CARPENTERS.**

The rates of wages of carpenters in the four cities of Berlin, Dresden, Nuremberg, and Elberfeld are shown in the following table:

WAGES OF CARPENTERS, 1899 TO 1908.

**ACTUAL WAGES.**

	Berlin (median rates).		Dresden (prevailing rates).		Nuremberg (median rates).		Elberfeld (median rates).	
	Per hour.	Per day.	Per hour.	Per day.	Per hour.	Per day.	Per hour.	Per day.
1899.....	\$0.143	\$1.29	\$0.107	\$1.07	\$0.096	\$0.96	(a)	(a)
1900.....	.149	1.34	.107	1.07	.098	.98	\$0.107	\$1.07
1901.....	.155	1.39	.101	1.01	.100	1.00	.107	1.07
1902.....	.155	1.39	.101	1.01	.100	1.00	.107	1.07
1903.....	.161	1.44	.108	1.08	.100	1.00	.114	1.14
1904.....	.167	1.50	.115	1.15	.109	1.04	.126	1.26
1905.....	.174	1.56	.121	1.21	.117	1.11	.131	1.24
1906.....	.179	1.61	.131	1.24	.119	1.13	.131	1.24
1907.....	.179	1.61	.138	1.24	.131	1.24	.143	1.36
1908.....	.179	1.61	.140	1.26	.138	1.31	.143	1.36

**RELATIVE WAGES (1908=100).**

							(a)	(a)
1899.....	80	80	76	85	70	74	(a)	(a)
1900.....	83	83	76	85	71	74	75	79
1901.....	87	87	72	80	72	76	75	79
1902.....	87	87	72	80	72	76	75	79
1903.....	90	90	77	86	72	76	80	84
1904.....	93	93	82	91	79	79	83	93
1905.....	97	97	86	96	84	84	92	92
1906.....	100	100	93	98	86	86	92	92
1907.....	100	100	98	98	95	95	100	100
1908.....	100	100	100	100	100	100	100	100

a Not reported.

According to the relative figures given in the preceding table, the wages of carpenters in three of the four large cities have increased one-fourth or more in the decade ending with 1908. There is some difference in the rate of increase in the hourly and the daily wages, but, with the exception of the daily rate in Dresden, the level of wages is at least one-fourth higher in 1908 than in 1899.

## BUILDING TRADES' LABORERS.

The data for the wages of helpers and laborers in the building trades were obtained principally from publications of employers' associations, though the rates as found on the books of a few firms were also used.

## WAGES OF HELPERS AND LABORERS IN THE BUILDING TRADES, 1899 TO 1908.

Year.	Actual wages.						Relative wages (1908=100).					
	Berlin (median rates).		Nuremberg (median rates).		Elberfeld (median rates).		Berlin (median rates).		Nuremberg (median rates).		Elberfeld (median rates).	
	Per hour.	Per day.	Per hour.	Per day.	Per hour.	Per day.	Per hour.	Per day.	Per hour.	Per day.	Per hour.	Per day.
1899.....	\$0.083	\$0.83	\$0.064	\$0.64	\$0.086	\$0.90	70	78	63	66	77	85
1900.....	.095	.95	.064	.64	.083	.87	80	89	63	66	74	82
1901.....	.095	.95	.064	.64	.083	.83	80	89	63	66	74	78
1902.....	.095	.95	.067	.67	.083	.83	80	89	65	69	74	78
1903.....	.107	.96	.067	.67	.083	.83	90	90	65	69	74	78
1904.....	.107	.96	.071	.68	.086	.86	90	90	70	70	77	81
1905.....	.114	1.03	.079	.74	(a)	(a)	96	96	77	77	(a)	(a)
1906.....	.119	1.07	.083	.79	(a)	(a)	100	100	81	81	(a)	(a)
1907.....	.119	1.07	.095	.90	.112	1.06	100	100	93	93	100	100
1908.....	.119	1.07	.102	.97	.112	1.06	100	100	100	100	100	100

a Not reported.

Both the hourly and daily rate of the helpers and laborers in the building trades, as given in the preceding table, show that the greatest increases took place in the period in question in Nuremberg; the increase in the hourly rate in Elberfeld was over 25 per cent and in the daily rate over 15 per cent. Berlin also shows a large increase; since 1899 the hourly rate has increased nearly one-half and the daily rate over one-fourth. For the three cities included in the table, the rates per hour have increased from one-fourth to nearly one-half and the rates per day have increased between 15 and 50 per cent.

## PAINTERS.

The wages of painters have been obtained principally from trade agreements, though data furnished by private establishments were also used to some extent. For three large cities the trend of wages of painters in the last decade has been as follows:

## WAGES OF PAINTERS, 1899 TO 1908.

Year.	Actual wages.						Relative wages (1908=100).					
	Berlin (median rates).		Hamburg (prevailing rates).		Nuremberg (median rates).		Berlin (median rates).		Hamburg (prevailing rates).		Nuremberg (median rates).	
	Per hour.	Per day.	Per hour.	Per day.	Per hour.	Per day.	Per hour.	Per day.	Per hour.	Per day.	Per hour.	Per day.
1899.....	\$0.112	\$1.01	(a)	(a)	\$0.100	\$1.00	73	73	(a)	(a)	82	92
1900.....	.119	1.07	(a)	(a)	.100	1.00	77	77	(a)	(a)	82	92
1901.....	.119	1.07	\$0.133	\$1.20	.100	1.00	77	77	86	86	82	92
1902.....	.119	1.07	.133	1.20	.100	1.00	77	77	86	86	82	92
1903.....	.131	1.18	.143	1.29	.100	1.00	85	85	92	92	82	92
1904.....	.131	1.18	.143	1.29	.105	.99	85	85	92	92	86	91
1905.....	.131	1.18	.143	1.29	.114	1.03	85	85	92	92	94	94
1906.....	.155	1.39	.155	1.39	.117	1.05	100	100	100	100	96	96
1907.....	.155	1.39	.155	1.39	.119	1.07	100	100	100	100	98	98
1908.....	.155	1.39	.155	1.39	.121	1.09	100	100	100	100	100	100

a Not reported.



The greatest increases in the rates are those shown for Berlin, where the increase was over one-third for both the hourly and the daily rates. The development in Hamburg shows an increase of 16 per cent in both the hourly and the daily rates, while in Nuremberg the hourly rates show an increase of over 20 per cent and the daily rates of nearly 10 per cent in the period covered. For painters, therefore, the rates per hour show increases of about one-fourth or more, and the rates per day show increases of about one-tenth to one-third, the greatest increase occurring in the largest city of the empire.

#### PLUMBERS, GAS FITTERS, AND STEAM FITTERS.

For plumbers and allied workers the data were obtained almost entirely from wage agreements. The trend of wages in three large cities for the decade 1899-1908 is as follows:

WAGES OF PLUMBERS, GAS FITTERS, AND STEAM FITTERS, 1899 TO 1908.

Year.	Actual wages.						Relative wages (1908=100).					
	Berlin (median rates).		Hamburg (prevailing rates).		Nuremberg (median rates).		Berlin (median rates).		Hamburg (prevailing rates).		Nuremberg (median rates).	
	Per hour.	Per day.	Per hour.	Per day.	Per hour.	Per day.	Per hour.	Per day.	Per hour.	Per day.	Per hour.	Per day.
1899.....	\$0.109	\$1.10	\$0.119	\$1.19	\$0.086	\$0.86	71	79	71	79	72	76
1900.....	.107	.96	.131	1.24	.094	.94	69	69	79	83	79	83
1901.....	.130	1.17	.131	1.24	.086	.86	84	84	79	83	72	76
1902.....	.131	1.18	.131	1.24	.084	.84	85	85	79	83	71	75
1903.....	.131	1.18	.131	1.24	.088	.88	85	85	79	83	74	78
1904.....	.131	1.18	.143	1.29	.107	1.02	85	85	86	86	90	90
1905.....	.131	1.18	.143	1.29	.107	1.02	85	85	86	86	90	90
1906.....	.155	1.39	.167	1.50	.119	1.13	100	100	100	100	100	100
1907.....	.155	1.39	.167	1.50	.119	1.13	100	100	100	100	100	100
1908.....	.155	1.39	(a)	(a)	.119	1.13	100	100	(a)	(a)	100	100

a Not reported; 1907 is used as 100 for the relative wages.

The three cities show approximately the same development, and in each case the increase in the hourly rates has been somewhat greater than the increase in the daily rates. In each of the three cities the increase has been much in excess of 25 per cent for the above periods.

#### PLUMBERS' HELPERS.

The data for wages of plumbers' helpers were secured from wage agreements and from the books of private establishments. The trend of wages for this trade in Berlin and Nuremberg is as follows:

## WAGES OF PLUMBERS' HELPERS AND LABORERS, 1899 TO 1908.

Year.	Actual wages.				Relative wages (1908=100).			
	Berlin (median rates).		Nuremberg (median rates).		Berlin (median rates).		Nuremberg (median rates).	
	Per hour.	Per day.	Per hour.	Per day.	Per hour.	Per day.	Per hour.	Per day.
1899.....	\$0.071	\$0.71	\$0.060	\$0.60	63	70	66	69
1900.....	.071	.64	.060	.60	63	63	66	69
1901.....	.083	.75	.060	.60	74	74	66	69
1902.....	.083	.75	.060	.60	74	74	66	69
1903.....	.095	.86	.060	.60	84	84	66	69
1904.....	.095	.86	(a)	(a)	84	84	(a)	(a)
1905.....	.095	.86	(a)	(a)	84	84	(a)	(a)
1906.....	.113	1.02	(a)	(a)	100	100	(a)	(a)
1907.....	.113	1.02	.090	.86	100	100	100	100
1908.....	.113	1.02	.090	.86	100	100	100	100

(a) Not reported.

The increase in the rates has been slightly greater in Berlin than in Nuremberg, but both show an increase of about 50 per cent or more in the wage rates paid in the trade during the decade ending in 1908.

## STONECUTTERS.

The data relating to the wages of stonecutters were obtained principally from trade-union publications, though the books of a number of private establishments were also used in securing the information. For the cities of Berlin, Hamburg, and Nuremberg the rates in the decade 1899-1908 are as follows:

## WAGES OF STONECUTTERS, 1899 TO 1908.

Year.	Actual wages.						Relative wages (1908=100).					
	Berlin (prevailing rates).		Hamburg (prevailing rates).		Nuremberg (median rates).		Berlin (prevailing rates).		Hamburg (prevailing rates).		Nuremberg (median rates).	
	Per hour.	Per day.	Per hour.	Per day.	Per hour.	Per day.	Per hour.	Per day.	Per hour.	Per day.	Per hour.	Per day.
1899.....	\$0.135	\$1.31	\$0.159	\$1.43	\$0.114	\$1.14	76	81	74	79	69	76
1900.....	.167	1.33	.159	1.43	.119	1.19	82	82	74	79	71	79
1901.....	.167	1.33	.171	1.46	.119	1.19	82	82	80	81	71	79
1902.....	.167	1.33	.171	1.46	.119	1.19	82	82	80	81	71	79
1903.....	.167	1.33	.171	1.46	.124	1.11	82	82	80	81	74	74
1904.....	(a)	(a)	(a)	(a)	.148	1.33	(a)	(a)	(a)	(a)	89	89
1905.....	.186	1.49	.186	1.58	.148	1.33	92	92	87	87	89	89
1906.....	.190	1.52	(a)	(a)	.155	1.39	94	94	(a)	(a)	93	93
1907.....	.202	1.62	.202	1.72	.167	1.50	100	100	94	94	100	100
1908.....	.202	1.62	.214	1.81	.167	1.50	100	100	100	100	100	100

(a) Not reported.

The rates as given for Nuremberg show the most rapid increase, while in the other two cities the increases are from one-fourth to one-third.

**METAL-WORKING INDUSTRIES.**

On account of the absence of compilations of wage statistics in the metal-working trades, the only information available which includes a large number of workmen is a statement showing the average daily earnings paid to employees in the Krupp plant at Essen. For the 10-year period 1897-1906, these averages were:

AVERAGE DAILY EARNINGS IN THE KRUPP PLANT AT ESSEN, 1897 TO 1906.

Year.	Actual earnings.	Relative earnings (1906=100).	Year.	Actual earnings.	Relative earnings (1906=100).
1897.....	\$1.07	84	1902.....	\$1.08	84
1898.....	1.09	85	1903.....	1.09	85
1899.....	1.12	88	1904.....	1.16	91
1900.....	1.14	89	1905.....	1.22	96
1901.....	1.10	87	1906.....	1.27	100

For all employees in the plant, if the average daily earnings in 1906 be taken as 100, the average for 1897 would be 84; from this year there is a gradual increase up to 1900, when a slight reaction occurs and the level remains below that of 1900 until the year 1904, when it rises above the level of 1900, and in the year 1905 was still higher and in 1906 reached the highest point since the beginning of the plant. While an average of this kind is not of great value, in the present instance it may safely be used as the basis for the statement that there has been an increase of nearly 20 per cent in the general level of wages in the largest metal-working establishment in Germany during the period 1897 to 1906.

**PRINTING TRADES.**

For compositors and pressmen in the book printing trades statistics as to the prevailing minimum weekly rates of wages are found in the trade agreements made between the employers' association and the printers' union. These wage agreements cover practically the whole Empire, and specify the minimum weekly rate which must be paid to journeymen printers over 24 years of age in the localities designated. The rate specified in the trade agreement may, under certain circumstances, be reduced for persons below the age of 24, but on the whole these reductions are of minor importance.

In the following table the minimum weekly wages for journeymen printers over 24 years of age are given for the 25 largest cities of the Empire, the cities in the table being arranged according to population, as reported by the census of 1905:

MINIMUM WEEKLY WAGES OF JOURNEYMEN PRINTERS OVER 24 YEARS OF AGE,  
1886 TO 1909.

ACTUAL WAGES.

Locality.	Oct. 1, 1886.	Jan. 1, 1889.	Jan. 1, 1890.	July 1, 1896.	Jan. 1, 1902.	Jan. 1, 1907.	Jan. 1, 1909.
Berlin.....	\$5.85	\$5.85	\$6.10	\$6.25	\$6.69	\$7.44	\$7.44
Hamburg.....	5.85	5.85	6.10	6.25	6.69	7.44	7.44
Munich.....	5.37	5.37	5.61	5.87	6.29	6.99	6.99
Dresden.....	5.49	5.49	5.73	5.87	6.29	6.99	6.99
Leipzig.....	5.49	5.49	5.73	5.87	6.43	7.14	7.14
Breslau.....	5.37	5.37	5.61	5.75	6.16	6.84	6.84
Cologne.....	5.37	5.37	5.37	5.50	6.02	6.69	6.84
Frankfort on the Main.....	5.49	5.49	5.73	5.87	6.29	6.99	6.99
Nuremberg.....	5.37	5.37	5.61	5.75	6.16	6.84	6.84
Dusseldorf.....	5.37	5.37	5.37	5.50	6.02	6.69	6.84
Hanover.....	5.37	5.37	5.61	5.75	6.16	6.84	6.84
Stuttgart.....	5.37	5.37	5.61	5.75	6.29	6.99	6.99
Chemnitz.....	5.37	5.37	5.37	5.50	6.02	6.69	6.69
Magdeburg.....	5.29	5.29	5.29	5.41	5.89	6.55	6.69
Charlottenburg.....	5.85	5.85	6.10	6.25	6.69	7.44	7.44
Essen.....	5.61	5.61	5.61	5.75	6.16	6.84	6.84
Stettin.....	5.37	5.37	5.37	5.50	6.02	6.69	6.69
Königsberg.....	5.37	5.37	5.37	5.50	5.89	6.55	6.55
Bremen.....	5.37	5.37	5.61	5.75	6.16	6.84	6.99
Duisburg.....	5.12	5.12	5.12	5.25	5.76	6.55	6.55
Dortmund.....	5.37	5.37	5.37	5.50	6.02	6.69	6.69
Halle.....	5.29	5.29	5.29	5.41	5.89	6.55	6.55
Altona.....	5.85	5.85	6.10	6.25	6.69	7.44	7.44
Kiel.....	5.37	5.37	5.61	5.75	6.43	7.14	7.14
Mannheim.....	5.12	5.12	5.37	5.50	6.02	6.69	6.84

RELATIVE WAGES (1909=100).

Berlin.....	79	79	82	84	90	100	100
Hamburg.....	79	79	82	84	90	100	100
Munich.....	77	77	80	84	90	100	100
Dresden.....	79	79	82	84	90	100	100
Leipzig.....	77	77	80	82	90	100	100
Breslau.....	78	78	82	84	90	100	100
Cologne.....	78	78	78	80	88	98	100
Frankfort on the Main.....	79	79	82	84	90	100	100
Nuremberg.....	78	78	82	84	90	100	100
Dusseldorf.....	78	78	78	80	88	98	100
Hanover.....	78	78	82	84	90	100	100
Stuttgart.....	77	77	80	82	90	100	100
Chemnitz.....	80	80	80	82	90	100	100
Magdeburg.....	79	79	79	81	88	98	100
Charlottenburg.....	79	79	82	84	90	100	100
Essen.....	82	82	82	84	90	100	100
Stettin.....	80	80	80	82	90	100	100
Königsberg.....	82	82	82	84	90	100	100
Bremen.....	77	77	80	82	88	98	100
Duisburg.....	78	78	78	80	88	100	100
Dortmund.....	80	80	80	82	90	100	100
Halle.....	81	81	81	83	90	100	100
Altona.....	79	79	82	84	90	100	100
Kiel.....	75	75	79	81	90	100	100
Mannheim.....	75	75	78	80	83	98	100

In the preceding table the rates show a marked increase in 1909 as compared with 1896. The year 1907 varies but seldom from the rate agreed upon for 1909, but 1902 and 1896 are both much lower than the 1909 rate.

RAILROAD SERVICE.

The largest railway system in Germany is that of the Prussian-Hessian state railway system for which wage data are available for a number of years for specified occupations. In the following table is given the total daily compensation, including the various extras

customary to railway employees, in the way of travel allowances, etc., of the classes of workers employed in the service of the system just mentioned:

**AVERAGE DAILY EARNINGS OF EMPLOYEES OF THE PRUSSIAN-HESSIAN STATE RAILWAY SYSTEM, 1898 TO 1907.**

**ACTUAL EARNINGS.**

Class of employees.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
Technical office employees, draftsmen, etc.	\$1.49	\$1.53	\$1.60	\$1.64	\$1.67	\$1.71	\$1.73	\$1.72	(a)	(a)
Employees engaged on inside work	.72	.73	.73	.73	.73	.76	.77	.77	\$0.79	\$0.83
Employees engaged in station work, freight handlers, etc.	.60	.61	.63	.64	.64	.64	.65	.67	.69	.72
Track walkers, section hands, etc., clerks for foremen, etc.	.45	.48	.50	.51	.51	.51	.52	.53	.56	.60
Engineers, conductors, etc., clerks for operation service	.61	.62	.62	.63	.63	.64	.64	.65	.68	.70
Other train-service men	.50	.51	.53	.54	.55	.55	.56	.58	.61	.64
Workmen engaged on inside work	.62	.64	.64	.64	.65	.66	.67	.68	.72	.76
Workmen engaged in train operation	.58	.60	.62	.63	.64	.64	.66	.68	.72	.75
Maintenance-of-way employees	.51	.52	.54	.55	.55	.55	.56	.57	.60	.63
Shopworkers of the lower grades	.68	.69	.70	.70	.71	.72	.74	.76	.80	.86
Shopworkers of the higher grades	.99	.98	1.00	1.01	1.03	1.02	1.02	1.05	1.06	1.09
Artisans and mechanics, time rates	.79	.79	.82	.83	.84	.85	.87	.90	.95	.98
Artisans and mechanics, piece rates	.98	.99	1.00	.98	.98	.99	.99	1.01	1.06	1.09
Skilled workers on shopwork, time rates	.64	.64	.66	.70	.70	.72	.74	.78	.82	.86
Skilled workers on shopwork, piece rates	.86	.86	.88	.87	.87	.88	.89	.92	.98	1.02
Other shopmen, time rates	.60	.61	.63	.64	.64	.66	.67	.69	.73	.75
Other shopmen, piece rates	.80	.81	.82	.81	.82	.83	.84	.88	.91	.91
Apprentices (shopworkers)	.26	.25	.26	.26	.26	.26	.26	.25	.26	.26
Average for all employees	.61	.63	.65	.65	.66	.66	.67	.69	.73	.76

a Not reported.

**RELATIVE EARNINGS (1907=100).**

Class of employees.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
Technical office employees, draftsmen, etc.	87	89	93	95	97	99	101	100	(a)	(a)
Employees engaged on inside work	86	88	88	88	88	92	93	93	96	100
Employees engaged in station work, freight handlers, etc.	83	85	87	89	89	89	90	92	96	100
Track walkers, section hands, etc., clerks for foremen, etc.	75	80	85	86	86	86	87	88	95	100
Engineers, conductors, etc., clerks for operation service	87	88	89	90	90	91	91	93	97	100
Other train-service men	78	80	82	84	85	86	87	90	96	100
Workmen engaged on inside work	81	83	84	84	85	86	87	89	94	100
Workmen engaged in train operation	77	79	82	83	85	86	88	90	96	100
Maintenance-of-way employees	80	83	85	87	87	87	88	91	95	100
Shopworkers of the lower grades	79	80	81	81	82	83	85	88	93	100
Shopworkers of the higher grades	92	90	92	93	95	94	94	97	98	100
Artisans and mechanics, time rates	80	81	83	85	85	87	89	92	97	100
Artisans and mechanics, piece rates	89	90	91	90	89	91	90	92	97	100
Skilled workers on shopwork, time rates	74	74	77	81	81	83	86	90	95	100
Skilled workers on shopwork, piece rates	84	84	86	85	85	87	88	90	96	100
Other shopmen, time rates	79	81	83	84	85	87	89	91	97	100
Other shopmen, piece rates	88	89	90	89	90	91	91	92	97	100
Apprentices (shopworkers)	100	98	101	101	100	100	100	98	99	100
Average for all employees	80	83	86	86	87	87	89	91	96	100

a Not reported; 1905=100.

Taking the year 1907 as 100, the earnings in the preceding table show advances of from 8 to 26 points during the decade in question. The average for all of the employees, with 1907 as 100, shows a rate in 1898 of 80, or an increase of 20 points.

## SEAMEN.

The average monthly wages of seamen on the Baltic and the North Seas are shown in the following table for the ports mentioned:

MONTHLY WAGES (INCLUDING RATIONS) OF ABLE-BODIED SEAMEN IN THE BALTIC PORTS, 1897 TO 1906.

Year.	Actual wages.				Relative wages (1906=100).			
	East and West Prussia.	Pomerania and Mecklenburg.	Sleswick-Holstein and Lübeck.	All Baltic ports.	East and West Prussia.	Pomerania and Mecklenburg.	Sleswick-Holstein and Lübeck.	All Baltic ports.
1897.....	\$11.33	\$11.50	\$11.78	\$11.55	79	81	83	81
1898.....	12.52	11.70	13.90	12.68	88	83	98	89
1899.....	12.05	12.37	13.13	12.47	84	88	92	88
1900.....	13.07	13.46	13.43	13.40	91	95	94	94
1901.....	13.63	14.03	14.01	13.92	95	99	99	98
1902.....	13.52	13.88	14.33	13.90	94	98	101	98
1903.....	13.82	13.78	14.17	13.90	97	98	100	98
1904.....	13.78	13.95	13.54	13.78	96	99	95	97
1905.....	13.87	14.05	14.38	14.13	97	99	101	99
1906.....	14.31	14.12	14.22	14.20	100	100	100	100

MONTHLY WAGES (INCLUDING RATIONS) OF ABLE-BODIED SEAMEN IN THE PORTS ON THE NORTH SEA, 1897 TO 1906.

Year.	Actual wages.					Relative wages (1906=100).				
	Sleswick-Holstein.	Ham-burg.	Hano-ver, Olden-burg, and Rhine ports.	Brem-en.	All ports on North Sea.	Sleswick-Holstein.	Ham-burg.	Hano-ver, Olden-burg, and Rhine ports.	Brem-en.	All ports on North Sea.
1897.....	\$12.86	\$12.76	\$14.91	\$13.22	\$13.16	91	81	96	88	85
1898.....	13.13	13.29	15.04	13.45	13.59	93	84	96	89	88
1899.....	13.19	13.96	15.10	13.66	13.99	93	89	97	91	91
1900.....	14.42	14.87	15.52	14.30	14.79	102	94	100	95	96
1901.....	14.33	15.11	15.16	14.61	14.89	101	96	97	97	97
1902.....	14.23	15.14	15.28	14.51	14.90	100	98	98	96	97
1903.....	14.04	15.10	15.10	14.70	14.92	99	96	97	97	97
1904.....	13.97	15.16	14.99	14.61	14.88	98	96	96	97	96
1905.....	13.94	15.10	15.10	14.66	14.88	98	96	97	97	97
1906.....	14.19	15.77	15.59	15.09	15.42	100	100	100	100	100

AVERAGE MONTHLY WAGES OF ABLE-BODIED SEAMEN ON THE BALTIC AND THE NORTH SEAS, 1897 TO 1906.

Year.	Actual wages.	Relative wages (1906=100).	Year.	Actual wages.	Relative wages (1906=100).
1897.....	\$12.86	85	1902.....	\$14.75	97
1898.....	13.45	89	1903.....	14.74	97
1899.....	13.73	90	1904.....	14.70	97
1900.....	14.55	96	1905.....	14.74	97
1901.....	14.73	97	1906.....	15.18	100

The monthly rates given in the above tables are for able-bodied seamen and include maintenance. Taking the average for the Empire in 1906 as 100, there has been an advance of 15 points since 1897. In the ports of the North Sea the same increase has taken place, while in the Baltic ports the increase has been even greater.

## **WAGES AND HOURS OF LABOR IN GERMAN WOODWORKING INDUSTRIES IN 1906.**

In November, 1906, the Federation of German Woodworkers made an investigation of the wages and hours of labor in the woodworking industries of the Empire. On account of the importance of these industries in Germany and because of the large number of persons included in the investigation, the results of this study are of interest in giving an idea of the hours of labor and level of wages paid. While the information was collected in November, 1906, and relates to prevailing hours of labor and earnings at that date, the information in tabulated form was not published until 1909.

The industrial census of June 12, 1907, presents the data for the woodworking industries in a group designated as "Wood and cut materials;" while this census group of woodworking industries is not identical with the groups covered by the trade-union investigation, it shows the importance of these industries in Germany. The census group of wood and cut material industries on June 12, 1907, gave employment to 787,754 persons, to which should be added 15,605 persons classed as servants living with the persons engaged in the industry. The number of dependents of the persons gainfully employed was 1,185,737, making a total of 1,989,096 persons whose livelihood depended on the woodworking and allied industries of the Empire. These 787,754 persons formed 2.61 per cent of the population gainfully employed.

The investigation made by the union took place in November, 1906, a time when the woodworking industries were at a high point of activity. The investigation covered only establishments in which one or more wage-earners were employed, and therefore did not include "one-person" establishments. The table following indicates the scope of the investigation by giving the number of establishments included and the number of persons employed in them, the establishments being classified according to branch of industry.

NUMBER AND PER CENT OF ESTABLISHMENTS AND OF EMPLOYEES INCLUDED  
IN THE INVESTIGATION OF WOODWORKING INDUSTRIES, 1906, BY BRANCH  
OF INDUSTRY.

Branch of industry.	Establishments.		Employees.					
	Num-ber.	Per cent.	Males.	Females.	Young persons.	Ap-pren-tices.	Total.	Per cent.
Joiners.....	12,514	82.5	153,808	4,114	2,868	12,398	173,188	81.9
Turners.....	573	3.8	6,850	1,428	449	399	9,126	4.3
Brush makers.....	304	2.0	4,388	2,202	362	306	7,258	3.4
Basket makers.....	359	2.4	2,856	202	82	157	3,297	1.6
Cork cutters.....	52	.3	524	202	40	15	781	.4
Wheelwrights.....	796	5.2	3,551	.....	26	283	3,860	1.8
Gilders.....	161	1.1	3,357	417	246	204	4,224	2.0
Wooden-shoe makers.....	62	.4	447	29	8	13	497	.2
Box makers.....	172	1.1	2,817	137	150	86	3,199	1.5
Toy makers.....	26	.2	725	238	43	10	1,016	.5
All other.....	149	1.0	2,981	1,717	276	30	5,004	2.4
Total.....	15,168	100.0	182,304	10,686	4,559	13,901	211,450	100.0

The information relating to the establishments and persons employed in them was obtained by sending a member of the union to each establishment with a schedule of inquiries relating to methods of wage payment, rates of wages, average weekly earnings, and hours of labor. As disclosed by the above table, the number of persons included was in excess of 200,000, and of these over 180,000 were adult males. The leading occupation of the persons included was that of joiner (in both the furniture and building trades) and this trade formed about 82 per cent of the persons included. The 15,000 establishments included were classed according to the principal occupation of the persons employed in them, but each establishment was counted only once. The size of the establishments included and the number of persons employed in establishments of each class in 1906, with a comparison of the results obtained by a similar investigation in 1902, are as follows:

NUMBER AND PER CENT OF ESTABLISHMENTS AND OF EMPLOYEES INCLUDED IN  
THE INVESTIGATION, 1906 COMPARED WITH 1902, BY SIZE OF ESTABLISHMENT.

Size of establishment.	Establish-ments.		Employees.		Per cent of—						Average employ-ees em-ployed per establishment.	
					Establish-ments.		Employees.		Increase in 1906 as compared with 1902.			
	1902.	1906.	1902.	1906.	1902.	1906.	1902.	1906.	Es-tab-lish-ments.	Per-sons.	1902.	1906.
1 to 5 persons.....	4,939	7,407	14,555	21,138	48.5	48.8	10.1	10.0	50.0	45.2	2.6	2.9
6 to 10 persons.....	2,181	3,164	16,632	24,152	21.4	20.9	11.6	11.4	45.1	45.2	7.6	7.6
11 to 30 persons.....	2,054	3,144	36,189	54,866	20.1	20.7	25.1	26.0	53.1	51.6	17.6	17.5
31 to 50 persons.....	475	709	18,472	27,635	4.7	4.7	12.8	13.1	49.3	49.6	38.9	39.0
51 to 100 persons.....	358	481	23,896	33,227	3.5	3.2	16.6	15.7	34.4	39.0	66.7	69.1
101 to 200 persons.....	143	188	19,610	25,950	1.4	1.2	13.6	12.2	31.5	32.3	137.1	138.0
Over 200 persons.....	44	75	14,603	24,482	.4	.5	10.2	11.6	70.5	67.7	331.9	326.4
Total.....	10,194	15,168	143,957	211,450	100.0	100.0	100.0	100.0	48.8	46.9	14.1	13.9



According to the preceding table, in 1906 about one-half of the establishments employed 1 to 5 persons, about one-fifth employed 6 to 10 persons, and another fifth employed 11 to 30 persons, so that approximately 90 per cent of the establishments employed 30 persons or less. The average size of the establishments in 1906 is indicated by the fact that for the 90 per cent of the establishments just mentioned the average number of persons employed was 7.3, while for all establishments together the average number of persons per establishment was 13.9.

### HOURS OF LABOR.

The weekly hours of labor of all the persons included in the investigation showed an average of 57.0. For the different occupations, however, there are some variations from this rate. The averages for all the persons included show the following:

AVERAGE HOURS OF LABOR PER WEEK, BY OCCUPATIONS.

Occupation.	Average hours per week.	Occupation.	Average hours per week.
Joiners.....	56.7	Wheelwrights.....	58.6
Turners.....	57.3	Gilders.....	55.8
Brush makers.....	59.0	Wooden-shoe makers.....	59.9
Basket makers.....	59.7	Box makers.....	58.3
Cork cutters.....	59.5	Toy makers.....	62.0

Such averages as the preceding are of little value because the number of persons working a specified number of hours per week is not given. In the first of the following tables is given, for 29 occupations or branches of industry, the hours of labor by establishments, and in the second table the hours of labor by the number of persons working each group of hours.

NUMBER OF ESTABLISHMENTS AND OF EMPLOYEES IN THE WOODWORKING INDUSTRIES HAVING A SPECIFIED NUMBER OF HOURS OF LABOR PER WEEK, 1906, BY OCCUPATION OR BRANCH OF INDUSTRY.

### ESTABLISHMENTS.

Occupation or branch of industry.	Hours of labor per week.													
	48 and under.	49 to 51.	52 to 53.	54.	55.	56.	57.	58.	59.	60.	61 to 63.	64 to 65.	66.	Over 66.
Joiners.....	20	244	2,129	1,389	77	446	1,258	468	841	2,426	243	285	422	87
Musical instruments.....	2	82	71	84	8	24	36	7	21	26	.....	3	3	15
Pattern making.....	.....	.....	23	29	6	23	41	29	58	194	23	17	5	2
Chair making.....	.....	2	21	16	4	5	54	6	21	43	12	6	1	1
Clock-case making.....	.....	1	5	.....	.....	1	1	10	17	9	2	.....	.....	2
Sewing-machine-stand making.....	.....	.....	2	3	1	4	2	1	10	10	1	.....	.....	.....
Photographic-apparatus making.....	1	4	31	7	1	3	15	.....	1	2	2	1	.....	.....
Parquetry working.....	14	4	22	8	.....	.....	1	.....	1	9	1	1	.....	.....
Harmonica making.....	.....	.....	.....	1	.....	3	8	1	4	5	1	2	.....	.....
Wood ware factories.....	.....	.....	22	14	8	6	13	11	22	32	22	30	5	.....

NUMBER OF ESTABLISHMENTS AND OF EMPLOYEES IN THE WOODWORKING INDUSTRIES HAVING A SPECIFIED NUMBER OF HOURS OF LABOR PER WEEK, 1906, BY OCCUPATION OR BRANCH OF INDUSTRY—Concluded.

ESTABLISHMENTS—Concluded.

Occupation or branch of industry.	Hours of labor per week.													
	48 and under.	49 to 51.	52 to 53.	54.	55.	56.	57.	58.	59.	60.	61 to 63.	64 to 65.	66.	Over 66.
Wood-curtain manufacture.....	1	3	19	11	2	.....	9	1	2	6	1	1	.....	2
Machinery factories.....	.....	1	10	18	3	5	29	15	56	138	26	22	17	3
Carriage and wagon factories.....	.....	.....	.....	.....	.....	2	5	3	9	15	1	2	.....	.....
Shipyards.....	.....	.....	.....	5	.....	.....	2	1	5	33	.....	.....	3	.....
Sawmills.....	.....	.....	2	4	.....	.....	4	2	6	40	7	27	26	24
Other factories.....	.....	.....	.....	3	1	.....	1	2	11	32	3	5	1	.....
Turners.....	1	8	76	23	5	29	29	23	43	72	24	22	20	6
Cane making.....	5	26	10	2	1	12	8	2	3	7	3	2	1	.....
Button making.....	.....	15	2	2	1	1	2	11	12	16	1	2	.....	.....
Comb making.....	5	2	9	4	.....	1	1	3	6	9	3	1	1	.....
Brush making.....	2	3	14	25	6	20	19	28	52	80	17	20	14	4
Basket making.....	.....	1	30	9	9	16	14	24	64	106	12	23	35	15
Cork cutting.....	.....	2	3	1	1	2	4	4	8	22	.....	.....	3	2
Wheelwright work.....	.....	2	134	55	.....	41	62	33	33	257	39	40	80	20
Gilders' work.....	2	8	55	35	5	13	3	5	17	13	3	.....	2	.....
Wooden-shoe making.....	.....	2	.....	.....	.....	1	3	4	4	30	5	5	7	1
Box making.....	.....	15	5	17	6	6	11	5	31	49	10	12	2	1
Toy making.....	.....	.....	.....	.....	.....	.....	1	.....	.....	3	1	13	7	.....
Miscellaneous.....	.....	1	8	9	.....	6	18	9	30	36	3	17	3	6
Total.....	53	426	2,703	1,777	145	670	1,654	708	1,389	3,720	466	559	658	191

EMPLOYEES.

Joiners.....	220	4,709	28,664	17,837	1,329	4,861	12,248	5,481	9,820	17,267	1,823	1,630	2,100	445
Musical instrument makers.....	73	2,411	5,468	4,288	231	605	1,732	265	1,212	475	.....	118	99	195
Pattern makers.....	.....	.....	376	370	50	275	620	514	730	2,072	250	128	43	36
Chair makers.....	.....	35	154	180	115	238	1,987	450	1,008	1,274	462	404	32	1
Clock-case makers.....	.....	11	152	.....	.....	37	14	662	1,413	344	33	.....	.....	49
Sewing-machine-stand makers.....	.....	.....	235	204	141	318	60	6	983	1,154	111	.....	.....	.....
Photographic-apparatus workers.....	23	205	556	70	7	37	181	.....	18	97	93	161	.....	.....
Parquetry workers.....	200	27	221	146	.....	.....	15	.....	16	284	21	44	.....	.....
Harmonica makers.....	.....	.....	.....	12	.....	37	173	10	80	117	41	39	.....	.....
Woodware-factory workers.....	.....	.....	303	164	196	194	569	473	586	1,987	739	829	164	.....
Curtain-factory workers.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Machine-factory workers.....	44	35	170	45	22	.....	91	23	27	327	14	21	.....	29
Wagon-factory workers.....	.....	17	123	477	22	107	740	446	1,237	2,446	825	250	123	12
Shipyards.....	.....	.....	.....	485	.....	.....	1,936	719	1,117	1,284	250	301	.....	.....
Sawmill workers.....	.....	.....	32	25	.....	.....	19	28	360	2,800	.....	73	.....	.....
Workers in other factories.....	.....	.....	.....	.....	.....	.....	73	43	269	755	72	827	433	431
Turners.....	2	32	536	183	26	295	272	231	382	426	365	196	47	16
Cane makers.....	155	504	179	50	17	400	271	18	23	168	57	70	39	.....
Button makers.....	.....	185	14	45	61	16	47	725	846	476	32	150	.....	.....
Comb makers.....	105	33	149	98	.....	65	30	68	457	269	252	32	11	.....
Brush makers.....	15	14	178	1,274	144	571	258	639	1,236	1,074	575	398	859	23
Basket makers.....	.....	4	205	31	45	117	101	160	897	1,161	166	137	124	141
Cork cutters.....	.....	13	55	2	6	3	13	59	100	449	.....	74	7	.....
Wheelwrights.....	.....	51	509	297	.....	231	473	148	252	1,251	175	228	195	50
Gilders.....	38	66	992	996	57	608	21	174	802	329	62	79	.....	.....
Wooden-shoe makers.....	.....	13	.....	.....	.....	32	11	87	66	193	24	40	25	6
Box makers.....	.....	224	77	256	101	110	169	97	661	1,076	288	109	21	7
Toy makers.....	.....	.....	.....	.....	.....	.....	294	.....	12	65	29	438	179	.....
Miscellaneous.....	.....	2	247	163	.....	246	814	1,389	637	1,037	24	279	23	102
Total.....	875	8,591	39,595	28,207	2,575	9,403	23,233	12,933	25,325	40,981	6,315	6,808	4,764	1,550

In the preceding table the hours of labor are given in complete hours; where an establishment worked a given number of hours and a fraction of an hour, the number of hours was rounded off by omitting the fraction if it was thirty minutes or less; if the fraction of an hour was in excess of thirty minutes the number of hours was increased to the next higher figure.

The tables in the report show also the number of hours of labor per day, and, on the whole, the information arranged in this form shows practically the same results as that given in the preceding table, though a slight variation is met because a few establishments work shorter hours on Saturdays and a small number have shorter hours on Monday.

The table may be summed up by stating that 4.5 per cent of the woodworkers have 51 hours and under per week, 32.1 per cent have 52 to 54 hours, 16.6 per cent have 55 to 57 hours, 37.5 per cent have 58 to 60 hours, 3.0 per cent have 61 to 63 hours, 3.3 per cent 64 to 66 hours, and 3.0 per cent have 66 hours and over.

#### WAGE RATES AND EARNINGS.

The schedule of inquiry used in the investigation asked each employee whether he was a time or a piece worker, the amount of the hourly wages or hourly earnings, as well as the weekly earnings. The number of persons for whom wage data were secured was 167,277 adult males out of a total of 182,304 adult males. Information was also secured as to the earnings of women employees and of young persons, and is given below.

The information obtained showed that in 1906, as compared with previous investigations, there was a tendency for time work to supersede piecework in the method of payment of wages. Thus, of the persons included in an investigation made in 1897, 53.8 per cent were pieceworkers; an investigation in 1902 showed 49.9 per cent were pieceworkers, while of the persons included in the present (1906) investigation 45.5 per cent were pieceworkers. The editor of the report, however, is of the opinion that special circumstances led to the inclusion of more time workers in the present investigation than was the case with the preceding studies.

In the following table is shown the average weekly earnings of all the adult males grouped in six wage classes in 1906, with a comparison of the averages shown by a similar investigation for the year 1902.

NUMBER AND PER CENT OF ADULT MALES IN WOODWORKING INDUSTRIES, 1902 AND 1906, CLASSIFIED BY WAGE GROUPS.

Wage group.	Number and per cent of adult males			
	1902.		1906.	
	Number.	Per cent.	Number.	Per cent
15 marks and under (\$3.57).....	7,490	11.2	10,814	6.5
Over 15 to 20 marks (\$3.57 to \$4.76).....	29,195	30.1	30,344	18.2
Over 20 to 25 marks (\$4.76 to \$5.95).....	23,910	35.6	45,056	27.1
Over 25 to 30 marks (\$5.95 to \$7.14).....	12,808	19.0	46,899	28.2
Over 30 to 35 marks (\$7.14 to \$8.33).....	2,748	4.1	20,504	12.3
Over 35 marks (\$8.33).....			12,952	7.7
Total.....	67,151	100.0	<sup>a</sup> 166,569	100

<sup>a</sup> On account of a strike in progress at the time of this investigation, 708 workers are not included in this total.

As compared with 1902, the 1906 earnings show a well-defined tendency to a higher level; in 1902 the proportion of wage-earners with weekly earnings of over 25 marks (\$5.95) was 23.1 per cent, while in 1906 the proportion had increased to 48.2 per cent.

The average weekly earnings of the adult male wage-earners in the principal occupations are as follows:

PER CENT OF ADULT MALES IN WOODWORKING INDUSTRIES, 1906, CLASSIFIED BY WAGE GROUPS AND BY BRANCHES OF INDUSTRIES.

Occupation.	Per cent of adult males with average weekly earnings of—					
	\$3.57 and under.	\$3.57 to \$4.76.	\$4.76 to \$5.95.	\$5.95 to \$7.14.	\$7.14 to \$8.33.	Over \$8.33.
Joiners.....	4.8	16.2	27.1	30.0	13.3	8.6
Turners.....	16.2	31.5	22.9	18.7	7.6	3.1
Brush makers.....	28.3	37.0	26.2	7.9	.5	.....
Basket makers.....	18.7	34.0	33.3	11.9	1.8	.3
Cork cutters.....	33.3	38.2	22.6	5.3	.6	.....
Wheelwrights.....	2.9	15.3	30.9	30.0	15.2	5.7
Gilders.....	5.1	17.0	29.4	31.0	11.1	6.4
Wooden-shoe makers.....	30.4	54.7	12.4	1.5	1.0	.....
Box makers.....	17.6	28.9	23.8	17.9	6.7	5.1
Toy makers.....	25.5	66.9	7.0	.6	.....	.....
Miscellaneous.....	13.2	30.4	30.3	17.9	3.5	4.7
All occupations, 1906.....	6.5	18.2	27.1	28.2	12.3	7.7
All occupations, 1902.....	11.2	30.1	35.6	19.0	<sup>a</sup> 4.1	.....

<sup>a</sup> Earnings of over \$7.14.

According to the preceding table the occupation with the lowest average earnings is that of toy making, which has only 7.6 per cent of the persons engaged in it with earnings in excess of 20 marks (\$4.76); the wooden-shoe makers show similar unfavorable rates, only 14.9 per cent having earnings in excess of 20 marks (\$4.76). The occupations with the most favorable rates of earnings are those of joiner, wheelwright, and gilder, in which the wages of the majority ranged between 20 and 30 marks (\$4.76 and \$7.14).

As in some of the occupations, there is a marked difference in the earnings of the pieceworkers and time workers. The following table is given to show the average weekly earnings for 1906 by 19 groups of occupations for piece and for time workers:

NUMBER OF ADULT MALE PIECEWORKERS AND TIME WORKERS IN EACH OCCUPATION AND THEIR AVERAGE WEEKLY EARNINGS, 1906.

Occupation.	Average weekly earnings of adult males.					
	Pieceworkers.		Time workers.		Total.	
	Number.	Earnings.	Number.	Earnings.	Number.	Earnings.
Joiners.....	39,157	\$6.67	49,057	\$5.99	88,214	\$6.29
Musical-instrument makers....	8,521	6.89	2,650	5.91	11,180	6.66
Chair makers.....	2,063	4.99	433	5.43	2,496	5.06
Polishers.....	3,824	5.74	4,004	6.26	7,828	6.01
Pattern makers.....	2,079	7.44	2,484	6.46	4,563	6.90
Parquetry workers.....	540	7.99	135	4.18	675	7.22
Turners.....	3,036	5.50	1,898	5.64	4,934	5.55
Cane makers.....	993	6.33	376	5.84	1,369	6.19
Button makers.....	1,594	4.31	160	5.38	1,754	4.41
Comb makers.....	439	5.39	372	5.31	811	5.36
Brush makers.....	2,071	4.40	776	4.73	2,847	4.49
Basket makers.....	1,715	4.72	209	5.17	1,924	4.77
Cork cutters.....	183	4.66	278	4.07	461	4.31
Wheelwrights.....	2,823	6.59	2,999	5.97	5,822	6.27
Gilders.....	693	6.49	782	5.98	1,475	6.22
Wooden-shoe makers.....	309	4.16	35	4.31	344	4.17
Box makers.....	1,277	5.83	1,320	4.72	2,597	5.27
Machine workers.....	2,361	5.48	15,181	5.53	17,542	5.52
Other woodworkers.....	2,443	5.31	7,998	4.31	10,441	4.55
Total.....	76,121	6.31	91,156	5.73	167,277	5.99

The average weekly earnings for all pieceworkers was \$6.31, as compared with \$5.73 for the time workers, the former being 10.1 per cent higher than the latter. The largest group was that of joiners, and here the pieceworkers average 11.3 per cent above the time workers, while the next largest group, the musical-instrument makers, shows that the pieceworkers averaged 16.6 per cent higher than the time workers.

The average rate per hour paid to the time workers in 19 occupations is shown in the following table:

NUMBER OF ADULT MALE WORKERS IN EACH OCCUPATION RECEIVING THE CLASSIFIED HOURLY RATES OF WAGES, 1906.

Occupation.	Number of time workers.	Average weekly earnings.	Number of time workers reporting hourly rates receiving the following rates per hour.								
			6 cents.	6.2 to 6.9 cents.	7.1 cents.	7.4 to 8.1 cents.	8.3 cents.	8.6 to 9.3 cents.	9.5 cents.	9.8 to 10.5 cents.	10.7 cents.
Joiners.....	49,057	\$5.99	735	1,006	1,321	2,552	2,007	4,088	3,106	4,791	2,333
Piano makers.....	2,659	5.91	71	33	33	55	47	98	72	62	69
Chair makers.....	433	5.43	18	21	12	24	30	30	13	20	9
Polishers.....	4,004	6.26	118	93	85	112	130	130	89	164	83
Pattern makers.....	2,484	6.46	17	39	45	126	75	173	208	314	182
Parquetry workers.....	135	4.18	3	2		2			1		2
Turners.....	1,898	5.64	38	51	87	95	88	95	142	101	79
Cane makers.....	376	5.84	5				3	2	9	1	3
Button makers.....	160	5.28		1		2			1		
Comb makers.....	372	5.31	7	4	9	9	6	8	9	2	7
Brush makers.....	776	4.73	46	13	31	27	18	46	25	20	4
Basket makers.....	209	5.17			8	3	7	7	17	4	6
Cork cutters.....	278	4.07	11	31	11	2	5	4	10	5	1
Wheelwrights.....	2,999	5.97	32	89	89	185	119	235	201	276	167
Gilders.....	782	5.98	9	7	10	9	9	8	14	11	32
Wooden-shoe makers.....	35	4.31	2	3	8						
Box makers.....	1,320	4.72	80	56	55	61	39	101	61	51	44
Machine workers.....	15,181	5.53	819	844	537	873	495	825	600	854	507
Other woodworkers.....	7,998	4.31	1,097	726	455	531	188	413	248	215	91
Total.....	91,156	5.73	3,108	3,019	2,796	4,668	3,266	6,263	4,826	6,891	3,619
Per cent.....			5.1	4.9	4.6	7.6	5.3	10.3	7.9	11.3	5.9

Occupation.	Number of time workers reporting hourly rates receiving the following rates per hour.										Total reporting rates.
	10.9 to 11.7 cents.	11.9 cents.	12.1 to 12.9 cents.	13.1 cents.	13.3 to 14 cents.	14.3 cents.	14.5 to 15.2 cents.	15.5 cents.	15.7 to 16.4 cents.	16.7 cents and over.	
Joiners.....	4,410	2,440	3,391	1,111	1,773	879	562	604	249	680	38,038
Piano makers.....	92	19	48	18	22	20	11	5	3	14	792
Chair makers.....	19	9	16	2	8	9	4				245
Polishers.....	241	131	99	48	56	32	30	37	38	12	1,728
Pattern makers.....	250	198	107	57	41	53	12	19	13	155	2,144
Parquetry workers.....		1	1							2	14
Turners.....	81	56	60	11	25	24	3	10	2	6	1,054
Cane makers.....	2	2	2	1	4						34
Button makers.....		3			1						8
Comb makers.....	6	16	5	10		5	2	5			110
Brush makers.....				1							231
Basket makers.....	2	1									55
Cork cutters.....	2	4									86
Wheelwrights.....	116	119	99	82	56	82	45	38	12	35	2,077
Gilders.....	37	32	7	6	10	7	4	6	1	2	221
Wooden-shoe makers.....											13
Box makers.....	31	16	6	1	1	8	6	4			621
Machine workers.....	911	604	597	186	407	148	166	61	86	79	9,599
Other woodworkers.....	56	30	13	16	7	9	2	1		3	4,101
Total.....	6,256	3,681	4,511	1,550	2,411	1,276	847	790	404	989	61,171
Per cent.....	10.2	6.0	7.4	2.5	3.9	2.1	1.4	1.3	0.7	1.6	100.0

The occupations most numerously represented in the preceding table are those of joiners, pattern makers, wheelwrights, machine workers, polishers, turners, and "other" woodworkers. The number of persons in the lower wage classes varies but little until a rate of 12.1 cents to 12.9 cents per hour is reached; however, a few of the higher wage classes show a considerable number of persons

receiving those rates, while the number receiving 16.7 cents, the highest rate, is almost 1,000.

The report also shows the earnings of the woodworkers in the establishments classified by size of establishment, as shown in the following table:

AVERAGE WEEKLY EARNINGS OF WOODWORKERS IN ESTABLISHMENTS CLASSIFIED BY SIZE OF ESTABLISHMENT, 1906.

Occupation or branch of industry.	Per cent employed and average weekly earnings in establishments employ- ing—														Average earn- ings, all per- sons.
	1 to 5 persons.		6 to 10 persons.		11 to 30 persons.		31 to 50 persons.		51 to 100 persons.		101 to 200 persons.		200 per- sons and over.		
	Per cent.	Aver- age earn- ings.	Per cent.	Aver- age earn- ings.	Per cent.	Aver- age earn- ings.	Per cent.	Aver- age earn- ings.	Per cent.	Aver- age earn- ings.	Per cent.	Aver- age earn- ings.	Per cent.	Aver- age earn- ings.	
Joiners.....	14.5	\$5.70	16.4	\$6.11	32.4	\$6.44	12.7	\$6.39	12.8	\$6.30	7.5	\$5.99	3.7	\$5.77	\$6.21
Musical instru- ments.....	.7	5.90	2.8	6.34	14.2	6.60	15.9	6.58	24.6	6.31	15.9	6.25	25.9	7.05	6.55
Pattern making.....	10.4	6.01	14.9	6.31	32.6	6.56	21.0	6.95	10.9	7.37	4.2	6.45	.....	.....	6.70
Chair making.....	2.0	5.21	2.8	6.00	19.1	4.81	7.7	4.65	32.6	4.51	24.2	4.60	11.6	3.91	4.68
Clock-case mak- ing.....	.3	6.28	2.0	5.07	10.1	5.18	17.2	4.38	25.6	4.95	8.6	5.13	30.2	4.81	4.85
Sewing ma- chine stands.....	.2	5.57	.7	7.22	3.3	5.44	1.4	4.96	18.3	5.08	51.4	5.97	24.7	6.08	5.80
Photographic apparatus.....	3.5	6.07	12.1	6.55	20.9	6.58	11.6	6.76	23.5	5.77	28.4	6.60	.....	.....	6.45
Parquetry working.....	6.4	7.79	10.5	8.80	35.9	7.08	27.4	6.81	6.5	3.22	13.3	4.66	.....	.....	6.84
Harmonica making.....	2.9	4.38	5.3	3.86	34.6	4.40	45.6	4.72	11.6	4.18	.....	.....	.....	.....	4.52
Wooden ware factories.....	1.0	5.42	4.8	5.26	20.7	4.89	13.4	4.37	27.5	4.55	15.1	4.44	17.5	4.87	4.69
Wooden-curtain factories.....	9.4	6.04	8.7	6.32	38.9	6.47	11.1	7.09	.....	.....	.....	.....	31.9	5.65	6.36
Machine facto- ries.....	6.1	5.47	10.1	5.67	22.2	5.91	15.3	5.94	12.9	6.41	13.5	6.43	19.9	7.17	6.26
Wagon and car- riage factories.....	.....	.....	.3	7.09	1.0	6.25	3.8	6.31	10.1	6.06	17.4	6.86	67.4	6.48	6.50
Shipyards.....	.4	5.75	.9	6.48	6.9	5.84	5.3	5.66	11.0	5.95	35.2	6.77	40.3	6.75	6.55
Sawmills.....	3.5	4.90	8.7	4.72	32.4	4.49	18.4	4.67	23.9	4.06	13.1	5.80	.....	.....	4.61
Other factories.....	19.6	5.11	9.5	5.31	41.6	5.60	7.8	5.19	21.5	6.37	.....	.....	.....	.....	5.61
Turners.....	19.6	5.31	17.0	5.29	39.7	5.38	14.1	5.55	3.8	3.46	5.8	4.00	.....	.....	5.25
Cane making.....	2.0	6.32	6.9	6.39	32.1	6.24	32.1	6.24	15.4	6.15	11.5	5.12	.....	.....	6.12
Button making.....	.9	6.20	1.3	4.72	17.5	5.32	10.5	3.94	34.9	4.23	34.9	4.03	.....	.....	4.39
Comb making.....	.8	5.95	2.7	5.59	29.2	5.46	21.9	5.45	18.9	4.84	9.5	4.31	17.0	4.86	5.20
Brush making.....	4.7	4.92	4.7	4.96	17.0	4.51	5.3	3.79	20.4	4.19	22.4	4.34	25.5	4.66	4.44
Basket making.....	18.2	4.54	13.6	4.72	21.4	4.79	10.5	5.21	5.1	4.45	7.9	4.03	23.3	5.18	4.80
Cork cutting.....	5.4	4.88	17.9	4.59	35.5	4.68	11.1	4.91	7.0	4.36	23.1	3.44	.....	.....	4.31
Wheelwrights.....	36.9	5.86	16.6	6.15	23.2	6.14	11.8	6.46	5.0	6.98	6.5	6.31	.....	.....	6.14
Gilding.....	3.3	6.95	6.3	6.62	19.3	6.25	22.8	5.80	17.1	5.73	20.4	6.15	10.8	5.50	6.02
Wooden-shoe making.....	21.7	4.06	18.5	4.78	35.8	4.07	12.7	3.99	11.3	3.74	.....	.....	.....	.....	4.15
Box making.....	4.8	5.08	8.3	6.29	31.0	5.77	20.9	5.21	13.5	5.69	14.7	3.85	6.8	4.59	5.31
Toy making.....	.5	4.45	4.9	4.01	12.3	3.80	15.9	4.02	37.5	3.94	.....	.....	28.9	4.22	4.01
Miscellaneous.....	3.2	5.67	2.9	4.93	12.7	5.52	11.1	4.80	16.7	5.99	23.6	4.53	29.8	5.23	5.25
All em- ployees.....	10.0	5.67	11.4	6.05	26.0	6.20	13.1	6.11	15.7	5.87	12.2	5.78	11.6	6.21	6.02

The data in the preceding table seem to indicate that the earnings of wage-earners in the establishments with 1 to 5 persons show a tendency to be smaller than the average for all the establishments. On the whole, the rates of wages can not be said to vary in accordance with the size of the establishment.

In the preceding tables the earnings of adult males are given. Out of the total number of 211,450 persons included in the investigation,

10,686 persons, or 5.0 per cent, were women wage-earners and 4,559, or 2.2 per cent, were young persons. Expressed in the form of ratios, to each 100 adult males there were 5.9 women wage-earners and 2.5 young persons included in the investigation.

The average weekly earnings of the women wage-earners reporting as to earnings are shown in the following table for 26 occupations or branches of the industries:

ESTABLISHMENTS, WOMEN EMPLOYED IN EACH BRANCH OF INDUSTRY AND THEIR AVERAGE WEEKLY EARNINGS, AND AVERAGE WEEKLY EARNINGS OF ADULT MALES IN THE SAME BRANCH OF INDUSTRY, 1906.

Occupation or branch of industry.	Estab-lish-ments.	Total women wage-earners.		Average weekly earnings of women reporting as to earnings.						Average weekly earnings of adult males in same branch of industry.
		Num-ber.	To each 100 adult males em-ployed.	Piece-workers.		Time workers.		Total re-ported.		
				Num-ber.	Earn-ings.	Num-ber.	Earn-ings.	Num-ber.	Earn-ings.	
Joiners.....	121	920	1.0	324	\$2.68	330	\$2.27	654	\$2.47	\$6.21
Musical-instrument makers.....	55	1,219	8.1	652	3.22	185	2.29	837	3.01	6.55
Chair makers.....	32	299	5.4	103	3.13	8	2.14	111	3.06	4.68
Clock-case makers.....	33	513	23.9	334	2.29	148	2.29	482	2.29	4.85
Sewing-machine-stand makers.....	13	370	13.7	218	2.83	44	2.08	262	2.71	5.80
Photographic-apparatus mak-ers.....	3	10	.7	10	2.45	.....	.....	10	2.45	6.45
Parquetry workers.....	3	19	2.0	3	2.14	11	2.01	14	2.04	6.84
Harmonics makers.....	12	67	17.4	2	3.57	63	2.17	65	2.21	4.52
Woodenware factories.....	64	509	9.9	162	2.26	240	1.95	402	2.08	4.69
Wooden-curtain factories.....	13	58	8.0	21	3.52	15	3.70	36	3.60	6.36
Wagon and carriage factories.....	1	45	1.8	42	3.43	.....	.....	42	3.43	6.50
Sawmills.....	14	82	3.0	9	2.12	15	1.83	24	1.93	4.61
Turners.....	45	164	6.7	70	2.71	90	2.02	160	2.32	5.25
Cane makers.....	37	271	17.5	35	2.69	92	2.30	127	2.40	6.12
Button makers.....	39	623	33.9	313	2.19	276	1.88	589	2.05	4.39
Comb makers.....	37	370	36.0	147	2.68	131	2.51	278	2.60	5.20
Brush makers.....	124	2,202	50.2	1,233	2.23	469	3.24	1,702	2.24	4.42
Basket makers.....	26	202	7.1	148	2.69	15	2.43	163	2.67	4.78
Cork cutters.....	27	202	38.5	27	2.63	131	2.34	158	2.39	4.30
Gilders.....	64	417	12.4	179	3.23	174	2.74	353	2.99	6.00
Wooden-shoe makers.....	6	29	6.5	9	2.22	18	1.92	27	2.02	4.14
Box makers.....	17	137	4.9	102	2.47	18	2.71	120	2.50	5.28
Toy makers.....	20	238	32.8	5	2.57	10	2.07	15	2.24	4.00
Miscellaneous.....	33	1,717	57.6	305	3.01	443	2.30	748	2.59	5.23
Total.....	a 842	b10,686	5.9	4,453	2.62	2,926	2.24	7,379	2.47	5.99

<sup>a</sup> Including 3 establishments employing 1 person each.

<sup>b</sup> Including 3 employees for whom averages were not computed.

According to the preceding table the occupations in which women wage-earners are numerically of greatest importance are those designated as miscellaneous trades, brush making, cork cutting, comb making, button making, toy making, etc. In these occupations the presence of women wage-earners is of considerable importance in influencing the level of wages, and according to the writer of the report, the presence of the women wage-earners has had a tendency to reduce the level of wages in the branches named.

The preceding tables show that piecework is a more frequent method of wage payment among women wage-earners than among adult males. The highest average weekly earnings are shown by the



women engaged in the wooden-curtain trade, wagon and carriage factory workers, chair factories, musical instruments, gilders, sewing-machine stands, etc. The lowest average weekly earnings are shown in button making, parquetry factories, wooden-shoe makers, saw-mills, etc.

Although the young persons are numerically not important as wage-earners in the wood-working industries, the report gives a summary of their average earnings in 29 occupations. The term "young person" as used in the report does not indicate persons of a specified age; it includes those generally designated in the trades as "young persons" and comprises the young employees working as errand boys, messengers, etc., and other young persons permanently employed but not recognized as having reached the state of working at a specific occupation. The average earnings of the young persons reporting as to earnings are as follows:

ESTABLISHMENTS, YOUNG PERSONS EMPLOYED IN EACH BRANCH OF INDUSTRY, AND THEIR AVERAGE WEEKLY EARNINGS, AND AVERAGE WEEKLY EARNINGS OF ADULT MALES IN THE SAME BRANCH OF INDUSTRY, 1906.

Occupation or branch of industry.	Estab-lish-ments.	Total young persons employed.		Average weekly earnings of young persons reporting as to earnings.						Average weekly earnings of adult males in same branch of in-dustry.
		Num-ber.	To each 100 adult males em-ployed.	Piece-workers.		Time workers.		Total reporting.		
				Num-ber.	Earn-ings.	Num-ber.	Earn-ings.	Num-ber.	Earn-ings.	
Joiners .....	601	1,307	1.4	29	\$2.89	529	\$2.79	558	\$2.79	\$6.21
Musical-instrument makers. . .	93	325	2.2	31	3.26	97	2.62	128	2.78	6.55
Pattern makers. ....	21	37	.8			13	2.43	13	2.43	6.70
Chair makers. ....	37	299	5.4	27	3.02	34	1.84	61	2.36	4.68
Clock-case makers. ....	10	42	2.0	2	2.74	16	2.63	18	2.64	4.85
Sewing-machine-stand makers.	12	95	3.1	32	2.86	48	2.26	80	2.50	5.80
Photographic-apparatus mak-ers	7	43	3.1			5	2.33	5	2.33	6.45
Parquetry workers. ....	5	17	1.8			12	1.90	12	1.90	6.84
Harmonica makers. ....	15	52	13.5			49	1.56	49	1.56	4.52
Woodenware factories. ....	65	378	7.3	34	2.04	128	2.31	162	2.25	4.69
Wooden-curtain factories. ....	16	38	5.2	3	3.09	21	3.17	24	3.16	6.36
Machine factories. ....	17	33	.5	2	1.67	9	3.23	11	2.94	6.26
Wagon and carriage makers. . .	5	66	1.1	4	3.39	2	2.74	6	3.18	6.50
Shipyards. ....	3	5	.1			3	4.28	3	4.28	6.55
Sawmills. ....	31	122	4.4	12	2.30	62	2.46	74	2.43	4.61
Other factories. ....	4	9	1.8			6	3.06	6	3.05	5.61
Turners. ....	60	108	4.4	8	2.29	55	2.18	63	2.20	5.25
Cane workers. ....	37	85	5.4	9	2.70	23	2.04	32	2.22	6.12
Button makers. ....	36	123	6.6	72	2.00	32	2.15	104	2.04	4.39
Comb makers. ....	23	133	13.0	4	3.99	95	2.20	99	2.27	5.20
Brush makers. ....	70	362	8.2	161	2.18	81	2.03	242	2.13	4.42
Basket makers. ....	38	82	2.8	20	2.96	33	2.06	53	2.40	4.78
Cork cutters. ....	10	40	7.6			20	2.13	20	2.13	4.30
Wheelwrights. ....	18	26	.7			12	3.29	12	3.29	6.11
Gilders. ....	47	246	7.3	18	2.84	134	2.22	152	2.29	6.00
Wooden-shoe makers. ....	4	8	1.8			5	1.57	5	1.57	4.14
Box makers. ....	40	159	5.6	18	2.62	102	2.31	120	2.35	5.28
Toy makers. ....	12	43	5.9			11	2.77	11	2.77	4.00
Miscellaneous. ....	37	276	9.3	67	2.04	66	2.33	133	2.18	5.23
Total. ....	1,374	4,559	2.5	553	2.41	1,703	2.44	2,256	2.43	5.99

With the exception of the harmonica branch, there is no branch of the woodworking industries in which young persons exceed 10 per cent of all wage-earners employed.

## WAGES AND HOURS OF LABOR IN AUSTRIA, 1906 AND 1907.

The Austrian Bureau of Labor Statistics recently published a compilation of the trade agreements made between employers and workmen in the years 1906 and 1907.<sup>(a)</sup> Some of the data on this topic for 1905 were published in the monthly bulletin of the same office, but on account of the scattered nature of the material available the first compilation is not sufficiently extensive to give an indication of the rates of wages or of the hours of labor of the industries affected.

### SUMMARY.

In the following pages is given a summary of the 1906 and 1907 compilations in so far as the material relates to the hours of labor and rates of wages. It should be remembered that the rates and hours specified in the trade agreements are for the organized workmen, and therefore would have a tendency to include the better-paid workmen.

The 1907 report gives in its introduction a summary of the data included in the agreements. The following table gives this summary for the hours of labor:

HOURS OF LABOR PER DAY IN SELECTED OCCUPATIONS IN AUSTRIA, 1907. \*

Industries and occupations.	Number of workmen with hours per day of—											
	8.	8½.	9.	9½.	10.	10½.	11.	11½.	12.	12½.	13.	14.
Stone, clay, and glass:												
Stone workers.....			680		630					70		
Clay diggers.....			46							173		
Potters, brick makers.....		109	534		268		669					
Glass and porcelain workers.....				691								
All others.....					170							
Total.....		109	1,260	691	1,068		609			243		
Metal working, machinery, etc., industries:												
Enameling factory workers.....			1,945									
Iron and metal casters.....			3,530	54	400		184			120		
Blacksmiths.....			400	81	41		60					
Tool makers.....			105		15	7						
Locksmiths.....			193	124	209							
Iron construction, shopworkers.....			1,481									
Wire drawers.....							386					
Tinsmiths.....	135	91	579		21		54					
Coppersmiths.....			379				40					
Workers on metal wares.....			1,794	280	10	130	90					

\* Die kollektiven Arbeits- und Lohnverträge in Oesterreich im Jahre 1906. Herausgegeben vom k. k. Arbeitsstatistischen Amte im Handelsministerium. Wien, 1908.

Die kollektiven Arbeits- und Lohnverträge in Oesterreich. Abschlüsse und Erneuerungen des Jahres 1907. Herausgegeben vom k. k. Arbeitsstatistischen Amte im Handelsministerium. Wien, 1909.

# WAGES AND HOURS OF LABOR IN AUSTRIA, 1906 AND 1907. 825

## HOURS OF LABOR PER DAY IN SELECTED OCCUPATIONS IN AUSTRIA, 1907—Continued.

Industries and occupations.	Number of workmen with hours per day of—												
	8.	8½.	8¾.	9.	9½.	9¾.	9¾.	10.	10½.	10¾.	10¾.	11.	12.
<b>Metal working, machinery, etc., industries—Concluded.</b>													
Jewelers, gold and silver smiths.	290			74									
Polishers, etc.				99	62								
Workers in machine factories.			180	6,546	2,020	145	2,452	159					
Workers in vehicle, etc., factories.				423	970	42	1,300	13			32		
Electrical apparatus workers.				1,007									
Makers of surgical, etc., instruments.				291	368								
All other.						121		1,400					
<b>Total.</b>	<b>425</b>	<b>271</b>	<b>18,846</b>	<b>3,959</b>	<b>1,064</b>	<b>3,889</b>	<b>2,396</b>				<b>152</b>		
<b>Woodworking industries:</b>													
Sawmill workers.										158			
Coopers.						134				44			
Joiners of all kinds.	320			947	35	656	117	949					
Turners.				1,015				87	108	125			
<b>Total.</b>	<b>320</b>		<b>1,962</b>	<b>35</b>	<b>790</b>	<b>117</b>	<b>1,036</b>	<b>108</b>	<b>327</b>				
<b>Leather, hides, etc., industries:</b>													
Tanners.						50	120	15					
Leather fancy goods workers.				809									
Saddlers and harness makers.				118				42					
Brush makers.						138							
<b>Total.</b>				<b>927</b>		<b>188</b>	<b>120</b>	<b>57</b>					
<b>Textile industries:</b>													
Spinners and weavers.				600	343	515		19,504		1,439			
Finishers, dyers, and printers.						369		5,017					
All others.				54		20		51					
<b>Total.</b>				<b>654</b>	<b>343</b>	<b>904</b>		<b>24,572</b>		<b>1,439</b>			
<b>Paperhangers and upholsterers.</b>				101									
<b>Clothing industries:</b>													
Tailors.				263		9,068		1,944		190	129	686	6
Shoemakers.						1,665		330		45	171	38	
All others.				12				30				17	
<b>Total.</b>				<b>275</b>		<b>10,733</b>		<b>2,304</b>		<b>235</b>	<b>300</b>	<b>741</b>	<b>6</b>
<b>Paper industries:</b>													
Makers of paper goods.								120					
Bookbinders.				327		11							
All others.				54									
<b>Total.</b>				<b>381</b>		<b>11</b>		<b>120</b>					
<b>Food products industries:</b>													
Flour millers.								66					16
Bakers.	700							5,877					42
Meat dryers, salters, etc.												170	
Brewers, maltsters.				200		1,222		5,189		605		882	
All others.								150		8			
<b>Total.</b>	<b>700</b>			<b>200</b>		<b>1,222</b>		<b>11,282</b>		<b>613</b>		<b>1,052</b>	<b>58</b>
<b>Chemical industries.</b>						19						53	
<b>Building trades:</b>													
Masons, etc.					610	8,562	955	9,446		330			
Masons and carpenters.					4,012	3,418	120	600					
Carpenters.				288	532			2,334	70	25			

## HOURS OF LABOR PER DAY IN SELCTED OCCUPATIONS IN AUSTRIA, 1907—Concluded.

Industries and occupations.	Number of workmen with hours per day of—												
	8.	8½.	9.	9½.	10.	10½.	11.	12.	12½.	13.	14.	15.	
<b>Building trades—Con'd.</b>													
Painters.....			116	37	485	68	357						
All others.....			10	18	700		85						
Total.....			116	335	1,160	17,177	1,143	12,822	70	355			
<b>Printing industries:</b>													
Pressmen.....			564										
Lithographers, etc.....	400												
Total.....	400		564										
<b>Commercial establishments.....</b>						482							
<b>Transportation industries.....</b>			1,520	314	1,800						215		
<b>Engineers and firemen in various establishments.....</b>					4		12				41		
Grand total.....	1,100	745	1,060	26,461	6,502	34,980	5,751	55,240	178	3,212	452	2,102	64

The following table reproduces the summary of the rates of wages contained in the agreements made in the year 1907:

## MINIMUM DAILY RATES OF WAGES IN FIVE LARGE CITIES IN AUSTRIA, 1907.

Occupation.	Vienna.	Gratz.	Innsbrück.	Prague.	Brünn.
Stonecutters.....	\$0.97	\$0.80-\$0.87			
Stove mounters.....			\$1.02-\$1.22		
Core makers.....	\$0.79-.88				\$0.61
Molders.....	.81-1.02				.81
Smelters.....	.86-1.10				.76
Casters.....	.81-1.08				.81
Rough fliers, etc.....	.66-.81				.61
Pattern makers.....	.66-1.10				.81
Skilled workers in machine shops.....	.77-.82				\$0.65-.81
Blacksmiths.....	.88-.99				.77
Blacksmiths' helpers.....	.80-.82				.57-.65
Turners.....	.77-.88				
Locksmiths.....	.83-.95	.51-.58			
Metal grinders.....	1.02-1.08			\$1.02	
Tinsmiths.....	.82-.95				
Skilled workers in metal-working shops.....	.66-.77				
Other workers in metal-working shops.....	.58-.62				.49-.53
Coopers.....	.88-1.02	.61-1.02			
Joiners.....					.66
Dyers.....					.41-.60
Men's tailors.....	.81-1.15	.75-.88			
Shoemakers.....	.61-1.22		.65-.73		
Brewers.....	.88-1.32	.92		.78	
Coopers in breweries.....	1.22-1.32	.88		.75	
Bakers.....	.75-1.25		.70-1.05		
Plasterers.....	1.52				
Masons.....		.77			
Carpenters.....		.77			

In the following pages is given a condensed statement of the hours of labor and rates of wages of the various industries included in the compilation of trade agreements for 1906 and 1907.

## STONE, EARTH, AND CLAY INDUSTRIES.

In the following tables are shown the hours of labor and the minimum time rates for the occupations covered by the agreements entered into in the stone, earth, and clay industries in 1906 and 1907.

# WAGES AND HOURS OF LABOR IN AUSTRIA, 1906 AND 1907. 827

## HOURS OF LABOR PER DAY IN STONE, EARTH, AND CLAY INDUSTRIES, 1906 AND 1907.

### 1906.

Hours per day.	Number of trade agreements for specified hours.			Number of establishments included.	Number of workmen included.
	Vienna.	Other localities.	Total.		
9.....	1	1	2	(a)	(a) 346
9½.....		1	1	(a)	
9¾.....		2	2	(a)	199
10.....		4	4	(a)	1,044
10½.....		1	1	(a)	350
11.....		2	2	(a)	251

### 1907.

8½.....		1	1	1	109
9.....	2	6	8	50	1,260
9½.....	1	2	3	15	691
9¾.....	3	9	12	33	1,068
10.....		24	24	69	669
10½.....		2	2	6	243

a Not reported.

## MINIMUM TIME RATES OF WAGES PER DAY IN STONE, EARTH, CLAY, ETC., INDUSTRIES, 1906 AND 1907.

### 1906.

Occupation.	Rates of wages per day in—	
	Vienna.	Other localities.
Stonecutters.....		\$0.61-\$0.81
Pottery workers:		
Shop workers.....	\$0.88-\$1.08	.65
Kiln workers.....	1.02- 1.08	.65
Stove mounters.....	1.08- 1.52	.65
Repair men.....	.91- 1.02	.65
Potters' helpers.....		.35-.53
Women potters.....		.24
Brickmakers.....		.28-.43

### 1907.

Occupation.	Rates of wages per day in—							
	Vienna.	Salzburg.	Gratz.	Lower Austria.	Carniola.	Innsbruck and Meran.	Northwest Bohemia.	Moravia.
Stonecutters.....	\$0.97	\$0.89	\$0.80-\$0.87					
Stone polishers.....	.97	.73	.63					
Potters.....				\$0.81	\$0.71	\$0.61-\$1.02		
Stone mounters.....						1.02- 1.22	\$1.02-\$1.22	
Clay diggers.....								\$0.47-\$0.61

In 1906 the largest number of workingmen had a daily working time of 10 hours, and of the 12 agreements on record, the shortest number of daily working hours was 9 and the highest number of daily working hours was 11. In the 52 trade agreements made in the year 1907, the greatest number of workingmen had a daily rate of from 9

to 9½ hours; one agreement, covering 100 men, provided for a working day of slightly less than 9 hours, while the highest working time agreed upon was 10½ hours. The 1907 agreement, therefore, showed a tendency to a shorter working day.

The minimum time wages given in the above table show in 1906 a rate for stonecutters of from 60 to 80 cents per day. Of the agreements made in the year 1907, none show a rate of less than 80 cents. In 1906 the agreements for areas outside of Vienna for pottery workers show a general rate of about 65 cents per day; the agreements for potters made in 1907 for the areas outside of Vienna show a distinct tendency to a higher level.

The preceding table may be summed up, therefore, by stating that the tendency for the two years mentioned has been for the hours of labor to decrease and for the minimum daily rates of wages to increase.

### METAL WORKING AND MACHINE BUILDING INDUSTRIES.

The hours of labor and the rates of wages adopted in the agreements put into force in 1906 and 1907 in the metal working and machine building industries are shown in the following tables:

HOURS OF LABOR IN METAL WORKING AND MACHINE BUILDING INDUSTRIES  
PER DAY IN 1906 AND PER WEEK IN 1907.

#### 1906.

Hours per day or week.	Number of trade agreements for specified hours.			Number of establishments included.	Number of workmen included.
	Vienna.	Other localities.	Total.		
8.....	1	.....	1	(a)	411
8½.....	1	.....	1	(a)	1,200
9.....	33	8	46	(a)	13,093
9½.....	3	1	4	(a)	610
9¾.....	21	16	37	(a)	4,086
9¾.....	1	1	2	(a)	294
10.....	2	4	6	(a)	1,171

#### 1907.

51.....	3	.....	3	46	425
52½.....	4	.....	4	4	271
53.....	7	.....	7	7	348
53½.....	3	.....	3	3	240
54.....	71	26	97	350	17,858
54½.....	1	.....	1	1	400
55.....	1	4	5	6	1,316
55½.....	3	1	4	4	444
56.....	3	8	11	16	2,193
56½.....	.....	2	2	2	50
57.....	2	7	9	92	594
57½.....	.....	1	1	4	420
58.....	4	4	4	14	2,557
58½.....	1	1	2	2	1,352
59.....	.....	13	13	22	778
59½.....	1	.....	1	21	60
60.....	.....	5	5	142	1,528
63.....	.....	1	1	9	32
64.....	.....	1	1	1	120

a Not reported.

# WAGES AND HOURS OF LABOR IN AUSTRIA, 1906 AND 1907. 829

## MINIMUM TIME RATES OF WAGES PER DAY IN METAL WORKING AND MACHINE BUILDING INDUSTRIES, 1906 AND 1907.

1906.

Occupation.	Rates of wages per day in—		Occupation.	Rates of wages per day in—	
	Vienna.	Other localities.		Vienna.	Other localities.
Foundry men:			Grinders.....	\$1. 02	.....
Molders.....	\$0. 88-\$0. 95	.....	Polishers, women.....	. 68	.....
Molders for polished ware.....	1. 00	.....	Tinsmiths:		
Core makers.....	. 88- 1. 17	.....	Skilled workers.....	\$0. 88- . 95	\$0. 41-\$0. 75
Smelters.....	. 84- 1. 10	.....	Helpers.....	. 69	.....
Dressers.....	. 95	.....	Women.....	. 38- . 58	.....
Casters.....	. 73- . 81	\$0. 61	Metal alloy workers:		
Rough filers.....	. 69- . 88	.....	Belt makers, etc.....	. 81	.....
Foundry men's helpers.....	. 61- . 77	.....	Metal stampers.....	. 95	.....
Novelty goods makers:			Skilled helpers.....	. 75	.....
Skilled workers.....	. 81	.....	Other helpers.....	. 61	.....
Helpers.....	. 34- . 68	.....	Women.....	. 37- . 47	.....
Women workers.....	. 27- . 37	.....	Machine factory workers:		
Iron furniture makers:			Skilled workers.....	. 71- . 82	. 41- . 81
Foremen.....	1. 10	.....	Blacksmiths.....	. 91	. 41- . 81
Independent workmen.....	. 95	.....	Blacksmiths' helpers.....	. 71- . 73	. 61
Skilled mechanics.....	. 79	.....	Turners.....	1. 02	.....
Helpers.....	. 60	.....	Pattern makers.....	.....	1. 22
File cutters:			General skilled helpers.....	. 60- . 73	. 57- . 61
Blacksmith work.....	1. 10	.....	Helpers, laborers, etc.....	. 56- . 69	. 30- . 49
Other file work.....	. 91	.....	Workers in electro-technical establishments:		
Locksmiths, foremen.....	. 95	.....	Mounters, etc.....	.....	. 81- . 91
Locksmiths.....	. 81	.....	Helpers.....	.....	. 61
			Skilled mechanics.....	.....	. 81

1907.

Occupation.	Rates of wages per day in—				
	Vienna.	Lower Austria (excluding Vienna).	Bohemia.	Brünn.	Moravia (exclusive of Brünn.)
Molders.....	\$1. 17	.....	.....	.....	.....
Core makers.....	\$0. 79- . 88	\$0. 82	\$0. 61-\$0. 65	\$0. 61	\$0. 57-\$0. 62
Hand and machine molders.....	. 81- 1. 02	\$0. 74- . 82	. 71- . 81	. 81	. 61- . 71
Smelters and blowers.....	. 86- 1. 10	. 67	.....	. 76	. 61- . 64
Casters.....	. 81- 1. 08	. 82	. 71- . 73	. 81	. 71
Rough filers and dressers.....	. 82- . 88	.....	.....	.....	.....
Casting polishers.....	. 66- . 81	. 67	.....	. 53	. 61
Pattern makers.....	1. 10	1. 10	.....	.....	. 57
Mechanics in machine, etc., shops.....	. 77- . 82	. 72- . 80	. 60	\$0. 65- . 81	. 60- . 64
Blacksmiths.....	. 88- . 99	. 77- . 93	. 61	. 77	. 64
Blacksmiths' helpers.....	. 80- . 82	. 72- . 75	.....	. 57- . 65	. 48
Coppersmiths.....	. 82- . 88	.....	.....	.....	.....
Lathe men (running 2 lathes).....	. 88- . 95	. 91	.....	.....	.....
Turners.....	. 77- . 88	. 75- . 82	.....	.....	.....
Locksmiths.....	. 83- . 95	. 69- . 81	.....	.....	. 61
Metal stampers.....	. 82- . 95	.....	.....	.....	. 81
Girdle makers.....	. 82- . 88	.....	.....	.....	.....
Polishers.....	1. 02- 1. 08	.....	1. 02	.....	.....
Tin workers.....	. 82- . 95	. 78- . 82	.....	.....	. 81
Scale makers.....	. 73- . 80	. 80	.....	.....	.....
File cutters.....	.....	. 81- 1. 02	. 61- . 95	.....	.....
Skilled machine hands.....	. 60- . 77	. 58- . 72	.....	.....	. 45- . 53
Other general workers.....	. 58- . 62	. 55- . 58	.....	. 49- . 53	. 42- . 46
Polishers, women.....	. 68	.....	.....	.....	.....
Other women workers.....	. 27- . 47	. 33- . 38	.....	.....	.....

The hours of labor in the agreements made in 1906 show that by far the greater number of workingmen affected had a 9-hour day (54 hours per week), and the hours of labor for the next largest number of workers was that of 9½ or 9¼ (55½ to 57 hours per week). In 1907 the

greatest number of workers likewise had a 9-hour day (54 hours per week); on account of the greater number of agreements made in 1907 a greater variation in the hours of labor is shown than was the case in the agreements made in 1906. There is, therefore, not much difference in the hours of labor.

The minimum time rates of wages in 1907, as compared with 1906 show on the whole that in 1907 there was a tendency to a higher rate for the occupations in which the comparison is possible.

### WOODWORKING INDUSTRIES.

The hours of labor and the wages in the woodworking industries as specified in the trade agreements made in 1906 and 1907 are shown in the following tables:

HOURS OF LABOR PER DAY IN WOODWORKING INDUSTRIES, 1906 AND 1907.

#### 1906.

Hours per day.	Number of trade agreements for specified hours.			Number of establishments included.	Number of workmen included.
	Vienna.	Other localities.	Total.		
9.....	11	5	16	(a)	8,660
9½.....	1	.....	1	(a)	90
9¾.....	4	4	8	(a)	1,174
9¾.....	.....	3	3	(a)	170
10.....	.....	13	13	(a)	903
10½.....	.....	1	1	(a)	203
11.....	.....	1	1	(a)	(a)

#### 1907.

8½.....	1	.....	1	81	320
9.....	10	2	12	593	1,962
9½.....	.....	1	1	3	35
9¾.....	.....	10	10	105	790
9¾.....	.....	2	2	24	117
10.....	.....	16	16	93	1,036
10½.....	.....	2	2	2	108
10¾.....	1	3	4	10	327

a Not reported.

MINIMUM TIME RATES OF WAGES PER DAY IN WOODWORKING INDUSTRIES, 1906 AND 1907.

#### 1906.

Occupation.	Rates of wages per day in—	
	Vienna.	Other localities.
Joiners in building and furniture trades.....	\$0.82	\$0.53-\$0.77
Machine hands in joinery work.....	.73	.61- .77
Parquetry workers.....	\$0.62- .77	.....
Sawmill workers.....	.....	.43- .61
Workers on novelties.....	.81	.....
Grinding and polishing.....	.....	.53
Turners.....	.61- .68	.....
Skilled workers on boxes, cabinets, etc.....	.75	.....
Comb and fan makers.....	.68	.....



# WAGES AND HOURS OF LABOR IN AUSTRIA, 1906 AND 1907. 831

## MINIMUM TIME RATES OF WAGES PER DAY IN WOODWORKING INDUSTRIES, 1906 AND 1907—Concluded.

1907.

Occupation.	Locality.	Rate of wages per day.	Occupation.	Locality.	Rate of wages per day.
Board sawyers.....	Lower Austria (excluding Vienna).	\$0.61	Joiners.....	Linz.....	\$0.60
Board sawyers' helpers.	Lower Austria (excluding Vienna).	.53	Joiners.....	Styria (excluding Gratz).	.73
Coopers.....	Vienna.....	\$0.88-1.02	Joiners.....	Klagenfurt.....	.63
Coopers.....	Lower Austria (excluding Vienna).	.81	Joiners.....	Laibach.....	\$0.57-.61
Coopers.....	Gratz.....	.61-1.02	Joiners.....	Meran.....	.77-.85
Coopers.....	Moravia.....	.75	Joiners.....	North and north-west Bohemia.	.61-.68
Box makers.....	Vienna.....	.95	Joiners.....	All other Bohemia.	.61
Joiners.....	Lower Austria (excluding Vienna).	.75	Joiners.....	Brunn.....	.66
			Table makers.....	Vienna.....	.82
			Turners.....	Vienna.....	.68
			Wood curtain makers	Vienna.....	.81

The hours of labor, as shown by the trade agreements made in 1906, show that in that year 9 was the largest number of hours most of the men worked, with the next highest number working at 9½ hours. In 1907 there is a greater variation in the hours, but again the greatest number of workers have either 9, 9½, or 10 hours. On the whole, the agreements do not show much change in the number of hours per day.

In regard to the wages, the occupations are not sufficiently duplicated in the two years to make a comparison, but the agreements for 1907 show many rates in excess of those for 1906.

In the woodworking industries it may be stated that the hours of labor show little difference, but that the rates of wages seem to indicate a tendency to a higher level.

## INDUSTRY OF LEATHER, HIDES, ETC.

The following tables show the hours of labor and the rates of wages in the leather, hides, etc., industries in the agreements made in the years 1906 and 1907:

### HOURS OF LABOR PER DAY IN LEATHER INDUSTRY, 1906 AND 1907.

1906.

Hours per day.	Number of trade agreements for specified hours.			Number of establishments included.	Number of workmen included.
	Vienna.	Other localities.	Total.		
9.....	4	.....	4	(a)	84
9½.....	2	10	12	(a)	729
10.....	.....	7	7	(a)	448

1907.

9.....	3	.....	3	81	927
9½.....	.....	3	3	3	188
9¾.....	.....	2	2	5	120
10.....	.....	3	3	3	57

a Not reported.

## MINIMUM TIME RATES OF WAGES PER DAY IN LEATHER INDUSTRY, 1906 AND 1907.

1906.

Occupation.	Rates of wages per day in—	
	Vienna.	Other localities.
Tanners.....		\$0.68-\$0.81
Tannery laborers.....	\$0.95-\$1.02	.68- .98
Dressers.....	.75- .85	.54- .78
Setters-up (on binders).....		.98- 1.02
Tub workers.....		.64
Machine workers.....		.68- .85
Skilled helpers.....	.61	.54- .61
Day laborers.....		.41- .47
Women workers.....	.39	.24
Trunk and bag makers.....	.81	.54- .61
Belt and harness makers.....	.81	.54- .75
Saddlers.....	.81	.54

1907.

Occupation.	Rates of wages per day in—		
	Vienna.	Lower Austria (excluding Vienna).	Moravia.
Tannery laborers.....		\$0.95-\$1.02	
Other leather workers.....		.85	\$0.71
Harness makers and saddlers.....	\$0.73		
Belt makers.....	.88		
Leather fancy goods workers.....	.82		

The numbers for leather workers included in the above table show that the hours of labor in 1906 were principally  $9\frac{1}{2}$  or 10. In the agreements made in 1907 the largest number of workmen had a 9-hour day, followed by those with a  $9\frac{1}{2}$  or  $9\frac{3}{4}$  hour day; in other words, there is a distinct tendency for a shorter day in the 1907 agreements as compared with 1906.

In 1906 the rates of wages of tannery laborers outside of Vienna varied from 68 to 98 cents per day, while in 1907 they were from 95 cents to \$1.02 per day in the agreements made in those two years. The rates for belt makers, harness makers, and saddlers in Vienna in 1906 were approximately 81 cents per day. The agreements made in 1907 show rates varying from 73 to 88 cents per day.

The hours of labor, therefore, show a tendency to become shorter in the two years, while the rates of wages for general laborers show a tendency to remain about the same.

## TEXTILE INDUSTRY.

The hours of labor and rates of wages in the textile industry, according to the agreements made in 1906 and 1907, are shown in the following table:

## HOURS OF LABOR PER DAY IN TEXTILE INDUSTRY, 1906 AND 1907.

## 1906.

Hours per day.	Number of trade agreements for specified hours.			Number of establishments included.	Number of workmen included.
	Vienna.	Other localities.	Total.		
9.....	4	.....	4	(a)	600
9½.....	1	1	2	(a)	130
9¾.....	3	.....	3	(a)	455
10.....	4	11	15	(a)	3,025
10½.....	.....	4	4	(a)	704
11.....	.....	1	1	(a)	112

## 1907.

9.....	1	4	5	22	654
9½.....	1	2	3	7	343
9¾.....	4	2	6	78	904
10.....	.....	25	25	143	24,572
10½.....	.....	3	3	3	1,439

a Not reported.

## MINIMUM TIME RATES OF WAGES PER DAY IN TEXTILE INDUSTRY, 1906 AND 1907.

## 1906.

Occupation.	Rates of wages per day in—	
	Vienna.	Other localities.
Spinners.....	.....	\$0. 57
Piecers.....	.....	. 43
Spinners' helpers, male.....	.....	0. 27- . 39
Spinners' helpers, female.....	.....	. 26- . 32
Weavers.....	.....	. 41- . 57
Ribbon weavers, male.....	\$0. 88	.....
Ribbon weavers, female.....	. 44	.....
Elastic-ribbon weavers.....	. 88	.....
Embroiderers.....	. 88	.....
Passementerie workers:	.....	.....
Skilled workers, male.....	0. 80-\$1. 17	.....
Skilled workers, female.....	. 44- . 66	.....
Other workers, male.....	. 60	.....
Other workers, female.....	. 37	.....
Passementerie workers in gold braid and church work:	.....	.....
Skilled workers, male.....	. 68	.....
Skilled workers, female.....	. 41	.....
Other workers, male.....	. 51	.....
Other workers, female.....	. 30	.....
Women weavers.....	. 68	.....
Dyers:	.....	.....
Skilled workers.....	.....	. 75- . 81
Helpers, male.....	. 61- . 68	. 47- . 61
Helpers, female.....	. 34	. 34
Silk finishers:	.....	.....
Preliminary workers, male.....	1. 02	.....
Preliminary workers, female.....	. 64	.....
Finishers, male.....	. 75	.....
Finishers, female.....	. 37	.....
Carbonizers.....	.....	. 52
Roughers.....	.....	. 49
Washers.....	.....	. 53
Print workers:	.....	.....
Print workers, male.....	. 68	. 43- . 68
Print workers, female.....	. 34	. 22- . 34

MINIMUM TIME RATES OF WAGES PER DAY IN TEXTILE INDUSTRY, 1906 AND 1907—  
Concluded.

1907.

Occupation.	Rates of wages per day in—					
	Vienna.	Upper Austria.	Bohemia.		Moravia.	
			North and northwest.	Other.	Brünn.	Other.
Willow tenders.....					\$0. 41-\$0. 55	
Fine carders, male.....					. 50- . 61	
Fine carders, female.....					. 37- . 47	
Strippers.....				\$0. 32	. 54- . 68	
Coarse carders, female.....				. 30	. 27- . 36	
Spinners.....			\$0. 53-\$0. 61			
Setters-up.....			. 28			
Piecers.....			. 37- . 41			
Warpers, female.....	\$0. 54				. 49- . 64	
Preparers.....	. 71		. 71			
Spoolers.....	. 47	\$0. 35			\$0. 30-\$0. 36	
Winders.....					. 44- . 53	
Weavers.....			. 41- . 45	. 41		. 37
Sample weavers.....	. 71		. 71			
Nappers.....				. 35	. 26- . 37	
Dyers.....		. 45	. 54		. 41- . 60	
Fullers.....					. 43- . 55	. 47- . 53
Roughers.....					. 35- . 39	. 47- . 49
Embroiderers.....	. 88					
Chenille weavers.....	\$0. 88- 1. 02					
Printers.....	. 81- 1. 08					

The hours of labor in the textile industries in the agreements of 1906 are principally 10 hours per day; the next largest number of employees are those employed  $10\frac{1}{2}$  hours per day, while following this come the hours of 9 and  $9\frac{1}{4}$  per day. In 1907 by far the greatest number of workers have a 10-hour day, while the next largest number have a  $10\frac{1}{2}$ -hour day. In 1907 none of the agreements made provided for an 11-hour day. In general it may be said that the hours of labor show a tendency to remain about the same level in 1907 as compared with 1906, except that the year 1907 shows no workers with an 11-hour day, while there were a few such in 1906.

The rates of wages in the two sets of agreements contain a few occupations for which a comparison may be made: In 1906 the rate for spinners was 57 cents per day; the agreements concluded in 1907 show rates varying from 53 to 61 cents per day; for weavers the rates in 1906 are from 41 to 57 cents per day; in 1907 from 37 to 45 cents per day; in 1906 the rates for embroiderers and similar special trades showed rates from 40 cents to \$1.17 per day; in 1907 a few workmen included show rates of from 88 cents to \$1.02 per day. The general tendency of the rates of wages may be said to remain about the same.

## CLOTHING INDUSTRY.

The hours of labor and rates of wages in the clothing industry, as disclosed by trade agreements in 1906 and 1907, are shown in the following tables:

## HOURS OF LABOR PER DAY IN THE CLOTHING INDUSTRY, 1906 AND 1907.

## 1906.

Hours per day.	Number of trade agreements for specified hours.			Number of establishments included.	Number of workmen included.
	Vienna.	Other localities.	Total.		
8½.....		1	1	(a)	(a)
9.....	3	4	7	(a)	2,204
9½.....	3	1	4	(a)	1,099
10.....	10	14	24	(a)	21,519
10½.....	1	1	2	(a)	84
10¾.....		2	2	(a)	225
11.....	1	11	12	(a)	3,808
12.....		1	1	(a)	50
12½.....		1	1	(a)	14

## 1907.

9.....	2	1	3	42	275
9½.....	5	2	7	780	10,733
10.....	3	7	10	572	2,304
10½.....		2	2	47	235
10¾.....		2	2	122	300
11.....	1	8	9	231	741
12.....		1	1	1	6

a Not reported.

## MINIMUM TIME RATES OF WAGES IN THE CLOTHING INDUSTRY, PER DAY IN 1906 AND PER WEEK IN 1907.

## 1906.

Occupation.	Rates of wages per day in—	
	Vienna.	Other localities.
Men's tailors.....	\$0.81-\$1.15	\$0.54-\$0.89
Men's tailors (merchant tailors' work).....	.81	
Military tailors.....	.75-.1.02	
Tailors on women's suits, males.....	.91-1.22	.85-1.42
Tailors on women's suits, females.....	.59	.34-.53
Cutters of white goods.....	1.02-1.49	
Workers on white goods.....	.61-.91	
Shoemakers.....	.61	.34-.81
Straw-hat and women's felt-hat workers.....	1.02	
Laundry work:		
Ironers.....	.54-.61	.61
Machine ironers.....	.37	
Laundresses.....	.54	.51
Laborers, male.....	.61	
Chemical cleaning work:		
Independent cleaners.....	.88	
Rippers.....	.81	
Ironers, male.....	.68-.88	
Ironers, female.....	.41-.68	

MINIMUM TIME RATES OF WAGES IN THE CLOTHING INDUSTRY, PER DAY  
IN 1906 AND PER WEEK IN 1907—Concluded.

1907.

Occupation.	Locality.	Wages per week.
Men's tailors.....	Vienna.....	\$4.87-\$6.90
Men's tailors.....	Salzburg.....	3.90- 5.36
Men's tailors.....	Gratz.....	4.47- 5.28
Men's tailors.....	Styria.....	4.06- 4.87
Men's tailors.....	Marienbad.....	6.50
Men's tailors.....	Silesia.....	4.06- 4.87
Fitters.....	Moravia.....	4.47- 5.68
Tailors on women's suits, males.....	Vienna.....	6.09- 7.31
Tailors on women's suits, males.....	Salzburg.....	6.70
Tailors on women's suits, males.....	Innsbruck.....	4.87- 6.09
Tailors on women's suits, females.....	Vienna.....	3.05- 3.65
Children's suit makers.....	Vienna.....	3.25- 5.28
Cleaners and ironers.....	Vienna.....	6.50
Makers of shoe uppers, males.....	Vienna.....	4.26- 5.68
Makers of shoe uppers, females.....	Vienna.....	2.84- 3.25
Shoemakers' helpers.....	Vienna.....	1.83- 2.44
Shoemakers.....	Vienna.....	3.65- 7.31
Shoemakers.....	Lower Austria (excluding Vienna).....	2.84- 3.65
Shoemakers.....	Styria.....	3.65- 4.06
Shoemakers.....	Innsbruck.....	3.90- 4.38

In 1906 the hours of labor of the clothing workers showed that the greatest number of employees had a ten-hour day; the next largest number had an eleven-hour day, while the third largest number had a nine-hour day. In 1907 the greatest number of workmen affected by the agreements made had a working day of 9½ hours, the next largest number having a ten-hour day. While the number of workmen affected in 1907 is smaller than in 1906, there is to be noticed a tendency to shorten the working day.

The rates of wages of men's tailors in Vienna show no change from 1906 to 1907; in 1906 in the areas other than Vienna the weekly rates vary between \$3.24 and \$5.34, while in 1907 a number of localities show rates in excess of the 1906 rates. For tailors on women's suits (males) the 1907 rates show the same upper limit as the 1906 rates, but the 1907 minimum rates are somewhat higher than the 1906; the rates for the areas outside of Vienna in 1907 are too few in number to form a comparison.

In the clothing trade it may be stated that there is a slight tendency toward a reduction of hours, but, the data for wages are not sufficient to permit of a comparison being made.

#### PAPER INDUSTRY.

The following table shows the hours of labor and the rates of wages contained in the trade agreements made for the paper industry in the years 1906 and 1907:

# WAGES AND HOURS OF LABOR IN AUSTRIA, 1906 AND 1907. 837

## HOURS OF LABOR PER DAY IN PAPER INDUSTRY, 1906 AND 1907.

### 1906.

Hours per day.	Number of trade agreements for specified hours.			Number of establishments included.	Number of workmen included.
	Vienna.	Other localities.	Total.		
8½.....	2	.....	2	(a)	789
9.....	1	3	4	(a)	3,335
9½.....	.....	3	3	(a)	326

### 1907.

9.....	1	3	4	23	381
9½.....	.....	1	1	1	11
10.....	.....	1	1	1	120

a Not reported.

## MINIMUM TIME RATES OF WAGES IN PAPER INDUSTRY, PER DAY IN 1906 AND PER WEEK IN 1907.

### 1906.

Occupation.	Rates of wages per day in—	
	Vienna.	Other localities.
Bookbinding establishments:		
Bookbinders.....	\$0.75-\$0.88	\$0.54-\$0.81
Rulers.....	.81- .88	.54- .68
Rulers, machine workers.....	1.02	.....
Women workers, hand work.....	.41- .44	.24- .34
Women workers, machine work.....	.54	.41
Printing establishments:		
Bookbinders.....	.78- .81	.....
Workers on cutting machines.....	.88	.....
Helpers.....	.57	.....
Women workers, hand work.....	.41- .44	.....
Women workers, machine work.....	.47- .54	.....

### 1907.

Occupation.	Rates of wages per week in—			
	Laibach.	Trieste.	North Bohemia.	Moravia.
Bookbinders, journeymen.....	\$4.87	\$4.67	\$4.06	\$3.25-\$3.65
Bookbinders, journeymen, highest grade.....	.....	.....	.....	4.47
Paper cutters and marblers.....	5.28	.....	4.87	.....
Gilders.....	6.09	.....	4.87	.....
Women workers, with one year's experience.....	\$1.62- 2.03	.....	\$1.62- 2.03	1.22- 1.62
Women workers on machine and special work.....	2.84	.....	2.44	2.03

As only 9 agreements are recorded for 1906 and 6 agreements for 1907, a comparison of the two years can not safely be made. In 1906, however, 4 agreements covering 3,335 workmen show that the most frequent working day was that of nine hours.

The weekly rates of wages for bookbinders in 1906 in the areas outside of Vienna are practically the same as in 1907, and the same holds true of women workers doing hand work.

As far as the data available gives any information, it may be stated that the hours of labor and rates of wages in the two years show practically no change.

### FOOD PRODUCTS INDUSTRY.

The hours of labor and rates of wages specified in the agreements made in 1906 and 1907 in the food products industries are as follows:

#### HOURS OF LABOR PER DAY IN FOOD PRODUCTS INDUSTRY, 1906 AND 1907.

##### 1906.

Hours per day.	Number of trade agreements for specified hours.			Number of establishments included.	Number of workmen included.
	Vienna.	Other localities.	Total.		
9.....	.....	1	1	(a)	12
9½.....	2	.....	2	(a)	48
10.....	6	16	22	(a)	3,972
10½.....	.....	5	5	(a)	342
11.....	1	3	4	(a)	1,783
11½.....	1	.....	1	(a)	95

##### 1907.

8.....	1	.....	1	35	700
9.....	1	.....	1	1	200
9½.....	.....	4	4	7	1,222
10.....	2	30	32	1,195	11,282
10½.....	.....	8	8	8	613
11.....	.....	19	19	35	1,052
12.....	.....	3	3	10	58

a Not reported.

#### MINIMUM TIME RATES OF WAGES IN FOOD PRODUCTS INDUSTRY PER DAY AND PER WEEK IN 1906 AND PER WEEK IN 1907.

##### 1906.

Occupation.	Rates of wages per day in—	
	Vienna.	Other localities.
Flour-milling establishments:		
Watch hands (without board).....		\$0.68
Watch hands (with board).....		.44
Polishers (without board).....		.64
Polishers (with board).....		.37
Dressers (without board).....		.61
Bakeries:		
Second hands.....		\$0.54- .75
Black-bread mixers.....		.61- .95
White-bread mixers.....		.68- .88
Table workers.....		.71- .75
Mixers.....		.61-1.05
Tub workers.....		.71- .75
First hands.....		.81-1.08
Oven men.....		.75-1.15
Journeymen.....		.47- .81
Candy makers:		
Skilled workers.....	\$0.81	.....
Helpers.....	.54	.....
Women workers.....	.24	.....
Meat drying and smoking establishments:		
First and second hands.....	\$0.91- 1.05	.....
Third hands.....	.68- .78	.....
Tablemen.....	.54	.....
Helpers.....	.41	.....



# WAGES AND HOURS OF LABOR IN AUSTRIA, 1906 AND 1907. 839

## MINIMUM TIME RATES OF WAGES IN FOOD PRODUCTS INDUSTRY PER DAY AND PER WEEK IN 1906 AND PER WEEK IN 1907—Concluded.

1906.

Occupation.	Rates of wages per week in—	
	Vienna.	Other localities.
<b>Brewers and malsters:</b>		
Foremen, first hands.....	\$6.09-\$7.11	\$5.89
Malsters.....	4.26-4.87	\$3.35-4.87
Driers.....	3.76-4.47	3.35-4.41
Driers and heaters.....	4.36-4.95	3.55-4.87
Malt mixers and millers.....	5.08-5.48	4.87
Cellar men.....	7.11	6.09-6.50
Brewers.....	5.48-6.50	4.57-6.09
Coopers.....	5.48-6.50	5.08-6.09
Boilers.....	6.09-8.32	5.89-7.31
Drawers-off.....	6.09-7.11	4.82-6.50
Helpers, men.....	4.06-4.87	4.06-4.87
Helpers, women.....	2.44-2.84	2.03-2.64
Laborers, men.....	2.68-3.41	2.33-3.17
Laborers, women.....		2.19-2.44

1907.

Occupation.	Rates of wages per week in—							
	Lower Austria.		Styria.		Carniola.	Tyrol.	Prague.	North and north-west Bohemia.
	Vienna.	Other localities.	Graz.	Other localities.				
<b>Flour-mill workers:</b>								
Millers.....		\$5.89		\$5.12				\$5.08
Roller men.....	\$4.87-5.36		\$4.03-5.15					4.67
Dressers.....	4.38-4.97							3.29
Extra hands.....	3.90-4.77		3.55-4.78					4.26
<b>Brewery workers:</b>								
Brewers.....	\$5.28-\$7.92	4.67-7.11	\$5.49	3.98-5.49	\$4.07-\$4.55		\$4.67	\$3.78-4.87
Coopers.....	7.31-7.92	4.87-7.71	5.30	4.17-5.21	4.07-4.83	\$4.50	4.47	3.79-4.87
Malsters.....	5.48-5.89	4.67-6.09		4.07-5.02	3.60-4.55		4.06	4.06
Helpers.....	4.26-5.28	3.25-5.08	4.17	2.94-3.88	3.31-3.60		3.55	3.65-4.06
Women workers.....	3.45	2.23-3.05	1.95	1.71-1.95	1.71-1.95			
<b>White and black bread bakers:</b>								
Oven men, mixers, etc.	6.09-7.31	4.47-6.09			5.28-5.08	{ 5.28-6.29 }		
Tub workers and trough men	5.48-6.09	4.06						
Table men, journeymen bakers, etc.	4.87-5.68	3.65-4.87			4.06-4.47			
Second hands.....	4.47-5.28	3.65-4.47			4.06-4.47	{ 4.57-4.87 }		
<b>Black-bread bakers:</b>								
Oven men, mixers, etc.	7.31-7.51			3.78-4.50		{ 4.87-6.09 }		
Journymen, etc.	6.09-6.29					4.63		

In 1906 the hours of labor for the greatest number of workmen included in the agreements were 10 per day; the next highest number had 11 hours per day. In 1907 the greatest number had again 10 hours per day, while a number of agreements for a not inconsiderable number of workmen were from 8 to 9½ hours per day. On the whole it may be stated that there is a tendency to a shorter working day in 1907 as compared with 1906.

The rates of wages given in the preceding table show that in the case of brewers in Vienna, the rates in 1907 were in excess of those for 1906; in the areas outside of Vienna, the rates seem to be the same in both years. The rates for coopers in Vienna in 1907 are distinctly above those for 1906, while in the areas outside of Vienna, there seems to be a tendency for a lower rate in 1907 as compared with 1906.

### BUILDING TRADES.

The hours of labor and rates of wages in the trade agreements in the building trades made in 1906 and 1907 are as follows:

#### HOURS OF LABOR PER DAY IN BUILDING TRADES, 1906 AND 1907.

##### 1906.

Hours per day.	Number of trade agreements for specified hours.			Number of establishments included.	Number of workmen included.
	Vienna.	All other localities.	Total.		
8½.....	2	.....	2	(a)	2,100
9.....	2	7	9	(a)	5,529
9½.....	.....	1	1	(a)	180
9¾.....	6	21	27	(a)	54,718
9¾.....	.....	3	3	(a)	260
10.....	.....	16	16	(a)	6,486
10½.....	.....	1	1	(a)	284
10½.....	1	.....	1	(a)	200

##### 1907.

8½.....	1	2	3	38	116
9.....	1	3	4	22	335
9½.....	.....	9	9	38	1,160
9¾.....	.....	56	56	675	17,177
9¾.....	.....	10	10	37	1,143
10.....	.....	66	66	583	12,822
10½.....	.....	1	1	3	70
10½.....	.....	4	4	9	355

a Not reported.

# WAGES AND HOURS OF LABOR IN AUSTRIA, 1906 AND 1907. 841

## MINIMUM TIME RATES OF WAGES PER DAY IN BUILDING TRADES, 1906 AND 1907.

Occupation.	Rates of wages per day in—			
	Vienna.		Other localities.	
	1906.	1907.	1906.	1907.
Plasterers.....	\$1.42			
Masons ("façade").....	1.29	\$1.35	\$1.12	\$1.16
Masons, dashed work.....	1.25	1.35	1.22	1.25
Masons.....	.96	1.04	\$0.57- .96	\$0.67- 1.04
Masons on canal work.....			.91	.96
Masons on bridge work.....			.85- 1.02	.85- 1.02
Masons' helpers on canal work.....			.75	.73
Masons' helpers on tunnel work.....			1.02	1.00
Scaffold men.....	.73	.77		
Laborers, diggers, etc.....	.58	.60	.28- .57	.28- .60
Women laborers.....	.46	.48	.35	.37
Carpenters.....		1.08	.57- .81	.69- .81
Painters.....	.95	1.02	.41- 1.00	.41- 1.00
Painters' helpers.....	.82	.88	.66- .82	.66- .82
Inside painters and decorators.....	.96	.99	.51- .99	.51- 1.00
Inside painters and decorators' helpers.....	.85	.85	.66- .82	.66- .82
Roofers.....	.81	.89		
Glaziers.....	.89	.93		
Plumbers.....		.82	.71- 1.02	.71- 1.02
Plumbers' helpers.....		.62	.61- .65	.61- .65
Tile layers.....	1.02	1.02		
Gas and steam fitters.....	.97	.97		
Sewer workers.....	\$0.53- .81	\$0.53- .81		

In 1906 by far the greatest number of workmen covered by the agreements had a working day of 9½ hours; the next largest number had a day of 10 hours, while the third largest number had a day of 9 hours. In 1907 the same numbers of hours are also found most frequently.

The wages of the building trades workers are given in the report in such form that a comparison can be made of most of the occupations. In Vienna the great majority of the occupations show a tendency to a higher rate in 1907. In the areas outside of Vienna the same thing holds true.

## TRANSPORTATION INDUSTRIES.

The hours of labor and weekly minimum rates of wages as fixed by the trade agreements made in the year 1907 in the transportation industries are given in the following table. As very few agreements were made in the year 1906 for these industries, no data are available for that year.

### HOURS OF LABOR PER DAY IN TRANSPORTATION INDUSTRIES, 1907.

Hours of labor.	Number of trade agreements for specified hours.			Number of establishments included.	Number of workmen included.
	Vienna.	Other localities.	Total.		
9.....	1	1	2	(a)	1,520
9½.....		1	1	(a)	314
10.....		2	2	(a)	1,800
11.....		1	1	(a)	215

a Not reported.

## MINIMUM TIME RATES OF WAGES IN TRANSPORTATION INDUSTRIES, 1907.

Occupation.	Rates of wages per week.	Occupation.	Rates of wages per week.
<b>Vienna:</b>		<b>Aussig:</b>	
Teamsters.....	\$4.87	Teamsters.....	\$4.57
Laborers, drayage work.....	6.09	<b>Brunn:</b>	
Teamsters, drayage work.....	5.48	Street-railway drivers.....	\$4.26- 5.12
Laborers, warehouses.....	5.48	Street-railway conductors.....	4.07- 4.36
Freight handlers.....	5.28	Street-railway switchmen.....	3.79- 4.03
Furniture movers.....	6.09	<b>Trieste:</b>	
Laborers, coal yards.....	\$5.28-5.48	Dock laborers on land.....	a 1.02 -1.22
		Dock laborers on board ship.....	a 1.22 -1.42

a Per day.

The hours of labor specified in the agreements made in 1907 range almost entirely from 9 to 9½ per day. A small number of workmen, however, have an 11-hour day..

The weekly rates of wages in Vienna for labor of this type vary from \$4.87 to \$6.09 and are higher than the rates given in other localities except for dock laborers in Trieste, where a somewhat higher rate prevails.

## RECENT REPORTS OF STATE BUREAUS OF LABOR STATISTICS.

### PENNSYLVANIA.

*Annual Report of the Secretary of Internal Affairs of the Commonwealth of Pennsylvania.* Vol. XXXVI, 1908. Part III, Industrial Statistics. John L. Rockey, Chief of Bureau, 315 pp.

In the first of the three parts composing this report brief special articles are presented upon the subjects of the unemployed, the Portland cement industry, farm products, the liquor business, the coal-mining industry, and industrial accidents. In the second part is given special reports on the industrial conditions in the cities of Altoona, Chester, Lancaster, Wilkes-Barre, Williamsport, and York.

**INDUSTRIAL ACCIDENTS.**—There occurred, during 1908, in anthracite mining 618 fatal and 3,526 nonfatal accidents, in bituminous mining 531 fatal and 3,005 nonfatal accidents, in the iron and steel industry 75 fatal and 1,815 nonfatal accidents, in the pig-iron industry 47 fatal and 374 nonfatal accidents, in other industries 77 fatal and 3,890 nonfatal accidents, making a total loss of 1,348 lives and the injury of 12,610 persons.

**GENERAL STATISTICS OF MANUFACTURES AND MINING.**—The third section of the report embraces data gathered from 3,848 establishments of the State engaged in the manufacturing and the mining industries, giving a record of the capital invested, value of products, average value of product per employee, days in operation, number of working people (men, women, and minors), aggregate wages paid, average yearly earnings, average daily wages, etc.

The 3,848 establishments considered in the investigation had invested in plants and working capital a total of \$1,126,406,543, and the market value of production for the year aggregated \$1,271,940,258. The various industries employed a total of 753,000 wage-earners (651,707 men, 83,809 women, and 17,484 minors), to whom were paid in wages the sum of \$327,917,035 to the men, \$22,187,798 to the women, and \$2,999,905 to the minors. For each employee the average value of product for the year amounted to \$1,681.11.

**IRON, STEEL, AND TIN-PLATE PRODUCTION.**—The following summary statements show the more important items for the year 1908 relating to the production of pig iron, steel, rolled iron and steel, and tin plate:

## PIG IRON.

Capital invested.....	\$191, 397, 048
Gross tons of production.....	6, 973, 621
Realized value.....	\$110, 987, 346
Value of basic material.....	\$60, 334, 368
Average days in operation.....	262
Average number of adult male employees.....	12, 954
Aggregate wages paid adult male employees.....	\$7, 264, 174
Average yearly earnings of adult male employees.....	\$560. 77
Average daily wages of adult male employees.....	\$2. 14
Cost of labor per ton.....	\$1.04
Tonnage per man per day.....	2

## STEEL.

Gross tons of production:	
Bessemer.....	2, 109, 242
Open-hearth, acid process.....	509, 832
Open-hearth, basic process.....	4, 838, 892
Crucible and other processes.....	52, 733
Total.....	7, 510, 699

## ROLLED IRON AND STEEL.

Capital invested.....	\$380, 811, 415
Gross tons of production:	
Muck and scrap bar.....	30, 648
Slabs, blooms, billets, tin-plate and sheet bars, etc.....	1, 757, 301
Rails.....	488, 080
Iron and steel structural shapes.....	840, 918
Cut nails and spikes.....	23, 460
Plates and sheets (a).....	1, 496, 865
Other rolled products.....	3, 245, 269
Total.....	7, 882, 541
Value of product (not including the black-plate works).....	\$273, 608, 969
Average number of employees (not including those in black-plate works).....	92, 049
Average number of adult male employees (not including those in black-plate works).....	91, 340
Aggregate wages paid all employees.....	\$51, 974, 293
Aggregate wages paid adult male employees.....	\$51, 803, 245
Average yearly earnings of all employees.....	\$564. 64
Average yearly earnings of adult male employees.....	\$567. 15
Average value per ton.....	\$36. 04
Cost of labor per ton.....	\$6. 85

## TIN PLATE WORKS.

Capital invested (19 plants).....	\$9, 835, 222
Pounds of production of black plate (tinned and not tinned).....	674, 146, 662
Value of production of black plate (not tinned).....	\$689, 904
Pounds of production of sheets and plates other than black.....	60, 214, 815
Value of production of sheets and plates other than black.....	\$1, 221, 546
Pounds of production of tin and terne plate.....	649, 040, 248
Value of product.....	\$23, 057, 702

<sup>a</sup> Including 290,342 tons of black plate and other sheets made by the black-plate works.

Average number of employees.....	8, 263
Average number of adult male employees.....	7, 939
Aggregate wages paid all employees.....	\$5, 310, 638
Aggregate wages paid adult male employees.....	\$5, 211, 623
Average days in operation.....	231
Average yearly earnings of all employees.....	\$642. 70
Average yearly earnings of adult male employees.....	\$656. 46
Average daily wages of all employees.....	\$2. 78
Average daily wages of adult male employees.....	\$2. 84

COAL MINING.—The following statement presents a summary of the operations of the anthracite and of the bituminous coal mines in the State during 1908, the coke workers not being included:

ANTHRACITE AND BITUMINOUS COAL-MINE OPERATIONS, 1908.

Items.	Anthracite coal.	Bituminous coal.
Number of mines in operation.....	286	1, 227
Miners.....	43, 482	120, 166
Inside workmen.....	84, 541	27, 539
Outside workmen.....	48, 354	19, 196
Aggregate wages paid to miners.....	\$29, 278, 424	\$53, 718, 095
Aggregate wages paid to inside workmen.....	\$38, 078, 958	\$15, 960, 800
Aggregate wages paid to outside workmen.....	\$20, 149, 468	\$10, 147, 273
Average days in operation.....	222	238
Average yearly earnings (all employees).....	\$496. 13	\$458. 29
Average yearly earnings (miners only).....	\$673. 34	(a)
Average daily wages (all employees).....	\$2. 23	\$1. 93
Average daily wages (miners only).....	\$3. 03	(b)
Number of tons mined and marketed.....	63, 016, 935	115, 102, 716
Market value of product.....	\$150, 010, 163	\$116, 281, 591
Average tons mined per miner per year.....	1, 615	948
Average tons mined per miner per day.....	7. 0	4. 1

a Miners, pick, \$447; miners, machine, \$446.81.

b Miners, pick, \$1.90; miners, machine, \$1.88.

In addition to the above coal-mining operations there were 58 plants, employing 1,906 persons, engaged in washing anthracite coal from culm banks at the mines. The plants washed 3,071,220 tons of coal, which had a market value of \$3,225,782. Wages were paid aggregating \$802,966, or an average yearly earning per employee of \$421.28. Also there were 21 plants engaged in dredging coal from the Susquehanna and Schuylkill rivers, giving an average employment of 104 days to 123 men, to whom wages amounting to \$23,065 were paid. There were 55,473 tons of coal raised, having a market value of \$52,204.

Of the 1,227 bituminous coal mines there were 299 from which coal was coked. During the year there were 28,969 coke ovens in service, producing 13,857,007 tons of coke, of a value at plant of \$27,948,737. There were 9,459 coke workers, to whom were paid wages amounting to \$3,794,415, or an average yearly wage of \$401.14.

Of 135,023 employees of the anthracite mines for whom nationality was reported 45,827 were Americans. Returns from 484 bituminous coal companies (that do not coke coal) showed that of the 139,382 employees for whom nationality was reported 42,353 were Americans and 95,294 were foreigners, and 1,735 were negroes.

## VIRGINIA.

*Twelfth Annual Report of the Bureau of Labor and Industrial Statistics for the State of Virginia.* 1909. James B. Doherty, Commissioner. 303 pp.

The subjects presented in this report are industrial statistics, 223 pages; labor organizations, 4 pages; labor laws, 30 pages; factory inspection, 6 pages; decisions of courts, 38 pages.

**INDUSTRIAL STATISTICS.**—A series of tables is given for 41 industries, showing for 1908 the number of establishments reporting for the year, the value of product, capital invested, amount paid for wages, rent, taxes, and insurance, number of wage-earners, by occupation, with average daily pay, number and average monthly pay of persons employed on salary, number of hours of work per day and days in operation for each establishment, wage changes, and also totals and averages for each industry. For each industry comparisons with 1907 are presented. Statistics are also given of the average daily wages of employees of 50 steam and 25 electric railways, and of accidents on steam and electric roads.

The following table shows for 1907 and 1908, for each of the industries in the State which reported an output in 1908 exceeding \$1,000,000, the number of establishments reporting, capital invested, value of product, and aggregate wages paid:

CAPITAL INVESTED, VALUE OF PRODUCT, AND WAGES PAID IN 22 INDUSTRIES, 1907 AND 1908.

Industry.	Estab- lishments.		Capital invested.		Value of product.		Wages paid.	
	1907.	1908.	1907.	1908.	1907.	1908.	1907.	1908.
Boots and shoes.....	5	6	\$1,212,000	\$1,752,500	\$2,904,700	\$2,755,147	\$553,810	\$527,023
Breweries.....	7	6	2,905,845	2,560,199	1,749,848	1,831,518	206,814	253,218
Canneries.....	97	108	453,450	403,848	817,150	1,012,222	136,058	109,064
Carriages, wagons, and buggies.....	33	30	1,044,989	1,075,053	1,417,290	1,184,409	293,651	257,003
Cigars, cigarettes, and che- roots.....	46	39	1,459,729	1,234,779	8,641,417	6,676,600	1,392,530	1,112,588
Cotton mills.....	10	11	7,227,929	7,494,875	6,443,061	7,030,298	1,331,625	1,349,981
Flour and grist mills.....	176	166	3,042,483	3,220,122	11,648,764	10,590,312	273,359	281,137
Iron and machine works.....	55	63	16,636,757	18,198,293	18,634,098	13,186,308	5,998,962	4,601,271
Knitting mills.....	10	13	315,623	459,742	2,403,098	2,289,427	478,955	477,431
Overalls and shirts.....	16	16	442,709	498,119	1,522,488	1,213,818	279,373	228,439
Paper and pulp mills.....	9	9	3,545,000	3,099,024	3,078,195	3,300,529	436,054	391,258
Paper and tin boxes.....	6	7	178,500	205,246	1,050,093	1,244,067	293,364	284,098
Printing, engraving, and bookbinding.....	74	86	1,206,441	1,614,432	2,467,346	2,531,997	674,775	670,430
Sash, doors, and blinds.....	20	24	1,009,005	831,142	1,787,480	1,650,635	354,043	335,008
Sawmills.....	293	224	(a)	(a)	7,805,095	7,097,379	2,638,331	1,682,927
Silk mills.....	3	4	706,599	725,886	2,049,186	1,896,960	185,513	207,629
Tanneries.....	22	24	2,415,180	2,991,850	6,392,000	6,641,236	447,246	509,827
Tobacco factories.....	26	27	2,277,753	2,421,511	10,125,327	10,871,320	1,010,562	976,715
Trunks and bags.....	6	6	889,854	901,427	2,644,420	1,799,214	542,348	392,242
Woodenware, baskets, boxes, and shooks.....	31	39	2,187,476	2,488,841	5,028,144	5,808,300	1,111,297	1,066,845

<sup>a</sup> Not reported.

In 1908 there were 221 general contracting firms in the building trades which reported the value of work constructed during the year



as amounting to \$6,040,704, and 111 firms of plumbers, gas fitters, and tinnern which reported the value of work done during the year as amounting to \$1,439,640.

The reports on steam and electric railways operating in the State show for 1908 the average daily wages paid by each road in each occupation and the average daily wages paid by all roads. The following is a summary of the data presented:

AVERAGE DAILY WAGES OF STEAM AND OF ELECTRIC RAILWAY EMPLOYEES, 1908, AND INCREASE IN WAGES OVER 1907.

Steam railroad employees.	Average daily wages.	Increase over 1907.	Electric railway employees.	Average daily wages.	Increase over 1907.
General office clerks .....	\$2. 19	<sup>a</sup> \$0. 02	General office clerks .....	\$1. 96	\$0. 23
Station agents .....	1. 87	. 08	Conductors .....	1. 87	. 07
Other station men .....	1. 45	. 03	Drivers .....	1. 33	<sup>a</sup> . 02
Engineers .....	4. 47	<sup>a</sup> . 14	Motormen .....	1. 90	. 09
Firemen .....	2. 35	<sup>a</sup> . 08	Starters .....	2. 10	<sup>a</sup> . 01
Conductors .....	3. 32	<sup>a</sup> . 15	Watchmen .....	1. 53	<sup>a</sup> . 01
Other trainmen .....	1. 95	. 01	Switchmen .....	1. 48	. 06
Machinists .....	2. 93	. 10	Road men .....	1. 35	<sup>a</sup> . 09
Carpenters .....	2. 29	. 12	Hostlers .....	1. 50	<sup>a</sup> . 07
Other shopmen .....	1. 94	. 15	Linemen .....	1. 88	. 07
Section foremen .....	1. 78	. 02	Engineers .....	2. 38	. 16
Other trackmen .....	1. 21	<sup>a</sup> . 07	Firemen .....	1. 47	. 03
Switchmen, flagmen, and watchmen .....	1. 36	<sup>a</sup> . 22	Electricians .....	2. 54	. 22
Telegraph operators and dispatchers .....	2. 14	. 04	Machinists and mechanics .....	2. 12	. 13
Employees, floating equipment .....	1. 66	<sup>a</sup> . 21	Other employees .....	1. 55	. 13
Other employees .....	1. 48	<sup>a</sup> . 15			

<sup>a</sup> Decrease.

On the steam railroads in Virginia during 1908 there resulted from the movement of trains the accidental killing of 62 employees, 1 passenger, and 159 others, and the injury of 710 employees, 200 passengers, and 234 others; from causes other than the movement of trains there resulted the accidental killing of 5 employees, and the injury of 833 employees, 1 passenger, and 4 other persons. On the electric railways during 1908 there were accidentally injured 289 passengers, 19 employees, and 75 other persons; and 6 passengers, 3 employees, and 13 others were killed.

#### WISCONSIN.

*Thirteenth Biennial Report of the Bureau of Labor and Industrial Statistics, 1907-1908.* J. D. Beck, Commissioner. xi, 1,173 pp.

This report consists of seven parts, as follows: Industrial accidents and employers' liability, 143 pages; manufacturing returns for 1906 and 1907, 332 pages; industrial hygiene and the police power, 28 pages; factory inspection, child-labor permits, and free employment offices, 176 pages; bakery inspection and proceedings of bakers' institute, 160 pages; labor conditions in the public utilities, 184 pages, and women workers in the Milwaukee tanneries, 149 pages.

**INDUSTRIAL ACCIDENTS AND EMPLOYERS' LIABILITY.**—During the year ending October, 1907, 13,571 accidents were reported by the physicians of Wisconsin, of which number 53 per cent happened to workmen while at work. The employer is liable for damages to his workmen only when it can be proven that the employer's negligence was the cause of the accident. Attempts to prove negligence at law are stated to be expensive and create hostility between workmen and employers. The cost to the State of settling cases can not, on the whole, be considered excessive, but the cost per case is large compared with the cost under a system of workmen's insurance. The cost to the employer varies with the industry but averages from five-tenths to six-tenths of 1 per cent of the wages bill. This is chiefly for liability insurance premiums; less than half of this money reaches the victim of the accident. The workingman can under no system of compensation escape the most serious part of the cost of an industrial accident—the pain and mutilation involved. A study of individual cases shows also that the instances of positive financial distress resulting from accidents are numerous, and seldom are the damages collected adequate.

In the following table is presented a summary of the returns received by mail from 306 workmen injured while at work:

COMPENSATION RECEIVED BY INJURED EMPLOYEE IN 306 CASES.

	Cases.	Per cent.
Received nothing from employer.....	72	23.5
Received amount of doctor bills only.....	99	32.4
Received amount of part of doctor bills only.....	15	4.9
Received something in addition to doctor bills.....	91	29.7
Received something, but not doctor bills.....	29	9.5
Total.....	306	100.0

No one will deny that when a man is injured he needs money. Where shall he get it?

The answer of Great Britain: The British Parliament has said the employer must pay damages to every one of his workmen who is injured.

The answer of Germany: Germany compels its workers to be provident. The workman must contribute to an old-age and sick insurance fund, and the latter includes disability for thirteen weeks. But the cost of insuring the workman further against accidents falls solely upon the employer.

The answer of France: The employer must pay a specified compensation in practically all cases of injury.

The burden rests entirely upon the employer in all of the additional countries: Belgium, British Columbia, Cape of Good Hope, Denmark, Finland, Italy, Netherlands, New Zealand, Norway, Queensland, Russia, South Australia, Spain, Sweden, Western Australia.

The burden is divided but rests largely on employers in the following additional countries: Austria, Greece, Hungary, Luxemburg.

In the United States the workman must rely largely on his own savings, or personal insurance, or on the charity of employer, the public, or fellow-workmen, because in the majority of cases the employer can not be proved negligent.

The suggestion is made that the burden of all accidents be placed upon the employer, regardless of the question of negligence. The industry is responsible for more than half the accidents, and putting the burden on the employer is, to the extent that he can shift the burden to the consumer in the shape of higher prices, one way of making the industry responsible. The possibility of the feigning of incapacity by workmen is not considered a serious one. Fraud is an element that must be contended with in fire and other forms of insurance as well. In answer to the question of constitutionality, it is pointed out that the supreme court of Wisconsin has upheld absolute liability regardless of negligence when imposed as a penalty. (*Quackenbush, Admx. v. W. and M. R. R. Co.*, 62 Wis. 411, and 71 Wis. 472.)

A second suggestion, more adaptable to American conditions, is to have the employer contribute to a common fund such an amount as he probably would have to pay if he continued with the law of negligence, release him from the liability to damage suits, and then distribute the money on the insurance principle, the employee being encouraged to carry as much additional insurance as he could.

Employers' liability insurance now costs in Wisconsin an average of 50 to 60 cents for each \$100 of wages. It is very probable that this expense would be increased by weakening the defense of the employer in the courts. In the railroad industry, in Wisconsin, the fellow-servant doctrine has been abolished and the doctrine of contributory negligence has been seriously modified. Similar modifications are practically inevitable for other hazardous industries if the present system of liability be retained.

The following estimate is made of the cost of compensation for industrial accidents in Wisconsin under the plan outlined above:

To pay regardless of negligence for each fatal industrial accident three times the annual earnings, and for nonfatal accidents one-half wages during disablement after the second week up to one year, together with an additional payment of \$500, or less, according to the degree of the injury, to those permanently injured, and for all cases first medical aid, would cost at a maximum as follows for manufacturing establishments reported in the federal census of 1905:

Fatal accidents, at three years' earnings.....	\$164, 290. 80
Nonfatal, during total disability for one year after the first two weeks, at one-half wages.....	83, 880. 37
Permanent disability—additional.....	150, 125. 00
Medical fees, first aid, at \$5 per case.....	20, 525. 00
Administrative expenses (15 per cent).....	73, 909. 62
<b>Total.....</b>	<b>492, 730. 79</b>

This would be approximately 68.9 cents per \$100 of the wages bill, or \$3.25 per man per annum, employed, on an average. In some industries it would be less and in some more. If these same manufacturers had been insured at existing employers' liability rates, the cost would have been about \$416,204.61, which is 58 cents per \$100 of wages, or \$2.75 per man per annum.

**MANUFACTURING RETURNS FOR 1906 AND 1907.**—Each of the 62 larger manufacturing industries of the State is taken up separately, the statistics pertaining to the industry being arranged in six tables. Thirteen minor industries are treated similarly but more briefly. The data in all cases are so arranged as to permit of a comparison between those of 1906 and those of 1907. It is possible, therefore, to determine in the case of each industry whether there was an advance or a retrogression during the period covered by the report.

The following summary table is based upon the returns from all establishments (2,699 reporting in 1906 and 2,748 reporting in 1907):

MANAGEMENT AND OPERATION OF 75 MANUFACTURING INDUSTRIES. 1906 AND 1907.

Items.	1906.	1907.
Number of private firms.....	1,224	1,141
Number of male partners.....	2,100	1,960
Number of female partners.....	124	134
Total number of partners.....	2,224	2,094
Number of corporations.....	1,475	1,607
Number of male stockholders.....	21,512	29,139
Number of female stockholders.....	3,428	4,128
Total number of stockholders.....	24,940	33,267
Smallest number of persons employed.....	121,886	115,169
Greatest number of persons employed.....	131,914	142,314
Average number of persons employed.....	128,487	134,665
Average days in operation.....	309	297
Average annual earnings.....	\$499.34	\$518.81

In 1907, based upon 61 leading industries only, the value of goods made and work done amounted to \$371,988,590.53 and the value of stock used and other material consumed in production amounted to \$224,799,129.26. There was devoted to wages and salaries \$73,128,553.66 and to profit and minor expenses \$74,060,907.61.

**INDUSTRIAL HYGIENE AND THE POLICE POWER.**—This section is a reproduction of a paper read before the International Tuberculosis Congress by Dr. H. B. Favill. This paper advocates a broad study of health as related to labor conditions, followed by legislation for the regulation of industrial establishments, directed especially toward securing a sufficient supply of fresh air during working hours as a preventive of tuberculosis.

**FREE EMPLOYMENT OFFICES.**—A summary of the operations of the four free employment offices of the State for the years ending June 29, 1907, and June 27, 1908, is set out in the following table:

OPERATIONS OF FREE EMPLOYMENT OFFICES, 1907 AND 1908.

Sex and office.	Year ending June 29, 1907.			Year ending June 27, 1908.		
	Applica- tions for employ- ment.	Applica- tions for help.	Positions filled.	Applica- tions for employ- ment.	Applica- tions for help.	Positions filled.
<b>Males:</b>						
Milwaukee.....	5,545	5,572	5,545	4,194	4,195	4,194
Superior.....	5,970	5,973	5,970	6,201	6,201	6,201
La Crosse.....	1,718	1,727	1,718	1,593	1,593	1,593
Oshkosh.....	1,305	1,312	1,305	1,146	1,157	1,145
Total.....	14,538	14,584	14,538	13,134	13,146	13,133
<b>Females:</b>						
Milwaukee.....	992	1,116	992	1,077	1,150	1,077
Superior.....	618	807	618	672	757	672
La Crosse.....	635	776	635	631	680	631
Oshkosh.....	639	699	639	642	682	642
Total.....	2,884	3,398	2,884	3,022	3,269	3,022

**LABOR CONDITIONS IN THE PUBLIC UTILITIES.**—This section contains a description of the working conditions and the actual hours and wages of employees in the gas, street railway, electric light and power, water, and telephone industries in the principal cities of the State.

**WOMEN WORKERS IN THE MILWAUKEE TANNERIES.**—The report of this investigation, while limited to the three or four hundred women employed in the tanneries of Milwaukee, contains much of interest to the investigator of conditions surrounding the employment of women. In the present case women were employed to fill the places of striking men. A description is given of the work performed by them, their wages, hours of labor, and the effect of the work upon their health.

The average earnings of 215 women during a period of six months is shown in the following table by classified groups and departments:

CLASSIFIED WEEKLY EARNINGS OF 215 WOMEN IN MILWAUKEE TANNERIES DURING SIX MONTHS.

Department.	Per cent of women earning—			
	Less than \$5.	\$5 and under \$8.	\$8 and under \$10.	\$10 and over.
Store and sorting.....	53	47	.....	.....
Coloring and Russia finishing.....	36	61	3	.....
Chrome finishing.....	15	66	19	.....
Ironing.....	.....	38	56	6
Total.....	22	58	18	2

One hundred and twenty-nine of the women were visited in their homes. Text and tabular statements are given of housing conditions, income of the families, and personal employment history.

In conclusion it is stated that—

Unless we change the present demoralizing condition we will continue to see women, worn out by the work of their youth, unable to do their part in making happy and successful homes. Their children, if not given better opportunities, go through the same course and keep up the circle of vicious inefficiency. We can look for better conditions only with the increased intelligence and efficiency of the more fully developed girl, working in cooperation with an employer who recognizes that she is entitled in the workshop to cleanliness; to good sanitation, light, and air; to protection from dangerous machinery; to the removal of all brutalizing conditions, and of all conditions which place undue strain upon her moral character, even to excluding her from employment in certain industries. She should be entitled to every safeguard to health, such as shortening the work period; the opportunity for a nourishing noon meal; the prevention of undue strain upon her body, and breaks during the working hours for bodily rest. And finally we must come to a realization sooner or later of the expediency of demanding a wage that will sustain minimum conditions of health and decency.

## RECENT FOREIGN STATISTICAL PUBLICATIONS.

### BELGIUM.

*Fonds intercommunal de Chômage de l'Agglomération gantoise. Rapport sur le fonctionnement du Fonds pendant les années 1906, 1907, et 1908, présenté au Conseil communal de Gand.* 1909. 84, 4, 19 pp.

This report, by Louis Varlez, president of the council administering the funds, covers the operations of the municipal funds of Ghent and vicinity for relief in cases of unemployment, and is the fourth in the series. The plan in use was adopted after a report by a special commission on unemployment in April, 1900. (For a reproduction of the law establishing the fund and a brief account of its workings, see Bulletin No. 76, pp. 822-826.)

In the present report is set forth first a statement of the methods in use, followed by statistics of operations for each year, and summary tables showing the main statistical facts for the whole period of the operation of the funds. Several pages are given to a more general presentation of provisions in case of unemployment, both in Belgium and in other European countries, while appendixes reproduce the fundamental statute under which the Ghent system operates and the detailed regulations adopted by the administrative council in accordance with the authority given it by the last article of this statute.

The report explains the system as follows:

Contrary to that which has been sometimes said, the Ghent unemployment fund is not a fund for unemployment insurance, nor is it, as was formerly proposed to the communal council of Ghent, and as it has been erroneously described in certain foreign localities, a system of grants of subsidies to workmen's organizations, especially syndicates, making provision for unemployment insurance. It is neither of these, nor is it anything but a new application of an old principle, and presents very few features of originality.

In reality it establishes a new system which the communal council of Ghent adopted October 29, 1900, with the approval of all the political and social parties represented in its constituency, for the distribution of encouragements, real and effective, to all workmen who are willing to take serious measures against the consequences of unemployment.

Whatever method the workman may use, whether of individual or collective savings, of mutual insurance, or other provision, the fund is available for the increase of the provision made by individual effort, subject to three limitations: That individual provision will be increased in an amount not to exceed 100 per cent, only the first franc (19.3 cents) of the individual provision to be thus increased, and no aid to be extended for more than sixty days in any year. In practice, the funds have usually sufficed to give aid affording an increase of the individual savings in an amount varying from 50 to 75 per cent.

While the encouragement of individual effort is the point kept in mind throughout, the practical working of the system is through association channels, since it is found that it is only in the cooperative provision, either of insurance funds or of savings funds of organized workmen, that the necessary individual basis for subsidies is laid. In 1908 there were 31 assurance funds and 4 savings funds, members of which brought themselves within the provisions of the system of assistance and thus gained standing as affiliated associations.

The financial support of the funds is drawn principally from grants made by the city of Ghent and its suburbs, though since the previous report the Province of East Flanders and the Kingdom of Belgium have undertaken to assist. This has been chiefly in the way of providing for expenses of administration. The assistance from the Province is as yet but of slight account; the Kingdom's contribution in 1908 to the Ghent fund amounted to 2,645 francs (\$510.49). The grant from the city of Ghent is the principal source of subsidies, being regularly 20,000 francs (\$3,860) for each of the years 1906, 1907, and 1908. In 1908 supplemental grants on account of special distress brought the total for the year to 41,500 francs (\$8,009.50).

The following table shows the principal facts connected with the operation of the fund since its establishment in 1901, during which year it was in operation but five months, to and including the year 1908:

OPERATIONS OF THE UNEMPLOYMENT FUND OF GHENT AND SUBURBS, 1901 TO 1908.

Year.	Affiliated associations.		Unemployed members.		Days of unemployment.		
	Number.	Average membership.	Number.	Per cent.	Number.	Average per member.	Average per person unemployed.
1901( <i>a</i> ) .....	28	13,000	2,089	16.1	6,676	0.5	3.2
1902 .....	33	12,300	3,250	26.4	31,325	2.5	9.6
1903 .....	34	12,300	2,711	22.0	30,296	2.5	11.2
1904 .....	32	12,000	3,010	25.1	36,402	3.0	12.1
1905 .....	32	12,200	2,019	16.5	34,965	2.9	17.3
1906 .....	33	13,300	2,601	19.6	35,751	2.7	13.8
1907 .....	34	17,500	3,583	20.5	38,529	2.2	10.8
1908 .....	43	18,000	7,539	41.9	82,579	4.6	11.0

Year.	Relief and benefit funds.					Per cent of funds supplied by individuals.	Cost of unemployment.		Costs of administration.	Total expenditures.
	Supplied by associations.	Granted by cities.			Total.		Per member.	Per beneficiary.		
		Regular grants.	Special assistance.	Total.						
1901( <i>a</i> ) .....	\$3,449.91	\$1,206.99	.....	\$1,206.99	\$4,656.90	74	\$0.36	\$2.23	\$147.07	\$1,354.06
1902 .....	7,953.67	3,121.02	.....	3,121.02	11,074.69	72	.90	3.41	353.58	3,474.60
1903 .....	6,852.50	3,663.54	\$546.41	4,209.95	11,062.45	63	.88	4.01	351.65	4,561.60
1904 .....	8,144.16	4,508.99	470.97	4,979.96	13,124.11	62	1.09	4.36	359.56	5,339.52
1905 .....	6,862.94	3,494.76	413.86	3,908.62	10,771.56	64	.88	5.33	379.99	4,288.61
1906 .....	8,062.70	3,505.76	224.09	3,729.85	11,892.55	63	.89	4.57	402.06	4,231.90
1907 .....	8,007.07	4,502.71	108.37	4,611.08	12,618.15	64	.72	3.53	405.21	5,074.19
1908 .....	19,131.33	9,013.34	.....	9,013.34	28,144.67	68	1.60	3.73	530.75	9,684.02

a Five months only.



This table shows an increase in the number of associations coming into relations with the fund, and a marked growth in the number of members, particularly in 1907. The number of persons unemployed and of days of unemployment was more than twice as great in 1908 as in any previous year; the cost of unemployment per member was likewise increased in this year, but not in the same ratio. The cost of unemployment per beneficiary was not so great in 1908 as in several previous years, having been greatest in 1905, when the number of persons unemployed was least. The growth of the cost of administration has been practically steady, while the amount of total expenditures has fluctuated considerably. The percentage of contributions resulting from the personal efforts of the beneficiaries was greatest during the first two years of the operation of the fund, before the suburbs of Ghent took part. The rate has been well maintained throughout, however, and rebuts the assumption that with the establishment of a system of assistance the beneficiaries would increasingly shift the burden of unemployment to the subsidizing municipalities.

In view of the large demand on the contributors to the fund in 1908, the report emphasizes the importance of establishing a reserve fund of sufficient magnitude to provide means for supplying the needs of periods of unusual distress. As a matter of fact, the amount remaining on hand at the close of the year 1908 was greater than for any previous year, being 8,172 francs (\$1,577) as against 6,870 francs (\$1,326) in 1907, and 6,055 francs (\$1,169) in 1906. But 649 francs (\$125) remained at the close of 1904, and obviously the amount of the balances does not suggest that the matter of providing an effective reserve has yet been given serious attention.

The outlook for permanency is regarded as favorable, both on account of the degree of success attained locally and because of the increased confidence and support which the plan has commanded since its inauguration, the suburbs uniting in it in 1903, the Province in 1907, and the Kingdom in 1908. Adjacent localities are also reported as coming into working relations with this fund. While disclaiming the idea of philanthropy, and not asking for donations or legacies on that ground, the administrative council submits reasons why it believes that it is both appropriate and desirable that employers should voluntarily grant aid to the fund, classing the risk of unemployment as a trade risk, against which a form of insurance may properly be provided no less than against accidental injuries.

The experience of this fund in the matter of abuses indicates the necessity of a careful supervision of the claims, a duty which naturally devolves upon the associations of which the beneficiaries are members, since it is through association channels that the matters of basal savings and of claims are arranged. An illustration of the necessity of other care than that provided by the association appeared in the case of a tailors' trade fund for savings, the membership of which

never exceeded 100, while the demands on the fund for unemployment relief grew rapidly from 26 francs (\$5.02) in 1901 to 135 francs (\$26.06) in 1902, 633 francs (\$122.17) in 1903, 1,078 francs (\$208.05) in 1904, 1,578 francs (\$304.55) in 1905, and 1,617 francs (\$312.08) in 1906. A special inquiry conducted during 1907 led to the adoption of restrictive regulations, defining unemployment in the trade affected, which is subject to wide seasonal fluctuations, and requiring employers' certificates in verification of the statements of claimants. The influence of the discovery of the abuses practiced by this association led to voluntary action on the part of the local labor exchange in the way of scrutinizing the associations and members' claims for the prevention of frauds. A measure that a number of associations have adopted as a preventive of abuse is one that does not allow beneficiaries to come upon the fund oftener than once in two years. This was found to be necessary on account of the practice of a number of persons to regularly exhaust the possibilities of the fund each year without an effort to secure employment so long as such assistance was forthcoming. A further administrative change consists in the ignoring of reductions of hours or of half-day employment in times of reduced production unless there is a loss of as much as four half days per week. This regulation became effective in 1907, and with the beginning of 1909 a rule was adopted by which no grants from the fund would be allowed unless unemployment amounted to at least three full days in the year. This rule was expected to be particularly effective, without violating the principles for which the fund was established, in reducing the applications for subsidies in cases of minor importance, as those resulting from breakage of machinery in factories or other brief interruptions in employment. From the data in hand it was computed that the enforcement of this rule in 1907 would have reduced the number of subsidized days on account of unemployment caused by breakage of machinery from 2,048 to 581, or a reduction of 72 per cent; the compensated days of waiting for work from 1,747 to 991, or a reduction of 43 per cent; the days of actual unemployment compensated from 18,170 to 14,941, or a reduction of 18 per cent; and of unemployment in the building trades from 9,398 days to 7,874 days, or a reduction of 16 per cent, the average reduction amounting to 23 per cent. The amount which will be saved under the new rule it is expected will make a very considerable addition for the benefit of those cases of distress on account of prolonged unemployment that have been cut off heretofore by reason of scarcity of funds. The principal effect is anticipated, however, in the adjustment of the terms during which the affiliated associations will provide unemployment benefits, so that while the actual outlay will be diminished but little, if at all, the value of the system of relief will be enhanced. There was a proposition to require unemployment in the building trades to con-

tinue for at least one week before subsidies should be granted, but this was rejected, the general feeling being that this would unduly benefit the smaller number who might be unemployed for long periods at the expense of those who might be out of work for a short time only. The matter is not considered as definitely settled, however, and a special committee is said to be investigating the conditions in the building trades with a view to determining the most suitable arrangement for adoption.

What is considered the most important measure adopted to prevent the undue prolongation of unemployment is the compulsory registration of beneficiaries at the local labor exchange in order that the unemployment may be known to be involuntary and not unnecessarily prolonged. The labor exchange cooperates through its managing committee with the administrative council on the one hand and the affiliated associations on the other, with the object of supervising the distribution of subsidies; while the administrative council itself has appointed two subcommittees, one to exercise control over the insurance funds and the other over the savings funds which are in affiliation with the unemployment fund. This system was devised to determine whether or not the unemployment was actual and involuntary, and came into operation in October, 1907. The members of these committees are drawn from the various social and political parties of the city, representing socialists, antisocialists, liberals, and neutrals, with a view to securing adequate and impartial inspection of the different classes of associations. Quarterly inspections are provided for, with reports to the central body as to the conditions found. The investigations for the period since they were begun were made by taking 383 cases of unemployment by chance and making personal inquiries into the existing conditions. The inquiries seemed to be frankly met, and there was little, if any, indication of intentional fraud. The classes of causes of unemployment that gave rise to discussions in the central council were disputes with the employer, disputes between workmen, refusal to accept employment outside the regular trade of the employee, reduction of wages, desire to change in order to improve conditions, dismissal on account of the voluntary departure of the husband or wife, and suspicion on the part of the employer that he had been reported for paying less than the minimum wage rate.

In conclusion the report expresses the conviction of its author that the statements as to work done and measures adopted will satisfy the minds of certain members of the council as to the efficiency of the measures in force for the control of the operations of the fund. The fact that the principal measures suggested by the council have been promptly and spontaneously adopted by the associations, and that the members of the council itself, while sometimes at first quite divided as to recommendations, have, after discussion, been unan-

imous in their action, gives assurance of satisfactory and successful administration. The hope is entertained that the city of Ghent may prove to have inaugurated an efficient system of aid in cases of unemployment, becoming itself the head of an organization for mutual insurance against the distresses resulting from loss of work.

#### GERMANY.

*Die Regelung des Arbeitsverhältnisses der Gemeindearbeiter in deutschen Städten. I. Erhebungen über Arbeitslohn und Arbeitszeit, 1902 und 1907.* Bearbeitet im Kaiserlichen Statistischen Amte, Abteilung für Arbeiterstatistik, 1908. 36, 144\* pages. II. *Die Arbeitsverordnungen und sonstigen Bestimmungen zur Regelung des Arbeitsverhältnisses.* Ib. 1909. 240 pp.

These volumes issued by the German Imperial Statistical Office, division for industrial statistics, present the facts gathered by that office concerning the public service employees of the principal cities of Germany. The first volume takes up the subject of wages and hours of labor; while the second presents the number and social condition of city employees; the regulations of employment by statute, etc.; regulations by local ordinances, commissions, and the like; and a discussion of the right of organization and the associations in existence among city employees. An appendix contains brief chapters on special cities and particular groups of employees.

The inquiry as to wages and hours of labor is a comparative one, the conditions on the 1st of March, 1902, being compared with those in existence on the 1st of July, 1907. The investigation in 1902 covered the majority of the cities having a population of above 50,000, 54 cities having actually furnished the data desired. The inquiry of 1907 was restricted to such of these cities as had local statistical offices, resulting in a reduction of the number of cities reporting to 34, while one of these was reported in 1902 only by the use of data showing conditions at a date differing from that reported for in the other cities. This city is omitted in many of the tables for this reason, so that the report may be taken as covering only 33 cities with comparable statistics. Even in these cases statistics as to classes of employees by industry are found to present many points that are not comparable, so that the classification into groups of skilled and unskilled workers affords the most satisfactory basis for a general presentation.

The municipal undertakings are rather various, covering the usual public service of construction, repair, and cleaning of streets, and including generally the supply of water, gas, and electricity, fire protection, street railways frequently, and a variety of other service, as in connection with harbors, building inspection, public gardens, playgrounds and baths, markets, slaughterhouses, the disposition of

garbage, etc. The report states that of 54 cities having a population of more than 50,000, there were in 1905-6 but 9 in which the gas works were in private hands. In a like number of cities having electric plants there were but 13 that were privately owned and operated, besides 3 plants owned by municipalities but leased by private parties. Of 55 cities, 4 were supplied with water by privately owned systems, while 51 provided for their own water supply. By the extension of the various activities of the municipal governments and by their growth in population, the total number of employees increased from 18,907 in 1886 to 67,452 in 1907, an increase of 256.8 per cent.

The following table shows the number of city laborers, including foremen and overseers, at each period in the cities under consideration, together with the population of these cities at the nearest census, and the percentage such employees form of the total population.

POPULATION OF 33 GERMAN CITIES IN 1900 AND 1905, AND NUMBER AND PERCENTAGE OF MUNICIPAL EMPLOYEES IN 1902 AND 1907.

Cities.	Population.		Employees (including foremen, etc.).					
			1902.		1907.		Increase, 1902 to 1907.	
	1900.	1905.	Number.	Per cent of population in 1900. (a)	Number.	Per cent of population in 1905. (a)	Number.	Per cent.
Munich.....	499,932	538,983	3,419	0.68	3,478	0.65	59	1.7
Dresden.....	396,146	516,996	3,631	.92	5,406	1.05	1,775	48.9
Leipzig.....	456,124	503,672	1,682	.37	1,901	.38	219	13.0
Breslau.....	422,709	470,904	1,968	.47	2,915	.62	947	48.1
Cologne.....	372,529	428,722	3,583	.96	5,357	1.25	1,774	49.5
Frankfort on the Main.....	283,989	334,978	3,312	1.15	4,417	1.32	1,105	33.4
Nuremberg.....	261,081	294,426	1,543	.59	1,924	.65	381	24.7
Dusseldorf.....	213,711	253,274	2,212	1.04	2,637	1.04	425	19.2
Hanover.....	235,649	250,024	776	.33	797	.32	21	2.7
Stuttgart.....	176,699	249,286	1,225	.69	1,505	.60	280	22.9
Charlottenburg.....	189,305	239,559	700	.37	1,384	.58	684	97.7
Essen.....	118,862	231,360	221	.19	1,023	.44	802	362.9
Cheumnitz.....	206,913	224,927	799	.39	941	.42	142	17.8
Königsberg.....	189,483	223,770	1,316	.69	2,192	.98	876	66.6
Bremen.....	163,297	214,861	1,121	.69	1,812	.84	691	61.6
Dortmund.....	142,733	175,577	612	.43	1,385	.79	773	126.3
Halle.....	156,609	169,916	440	.28	798	.47	358	81.4
Altona.....	161,501	168,320	491	.30	646	.38	155	31.6
Strassburg.....	151,041	167,678	463	.31	608	.36	145	31.3
Kiel.....	107,977	163,772	421	.39	959	.59	538	127.8
Mannheim.....	141,131	163,693	1,323	.94	1,786	1.09	463	35.0
Elberfeld.....	156,966	162,853	564	.36	606	.37	42	7.4
Barmen.....	141,944	156,080	653	.46	799	.51	146	22.4
Aix-la-Chapelle.....	135,245	144,095	585	.43	658	.46	73	12.5
Posen.....	117,033	136,808	397	.34	552	.40	155	39.0
Brunswick.....	128,226	136,397	395	.31	569	.42	174	44.1
Cassel.....	106,034	120,467	342	.32	526	.44	184	53.8
Karlsruhe.....	97,185	111,249	680	.70	930	.84	250	36.8
Plauen.....	73,888	105,381	427	.58	637	.60	210	49.2
Wiesbaden.....	86,111	100,953	673	.78	1,277	1.26	604	89.7
Lubeck.....	82,098	91,541	1,022	1.24	1,180	1.29	158	15.5
Gorlitz.....	80,931	83,766	258	.32	375	.45	117	45.3
Freiburg.....	61,504	74,098	409	.66	549	.74	140	34.2
Total (a).....	6,319,586	7,408,386	37,663	.60	52,529	.71	14,866	28.3

a Computed.

The total population of the cities named increased 17.2 per cent from 1900 to 1905, while the number of municipal employees of the class under consideration increased 28.3 per cent from 1902 to 1907. In some cities the increase is especially marked, as in Essen, 362.9 per cent; Kiel, 127.8 per cent; and Dortmund, 126.3 per cent. In no case was there a decrease, though in a few the ratio of such employees to population was less in 1907 than in 1902. Most cities, however, show a tendency to increase the roster of public employees at a more rapid rate than is evinced by the growth of population, the total for 1907 being greater by 0.11 per cent than for 1902. There is a wide range in the percentages such employees form of the population, however, Strassburg, Elberfeld, Leipzig, and Altona having less than 0.4 per cent of their population employed as municipal laborers in 1907, while Frankfort on the Main and Lubeck stand at the other extreme, with 1.32 per cent and 1.29 per cent, respectively, of their total population so employed.

Of the total number of employees in 1902, 547 are classed as foremen or overseers and 37,116 as workers. Of the latter class 1,837 are pieceworkers and 35,279 are time workers. Of the time workers, 25,165 are classed as unskilled and 10,114 as skilled. The supervisory force is similarly classed, 173 being rated as unskilled and 374 as skilled. In 1907 there were 783 employees classed as foremen and overseers, and 51,746 as laborers, 1,786 being pieceworkers and 49,960 time workers. Of the latter 30,088 were classed as unskilled and 19,872 as skilled workers. Of the supervisory force 254 were classed as unskilled and 529 as skilled. Some shifting is apparent in these classifications, unskilled workers forming 71.3 per cent of all time workers in 1902 as against 60.2 per cent in 1907, while the proportion of skilled workers increased from 28.7 per cent in 1902 to 39.8 per cent in 1907. The supervisory force is not considered in these percentages. The proportions vary greatly in different cities, according to the nature of the municipal undertakings entered upon, as obviously those cities that operate municipal gas and electric plants and street railways will employ a larger proportion of skilled workers and overseers than will be the case where street cleaning, the care of parks, and the operation of slaughterhouses are the activities engaged in. Thus in Cologne in 1907 the number of unskilled time workers constituted but 47.4 per cent of the number of such workers employed, while in Brunswick the proportion was 87.8 per cent. Great changes took place also between the dates reported for, the proportion of unskilled workers in Cologne in 1902 being 80.5 per cent as against 47.4 per cent in 1907. These differences may, of course, be the result of temporary conditions prevailing at the date of the enumeration, though the average shows a tendency to increase the proportion of skilled workers.

WAGES.—Pieceworkers comprised but 4.9 per cent of the total number of employees in 1902 and 3.4 per cent in 1907. Data relating to time workers only may therefore be considered as representing the prevalent conditions of public employment in these cities. Of 35,279 time workers reported in 1902, 30,809, or 87.3 per cent, were employed by the day; 1,761, or 5 per cent, by the week; and 2,709, or 7.7 per cent, by the month. In 1907, of 49,960 workmen reported, the number of employees at daily wages was 39,436, or 78.9 per cent; at weekly rates, 2,620, or 5.3 per cent; while the number employed by the month had increased to 7,904, or 15.8 per cent, this proportion having somewhat more than doubled in this period. For purposes of tabulation all time wages were reduced to daily rates, and the following table shows the number and per cent of workmen receiving designated classified rates of wages in each year, skilled and unskilled workmen being considered together; also the percentage of skilled and of unskilled workers falling within each group:

NUMBER AND PER CENT OF MUNICIPAL EMPLOYEES IN CERTAIN CITIES OF GERMANY, BY CLASSIFIED DAILY RATES OF WAGES, 1902 AND 1907.

Daily wage rate.	1902.				1907.			
	Unskilled and skilled workmen.		Per cent of workmen of each class receiving each rate.		Unskilled and skilled workmen.		Per cent of workmen of each class receiving each rate.	
	Number.	Per cent.	Unskilled.	Skilled.	Number.	Per cent.	Unskilled.	Skilled.
Under 2 marks (\$0.476) .....	563	1.6	2.2		360	0.7	1.2	
2 marks (\$0.476) and under 2.50 marks (\$0.595) .....	2,460	7.0	9.6		569	1.1	1.6	
2.50 marks (\$0.595) and under 2.75 marks (\$0.655) .....	3,792	10.7	13.4	7.2	2,008	4.0	5.6	3.8
2.75 marks (\$0.655) and under 3 marks (\$0.714) .....	2,592	7.3	9.2		1,768	3.5	4.8	
3 marks (\$0.714) and under 3.25 marks (\$0.774) .....	9,820	27.8	34.6	10.9	6,310	12.6	14.9	9.2
3.25 marks (\$0.774) and under 3.50 marks (\$0.833) .....	4,181	11.9	12.6	10.0	6,584	13.2	17.3	6.9
3.50 marks (\$0.833) and under 3.75 marks (\$0.893) .....	5,183	14.7	12.6	20.0	9,399	18.8	21.5	14.8
3.75 marks (\$0.893) and under 4 marks (\$0.952) .....	1,825	5.2	2.3	12.4	5,674	11.4	13.1	8.7
4 marks (\$0.952) and under 4.50 marks (\$1.071) .....	2,959	8.4	2.4	23.4	9,774	19.6	15.8	25.3
4.50 marks (\$1.071) and under 5 marks (\$1.19) .....	1,226	3.5	.8	10.2	4,582	9.2	3.3	18.0
5 marks (\$1.19) and under 5.50 marks (\$1.309) .....	472	1.3		4.1	2,020	4.1		9.2
5.50 marks (\$1.309) and under 6 marks (\$1.428) .....	133	.4	.3	1.1	646	1.3	.9	3.0
6 marks (\$1.428) and over .....	73	.2		.7	266	.5		1.1

Wages increased noticeably between 1902 and 1907. Thus in 1902, 26.6 per cent, or more than one-fourth, of all employees received less than 3 marks (\$0.714) per day, while in 1907 but 9.3 per cent, or less than one-tenth, came within this group. More than one-half the employees at both periods received from 3 to 4 marks (\$0.714 to

\$0.952), but those receiving 4 marks (\$0.952) and upward in 1907 amounted to 34.7 per cent of the total, as against 13.8 per cent in 1902. Particularly noticeable is the change in the percentage of unskilled laborers receiving 3 marks (\$0.714) and under 3.25 marks (\$0.774), this wage group embracing more than one-third of the total in 1902 and but one-seventh in 1907; the number of such employees receiving 3.75 marks (\$0.893) and under 4.50 marks (\$1.071) in 1902 was but 4.7 per cent of the total, while in 1907 they formed 28.9 per cent.

Taking into consideration particular forms of industry, and selecting the wage groups that embrace comparatively equal percentages of the employees in such industries at the two periods under consideration, it is found that in municipal waterworks in 1902, 74 per cent of the employees received 3 marks (\$0.714) and under 4.50 marks (\$1.071), while in 1907, 73.2 per cent of the employees received 3.50 marks (\$0.833) and under 5 marks (\$1.19). In gas works 64.3 per cent of the employees in 1902 received 3 marks (\$0.714) and under 4.50 marks (\$1.071), while in 1907, 63.8 per cent received 3.50 marks (\$0.833) and under 5 marks (\$1.19). Of the employees connected with electric plants in 1902, 74.6 per cent received 3 marks (\$0.714) and under 4.50 marks (\$1.071) per day, while in 1907, 72.5 per cent received 3.50 marks (\$0.833) and under 5 marks (\$1.19) daily. In the operation of street railways 62.6 per cent of the employees in 1902 received 3 marks (\$0.714) and under 3.75 marks, (\$0.893), as against 67.7 per cent in 1907 who received 3.50 marks (\$0.833) and under 5 marks (\$1.19) per day.

Of employees classed as skilled workers, 52.8 per cent of the engineers and firemen reported in 1907 received 4 marks (\$0.952) and under 5 marks (\$1.19) per day, while in 1902, 58.4 per cent received 3 marks (\$0.714) and under 4 marks (\$0.952); of locksmiths in 1907, 55.6 per cent received 4 marks (\$0.952) and under 5 marks (\$1.19), while in 1902, 56.3 per cent received 3 marks (\$0.714) and under 4 marks (\$0.952). On street railways 49.3 per cent of the employees in 1907 received 4 marks (\$0.952) and under 5 marks (\$1.19), while in 1902, 73.4 per cent received 3 marks (\$0.714) and under 4 marks (\$0.952).

Work in excess of the regular hours of employment or on Sundays or holidays is frequently paid for at an increased rate, though the answers to the inquiries on this point were not satisfactory. A statement is given as to the practice of a number of cities with reference to employees in gas works, though on account of the necessary interaction of the wide variety of local conditions, as the regular rates of payment, the normal workday, and the rates governing allowances of increased pay, the statement is to be taken as only suggestive rather than explicit as to actual increases of pay. Of 29 cities reporting as to overtime, 9 make no allowance, 19 allow an increase of from



10 to 50 per cent in the ordinary wages, and 1 increases the pay by adding from 4 to 45 pfennigs (1 to 10.7 cents) to the hourly wages. Night work is provided for in a similar manner by 20 of 29 cities reporting, though instead of a maximum of 50 as the per cent of increase, one city goes so far as to double the pay in some cases. Of the same number of cities, all but 6 pay extra for work on Sunday, the rates running as for night work.

**HOURS OF LABOR.**—A summary presentation of the summer schedule of the hours of labor of municipal employees, unskilled and skilled being considered together, is made in the following table. The table shows the number and per cent of time workers working the specified number of hours daily in 1902 and 1907. The figures given are for actual working time, intervals of rest having been first deducted. The table follows:

NUMBER AND PER CENT OF MUNICIPAL EMPLOYEES IN CERTAIN CITIES OF GERMANY WORKING SPECIFIED HOURS DAILY, SUMMER SCHEDULE.

Hours of labor (actual).	1902.		1907.	
	Number.	Per cent.	Number.	Per cent.
Less than eight.....	25	0.1	361	0.7
Eight.....	169	.5	855	1.7
More than eight and less than nine.....	1,036	2.9	320	.7
Nine.....	629	1.8	756	1.5
More than nine and less than ten.....	2,256	6.4	8,558	17.1
Ten.....	20,531	58.2	23,894	47.9
More than ten and less than eleven.....	4,647	13.2	4,761	9.5
Eleven.....	2,689	7.6	1,505	3.0
More than eleven and less than twelve.....	306	.9	107	.2
Twelve.....	406	1.1	568	1.1
More than twelve.....	235	.7	34	.1
Indeterminate and not reported.....	2,350	6.6	8,241	16.5

This table discloses a tendency toward a reduction of the working time, but 11.7 per cent of the employees having worked less than 10 hours in 1902, while in 1907 the percentage had increased to 21.7, while the number of persons working more than 10 hours, excluding those whose hours are not reported, was 23.5 per cent of the total in 1902 as against but 13.9 in 1907. A few cities have a shorter work-day in the winter, and a small number have three schedules, one for summer, one for winter, and one for spring and autumn. The hours between beginning and ending labor embrace in the majority of cases periods for meals or other pauses aggregating 2 hours during the day. Where continuous service is maintained the work is usually divided into 12-hour shifts, with rest periods aggregating two to two and one-half hours, so arranged among the employees as not to cause the interruption of operations. The movement for a shorter workday has been effective in a few industries, notably in the production of gas, where the firemen have striven with considerable success to secure 8-hour shifts. A separate inquiry into this subject elicited the

information that out of 30 cities 20 had a 12-hour shift in the retort houses, while 10 observed an 8-hour shift. A report of later date by one year than the investigation on which the report is based is said to disclose the fact that the movement for an 8-hour shift progressed during this year, having been adopted in the gas works of 21 of the cities under investigation in 1907. The customary hours of beginning the shifts are 6 o'clock, 2 o'clock, and 10 o'clock. On Sundays 12-hour shifts are employed, so that on every third Sunday each workman has 24 hours free from duty. One city uses a 16-hour shift on Sunday, thus allowing 12 hours free every second Sunday and 24 hours every third Sunday.

**CONDITIONS OF EMPLOYMENT.**—The volume devoted to the consideration of the conditions of employment discusses the growth of municipal activities requiring increased numbers of employees, the conjugal condition and ages of employees, degrees of incapacity, and the length of period of service. These facts were developed by the statistical office on the basis of various local reports of different dates and varying classifications, so that no accurate summary can be made.

The percentage of employees who had been in service one year or less ranged from 13.5 to 47.5, though in one city in which the sexes were considered separately 62.5 per cent of the females had been employed for not more than one year, as against 28.5 per cent of the male employees. In the majority of cases from 25 to 35 per cent of the employees had been employed for not more than one year. The number who had worked from two to five years made up a percentage ranging from 15.8 to 50.4; more than 30 per cent of all employees belong to this class. Those working from six to ten years form from 8.7 per cent to 33 per cent of the total, 20 per cent or less being a common proportion. The number employed from eleven to twenty years forms from 6.6 per cent to 19.5 per cent of all employees, about 14 per cent being a common proportion. One city reported 9.8 per cent of its employees as having been employed from twenty-one to thirty years; another 8.8 per cent, and another 6.9 per cent, though from 3 to 5 per cent is more common, some falling below 1 per cent and several below 2 per cent. As serving in excess of thirty years, 3.2 per cent, 2 per cent, 1.7 per cent, and 1.6 per cent of the employees are the highest proportions reported.

While it is impracticable to discuss summarily the variety of laws, ordinances, and regulations affecting the employees of the various municipalities considered in this report, some of the more common features of municipal employment can be indicated. In a number of cities minimum and maximum age limits for entering on employment are fixed, the former varying from sixteen to twenty-one years and the latter from thirty to fifty years. Terms of probationary employment, ranging from three months to two years are provided for in several cases,

the most common term being one year. These provisions are, of course, of principal application in classes of employment that is continuous or that may be classed as permanent, and are a result of the requirements that prevail with reference to the protection of employees and probably also the limitations fixed by general laws for the employment of young persons, so far as the minimum limit is concerned; while the maximum provision is made in view of the obligation generally assumed by the municipalities to provide for their superannuated employees. A number of cities provide for notice of intended termination of employment, varying with the class of employees and the term of service. This varies from a single day to two weeks, though for employees of several years' standing this period may be lengthened. Thus, in Mannheim, employees who have served ten years are entitled to four weeks' notice, while in Breslau they are entitled to ten weeks' notice after four years' service.

Minimum and maximum wage rates may be fixed, provision being made in a number of cities for an entering wage with regular increases for length of service. Thus, in Aix-la-Chapelle, the lowest grade of employees advance from 2.80 marks (66.6 cents) to 3.60 marks (85.7 cents) per day by 5 promotions in ten years. The highest class enters at 4 marks (95.2 cents) and advances through 9 grades in eighteen years to a wage of 6.50 marks (\$1.547) per day.

Some cities pay bonuses to employees after continuous service for varying periods, based on the number of children in their families; a rental allowance may likewise be made, or provisions made for widows and orphans of workmen. Others arrange for savings banks accounts, either by bonuses after continued service or by withholding a portion of the wages of young, unmarried workmen, and depositing the wages so withheld in the savings banks to the credit of such workmen.

Increments of pay are also allowed in some cities in cases of dangerous or difficult work, or where weather conditions are severe; premiums for careful use of material or the performance of work without occasioning repairs may also be given.

In most cities wages are paid weekly, though in some cases bi-weekly or semimonthly pay days are observed. Frequently a portion of the wages due is withheld, in an amount equal to the wages for from one to six days. This may be done either as a guard against the abandonment of employment without notice or as security for tools or working garments furnished by the city. Provision is very commonly made for penalties for violations of the regulations, tardiness, etc. These penalties are graded according to the nature of the offense, those most common being reproof, fine, notice of discharge, and immediate discharge. Reduction in grade and the withdrawal of the right to notice prior to discharge are other penalties in use.

The employee is usually given the opportunity to defend himself against penalization, and the methods of the enforcement of penalties are laid down with considerable particularity.

Employees classed as permanent, or those who have been in service for considerable periods (varying from one to twenty-five years), are given in many cities certain concessions as to absences from duty caused by illness, either personal or in the family of the employee, or due to accident, military service, etc. These concessions consist in the allowance of part or full wages during absence, and vary in several instances according to the length of service. The continuance of such allowance may run from one to twenty-six weeks; or full pay may be given for a period and half pay for an additional term. Thus, Dusseldorf allows all workmen employed by the month or year full pay during sickness for six weeks; or if they are 35 years of age and have been ten years in the employment of the city, for three months. In both cases, if illness continues, benefits are allowed to complete a full year, if they are so long disabled. In most cities the payments on account of illness are drawn from municipal relief funds, which are sometimes general and sometimes for the benefit of certain classes or groups of employees. Interruptions arising from other causes than illness are less liberally provided for. Provisions for superannuated employees and for surviving dependents have existed in a number of cities for considerable periods, though in most cases such arrangements are of recent origin, following the rapid growth of municipal employment and the necessity for a stable and efficient working force. Munich in 1868 first adopted the plan of caring for the workmen employed by the city by forming an association to provide for sick and disabled employees. Funds were raised by the joint action of workmen and employers or contractors. Membership in the association was voluntary, and in 1900 but 555 of 2,100 permanent employees were members. In 1901 the fund was superseded by a relief fund for the lower grades of workmen and their surviving dependents. The first fund of the kind under consideration that does not require contributions from the workmen was formed in Frankfort on the Main in 1897; its example was followed by a number of cities in the following year.

Two principal forms of relief are in use, i. e., that in which the city assumes the entire burden of cost, and that in which it provides a form of insurance, deducting certain sums as premiums from the wages paid the workmen who are eligible to become beneficiaries. There were said to be 98 cities or communities supporting funds of this general sort in 1908. Workmen must have served at least ten years (twelve or fifteen according to the rules in some cities); several cities prescribe a minimum entrance age and some a maximum age as well. The benefits may be a percentage of the wage rate, varying with

length of service, one city giving 25 per cent, but not less than 260 marks (\$61.88) per annum, increasing  $1\frac{1}{2}$  per cent for each year's service, but not to exceed 75 per cent of the wage rate; or they may be made a fixed amount according to the grade of employment, as in a city which allowed 150 marks (\$35.70) per annum for the first class, 200 marks (\$47.60) per annum for the second class, and 250 marks (\$59.50) per annum for the third class. The proportionate method of determination is much more frequent. The benefits paid widows range from 20 per cent to 50 per cent of the pension of superannuated employees. Payments to orphans are still smaller and cease at the ages of 14 to 16 years. Death or funeral benefits are also frequently provided for, as well as other forms of benefit or relief.

Municipal employees enjoy the rights of other workmen, granted by an imperial decree of February 4, 1890, to form workmen's committees to represent their interests in matters affecting the conditions of employment. Such committees are comparatively numerous, and quarterly or semiannual meetings are provided for in a number of localities. Employees of this class may also form trade or labor organizations under the statutory regulations governing laborers of similar classes generally. Classes of employees not covered by the law governing laborers likewise enjoy this right. The fact that the immediate director of public works is an official of limited powers, and especially so far as the expenditure of public funds is concerned; the essential nature of much of the service rendered by municipal employees, their quasi public status in view of the various regulations and benefits in effect in their behalf, and the existence and activities of workmen's committees noted just above, are among the reasons suggested for a restriction on the right of such laborers to strike. A law intended to deprive certain classes of municipal employees, as those engaged in the supply of water, gas, and electricity, of the right to strike was under consideration in 1906, but was not enacted, and there is evidence that the cities themselves are of the view entertained by the international conference of employees on public works held August, 1907, in which the assembled workmen protested against any diminution of the right of employees on public works to organize or to enter on strikes as a means of obtaining desired concessions as to conditions of employment. It may be added that strikes of employees of this class have not been numerous nor important, employees in gas works forming the only exception to this statement. Sympathetic strikes are said to be very rare.

## DECISIONS OF COURTS AFFECTING LABOR.

[Except in cases of special interest, the decisions here presented are restricted to those rendered by the federal courts and the higher courts of the States and Territories. Only material portions of such decisions are reproduced, introductory and explanatory matter being given in the words of the editor.]

### DECISIONS UNDER STATUTE LAW.

ACCIDENT INSURANCE—EMPLOYERS' INDEMNITY—EMPLOYMENT IN VIOLATION OF THE LAW AS TO AGE—EMPLOYMENT OF CHILDREN ENDANGERING LIFE OR LIMB—CONSTRUCTION OF STATUTE—*Frank Unnewehr Company v. Standard Life and Accident Insurance Company, United States Circuit Court of Appeals, Sixth Circuit, 176 Federal Reporter, page 16.*—The manufacturing company named had been sued for damages by one Luther Watson, a child under 16 years of age, employed by it as offbearer in a plant in which veneer and thin lumber were manufactured. The law of the State of Ohio, within which State the accident occurred, forbids the employment of a child under the age of 16 years at any work "whereby its life or limb is endangered." It was Watson's duty to steady the boards after they had passed a given point in the operation of a large saw and subsequently to carry them away to a pile. The injury from which he suffered was incurred while attempting to stop the saw in the manner usually practiced by the sawyer, though he himself had been repeatedly forbidden to attempt this work. The manufacturing company had a policy of insurance with the Standard Life and Accident Insurance Company whereby the employer was to be indemnified on account of any judgments obtained against it on account of injuries to employees received in the course of their employment, except that the company was not to be held liable where the person injured was employed in violation of any law as to age. When the action was brought, the defense was conducted jointly by the attorneys of the employer and the insurance company without prejudice to the rights of either, and judgment for damages and costs was rendered, the amount of which the employer paid. The insurance company refused to reimburse the employer on the ground that the employment was in violation of the law as to age, in that it came within the prohibition of the law as to employment dangerous to life or limb. The circuit court heard the case before a jury and gave judgment against the employer, whereupon he appealed. The court of appeals sustained the decision

of the court below on grounds that appear in the following extracts from its opinion as delivered by Judge Warrington:

The ultimate inquiry is whether the service assigned to Watson was dangerous to life or limb.

The contention made is that plaintiff did not violate the statute in question, because Watson was not employed to stop the saw, but was employed as an offbearer of the thin boards as they came from the saw, and that, if he had confined himself to the performance of the duties assigned to him, he could not have been hurt. A better understanding of this contention and of the situation will be gained by further description.

The relative positions of Stevens, the operator, and Watson, the offbearer, with respect to the saw during much of the time that they were at work were about the same. In photographic views offered to display the disk of the saw and side of the carriage Stevens is represented as standing at the right and Watson at the left of the edge of the saw, and each about 5 feet away from it. Stevens applied and turned off the power by means of a rope, and by levers operated the carriage bearing the log and adjusted the latter to the saw. Watson would alternately sit and stand at the end of a spreader 51 inches long and 30½ inches high. The spreader extended in front of the saw, and was used for separating the boards from the log as the sawing progressed. This enabled Watson to receive and remove the boards. The conclusion of the court below upon the facts was:

"Two persons were necessary to operate the saw. One was the man Stevens, who managed the carriage and brought the log into contact with the saw, and the other was the boy, who steadied the boards after they passed a given point, as they were sawed from the log, and finally bore them away to a pile. His services were as necessary as those of Stevens."

The claim made in behalf of plaintiff is that the language of the statute forbidding placing a child under the age of 16 years "at employment whereby its life or limb is endangered" limited the inhibition to service that could not be performed without danger to life or limb; and hence that no employment would be regarded as dangerous to life or limb of the child unless it involved operating or assisting in operating a dangerous machine. But does this take into account either the import of the words of the statute, or the purpose of such legislation?

We do not find it necessary to consider whether the duty imposed upon Watson as offbearer literally involved operating or assisting to operate the veneer saw. It is hard to conceive that an adult, much less a child, could reasonably be expected at all times to keep all parts of his body within the bounds set for this offbearer. He was for a substantial portion of his time required to stand and work within 5 feet of this obviously dangerous saw. An unguarded step or movement resulting in an accidental fall might bring him into contact with the saw. He was within easy range of injury in the event of breakage of the saw or other mishap, due to its great size and speed. The inevitable wear and tear of the strain of such a position and the indifference to danger that would naturally follow can not escape notice; for these conditions and also childish curiosity and inexperience must have combined to induce Watson to rush away from his position so frequently in spite of admonition and stop the saw.

Prior to the enactment of the statute of April 8, 1890 [under which the present action was brought], the supreme court of Ohio in *Rolling Mill Co. v. Corrigan*, 46 Ohio St. 283, 20 N. E. 466, 15 Am. St. Rep. 596, declared as a rule of general law concerning employment of a child under the age of 14 years and placing him at work in close proximity to a moving belt passing over revolving wheels, that:

"Persons who employ children to work with, or about dangerous machinery, or in dangerous places, should anticipate that they will exercise only such judgment, discretion, and care as is usual among children of the same age, under similar circumstances, and are bound to use due care, having regard to their age, and inexperience, to protect them from dangers incident to the situation in which they are placed. \* \* \*"

The effect of that decision was clearly to impose upon an employer engaging children in his service the duty to take into account the inexperience and the natural tendencies of children to indiscretion and heedlessness when assigning them to work about a dangerous machine. There is nothing in the decision which recognizes any right in an employer simply to set bounds within which a child shall work in close proximity to a dangerous machine, and escape liability as claimed in the present case on the assumption that the child either will or at his peril shall keep within those bounds. The importance of the decision, as we view it, is that it is inconsistent with any inference that the legislature by its enactment passed within little more than one year after the date of that decision intended to restrict the statutory law to narrower limits than those of the general law as announced by the highest tribunal of the State.

Upon the question whether plaintiff assigned and kept Watson at an "employment whereby his life or limb was endangered" within the meaning of the statute, attention must be given not only to the knowledge and conduct of the plaintiff, but also to the obvious intent of the legislature to protect children within the prescribed age against their own heedlessness and incautious tendencies.

Furthermore, when plaintiff's contention in the present case is reduced to its last analysis, its strength or weakness is to be found in the assumption that the place where Watson worked did not endanger life or limb. This assumption is greatly impaired by plaintiff's failure when placing and keeping the boy in such close proximity to the saw to reckon with the lack of caution of boys of his age. The fact that the boy did not meet with his injury while working within the place assigned to him, or the fact that he was not in line of duty when he suffered his injury, does not show that the place in which he was directed to work was not dangerous to life or limb. According to the understanding we gain of the place and its surroundings from the record, as before shown, we regard the first one of these facts as accidental rather than as evidence of safety. We consider the other as evidence of what might reasonably have been anticipated of an immature and energetic boy. But the main ground of our conclusion, as before pointed out, is that throughout a large portion of the boy's work he was required to stand at the spreader and attend to the boards as they were being sawed from the logs, and so was necessarily exposed to danger from the saw. We do not mean to hold that a boy could not be put at work in any fac-



tory or in this factory without danger to life or limb. What we do mean to hold is that this place in this factory did involve such danger.

Nor do we regard our conclusion as affected by the contention that the statute under consideration is in derogation of the common law, and must be strictly construed for that reason. As a general rule of construction, no one would dispute this. But it will not do to carry that rule so far as to sacrifice plain legislative intent.

It follows that the judgment of the court below must be affirmed; for we do not understand any claim to be made that, if Watson was in fact placed and kept at employment dangerous to life or limb, there can be any recovery under the condition of the policy.

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EMPLOYER AND EMPLOYEE—BLACKLISTING—STATEMENT OF CAUSE OF DISCHARGE—CONSTITUTIONALITY OF STATUTE—*St. Louis Southwestern Railway Company of Texas v. Hixon, Court of Civil Appeals of Texas, 126 Southwestern Reporter, page 338.*—S. J. Hixon had been an employee of the company named, and for alleged false statement as to grounds of his discharge sued the company and secured judgment against it. A statute of Texas (chap. 67, Acts of 1907) requires all corporations or receivers doing business in the State not to blacklist or otherwise prevent an employee from obtaining employment, whether such employee shall be discharged or voluntarily leave service. The law gives to the employee the right to demand a true statement of the cause of his discharge, failing which a right of action is given against the company. Hixon was a brakeman on a train of the company at a time when the air pump on the locomotive brake failed, so that it became necessary either to leave the train and have the engine repaired or to operate the train to its destination with the use of hand brakes. It was in evidence that the hand brakes were in a defective condition, that the track was likewise defective and dangerous, and that the operation of the train by hand brakes would be attended with hazard. The brakemen refused to attempt to operate the train by hand brakes, and were discharged at the siding where the train was at the time of the accident. Three days before the law above cited came into effect Hixon telegraphed requesting his service letter, and three days after the law came into effect a letter was sent him stating that his discharge was caused by insubordination. Subsequent to that date he has been unable to obtain employment as a brakeman by reason of statements and representations made by the defendant company, and on suit recovered a judgment for damages in the amount of \$2,500. From this judgment the company appealed, contending that the law was *ex post facto* as to the case in hand; that it violated the provisions of the Constitution of the United States relative to the protection of life, liberty, and property, and the equal protection of the law; also the provisions

as to protection against unreasonable searches and seizures, and restrictions on the freedom of speech. Similar provisions of the constitution of the State of Texas were also said to be opposed to the statute. The court of appeals rejected all these contentions and affirmed the judgment, holding the law to be constitutional. The principal points of the opinion as presented by Judge Bookhout are given herewith:

Appellant, in support of its contention, cites the cases of *Wallace v. Railway*, 94 Ga. 732, 22 S. E. 579 [Bulletin No. 2, p. 201], and *Atchison, T. & S. F. Ry. Co. v. Brown*, 80 Kan. 312, 102 Pac. 459 [Bulletin No. 84, p. 416]. These cases seem to hold a statute in many respects similar to the statute under consideration unconstitutional, in that it violates that clause of the Constitution securing to a citizen liberty of speech. It is said that liberty of silence is not less important than liberty of speech, and that the company can not be forced by legislative enactment against its will to disclose its private information. The decision in the *Wallace* case was rendered by the supreme court of Georgia in 1894, and the statute under consideration was entitled, "An act to require certain corporations to give to their discharged employees and agents the causes of their removal or discharge, when discharged or removed." (Acts, 1890-91, p. 188.) It authorized a recovery for \$5,000 as a penalty for their failure to comply with the statute. No injury seems to have been alleged by the plaintiff, but the suit was brought to recover the penalty arbitrarily fixed by the statute. The decision in the case of *Atchison, T. & S. F. Ry. Co. v. Brown*, is by the supreme court of Kansas, and is based on the ruling in the *Georgia* case. It may be that the conditions existing in Texas at the time of the passage of the statute under consideration did not exist in Georgia at the time of the passage of the statute construed in the *Wallace* decision. The statute here under discussion was passed to meet and remedy an evil that had grown up in this State among railway and other corporations to control their employees. It seems that a custom had grown up among railway companies not to employ an applicant for a position until he gave the name of his last employer, and then write to such company for the cause of the applicant's discharge, if he was discharged, or his cause for leaving such former employer. If the information was not satisfactory to the proposed employer, he would refuse to employ the applicant. They could thus prevent the applicant, by failing to give a true reason for his discharge or blacklisting him, from procuring employment in either instance. Even if the statutes construed in the cases cited were in all respects similar to the statute before us, we would not be inclined to follow those decisions. It was to compel the former employer to state the true cause of its employee leaving its service, and to prevent blacklisting, that brought about the passage of this statute. We have statutes in this State more exacting and drastic than the statute under discussion, which are being enforced daily, and no decision of the appellate courts is cited holding them unconstitutional.

In our opinion the statute under discussion does not abridge the liberty of speech within the meaning of the constitution of this State, nor does it deprive appellant of its property without due process of law.

It is not *ex post facto*; does not impair the obligation of contracts; does not authorize searches or seizures of persons or houses; provides for trial in open court, and thereby guarantees due process of law. It gives security of persons and property; does not take away the right of free speech or right to make, print, or publish one's own opinion. It does require, under certain conditions, that an employer shall speak the truth in regard to the ex-employee.

It follows from these remarks that the judgment must be affirmed.

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**EMPLOYERS' LIABILITY—ACTIONS—REMOVAL FROM STATE TO FEDERAL COURTS—JOINDER OF EMPLOYER AND EMPLOYEE—***Jacobson v. Chicago, Rock Island and Pacific Railway Company, United States Circuit Court, District of Minnesota, 176 Federal Reporter, page 1004.*—This was an action brought by Henry P. Jacobson against the railway company named and one of its local agents in the town where Jacobson was employed. The action was brought in a court of the State of Minnesota, and the company sought to procure the transfer of the case to the United States Circuit Court, claiming that the joinder of the resident employee as a defendant was not an act of good faith and was for the sole purpose of requiring the suit to be tried in a state court. On this point Judge Willard, who spoke for the court, held that the law was settled in favor of the plaintiff deciding what defendants he would prosecute, and that the case could not be removed to the federal court on the grounds of diversity of citizenship on the mere charge that a resident defendant had been joined in bad faith. He spoke in part as follows:

Prior to the case of *Alabama Great Southern Railway Company v. Thompson*, 200 U. S. 206, 26 Sup. Ct. 161, 50 L. Ed. 441, or at least prior to the case of *Chesapeake & Ohio Ry. Co. v. Dixon*, 179 U. S. 131, 21 Sup. Ct. 67, 45 L. Ed. 121, the circuit courts, when considering motions to remand to the state courts, had been in the habit of deciding for themselves whether the negligent act of the servant in which the master personally took no part created a joint liability or a separate one. The decisions upon this point were not uniform. It was said in the *Dixon* case that "the question was a somewhat nice one;" in the *Thompson* case it was said that "there was much conflict in the authorities." These cases, and particularly the *Thompson* case, put an end to the practice above referred to, and decided that it was not for the circuit court, but for the plaintiff, to say whether the liability was a joint or a several one. If the plaintiff stated in his complaint that it was joint, the case could not be removed to the federal court, although he was wrong in his view of the law. The question whether he was right or wrong was one which he was entitled to have tried in the state court.

There was one condition, however, imposed upon him, and that was that he should act in good faith. It is probably true that in these cases the employees are always joined for the purpose of keeping the actions out of the federal courts. That, however, is not conclusive

upon the question of good faith. (Illinois Central Railroad Company v. Sheegog, 215 U. S. 308, 30 Sup. Ct. 101.) If such employees are not fraudulently joined, the case can not be remanded. In view of the conflict in the authorities, it can not be said that a plaintiff who claims that the liability of the master and the servant is joint does not present such a claim in good faith. The question of fraud can not arise upon such a claim only. That question would arise where the defendant denies the truth of the facts stated in the complaint, and so conclusively establishes by the evidence that the relation of master and servant did not exist, or that the claim of the plaintiff was for other reasons false in fact, that the court is forced to the conclusion that the complaint against the employees could not have been presented in good faith. Such were the cases (cited by the defendant) of Wecker v. National Enameling Company, 204 U. S. 176, 27 Sup. Ct. 184, 51 L. Ed. 430, McGuire v. G. N. Ry. Co. (C. C.) 153 Fed. 434, 439, and Prince v. Illinois Central R. R. Co. (C. C.) 98 Fed. 1, 2.

This is an action brought by the plaintiff to recover damages for personal injuries suffered by him while in the employ of the defendant railroad company as a coal shoveler at its station of Invergrove, Minn. It appears from the evidence presented upon this motion that Invergrove is a very small station on defendant's line, that the defendant Hutton was the station agent and yardmaster at that place, and there is nothing to indicate that there was any other person in the employ of the defendant company at that station who was superior to Hutton. He employed the plaintiff, directed him where to work, and delivered to him checks for his pay from month to month.

The most that can be said in favor of the defendants is that upon the evidence presented it is doubtful whether by the terms of his [Hutton's] employment he was or was not charged with the duty of inspecting the platform [by reason of a defect in which the plaintiff was injured]. That question the plaintiff has a right to have decided in the state court.

The motion to remand is granted.

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**EMPLOYERS' LIABILITY—EMPLOYMENT OF CHILDREN—PROHIBITED EMPLOYMENT AS BAR TO RECOVERY—PROXIMATE CAUSE—PURPOSES OF STATUTE—***Moran v. Dickinson, Supreme Judicial Court of Massachusetts, 90 Northeastern Reporter, page 1150.*—John Moran, a minor under 16 years of age, was injured by reason of the defective condition of an elevator which he was operating. His employment was in violation of the law (Acts of 1909, chap. 514, sec. 74), and the trial court held that Moran was not entitled to recover because his act in operating the elevator was illegal. To this he excepted and secured a reversal of the judgment and an entry of judgment in his favor.

The construction of the law leading to this conclusion is set forth in the following portions of the opinion of the court, which was delivered by Judge Sheldon:

It is contended for the plaintiff that this statute does not make his act illegal; that the employer is forbidden to put his elevator

into the charge of so young a person, but that the minor child is not forbidden from undertaking that employment. But this contention can not prevail. It is against the plain words of the statute. The provision is that no person of the prohibited age shall either operate an elevator or have one put in his charge; the first part of this prohibition looks as manifestly toward the operator as the second part does toward the employer; and the penalty is imposed not only upon anyone who may cause an elevator to be so operated, but also upon the operator himself. The act regards both the master and the servant and imposes a like prohibition under a like sanction upon each.

Nor was this statute designed solely for the protection of minor employees. So far as it applies to passenger elevators, it was manifestly intended to provide as well for the safety of the persons to be carried. Even as to freight elevators, the legislature may well have had in mind the safety of others as well as of those who were in charge of the elevators.

There are decisions in our reports in which the broad rule is laid down that if the plaintiff in an action like this was himself violating the law when the accident occurred he can not recover. We need not cite these cases in detail. In most of them the plaintiff had been violating the provisions of the act for the observance of the Lord's Day, or was seeking to hold a city or town for a defect in a public way. See, as to these classes of cases, Rev. Laws, c. 98, sec. 17, and *Doherty v. Ayer*, 197 Mass. 241, 247, 248, 83 N. E. 677, 14 L. R. A. (N. S.) 816, 125 Am. St. Rep. 355. But the rule now settled in this Commonwealth is that a plaintiff's violation of law which has contributed to cause an injury coming to him from the negligence of a defendant may bar his recovery therefor, but that such a violation which was merely a condition or an attendant circumstance of his injury will not prevent him from recovering. (*Newcomb v. Boston Protective Dept.*, 146 Mass. 596, 16 N. E. 555, 4 Am. St. Rep. 354, and cases cited. *Dudley v. Northampton St. Ry.*, 202 Mass. 443, 446, 89 N. E. 25.) In our opinion that rule is applicable to this case.

It can not be said as matter of law, whatever finding a jury might have made, that this plaintiff's violation of law contributed to the happening of the accident by which he was injured. It might have been found that the accident was due solely to the defendant's negligence. It might have happened in the same way whatever the plaintiff's age had been. His bodily presence was an essential condition of his injury; but it does not follow that it must have been a cause thereof. In our opinion this question should have been submitted to the jury.

The plaintiff's exceptions must be sustained, and in accordance with the stipulation of the parties judgment is to be entered in his favor for the sum agreed upon.

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**EMPLOYERS' LIABILITY—FACTORY INSPECTION LAW—VIOLATIONS—ASSUMPTION OF RISK—WAIVER OF PROVISIONS OF STATUTES.**—*Valjago v. Carnegie Steel Company*, *Supreme Court of Pennsylvania*, 75 *Atlantic Reporter*, page 728.—George Valjago recovered a judgment for damages against the company named for injuries received by him while in its employment. The accident causing

the injury was occasioned by Valjago's arm being drawn into a set of uncovered cog wheels. An act of the Pennsylvania legislature of May 2, 1905, directs the guarding of dangerous machinery of every description. The company admitted that it had failed to comply with the statute, but offered the defense of assumption of risk, claiming that the plaintiff had waived his rights under the statute, so that he could recover nothing. In ruling on this point the supreme court condemned this plea, which had been admitted by the court below. As this had not affected the finding of the court its judgment was affirmed. On the particular point of assumed risks and the waiver of requirements of protective statutes, Judge Potter, who delivered the opinion of the court, said:

The question whether an employer may invoke the defense of assumption of risk by the employee, in the face of a statute requiring safeguards for dangerous machinery, has given rise to much discussion and wide difference of opinion. One of the latest cases involving a discussion of the question is *Welsh v. Paving Co.*, 167 Fed. 465, 93 C. C. A. 101. In the opinion by Judge Gilbert in that case the conflicting decisions on the subject are reviewed. He points out that the decisions of the various state courts, as well as those of the federal courts upon the question, are contradictory and nearly evenly divided. Since *Baddeley v. Earl Granville*, L. R. 19 Q. B. Div. 423, there can be no doubt that the English rule is settled, so that in Great Britain the statute now precludes the master from setting up the defense of assumption of risk.

The cases holding to the contrary are based upon the view that the doctrine of assumption of risk is not based upon contract, express or implied, but that it arises from the application of the maxim, "*Volenti non fit injuria.*" It is apparently conceded in all those cases, as well as by the argument of counsel for appellant in the present case, that, if the contract view is the correct one, the workman has no power to waive or dispense with the protection of the statute. "To hold that he could do so," says Judge Gilbert in the opinion above referred to in the *Welsh* case, "would be to nullify the statute and thwart its purpose." In the recent case of *Bowen v. Penna. R. R. Co.*, 219 Pa. 405, 68 Atl. 963, our Brother Elkin points out that the weight of authority bases the doctrine of assumption of risk "upon the contractual relation existing between the parties."

The last expression of this court upon the subject and with reference to the same section of the act of May 2, 1905, which is now under consideration, is that of Justice Brown, in *Jones v. Caramel Co.*, 225 Pa. 644, 652, 74 Atl. 613, 616, where he said: "The act of 1905 will become a dead letter if an employer who has failed to properly guard his machinery can relieve himself from that duty by the plea that the danger was so obvious that his injured employee ought to have been aware of it and was not entitled to any warning against it. Only the contributory negligence of an injured employee, lawfully employed, will relieve the employer from the consequences of his disregard of his statutory duty."

Counsel for appellant suggest that the language of our Pennsylvania statute is almost identical with the corresponding provisions

of the earlier statute of New York, and that the construction of the statute by the New York courts should be followed by the courts of Pennsylvania. The construction placed upon a substantially similar statute by the courts of a sister State is, of course, entitled to respectful consideration, but it can only be allowed to prevail with us in so far as it is in harmony with the spirit and policy of the law of our own State. In Pennsylvania we are committed to the view that the requirements of a statute adopted in the exercise of the police powers of the State for the protection of its citizens can not be impliedly waived by the parties to the contract of employment.

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**EMPLOYERS' LIABILITY—NEGLIGENCE—COMPARATIVE NEGLIGENCE—CONSTRUCTION OF STATUTE—***Zeratsky v. Chicago, Milwaukee and St. Paul Railway Company, Supreme Court of Wisconsin, 123 Northwestern Reporter, page 904.*—John R. Zeratsky was the rear brakeman on an extra freight train of the railroad company named, and was injured by a passenger train running into the caboose of the train on which he was employed while it was standing on a track between stations. It was the duty of the rear brakeman to undertake to put out signals to warn approaching trains of the fact that the track was not clear; also to remedy any conditions that he might discover relative to hot boxes or defective draft and brake rigging. When the train stopped, Zeratsky was left alone with the cars, without warning or instructions, while the engine and the remainder of the crew went forward to get water. Zeratsky started toward the front of the train to learn the cause of the stopping, and finding the engine gone, went back to the caboose, stopping on his way to inspect the boxes, etc.; finding a hot box, he claimed that he was in the act of procuring the needed supplies for use in remedying the condition when the caboose was struck by the on-coming passenger train and he himself seriously injured. It was the company's contention that his negligence in failing to put out signals to prevent the collision was a contributory cause of the accident, and that he was thereby debarred from recovering.

Chapter 254 of the Laws of 1907 charges every railroad company with liability for injuries to its employees if they are caused in whole or in the greater part by negligence of any officer or employee of the company. The jury is to pass upon the question whether any negligence attributable to the company directly contributed to the injury; also whether any negligence of the employee directly contributed thereto. The doctrine of comparative negligence was embodied in the law by which, if it appeared that the employer was guilty of a greater degree of negligence than the injured employee, proportionate damages should be awarded.

In the circuit court of Brown County a verdict had been directed for the company and judgment was entered thereon. Zeratsky there-

upon appealed and secured a reversal of this action with orders for a new trial. The grounds on which this action was taken are set forth in the opinion of the court, which was delivered by Judge Siebecker, who spoke in part as follows:

In *Kiley v. Chicago, M. & St. P. R. Co.*, 138 Wis. 215, 119 N. W. 309, 120 N. W. 756, we had occasion to declare that these provisions of the law did not affect the judicial power of the court to determine whether the evidence presented tended to show negligence attributable to the company and contributory negligence of the person injured, and, if the evidence tended to show such negligence, it was for the jury to determine therefrom whether or not in fact such negligence or contributory negligence existed. It was also decided that the provisions declaring that the contributory negligence of the person should be no bar to his recovery in cases wherein the jury should find that the negligence attributable to the company "was greater than the negligence of the employee so injured, and contributing in a greater degree to such injury" were within the legislative power of police regulation. Upon this and other appeals, in actions under this statute, additional considerations have arisen respecting the interpretation of the context of the act and its effect in the modification of the law as it theretofore existed. Subsection 3 of the act requires that there shall be submitted to the jury the question whether the company's negligence and the injured person's contributory negligence directly contributed to the injury. The inquiry is suggested: Does the use of the word "directly" operate to modify the law of proximate cause in the law of negligence? We discover nothing in the phraseology of the act indicative of a legislative intent to modify the law on this subject. Nor does the language employed necessarily operate to effect a change as to what shall constitute proximate cause. The provisions are that the jury shall determine whether the company and the injured person are guilty of negligence "directly contributing to the injury." The word "directly" was evidently employed here in the sense of proximately, and was intended to include and comprehend the negligence which naturally and probably caused the injury; that is, the negligence which proximately contributed to produce the injury.

The statute also provides that if the jury shall find that the negligence attributable to the company "was greater than the negligence of the employee so injured, and contributing in a greater degree to such injury," then plaintiff's contributory negligence shall be no bar to his recovery. This abrogates the preexisting law that the contributory negligence of the injured person may defeat recovery. This provision is a complement to the preceding subsection 2, which makes railroad companies liable for injuries to employees which have resulted "in whole or in greater part" from the negligence attributable to them. It is to be noted that the questions prescribed by subsection 3 are made to harmonize with subsection 2, in that the negligence of the company and the contributory negligence of the person injured are treated, in effect, as contributing causes to the injury. While the same phraseology is not employed in subsection 4 in dealing with this subject, it is evident that the legislature intended this provision to carry into effect the liability created by subsection 2, and to so modify the contributory rule as to accord therewith,



and to enforce recovery in those cases wherein the negligence of the injured person should be found to be slighter as a contributing cause to the injury than that of the company. Interpreting these provisions together, we are persuaded that the legislative intent was to apply this legislation to the law as established by the decisions of this court.

In an exhaustive review of the decisions of this court on the subject of negligence and contributory negligence in *Bolin v. Chicago, St. P., M. & O. R. Co.*, 108 Wis. 333, 84 N. W. 446, 81 Am. St. Rep. 911, the subject was adverted to. The result is embodied in the head-note, and is stated thus: "In an action to recover damages claimed to have been caused by actionable negligence of the defendant, contributory negligence of the plaintiff, however slight, precludes his recovering damages, notwithstanding negligence of the defendant, however great, contributed thereto." This idea that the concurrence of the negligences of both parties to a legal controversy might constitute the proximate cause is also recognized and exemplified in numerous crossing cases that have come before this court.

The context of the statute indicates that the legislature assumed this to be within the legal conception of proximate cause in the law of negligence, and proceeding thereon framed this statute to modify the right of recovery in negligence cases against railroad companies by providing that, if the company's negligence contributed to cause the injury in greater degree than that of the injured person, then the company should be liable for the resultant damages as if its negligence had been the sole cause of the injury; or, in the language of subsection 4, if "the negligence of the company \* \* \* was greater than the negligence of the employee so injured and contributing in greater degree to such injury, then the plaintiff shall be entitled to recover." In administering the statute in cases as they actually arise, it devolves on the court to determine whether there is any evidence tending to show negligence attributable to the company and contributory negligence of the injured person which proximately contributed to the injury complained of. If the evidence produced tends to show that the negligences of both parties to the action concurred to produce the injury, unless the evidence is so clear and undisputed as to permit of only one inference on the question, it then becomes a question for the jury to determine whether the negligence of the injured person was slighter or greater as a contributing cause to the injury than that attributable to the company. In case the evidence permits of only the one inference it devolves on the court to decide the issue as a matter of law. Whether a case is one for a court or jury to determine can not be settled by any general rule or classification of cases, but must be determined in the light of the facts and circumstances of each particular case. The question is not ascertainable by any rule of absolute measurement, and it therefore must be submitted to human judgment.

It has been claimed and the suggestion is made in argument on this feature of the law that it is practically impossible for a jury to determine such controversies upon a scale of infinite degrees, and that the legislature therefore must have intended that the law should be applied in view of the generally accepted classification of the degrees of negligence into slight, ordinary, and gross, and that such degrees of negligence should be observed in comparing as contributing causes

the negligence of the company and that of the injured person. We discover no such intent or provision in the law, nor do we deem it impractical to have the jury judge whether the negligence of the injured person contributing to cause the injury is slighter or greater than that attributable to the company. Applying the statute to the case before us, we can not accede to the defendant's claim that it would be mere speculation and guesswork for the jury to attempt to determine whether plaintiff's contributory negligence was slighter or greater as a contributing cause than that of the defendant.

The court then reviewed the various points in the case requiring submission to a jury, and in conclusion said:

It is averred by the defendant that since the plaintiff has the burden of proving that the negligence attributable to the defendant was a greater contributing cause to the injury than that of the plaintiff that this involves a modification of the rule which has heretofore obtained in this State which casts the burden of proving plaintiff's contributory negligence on the defendant. This rule operated to relieve the plaintiff from the necessity of showing himself free from contributory negligence. We discover nothing in the law evincing an intention of the legislature to change the rule, nor do we find that such a change is necessary for the orderly administration of the various provisions of the law.

From the views indicated, it results that the court erred in directing a verdict. The case should have been submitted to the jury for determination of the issues under the law as amended by chapter 254, page 495, Laws 1907.

Judgment reversed, and the cause remanded for a new trial.

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**EMPLOYERS' LIABILITY—NEGLIGENCE OF FELLOW-SERVANT—JOINT LIABILITY—***Coalgate Company v. Bross, Supreme Court of Oklahoma, 107 Pacific Reporter, page 425.*—This case involved the effect of the section of the constitution of Oklahoma which abrogates the defense of common employment in the industries of railroading and mining. Jesse Bross was injured by the negligence of a coservant and sued both his employer and said coservant, and from a judgment in his favor an appeal was taken, resulting in the judgment of the court below being affirmed. The only point of special interest is the discussion by Judge Kane, speaking for the court, of the section of the constitution named, which is reproduced herewith.

There is considerable conflict on the question of the right to join master and servant as defendants in an action for the servant's negligence. The question does not seem to have been passed upon squarely by the Supreme Court of the United States, but the courts of last resort of a good many of the States and the federal courts, district and circuit, and circuit court of appeals, have passed upon it many times. From an examination of the authorities it seems that the weight of authority in the state courts is in favor of such joinder,

while in the federal courts the preponderance is perhaps the other way. Both state and federal authorities in favor of and against such joinder are collected and considered in *Charman v. Lake Erie & W. R. Co. et al.* (C. C.) 105 Fed. 449, and *Helms v. Northern Pac. Ry. Co. et al.* (C. C.) 120 Fed. 389, the first case taking the affirmative, and the second the negative side of the question. As these cases have fully collected the authorities and discussed the proposition pro and con, we will not cite further cases, or attempt to reconcile them, but merely adopt the reasoning of Judge Baker in *Charman v. Lake Erie & W. R. Co. et al.*, supra, as it seems to us to be sound, and the statute construed is practically the same in effect as section 36, article 9, of our constitution, which provides: "The common-law doctrine of the fellow-servant, so far as it affects the liability of the master for injuries to his servant, resulting from the acts or omission of any other servant or servants of the common master, is abrogated as to every employee of every railroad company and every street railway company or interurban railway company, and of every person, firm, or corporation engaged in mining in this State; and every such employee shall have the same right to recover for every injury suffered by him for the acts or omissions of any other employee or employees of the common master that a servant would have if such acts or omissions were those of the master himself in the performance of a nonassignable duty. \* \* \*

It is argued by counsel for plaintiffs in error that the cause of action of one servant against another grows out of the legal duty that each owes to the other to use due care for the other's safety in the conduct of the common undertaking, and that the cause of action against the master for the negligence of the servant, being based upon the foregoing provision of the constitution, precludes the idea of joint liability; that each is separately liable for the same thing upon a different cause of action; neither is jointly liable with the other for the same thing upon the same cause of action. Judge Baker, who wrote the opinion in the *Charman* case, supra, on this question, says: "It is not necessary to the maintenance of a joint action for tort that the injury should grow out of the breach of a joint duty, nor out of the same or similar duties deducible from the same or similar principles of law. The rule would seem to be that, where the same acts or omissions constitute and give rise to a breach of duty owing by such defendant to the plaintiff, and concur and cooperate in producing the injury, a joint action may be maintained." This language seems to be peculiarly pertinent to the case at bar. The constitutional provision above referred to seems to make the tort of the servant the tort of the master, and gives the injured employee the same right to recover against the master for injuries incurred by him for the acts or omissions of his fellow-servant as if the master himself was present and committed the tort in the performance of a non-assignable duty. We are of the opinion that under the foregoing section of the constitution a servant has the right to join his master and fellow-servant as defendants in an action for the servant's negligence, although the master may not be present and participating in the injury complained of except in virtue of the foregoing constitutional provision.

**EMPLOYERS' LIABILITY—RAILROADS—FEDERAL AND STATE STATUTES—***Dewberry v. Southern Railway Company, United States Circuit Court, Northern District of Georgia, 175 Federal Reporter, page 307.*—This was a suit by Mrs. Effie Dewberry to recover damages for the death of her husband, a locomotive engineer, the action having been brought under the state law. The company demurred to the declaration, claiming that as Dewberry was employed in moving interstate commerce the federal law alone controlled, and no action could be brought under the local statute. This view was adopted by the court, the opinion being written by Judge Newman.

Citing supporting opinions from the cases of *Fulgham v. Railroad Company* (167 Fed. 660) and *N. C. & St. L. Railway v. Alabama* (128 U. S. 96, 9 Sup. Ct. 28), Judge Newman concluded:

It has been impossible in the brief time I have had to give this matter the thorough examination which the importance of the question deserves, but my best judgment is that this law was intended by Congress to cover the entire subject-matter of the liability of carriers by railroad while engaged in interstate commerce to employees if the employee injured or killed is at the time engaged in such interstate commerce, and that it is plenary and supersedes all other law relating to such liability. Consequently this action, founded on a state statute, can not now be maintained.

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**EMPLOYERS' LIABILITY—RAILROADS—STATUTE REQUIRING HEADLIGHTS—VIOLATION—***St. Louis, Iron Mountain and Southern Railway Company v. White, Supreme Court of Arkansas, 125 Southwestern Reporter, page 120.*—Laura C. White secured judgment against the company named on account of the death of her son, who was employed by it as brakeman. The accident resulting in his death was caused by the engine striking a cow which was on the track, whose presence was not discovered, it was alleged, by reason of the failure of the railroad company to comply with a statute requiring its engines to be equipped with headlights of a fixed capacity. The company appealed, the appeal resulting in the judgment of the court below being affirmed. The opinion of the court was delivered by Judge Hart and, except for a statement of the facts, is as follows:

Section 1 of the act provides that railroads over 50 miles in length, operated in whole or in part in this State, shall be required to equip, maintain, and use, upon each and every locomotive being operated in road service in the State, a headlight of power and brilliancy of 1,500 candlepower. Section 2 provides a penalty for the failure to comply with the terms of the act. (Acts 1907, p. 1019.) In the case of *Johnson v. Mammoth Vein Coal Company*, 88 Ark. 243, 114 S. W. 722, 123 S. W. 1180, 19 L. R. A. (N. S.) 646, the court held that the servant does not assume the risk of injury caused by the master's failure to comply with a statutory requirement for his protection.

The statutory requirement that railroads shall keep a constant lookout for persons and property upon their tracks is also for the benefit of employees as well as others. (St. Louis Southwestern Ry. Co. v. Graham, 83 Ark. 61, 102 S. W. 700, 119 Am. St. Rep. 112, and cases cited). "In an action against a railroad company by an employee to recover for damages received in an accident, negligence of the railroad company will not be presumed merely from the occurrence of the accident, but must be proved, and the burden is on the plaintiff to establish it." (St. Louis and San Francisco R. Co. v. Wells, 82 Ark. 372, 101 S. W. 738; L. R. and Ft. Smith Ry. Co. v. Eubanks, 48 Ark. 460, 3 S. W. 808, 3 Am. St. Rep. 245.) Tested by these rules of law, was the defendant liable under the facts disclosed by the record? The engineer testified that he did not see the cow before she was struck. His engine was equipped with a coal-oil headlight. With it he could see "three or four or five hundred feet" ahead of him, and as much as 8 or 10 feet on either side. His train was from 500 to 700 feet long. The right of way where the injury occurred was clear and unobstructed, and the track was practically level.

The appellee adduced evidence tending to show that an electric headlight of 1,500 candlepower would enable the engineer to see ahead for a distance of 1,700 to 2,000 feet, and would throw light from one side of the right of way to the other; that the train running on a practically level track at the rate of from 20 to 25 miles per hour could have been brought to a stop at 1,100 [feet], and could be reduced 5 or 10 miles an hour in 600 feet; that cattle lay down on the track at night, as well as in the daytime. Although the evidence is not very satisfactory, we think the jury were warranted in finding that, had the engine been equipped with a headlight of the candlepower required by the statute, the engineer, if he had been keeping a lookout, could have seen the cow in time to have stopped the train, or at least could have checked the speed to such an extent before striking the cow that the derailment of the engine and the resulting injury could have been avoided, and that the company was guilty of negligence in using the oil headlight.

The judgment is therefore affirmed.

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EMPLOYERS' LIABILITY—RAILWAY RELIEF SOCIETIES—RECEIPT OF BENEFITS AS BAR TO ACTION FOR DAMAGES—CONTRACTS MADE IN ANOTHER STATE—*Hamilton v. Chicago, Burlington and Quincy Railway Company, Supreme Court of Iowa, 124 Northwestern Reporter, page 363.*—The plaintiff, Hamilton, recovered a judgment for injuries received while in the employment of the company above named in the city of Dubuque, Iowa. Among other defenses offered by the company was one that Hamilton was a member of the railroad's relief department, and that under his agreement on becoming a member he was debarred from prosecuting an action for damages after having received the benefits for which his contract called. On the whole evidence the judgment of the lower court was affirmed on the appeal taken. No matter of particular interest appears, except

in connection with the subject of the contract with the relief department. On this point Judge Deemer, for the court, spoke in part as follows:

Plaintiff was a member of defendant's relief department, and after his accident he received from said department benefits promised and provided thereby. These facts are relied upon as a complete defense to the action. Section 2071 of the Code, as amended by Acts 27th Gen. Assem., p. 33, c. 49, provides that no such contract or benefit, and no acceptance of the benefits provided, shall constitute a defense to an action brought under the section. This act was held constitutional in *McGuire v. Railroad*, 131 Iowa 340, 108 N. W. 902. Defendant says, however, that plaintiff made his contract for benefits in the State of Illinois, and received his benefits in either Wisconsin or Illinois, and that as the contract and settlement were good in each of these States, they should be so treated here, and that plaintiff should not be permitted to recover. It is true that plaintiff became a member of the relief department and made his contract in the State of Illinois, and that he received his benefits in a State where such settlement or contract would be good. But it does not follow that this will bar him of relief. In such matters the law of the forum must be looked to. Contracts and releases made in a foreign jurisdiction are recognized and enforced out of comity, and not as a matter of right. The general rule in all actions for tort is that the *lex loci delicti* governs the right of the injured party to sue, the liability of the perpetrator, and the defenses which he may plead. See *Minor on Conflict of Laws*, section 196, and cases cited. Of course even here the action will not lie if contrary to the law or pronounced policy of the forum.

The injury occurred in this State, and under the rule just stated the law of this State controls. Moreover, the general rule is that contracts, although legal where made, will not be enforced in a sister State if contrary to public policy or against positive statutory enactment.

We are asked finally to overrule the *McGuire* case because the statute there considered is unconstitutional and void. This we are not prepared to do. That case is now pending in the Supreme Court of the United States, and until it has spoken and declared the statute unconstitutional we are content to follow our former holding.

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EMPLOYMENT OF CHILDREN—COMPENSATION—PLACE OF MAKING CONTRACT—*Commonwealth v. Griffith*, *Supreme Judicial Court of Massachusetts*, 90 *Northeastern Reporter*, page 394.—Frank C. Griffith was convicted of employing children under 14 years of age between the hours of 7 p. m. and 6 a. m., in violation of the law of Massachusetts, and appealed. The employment required the appearance of a boy and a girl, aged 9 and 13 years, respectively, in a theatrical performance. The children received no wages. The boy's father was a member of the troupe and was training his son for the stage. The girl's mother also appeared in the play, and the contract with her

covered the appearance of the girl. Both children appeared regularly. Griffith contended that their employment was not of the nature prohibited by the statute; and further, that as their employment was in pursuance of arrangements made in New York, the law of Massachusetts did not apply. Both these contentions were rejected by the court, as appears from the following extracts from the opinion, which was delivered by Judge Knowlton:

The payments of compensation, as such, is not a necessary element of employment. If one is procured to work regularly under an engagement, rendering valuable service for a specified time, it may be found that he is employed, although he receives nothing as an agreed compensation. He is used and relied upon to accomplish the purpose of his employer. This statute itself recognizes that there may be employment without wages or compensation, when it provides that employment during the hours when the public schools are in session shall be punishable only when it is for wages or other compensation, while employment in the nighttime is punishable without reference to its being for wages or compensation.

There is no good ground for the defendant's contention that the statute is not applicable to work in this Commonwealth, done under an employment contracted for in another State by persons residing there. It looks to employment at work here, wherever the contract is made and whether the children are inhabitants of this State or nonresidents.

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HOURS OF LABOR—EIGHT-HOUR DAY—VIOLATIONS—INFORMATION—*United States v. Breakwater Company, United States District Court, District of New Jersey, 174 Federal Reporter, page 78.*—The company named was charged with having violated the eight-hour law of August 1, 1892, the allegation being that it was a contractor on public works of the United States, and that on the 1st of July, 1909, it willfully, intentionally, and unlawfully required and permitted the laborers and mechanics in its employment and engaged on such public works to labor more than eight hours, but made no designation as to numbers or names of persons so unlawfully employed. The company therefore moved to quash the information, which motion was on hearing sustained. The reasons therefor are set forth in the following extracts from the opinion of the court, which was delivered by Judge Rellstab:

The act makes it unlawful to require or permit any laborer or mechanic to work more than eight hours in one calendar day, except in cases of extraordinary emergency, and denounces the intentional employing of any laborer or mechanic beyond the restricted hours as a misdemeanor, and provides a penalty for each and every such offense.

The criminal information does not say whether one or more laborers or mechanics were thus employed.

It is to be noted that the act does not prohibit the employment beyond the restricted hours of all employees, but only such as are embraced within the terms "laborers and mechanics." Undoubtedly the mere designation of identified persons as laborers or mechanics is sufficient to put the defendant to its defense; but the failure to designate the number and to identify the persons alleged to have been unlawfully employed is unjust to both the Government and defendant. The Government has a right to ask for separate convictions for each and every person so unlawfully employed in a given day, and the defendant has the right to have the persons identified, that it may intelligently defend the present charge, and, if subsequently called upon to defend for the same cause, to plead former jeopardy.

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HOURS OF LABOR—EMPLOYMENT IN MINES—CONSTITUTIONALITY OF STATUTE—*Ex parte Martin, Supreme Court of California, 106 Pacific Reporter, page 235.*—Fred J. Martin was convicted of employing workmen more than eight hours per day in violation of the law (Acts of 1909, chap. 181) which restricts to eight per day the hours of labor of employees in underground mines and smelting and reduction works. Application was made for a writ of habeas corpus, on the ground that the law was unconstitutional and that the applicant was therefore unlawfully restrained. The writ was dismissed and Martin was remanded to the custody of the officer, the law having been upheld on grounds that appear from the following portion of the opinion of the court, which was delivered by Judge Sloss:

The ground of attack usually advanced in cases of this character, namely, that the statute is in conflict with the guaranties of the fourteenth amendment to the Constitution of the United States, is not here urged. Indeed, such contention is hardly open to the petitioner in view of the decision in *Holden v. Hardy*, 169 U. S. 366, 18 Sup. Ct. 383, 42 L. Ed. 780 [Bulletin No. 10, p. 387], where the Supreme Court of the United States decided that a statute of Utah, substantially identical in its main features with the one before us, did not deprive persons affected by it of any right conferred by the federal Constitution. Conceding the binding force of that decision as an adjudication of all federal questions involved, the petitioner here bases his claim to immunity from prosecution upon certain provisions of the constitution of this State.

Adopting the views set forth in the case named, that such laws are valid as health laws, and within the police power of legislatures, the court continued:

It is argued by the appellant that the act is special because it does not include in its scope many occupations other than mining which are equally dangerous to the health of the persons engaged in them. Reference is made, for example, to marble cutters and marble drillers, diamond cutters, workers in furnaces and laundries, men employed



in wine cellars, breweries, and ice houses, men in boiler works, match-makers, cleaners of clothes, makers of white lead, of china and earthenware, and many others. The argument is, apparently, that any law is special which does not include all of these occupations. This view is obviously unsound. Whether these other occupations present the same dangers to health as those involved in mining, etc., and whether, if they do, these dangers can best be met by restricting the hours of labor, are primarily questions for the legislature. The legislature has determined one or both of them in the negative by enacting this law. The selection of the businesses requiring regulation is confided to the legislative discretion, and this discretion is not subject to judicial review unless it clearly appears to have been exercised arbitrarily and without any show of good reason.

Petitioner attacks the provision of the act that the hours of employment shall be consecutive (excluding, however, any intermission of time for lunch or meals). We are not prepared to say that this limitation bears no reasonable relation to the protection of the health of the workmen. The legislature may have considered that persons working in underground mines, in smelters, or in reduction works required for their protection, not only that the total number of hours of employment in a day should be limited, but that the hours of labor should be so adjusted as to allow the employee a long consecutive period for rest and recreation. This is a question of legislative policy with which the courts have no concern.

Upon the whole case, we are satisfied that the act is a valid exercise of the legislative power, and that the petitioner is properly held.

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INSPECTION OF BAKERIES—HOURS OF LABOR—CONSTITUTIONALITY OF STATUTE—*State v. Miksicek, Supreme Court of Missouri, 125 Southwestern Reporter, page 507.*—Section 10088 of the Revised Statutes of 1899 of the State of Missouri restricts the employment of workmen in bakeries to six days per week, and fixes the period within which the week's employment shall begin and end. Section 10089 prescribes the provisions for plumbing and ventilation in biscuit, bread, and cake bakeries, and does not mention pie and pastry bakeries or confectioneries and cracker bakeries. Robert Miksicek was convicted of a violation of the provisions of these two sections and appealed, basing his appeal on the claim that the enactment was unconstitutional. This contention the supreme court upheld, condemning the limitation of the hours of labor on the ground that it was an unwarranted interference with the freedom of contract, holding that this provision was subject to the same rules of law as those by which the New York statute was condemned. (*Lochner v. New York*, 198 U. S. 45; 25 Sup. Ct. 539. See Bulletin No. 59, p. 340.) The second section under consideration was condemned because pie and pastry bakeries, belonging to the same general class of establishments, were not brought within this provision. Judge

Fox, who delivered the opinion of the court, said in part in this connection:

In other words, as heretofore stated, the provisions of section 10089 apply only to biscuit, bread, or cake bakeries, and have no application to bakeries engaged in the making of pie and pastry or crackers and confectioneries; that is to say, the corporation, association, or individual engaged in the bakery business which confine their business to the baking of pies, pastry, crackers, or other confectioneries are exempt from the requirements of section 10089. This discrimination is manifestly in conflict with section 53, article 4, of the constitution of Missouri (Ann. St. 1906, p. 197), which forbids the legislature to grant to any corporation, association, or individual any special or exclusive right, privilege, or immunity, and is also violative of the fourteenth amendment to the federal Constitution in denying the equal protection of the law.

And concluded:

We see no necessity for further discussing this proposition. In our opinion the sections of the statute upon which this prosecution is based can not be upheld. They are clearly violative of the constitutional provisions to which we have made reference, hence can not form the basis of a statute upon which a prosecution can rest.

The judgment of the trial court should be reversed, and the defendant discharged. All concur.

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LAUNDRY REGULATIONS—LOCATION—RESTRICTION OF EMPLOYMENT—POLICE POWER—*Ex parte San Chung, Court of Appeal of California, 105 Pacific Reporter, page 609.*—San Chung was convicted of the violation of an ordinance of the city of Sacramento which prohibited the operation of a public laundry within the corporate limits of that city in any building or portion thereof occupied or used directly or indirectly as a public hall, store, restaurant, lodging house, or saloon, the offense in his case being the operation of a laundry in a building used in part as a public store. The case was before the court of appeal by petition for a writ of habeas corpus, the contention of the petitioner being that the ordinance was violative of the constitution of the State, interfering with personal and property rights. This view was not entertained by the court and the writ was denied and the petitioner remanded in accordance with the original conviction. The grounds for the position of the court appear in the following extracts from its opinion, which was delivered by Judge Burnett:

In *Ex parte Sing Lee*, 96 Cal. 356, 31 Pac. 246 (24 L. R. A. 195, 31 Am. St. Rep. 218), it is declared: "It is provided by section 11 of article 11 of the constitution of this State that 'any county, city, town, or township may make and enforce within its limits all such local police, sanitary and other regulations as are not in conflict with general laws.' The power conferred upon cities and towns by the section just quoted

is undoubtedly a very broad and comprehensive one, and would sustain the enactment of any ordinance having a reasonable tendency to promote the health, the comfort, safety, and welfare of the inhabitants of the municipality and which would not be in conflict with some general law of the State."

In *Barbier v. Connolly*, 113 U. S. 31, 5 Sup. Ct. 359, 28 L. Ed. 923, it is said by the Supreme Court of the United States, through Mr. Justice Field, that "the fourteenth amendment in declaring that no State 'shall deprive any person of life, liberty or property without due process of law, nor deny to any person within its jurisdiction the equal protection of the laws,' undoubtedly intended not only that there should be no arbitrary deprivation of life or liberty, or arbitrary spoliation of property, but that equal protection and security should be given to all under like circumstances in the enjoyment of their personal and civil rights; that all persons should be equally entitled to pursue their happiness and acquire and enjoy property; that they should have like access to the courts of the country for the protection of their persons and property, the prevention and redress of wrongs, and the enforcement of contracts; that no impediment should be interposed to the pursuits of any one, except as applied to the same pursuits by others under like circumstances; that no greater burdens should be laid upon one than are laid upon others in the same calling and condition; and that in the administration of criminal justice no different or higher punishment should be imposed upon one than such as is prescribed to all for like offenses. But neither the amendment—broad and comprehensive as it is—nor any other amendment, was designed to interfere with the power of the State, sometimes termed its police power, to prescribe regulations, to promote the health, peace, morals, education, and good order of the people, and to legislate so as to increase the industries of the State, develop its resources, and add to its wealth and prosperity. Regulations for these purposes may press with more or less weight upon one than upon another, but they are designed not to impose unequal or unnecessary restrictions upon any one, but to promote, with as little individual inconvenience as possible, the general good. Though in many respects necessarily special in their character, they do not furnish just ground of complaint if they operate alike upon all persons and property under the same circumstances and conditions." In the light of these general principles can it be said that the particular portion of the ordinance violated by petitioner is beyond the legitimate scope of the police power, or that it unwarrantably disturbs the petitioner in the enjoyment of his constitutional privileges?

Within the proper exercise of the police power the operation of public laundries within the city limits could be entirely prohibited if such a measure could reasonably be said to promote the public health. But here no prohibition is sought, but only a regulation which we must assume the evidence before the council demonstrated to be in furtherance of a beneficent design to contribute to the welfare of the community. Under such circumstances, if they exist, the abstract right of the individual to pursue any lawful occupation where it can be the most conveniently and advantageously carried on must yield to the superior right of the public to be protected from the menace of disease.

PAYMENT OF WAGES—SEMIMONTHLY PAY DAY—CONTRACTS WAIVING PROVISIONS OF STATUTES—REGULATION OF CORPORATIONS—CONSTITUTIONALITY OF STATUTE—*Arkansas State Company v. State, Supreme Court of Arkansas, 125 Southwestern Reporter, page 1001.*—A statute of the State of Arkansas (Acts of 1909, p. 21) directs that all corporations doing business in the State shall pay their employees twice each month. For a violation of this statute the company named was convicted in the circuit court of Craighead County and appealed. The constitutionality of the statute was challenged, the contention being that it deprived the defendant of liberty and property without due process of law and denied the equal protection of the law. The court sustained the statute and affirmed the judgment on an indictment charging that the company had refused to pay wages semimonthly when requested so to do. Under another indictment the company had been adjudged guilty of violating the law by reason of the fact that it had entered into a contract with an employee by which the provisions of the statute were waived and monthly payments were substituted for payments twice each month.

Judge Frauenthal discussed first the power of the legislature to regulate the acts of corporations under the reserved power of the State to amend charters granted by the State. Various cases were cited, among others one in which the payment of wages to discharged employees was held constitutional. Continuing he said:

This act requiring railroad corporations to pay their employees on the day of their discharge, and imposing a penalty for failure to do so, was again upheld by this court as a valid and constitutional exercise by the State of the power reserved by the constitution to alter and amend any charter of incorporations, in the case of *St. Louis, I. M. & S. R. Co. v. Paul*, 64 Ark. 83, 40 S. W. 705, 37 L. R. A. 504, 62 Am. St. Rep. 154. This case was taken upon a writ of error to the Supreme Court of the United States and by that court affirmed. (*St. L., I. M. & S. R. Co. v. Paul* 173 U. S. 404, 19 Sup. Ct. 419, 43 L. Ed. 746 [Bulletin No. 23, p. 585].) In that case Mr. Chief Justice Fuller says: "Corporations are the creations of the State, endowed with such faculties as the State bestows, and subject to such conditions as the State imposes, and, if the power to modify their charters is reserved, that reservation is a part of the contract, and no change within the legitimate exercise of the power can be said to impair its obligation; and, as this amendment rested on reasons deduced from the peculiar character of the business of the corporations and the public nature of their functions and applied to all alike, the equal protection of the law was not denied."

The plain purpose of this act now in question was to secure a frequent payment of wages earned by the employees. These corporations represent aggregations of capital, and the employees are the laborers who are dependent on their wages for their livelihood. The inconvenience to the corporation to pay the wages semimonthly could not be as great as it would be to those, whose actual necessities require the frequent payments, not to receive such payment. The

corporation has already received the full value for which it is required to pay, and this requirement to pay semimonthly the wages of its employees already earned could not substantially impair or destroy the object or purpose of its incorporation. If the legislature in its wisdom thought that by the more frequent payment of the wages to the laborer better service would be secured for the corporations, and the objects of their creation thus advanced, it would be reasonable and just to require such frequent payments. This could not be considered oppressive or wrong. We can not say that this act is an unreasonable exercise of the power of the legislature. We only pass upon the power of the legislative body of the government to act; of the wisdom, propriety, and policy of such act, under our system of government, the legislature must solely judge. (Cooley on Const. Lim. (6th Ed.) 479.)

Nor does this act deny to the defendant the equal protection of the law. It applies to all corporations. Within the sphere of its operation, all artificial persons are treated alike under like circumstances and conditions. Because the act only applies to corporations, and not to natural persons, it does not contravene the equal protection clause of the federal Constitution. Nearly all legislation is special either in the objects sought to be attained or in its application to classes. And the general rule is that legislation does not infringe the constitutional right of equal protection where all persons, whether natural or artificial, of such class, shall be treated alike under like circumstances and conditions.

It is also urged that the act is invalid because it restricts the rights of the defendant's employees to contract with it. But it is the established doctrine of the law that the liberty of contract is not universal and is subject to restrictions passed by the legislative branch of the government in the exercise of its power to promote the safety, health, and welfare of the people.

But under this act the restriction of the employee's right to contract is not direct. That restriction only applies to the corporations, and those dealing with them can not complain of the incompetency of the corporations to make contracts which are inhibited by the law, any more than they could in making contracts with persons laboring under legal disabilities, or in contracting relative to subject-matters prohibited by law.

A contract made in violation of this act is a contract against public policy. The legislature has declared by the enactment of this law that it is for the public good. When the legislature speaks in the exercise of its power to legislate, it thereby declares what is the public policy; and any contract made which is opposed to public policy is void.

The law under consideration, we think, is not contrary to any provision of the federal or state constitution; and it was within the valid exercise of legislative power for the general assembly to enact it.

But, the law being penal in its nature, it must be construed strictly; and no act that does not clearly violate its provisions can be declared an offense. The act provides that all corporations doing business in the State shall pay their employees their wages semimonthly, and it declares a violation of that provision an offense. The corporation can only violate this provision by failing or refusing to pay the wages of such employees, that have been earned, semimonthly. But

it can not fail or refuse to do this unless a request or demand has been made for the payment of such wages, or unless by its acts and conduct it shows that it will fail or refuse to pay the wages even if a request or demand for same should be made. If upon request for payment it should fail to pay, or if by acts of intimidation or coercion or oppression it should prevent the employee from making such request or demand for payment, or if it evinces from the acts or the circumstances of the case, an intention not to pay, although a request or demand for the payment of the wages should be made, then it would be guilty of a violation of this act. Any contract that might be voluntarily entered into between the corporation and its employee for the payment of the wages at a longer period than semimonthly would be void, and could not deprive the employee of his right to request or demand the payment of his wages semimonthly. But the mere agreement entered into not to pay the wages semimonthly would not subject the corporation to a fine under this act. And if the laborer or servant willingly and without coercion or act of threatened oppression by the corporation did not desire or request that his wages be paid semimonthly, then there would be no refusal or failure to pay the wages semimonthly within the prohibition of this act. The act provides that the corporation should pay its employees semimonthly their wages, and a reasonable construction of such provision would require that the corporation should have the opportunity to make such payment. If the employee did not desire and did refuse to accept the payment, then it would be requiring an unreasonable thing to be done, to make the corporation pay in such event; and so, too, if it should be required to pay in every event.

#### DECISIONS UNDER COMMON LAW.

ACCIDENT INSURANCE—EMPLOYERS' INDEMNITY—SCOPE OF POLICY—"ORDINARY REPAIRS"—*Home Mixture Guano Company v. Ocean Accident and Guarantee Corporation, Limited, of London, England, United States Circuit Court for the Northern District of Georgia, 176 Federal Reporter, page 600.*—This was an action by the guano company against the insurance company named on its policy of indemnity issued to cover all injuries, fatal or nonfatal, received by the employees of the company during the continuance of the policy while such employees were on duty at the place and in the occupations within the factories, shop, or yard of the guano company. It was agreed by the terms of the policy that all cases should be defended by it or otherwise met, and that every summons or other process served on the company would at once be forwarded to the insurer. During the continuance of the policy, one Womack was injured while engaged in assisting to line with lead a new acid tank which the company had had built by a contractor to replace tanks that had been destroyed by fire. Womack was seriously and permanently injured, and following his injury the employing company had paid hospital and doctors' bills, and had then forwarded them to the insurance company, asking for reimbursement. The company refused to pay

these bills or to defend the action which Womack subsequently brought, holding that the case was not one that was covered by the terms of the policy. A judgment against the employing company was paid by it and suit thereupon brought to recover from the insurance company the amount so paid with other expenses connected with the suit. To the declaration in this suit the insurance company demurred, holding that no grounds for action were shown in view of the contract entered into by the guano company and itself. This view was upheld and the demurrer sustained on grounds that are set forth in the following quotations from the opinion of the court, which was delivered by Judge Newman.

There is in the policy of insurance, as shown by the declaration, the following provision:

"This policy does not cover loss from liability for injuries to, or caused wholly, or in part by: \* \* \* (e) Any person connected with the making of additions to, or alterations in, any structure, building or plant, or in connection with the construction, demolition, or extraordinary repairs thereof; but ordinary repairs when made on the premises mentioned in said schedule by employees whose compensation is regularly included in the estimated pay roll, are permitted."

Paragraph 13 of what is called "the schedule" contains this provision:

"The employees whose compensation is included in the foregoing list, are not employed in the making of alterations in, or additions to, structures, buildings or plants, nor in connection with the construction, demolition, or extraordinary repairs thereof."

There is a demurrer to the declaration on the ground that there is no cause of action set out in this declaration. The declaration also is specially demurred to upon several grounds.

The precise question for determination here is whether J. L. Womack, the person injured at the time he was so injured, was engaged in work which is covered by the policy of indemnity which was issued to the plaintiff by the defendant company. The declaration says, as will be seen above:

"That in the early part of the year 1906 a fire burned and destroyed a portion of its manufacturing plant, being the acid chamber thereof, and, in order to manufacture fertilizers, it was necessary to rebuild said acid chamber."

It was then alleged that after the wooden building was erected it became necessary to line the same with the lead to prepare it as an acid chamber, and Womack, who was on the pay roll, as a regular employee of the guano company, was engaged in unrolling the lead to be used in lining the chamber.

Was this work such that, injury occurring, the indemnity company would be liable to the plaintiff, in view of the exceptions contained in the policy, which have been quoted above, and the provision of paragraph 13 of the schedule?

The argument here is that although the building containing the acid chamber was destroyed by fire, and the same had been rebuilt and was being relined, inasmuch as relining would be an ordinary

repair, and it was being done by regular employees of the guano company, it does not come within the exception stated in the policy.

Persons engaged in connection with "construction, demolition, or extraordinary repairs" are not covered. Persons engaged in "ordinary repairs," when made on the premises mentioned in the schedule by employees whose compensation is regularly included in the company's pay roll, are covered. It is contended here—and the contention is unquestionably sound—that this policy should be construed most strongly against the indemnity company and the exceptions in the policy construed as against the company; but, construing the policy in this way, can it be said to cover the person injured in the work in which Womack was engaged at the time he was injured, although he was on the regular pay roll of the company? For some reason best known to the indemnity company it saw fit to make an exception in its policy as to employees engaged in "construction, demolition, or extraordinary repairs," and the guano company assented to this in the schedule.

While it is true that the indemnity company would probably have been liable had Womack been simply engaged as an employee of the company, and on its pay roll, in assisting in relining the acid chamber, that being all, yet, in view of the fact that the building in which the acid chamber was contained was completely destroyed, and was being rebuilt, is there any such liability?

It is perfectly clear from the petition, and from the letters of the plaintiff company attached to the petition, that a large part of its manufacturing plant was destroyed, and that it was engaged in rebuilding the same. That portion of the plant, undoubtedly, in which the acid chamber was placed was being rebuilt. Therefore the contention is that what Womack was doing at the time of his injuries was not repair work at all, but was extraordinary construction work. If the building and the acid chamber were destroyed and the whole were being rebuilt, it could hardly be called repairing the acid chamber.

It is urged for the plaintiff that a case is made which should go to a jury to determine whether or not this was ordinary repair work. If there was any doubt about the proper construction of this contract or if any questions of fact were involved, this would be true; but there is no difficulty from the terms of this policy and from the facts stated in the declaration and exhibits as to what was being done and in applying the same to the facts stated. If it was construction work, or extraordinary repairs in which J. L. Womack was assisting, his injuries are not covered by the policy. If ordinary repairs, it is covered by the policy. To say that where a large part of a manufacturing plant is burned and is being rebuilt, and an entirely new acid chamber put in, is ordinary repair work is not possible, giving the most extreme construction to this policy against the indemnity company and in favor of the guano company.

The meaning of this policy seems to be quite plain, and even the most strained construction could not make it cover the accident to J. L. Womack under the circumstances surrounding its occurrence and in view of what was being done at the guano company's plant at the time of his injury.

The demurrer to the declaration must be sustained.



CONTRACTS FOR SERVICE—SUBSTANTIAL PERFORMANCE—SATISFACTION OF EMPLOYER—*Handy v. Bliss*, *Supreme Judicial Court of Massachusetts*, 90 *Northeastern Reporter*, page 864.—H. P. Handy sued to recover for labor and materials employed in the construction of a building. There was a verdict in his favor, whereupon the defendant, Mrs. Bliss, excepted. The exceptions were sustained in part, so that the verdict could not stand. The points of interest from a labor standpoint, however, were the rulings as to the substantial and satisfactory performance of a contract and the right of the contractor to recover therefor. On these points Judge Knowlton, who spoke for the court, said:

To entitle the plaintiff to recover in a case of this kind there must be an honest intention to perform the contract and an attempt to perform it. There must be such an approximation to complete performance that the owner obtains substantially what was called for by the contract, although it may not be the same in every particular, and although there may be omissions and imperfections on account of which there should be a deduction from the contract price.

There is no reason why the doctrine of substantial performance should not apply where the contract is to be performed to the satisfaction of the owner, according to the usual meaning of this expression as applied to contracts of this kind, namely, to his satisfaction, so far as he is acting reasonably in considering the work in connection with the contract.

Another request relates to the requirements that the work should be done "to the entire satisfaction and approval of the owner." The question is whether this language means that the owner must act reasonably in determining whether the work is satisfactory, or whether, if he acts in good faith, he may decline to be satisfied and refuse his approval upon a whimsical and unreasonable exercise of personal taste or prejudice.

Where the subject-matter of the contract seems to involve questions of personal taste or prejudice, and especially when in such a case no benefit will pass under the contract unless the work is accepted, there is more reason for giving such language the latter construction. But as was said in *Hawkins v. Graham* (149 Mass., 284; 21 N. E., 312), "when the consideration furnished is of such a nature that its value will be lost to the plaintiff, either wholly or in great part unless paid for, a just hesitation must be felt and clear language required before deciding that payment is left to the will, or even to the idiosyncracies of the interested party. In different cases, courts have been inclined to construe agreements of this class as agreements to do the thing in such a way as reasonably ought to satisfy the defendant."

The erection of a building upon real estate ordinarily confers a benefit upon the owner, and he should not be permitted to escape payment for it on account of a personal idiosyncrasy. Indeed, under the law of Massachusetts, this question is usually of little practical application to contracts for buildings upon real estate; for if the contract is not performed by reason of the failure of the owner to be satisfied with that which ought to satisfy him, there can be a recovery upon a quantum meruit; and in most cases the deduction that would

be made from the contract price, for the difference between the literal performance of the contract and that which would have been a complete performance if the owner had acted reasonably and accepted the work, would be little if anything.

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**EMPLOYER AND EMPLOYEE—TERMINATION OF RELATION—ASSUMED RISKS—***Willmarth v. Cardoza*, *United States Circuit Court of Appeals for the First Circuit*, 176 *Federal Reporter*, page 1.—Albert Cardoza was employed by John Willmarth and others as a hod carrier and was injured by the negligent firing of a blast after his day's work had concluded. Cardoza had remained on the premises of his employer to cover up the work on which he had been engaged and then went to get his coat from a shed, the door of which was locked. While waiting for this door to be opened he was injured as above stated, a piece of rock striking and breaking his leg. In the court below judgment had been rendered in his favor on the ground that he was no longer an employee of Willmarth's and that the act of the employee who fired the blast was not that of a fellow-servant. It was conceded that if Cardoza was at the time of the injury an employee he was a fellow-servant of the person by whose negligence he was injured. The question of the termination of employment had been submitted to the jury in the court below and was decided in favor of the plaintiff. On appeal the court of appeals ruled that it was error to submit this question to the jury and reversed the judgment of the circuit court, as appears from the following quotations from the opinion of the court as delivered by Judge Lowell:

The cases hold generally that a workman's employment does not cease at the instant his work time is over, that employment includes the incidents of employment, and that the workman is still his master's servant while he is gathering up his tools and adjusting his clothes after the day's work, and is leaving the place of his employment. (*Olsen v. Andrews*, 168 Mass. 261, 47 N. E., 90; *O'Neil v. Pittsburg R. R.* (C. C.), 130 Fed. 204; *Manville v. Cleveland & T. R. R.*, 11 Ohio St. 417; *Ewald v. C. & N. W. R. R.*, 70 Wis. 420, 36 N. W. 12, 591; 5 Am. St. Rep. 178 [etc.].)

Quoting *Tunney v. Midland R. R.*, L. R., 1 C. P. 291, 296, Pollock states the rule of common employment as follows:

"A servant, when he engages to serve a master, undertakes, as between himself and his master, to run all the ordinary risks of the service, including the risk of negligence upon the part of a fellow-servant when he is acting in the discharge of his duty as servant of him who is the common master of both." (Pollock on Torts (Webb's Ed.), p. 117.)

Is it to be supposed that implied contract and undertaking end suddenly at a fixed minute, while the servant is still surrounded by the conditions and risks of his employment, or that they continue until the servant has ceased to be affected by these conditions and risks? We think the latter conclusion is obviously correct. To

adopt the former, whether in favor of the master or of the servant, would deprive the rule of its reason.

In the case at bar the plaintiff, indeed, did not dispute that his employment would have continued until he reached the highway, provided that he had walked there directly from the building. This concession is decisive of the case at bar. If the employment covers, not only the time during which the workman is engaged in his ordinary labor, but also a later time, during which he is passing from the surroundings of his employment into surroundings unrelated thereto, then this additional period will evidently be longer or shorter according to the circumstances. The distinction between employment and nonemployment is the same, whether it works in favor of the master or of the servant. In the case at bar the plaintiff is contending that his employment ceased before the accident; but in the next case the employee may be driven to maintain that his employment is prolonged to his final departure from the premises. This happened in *Boyle v. Columbian Fire Proofing Company*, 182 Mass. 93, 102, 64 N. E. 726, 730, a suit brought under the employer's liability act (act April 22, 1908, c. 149, 35 Stat. 65 [U. S. Comp. St. Supp., 1909, p. 1171]). The plaintiff was injured while going down in an elevator at the noon hour to get his dinner, and the court said:

"Going from the particular part of the building where he has been set to work, to eat dinner, is an incident of a workman's employment who is engaged by the day in erecting the building in question, at least so long as he has not finished passing over or through the building to get his dinner."

In the case at bar there was no evidence which warranted the jury in finding that, at the time of the accident, the plaintiff had quitted the defendants' employ. The learned judge was therefore in error in leaving the question of employment to the jury.

The judgment of the circuit court is reversed, the verdict set aside, and the case remanded to that court for further proceedings.

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EMPLOYERS' LIABILITY—INCOMPETENCE OF FELLOW-SERVANT—EVIDENCE OF EMPLOYER'S KNOWLEDGE—*Northern Pacific Railway Company v. Lundberg*, *United States Circuit Court of Appeals, Ninth Circuit*, 176 *Federal Reporter*, page 847.—John P. Lundberg was employed as a brakeman by the company named above and while coupling an engine to a car was injured by the alleged negligence of the engineer. It was claimed on the trial that the engineer was known to be incompetent and reckless, and evidence to this effect was submitted in the trial court, to which the defendant company objected; the company also contended that the injured employee was guilty of contributory negligence and that he assumed the risks of his employment, and asked for a ruling of the court to this effect. The court allowed these questions to go to the jury, and from the verdict and judgment in Lundberg's favor an appeal was taken to the court of appeals, resulting in the judgment of the court below being affirmed.

The opinion was delivered by Judge Hunt, and is in part as follows:

Upon the trial of the case the plaintiff [Lundberg] sought to prove that the engineer in charge of the locomotive on which he was injured was negligent, unskillful, reckless, and incompetent, and that the defendant company had been negligent in retaining the engineer after it had notice and knowledge of his want of skill and competency. For this purpose the plaintiff offered, and, over the objection of the defendant, was permitted to read, in evidence a record kept by the defendant company of complaints and charges which had been preferred against the engineer in question for various delinquencies in the discharge of his duty. The record, so offered and admitted, disclosed that Heasley, the engineer, entered the employ of the defendant company on November 3, 1899; that in December, 1899, he was given a thirty-days' record suspension for carelessness in starting a train, and again during the same month a ten-days' record suspension for attempting to take water at a tank without cutting his engine from the train. In October, 1900, he was given a sixty-days' record suspension for making an agreement with the crew of an opposing train that he met on the main line not to make any official report of it, a thirty-days' record suspension in January, 1901, for poor judgment in making a stop at a water tank, and in August, 1902, a reprimand for derailling a car. In December, 1902, he was given a five-days' record suspension for running his engine off an open switch, and in August, 1902, he was reprimanded for allowing unauthorized persons to ride in his engine. In April, 1904, he was given a sixty-days' record suspension for damage to a car on the Kalama Transfer Boat, and in March, 1908, a thirty-days' suspension for the derailment of an engine at Richfield.

Two letters, one of warning and one of suspension, were also read, one dated September 1, 1902, and one in April, 1904. After reading them Judge Hunt said:

The action of the court below in admitting this record and these letters, and the refusal of the court afterwards on motion of defendant to strike out this evidence, are assigned as errors, and the case of *Southern Pacific Co. v. Hetzer*, 135 Fed. 272, 68 C. C. A. 26, 1 L. R. A. (N. S.) 288, is cited to sustain the defendant's contention. For the purpose of proving the alleged incompetency of the engineer, Delano, the plaintiff, Hetzer, was asked by his counsel on the trial of the case if there was any other occurrence of sudden stopping or jerking of the train while Delano was in charge of it as the engineer during the day of the accident, and, over the objection of the defendant, the plaintiff was permitted to testify that about three hours before the accident Delano stopped his train in a very rough manner, causing the plaintiff to stagger. Evidence of another act of a similar character on the part of the engineer was admitted in evidence over the objection of the defendant company. No attempt was made to bring home to the defendant any knowledge of the engineer's carelessness, and no showing was made either that Delano was habitually reckless and careless, so as to charge the defendant company with knowledge thereof, nor was it shown that the defendant company was aware, or had notice, of any acts indicating that the engineer had been

reckless or careless on previous occasions, or that he was incompetent to discharge the duties of his employment. It was therefore held that the trial court committed error in admitting this testimony, in the absence of any showing of knowledge on the part of the company. But, in the discussion of the question presented in that case, the court distinctly states the rule to be well settled that prior acts of an engineer, showing want of care and indicating incompetence, are admissible in evidence where knowledge of such acts is brought home to such defendant company.

A number of cases are cited by the court in its opinion, and to the same effect is the case of *Conover v. Neher-Ross Co.*, 38 Wash. 172, 80 Pac. 281, 107 Am. St. Rep. 841. The defendant's objection, therefore, was not well taken, and no error was committed by the trial court in that respect.

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EMPLOYERS' LIABILITY—LAST CLEAR CHANCE—*Herr v. St. Louis and San Francisco Railroad Company*, *United States Circuit Court of Appeals, Fifth Circuit*, 174 *Federal Reporter*, page 938.—W. A. Herr sued the company named above to recover damages for the death of E. J. Herr, who was killed while acting as conductor on a train of the company. It was in evidence that Herr was negligent in having his train in the position in which it was at the time of the injury causing his death. It appeared, however, that one Smith, the engineer of the train which collided with Herr's train, could have avoided the accident by the use of means which were in his power. In the circuit court judgment was given for the railroad company and Herr appealed, with the result that the judgment of the lower court was reversed and the cause remanded for a new trial. The opinion was written by Judge Shelby, who discussed the evidence and announced the law applicable to the case in the concluding paragraph of his opinion as follows:

If Smith, the engineer in charge of the engine attached to train No. 256, did see, or could, by the exercise of ordinary or reasonable care, have seen, standing on the track, the caboose in which Herr sat and on which he was killed, far enough before striking it to have avoided the collision by stopping his train, the plaintiff would be entitled to recover, notwithstanding the previous negligence of Herr. The rule seems to be unquestioned that notwithstanding the person injured was guilty of negligence in exposing himself to an injury at the hands of the defendant, yet, if the defendant discovered the exposed situation of the person in time by the exercise of ordinary or reasonable care after so discovering it to have avoided the injury, and nevertheless failed to do so, the contributory negligence of the person injured does not bar a recovery of damages from the defendant. (*Grand Trunk Railway Co. v. Ives*, 144 U. S. 408, 429, 12 Sup. Ct. 679, 36 L. Ed. 485; *Inland & Seaboard Coasting Co. v. Tolson*, 139 U. S. 551, 11 Sup. Ct. 653, 35 L. Ed. 270; 1 *Thompson on Negligence*, secs. 237, 238, 239.)

The judgment of the circuit court is reversed and the cause remanded for a new trial.

**EMPLOYERS' LIABILITY—MISREPRESENTATION OF AGE—***Lupher v. Atchison, Topeka, and Santa Fe Railway Company, Supreme Court of Kansas, 106 Pacific Reporter, page 284.*—Jay Lupher sued the company named for damages for injuries received by reason of its alleged negligence while he was employed by it as brakeman. Lupher was 18 years of age, but represented himself to be 21 in order to gain employment. On account of this misrepresentation the lower court sustained a demurrer to his evidence and rendered judgment for the company. Lupher thereupon appealed, and secured a reversal of the lower court. The reasons therefor appear in the following portion of the opinion, which was delivered by Judge Mason:

The decision of the trial court is supported by *Norfolk & W. Ry. Co. v. Bondurant, Adm'r*, 107 Va. 515, 59 S. E. 1091 [Bulletin No. 75, p. 648], upon which it is said to have been based. That case, in turn, is founded expressly upon *Fitzmaurice v. New York, N. H. & H. R. Co.*, 192 Mass. 159, 78 N. E. 418, 116 Am. St. Rep. 236, and the citations in a note thereto in 6 L. R. A. (N. S.) 1146. The substance of the Massachusetts case is that one who uses a railroad ticket obtained at a reduced rate by fraudulent representations is not a passenger in the sense of being entitled to protection as such, and stands in no better position than a mere trespasser. This is the general doctrine, to which there seems to be no dissent. (6 Cyc. 538.) The Virginia court took the view that by parity of reasoning one who obtains employment from a railway company by a false statement as to his age is prevented by his fraudulent act from becoming an employee. We think the two situations are obviously dissimilar. The analogy is not close enough to warrant the application of the same rule. Among other differences may be noted this: In the one instance a person desiring to be transported from one point to another fraudulently procures the railway company to render him that service, a service which is wholly for his benefit, and in which the company has no interest whatever. He obtains by false pretenses something of value to himself for which he renders no equivalent. In the other the seeker of employment does, it is true, procure his contract by false representations, but, having obtained it, he begins the performance of service for the benefit of the company, and renders it an equivalent for all that he receives from it. True, the company could at its option upon discovery of the deceit discharge him at any moment (26 Cyc. 989), but even then he would be entitled to compensation for the time he had served, not necessarily at the agreed rate, but according to the reasonable value of his services. (*Anstee v. Ober*, 26 Mo. App. 665.) The relation of master and servant exists in virtue of the one party performing valuable services which are accepted and paid for by the other. If Lupher had arrived at full age when the accident occurred, it would hardly be contended that he was still a trespasser. Yet he would still have been working for the company under a contract he had obtained by misrepresentation. The difference would be that his arrival at majority would have rendered it absolutely impossible that any injury should result to the company from the deception.

In *Matlock v. Williamsville, etc., Ry. Co.*, 198 Mo. 495, 95 S. W. 849, 115 Am. St. Rep. 481, it was held that a right of recovery existed

under facts substantially similar to those here presented. And in *Kirkham v. Wheeler-Osgood Co.*, 39 Wash., 415, 81 Pacific 869, a judgment was sustained based upon the injury through neglect of an employer of a minor who had gained his opportunity to work by overstating his age. The theory that the use of deception in obtaining employment prevents the establishment of the relation of master and servant appears not to have been suggested in either of these cases, nor does it seem ever to have been approved by a reviewing court except in the one instance. Notes to the Virginia case in 15 L. R. A. (N. S.) 443, and 122 Am. St. Rep. 874, contain no mention of any similar decision.

We conclude that, both upon reason and authority, the plaintiff was entitled to recover damages for any injury resulting from a violation of the duties ordinarily owing from an employer to an employee. Of course, if it had been established that the accident was occasioned by his minority or immaturity, a very different question would be presented.

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**EMPLOYMENT OF CHILDREN—INJURY—RIGHT OF FATHER TO RECOVER DAMAGES—***Braswell v. Garfield Cotton Oil Mill Company, Court of Appeals of Georgia, 66 Southeastern Reporter, page 539.*—R. Braswell sued the company named for an injury to his son, who was employed by the company to sack cotton-seed hulls, but was injured while oiling moving machinery. In the trial court damages were refused the father, who thereupon appealed, and secured a reversal of the judgment of the lower court, as appears from the following extract of the opinion of the court.

Judge Powell, after stating the facts, said:

When a father hires his minor child to another, the contract of employment, as in general is true in cases of masters and servants, tends to define the reciprocal rights and duties of the relationship (see *Brown v. Rome Machinery & Foundry Co.*, 5 Ga. App. 142, 62 S. E. 720); and the father, suing for the loss of services of his minor son, occasioned by injuries received pending the employment, is held to have assumed, through the contract by which he hired the child to the master, the risks of the particular employment included in the contract, to the same extent that the child would have assumed them if he had been an adult and had made the contract of employment himself. But, when the employer puts the minor to doing work not contracted for, the reason fails, and the rule is different.

Touching the services of an infant, it may be said, upon surest footings of reason and of law, that the father has a property right. In the case of *Childs v. Yonge*, 15 Ga. 356, 60 Am. Dec. 698, the question is asked and answered: "May a father treat his minor son as his servant, and sue for an injury to the son, as for an injury to a servant? If the son be old enough to render service, the father may." This statement is cited and approved in *Amos v. Atlanta Ry. Co.*, 104 Ga. 809, 812, 31 S. E. 42.

The case of one who engages from a parent a minor child for the purpose of a particular service is so similar in basal consideration to the case of one who hires a slave, a horse, a chattel, or any other thing of

value from another for one purpose, and then employs it for another, as to make the general principle, applicable in the familiar class of cases last mentioned, likewise applicable to the case of the father, when injury has resulted to him from the fact that the son's services were diverted from what the original intention of the contracting parties was that they should be.

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LABOR ORGANIZATIONS — UNINCORPORATED ASSOCIATIONS—  
NATURE—EMBEZZLEMENT BY OFFICER—*Rhode v. United States, Court of Appeals of the District of Columbia, 38 Washington Law Reporter, page 26.*—William Rhode had been convicted of embezzlement of funds belonging to local union No. 77 of the International Union of Steam Engineers, and appealed. This union was an unincorporated association, the objects of which were declared to be the mutual benefit of its members in matters of employment, the encouragement of feelings of friendship, mutual assistance, and the extension of license laws for the better protection of life and property. The membership consisted of persons employed as steam engineers, who paid monthly dues of \$1 each into the hands of the financial secretary, who turned them over to treasurer. Rhode was treasurer of the association in April, 1908, and at the meeting of April 9 was directed to draw certain funds from a savings bank and deposit the amount that was in his hands with a trust company and report to the next meeting. At the meeting of April 16 Rhode appeared and reported that he had drawn the money from the bank and put it in a wallet with some money of his own, but that while on his way to the meeting he had been robbed of the wallet and its contents, the loss to the union being about \$220. On the evidence the court below found him guilty of embezzlement as charged, the court having refused to instruct the jury that the crime, if any, was larceny and not embezzlement, and, second, that the funds in Rhode's hands were partnership funds in which he had an interest, so that he could not be guilty of embezzlement thereof. On refusal to grant these instructions Rhode excepted. The exceptions were overruled by the court of appeals and the judgment of the court below affirmed. The opinion, which was delivered by Judge Shepard, is reproduced in part below:

1. The first assignment of error is that the offense shown by the evidence, if an offense at all, is larceny and not embezzlement as charged in the indictment. To constitute larceny the property must be unlawfully taken from the possession of another with the fraudulent intent to convert the same to his own use. The taker without the consent of the owner commits a trespass. The offense of embezzlement consists in the wrongful conversion of the property, which has been intrusted to the possession of another. He commits no trespass or wrong in acquiring the possession, but a breach of trust



in converting the property to his own use. As the appellant was intrusted with the money in this case, as the agent of the owner, if he committed any offense at all, it amounted to embezzlement, and he was properly indicted and convicted of that offense under section 834 of the Code, which reads as follows:

"If an agent, attorney, clerk or servant of a private person or copartnership, or any officer, attorney, agent, clerk or servant of any association or incorporated company shall, wrongfully convert to his own use, or fraudulently take, make away with, or secrete, with intent to convert to his own use, anything of value which shall come into his possession or under his care by virtue of his employment or office, whether the thing so converted be the property of his master or employer or that of any other person, copartnership, association or corporation, he shall be deemed guilty of embezzlement, and punished by a fine not exceeding \$1,000, or by imprisonment for not more than ten years, or both."

2. The appellant chiefly relies on the second assignment of error, which is that the court refused "to hold that upon the proof it appeared that the defendant was a member of a partnership whose property the money, alleged to have been embezzled, was; and that property of a partnership could not be the subject of embezzlement by one of the partners."

Unincorporated associations of persons for social, educational, and charitable purposes, or for the mutual benefit and advancement of the interests of the associations in various way, as may be provided in their several constitutions and by-laws, have always been recognized as lawful, though there may be no statutory regulation of their organization and control. As such they are included in section 834, supra, among those whose officers, agents, etc., may by wrongfully converting the funds intrusted to them become liable to punishment for embezzlement. The association in this instance was not organized for any purpose of trade or profit. There could, therefore, be no mutual participation of members in profit or loss. The retiring of a member by reason of death, resignation, or expulsion worked no dissolution of the association. It continued its existence regardless of changes in its membership. An association for such purposes and under such conditions is not a partnership. Assuming that under certain conditions it might possibly be held liable as a partnership at the suit of others than members, by virtue of the principle of estoppel, yet as between its own members, it can not be held to be a partnership. (*Lafond v. Deems*, 81 N. Y. 507; *Burke v. Roper*, 79 Ala. 138-142; *Ash v. Guie*, 97 Pa. St. 493-499.)

It follows that in so far as the relation of partnership is involved the court did not err in refusing to take the view urged.

3. It is further contended that by reason of his membership of the unincorporated association, the appellant had an interest in the fund analogous to that of a member of a partnership, or such a property interest, at least, that he can not be held guilty of the offense of embezzlement for its wrongful conversion.

This fund was accumulated, through payments of dues and other ways, for the promotion of the general purposes of the association, each member being entitled to as much of the expected benefits as another. There appears to exist no power to compel a member to pay dues; but his membership would cease upon his failure to do so.

An active member has no interest in the fund, which he could withdraw or assign, and when he retires is entitled to no distribution. The by-laws provide that there shall be a treasurer into whose possession all moneys of the association shall be delivered when collected by the financial secretary or agent. And when so received by the treasurer they can not be paid out for any purpose except by draft signed by the president and recording secretary in pursuance of a resolution adopted at a meeting of the union.

The appellant, being an active member and remaining one during his term of office, was elected treasurer, and the fund which he converted came into his possession by virtue of his office. Considering the objects and laws of the association, and the fact that the majority of the members in meeting assembled were vested with the absolute control and disposition of the funds in the treasury, it is difficult to perceive that the appellant had any definite interest therein in the nature of property.

The appellant was an officer of his association, and came into possession of the money by virtue of that office only. He was not entitled to the possession of any part of the fund except by virtue of his office, and he could not pay it out, in whole or in part, unless under an order passed at a meeting of the association. Any other disposition of a dollar of the fund would be a plain breach of his trust. The statute especially applies to officers of the unincorporated association, the various kinds of which were well known; and there is nothing to indicate an intention to limit the offense to those officers only who are not at the same time actual members of such associations. No reason can be suggested why officers equally guilty of willful wrongdoing, should be exempted from punishment for the sole reason that they might happen to be members as well as officers of the association.

The charge of the trial court was a correct statement of the law in application to the evidence, and the judgment will therefore be affirmed.

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NEGLIGENCE OF FELLOW-SERVANT—LIABILITY OF ONE WORKMAN FOR INJURIES TO ANOTHER—*Brower v. Northern Pacific Railway Company, Supreme Court of Minnesota, 124 Northwestern Reporter, page 10.*—John D. Brower sued the company named and one Klovstad, a locomotive engineer in its employment, for damages resulting from injuries caused by the negligence of Klovstad. The latter demurred to the complaint charging him with liability, which demurrer the district court of St. Louis County overruled. Klovstad thereupon appealed, the appeal resulting in the ruling of the lower court being affirmed. Upon this point Judge Lewis, speaking for the supreme court, said:

Whether a negligent servant is liable in an action for damages by another servant in the employ of the same master depends upon the common-law obligation to so conduct himself as not to cause injury to another, and does not rest upon any duty imposed by privity of contract. (*Griffiths v. Wolfram*, 22 Minn. 185; *Osborne v. Morgan*, 130 Mass. 102, 39 Am. Rep. 437; *Warax v. Cincinnati, N. O. & T. R. Ry. Co. (C. C.)* 72 Fed. 637; *Charman v. Lake Erie & W. R. Co. (C. C.)*

105 Fed. 449; *Atkins v. Field*, 89 Me. 281, 36 Atl. 375, 56 Am. St. Rep. 424; *Dudley v. Ill. Central Ry. Co.*, 96 S. W. 835, 29 Ky. Law Rep. 1029, 13 L. R. A. (N. S.) 1186; *Ward v. Pullman Car Corporation* (Ky.) 114 S. W. 754; *Baird v. Shipman*, 132 Ill. 16, 23 N. E. 384, 7 L. R. A. 128, 22 Am. St. Rep. 504.) As stated in *Griffiths v. Wolfram*, supra: "Where several persons are engaged in the same work, in which the negligent or unskillful performance of his part by one may cause danger to the others, and in which each must necessarily depend for his safety upon the good faith, skill, and prudence of each of the others in doing his part of the work, there it is the duty of each to the others engaged on the work to exercise the care and skill ordinarily employed by prudent men in similar circumstances, and he is liable for any injury occurring to any one of the others by reason of a neglect to use such care and skill."

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RAILROAD COMPANIES—POSTAL CLERKS—STATUS—LIABILITY FOR INJURIES—*Barker v. Chicago, Peoria, and St. Louis Railway Company*, *Supreme Court of Illinois*, 90 *Northeastern Reporter*, page 1057.—This was an appeal from a judgment in favor of William Barker, a postal clerk, who was injured by the alleged negligent act of the railroad company, on whose train he was riding. Among the grounds offered for reversing the lower courts, the company contended that it did not owe postal clerks the duty owed to passengers and that the instruction as to necessary care in his behalf should indicate only ordinary care. This the supreme court denied and affirmed the judgment of the court below. Judge Dunn, who delivered the opinion of the court, spoke as follows on the status of employees not in the service of the railroad company, but carried by it on its trains:

The appellee [Barker] was lawfully on the train, to be carried by the appellant for a consideration received by it under its contract with the Government as its compensation for carrying the mail and the person in charge of it. Under such circumstances the law imposes upon the railroad company the duty of carrying safely, and the degree of care required is commensurate with the dangerous consequences likely to result from negligence. Whether or not, in a strict sense, the relation of carrier and passenger exists between the railroad company and the postal clerk, courts hold with substantial unanimity that a postal clerk upon a railway train is entitled to the same measure of care as an ordinary passenger for hire. He has as good a right to be upon the train as the ordinary passenger, and his life is just as valuable. The moral duty to exercise care to avoid injuring him is the same, and no valid reason exists for a distinction in the legal duty. The rule that requires the exercise of the utmost care and vigilance to guard against accident extends to every case in which a carrier receives and agrees to transport another not in its employment, whether by contract with the person to be carried or with some other person by whom the person to be carried is employed for the purpose of transacting the employer's business upon the cars or other conveyances of the carrier. In case the person so to be car-

ried is injured through the negligence of the carrier or its servants, without his fault, his right to recover damages rests upon the same basis as that of an ordinary passenger for hire. Recoveries have been had on this basis in many other cases besides those already cited. The principle has been applied to postal clerks, express messengers, persons riding on a drover's pass, and persons permitted to conduct a business on a public conveyance by arrangement with the carrier. (*Gleeson v. Virginia Midland Railway Co.*, 140 U. S. 435, 11 Sup. Ct. 859, 35 L. Ed. 458; *Nolton v. Western Railroad Corp.*, 15 N. Y. 44, 69 Am. Dec. 623; *Blair v. Erie Railway Co.*, 66 N. Y. 313, 23 Am. Rep. 55; *Brewer v. New York, Lake Erie & Western Railroad Co.*, 124 N. Y. 59, 26 N. E. 324, 11 L. R. A. 483, 21 Am. St. Rep. 647 [etc.].)

In Pennsylvania it has been held that the right of action of a postal clerk for injuries received while being carried in the mail car is only such as would exist if he was an employee of the railroad company, and does not stand on the same footing as that of a passenger. (*Pennsylvania Railroad Co. v. Price*, 96 Pa. 256; *Foreman v. Pennsylvania Railroad Co.*, 195 Pa. 499, 46 Atl. 109.) But those decisions are based upon the construction of a statute of Pennsylvania.

We have held that a railroad company, in contracting with an express company for the transportation of express matter and the company's messengers in charge thereof, may require an exemption from liability for the negligence of its employees, and that a contract made by the messenger with the express company in consideration of his employment, assuming all risk of injury in the course of his employment, occasioned by the negligence of the railroad company, and releasing the railroad company from liability to him therefor, was not against public policy, but would be enforced. (*Blank v. Illinois Central Railroad Co.*, 182 Ill. 332, 55 N. E. 332.) The same rule has been applied to a like contract made by a sleeping-car porter. (*Chicago, Rock Island & Pacific Railway Co. v. Hamler*, 215 Ill. 525, 74 N. E. 705, 1 L. R. A. (N. S.) 674, 106 Am. St. Rep. 187.) The principle on which these cases were decided is that the railroad company is not bound to receive and haul over its road express cars or sleeping cars, or to furnish to the owners of such cars facilities for carrying on their business on its railroad. It may undertake to do so; but, if it does, the undertaking is not the performance of a duty imposed by law, but is a special contract, giving rights which, as a common carrier, it could not be compelled to grant. The principle is announced in numerous decisions of other courts, but is not applicable here. There was no release of the appellant's liability, either by the appellee or by the Government. Even if it be conceded that the appellant was not a common carrier as to the appellee and that the appellee was not a passenger, yet appellant was liable to the appellee for negligence to the same extent as to a passenger, and the fact that his contract to release the appellant from liability would have been valid is not important, unless he actually made a contract to release it. The trial court, therefore, did not err in instructing the jury as to the measure of care required of the appellant.

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State.	Name of bureau.	Title of chief officer.	Location of bureau.
<b>UNITED STATES.</b>			
United States.....	United States Bureau of Labor.....	Commissioner.....	Washington, D. C.
California.....	Bureau of Labor Statistics.....	Commissioner.....	San Francisco.
Colorado.....	Bureau of Labor Statistics.....	Deputy Commissioner.	Denver.
Connecticut.....	Bureau of Labor Statistics.....	Commissioner.....	Hartford.
Idaho.....	Bureau of Immigration, Labor, and Statistics.	Commissioner.....	Boise.
Illinois.....	Bureau of Labor Statistics.....	Secretary.....	Springfield.
Indiana.....	Bureau of Statistics.....	Chief.....	Indianapolis.
Iowa.....	Bureau of Labor Statistics.....	Commissioner.....	Des Moines.
Kansas.....	Bureau of Labor and Industry.....	Commissioner.....	Topeka.
Kentucky.....	Department of Agriculture, Labor, and Statistics.	Commissioner.....	Frankfort.
Louisiana.....	Bureau of Statistics of Labor.....	Commissioner.....	Baton Rouge.
Maine.....	Bureau of Industrial and Labor Sta- tistics.	Commissioner.....	Augusta.
Maryland.....	Bureau of Industrial Statistics.....	Chief.....	Baltimore.
Massachusetts.....	Bureau of Statistics.....	Director.....	Boston.
Michigan.....	Bureau of Labor and Industrial Sta- tistics.	Commissioner.....	Lansing.
Minnesota.....	Bureau of Labor.....	Commissioner.....	St. Paul.
Missouri.....	Bureau of Labor Statistics and In- spection.	Commissioner.....	Jefferson City.
Montana.....	Bureau of Agriculture, Labor, and In- dustry.	Commissioner.....	Helena.
Nebraska.....	Bureau of Labor and Industrial Sta- tistics.	Deputy Commissioner.	Lincoln.
New Hampshire.....	Bureau of Labor.....	Commissioner.....	Concord.
New Jersey.....	Bureau of Statistics of Labor and In- dustries.	Chief.....	Trenton.
New York.....	Department of Labor.....	Commissioner.....	Albany.
North Carolina.....	Bureau of Labor and Printing.....	Commissioner.....	Raleigh.
North Dakota.....	Department of Agriculture and Labor.	Commissioner.....	Bismarck.
Ohio.....	Bureau of Labor Statistics.....	Commissioner.....	Columbus.
Oklahoma.....	Department of Labor.....	Commissioner.....	Guthrie.
Oregon.....	Bureau of Labor Statistics and Inspec- tion of Factories and Workshops.	Commissioner.....	Salem.
Pennsylvania.....	Bureau of Industrial Statistics.....	Chief.....	Harrisburg.
Philippine Islands.....	Bureau of Labor.....	Director.....	Manila.
Rhode Island.....	Bureau of Industrial Statistics.....	Commissioner.....	Providence.
South Carolina.....	Department of Agriculture, Com- merce, and Industries.	Commissioner.....	Columbia.
Texas.....	Bureau of Labor Statistics.....	Commissioner.....	Austin.
Virginia.....	Bureau of Labor and Industrial Sta- tistics.	Commissioner.....	Richmond.
Washington.....	Bureau of Labor.....	Commissioner.....	Olympia.
West Virginia.....	Bureau of Labor.....	Commissioner.....	Wheeling.
Wisconsin.....	Bureau of Labor and Industrial Sta- tistics.	Commissioner.....	Madison.
<b>FOREIGN COUN- TRIES.</b>			
Argentina.....	Departamento Nacional del Trabajo...	Presidente.....	Buenos Aires.
Austria.....	K. K. Arbeitsstatistisches Amt im Handelsministerium.	Vorstand.....	Wien.
Belgium.....	Office du Travail (Ministère de l'In- dustrie et du Travail).	Directeur General.....	Bruxelles.
Canada.....	Department of Labor.....	Minister of Labor.....	Ottawa.
Canada: Ontario..	Bureau of Labor (Department of Pub- lic Works).	Secretary.....	Toronto.
Chile.....	Oficina de Estadística del Trabajo....	Jefe.....	Santiago.
Finland.....	Industristyrelsen (a)	.....	Helsingfors.
France.....	Office du Travail (Ministère du Tra- vail et de la Prévoyance Sociale).	Directeur.....	Paris.
Germany.....	Abteilung für Arbeiterstatistik, Kais- erliches Statistisches Amt.	Präsident.....	Berlin.
Great Britain and Ireland.	Labor Department (Board of Trade)..	Commissioner of La- bor.	London.

<sup>a</sup> Issues a bulletin of labor.

*Directory of bureaus of labor in the United States and in foreign countries—Concluded.*

State.	Name of bureau.	Title of chief officer.	Location of bureau.
<b>FOREIGN COUNTRIES—conc'd.</b>			
Italy.....	Ufficio del Lavoro (Ministero di Agricoltura, Industria e Commercio).	Direttore Generale....	Roma.
Netherlands.....	Centraal Bureau voor de Statistiek (a).	Directeur.....	's Gravenhage.
New South Wales.....	State Labor Bureau.....	Director of Labor.....	Sydney.
New Zealand.....	Department of Labor.....	Minister of Labor.....	Wellington.
Spain.....	Instituto de Reformas Sociales.....	Secretario General.....	Madrid.
Sweden.....	Afdelning för Arbetsstatistik (Kgl. Kommerskollegii).	Direktör.....	Stockholm.
Switzerland.....	Secrétariat Ouvrier Suisse (semiofficial).	Secrétaire.....	Zürich.
Uruguay.....	Oficina del Trabajo (Ministerio de Industrias, Trabajo é Instrucción Pública).	.....	Montevideo.
International.....	International Labor Office.....	Director.....	Basle, Switzerland.

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Employer and employee under the common law, by V. H. Olmsted and S. D. Fessenden.<sup>(a)</sup>
- No. 2. The poor colonies of Holland, by J. Howard Gore, Ph. D.<sup>(a)</sup>  
The industrial revolution in Japan, by William Eleroy Curtis.<sup>(a)</sup>  
Notes concerning the money of the U. S. and other countries, by W. C. Hunt.<sup>(a)</sup>  
The wealth and receipts and expenses of the U. S., by W. M. Steuart.<sup>(a)</sup>
- No. 3. Industrial communities: Coal Mining Co. of Anzin, by W. F. Willoughby.
- No. 4. Industrial communities: Coal Mining Co. of Blanz, by W. F. Willoughby.<sup>(a)</sup>  
The sweating system, by Henry White.<sup>(a)</sup>
- No. 5. Convict labor.<sup>(a)</sup>  
Industrial communities: Krupp Iron and Steel Works, by W. F. Willoughby.<sup>(a)</sup>
- No. 6. Industrial communities: Familistère Society of Guise, by W. F. Willoughby.<sup>(a)</sup>  
Cooperative distribution, by Edward W. Bemis, Ph. D.<sup>(a)</sup>
- No. 7. Industrial communities: Various communities, by W. F. Willoughby.<sup>(a)</sup>  
Rates of wages paid under public and private contract, by Ethelbert Stewart.<sup>(a)</sup>
- No. 8. Conciliation and arbitration in the boot and shoe industry, by T. A. Carroll.<sup>(a)</sup>  
Railway relief departments, by Emory R. Johnson, Ph. D.<sup>(a)</sup>
- No. 9. The padrone system and padrone banks, by John Koren.<sup>(a)</sup>  
The Dutch Society for General Welfare, by J. Howard Gore, Ph. D.<sup>(a)</sup>
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Building and loan associations.<sup>(a)</sup>
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Public baths in Europe, by Edward Mussey Hartwell, Ph. D., M. D.
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The municipal or cooperative restaurant of Grenoble, France, by C. O. Ward.<sup>(a)</sup>
- No. 13. The anthracite mine laborers, by G. O. Virtue, Ph. D.<sup>(a)</sup>
- No. 14. The Negroes of Farmville, Va.: A social study, by W. E. B. Du Bois, Ph. D.<sup>(a)</sup>  
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