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Wages and Hours of Labor in Bituminous Coal Mining in the Fall and Winter of 1921-22.

DURING the fall and winter of 1921-22 the Bureau of Labor Statistics made a survey of wages and hours of labor in the coal mining industry. Both the bituminous and the anthracite sections of the industry were covered.

Because of the great number of mines a complete census was quite impracticable. It was necessary, therefore, to resort to the sampling method; that is, data were obtained from representative mines in the principal coal fields. A study of the pay rolls for an entire year was not possible even in the selected mines because of the labor involved, and it was necessary further to limit the study to one sample pay roll period of each mine.

The bituminous section of the inquiry extended into 11 States, in which States 200 mines were covered. Data for anthracite mines were taken only in Pennsylvania where 29 collieries were canvassed. The bituminous data are compiled and two of the most important tables are here presented.

The primary or basic occupations in bituminous mining are hand (pick) miners, machine miners, and loaders. The employees working at these occupations are almost exclusively pieceworkers; that is, they are paid at a rate per unit of quantity mined. The rate is usually per ton, but sometimes per mine-car load, or per yard or foot.

Few mines keep a record of the hours pieceworkers are employed, hence, as one of the main purposes of the study was to determine hourly earnings, it became necessary to make arrangements with the operators of the sample mines selected to keep a special record of the time of each pieceworker.

In connection therewith, a statement was obtained as to the time required for the employees to travel from the entrance of the mine to the face or place of work and to return, and also the time, if any, taken for lunch. With all of this information available it has been possible to determine the time of the pieceworker at the face or place of work and the time in the mine.

Many pieceworkers take a regular lunch period but others eat a midday lunch when it suits their convenience and take as much or little time therefor as they desire. Because of this irregularity of lunch period it has not been possible to eliminate the lunch time of all pieceworkers and get the net working time at the face, hence, for the three piecework occupations the lunch time is included in face time. For time workers the time reported does not include a lunch period and is the actual time worked.

Time in the mine covers the time elapsing between entering the shaft or other opening in the morning and leaving the entrance at the end of the day's work. This time in the mine, therefore, includes the time of travel to the face, the time spent in working at the face, the lunch period, if any, and the return travel to the entrance of the mine.

In Table 1 two statements are given for pieceworkers. One column shows the time at the face, including the lunch period, and the other column the total time in the mine.

In the same table, State averages are given for each of the principal occupations, of which all are time-workers except hand (pick) miners, machine miners, and loaders. In rare instances men in these occupations are time-workers, but to preserve the unity of each occupation these few men have been treated as pieceworkers so far as hours and earnings are concerned.

It will be observed that in connection with the occupation term, a statement is made whether the work is done inside or outside the mine. The persons engaged in all other minor occupations are grouped together under the term "other employees, inside," or "other employees, outside."

The table shows the number of mines and of employees covered in each occupation in each State, which in practically all instances are believed to be a sufficient number to fairly represent the occupation.

The next column shows the average number of starts made by the employees in the half-month pay period taken. By "starts" is meant the number of days on which work was done by an employee; these may represent either full days or part days. It will be observed that on an average the employees did not make as many starts as there were working days during the half-month. This is because many mines covered were in operation as low as two days per week, and also on account of some employees working even less than the hours of operation. Few mines even approached full-time work. Many mines were shut down, and in others men had work only one or two days in a half month. The figures of this column rather overstate the amount of work available in the industry during the period of the investigation, as the bureau aimed to take only such mines as were in operation at least two days per week in the pay period covered. They also represent more than the average working time for the calendar year 1921, because the production was higher in October than in any other month of that year. Data were obtained for 148 of the 200 mines for October pay rolls. Table 2 shows that the days of operation of the mines covered, in the year ending October 31, 1921, were 195.7, or about 60 per cent of full time. The average days of operation of all bituminous mines in the calendar year 1921 was 168.

Paralleling average hours in the half month for piece or tonnage workers in Table 1, two columns are given for average hours per start. One column shows the average time per start at the face, including lunch, and the second the average hours per start in the mine.

Under the earnings for tonnage workers four columns are given; the first shows the average earnings made in the half month, which includes all degrees of broken time. This column overstates the earnings for the industry as a whole because, as stated, some mines were shut down and others were working so short a time in the half month that data were not taken from them. The average earnings per start, however, may be accepted as fairly representative, as opportunity is generally given for a full or at least a fair day's work on any day that the mine is in operation.

The third column under earnings shows the average earnings per hour of face time, including lunch time if any. The fourth column shows the average earnings per hour based on total time spent in the mine.

In the second section of the table which relates to time-workers the hours are those actually spent at work, and the average earnings per hour shown are the earnings per hour of labor. The time of time-workers is kept at the face or other place of work and the lunch period is not included in the hours of labor.

In connection with the wage data a statement was obtained as to the number of days the mines covered were in operation during the year, from which a summary has been prepared for the combined groups of loaders, pick miners, and machine miners. This summary is presented in Table No. 2. The summary shows the number of mines covered in the inquiry; the second column shows the number of employees in these three occupations on the pay rolls of these mines during the period for which data were taken; the third column shows the average number of starts made by the combined groups for the pay period taken, which, as explained before, somewhat over represents the time made in the industry as a whole during the period covered. Other columns of the table show the number of days of operation during the year ending October 31, 1921; the greatest number of days in operation in any mine canvassed; the lowest number of days in any of the mines canvassed; and the average days of operation in the mines canvassed in the State. The last column of the table shows for the three occupations combined an estimate of the average earnings per year computed by multiplying the average earnings per start by the average number of days the mine was in operation during the year. This average must not be understood as the earnings that might have been made had the employees been able to work full time. It represents the average earnings in the year ending October 31 that would have been made had each employee worked the full number of days the mine was in operation and made as much per start during the year as he averaged during the half-month pay period studied.

TABLE 1.—NUMBER OF MINES AND EMPLOYEES, AVERAGE NUMBER OF STARTS (DAYS), AND AVERAGE HOURS AND EARNINGS, IN BITUMINOUS COAL MINES, BY OCCUPATION AND STATE, FALL AND WINTER OF 1921-22.

(A) Tonnage workers.

Occupation and State.	Number of mines.	Number of employees.	Average number of starts (days) made in half month.	Average hours in half month.		Average hours per start based on—		Average earnings—			
				Time at face including lunch.	Total time in mine.	Time at face including lunch.	Total time in mine.	In half month.	Per start (day).	Per hour, based on time at face including lunch.	Per hour, based on total time in mine.
Loaders, inside:											
Alabama.....	8	1,537	8.4	69.6	74.7	8.3	8.9	\$34.66	\$4.12	\$0.498	\$0.464
Colorado.....	7	445	9.1	69.9	77.5	7.7	8.5	64.84	7.13	.927	.837
Illinois.....	17	4,305	8.8	70.2	74.5	8.0	8.5	83.63	9.53	1.192	1.122
Indiana.....	8	1,436	8.3	61.7	64.6	7.5	7.8	70.65	8.54	1.146	1.094
Kentucky.....	20	2,540	8.6	63.4	67.7	7.3	7.8	47.64	5.51	.752	.704
Ohio.....	25	3,119	8.7	65.1	71.0	7.5	8.2	63.32	7.29	.972	.892
Pennsylvania.....	41	5,651	8.7	68.7	75.6	7.9	8.6	50.78	5.80	.739	.672
Utah.....	4	295	5.1	38.8	41.6	7.7	8.2	36.42	7.20	.939	.876
Washington ¹	1	76	10.1	85.9	89.0	8.5	8.8	76.68	7.60	.893	.862
West Virginia.....	42	2,978	8.6	60.5	65.0	7.0	7.6	54.40	6.33	.899	.836
Wyoming.....	3	228	10.0	79.3	84.2	7.9	8.4	91.80	9.20	1.158	1.090
Total.....	176	22,611	8.6	66.2	71.4	7.7	8.3	59.65	6.91	.901	.835

¹ In this State loaders, inside, also do machine running.

TABLE 1.—NUMBER OF MINES AND EMPLOYEES, AVERAGE NUMBER OF STARTS (DAYS), AND AVERAGE HOURS AND EARNINGS, IN BITUMINOUS COAL MINES, BY OCCUPATION AND STATE, FALL AND WINTER OF 1921-22—Continued.

(A) Tonnage workers—Concluded.

Occupation and State.	Number of mines.	Number of employees.	Average number of starts (days) made in half month.	Average hours in half month.		Average hours per start based on—		Average earnings—			
				Time at face including lunch.	Total time in mine.	Time at face including lunch.	Total time in mine.	In half month.	Per start (day).	Per hour, based on time at face including lunch.	Per hour, based on total time in mine.
Miners, hand or pick, inside:											
Alabama.....	8	785	8.8	66.1	74.7	7.5	8.5	\$35.28	\$4.11	\$0.549	\$0.488
Colorado.....	6	564	10.2	95.5	104.3	9.3	10.2	80.69	7.90	.845	.774
Illinois.....	11	1,864	10.3	80.3	86.2	7.8	8.4	69.45	6.77	.865	.806
Indiana.....	7	542	8.0	55.8	59.3	7.0	7.4	46.19	5.75	.827	.779
Kentucky.....	5	223	8.7	64.5	69.3	7.4	8.0	53.21	6.12	.825	.788
Ohio.....	3	47	9.8	80.1	86.9	8.2	8.9	73.18	7.46	.914	.842
Pennsylvania.....	42	2,898	9.1	72.2	79.7	8.0	8.8	55.49	6.11	.769	.696
Utah.....	4	167	5.9	41.9	45.6	7.2	7.8	42.92	7.33	1.023	.941
Washington.....	3	243	10.7	90.2	97.9	8.5	9.2	96.31	9.03	1.068	.984
West Virginia.....	34	972	8.1	55.4	59.4	6.8	7.3	56.45	6.95	1.019	.950
Wyoming.....	4	124	10.3	85.1	89.9	8.3	8.7	103.38	10.05	1.215	1.150
Total.....	127	8,429	9.2	71.9	78.4	7.8	8.5	59.66	6.48	.829	.761
Miners, machine, inside:											
Alabama.....	3	130	9.6	57.5	61.0	6.0	6.4	40.93	4.27	.712	.671
Colorado.....	6	85	9.3	71.4	79.3	7.7	8.5	105.59	11.48	1.493	1.344
Illinois.....	15	370	9.9	76.3	81.3	7.7	8.2	114.37	11.50	1.500	1.407
Indiana.....	8	136	8.8	66.1	69.3	7.5	7.9	121.06	13.73	1.832	1.748
Kentucky.....	19	268	9.7	70.8	75.9	7.3	7.8	85.83	8.88	1.212	1.131
Ohio.....	25	354	9.9	78.2	85.1	7.9	8.6	109.12	10.99	1.395	1.282
Pennsylvania.....	41	703	9.3	76.6	84.3	8.2	9.0	83.55	8.94	1.090	.992
Utah.....	3	21	6.5	48.3	51.9	7.5	8.0	84.19	13.00	1.745	1.621
West Virginia.....	35	271	9.3	74.7	80.0	8.1	8.6	103.06	11.12	1.379	1.287
Wyoming.....	3	18	9.8	76.5	81.4	7.8	8.3	163.76	16.65	2.142	2.013
Total.....	158	2,356	9.5	73.8	79.8	7.8	8.4	96.00	10.09	1.300	1.202

(B) Time-workers.

Occupation and State.	Number of mines.	Number of employees.	Average number of starts (days) made in half month.	Average hours—		Average earnings—		
				Worked in half month.	Per start (day).	In half month.	Per start (day).	Per hour.
Brakemen, inside:								
Alabama.....	8	139	7.8	61.8	8.0	\$22.89	\$2.95	\$0.370
Colorado.....	6	29	10.9	87.6	8.0	83.32	7.65	.952
Illinois.....	20	216	10.4	85.8	8.3	80.01	7.76	.937
Indiana.....	10	88	9.6	76.9	8.0	72.24	7.52	.939
Kentucky.....	19	143	9.2	75.0	8.2	49.04	5.34	.654
Ohio.....	22	65	8.9	71.3	8.0	66.79	7.51	.936
Pennsylvania.....	44	319	9.5	81.0	8.4	65.24	6.84	.806
Utah.....	3	13	5.5	43.3	7.9	43.08	7.89	.995
Washington.....	3	13	12.8	103.7	8.1	93.38	7.31	.901
West Virginia.....	45	306	9.3	76.0	8.2	54.71	5.91	.720
Wyoming.....	1	2	13.0	104.0	8.0	101.35	7.80	.975
Total.....	181	1,333	9.4	77.3	8.2	60.18	6.41	.779

* Not including starts or earnings of 8 employees; starts not reported.

WAGES AND HOURS OF LABOR IN BITUMINOUS COAL MINING. 5

TABLE 1.—NUMBER OF MINES AND EMPLOYEES, AVERAGE NUMBER OF STARTS (DAYS), AND AVERAGE HOURS AND EARNINGS, IN BITUMINOUS COAL MINES, BY OCCUPATION AND STATE, FALL AND WINTER OF 1921-22—Continued.

(B) Time-workers—Continued.

Occupation and State.	Number of mines.	Number of employees.	Average number of starts (days) made in half month.	Average hours—		Average earnings—		
				Worked in half month.	Per start (day).	In half month.	Per start (day).	Per hour.
Bratticemen, inside:								
Alabama.....	9	19	9.9	80.5	8.1	\$34.16	\$3.43	\$0.424
Colorado.....	7	34	11.2	89.9	8.0	88.41	7.87	.933
Illinois.....	21	197	10.9	87.7	8.0	82.23	7.54	.938
Indiana.....	11	53	9.3	71.4	7.7	67.31	7.25	.942
Kentucky.....	17	58	9.8	79.9	8.2	55.33	5.65	.693
Ohio.....	24	139	10.3	82.1	8.0	76.87	7.59	.937
Pennsylvania.....	40	267	³ 10.7	91.6	² 8.4	64.29	² 6.13	.701
Utah.....	4	13	7.5	58.9	7.8	59.47	7.89	1.010
Washington.....	4	39	12.6	101.1	8.0	87.20	6.91	.863
West Virginia.....	41	155	9.8	80.5	8.2	61.12	6.25	.759
Wyoming.....	3	12	12.1	96.8	8.0	95.83	7.93	.990
Total.....	181	986	³ 10.4	85.7	² 8.1	70.26	² 6.81	.820
Cagers, inside:								
Alabama.....	1	6	10.2	101.7	10.0	31.38	3.09	.309
Colorado.....	5	13	11.8	91.4	7.7	90.97	7.68	.995
Illinois.....	22	62	10.6	94.7	8.9	88.71	8.35	.937
Indiana.....	12	22	10.5	88.9	8.4	82.81	7.85	.931
Kentucky.....	2	4	8.5	72.9	8.6	61.14	7.19	.839
Ohio.....	10	27	8.8	71.9	8.2	67.11	7.61	.933
Pennsylvania.....	21	35	⁴ 10.3	92.4	⁴ 8.9	70.29	⁴ 6.82	.761
Washington.....	1	2	14.0	112.5	8.0	77.35	5.53	.688
West Virginia.....	8	12	9.7	80.9	8.4	65.54	6.78	.810
Wyoming.....	1	2	15.5	124.5	8.0	123.26	7.95	.990
Total.....	83	185	⁴ 10.3	89.4	⁴ 8.6	77.82	⁴ 7.53	.871
Drivers, inside:								
Alabama.....	7	125	9.1	75.7	8.4	29.15	3.22	.385
Colorado.....	8	131	10.5	83.0	⁷ 9.0	79.37	7.59	.956
Illinois.....	19	403	10.4	86.7	8.3	83.17	8.00	.930
Indiana.....	9	139	8.3	65.2	7.8	61.40	7.37	.942
Kentucky.....	8	174	9.6	80.1	8.3	57.48	5.99	.718
Ohio.....	20	281	9.6	75.6	7.9	70.86	7.40	.938
Pennsylvania.....	23	472	⁵ 9.5	82.5	⁵ 8.3	58.10	⁶ 6.04	.704
Utah.....	4	54	5.8	44.2	7.7	45.14	7.84	1.021
Washington.....	1	19	11.4	91.1	8.0	88.21	7.76	.969
West Virginia.....	22	257	9.1	73.4	8.1	58.83	6.49	.801
Wyoming.....	4	25	11.3	90.2	8.0	88.68	7.83	.984
Total.....	125	2,080	⁶ 9.5	78.7	⁶ 8.2	64.84	⁶ 6.82	.824
Laborers, inside:								
Alabama.....	9	354	9.7	78.5	8.1	28.49	2.94	.363
Colorado.....	7	57	12.1	96.3	8.0	90.98	7.53	.945
Illinois.....	20	444	10.4	85.1	8.2	77.33	7.45	.909
Indiana.....	11	145	9.7	78.7	8.1	73.72	7.59	.937
Kentucky.....	20	326	9.4	66.4	7.1	48.59	5.18	.731
Ohio.....	21	152	8.6	68.3	8.0	62.81	7.33	.919
Pennsylvania.....	42	921	⁶ 10.4	87.7	⁶ 8.2	56.31	⁶ 5.63	.642
Utah.....	3	22	9.5	73.7	7.8	71.66	7.58	.973
Washington.....	4	58	10.7	85.1	8.0	59.19	5.55	.695
West Virginia.....	40	461	9.4	76.8	8.1	47.91	5.08	.624
Wyoming.....	4	25	12.4	98.5	8.0	95.23	7.79	.977
Total.....	181	2,965	⁶ 9.9	80.9	⁶ 8.0	56.34	⁶ 5.73	.697

² Not including starts or earnings of 79 employees; starts not reported.
⁴ Not including starts or earnings of 2 employees; starts not reported.
⁵ Not including starts or earnings of 89 employees; starts not reported.
⁶ Not including starts or earnings of 237 employees; starts not reported.

TABLE 1.—NUMBER OF MINES AND EMPLOYEES, AVERAGE NUMBER OF STARTS (DAYS), AND AVERAGE HOURS AND EARNINGS, IN BITUMINOUS COAL MINES, BY OCCUPATION AND STATE, FALL AND WINTER OF 1921-22—Continued.

(B) Time-workers—Continued.

Occupation and State.	Number of mines.	Number of employees.	Average number of starts (days) made in half month.	Average hours—		Average earnings—		
				Worked in half month.	Per start (day).	In half month.	Per start (day).	Per hour.
Motormen, inside:								
Alabama.....	7	110	9.7	77.6	8.0	\$33.31	\$3.42	\$0.429
Colorado.....	6	17	10.2	81.9	8.0	79.73	7.79	.973
Illinois.....	19	171	10.4	84.4	8.5	89.14	8.59	1.008
Indiana.....	10	72	10.8	86.7	8.0	87.67	8.09	1.012
Kentucky.....	20	177	9.7	81.2	8.4	56.04	5.77	.690
Ohio.....	25	90	10.1	84.2	8.3	79.11	7.80	.940
Pennsylvania.....	42	314	7 10.0	86.3	7 8.4	71.48	7 7.03	.829
Utah.....	3	16	6.8	52.6	7.8	53.25	7.89	1.013
Washington.....	4	19	12.8	103.7	8.1	85.53	6.66	.825
West Virginia.....	46	307	9.8	82.8	8.5	64.68	6.62	.781
Wyoming.....	1	5	13.8	110.4	8.0	109.13	7.91	.988
Total.....	183	1,298	7 10.0	84.1	7 8.4	68.52	7 6.82	.815
Pumpmen, inside:								
Alabama.....	9	62	10.9	92.5	8.5	32.70	3.01	.353
Colorado.....	7	10	14.4	114.6	8.0	111.66	7.75	.974
Illinois.....	13	23	13.0	109.0	8.4	101.46	7.80	.931
Indiana.....	9	28	12.7	107.8	8.5	102.07	8.05	.947
Kentucky.....	15	39	12.6	110.9	8.8	73.59	5.86	.663
Ohio.....	21	43	14.0	115.7	8.3	106.27	7.62	.919
Pennsylvania.....	41	152	13.9	117.1	8.4	86.70	6.23	.740
Utah.....	3	6	12.8	102.2	8.0	99.17	7.73	.971
Washington.....	3	5	19.2	152.0	7.9	115.42	6.01	.759
West Virginia.....	32	79	11.9	105.3	8.8	73.92	6.21	.702
Wyoming.....	4	5	14.8	122.2	8.3	120.42	8.14	.985
Total.....	157	452	13.0	110.2	8.5	80.90	6.24	.734
Trackmen, inside:								
Alabama.....	10	58	10.4	84.5	8.1	39.55	3.80	.468
Colorado.....	8	38	12.2	97.2	8.0	94.51	7.76	.972
Illinois.....	22	301	10.8	87.8	8.1	82.36	7.62	.938
Indiana.....	11	108	10.3	82.9	8.1	77.89	7.58	.939
Kentucky.....	19	159	10.5	87.7	8.4	62.30	5.94	.710
Ohio.....	25	111	10.7	86.8	8.1	81.20	7.57	.935
Pennsylvania.....	44	287	8 11.0	91.2	8 8.2	68.34	8 6.29	.749
Utah.....	4	20	9.1	71.8	7.9	72.22	7.98	1.007
Washington.....	4	17	11.5	92.1	8.0	85.92	7.45	.903
West Virginia.....	47	274	10.0	81.2	8.2	63.31	6.38	.780
Wyoming.....	4	20	14.9	119.5	8.0	118.13	7.93	.989
Total.....	198	1,393	8 10.7	87.3	8 8.2	72.05	8 6.77	.826
Trappers (boys), inside:								
Alabama.....	5	29	8.3	66.9	8.1	15.44	1.87	.231
Colorado.....	4	12	11.2	89.3	8.0	50.65	4.54	.567
Illinois.....	16	72	8.6	68.3	8.0	34.45	4.02	.504
Indiana.....	9	41	6.6	52.4	7.9	26.34	3.98	.503
Kentucky.....	6	15	10.5	79.6	7.6	37.75	3.58	.474
Ohio.....	22	84	9.2	72.1	7.8	36.96	4.02	.512
Pennsylvania.....	12	36	10.5	85.5	8.2	34.44	3.29	.403
West Virginia.....	29	104	9.7	76.8	7.9	37.24	3.84	.485
Total.....	103	393	9.1	72.3	7.9	34.09	3.75	.472
Other employees, inside:								
Alabama.....	8	144	10.7	87.8	8.2	38.81	3.61	.442
Colorado.....	8	54	12.3	98.6	8.0	95.22	7.77	.966
Illinois.....	22	377	11.5	94.5	8.2	95.68	8.33	1.013
Indiana.....	12	105	10.8	86.5	8.0	88.42	8.21	1.022
Kentucky.....	20	283	10.1	87.1	8.6	61.86	6.14	.710
Ohio.....	21	169	9.6	77.1	8.0	71.00	7.39	.921
Pennsylvania.....	44	791	9 11.1	95.3	9 8.4	72.36	9 6.64	.759
Utah.....	4	54	9.1	71.8	7.9	71.29	7.84	.993
Washington.....	4	32	13.6	110.4	8.1	108.89	7.99	.987
West Virginia.....	41	219	10.6	88.3	8.4	72.18	6.83	.818
Wyoming.....	4	67	13.3	107.3	8.1	107.61	8.11	1.003
Total.....	188	2,295	9 10.9	91.3	9 8.3	75.46	9 6.97	.826

¹ Not including starts or earnings of 6 employees; starts not reported.

² Not including starts or earnings of 30 employees; starts not reported.

³ Not including starts or earnings of 137 employees; starts not reported.

WAGES AND HOURS OF LABOR IN BITUMINOUS COAL MINING.

7

TABLE 1.—NUMBER OF MINES AND EMPLOYEES, AVERAGE NUMBER OF STARTS (DAYS), AND AVERAGE HOURS AND EARNINGS, IN BITUMINOUS COAL MINES, BY OCCUPATION AND STATE, FALL AND WINTER OF 1921-22—Continued.

(B) Time-workers—Continued.

Occupation and State.	Number of mines.	Number of employees.	Average number of starts (days) made in half month.	Average hours—		Average earnings—		
				Worked in half month.	Per start (day).	In half month.	Per start (day).	Per hour.
Blacksmiths, outside:								
Alabama.....	10	18	11.7	95.1	8.2	\$51.90	\$4.45	\$0.546
Colorado.....	8	14	12.5	114.8	9.2	104.66	8.37	.912
Illinois.....	22	56	13.1	116.2	8.9	112.38	8.57	.967
Indiana.....	12	18	12.6	113.4	9.0	99.93	7.96	.881
Kentucky.....	18	29	11.2	94.4	8.4	72.18	6.44	.765
Ohio.....	25	43	12.0	100.0	8.3	96.00	8.02	.960
Pennsylvania.....	41	84	¹⁰ 11.0	100.2	¹⁰ 8.8	78.73	¹⁰ 7.16	.786
Utah.....	4	5	11.4	91.4	8.0	92.41	8.11	1.011
Washington.....	4	6	14.2	115.2	8.1	95.13	6.72	.826
West Virginia.....	43	61	10.6	90.0	8.5	76.12	7.17	.846
Wyoming.....	4	5	14.2	125.4	8.8	123.55	8.91	1.009
Total.....	191	339	¹⁰ 11.7	102.0	¹⁰ 8.6	87.42	¹⁰ 7.47	.857
Carpenters, outside:								
Alabama.....	8	33	9.7	81.7	8.5	33.98	3.52	.416
Colorado.....	3	6	12.2	108.0	8.9	99.07	8.14	.917
Illinois.....	20	40	12.3	104.1	8.5	98.14	7.99	.943
Indiana.....	6	12	10.3	85.2	8.2	75.72	7.33	.889
Kentucky.....	18	40	11.5	93.3	8.1	64.67	5.64	.693
Ohio.....	17	28	11.2	91.3	8.2	83.75	7.49	.917
Pennsylvania.....	37	166	¹¹ 10.9	96.7	¹¹ 8.5	67.15	¹¹ 6.18	.694
Utah.....	4	10	12.2	104.3	8.5	107.53	8.80	1.029
Washington.....	4	15	12.9	100.1	7.8	81.98	6.37	.819
West Virginia.....	38	74	10.9	90.7	8.3	69.77	6.41	.769
Wyoming.....	2	3	13.0	107.0	8.2	107.00	8.23	1.000
Total.....	157	427	¹¹ 11.1	94.7	¹¹ 8.4	71.23	¹¹ 6.42	.752
Engineers, outside:								
Alabama.....	7	11	11.5	96.8	8.4	47.87	4.15	.495
Colorado.....	8	20	13.6	117.5	8.6	107.02	7.90	.914
Illinois.....	22	68	15.0	122.1	8.1	116.63	7.75	.955
Indiana.....	7	16	15.4	135.5	8.8	121.34	7.86	.895
Kentucky.....	8	8	12.8	108.2	8.5	84.24	6.61	.779
Ohio.....	18	23	12.5	111.3	8.9	95.29	7.61	.856
Pennsylvania.....	32	71	² 12.4	106.6	² 8.5	80.35	² 6.50	.754
Utah.....	3	3	13.7	114.7	8.4	111.30	8.14	.971
Washington.....	4	14	15.9	129.9	8.2	113.42	7.12	.873
West Virginia.....	16	28	15.0	165.1	11.0	100.88	6.71	.611
Wyoming.....	4	5	15.0	145.5	9.7	142.09	9.47	.977
Total.....	129	267	² 13.9	121.3	² 8.7	99.50	² 7.21	.820
Firemen, outside:								
Alabama.....	6	25	11.9	108.6	9.1	33.73	2.83	.311
Colorado.....	5	9	13.8	143.0	10.4	107.94	7.83	.755
Illinois.....	20	87	14.0	112.5	8.0	101.53	7.25	.902
Indiana.....	5	15	13.1	122.7	9.4	96.67	7.40	.788
Kentucky.....	2	9	12.6	108.2	8.6	82.65	6.58	.764
Ohio.....	8	18	12.4	111.4	9.0	95.82	7.70	.860
Pennsylvania.....	18	114	¹² 14.2	113.2	¹² 8.2	82.50	¹² 6.34	.729
Utah.....	1	1	15.0	128.0	8.5	112.00	7.47	.875
Washington.....	2	9	15.8	128.0	8.1	95.11	6.03	.743
West Virginia.....	9	31	14.7	141.6	9.6	82.27	5.61	.581
Wyoming.....	3	9	15.6	124.3	8.0	115.35	7.42	.928
Total.....	79	327	¹² 13.9	117.1	¹² 8.5	87.24	¹² 6.48	.745

² Not including starts or earnings of 8 employees; starts not reported.

¹⁰ Not including starts or earnings of 9 employees; starts not reported.

¹¹ Not including starts or earnings of 22 employees; starts not reported.

¹² Not including starts or earnings of 24 employees; starts not reported.

TABLE 1.—NUMBER OF MINES AND EMPLOYEES, AVERAGE NUMBER OF STARTS (DAYS), AND AVERAGE HOURS AND EARNINGS, IN BITUMINOUS COAL MINES, BY OCCUPATION AND STATE, FALL AND WINTER OF 1921-22—Concluded.

(B) Time-workers—Concluded.

Occupation and State.	Number of mines.	Number of employees.	Average number of starts (days) made in half month.	Average hours—		Average earnings—		
				Worked in half month.	Per start (day).	In half month.	Per start (day).	Per hour.
Laborers, outside:								
Alabama.....	10	202	9.1	74.3	8.1	24.33	2.66	.328
Colorado.....	8	97	11.6	101.0	8.7	77.40	6.64	.766
Illinois.....	21	337	10.3	85.8	8.3	73.69	7.13	.859
Indiana.....	12	115	9.4	77.6	8.2	65.88	6.98	.849
Kentucky.....	20	198	10.2	83.5	8.2	43.82	4.29	.525
Ohio.....	24	227	9.3	74.1	8.0	63.24	6.80	.853
Pennsylvania.....	42	573	¹³ 10.8	95.5	¹³ 8.8	54.03	¹³ 5.17	.566
Utah.....	4	71	9.9	77.7	7.8	68.11	6.85	.876
Washington.....	4	62	11.1	89.3	8.1	60.19	5.43	.674
West Virginia.....	46	498	9.6	80.0	8.4	46.16	4.82	.577
Wyoming.....	4	26	11.9	95.1	8.0	82.69	6.96	.870
Total.....	195	2,406	¹³ 10.1	84.8	¹³ 8.4	55.08	¹³ 5.49	.619
Other employees, outside:								
Alabama.....	10	185	11.1	93.7	8.5	36.85	3.32	.393
Colorado.....	7	68	12.9	115.2	8.9	97.53	7.56	.847
Illinois.....	21	247	12.5	104.5	8.4	90.15	7.24	.863
Indiana.....	12	87	12.7	106.7	8.4	93.16	7.32	.873
Kentucky.....	20	258	11.1	93.7	8.5	59.46	5.38	.635
Ohio.....	25	160	11.6	95.1	8.2	73.94	6.36	.777
Pennsylvania.....	42	713	¹⁴ 11.9	104.9	¹⁴ 8.8	66.26	¹⁴ 5.65	.631
Utah.....	4	45	10.1	78.5	7.8	68.68	6.79	.875
Washington.....	4	60	13.3	108.4	8.1	79.77	5.98	.736
West Virginia.....	44	371	11.5	100.5	8.7	70.70	6.14	.703
Wyoming.....	4	48.	13.7	110.5	8.1	96.73	7.07	.876
Total.....	193	2,242	¹⁴ 11.8	101.3	¹⁴ 8.5	70.02	¹⁴ 5.96	.691

¹³ Not including starts or earnings of 51 employees; starts not reported.

¹⁴ Not including starts or earnings of 75 employees; starts not reported.

TABLE 2.—NUMBER OF MINES; NUMBER OF LOADERS, PICK MINERS, AND MACHINE MINERS (COMBINED); AVERAGE NUMBER OF STARTS (DAYS); AVERAGE NUMBER DAYS OF OPERATION DURING YEAR, ENDING OCT. 31, 1921, AND ESTIMATED AVERAGE EARNINGS DURING YEAR, BASED ON DAYS OF OPPORTUNITY FOR WORK IN BITUMINOUS COAL MINES, BY STATES.

State.	Number of mines.	Number of employees.	Average number of starts (days) made in half month.	Number of days of operation during year.			Estimated average earnings during year, based on days of opportunity for work.
				Average.	Highest.	Lowest.	
Alabama.....	10	2,452	8.6	223.1	280	128	\$929.88
Colorado.....	8	1,094	9.7	199.9	232	161	1,559.86
Illinois.....	22	6,539	9.3	194.3	255	107	1,709.64
Indiana.....	12	2,114	8.2	170.4	241	95	1,392.57
Kentucky.....	20	3,031	8.7	205.1	275	71	1,202.38
Ohio.....	25	3,520	8.8	185.0	274	87	1,417.00
Pennsylvania.....	44	9,252	8.9	196.9	310	95	1,197.97
Utah.....	4	488	5.4	177.7	231	118	1,342.16
Washington.....	4	319	10.5	188.4	224	118	1,687.61
West Virginia.....	47	4,222	8.5	¹ 193.3	¹ 291	¹ 78	¹ 1,301.76
Wyoming.....	4	370	10.1	226.2	287	190	2,210.93
Pennsylvania.....	4	9,252	8.9	196.9	310	95	1,197.97
Total.....	200	33,396	8.8	¹ 195.7	¹ 310	¹ 71	¹ 1,357.40

¹ Not including 124 employees in one mine; days of operation not reported. The average for all bituminous mines in the United States in the calendar year 1921 was 168 days.

Cost of Living in Coal-Mining Towns.

THE Bureau of Labor Statistics recently made a study of the cost of living in 12 coal-mining centers, namely, Belleville, Herrin, and Pana, Ill.; Clinton, Ind.; Bellaire, Nelsonville, and New Philadelphia, Ohio; Barnesboro, Carnegie, and Uniontown, Pa., and Clarksburg and Montgomery, W. Va. In each of these localities data were secured from 25 families, 20 of these being families the husband or principal wage earner of which was employed in or about the coal mines and 5 the husband of which was employed in some other industry than mining.

The information contained in one of the Belleville and one of the Clinton schedules was so deficient that these schedules could not be used. One additional schedule was secured in Barnesboro so that there was a total of 299 schedules the results of which are summarized in the following tables.

Table 1 shows the average size of families; the average income and the average yearly expenditure for food, clothing, rent, fuel and light, furniture and furnishings, and miscellaneous items; and the average total expenditure per family. This table also shows the number of families having a surplus or deficit with the average amount; the number of families having neither surplus nor deficit; and the average surplus or deficit for all families scheduled in the town. In addition to these amounts the table shows the per cent of expenditure for each of the above-named groups of items and the per cent of families having a surplus or deficit or neither.

Table 2 shows for the miners' families in each of the 12 towns the same information as is shown for all families in Table 1. The percentage of expenditure for each group of items is shown in this table only for the total.

Table 3 shows the sources of income of miners' families and the amount received from each source.

Table 4 is a summary of a comparison of income and expenditures of the families of miners and nonminers.

TABLE 1.—COST OF LIVING IN TWELVE COAL-MINING TOWNS, BY ITEMS OF EXPENDITURE.

Town.	Number of families.	Average persons in family.		Average income per family.	Average yearly expenditure for—						Average total expenditure per family.	Surplus.		Deficit.		Families having neither surplus nor deficit.	Average surplus (+) or deficit (−) for town.
		Total.	Equivalent adult males.		Food.	Clothing.	Rent.	Fuel and light.	Furniture and furnishings.	Miscellaneous items.		Families having.	Average amount.	Families having.	Average amount.		
Belleville, Ill.	24	4.7	3.66	\$1,575.87	\$661.54	\$324.15	\$181.03	\$81.65	\$99.89	\$429.43	\$1,777.70	4	\$199.32	20	\$282.06	.....	−\$201.83
Pana, Ill.	25	5.0	3.50	1,341.16	575.48	221.99	147.78	75.82	78.94	276.63	1,376.64	10	123.19	14	151.35	1	35.48
Herrin, Ill.	25	5.0	3.83	1,824.01	655.16	339.90	250.01	84.61	159.71	346.14	1,835.52	12	293.14	12	307.13	1	11.52
Clinton, Ind.	24	5.5	3.96	1,587.36	607.47	251.54	162.48	85.75	132.43	382.55	1,632.22	11	188.63	11	286.49	2	4.85
Nelsonville, Ohio.	25	4.7	3.72	1,239.26	596.67	233.75	199.04	61.21	56.96	328.60	1,476.23	2	31.84	20	299.40	3	236.97
Bellaire, Ohio.	25	7.1	4.58	2,135.11	808.45	428.44	180.64	70.37	118.88	529.35	2,136.12	13	225.18	10	296.59	2	1.02
New Philadelphia, Ohio.	25	5.2	3.90	1,647.16	713.89	276.55	262.22	78.31	90.48	317.58	1,739.03	9	171.00	13	295.06	3	91.87
Barnesboro, Pa.	26	6.2	4.55	1,782.01	769.49	340.23	163.07	97.30	107.63	387.35	1,865.06	6	213.08	14	245.57	6	83.06
Carnegie, Pa.	25	6.4	4.91	1,533.16	694.91	263.72	179.20	67.42	67.14	280.96	1,553.35	10	219.27	13	207.48	2	20.18
Uniontown, Pa.	25	6.2	3.91	1,876.94	704.50	436.66	137.24	37.41	115.67	498.63	1,930.12	9	396.78	11	445.50	5	53.18
Clarksburg, W. Va.	25	5.3	4.05	1,440.81	622.58	293.93	195.45	48.21	49.17	278.91	1,488.24	9	418.13	13	380.68	3	47.43
Montgomery, W. Va.	25	5.7	4.84	1,299.00	692.86	277.76	231.66	43.54	61.55	219.19	1,526.56	4	255.56	17	394.78	4	227.56
Total	299	5.6	4.12	1,607.57	675.84	308.43	109.85	69.30	94.77	356.05	1,695.23	99	241.14	168	298.11	32	87.66

PER CENT OF AVERAGE TOTAL EXPENDITURE.

Belleville, Ill.	37.2	18.2	10.2	4.6	5.6	24.2	100.0	16.7	.....	83.3	.....	.....
Pana, Ill.	41.8	16.1	10.7	5.5	5.7	20.1	100.0	40.0	.....	56.0	.....	4.0
Herrin, Ill.	35.7	18.5	13.6	4.6	8.7	18.9	100.0	48.0	.....	48.0	.....	4.0
Clinton, Ind.	37.2	16.0	10.0	5.3	8.1	23.4	100.0	45.8	.....	45.8	.....	8.3
Nelsonville, Ohio.	40.4	15.8	13.5	4.1	3.9	22.3	100.0	8.0	.....	80.0	.....	12.0
Bellaire, Ohio.	37.8	20.1	8.5	3.3	5.6	24.8	100.0	52.0	.....	40.0	.....	8.0
New Philadelphia, Ohio.	41.1	15.9	11.1	4.5	5.2	18.3	100.0	36.0	.....	52.0	.....	12.0
Barnesboro, Pa.	41.3	18.2	8.7	5.2	5.8	20.8	100.0	23.1	.....	53.8	.....	23.1
Carnegie, Pa.	44.7	17.0	11.5	4.3	4.3	18.1	100.0	40.0	.....	52.0	.....	8.0
Uniontown, Pa.	36.5	22.6	7.1	1.9	6.0	25.8	100.0	36.0	.....	44.0	.....	20.0
Clarksburg, W. Va.	41.8	19.7	13.1	3.2	3.3	18.7	100.0	36.0	.....	52.0	.....	12.0
Montgomery, W. Va.	45.4	18.2	15.2	2.9	4.0	14.4	100.0	16.0	68.0	16.0
Total	39.9	18.2	11.3	4.1	5.6	21.0	100.0	33.1	56.2	10.7

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TABLE 2.—COST OF LIVING OF MINERS IN TWELVE COAL-MINING TOWNS, BY ITEMS OF EXPENDITURE.

Town.	Number of families.	Persons in family.		Average income per family.	Average yearly expenditure for—						Average total expenditure per family.	Surplus.		Deficit.		Families having neither surplus nor deficit.	Average total surplus (+) or deficit (-) for town.
		Total.	Equivalent adult males.		Food.	Clothing.	Rent.	Fuel and light.	Furniture and furnishings.	Miscellaneous items.		Families having.	Average amount.	Families having.	Average amount.		
Belleville, Ill.	19	4.7	3.66	\$1,689.97	\$705.54	\$359.63	\$177.20	\$83.19	\$112.18	\$444.48	\$1,882.22	4	\$199.32				
Pana, Ill.	20	4.6	3.35	1,292.91	566.64	221.52	139.63	73.72	62.19	272.34	1,336.03	8	118.99	15	\$296.66	-----	-\$192.24
Herrin, Ill.	20	5.3	4.09	1,825.29	676.72	361.50	260.27	85.76	151.69	336.73	1,872.66	9	273.42	10	340.82	1	- 47.37
Clinton, Ind.	21	5.4	3.81	1,509.23	597.26	257.58	135.45	75.99	143.56	393.41	1,603.25	8	147.11	11	286.49	2	- 94.03
Nelsonville, Ohio.	20	4.9	3.95	1,318.95	628.44	251.54	205.60	63.35	54.04	361.87	1,564.83	2	31.84	16	311.34	2	- 245.88
Bellaire, Ohio.	20	7.3	4.60	2,154.86	817.34	428.64	166.28	68.81	119.27	549.98	2,150.33	11	225.95	8	299.35	1	+ 4.53
New Philadelphia, Ohio.	20	5.3	4.02	1,671.35	727.30	274.63	263.85	80.90	101.77	321.71	1,770.15	8	179.88	11	310.46	1	- 98.80
Barnesboro, Pa.	23	6.3	4.69	1,757.52	786.32	347.48	145.20	100.89	112.82	377.22	1,869.94	4	164.65	13	249.56	6	- 112.42
Carnegie, Pa.	22	6.7	5.26	1,570.26	726.84	280.69	180.82	68.76	62.92	286.05	1,606.08	8	231.74	12	220.15	2	- 35.81
Uniontown, Pa.	20	6.4	3.89	1,795.51	701.87	446.34	97.14	31.20	109.67	482.02	1,868.25	8	385.63	10	461.25	3	- 72.74
Clarksburg, W. Va.	20	5.6	4.14	1,299.72	635.93	274.47	171.88	46.05	48.62	259.09	1,436.04	5	444.47	13	380.68	2	- 136.33
Montgomery, W. Va.	20	5.8	4.86	1,178.09	694.85	259.87	229.92	44.44	63.71	208.93	1,501.71	1	138.82	16	413.21	3	- 323.62
Total.	246	5.7	4.21	1,590.65	689.87	313.93	180.15	68.80	95.34	357.77	1,705.86	76	228.07	146	312.83	24	- 115.20
Per cent of total expenditures					40.4	18.4	10.6	4.0	5.6	21.0	100.0		30.9		59.3		9.8

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[1919]

COST OF LIVING IN COAL MINING TOWNS.

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TABLE 3.—AVERAGE INCOME OF COAL MINERS' FAMILIES, FROM SPECIFIED SOURCES.

Towns.	Number of families.	Persons in family.	Earnings of husband.		Earnings of wife.	Earnings of children.		Income from—		Total income.	
			Mining.	Other.		Mining.	Other.	Boards and lodgers, including children living as such.	Other sources.		
Belleville, Ill.	19	4.7	\$1,430.08	\$8.67	\$3.95	\$102.34	\$84.74	\$60.20	\$1,689.97		
Pana, Ill.	20	4.6	1,140.58	.....	3.33	\$37.56	4.25	19.50	87.70	1,292.91
Herrin, Ill.	20	5.3	1,649.86	.....	.....	.....	11.30	121.50	42.63	1,825.29
Clinton, Ind.	21	5.4	1,336.33	8.19	19.78	45.95	24.65	49.90	24.42	1,509.23	
Neilsenville, Ohio.	20	4.9	885.53	34.45	132.05	40.50	168.45	57.97	1,318.95
Bellaire, Ohio.	20	7.3	1,871.18	7.84	11.50	97.12	36.82	59.40	71.00	2,154.86	
New Philadelphia, Ohio.	20	5.3	1,182.93	20.00	34.00	86.48	168.31	110.20	69.43	1,671.35	
Barnesboro, Pa.	23	6.3	1,317.59	103.64	.....	164.02	75.16	64.35	32.76	1,757.52
Carnegie, Pa.	22	6.7	1,214.20	56.36	3.64	84.45	75.82	101.69	34.09	1,570.26	
Uniontown, Pa.	21	6.4	1,564.20	11.71	.....	.....	146.33	.....	71	1,795.51
Clarksburg, W. Va.	20	5.6	1,061.12	45.70	7.60	40.37	32.40	60.85	81.68	1,299.72	
Montgomery, W. Va.	20	5.8	742.42	70.82	1.40	62.46	133.24	80.50	87.25	1,178.09	
Total	246	5.7	1,283.63	28.84	9.82	61.45	71.01	76.42	59.50	1,590.65	

TABLE 4.—COMPARISON OF INCOME AND EXPENDITURES OF THE FAMILIES OF MINERS AND OF NONMINERS IN COAL-MINING TOWNS.

Item.	Miners' families.	Non-miners' families.	Item.	Miners' families.	Non-miners' families.
Number of families	246	53	Average total expenditure	\$1,705.86	\$1,645.92
Persons in family	5.7	5.1	Surplus:		
Equivalent adult males	4.2	3.7	Families having	76	23
Average income	\$1,590.65	\$1,686.11	Average amount	\$228.07	\$284.30
Average expenditure for—			Deficit:		
Food	\$689.87	\$610.73	Families having	146	22
Clothing	\$313.93	\$282.90	Average amount	\$312.83	\$200.40
Rent	\$180.15	\$240.52	Neither surplus nor deficit,		
Fuel and light	\$68.80	\$71.60	families having	24	8
Furniture and furnishings	\$95.34	\$92.11	Average deficit for group	\$115.20	\$40.19
Miscellaneous	\$357.77	\$348.06			

Extent of Operation of Bituminous Coal Mines.

THE accompanying table shows for a large number of coal mines in the bituminous fields the number of mines closed the entire week and the number working certain classified hours per week, from October 8, 1921, to February 11, 1922.

The number of mines reporting varied each week and the figures are not given as being a complete presentation of all mines, but are believed fairly to represent the conditions as to irregularity of work in the bituminous mines of the country. These figures are based on data furnished the bureau by the United States Geological Survey.

WORKING TIME IN BITUMINOUS COAL MINES REPORTING TO THE U. S. GEOLOGICAL SURVEY FOR EACH WEEK, OCTOBER, 1921, TO FEBRUARY, 1922.

[Prepared by the Bureau of Labor Statistics from data furnished by the U. S. Geological Survey.]

Week ending—	Number of mines reporting.	Mines—															
		Closed entire week.		Working less than 8 hours.		Working 8 and less than 16 hours.		Working 16 and less than 24 hours.		Working 24 and less than 32 hours.		Working 32 and less than 40 hours.		Working 40 and less than 48 hours.		Working full time of 48 hours or more.	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Oct. 8	2,557	953	37.3	47	1.8	176	6.9	299	11.7	357	14.0	264	10.3	267	10.4	194	7.6
15	2,552	895	35.1	35	1.4	179	7.0	274	10.7	348	13.6	315	12.3	286	11.2	220	8.6
22	2,584	867	33.6	28	1.1	140	5.4	225	8.7	294	11.4	382	14.8	372	14.4	276	10.7
29	2,579	846	32.8	38	1.5	150	5.8	291	11.3	372	14.4	389	15.1	282	10.9	211	8.2
Nov. 5	2,565	896	34.9	58	2.3	234	9.1	318	12.4	361	14.1	293	11.4	234	9.1	171	6.7
12	2,578	914	35.5	70	2.7	261	10.1	340	13.2	363	14.1	314	12.2	249	9.7	67	2.6
19	2,538	920	36.2	72	2.8	264	10.4	324	12.8	299	11.8	240	9.5	228	9.0	191	7.5
26	2,575	1,059	41.1	102	4.0	306	11.9	381	14.8	287	11.1	200	7.8	199	7.7	41	1.6
Dec. 3	2,273	1,027	45.2	89	3.9	295	13.0	274	12.1	226	9.9	143	6.3	122	5.4	97	4.3
10	2,511	1,119	44.6	89	3.5	277	11.0	347	13.8	270	10.8	167	6.7	139	5.5	103	4.1
17	2,465	1,099	44.6	85	3.4	290	11.8	327	13.3	275	11.2	188	7.6	109	4.4	92	3.7
24	2,500	1,102	44.1	68	2.7	266	10.6	317	12.7	292	11.7	225	9.0	156	6.2	74	3.0
31	2,379	1,198	50.4	86	3.6	275	11.6	274	11.5	236	9.9	178	7.5	113	4.7	19	0.8
Jan. 7	2,408	1,055	43.8	63	2.6	220	9.1	304	12.6	285	11.8	238	9.9	175	7.3	68	2.8
14	2,323	933	40.2	50	2.2	176	7.6	301	13.0	324	13.9	231	9.9	186	8.0	122	5.3
21	2,316	903	39.0	48	2.1	167	7.2	267	11.5	305	13.2	246	10.6	195	8.4	185	8.0
28	2,260	865	38.3	47	2.1	144	6.4	240	10.6	291	12.9	267	11.8	219	9.7	187	8.3
Feb. 4	2,086	787	37.7	37	1.8	134	6.4	236	11.3	276	13.2	202	9.7	232	11.1	182	8.7
11	2,351	880	37.4	48	2.0	132	5.6	253	10.8	287	12.2	245	10.4	266	11.3	240	10.2

COST OF LIVING IN COAL MINING TOWNS.

Unemployment Survey in Columbus, Ohio.

By MARY LOUISE MARK and FREDERICK E. CROXTON.

EARLY in the fall of 1921* the mayor's unemployment committee of Columbus was organized to work along the lines suggested by the President's Conference on Unemployment. It was clear from the outset that before a program was decided upon a few definite questions in regard to the local situation ought to be answered: How prevalent was unemployment? To what extent was it due to industrial causes? What racial groups were most affected? In what industries did the unemployed belong? How long had they been without work? How far did the situation affect the heads of households, upon whom the burden of dependents falls most heavily?

At Ohio State University the writers were considering a study along these same lines, in order to furnish the students in statistics in the department of economics and sociology some practice in collecting and assembling statistical data. When the mayor's committee asked the cooperation of the university in securing the information they needed, plans for the study were made jointly.

It was evident that the study must be confined to a few representative sections of the city. Columbus is a city with large districts of native white wage earners, with scattered districts of Negroes, usually small, and with relatively few areas where immigrant populations predominate. The three districts covered by this study were chosen by the president of the Columbus Chamber of Commerce and the president of the Columbus Federation of Labor, and were sufficiently extensive to include all these elements of the population. One district (Goodale) lay to the northwest and the other two to the southeast of the center of the city, and all were easily accessible to a variety of industries.

The study was made during the last week of October and the first week of November, 1921. Throughout the period weather conditions were favorable to out-of-door occupations.

Practically every house in the three districts was visited by students who used the following schedule, the newspapers meanwhile furnishing excellent publicity, so that few explanations were necessary on the part of the visitors:

Street and house No. Visitor

Relation to head of household.	Sex.	Race.	Present or last regular employment.			Employed now.		Idle.	
			Employer.	Industry.	Occupation.	Full time.	Part time.	How long.	Reason.
1	2	3	4	5	6	7	8	9	10
a. Head.									
b.									
c.									
d.									
e.									
f.									

List all persons 18 years of age or over except women not usually employed. If native born, enter in column 3 "N. W." for native white and "N. C." for colored; if foreign born enter "Eng." for English, "Ger." for German, "Heb." for Hebrew, "Ir." for Irish, "Ital." for Italian, "Mag." for Magyar (or Hungarian), "Pol." for Polish, "Sc." for Scotch, "Slov." for Slovak, "W" for Welsh, and "Other" for all other foreign born. If employed part time, enter in column 8 approximate fraction of time working. If idle, enter in column 9 number of weeks since regularly employed.

Notes—

This schedule was made as simple as possible because it was to be used by inexperienced people. The name of the person interviewed was not asked, for it was believed that information would be more freely and accurately given if this question was omitted. As a matter of fact very few persons refused to give information. Failure to report details was usually due to incomplete knowledge on the part of the informant regarding other members of the household. In addition to the general instructions on the schedule, a sheet of detailed instructions was given to each student and these were carefully discussed with the students before they conducted any interviews. The schedules as obtained were critically examined and the students were required as far as possible to supply missing data. Second and third calls were made where no one was at home at the time of the first canvass, usually at a different time of day. The students averaged about 75 schedules apiece.

The study includes all persons 18 years of age or over except women not normally in gainful employment. On the basis of the 1920 census, the total population of Columbus belonging to this wage-earning group is about 105,000. This study includes over 11,000 persons, for considerably more than 10,000 of whom information was secured on all points covered by this study. The study may therefore be said to furnish data for one out of 10 Columbus wage earners.

As has been stated, the working people of Columbus are predominantly native white. The proportion in which other population groups appear is shown, for each of the three districts studied, in the following table:

RACIAL DISTRIBUTION OF WAGE EARNERS, BY SEX AND DISTRICT.

Sex and race or color and nativity.	Goodale district.		District north of Morrill Street.		District south of Morrill Street.		Three districts.	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Male:								
Native white.....	1,800	76.3	4,438	83.0	1,017	69.1	7,255	79.0
Native colored.....	338	14.3	71	1.3	182	12.4	591	6.4
Foreign-born—								
English.....	13	.6	18	.3	4	.3	35	.4
German.....	20	.8	572	10.7	22	1.5	614	6.7
Hebrew.....			67	1.3			67	.7
Irish.....	13	.6	33	.6			46	.5
Italian.....	151	6.4	15	.3	79	5.4	245	2.7
Magyar.....	2	.1	32	.6	90	6.1	124	1.4
Other.....	23	1.0	100	1.9	78	5.3	201	2.2
Total.....	2,360	100.0	5,346	100.0	1,472	100.0	9,178	100.0
Female:								
Native white.....	514	77.1	996	87.0	162	64.8	1,672	81.1
Native colored.....	126	18.9	18	1.6	66	26.4	210	10.2
Foreign-born—								
English.....	4	.6	5	.4			9	.4
German.....	3	.4	82	7.2	3	1.2	88	4.3
Hebrew.....			10	.9			10	.5
Irish.....	2	.3	4	.3	1	.4	7	.3
Italian.....	17	2.5	2	.2	1	.4	20	1.0
Magyar.....			5	.4	16	6.4	21	1.0
Other.....	1	.1	23	2.0	1	.4	25	1.2
Total.....	667	100.0	1,145	100.0	250	100.0	2,062	100.0

As shown above, four-fifths of all persons included in this study are native white. The proportion of native whites is highest in the district north of Morrill Street and lowest in the southern district, where the proportion of foreign born is considerably higher than elsewhere. The foreign-born workers of the southern district are predominantly of the newer immigration, while those of the district north of Morrill Street are in the great majority of cases of the older immigration, usually German. In the Goodale district the only considerable population groups besides the native whites are Negroes and Italians.

In the above table the percentages for male wage earners are much better indications of the relative importance of the population elements represented than are the figures for the female wage earners, since the proportion of women in gainful employment varies widely from group to group.

In the tables included in this study it may be noted that there are discrepancies between the totals, so that the tables do not in all cases check with one another. This inaccuracy is regrettable, but with the conditions under which the students worked it was unavoidable. The tabulations were made by hand during laboratory periods of two hours each. All work was done in duplicate and discrepancies were checked by a third person. The results on the tally sheets were assembled in the form of finished tables and this process was also verified by one or more students. Such errors as remained were not corrected. The time involved would have been so considerable as to give the process of tabulation a disproportionate emphasis in the course. More continuous work was done in the field than in the laboratory and therefore the results were more satisfactory so far as accuracy was concerned. Complete tabulations of the information as to employment were made for each of the three districts, but as these tabulations were chiefly of local interest and were not needed for the purposes of the MONTHLY LABOR REVIEW, only the aggregate figures for the three districts have been included in this presentation of the study.

Extent of Unemployment.

IT IS of course recognized that even when industrial conditions are good some wage earners will be out of work or will not be working full time. Unfortunately no data are available relative to the number or proportion of wage earners who are idle or working part time when industrial conditions are normal, and it is therefore impossible to compare present unemployment with unemployment at other periods. Such comparative information, if available, would make it possible to determine, at least approximately, the emergency load which must be borne by individuals or by the community in the way of relief or in the provision of emergency work during periods of depression such as the present one.

A total of 10,969 wage earners, of whom 9,021 were men, reported upon the extent to which they were employed. Of the men nearly one-fourth were wholly or partially unemployed. Among the women the proportion was considerably smaller. The facts are shown in the following table:

NUMBER AND PER CENT OF WAGE EARNERS AND OF HEADS OF HOUSEHOLDS IN THE THREE DISTRICTS, EMPLOYED FULL TIME AND PART TIME, AND IDLE, BY SEX.

Sex, and extent of time employed.	All wage earners.		Heads of households.	
	Number.	Per cent.	Number.	Per cent.
Males:				
Employed full time.....	6,853	76.0	4,675	76.4
Employed part time.....	937	10.4	690	11.3
Idle.....	1,231	13.6	755	12.3
Total.....	9,021	100.0	6,120	100.0
Females:				
Employed full time.....	1,629	83.6	210	71.7
Employed part time.....	182	9.3	41	14.0
Idle.....	137	7.0	42	14.3
Total.....	1,948	100.0	293	100.0

The table shows that 24 per cent of the male wage earners were unemployed all or a part of the time and that heads of households were in no better situation than the other wage earners.

The unemployment was found to be greatest in the southern district, where one in three men was wholly or partially idle and one in five was wholly unemployed. This is the district where the proportion of recent immigrants is largest and where the steel mills ordinarily furnish an important part of the employment. The woman workers of this district, who, however, are comparatively few in number, were also affected more than the women of the other two districts.

A more detailed description of the degree of unemployment appears in the following tables, the first of which covers all wage earners and the second heads of households only.

In the great majority of cases part-time work was found to mean at least half time. The women of the southern district formed the only group in which as many as three per cent of the wage earners were working part time, but on less than a half-time basis. Their number, however, is very small. Cases of persons employed, but for less than one-third time, were infrequent everywhere.

NUMBER AND PER CENT OF WAGE EARNERS IN THE THREE DISTRICTS, IDLE, AND EMPLOYED EACH SPECIFIED PROPORTION OF THE TIME, BY SEX.

Number.

Sex.	Wage earners idle.	Wage earners working.						Total wage earners.
		Full time.	Two-thirds but less than full time.	One-half but less than two-thirds time.	One-third but less than one-half time.	Less than one-third time.	Time not reported.	
Males.....	1,231	6,853	241	540	99	57	182	9,203
Females.....	137	1,629	39	102	30	11	65	2,013
Total.....	1,368	8,482	280	642	129	68	247	11,216

Per cent.¹

Males.....	13.6	76.0	2.7	6.0	1.1	0.6	.....	100.0
Females.....	7.0	83.6	2.0	5.2	1.5	.6	.....	100.0
Total.....	12.5	77.3	2.6	5.9	1.2	.6	.....	100.0

¹ Percentages are based on the 10,969 wage earners (9,021 males and 1,948 females) for whom data as to extent of time employed were reported.

NUMBER AND PER CENT OF HEADS OF HOUSEHOLDS IN THE THREE DISTRICTS, IDLE, AND EMPLOYED EACH SPECIFIED PROPORTION OF TIME, BY SEX.

Number.

Sex.	Heads of households idle.	Heads of households working.						Total heads of households.
		Full time.	Two-thirds but less than full time.	One-half but less than two-thirds time.	One-third but less than one-half time.	Less than one-third time.	Time not reported.	
Males.....	755	4,675	186	402	63	39	97	6,217
Females.....	42	210	13	19	6	3	20	313
Total.....	797	4,885	199	421	69	42	117	6,530

*Per cent.*¹

Males.....	12.3	76.4	3.0	6.6	1.0	0.6	.....	100.0
Females.....	14.3	71.7	4.4	6.5	2.0	1.0	.....	100.0
Total.....	12.4	76.2	3.1	6.6	1.1	.7	.....	100.0

¹ Percentages are based on the 6,413 heads of households (6,120 males and 293 females) for whom data as to extent of time employed were reported.

Duration of Unemployment.

MUCH of this unemployment was of long duration. Two-thirds of the men and nearly one-half of the women had been out of work for 10 weeks or more. The facts appear in detail below for the unemployed wage earners and the male heads of households. Numbers and percentages are presented in the second table in cumulative form in order to facilitate general comparisons.

DURATION OF UNEMPLOYMENT OF MALE AND FEMALE WAGE EARNERS AND OF MALE HEADS OF HOUSEHOLDS IN THE THREE DISTRICTS.

Period of unemployment.	Unemployed wage earners.				Unemployed male heads of households.	
	Males.		Females.		Number.	Per cent.
	Number.	Per cent.	Number.	Per cent.		
Less than 2 weeks.....	83	6.8	12	9.4	51	7.3
2 and under 4 weeks.....	96	7.9	11	8.6	59	8.5
4 and under 10 weeks.....	225	18.5	43	33.6	115	16.5
10 and under 20 weeks.....	158	13.0	23	18.0	78	11.2
20 and under 30 weeks.....	147	12.1	15	11.7	77	11.0
30 and under 40 weeks.....	209	17.2	6	4.7	127	18.2
40 and under 52 weeks.....	86	7.1	4	3.1	52	7.5
52 weeks and over.....	212	17.4	14	10.9	138	19.8
Total.....	1,216	100.0	128	100.0	697	100.0

DURATION OF UNEMPLOYMENT OF MALE AND FEMALE WAGE EARNERS AND OF MALE HEADS OF HOUSEHOLDS IN THE THREE DISTRICTS: CUMULATIVE FIGURES.

Period of unemployment.	Unemployed wage earners.				Unemployed male heads of households.	
	Males.		Females.		Num-ber.	Per-cent.
	Num-ber.	Per-cent.	Num-ber.	Per-cent.		
Total unemployed.....	1,216	100.0	128	100.0	697	100.0
2 weeks and over.....	1,133	93.2	116	90.6	646	92.7
4 weeks and over.....	1,037	85.3	105	82.0	587	84.2
10 weeks and over.....	812	66.8	62	48.4	472	67.7
20 weeks and over.....	654	53.8	39	30.5	394	56.5
30 weeks and over.....	507	41.7	24	18.7	317	45.5
40 weeks and over.....	298	24.5	18	14.1	190	27.3
52 weeks and over.....	212	17.4	14	10.9	138	19.8

As might be expected, the proportions of the unemployed who have been idle for the longer periods of time are somewhat greater among the heads of households than among wage earners in general. It is well known that in times of stress the older and less robust hold their positions on insecure tenure, and are likely to be among the first to go. Many instances of this kind were found in the course of the study. Where the idleness had lasted for a year or more, however, sickness and old age were found to be the cause more frequently than was slack work.

Conditions in regard to duration of unemployment were found not to vary greatly in the two southern sections. The percentage of men out of work for the longer periods was smaller in the Goodale district than in the sections farther south. But in every district more than half of the unemployed had been out of work for at least 20 weeks, while very nearly one-fourth had had no employment for 40 weeks or more.

Among the women the situation was found to be not so serious, but they constitute a very small group compared with the men.

What part the industrial situation has played as a cause of the different periods of idleness is indicated by the following summary table:

DURATION OF UNEMPLOYMENT OF WAGE EARNERS, BY CAUSES, BOTH SEXES.

[Only persons reporting complete information as to duration and cause of unemployment are included.]

Period of unemployment.	Number unemployed because of—				Per cent unemployed because of—			
	Slack work.	Sick-ness.	Old age or retirement.	Total.	Slack work.	Sick-ness.	Old age or retirement.	Total.
Less than 2 weeks.....	75	10	.....	85	88.2	11.8	.....	100.0
2 and under 4 weeks.....	88	15	.....	103	85.4	14.6	.....	100.0
4 and under 10 weeks.....	217	35	.....	252	86.1	13.9	.....	100.0
10 and under 20 weeks.....	146	21	2	169	86.4	12.4	1.2	100.0
20 and under 30 weeks.....	135	17	5	157	86.0	10.8	3.2	100.0
30 and under 40 weeks.....	194	9	2	205	94.6	4.4	1.0	100.0
40 and under 52 weeks.....	77	5	1	83	92.8	6.0	1.2	100.0
52 weeks and over.....	113	73	29	215	52.6	34.0	13.5	100.0
Total.....	1,045	185	39	1,269	82.3	14.6	3.1	100.0

Disability of one kind or another was responsible for nearly one-half of the idleness among wage earners who had been unemployed for a year or more. In every other group slack work was the cause of more than 85 per cent of the unemployment. Sickness was found to be a more important cause of idleness among those who had been out of work for less than 30 weeks than among those whose unemployment was of longer duration.

The relation between length of unemployment and its cause is shown for heads of households in the following table:

DURATION OF UNEMPLOYMENT OF HEADS OF HOUSEHOLDS, BY CAUSES,
BOTH SEXES.

[Only persons reporting complete information as to duration and cause of unemployment are included.]

Period of unemployment.	Number unemployed because of—				Per cent unemployed because of—			
	Slack work.	Sickness.	Old age or retirement.	Total.	Slack work.	Sickness.	Old age or retirement.	Total.
Less than 2 weeks.....	43	6	.....	49	87.8	12.3	.....	100.0
2 and under 4 weeks.....	47	7	1	55	85.5	12.7	1.8	100.0
4 and under 10 weeks.....	97	20	.....	117	82.9	17.1	.....	100.0
10 and under 20 weeks.....	57	13	3	73	78.1	17.8	4.1	100.0
20 and under 30 weeks.....	68	12	3	83	81.9	14.5	3.6	100.0
30 and under 40 weeks.....	111	10	.....	121	91.7	8.3	.....	100.0
40 and under 52 weeks.....	47	1	1	49	95.9	2.0	2.0	100.0
52 weeks and over.....	60	46	37	143	42.0	32.2	25.9	100.0
Total.....	530	115	45	690	76.8	16.7	6.5	100.0

Among heads of households who had been out of work for a year or more, only 42 per cent assigned slack work as the cause of unemployment. But in all other groups except one, slack work was responsible for more than 80 per cent, and among those out of work for 30 weeks but less than one year this cause accounted for over 90 per cent.

Causes of Unemployment.

TO WHAT extent was unemployment due to industrial causes? The wage earners found unemployed were asked to state the reasons for their idleness. It was, of course, recognized that in a time of stress the least effective workers are the first to be laid off, and that in any given case unemployment might be due to a combination of causes, of which the worker would state only one—that men were being laid off, and he was among them. It is believed, however, that the number of cases in which the assigned cause of slack work was not the chief cause are so few as to be negligible. All causes assigned were found to fall into the three classes shown in the next table:

CAUSES OF UNEMPLOYMENT OF MALE AND FEMALE WAGE EARNERS AND OF MALE HEADS OF HOUSEHOLDS IN THE THREE DISTRICTS.

Cause of unemployment.	Unemployed wage earners.				Unemployed male heads of households.	
	Males.		Females.		Num-ber.	Per cent.
	Num-ber.	Per cent.	Num-ber.	Per cent.		
Slack work.....	987	80.7	87	59.6	527	73.9
Sickness.....	161	13.2	37	25.3	109	15.3
Old age or retirement.....	75	6.1	22	15.1	77	10.8
Total.....	1,223	100.0	146	100.0	713	100.0

Among the men not working, four-fifths were idle on account of slack work. This proportion did not vary much from district to district, although it was slightly higher in the southern district than elsewhere. Sickness was the next most important cause. Among the unemployed women, whose numbers are too few to support any findings of great significance, the proportion idle on account of sickness, old age, or retirement is twice as high as among the men.

The heads of households constitute an older group of men than the wage earners at large. But even here, where sickness and retirement are comparatively large factors in unemployment, the cause of idleness assigned is slack work in nearly three-fourths of all cases. The district north of Morrill Street includes a large settlement of old residents, many of whom are home owners of long standing. Here the proportion of sick and retired was highest, or 30 per cent, while in the district farther south, where recent immigrants and young families are more numerous, the proportion was lowest, or 21.3 per cent.

Industry and Unemployment.

THE industrial distribution of the wage earners included in this study is shown in the table following, which also classifies the workers of each industrial group according to the proportion of time employed at the time of the visit.

EMPLOYMENT STATUS OF ALL WAGE EARNERS IN THE THREE DISTRICTS, BY INDUSTRIES.

[Only persons furnishing complete information as to industry and time worked are included.]

Number.

Industry.	Wage earners idle.	Wage earners working—					Total.
		Full time.	Two-thirds but less than full time.	Half but less than two-thirds time.	One-third but less than half time.	Less than one-third time.	
Agriculture.....	12	49		1	1	2	65
Professional service.....	13	276	1	2	2		294
Clerical.....	7	84		1		1	93
Domestic and personal service.....	89	907	14	66	26	6	1,108
Trade and transportation:							
Retail and wholesale trade.....	75	1,081	5	28	13	6	1,208
Telegraph and telephone.....	7	144		3		3	157
Railway and express.....	128	1,162	27	26	8	3	1,354
Other.....	24	479	2	18	2	2	527
Manufacturing and mechanical:							
Building trades.....	112	608	24	71	12	12	839
Clay, glass, and stone products.....	51	314	19	15	2	2	403
Food and kindred products.....	78	471	25	18	5	6	603
Iron, steel, and their products.....	345	643	68	189	32	11	1,288
Other metal products.....	11	81	7	14	2	1	116
Paper, printing, and publishing.....	18	264	9	10	3	2	306
Wearing apparel.....	29	767	19	39	6		860
Automobiles, parts, and tires.....	85	359	21	56	7	3	531
Other.....	69	625	30	50	2	4	780
Labor, unclassified.....	90	95	8	23	6	4	226
Total.....	1,243	8,409	279	630	129	68	10,758

Per cent.

Agriculture.....	18.4	75.4		1.5	1.5	3.1	100.0
Professional service.....	4.4	93.9	0.3	.7	.7		100.0
Clerical.....	7.5	90.3		1.1		1.1	100.0
Domestic and personal service.....	8.0	81.9	1.3	6.0	2.3	.5	100.0
Trade and transportation:							
Retail and wholesale trade.....	6.2	89.5	.4	2.3	1.0	.5	100.0
Telegraph and telephone.....	4.5	91.7		1.9	1.9		100.0
Railway and express.....	9.5	85.8	2.0	1.9	.6	.2	100.0
Other.....	4.6	90.9	.4	3.4	.4	.4	100.0
Manufacturing and mechanical:							
Building trades.....	13.3	72.5	2.9	8.5	1.4	1.4	100.0
Clay, glass, and stone products.....	12.7	77.9	4.7	3.7	.5	.5	100.0
Food and kindred products.....	12.9	78.1	4.2	3.0	.8	1.0	100.0
Iron, steel, and their products.....	26.8	49.9	5.3	14.7	2.5	.9	100.0
Other metal products.....	9.5	69.8	6.0	12.1	1.7	.9	100.0
Paper, printing, and publishing.....	5.9	86.3	2.9	3.3	1.0	.7	100.0
Wearing apparel.....	3.4	89.2	2.2	4.5	.7		100.0
Automobiles, parts, and tires.....	16.0	67.6	4.0	10.5	1.3	.6	100.0
Other.....	8.8	80.1	3.8	6.4	.3	.5	100.0
Labor, unclassified.....	39.8	42.0	3.5	10.2	2.7	1.8	100.0
Total.....	11.6	78.2	2.6	5.9	1.2	.6	100.0

It will be seen that there was a considerable diversity of occupations, the largest numbers of workers being employed in domestic and personal service, in retail and wholesale trade, with railway and express companies, and in the manufacture of iron and steel and their products. The few persons engaged in agriculture were employed for the most part about greenhouses or in the market gardens southeast of the city. The 93 persons reported in clerical work were in most cases so classified because of a lack of definite information

as to industry, although in some instances their work was done independently of any firm or organization.

The lowest proportion of persons working full time was found among the unclassified workers, many of whom were in the casual class and would be found irregularly employed at any time. Aside from unclassified labor, unemployment was most pronounced among iron and steel workers, only half of their number working full time and more than one-fourth being altogether idle. Of all the groups engaged in manufacture the makers of wearing apparel were most fortunate in having work. In fact, they were as well situated in that respect as the workers in the more steady occupations included under trade and transportation. Of the other manufacturing groups the manufacture of automobile parts and tires and of metal products other than iron and steel apparently offered the least employment.

Effect of the Tax-Exemption Ordinance in New York City on Housing.¹

By MARY CONYNGTON.

THE housing shortage which was acutely felt after the close of the war led to a number of experiments as to the best means for relieving the situation, of which the most conspicuous were the passage of emergency landlord and tenant laws, the granting of State aid to housing, and the remission of local taxes on new housing which should be built in accordance with certain conditions. Of these three methods that of tax exemption seems to have been regarded with most doubt. New Jersey led the way in the first half of 1920, passing a law which was mandatory in its terms. New York followed in September, 1920, with a permissive law. In 1921 Louisiana also passed permissive legislation, but limited its application to New Orleans and Shreveport. In Massachusetts a number of tax-exemption measures are now, in the spring of 1922, before the legislature for action.

The attitude of different localities toward these laws has differed considerably. In New Jersey, on March 1, 1922, the supreme court declared the law unconstitutional; up to that time, it is estimated, about \$40,000,000 worth of housing had been begun or carried through under its terms. In Louisiana neither New Orleans nor Shreveport has put tax exemption into effect. In New York, New York City adopted a tax-exemption ordinance in February, 1921, and in the latter half of the year four small places—Beacon, Little Falls, Plattsburg, and Saratoga Springs—passed similar ordinances. New York is therefore the only State in which a tax exemption for new housing is at present in force, and New York City presents the most conspicuous illustration of its working.

In both the State and city of New York the exemption seems to have been adopted with considerable hesitation. At the beginning of 1920 there was a shortage of housing throughout the State, which naturally was felt most severely in the large centers. Conservative

¹ The figures concerning housing permits used in this discussion were obtained, except in cases where some other authority is given, from the building departments of the cities named.

estimates placed the shortage in New York City at 45,000 apartments; but the general belief was that it was much greater, since the conservative estimate made no deductions for the apartments which were unfit for occupancy but which were not condemned because of the difficulty of finding other shelter for those dwelling in them. The emergency rent laws, passed in the spring of 1920 and recast in the fall, protected tenants against extortion and arbitrary eviction, but were of no help in securing the new building demanded by the natural growth of the population. Something had to be done to stimulate building, and the plans proposed ranged all the way from the abolition of the landlord and tenant laws to direct State aid to housing and the launching of municipal housing schemes. By comparison with some of the measures brought forward, tax exemption was an eminently conservative proposition; New Jersey had already adopted it; and strictly as an emergency measure the legislature passed an act, effective September 27, 1920, permitting under certain conditions the remission of taxation on new housing. The text of the act is as follows:

Exemption of new buildings from local taxation.—The legislative body of a county or the legislative body of a city, with the approval of the board of estimate and apportionment, if there be one in such city, or the governing board of a town, village, or school district may determine that until January 1, 1932, new buildings therein, planned for dwelling purposes exclusively, except hotels, shall be exempt from taxation for local purposes other than for assessments for local improvements during construction and so long as used or intended to be used exclusively for dwelling purposes, or if a building of four stories or more in height, used exclusively for dwelling purposes above the ground floor: *Provided*, Construction was completed since April 1, 1920, or, if not so completed, that construction be commenced before April 1, 1922, and completion for occupancy be effected within two years after such commencement, or if now in course of construction, within two years after this section takes effect.²

The act, it will be noticed, is merely permissive. In New York City opinion was divided as to the wisdom of taking advantage of it. Two attempts to pass an ordinance in accordance with its terms were defeated; but a third succeeded, and in February, 1921, the following measure was passed:

SECTION 1. Pursuant to and in accordance with the provisions of section 4-B of the tax law of the State of New York as such section was added by chapter 949 of the Laws of 1920, entitled "An act to amend the tax law in relation to the exemption from local taxation of new buildings planned for dwelling purposes," it is hereby determined that until January 1, 1932, new buildings in the city of New York planned for dwelling purposes exclusively, except hotels, shall be exempt from taxation, as herein provided, for local purposes other than assessments for local improvements during construction and so long as used or intended to be used exclusively for dwelling purposes, or if a building of four stories or more in height used exclusively for dwelling purposes above the ground floor: *Provided*, Construction was completed since April 1, 1920, or, if not so completed, that construction be commenced before April 1, 1922, and completion for occupancy be effected within two years after such commencement, or if on September 27, 1920, in course of construction, within two years after such act took effect.

SEC. 2. It is further ordained that such exemption shall be granted to the extent only of \$1,000 for each living room, including the kitchens, but not including the bathrooms, in each such building: *Provided*, That the total amount of such exemption shall not exceed for every single-family house coming within the terms of the statute, \$5,000 of the value of the building, and for every two-family house coming within the terms of the statute \$10,000 of the value of the building, and for every multifamily

² State of New York, Acts of 1920, ch. 949.

house coming within the statute, an amount of the value of the building equivalent to \$5,000 for each separate family apartment therein contained.

SEC. 3. This ordinance shall take effect immediately upon approval by the board of estimate and apportionment.³

The two points of chief importance in these measures are the period through which the exemption runs and the amount exempted. The first determines the real value of the concession and, consequently, the strength of the inducement offered to prospective builders. Unstabilized costs were supposed to be the principal obstacle to a resumption of housing construction. Through 1920 and at the beginning of 1921 building costs were much higher than before the war. It was considered certain that they would fall, and the natural tendency was for builders to wait until prices had reached rock bottom rather than to tie up capital in buildings which might perhaps within a year of their completion be duplicated at two-thirds of what it had cost to erect them, or perhaps at even less. The exemption was designed to give the man who built at once an offset which would keep him from being at a disadvantage later as compared with the man who built after costs had come down. The tax rate varies from year to year, but it was estimated that on a house costing \$5,000 to build an exemption for 10 years would amount, roughly, to about one-third of its cost. One group of housing experts felt strongly that this was not a sufficient inducement, that the exemption would count for much more in the later than in the earlier years of paying for a home, and that an exemption period of at least 15 years was needed, but they failed to convince the legislature and 10 years was fixed as the maximum period.

The amount to be exempted was limited to \$5,000 because the authorities did not consider it necessary to encourage the production of high-priced dwellings. Housing for the wealthy, they felt, could safely be left to take care of itself, and whatever help they gave they wished to go to those of moderate or less than moderate means. Probably the manner in which the exemption is applied is even more effective in this direction than the amount exempted. Instead of a sweeping exemption of \$5,000 per house or apartment, an exemption of \$1,000 per room is allowed, up to a total of five rooms. By this provision it was hoped to make the exemption tend mainly toward the production of family housing. In every city there is a demand, especially among the well-to-do and wealthy, for apartments of one or two rooms and bath. It is a valid demand, but the New York authorities were more interested in securing housing for families than in providing expensive small apartments for individuals, so they linked the exemption to the rooms, and made sure that no one should secure the maximum remission unless he put up houses or apartments suitable for family use. In the opinion of some students of the question this is one of the most valuable features of the law.

A study of the housing permits of New York shows that the exemption made its influence felt very promptly. The ordinance became effective February 25, 1921. During the next four weeks applications were filed for permits for 1,616 one and two family dwellings and 1,025 tenements, as compared with applications for permits for 1,411 one and two family dwellings and 190 tenements in

³ No. 112. An ordinance in relation to the exemption from local taxation of new buildings planned for dwelling purposes in the city of New York.

the corresponding weeks of 1920.⁴ The difference increased progressively as the season advanced, and housing took on a new importance in the construction totals of the city. In 1920 the estimated cost of the total building for which permits were issued in New York City amounted to \$280,319,852, and in 1921 it rose to \$443,106,299,⁵ but in 1920 the housing permits furnished only 27 per cent of the estimated total, while in 1921 their share rose to 59 per cent. Taking the figures in another relation, it appears that while the estimated value of projected building of all kinds in New York City showed an increase of 58 per cent in 1921 as compared with 1920, the estimated value of the new housing projects showed an increase of 246 per cent.

It is hard to explain this disproportionate increase in housing activity except on the ground that the exemption played a large part in bringing it about. Some opponents of the exemption claim that the increase was due to natural causes, and would have occurred quite irrespective of the ordinance. The cost of building materials, they say, had come down, money was easier to obtain, and the demand for houses had its natural result in the building of houses. Against this must be set the fact that other kinds of building in New York City did not show any such increase, and the other fact that housing activities in other cities where the exemption was not in force showed by comparison only a very moderate activity. In Philadelphia, for instance, the value of the new housing for which applications for permits were approved was only 3.1 per cent greater than in 1920. In Boston the increase in estimated cost for the same period was 172 per cent, but even with this increase the permits filed in 1921 showed accommodations for only 878 families. During the same year the permits filed in Richmond, the smallest of the New York boroughs, with a population less than one-sixth that of Boston, showed accommodations for 2,594 families. Considering such figures, the advocates of the exemption feel that natural causes alone would not account for the situation in New York City, and that a large part of the phenomenal increase in housing activity must be ascribed to the tax remission.

The stimulus to building was felt in all parts of New York, though naturally the amount of housing planned was greater in the other boroughs than in Manhattan, where there is practically no chance for a new building except as an existent one is pulled down. The following table gives, by boroughs, and for the city as a whole, the comparative figures for 1920 and 1921:

⁴ Figures given by H. H. Curran, president of Manhattan Borough, in *National Municipal Review*, October, 1921, p. 505.

⁵ *American Contractor*, Jan. 14, 1921, p. 24.

HOUSING PERMITS BY BOROUGHS, NEW YORK CITY, 1920 AND 1921, GIVING NUMBER OF BUILDINGS, NUMBER OF FAMILIES TO BE ACCOMMODATED, AND ESTIMATED COST.

Borough and year.	1 and 2 family dwellings.			Tenements.			Dwellings and tenements.		
	Number.	Number of families.	Estimated cost.	Number.	Number of families.	Estimated cost.	Number.	Number of families.	Estimated cost.
Manhattan:									
1920.....	22	22	\$1,503,500	22	1,134	\$13,565,000	44	1,156	\$15,068,500
1921.....	126	216	1,460,300	115	4,621	34,915,000	241	4,837	4,951,800
Bronx:									
1920.....	545	714	4,062,975	24	894	3,610,000	569	1,608	7,672,975
1921.....	2,481	3,319	16,332,849	277	10,718	39,834,900	2,758	14,307	56,167,749
Brooklyn:									
1920.....	3,069	3,917	21,853,025	44	605	3,604,000	3,113	4,522	25,457,025
1921.....	7,730	11,332	62,477,900	413	5,304	27,280,500	8,143	16,636	89,758,400
Queens:									
1920.....	3,665	5,198	22,145,213	23	300	1,750,000	3,688	5,498	23,895,213
1921.....	9,822	11,186	63,171,370	215	2,070	8,528,200	10,037	13,256	71,699,570
Richmond:									
1920.....	1,297	1,302	3,676,943	.....	.....	.....	1,297	1,302	3,676,943
1921.....	2,594	2,594	8,392,712	.....	.....	.....	2,594	2,594	8,392,712
Greater New York:									
1920.....	8,598	11,153	53,241,656	113	2,933	22,529,000	8,711	14,086	75,770,656
1921.....	22,753	28,647	151,835,131	1,020	22,713	110,558,600	23,773	51,360	262,393,731

The increase in the number of permits issued, as here shown, is too striking to require comment, but it becomes even more impressive when the prevailing trend before the adoption of the tax exemption ordinance is considered. Building in 1920, it will be recalled, reached its highest point in the first half of the year, and then began a period of decline which quickly resulted in almost stagnation and which, so far as housing in New York is concerned, lasted practically until the exemption was adopted. In Brooklyn, for instance, the total number of dwelling permits applied for in January and February, 1921, was 418, to accommodate 601 families, the corresponding figures for 1920 being 521 and 753; in the Bronx in January and February, 1921, applications were made for permits for 58 dwellings, to house 87 families, against 85 applications covering accommodations for 112 families in 1920; in Manhattan during these two months of 1921 no permits were issued for dwellings, and only one for a tenement, as against two for dwellings and 7 for tenements in 1920. In other words, in January and February the permits issued were not only few, but they were running below the level for the same period of 1920. But with the passage of the exemption ordinance the number began to increase, and although this might at first be ascribed to the advancing season, the difference soon became too great for this explanation to be sufficient. The permits for dwelling houses alone, during 1921, showed accommodations for more than twice as many families as were provided for by the 1920 dwelling-house permits, while the estimated value of the projected housing rose from nearly seventy-six million dollars in 1920 to over two hundred and sixty million in 1921.

The kind of housing planned for naturally varied with the location. In Manhattan and the Bronx, tenements accounted for by far the larger part of the increased housing accommodations. This is especially marked in Manhattan, where of the 4,837 families to be provided for by the projected new housing, 96 per cent must occupy

tenements. To a less degree, the tenement also dominates in those sections of the Bronx adjoining Manhattan where land is far too expensive to justify the building of individual houses. Further out in the Bronx, hundreds of one and two family dwellings are going up, while in the congested portions tenements are planned or under way designed to accommodate over 10,000 families, as against 894 so provided for by the plans of 1920. Elsewhere the tenement is less in favor. In Brooklyn one and two family dwellings were designed to house nearly twice as many as were to be provided for in tenements. In Queens, where the plans filed provided for 13,256 families, 84 per cent were to be accommodated in one and two family dwellings, while in Richmond the tenement was nonexistent, so far as the building of 1920 and 1921 is concerned.

The average cost of the proposed housing seems to indicate that the builders kept the exemption very closely in mind. The maximum exemption is \$5,000 per house or apartment; taking the city as a whole, the average cost per family of the housing for which plans were filed is \$5,109, the amount varying in the different boroughs from \$3,235 per family in Richmond to \$7,520 in Manhattan.

As far as the amount of new housing foreshadowed by the year's permits is concerned, the advocates of the tax exemption feel that the plan has fully justified itself, but in some other respects the results have not entirely met their expectations. It had been hoped that the exemption would be utilized largely by home builders. The tenant class is necessarily large in New York City, but it was hoped that there would be many people of moderate means to whom the saving represented by the tax remission would be sufficient inducement to lead them to undertake building for themselves. To some extent this hope has been realized, but in general it is believed that the increased building is mainly done by contractors as a speculative venture. The number of dwellings covered by a single permit is strong testimony to that effect. From one point of view, this is a hopeful feature. It has frequently been claimed that there is no hope of relief from the housing shortage until speculative building again becomes common. If the present building is mainly by contractors, it would seem that the exemption has made speculative building profitable again in New York, in which case the prospect for relief is good.

The extent to which home seekers are building for themselves varies with the character of the neighborhood, or, in other words, with the chance of securing land at moderate prices. In the congested districts land is too dear to encourage the erection of individual homes, but the inquirer was assured that in the outlying districts, especially in Queens and the Bronx, hundreds of little homes are being put up by their prospective occupants. Queens was the only borough in which the housing authorities believed that more of the building covered by the permits was being done by private owners than by speculative builders, but everywhere attention was called to the number of one and two family dwellings for which permits were asked. Whether or not the whole benefit of the exemption was going to the individual occupant, the boroughs were getting much needed housing, and a large proportion of this was in the form of small family houses rather than of huge tenements.

At the time these figures were gathered, early in January, 1922, it was generally agreed that as yet the new building had done little or nothing toward reducing rents and relieving the housing shortage. The larger portion of the new plans had been filed during the second half of the year, and up to the close of 1921 the number of new houses finished and put upon the market had not appreciably reduced the accumulated deficit. Some thought it might take several years of active building to produce the desired results. In Queens, for instance, the housing authorities pointed out that to meet the normal demands of the borough there should be new housing to provide for at least 6,000 or 7,000 families annually. For at least three years the new building had not provided for more than 2,000 families per annum on the average, and although in 1920 there had been some revival it had not met more than half the normal demand. So even though in 1921 plans had been filed providing for over 13,000 families, these buildings, when completed, would not wholly meet the accumulated deficit, to say nothing of the normal 1921 demand. A somewhat similar situation prevails in the city as a whole according to the testimony given before the Lockwood committee:

Tenement House Commissioner Mann said the housing shortage was now more acute than ever. A census of vacant apartments fit for occupancy, made in February, 1921, showed that they were but one-fifth of 1 per cent of the total number of apartments in the city. A similar census just being completed showed only one-tenth of 1 per cent of existing apartments unoccupied.

"There is a shortage of 80,000 apartments right now," he declared, "as against 70,000 last year. Were that made up we ought to have new buildings each year with from 20,000 to 25,000 apartments."⁶

One writer⁷ on the subject declares that between April 1 and December 31, 1921, buildings were completed, in the entire city, providing accommodations for 9,889 families, and that on January 1, 1922, there were under construction buildings which would provide for 26,760 families. Apparently, therefore, the plans of 1921, while keeping the situation from growing worse have not, as yet, made much impression upon the accumulated shortage of housing.

On the other hand, some observers, while admitting that the permits filed in 1921 did not offer sufficient accommodations to meet the accumulated demand, were somewhat apprehensive of the effects as the buildings covered by these permits should become available for use. "In the next four or five months," said one, "there are going to be literally thousands of houses finished and thrown on the market. Most of these men are building with borrowed money and they can't hold back and wait to get their price. They'll have to sell and sell quick. What's going to happen to prices then? If they go down too far, building will slump and we'll be back where we were in 1920—a tremendous shortage but no building. Of course we shall be better off for having the houses which are going up now, but a period of confusion and uncertainty and delay is the last thing we need or want."

This, however, was a note of doubt not generally heard. A more common complaint was that the new buildings are not going to meet

⁶ Hearing before the Lockwood committee, Jan. 5, 1922, reported in New York Times, Jan. 6, 1922.

⁷ S. B. Donnelly, secretary of Building Trades Employers' Association, in New York Record and Guide, Feb. 4, 1921, p. 138.

the worst need, which is for workers' dwellings. It is generally agreed that the new buildings now going up must be rented at from \$15 to \$20 per room a month, at the lowest, to insure an economic return on the investment. This puts them out of reach of the average working man, unless, in order to pay a disproportionate part of its income for rent, the family cuts down its outlay for food and clothing, health, and education far below the level of safe and decent living. Many are doing this at present, it is said, and their condition is not helped by the increased provision of this, for them, too expensive housing. Against this complaint it is urged that for many years it has not been possible to build workers' apartments in New York to let at an economic rental. As the new buildings are completed, tenants who can afford their rents will move into them, the less desirable houses they move from will be left vacant, competition will force down their rents, and the workers will get the benefit. This, it is claimed, is the normal process by which housing for the workers is usually secured, so that the workers will be as much, though not quite as immediately, benefited by the new housing as the better off families by whom it will be utilized.

One result of the exemption which was neither planned for nor foreseen has been its effect upon the labor situation. In 1920, while wages and prices were at their highest, a wage agreement, effective until December 31, 1921, was made between the building employers and the building trades workers of New York City. In the second half of 1920 the decline from peak prices began, and by the beginning of 1921 employers in general were insisting that a cut in building wages was absolutely necessary before a revival of building could be expected. As the season wore on, trouble over the proposed cuts developed in nearly all parts of the country. In some places, arbitration was accepted and moderate reductions were effected; in others, there were long and obstinate strikes or lock-outs, from which the building industries of the places affected have not yet recovered. In New York the building employers shared the general opinion that wages ought to come down, and proposed to the workers that they should accept a cut of a dollar a day, pointing out that it would be impossible to keep the industry alive without at least as much of a reduction as this. The workers stood firmly upon their agreement and refused to take any cut. At this stage, the effects of the tax exemption began to make themselves felt. Usually building activity reaches its highest point for the year in June, and then recedes more or less steadily, but in 1921 the customary procedure was, in many places, reversed, and the second half of the year showed more building than the first. In New York City this abnormality was very marked. Apparently it took several months for the exemption to make its influence felt, and by June the movement was just getting into its swing. In the Bronx, for instance, the estimated value of the housing covered by permits issued in June was \$5,462,840; in only two of the next six months did it sink below this amount, while in November and December, ordinarily dull months, it reached the totals of \$10,790,283 and \$8,209,231. In Brooklyn the value shown in the applications for permits was higher than in June than for any other single month, but for the second half of the year it was more than fifty per cent greater than for the

first half; in both November and December, it was over \$12,000,000. Naturally with such a demand for building as these applications indicate, no employer wished to suspend work for the purpose of disciplining his employees, so building continued at the established wage scale and in almost undiminished volume up to the end of the year. With the close of 1921 the agreement reached its end, and as yet the employers and employees have not come to terms over a new one. But the situation of the last half of 1921 is intensified. Unless the State legislature extends the period for the exemption, it can not be claimed for any buildings begun after April 1, 1922. Consequently, every builder is anxious to get all the work he can under way before that date, and has no time to spare for wage disputes, so the workers have full employment at the old scale, except as weather conditions interfere.⁸

As to whether or not this result is desirable, there is some difference of opinion. In the first excitement over the workers' absolute refusal to take a cut complaints were heard that the necessary deflation of labor was being postponed at the expense of the taxpayer and that the workers absorbed the full value of the exemption. This claim was so demonstrably absurd that it has not been pressed. There is still in many quarters, however, a feeling that the workers did not "play fair" in insisting on their agreed wages, and that, in some way not quite clearly defined, the community is injured by their continuing to get the old rates. This is not a universal opinion, for some prominent builders point out that labor has so increased its efficiency in the last year or two that there has been a fall of probably 50 per cent in the real labor cost of building. Some outside the trade go farther still, and feel that through its effect on the labor situation the exemption has been a benefit to the whole community. Some of the officials of the building departments of the different boroughs pointed out, for instance, that normally through the last quarter of the year there would be much unemployment among the building workers, but that through the activity induced by the exemption, this was averted in the winter of 1921-22. In the city as a whole, they pointed out, there were thousands of workers in full employment, except as weather conditions prevented, and getting good wages, on which they were living comfortably instead of scraping along on intermittent work and getting credit and cutting down expenses to meet the diminished income of the dull months. They dwelt especially on what it meant to the city, in this winter of industrial depression and general unemployment, to have this large body of workers spending at the normal rate instead of being added to the number of unemployed or only partly employed, and thereby reducing the consuming power of the community and helping to throw others out of work.

To sum up the situation, then, the tax-exemption provision has not solved the housing problem of New York, it has not brought down rents to a point within reach of the average workingman, and it has not been as successful as was hoped in promoting the building of individual homes by people of moderate means. On the other hand, it has given a tremendous impetus to housing work in New

⁸ Since this was written the New York Legislature has extended the exemption to all dwellings commenced before April 1, 1923.

York City; it has apparently had some effect in increasing home ownership and in stimulating the building of one and two family dwellings where land is not too dear for such structures; it has greatly increased the taxable value of the land, which is not included in the exemption; and it has prevented labor troubles and kept a large body of workers in steady employment through a time of industrial depression and general dullness. It is too soon to form a final opinion of the wisdom of the exemption, but it is significant that New York is making a strong effort to secure an extension of the period within which buildings commenced may share in the exemption, and that other cities are beginning to urge the plan as a means of promoting housing work.

INDUSTRIAL RELATIONS AND LABOR CONDITIONS.

Demand of Metal Workers in Germany for Greater Rights for Works Councils.¹

ON DECEMBER 5 to 7, 1921, there was in session at Leipzig the first works councils' congress of the German metal workers. It was attended by 530 delegates chosen by works councils throughout Germany. Members of the directorate and district officers of the Federation of Metal Workers and numerous representatives of German and foreign labor organizations were also present.

It is impossible to give within a limited space a comprehensive account of the proceedings of the congress. It can only be stated that since the turbulent first general works councils' congress at Berlin there has taken place a clarification as to the question whether the works councils are to be a political or an economic institution. Everybody seems to have forgotten the dispute as to whether the works councils should be superior to the trade-unions or coordinated with them. The belief that the works council system can not be successfully effective without the guiding and directing support of the powerful trade-unions is now generally prevalent.

The agenda of the congress show that its chief object was to shed light on economic relationships and to provide food for thought through the discussion of current economic problems. Experts read papers on the question of coal and iron, the concentration of capital, socialization problems, world and German economics, and the duties of works councils. The congress adopted resolutions as to German international and domestic policies, and the activities of the inter-allied disarmament commission (with special reference to the dismantling of the Deutsche Werke). Another resolution unanimously adopted makes a number of demands for extension of the rights of the works councils with respect to comanagement of industrial establishments. The text of this resolution is as follows:

Fully aware that sound economic conditions, rehabilitation of financial and foreign exchange conditions, compliance within bounds of possibility with the duty of reparation—which must, however, not be effected at the sole expense of the working classes—and the assurance of existence on a plane worthy of human beings, can be brought about only through the exercise by the manual and brain workers and by their elected representatives—the work councils—of a decisive influence upon the entire economic life which safeguards the interests of the great working community, the congress demands an extension of the rights of the works councils through—

1. The granting of the right of inspection of all accounts, the correspondence, purchase and sales contracts, and of other documents of the establishment;
2. Abrogation of the right of the employer not to disclose business secrets to the works council;
3. Granting of the right of control of all calculations and obligating the employer to furnish to the council all information required for the exercise of this control;
4. Granting to the works council the right to summon and examine officials and making it compulsory for the latter to testify;

¹ Korrespondenzblatt des Allgemeinen Deutschen Gewerkschaftsbundes. Berlin, January 7, 1922.

5. The right of controlling the disposition of foreign and domestic credits in foreign exchange;
6. The right of checking up tax returns and taxes paid by the employer;
7. The right of objecting to inefficient management;
8. The right of determining methods of production and of exchanging experiences in this respect with the object of gradually introducing everywhere the most rational and modern processes and equipment.

As precondition for the practical exercise of these rights to be granted, the congress demands the amendment of the right of advising the management of the establishment as provided in article 66 of the works council law, into a right of comanagement.

Article 165 of the national constitution grants to workers and salaried employees that they may with equal rights cooperate with the employers in the entire economic development of the productive forces. This constitutional right is not being considered in the works council law. On the other hand, article 68 of the works council law provides that "in the exercise of its duties the works council shall see to it that both parties abstain from demands and measures apt to injure the common interests."

Duties can, however, be complied with only if the possibility for compliance is given through the granting of rights. Only then can responsibility be borne for the performance of duties.

The works councils have the honest will to serve through their activities the weal of the producing community and therefore to combat every individual will that is injurious to the commonweal.

Through systematic training the works councils shall be prepared for their most important tasks, namely, to become the organs of a socialistic economic system, promoters of the interests of the community and of a strong sense of solidarity and responsibility.

In order to be able to comply with their duties, the works councils demand the speedy development of the council system, which, to maintain the necessary connection between the individual entrepreneur and the industry group must be effected on the basis of the works councils.

The congress is aware that the realization of these demands can not be achieved through parliamentary struggle alone or through the efforts of the works councils but only through the closest cooperation with the trade-union organizations and through a hard, systematic struggle and the readiness of all manual and brain workers to make sacrifices.

Joint Councils in the Railway Industry in Great Britain.

BY THE terms of the British railway act, 1921, provision was made for the formation of industrial councils in the railway industry along the lines of the "Whitley" councils, the general plan of which was noted in the MONTHLY LABOR REVIEW, September, 1921 (pp. 17-18). The scheme for these councils as since worked out contemplates local, sectional, and central bodies known as local departmental committees, sectional railway councils, and railway councils, no one of which may take action inconsistent with the decisions of the national wages boards. The powers, duties, and method of procedure of these councils appear in the following quotation:¹

Local departmental committees.—At stations or depots where the number of regular employees in a department or in a group of grades exceeds 75, a committee is to be set up consisting of not more than four elected representatives of the employees in that department or group of grades, and not more than four representatives of the company. At stations where there are less than 75 employees in a department or group of grades, it is intended that the employees shall appoint representatives to discuss local matters with the company's local officials.

The objects of a local committee are to provide a recognized means of communication between the employees and the local officials, and to give the employees a wider interest in the conditions under which their work is performed. The matters to be considered by a local committee include (a) suggestions for the satisfactory arrangement of working hours, breaks, time recording, etc.; (b) questions of physical welfare;

¹ Labour Gazette, London, February, 1922, p. 54.

(c) holiday arrangements; (d) publicity in regard to rules; (e) suggestions as to improvements in organization of work, labor-saving appliances, and other matters; (f) investigation of circumstances tending to reduce efficiency; and (g) the correct loading of traffic to insure safe transit and reduction of claims. Applications on these matters must first be submitted by the employees concerned to the employing company in the usual manner. In the absence of a satisfactory answer within 14 days the facts may be reported to the secretary of the employees' side of the committee. In the same way a proposal originating with the company is to be forwarded by the company to the secretary of the employees' side. In the event of the local committee being unable to agree on any question, it may be referred by either side to the sectional railway council. (See below.)

Sectional railway councils.—Not more than five sectional councils, each consisting of not more than 12 elected representatives of the employees and not more than 12 appointed representatives of the company, are to be established on each railway. In addition to the elected and appointed representatives, each side may appoint a secretary with the right to take part in the proceedings. An example is given of the method of constituting sectional councils on a railway, in which the whole staff of the company is divided into five sections, viz: (1) Clerks, station masters, etc., and supervisors; (2) locomotive men; (3) traffic department men; (4) goods and cartage staff; and (5) engineering department men, plate layers, etc. To the sectional councils for each of these five sections, employees' representatives are to be elected by groups of grades within the section in proportion to the number of employees in each group of grades. There is also an arrangement for the number of representatives allotted to each group of grades to be distributed, as nearly equally as practicable, by districts.

The functions of a sectional council are to deal with (a) the local application of national agreements relating to standard salaries, wages, hours of duty, and conditions of service, other than subjects submitted directly to the central wages board by railway companies or the trade-unions; (b) suggestions as to operating, working, and kindred subjects; (c) other matters in which the company and their employees are mutually interested, such as cooperation with a view to securing increased business, greater efficiency and economy; the well-being of the staff; recruitment and tenure of service, etc.; and (d) subjects remitted by the railway council (see below) to a sectional council.¹⁰

Railway councils.—Each railway is to have a railway council of not more than 10 representatives of each side, the employees' side consisting of 2 members of each sectional council, appointed by the employees' side thereof. Here, again, each side is to appoint a secretary, with the right to take part in the proceedings, in addition to the elected and appointed members.

The functions of a railway council are to deal with any of the subjects which may be dealt with by a sectional council and which are of common interest to two or more sections, and also to deal with any subject referred to it by a sectional council. Before any matter is considered by a railway council the sectional councils concerned must have had an opportunity of considering it.

Procedure of sectional and railway councils.—Meetings of sectional and railway councils are to be held as and when necessary, but there are to be not less than two regular meetings of each council annually. Before employees submit any question to a sectional or railway council they must first submit their application to the employing company in the usual manner. In the absence of a satisfactory answer within 21 days the facts may be reported to the employees' secretary of the council concerned. A proposal emanating from the company's side must be forwarded by the secretary of the company's side to the secretary of the employees' side. All decisions of a sectional or of a railway council are to be arrived at by agreement between the two sides. If a sectional council is unable to agree on any matter, the employees' side may refer it to the trade-union concerned, or it may, by agreement, be referred direct to the railway council. If a sectional or a railway council is unable to agree on any question of the local application of national agreements in regard to rates of pay and conditions of service, the matter in difference may be submitted by the employees' side to the trade-union concerned, who may take it up with the company, and, failing agreement, may refer it to the central wages board.

Temporary arrangements.—The provisions of the scheme relating to the constitution of sectional and railway councils are intended to apply ultimately to the amalgamated companies which will be formed under the railways act, 1921. In the meantime, and as a temporary arrangement, they apply to the railway companies now existing.

PRICES AND COST OF LIVING.

Retail Prices of Food in the United States.

THE following tables are based on figures which have been received by the Bureau of Labor Statistics from retail dealers through monthly reports of actual selling prices.¹

Table 1 shows for the United States retail prices of food on February 15, 1921, and on January 15, and February 15, 1922, as well as the percentage changes in the year and in the month. For example, the price of onions was 3.9 cents per pound on February 15, 1921; 9.1 cents per pound on January 15, 1922; and 10.9 cents per pound on February 15, 1922. These figures show an increase of 179 per cent in the year, and 20 per cent in the month.

The cost of the various articles of food,² combined, showed a decrease of 10 per cent in February, 1922, as compared with February, 1921, and a decrease of 0.3 per cent in February, 1922, as compared with January, 1922.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE FEBRUARY 15, 1922, COMPARED WITH JANUARY 15, 1922, AND FEBRUARY 15, 1921.

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers.]

Article.	Unit.	Average retail price on—			Per cent of increase (+) or decrease (—) Feb. 15, 1922, compared with—	
		Feb. 15, 1921.	Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15, 1921.	Jan. 15, 1922.
		<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>		
Sirloin steak.....	Pound.....	38.3	35.3	35.2	- 8	-0.3
Round steak.....	do.....	34.2	30.4	30.2	-12	-1
Rib roast.....	do.....	29.3	26.7	26.5	-10	-1
Chuck roast.....	do.....	22.0	19.0	18.9	-14	-1
Plate beef.....	do.....	15.6	12.8	12.8	-18	0
Pork chops.....	do.....	32.7	28.9	29.3	-10	+1
Bacon.....	do.....	44.7	37.6	37.8	-15	+1
Ham.....	do.....	48.2	44.2	46.5	-4	+5
Lamb.....	do.....	34.2	33.9	35.4	+4	+4
Hens.....	do.....	42.9	36.9	36.9	-14	0
Salmon, canned, red.....	do.....	37.7	33.3	32.9	-13	-1
Milk, fresh.....	Quart.....	15.4	13.6	13.2	-14	-3
Milk, evaporated.....	15-16 oz. can..	14.7	12.4	11.6	-21	-6
Butter.....	Pound.....	56.5	45.3	45.9	-19	+1
Oleomargarine.....	do.....	35.4	29.3	28.3	-20	-3
Nut margarine.....	do.....	32.3	28.2	27.5	-15	-2

¹ In addition to monthly retail prices of food and coal, the bureau secures prices of gas and dry goods from each of 51 cities. Gas has heretofore been published in the June issue, but appears this year in the July issue. Dry goods appears regularly in the April, July, October, and December issues of the MONTHLY LABOR REVIEW.

² The following 22 articles, weighted according to the consumption of the average family, have been used from January, 1913, to December, 1920: Sirloin steak, round steak, rib roast, chuck roast, plate beef, pork chops, bacon, ham, lard, hens, flour, corn meal, eggs, butter, milk, bread, potatoes, sugar, cheese, rice, coffee, tea. The remainder of the 43 articles shown in Tables 1 and 2 have been included in the weighted aggregates for each month, beginning with January, 1921.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE FEBRUARY 15, 1922, COMPARED WITH JANUARY 15, 1922, AND FEBRUARY 15, 1921—Concluded.

Article.	Unit.	Average retail price on—			Per cent of increase (+) or decrease (-) Feb. 15, 1922 ^c compared with—	
		Feb. 15, 1921.	Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15, 1921.	Jan. 15, 1922.
		<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>		
Cheese.....	Pound.....	38.4	32.9	32.9	-14	0
Lard.....	do.....	20.7	15.4	15.9	-23	+3
Crisco.....	do.....	25.9	21.6	21.7	-16	+0.4
Eggs, strictly fresh.....	Dozen.....	47.9	49.9	48.4	+1	-3
Eggs, storage.....	do.....	44.4	39.3	39.1	-12	-1
Bread.....	Pound.....	10.6	8.8	8.6	-19	-2
Flour.....	do.....	6.5	4.9	5.1	-22	+4
Corn meal.....	do.....	5.0	3.9	3.9	-22	0
Rolled oats.....	do.....	10.4	9.2	8.9	-14	-3
Corn flakes.....	8-oz package.....	14.0	10.7	10.3	-26	-4
Cream of Wheat.....	28-oz. package.....	30.0	26.6	26.2	-13	-2
Macaroni.....	Pound.....	21.3	20.3	20.2	-5	-0.4
Rice.....	do.....	10.5	9.3	9.3	-11	0
Beans, navy.....	do.....	8.6	8.2	8.3	-3	+1
Potatoes.....	do.....	2.6	3.3	3.3	+27	0
Onions.....	do.....	3.9	9.1	10.9	+179	+20
Cabbage.....	do.....	3.6	5.6	5.7	+58	+2
Beans, baked.....	No. 2 can.....	15.3	13.5	13.3	-13	-1
Corn, canned.....	do.....	17.1	16.0	15.9	-7	-1
Peas, canned.....	do.....	18.2	17.7	17.8	-2	+1
Tomatoes, canned.....	do.....	12.2	13.2	13.4	+10	+2
Sugar, granulated.....	Pound.....	8.9	6.2	6.4	-28	+3
Tea.....	do.....	71.5	68.3	68.0	-5	-0.4
Coffee.....	do.....	37.5	35.7	35.6	-5	-0.3
Prunes.....	do.....	22.5	18.8	18.8	-16	0
Raisins.....	do.....	31.9	25.0	24.8	-22	-1
Bananas.....	Dozen.....	41.0	36.6	36.8	-10	+1
Oranges.....	do.....	45.3	46.2	48.5	+7	+5
All articles combined ¹					-10	-0.3

¹ See note 2, p. 36.

Table 2 shows for the United States average retail prices of specified food articles on February 15, 1913, and 1914, and on February 15 of each year from 1917 to 1922, together with the percentage changes in February of each of these specified years compared with February, 1913. For example, the price of potatoes per pound was 1.5 cents in February, 1913; 1.8 cents in February, 1914; 4.9 cents in February, 1917; 3.2 cents in February, 1918; 3.1 cents in February, 1919; 6.0 cents in February, 1920; 2.6 cents in February, 1921; and in February, 1922, 3.3 cents. As compared with the average price in February, 1913, these figures show the following percentage increases: 20 per cent in February, 1914; 227 per cent in February, 1917; 113 per cent in February, 1918; 107 per cent in February, 1919; 300 per cent in February, 1920; 73 per cent in February, 1921; and 120 per cent in February, 1922.

TABLE 2.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE FEBRUARY 15 OF CERTAIN SPECIFIED YEARS COMPARED WITH FEBRUARY 15, 1913.

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers.]

Article.	Unit.	Average retail prices Feb. 15—										Per cent of increase (+) or decrease (-) Feb. 15 of each specified year compared with Feb. 15, 1913.					
		1913	1914	1917	1918	1919	1920	1921	1922	1914	1917	1918	1919	1920	1921	1922	
Sirloin steak.....	Pound	Cts. 23.9	Cts. 25.3	Cts. 28.8	Cts. 33.4	Cts. 41.2	Cts. 40.6	Cts. 38.3	Cts. 35.2	+6	+21	+40	+72	+70	+60	+47	
Round steak.....	do.	20.6	22.9	26.0	31.4	38.8	37.2	34.2	30.2	+11	+25	+52	+88	+81	+66	+47	
Rib roast.....	do.	18.8	20.0	22.6	26.3	32.6	31.5	29.3	26.5	+6	+20	+40	+73	+68	+56	+41	
Chuck roast.....	do.	14.9	16.4	18.5	22.7	27.9	25.1	22.0	18.9	+10	+24	+52	+87	+68	+48	+27	
Plate beef.....	do.	11.3	12.4	14.0	17.7	21.9	18.4	15.6	12.8	+10	+24	+57	+94	+63	+38	+13	
Pork chops.....	do.	18.9	21.0	26.2	33.6	37.9	37.7	32.7	29.3	+11	+39	+78	+101	+99	+73	+55	
Bacon.....	do.	25.5	26.5	30.9	48.4	55.3	50.3	44.7	37.8	+4	+21	+90	+117	+97	+75	+48	
Ham.....	do.	25.4	26.5	31.7	43.8	51.8	50.7	48.2	46.5	+4	+25	+72	+104	+100	+90	+83	
Lamb.....	do.	18.5	18.9	25.9	31.4	36.4	39.0	34.2	35.4	+2	+40	+70	+97	+110	+85	+91	
Hens.....	do.	20.7	22.1	26.7	36.2	39.6	44.7	42.9	36.9	+7	+29	+75	+91	+116	+107	+78	
Salmon, canned, red.....	do.	.....	.....	121.6	129.1	131.7	137.6	139.1	132.9	.....	.....	.....	.....	.....	.....	.....
Milk, fresh.....	Quart.	8.9	9.1	10.0	13.4	15.5	16.7	15.4	13.2	+2	+12	+51	+74	+88	+73	+48	
Milk, evaporated.....	(2)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Butter.....	Pound	41.2	35.8	46.9	57.9	57.2	72.6	56.5	45.9	-13	+14	+41	+39	+76	+37	+11	
Oleomargarine.....	do.	.....	.....	.....	.....	39.2	43.4	35.4	28.3	.....	.....	.....	.....	.....	.....	.....
Nut margarine.....	do.	.....	.....	.....	.....	35.9	36.1	32.3	27.5	.....	.....	.....	.....	.....	.....	.....
Cheese.....	do.	22.2	23.0	31.4	34.9	40.9	43.3	38.4	32.9	+4	+43	+57	+84	+95	+73	+48	
Lard.....	do.	15.4	15.7	21.9	33.0	32.1	32.3	20.7	15.9	+2	+42	+114	+108	+110	+34	+3	
Crisco.....	do.	.....	.....	.....	.....	33.8	38.1	25.9	21.7	.....	.....	.....	.....	.....	.....	.....
Eggs, strictly fresh.....	Dozen	31.5	36.5	50.7	62.7	50.6	68.5	47.9	48.4	+16	+61	+99	+61	+117	+52	+54	
Eggs, storage.....	do.	23.5	32.6	46.3	54.7	46.8	59.4	44.4	39.1	+39	+97	+133	+99	+153	+89	+66	
Bread.....	Pound	5.6	6.2	8.0	9.5	9.8	11.1	10.6	8.6	+11	+43	+70	+75	+98	+89	+54	
Flour.....	do.	3.3	3.3	5.6	6.6	6.7	8.1	6.5	5.1	0	+70	+100	+103	+145	+97	+55	
Corn meal.....	do.	2.9	3.1	4.1	7.0	6.0	6.5	5.0	3.9	+7	+41	+141	+107	+124	+72	+34	
Rolled oats.....	do.	.....	.....	.....	.....	8.4	10.1	10.4	8.9	.....	.....	.....	.....	.....	.....	.....
Corn flakes.....	do.	.....	.....	.....	.....	14.1	14.1	14.0	10.3	.....	.....	.....	.....	.....	.....	.....
Cream of Wheat.....	(4)	.....	.....	.....	.....	25.1	29.3	30.0	26.2	.....	.....	.....	.....	.....	.....	.....
Macaroni.....	Pound	.....	.....	.....	.....	19.4	20.0	21.3	20.2	.....	.....	.....	.....	.....	.....	.....
Rice.....	do.	8.6	8.7	9.1	11.8	14.3	18.3	10.5	9.3	+1	+6	+37	+66	+113	+22	+8	
Beans, navy.....	do.	.....	.....	14.9	18.1	13.7	12.2	8.6	8.3	.....	.....	.....	.....	.....	.....	.....
Potatoes.....	do.	1.5	1.8	4.9	3.2	3.1	6.0	2.6	3.3	+20	+227	+113	+107	+300	+73	+120	
Onions.....	do.	.....	.....	12.2	4.9	4.3	9.3	3.9	10.9	.....	.....	.....	.....	.....	.....	.....
Cabbage.....	do.	.....	.....	.....	.....	4.3	9.3	3.6	5.7	.....	.....	.....	.....	.....	.....	.....
Beans, baked.....	(6)	.....	.....	.....	.....	18.6	16.9	15.3	13.3	.....	.....	.....	.....	.....	.....	.....
Corn, canned.....	do.	.....	.....	.....	.....	19.6	18.6	17.1	15.9	.....	.....	.....	.....	.....	.....	.....
Peas, canned.....	do.	.....	.....	.....	.....	19.2	19.1	18.2	17.8	.....	.....	.....	.....	.....	.....	.....
Tomatoes, canned.....	do.	.....	.....	.....	.....	17.0	15.2	12.2	13.4	.....	.....	.....	.....	.....	.....	.....
Sugar, granulated.....	Pound	5.5	5.2	8.1	10.6	10.7	18.8	8.9	6.4	+5	+47	+93	+95	+242	+62	+16	
Tea.....	do.	54.3	54.5	54.7	60.8	68.4	71.4	71.5	68.0	60.4	+1	+12	+26	+31	+32	+25	
Coffee.....	do.	29.8	29.6	29.9	30.4	36.6	49.1	37.5	35.6	-1	+0.3	+2	+23	+65	+26	+19	
Prunes.....	do.	.....	.....	14.1	16.5	20.3	29.0	22.5	18.8	.....	.....	.....	.....	.....	.....	.....
Raisins.....	do.	.....	.....	14.1	15.0	16.2	25.6	31.9	24.8	.....	.....	.....	.....	.....	.....	.....
Bananas.....	Dozen	.....	.....	.....	.....	35.0	41.0	41.0	36.8	.....	.....	.....	.....	.....	.....	.....
Oranges.....	do.	.....	.....	.....	.....	46.8	53.4	45.3	48.5	.....	.....	.....	.....	.....	.....	.....
All articles combined. ⁷	.....	.....	.....	.....	.....	.....	.....	.....	.....	+5	+38	+67	+79	+108	+63	+46

¹ All.

² 15-16 ounce can.

³ 8-ounce package.

⁴ 28-ounce package.

⁵ No. 2 can.

⁶ Increase.

⁷ See note 2, p. 36.

Table 3 shows the changes in the retail price of each of 22 articles of food³ as well as the changes in the amounts of these articles that could be purchased for \$1, each year, 1913 to 1921, and in February, 1922.

TABLE 3.—AVERAGE RETAIL PRICES OF SPECIFIED ARTICLES OF FOOD AND AMOUNT PURCHASABLE FOR \$1, IN EACH YEAR, 1913 TO 1921, AND IN FEBRUARY, 1922.

Year.	Sirloin steak.		Round steak.		Rib roast.		Chuck roast.		Plate beef.		Pork chops.	
	Average retail price.	Amt. for \$1.	Average retail price.	Amt. for \$1.	Average retail price.	Amt. for \$1.	Average retail price.	Amt. for \$1.	Average retail price.	Amt. for \$1.	Average retail price.	Amt. for \$1.
	<i>Per lb.</i>	<i>Lbs.</i>	<i>Per lb.</i>	<i>Lbs.</i>	<i>Per lb.</i>	<i>Lbs.</i>	<i>Per lb.</i>	<i>Lbs.</i>	<i>Per lb.</i>	<i>Lbs.</i>	<i>Per lb.</i>	<i>Lbs.</i>
1913.....	\$0.254	3.9	\$0.223	4.5	\$0.198	5.1	\$0.160	6.3	\$0.121	8.3	\$0.210	4.8
1914.....	.259	3.9	.236	4.2	.204	4.9	.167	6.0	.126	7.9	.220	4.5
1915.....	.257	3.9	.230	4.3	.201	5.0	.161	6.2	.121	8.3	.203	4.9
1916.....	.273	3.7	.245	4.1	.212	4.7	.171	5.8	.128	7.8	.227	4.4
1917.....	.315	3.2	.290	3.4	.249	4.0	.209	4.8	.157	6.4	.319	3.1
1918.....	.389	2.6	.369	2.7	.307	3.3	.266	3.8	.206	4.9	.390	2.6
1919.....	.417	2.4	.389	2.6	.325	3.1	.270	3.7	.202	5.0	.423	2.4
1920.....	.437	2.3	.395	2.5	.332	3.0	.262	3.8	.183	5.5	.423	2.4
1921.....	.388	2.6	.344	2.9	.291	3.4	.212	4.7	.143	7.0	.349	2.9
1922: February.	.352	2.8	.302	3.3	.265	3.8	.189	5.3	.128	7.8	.293	3.4
	Bacon.		Ham.		Lard.		Hens.		Eggs.		Butter.	
	<i>Per lb.</i>	<i>Lbs.</i>	<i>Per lb.</i>	<i>Lbs.</i>	<i>Per lb.</i>	<i>Lbs.</i>	<i>Per lb.</i>	<i>Lbs.</i>	<i>Per doz.</i>	<i>Doz.</i>	<i>Per lb.</i>	<i>Lbs.</i>
1913.....	\$0.270	3.7	\$0.269	3.7	\$0.158	6.3	\$0.213	4.7	\$0.345	2.9	\$0.383	2.6
1914.....	.275	3.6	.273	3.7	.156	6.4	.218	4.6	.353	2.8	.362	2.8
1915.....	.269	3.7	.261	3.8	.148	6.8	.208	4.8	.341	2.9	.358	2.8
1916.....	.287	3.5	.294	3.4	.175	5.7	.236	4.2	.375	2.7	.394	2.5
1917.....	.410	2.4	.382	2.6	.276	3.6	.286	3.5	.481	2.1	.487	2.1
1918.....	.529	1.9	.479	2.1	.333	3.0	.377	2.7	.569	1.8	.577	1.7
1919.....	.554	1.8	.534	1.9	.369	2.7	.411	2.4	.628	1.6	.678	1.5
1920.....	.523	1.9	.555	1.8	.295	3.4	.447	2.2	.681	1.5	.701	1.4
1921.....	.427	2.3	.488	2.0	.180	5.6	.397	2.5	.509	2.0	.517	1.9
1922: February.	.378	2.6	.465	2.2	.159	6.3	.369	2.7	.484	2.1	.459	2.2
	Cheese.		Milk.		Bread.		Flour.		Corn meal.		Rice.	
	<i>Per lb.</i>	<i>Lbs.</i>	<i>Per qt.</i>	<i>Qts.</i>	<i>Per lb.</i>	<i>Lbs.</i>	<i>Per lb.</i>	<i>Lbs.</i>	<i>Per lb.</i>	<i>Lbs.</i>	<i>Per lb.</i>	<i>Lbs.</i>
1913.....	\$0.221	4.5	\$0.089	11.2	\$0.056	17.9	\$0.033	30.3	\$0.030	33.3	\$0.087	11.5
1914.....	.229	4.4	.089	11.2	.063	15.9	.034	29.4	.032	31.3	.088	11.4
1915.....	.232	4.3	.088	11.4	.070	14.3	.042	23.8	.033	30.3	.091	11.0
1916.....	.258	3.9	.091	11.0	.073	13.7	.044	22.7	.034	29.4	.091	11.0
1917.....	.332	3.0	.112	9.0	.092	10.9	.070	14.3	.058	17.2	.104	9.6
1918.....	.359	2.8	.139	7.2	.098	10.2	.067	14.9	.068	14.7	.129	7.8
1919.....	.426	2.3	.155	6.5	.100	10.0	.072	13.9	.064	15.6	.151	6.6
1920.....	.416	2.4	.167	6.0	.115	8.7	.081	12.3	.065	15.4	.174	5.7
1921.....	.340	2.9	.146	6.8	.099	10.1	.058	17.2	.045	22.2	.095	10.5
1922: February.	.329	3.0	.132	7.6	.086	11.6	.051	19.6	.039	25.6	.093	10.8
	Potatoes.		Sugar.		Coffee.		Tea.					
	<i>Per lb.</i>	<i>Lbs.</i>	<i>Per lb.</i>	<i>Lbs.</i>	<i>Per lb.</i>	<i>Lbs.</i>	<i>Per lb.</i>	<i>Lbs.</i>				
1913.....	\$0.017	58.8	\$0.055	18.2	\$0.298	3.4	\$0.544	1.8				
1914.....	.018	55.6	.059	16.9	.297	3.4	.546	1.8				
1915.....	.015	66.7	.066	15.2	.300	3.3	.545	1.8				
1916.....	.027	37.0	.080	12.5	.299	3.3	.546	1.8				
1917.....	.043	23.3	.093	10.8	.302	3.3	.582	1.7				
1918.....	.032	31.3	.097	10.3	.305	3.3	.648	1.5				
1919.....	.038	26.3	.113	8.8	.433	2.3	.701	1.4				
1920.....	.063	15.9	.194	5.2	.470	2.1	.733	1.4				
1921.....	.031	32.3	.080	12.5	.363	2.8	.697	1.4				
1922: February.	.033	30.3	.064	15.6	.356	2.8	.680	1.5				

³ Although monthly prices of 43 food articles have been secured since January, 1919, prices of only 22 of these articles have been secured each month since 1913.

Index Numbers of Retail Prices of Food in the United States.

IN TABLE 4 index numbers are given which show the changes in the retail prices of each of 22 food articles,⁴ by years from 1907 to 1921, and by months for 1921 and for January and February, 1922.⁵ These index numbers, or relative prices, are based on the year 1913 as 100, and are computed by dividing the average price of each commodity for each month and each year by the average price of that commodity for 1913. These figures must be used with caution. For example, the relative price of rib roast for the year 1920 was 168, which means that the average money price for the year 1920 was 68 per cent higher than the average money price for the year 1913. The relative price of bacon for the year 1919 was 205 and for the year 1920, 194, which figures show a drop of 11 points but a decrease of only 5 per cent in the year.

In the last column of Table 4 are given index numbers showing the changes in the retail cost of all articles of food combined. From January, 1913, to December, 1920, 22 articles have been included in the index, and beginning with January, 1921, 43 articles have been used.⁴ For an explanation of the method used in making the link between the cost of the market basket of 22 articles, weighted according to the average family consumption in 1901, and the cost of the market basket based on 43 articles and weighted according to the consumption in 1918, see MONTHLY LABOR REVIEW for March, 1921 (p. 25).

The curve shown in the chart on page 41 pictures more readily to the eye the changes in the cost of the family market basket and the trend in the cost of the food budget than do the index numbers given in the table. The retail cost of the food articles included in the index has decreased since July, 1920, until the curve is brought down in February, 1922, to approximately where it was in April, 1917. The chart has been drawn on the logarithmic scale,⁶ because the percentages of increase or decrease are more accurately shown than on the arithmetic scale.

⁴See note 2, p. 36.

⁵For index numbers of each month, January, 1913, to December, 1920, see MONTHLY LABOR REVIEW for February, 1921, pp. 19-21.

⁶For a discussion of the logarithmic chart, see article on "Comparison of arithmetic and ratio charts," by Lucian W. Chaney, MONTHLY LABOR REVIEW for March, 1919, pp. 20-34. Also, "The 'ratio' charts," by Prof. Irving Fisher, reprinted from Quarterly Publications of the American Statistical Association, June, 1917, 24 pp.

TABLE 4.—INDEX NUMBERS SHOWING CHANGES IN THE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN THE UNITED STATES BY YEARS, 1907 TO 1921, AND BY MONTHS FOR 1921 AND FOR A PART OF 1922.

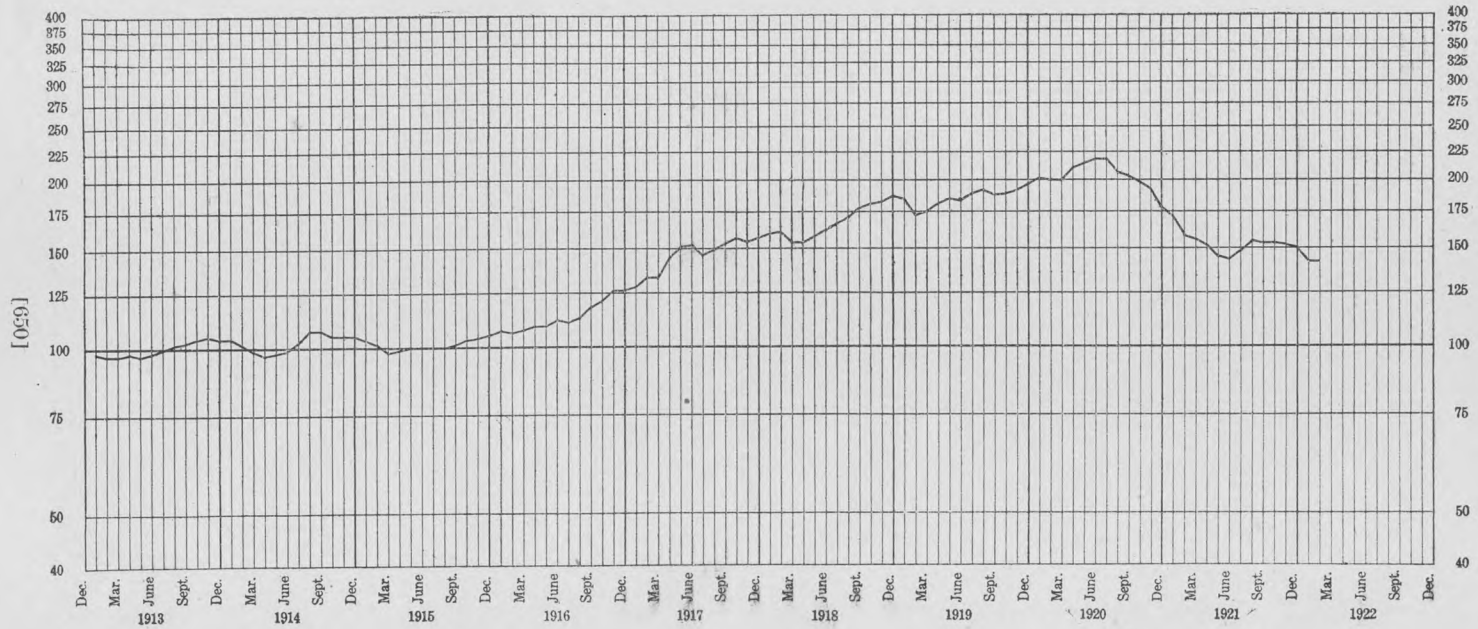
[Average for year 1913=100.]

Year and month.	Sirloin steak.	Round steak.	Rib roast.	Chuck roast.	Plate beef.	Pork chops.	Bacon.	Ham.	Lard.	Hens.	Eggs.	Butter.	Cheese	Milk.	Bread.	Flour.	Corn meal.	Rice.	Pota-toes.	Sugar.	Cof-fee.	Tea.	All articles combined.		
1907.....	71	68	76	.....	.....	74	74	76	81	81	84	85	.....	87	.....	95	88	.....	105	105	.....	.....	82	
1908.....	73	71	78	.....	.....	76	77	78	80	83	86	86	.....	90	.....	102	92	.....	111	108	.....	.....	84	
1909.....	77	74	81	.....	.....	83	83	82	90	89	93	90	.....	91	.....	109	94	.....	112	107	.....	.....	89	
1910.....	80	78	85	.....	.....	92	95	91	104	94	98	94	.....	95	.....	108	95	.....	101	109	.....	.....	93	
1911.....	81	79	85	.....	.....	85	91	89	88	91	94	88	.....	96	.....	102	94	.....	130	117	.....	.....	92	
1912.....	91	89	94	.....	.....	91	91	91	94	93	99	98	.....	97	.....	105	102	.....	135	115	.....	.....	98	
1913.....	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
1914.....	102	106	103	104	104	105	102	102	99	102	102	94	104	100	113	104	105	101	108	108	100	100	100	102	
1915.....	101	103	101	101	100	96	100	97	93	97	99	93	105	99	125	126	108	104	89	120	101	100	101	101	
1916.....	108	110	107	107	106	108	106	109	111	111	109	103	117	102	130	135	113	105	159	146	100	100	100	114	
1917.....	124	130	126	131	130	152	152	142	175	134	139	127	150	125	164	211	192	119	253	169	101	107	146	146	
1918.....	153	165	155	166	170	186	196	178	211	177	165	151	162	156	175	203	227	148	188	176	102	119	168	186	
1919.....	164	174	164	169	167	201	205	199	234	193	182	177	193	174	179	218	213	174	224	205	145	129	186	186	
1920.....	172	177	168	164	151	201	194	206	187	210	197	183	188	188	205	245	217	200	371	353	158	135	203	203	
1921: Av. for year.	153	154	147	133	118	166	158	181	114	186	148	135	154	164	177	176	150	109	182	145	122	128	153	153	
January.....	159	163	157	148	140	171	171	180	141	200	229	159	175	183	193	203	173	176	176	176	129	133	172	172	
February.....	151	153	148	138	129	156	166	179	131	201	139	148	174	173	189	197	167	121	153	162	126	131	158	158	
March.....	154	157	152	141	130	168	155	181	124	203	121	150	176	171	188	194	160	113	147	176	125	131	156	156	
April.....	157	160	154	140	127	177	164	183	116	202	99	145	169	167	184	179	153	106	135	176	123	129	152	152	
May.....	158	160	153	138	124	167	161	181	106	194	97	111	143	162	177	173	150	101	129	153	121	129	145	145	
June.....	157	160	151	135	117	162	159	182	103	181	101	105	133	160	175	179	150	101	159	142	120	126	144	144	
July.....	158	161	148	129	109	163	160	190	106	182	122	122	133	157	173	176	147	100	200	129	120	127	148	148	
August.....	157	160	147	130	112	181	162	197	115	183	138	134	148	161	173	173	150	101	247	136	119	127	155	155	
September.....	153	154	144	128	110	179	159	191	113	179	146	132	148	158	171	170	147	103	235	133	119	127	153	153	
October.....	147	148	139	124	109	171	153	180	109	175	171	139	149	160	170	164	143	107	206	125	119	127	153	153	
November.....	141	139	135	120	106	152	147	170	105	168	201	139	151	161	166	155	140	108	188	122	119	127	152	152	
December.....	139	138	135	120	106	145	143	165	101	168	204	136	149	158	163	152	137	107	182	118	119	124	150	150	
1922:																									
January.....	139	136	135	119	106	138	139	164	97	173	145	118	149	153	157	148	130	107	194	113	120	123	142	142	
February.....	139	135	134	118	106	140	140	173	101	173	140	120	149	148	154	155	130	107	194	116	119	125	142	142	

RETAIL PRICES OF FOOD.

TREND IN THE RETAIL COST OF ALL ARTICLES OF FOOD, COMBINED, FOR THE UNITED STATES, BY MONTHS, JANUARY, 1913, TO FEBRUARY, 1922.

[Average cost for 1913=100.]



Retail Prices of Food in 51 Cities on Specified Dates.

AVERAGE retail food prices are shown in Table 5 for 39 cities for February 15, 1913, for January 15, 1922, and for February 15, 1922, and February 15, 1921. For 12 other cities prices are shown for the same dates with the exception of February, 1913, as these cities were not scheduled by the bureau until after 1913.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES

[The prices shown in the tables following are computed from reports sent monthly to the bureau by retail

Article.	Unit.	Atlanta, Ga.				Baltimore, Md.				Birmingham, Ala.			
		Feb. 15—		Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15—		Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15—		Jan. 15, 1922.	Feb. 15, 1922.
		1913	1921			1913	1921			1913	1921		
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak.....	Pound.....	22.6	36.0	32.8	32.6	20.7	37.3	33.4	32.9	24.9	40.3	32.2	32.0
Round steak.....	do.....	20.5	33.1	29.9	29.7	19.0	34.5	29.8	29.6	20.1	36.2	28.3	28.6
Rib roast.....	do.....	17.0	26.4	25.7	25.7	17.3	30.2	26.8	26.7	19.3	29.9	25.5	23.3
Chuck roast.....	do.....	13.0	21.0	17.8	17.6	14.7	22.9	19.1	18.8	15.6	24.3	17.8	17.8
Plate beef.....	do.....	9.8	14.0	11.1	11.6	11.6	16.2	12.8	12.8	10.0	15.7	11.6	11.5
Pork chops.....	do.....	19.5	33.5	28.3	28.9	17.3	30.7	28.7	28.7	19.4	32.2	27.8	28.0
Bacon.....	do.....	30.0	46.2	37.1	36.7	21.3	37.7	30.8	31.6	31.3	49.8	38.7	38.9
Ham.....	do.....	28.5	48.6	43.3	45.0	30.0	50.8	48.8	52.0	30.0	50.2	44.3	45.9
Lamb.....	do.....	20.0	34.4	32.3	34.0	18.0	33.1	36.8	35.8	18.8	40.8	35.0	35.8
Hens.....	do.....	20.0	34.4	34.0	32.4	19.8	45.6	38.4	39.1	19.3	38.8	31.8	31.9
Salmon, canned, red.....	do.....	19.3	31.3	31.3	31.3	34.6	27.6	27.7	27.7	40.1	33.0	32.6	32.6
Milk, fresh.....	Quart.....	10.0	21.3	17.8	17.5	8.8	15.0	12.0	12.0	10.3	25.0	20.0	20.0
Milk, evaporated.....	15-16 oz. can.....	15.4	14.3	14.3	14.3	14.5	11.4	11.6	11.6	15.7	13.3	12.7	12.7
Butter.....	Pound.....	41.7	63.1	49.3	48.2	42.3	62.3	53.1	51.1	44.0	63.3	48.0	48.0
Oleomargarine.....	do.....	40.5	32.4	32.4	32.4	34.7	27.3	26.9	26.9	40.9	33.6	33.5	33.5
Nut margarine.....	do.....	35.8	29.6	28.0	28.0	32.0	27.6	26.8	26.8	37.9	30.3	29.5	29.5
Cheese.....	do.....	25.0	37.9	33.1	32.6	23.3	39.3	33.3	33.3	23.0	38.9	30.3	31.2
Lard.....	do.....	14.8	21.6	16.0	17.4	13.5	18.8	15.1	15.7	15.4	20.2	15.1	16.0
Crisco.....	do.....	23.8	21.7	21.9	21.9	23.0	19.6	20.0	20.0	28.8	21.4	20.7	20.7
Eggs, strictly fresh.....	Dozen.....	28.0	42.8	44.4	43.2	27.1	47.5	53.8	52.5	28.8	45.3	44.5	41.9
Eggs, storage.....	do.....	25.0	38.8	38.8	38.8	23.0	38.4	37.5	37.5	25.0	34.4	29.3	29.3
Bread.....	Pound.....	6.0	12.2	10.1	10.1	5.4	10.8	8.6	8.6	5.0	11.1	9.1	9.1
Flour.....	do.....	3.6	7.0	5.6	5.6	3.2	6.4	4.7	4.9	3.8	7.5	5.8	5.8
Corn meal.....	do.....	2.4	3.9	2.7	2.7	2.4	4.2	3.2	3.1	2.1	3.6	2.8	2.8
Rolled oats.....	do.....	11.7	10.7	10.1	10.1	9.7	8.9	8.8	8.8	11.9	10.0	9.8	9.8
Corn flakes.....	8-oz. pkg.....	14.5	10.5	10.1	10.1	13.4	9.7	9.5	9.5	14.8	10.5	10.4	10.4
Cream of Wheat.....	28-oz. pkg.....	31.2	27.2	26.8	26.8	28.7	24.9	25.0	25.0	32.0	29.0	27.8	27.8
Macaroni.....	Pound.....	22.3	21.6	22.0	22.0	21.5	19.6	20.1	20.1	24.6	19.4	19.0	19.0
Rice.....	do.....	8.6	8.6	8.9	8.9	9.0	11.4	9.3	9.1	8.2	10.0	9.0	9.1
Beans, navy.....	do.....	10.4	10.1	10.1	10.1	8.4	7.9	8.1	8.1	10.3	9.6	9.6	9.6
Potatoes.....	do.....	2.0	3.4	4.4	4.2	1.7	2.6	3.4	3.4	1.9	3.5	4.4	4.3
Onions.....	do.....	5.0	10.2	11.3	11.3	3.8	9.0	11.2	11.2	5.1	9.7	11.1	11.1
Cabbage.....	do.....	4.9	6.5	6.2	6.2	3.1	4.9	5.2	5.2	5.3	6.3	5.7	5.7
Beans, baked.....	No. 2 can.....	14.9	13.6	13.4	13.4	14.2	12.5	12.3	12.3	16.7	15.0	14.9	14.9
Corn, canned.....	do.....	17.0	16.1	16.1	16.1	16.8	15.3	15.5	15.5	17.9	16.5	16.6	16.6
Peas, canned.....	do.....	19.0	17.3	17.0	17.0	17.0	16.3	16.7	16.7	21.3	19.1	19.9	19.9
Tomatoes, canned.....	do.....	11.1	13.4	13.5	13.5	10.2	11.4	12.2	12.2	10.5	12.5	13.0	13.0
Sugar, granulated.....	Pound.....	6.0	9.2	6.7	6.9	5.0	8.3	5.6	5.7	5.3	9.3	6.3	6.4
Tea.....	do.....	60.0	92.7	89.3	86.3	56.0	68.0	65.3	66.3	61.3	90.7	80.1	80.1
Coffee.....	do.....	32.0	35.5	36.1	35.8	25.2	33.8	31.5	31.3	28.8	40.2	36.2	36.0
Prunes.....	do.....	23.6	19.7	18.6	18.6	21.2	18.1	18.1	18.1	28.5	20.7	20.7	20.7
Raisins.....	do.....	32.9	26.2	25.6	25.6	30.4	23.6	23.5	23.5	32.9	25.1	25.4	25.4
Bananas.....	Dozen.....	29.3	26.0	25.7	25.7	35.0	24.8	29.2	29.2	43.0	32.3	33.8	33.8
Oranges.....	do.....	38.1	33.7	33.6	33.6	43.8	44.6	47.3	47.3	40.0	37.8	43.2	43.2

¹ The steak for which prices are here quoted is called "sirloin" in this city, but in most of the cities included in this report it would be known as "porterhouse" steak

RETAIL PRICES OF FOOD.

OF FOOD FOR 51 CITIES ON CERTAIN SPECIFIED DATES.

dealers. As some dealers occasionally fail to report, the number of quotations varies from month to month.]

Boston, Mass.			Bridgeport, Conn.			Buffalo, N. Y.			Butte, Mont.			Charleston, S. C.					
Feb. 15—		Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15, 1921.	Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15—		Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15, 1921.	Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15—		Jan. 15, 1922.	Feb. 15, 1922.
1913	1921						1913	1921	1922.	1922.	1921.	1922.	1922.	1913	1921		
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
134.5	56.4	155.6	155.5	42.8	40.5	38.9	20.3	34.3	33.4	32.6	31.4	28.4	29.1	21.0	40.0	33.8	34.3
32.4	49.6	47.7	45.7	38.9	34.9	34.4	18.3	30.6	27.1	26.7	28.2	24.4	25.6	20.0	38.9	31.4	31.8
23.4	34.8	34.7	33.6	32.6	30.7	30.5	17.0	27.3	26.2	25.4	24.4	23.3	24.2	19.3	32.3	28.1	27.9
17.0	23.9	23.3	22.8	25.0	21.5	20.8	14.7	21.4	19.3	18.2	18.7	16.8	17.2	15.0	25.7	20.5	20.9
.....	16.9	15.6	15.2	11.8	9.9	9.7	10.7	13.5	12.1	11.9	13.0	12.0	12.3	11.4	19.7	15.4	15.5
20.6	35.3	31.0	31.5	32.1	26.1	28.9	19.3	32.6	29.5	30.6	35.3	26.8	28.2	23.0	40.3	32.7	31.8
24.6	41.7	35.5	35.4	48.2	41.8	40.9	20.3	35.7	31.2	31.0	53.0	49.6	48.3	23.0	44.5	34.7	34.0
28.3	52.4	50.3	52.8	54.9	52.5	55.8	24.0	46.5	44.7	47.4	53.9	52.1	52.9	26.7	47.5	45.7	45.0
21.8	36.0	37.9	38.5	32.6	36.3	36.1	17.5	27.1	28.7	30.6	30.6	25.3	28.0	21.3	45.9	39.5	39.5
22.8	47.6	40.7	40.1	46.1	40.4	40.1	20.0	42.6	36.8	36.9	42.3	33.1	35.4	21.4	44.8	39.3	38.9
.....	37.9	34.1	32.6	40.5	36.0	32.9	.....	36.0	29.6	28.7	43.3	37.1	37.1	.....	35.5	28.0	27.6
8.9	16.5	13.5	13.5	16.0	12.0	12.0	8.0	15.0	15.0	15.0	15.0	14.0	14.0	11.7	23.3	18.7	18.7
.....	15.4	12.8	12.4	14.8	12.8	12.1	.....	14.1	11.3	10.6	15.0	13.0	12.1	.....	14.8	12.2	11.5
38.9	56.6	47.9	45.7	55.0	47.5	45.8	41.2	54.2	45.1	45.9	54.2	43.1	44.3	39.8	56.9	45.9	43.6
.....	38.9	31.1	32.1	35.3	26.3	24.7	.....	35.2	28.3	27.3	40.0	27.5	27.5	.....	37.4	29.2	28.6
.....	33.5	28.2	28.5	32.2	25.0	24.3	.....	31.6	28.1	26.6	37.9	30.8	30.7	.....	35.6	28.0	28.0
22.9	39.0	33.5	33.8	38.2	33.0	32.9	21.5	37.2	32.3	31.9	40.2	35.4	35.6	21.0	37.0	29.9	30.1
15.3	20.3	16.3	16.2	19.2	14.6	14.9	13.9	18.5	14.2	14.9	20.7	20.6	20.3	14.8	22.6	16.7	16.8
.....	25.6	22.3	22.4	25.3	20.5	20.8	.....	23.9	20.1	20.1	32.1	24.5	24.9	.....	25.7	21.2	21.0
37.5	67.3	63.0	65.2	64.4	61.9	59.5	31.0	49.1	52.7	53.4	48.6	57.9	54.2	32.5	47.1	49.2	48.3
.....	25.2	55.1	42.8	42.8	65.0	40.3	45.0	22.2	43.0	39.7	36.8	.....	41.7	40.0	23.8	.....	41.2
5.9	10.5	8.8	8.5	11.0	8.4	8.4	5.6	10.9	8.7	8.6	9.9	9.6	9.6	6.2	11.6	9.8	9.5
3.7	7.0	5.7	5.8	6.4	5.0	5.2	2.9	5.5	4.4	4.7	6.8	5.5	5.6	3.7	7.5	6.0	6.0
3.5	6.2	4.9	4.9	8.7	7.4	7.1	2.5	4.2	3.8	3.7	6.0	4.3	4.2	2.3	3.4	3.0	2.9
.....	9.6	8.7	8.5	10.3	9.3	9.0	.....	8.0	8.2	7.6	9.2	7.5	7.3	.....	11.7	10.2	9.5
.....	13.9	11.1	10.9	13.8	10.2	10.2	.....	12.6	10.2	9.7	14.7	12.4	12.1	.....	14.8	11.1	10.8
.....	29.7	26.1	26.1	28.8	25.9	25.3	.....	28.0	26.2	25.6	33.6	30.7	30.3	.....	30.4	26.3	25.3
.....	25.2	23.7	24.0	24.3	24.6	24.2	.....	23.1	22.3	22.5	22.5	23.5	22.8	.....	23.2	20.5	20.2
9.2	12.4	10.7	10.4	11.4	9.2	9.4	9.3	10.0	9.1	9.1	11.2	9.5	9.4	5.5	7.3	6.6	6.6
.....	8.4	7.9	8.1	9.5	9.1	8.9	.....	8.4	7.9	8.0	9.3	8.8	8.9	.....	11.2	9.5	9.5
.....	1.7	2.4	3.2	2.5	3.3	3.3	1.4	1.8	2.7	2.7	1.5	1.6	1.8	2.0	2.8	3.8	3.9
.....	4.0	9.5	11.4	3.9	9.5	11.1	.....	3.6	9.4	11.4	4.1	8.9	10.4	.....	4.8	9.6	12.3
.....	4.2	6.5	7.0	3.4	5.9	6.5	.....	1.9	4.8	4.9	5.2	5.6	6.3	.....	4.1	5.4	5.4
.....	16.6	15.2	14.7	13.7	11.9	11.9	.....	12.7	11.5	11.2	21.2	19.1	19.4	.....	13.2	11.6	11.6
.....	19.9	19.0	19.3	20.2	18.5	18.5	.....	15.7	15.6	15.2	18.0	18.1	18.0	.....	16.9	14.7	14.7
.....	21.1	20.7	21.6	20.4	19.9	20.1	.....	16.2	16.9	17.1	18.9	17.0	17.2	.....	19.6	19.3	19.1
.....	13.7	13.5	13.4	12.2	13.0	12.9	.....	11.5	13.1	13.1	13.4	16.3	16.6	.....	10.5	11.8	11.8
.....	5.4	8.6	5.8	6.0	8.4	5.9	5.3	8.7	5.8	6.0	10.6	8.3	8.4	5.0	8.1	5.8	6.0
58.6	66.8	67.3	68.1	58.0	57.5	57.0	45.0	63.6	59.8	56.9	77.7	75.8	78.3	50.0	77.3	74.6	74.6
33.0	41.7	41.3	41.6	35.6	35.1	34.6	29.3	34.4	32.5	33.3	51.7	45.4	45.8	26.0	35.2	31.5	31.5
.....	20.9	19.7	19.7	20.4	18.7	18.9	.....	22.1	18.5	18.7	23.4	19.2	19.5	.....	23.5	18.9	18.9
.....	32.2	23.6	23.0	31.4	25.3	25.0	.....	31.3	22.4	22.1	32.5	27.9	27.9	.....	33.8	24.7	24.9
.....	52.5	45.6	45.6	41.9	36.7	35.0	.....	48.2	44.1	44.4	317.6	315.0	315.3	.....	45.7	38.1	36.5
.....	47.6	50.0	50.8	47.9	42.3	50.8	.....	53.0	51.2	54.7	42.3	49.3	51.2	.....	39.0	34.9	37.3

² Pink.

³ Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES

Article.	Unit.	Chicago, Ill.				Cincinnati, Ohio.				Cleveland, Ohio.			
		Feb. 15—		Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15—		Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15—		Jan. 15, 1922.	Feb. 15, 1922.
		1913	1921			1913	1921			1913	1921		
Sirloin steak.....	Pound.....	Cts. 20.9	Cts. 36.2	Cts. 36.0	Cts. 34.3	Cts. 21.3	Cts. 32.8	Cts. 30.8	Cts. 30.7	Cts. 22.3	Cts. 36.4	Cts. 29.7	Cts. 30.2
Round steak.....	do.....	18.6	29.3	28.5	27.2	19.1	30.7	27.1	27.0	18.8	31.6	24.9	24.9
Rib roast.....	do.....	18.1	29.3	28.8	28.1	18.6	29.0	25.8	26.1	18.0	27.3	22.6	22.6
Chuck roast.....	do.....	13.9	20.6	18.8	18.2	13.9	20.0	16.2	16.5	14.7	22.7	17.5	17.6
Plate beef.....	do.....	11.0	14.5	11.9	11.5	11.6	16.9	13.4	13.7	10.6	15.6	11.4	11.3
Pork chops.....	do.....	16.3	28.2	25.6	26.9	19.2	30.7	27.6	28.2	18.3	30.8	26.5	27.4
Bacon.....	do.....	29.0	50.4	42.7	44.5	24.0	38.4	30.7	31.0	24.3	45.3	34.8	35.8
Ham.....	do.....	29.5	51.0	45.9	47.4	26.0	48.6	43.0	47.4	32.0	52.8	43.9	44.9
Lamb.....	do.....	19.1	32.2	34.2	35.8	16.6	34.1	31.7	33.8	18.7	32.7	31.6	33.6
Hens.....	do.....	19.4	39.7	35.0	35.5	22.6	46.9	36.1	37.5	20.6	43.9	38.2	36.9
Salmon, canned, red.....	do.....	37.8	34.1	33.3	33.3	35.8	29.6	29.1	29.1	39.3	32.6	31.8	31.8
Milk, fresh.....	Quart.....	8.0	14.0	12.0	12.0	8.0	14.0	13.0	12.0	8.8	14.0	11.0	11.0
Milk, evaporated.....	15-16-oz. can.....	13.9	11.3	10.7	10.7	14.3	11.4	10.4	10.4	14.5	11.5	10.6	10.6
Butter.....	Pound.....	39.9	52.3	40.8	42.8	42.3	56.8	42.9	43.5	43.6	57.5	45.1	48.8
Oleomargarine.....	do.....	29.5	24.7	24.1	24.1	33.1	28.9	28.2	28.2	34.4	29.9	28.3	28.3
Nut margarine.....	do.....	27.8	23.8	23.7	23.7	31.4	28.1	27.1	27.1	31.8	26.9	26.6	26.6
Cheese.....	do.....	25.0	39.7	35.5	35.0	21.6	39.7	33.9	34.3	23.0	37.7	32.4	32.5
Lard.....	do.....	14.7	19.8	15.2	15.2	13.7	16.9	12.4	14.0	15.8	21.5	16.2	16.2
Crisco.....	do.....	25.9	21.8	21.9	21.9	24.7	21.0	20.7	20.7	26.8	21.7	21.5	21.5
Eggs, strictly fresh.....	Dozen.....	27.3	45.0	46.9	48.4	27.6	41.8	45.4	41.9	31.8	48.6	53.7	50.3
Eggs, storage.....	do.....	22.6	39.2	37.7	37.7	19.0	39.2	39.2	39.2	40.0	39.1	37.0	37.0
Bread.....	Pound.....	6.1	11.3	9.9	8.9	4.8	10.0	8.5	8.5	5.5	10.4	8.0	8.0
Flour.....	do.....	2.8	5.5	4.4	4.7	3.4	6.4	4.9	5.0	3.2	6.6	4.9	5.1
Corn meal.....	do.....	2.9	6.1	5.6	5.1	2.5	3.8	3.0	2.8	2.8	5.0	3.6	3.5
Rolled oats.....	do.....	9.6	8.9	8.2	8.2	10.7	8.5	8.5	8.5	10.3	9.3	8.3	8.3
Corn flakes.....	8-oz. pkg.....	13.0	10.2	10.0	10.0	13.6	10.0	9.9	9.9	15.0	11.0	10.7	10.7
Cream of Wheat.....	28-oz. pkg.....	28.6	26.1	25.5	25.5	29.7	25.5	25.3	25.3	30.3	26.1	25.3	25.3
Macaroni.....	Pound.....	19.3	18.7	18.5	18.5	19.5	17.9	18.0	18.0	22.5	19.9	19.6	19.6
Rice.....	do.....	9.0	9.8	10.0	9.8	8.8	10.3	9.1	8.8	8.5	11.5	9.1	8.9
Beans, navy.....	do.....	8.1	7.7	8.0	8.0	7.0	6.8	7.1	7.1	7.4	7.3	7.4	7.4
Potatoes.....	do.....	1.2	2.1	3.0	3.0	1.4	3.0	3.3	3.4	1.4	2.4	3.3	3.3
Onions.....	do.....	3.3	8.5	9.6	9.6	4.8	3.6	8.9	10.8	3.3	8.8	10.6	10.6
Cabbage.....	do.....	3.5	6.2	6.0	6.0	3.4	5.3	5.3	5.3	3.3	5.8	6.0	6.0
Beans, baked.....	No. 2 can.....	14.8	13.1	12.5	12.5	14.0	11.3	11.0	11.0	14.3	12.2	12.2	12.2
Corn, canned.....	do.....	15.7	15.4	14.6	14.6	15.3	15.1	15.6	15.6	18.6	16.8	16.5	16.5
Peas, canned.....	do.....	15.8	15.9	15.6	15.6	17.2	16.9	17.2	17.2	19.5	17.8	17.7	17.7
Tomatoes, canned.....	do.....	11.9	13.4	13.7	13.7	11.5	12.8	12.9	12.9	13.3	13.4	13.6	13.6
Sugar, granulated.....	Pound.....	5.0	8.4	5.9	5.9	5.2	8.8	6.3	6.3	5.5	8.9	6.4	6.4
Tea.....	do.....	53.3	65.9	64.6	64.4	60.0	72.4	72.0	71.9	50.0	73.3	63.5	63.7
Coffee.....	do.....	30.0	33.6	34.7	34.4	25.6	32.6	30.4	30.7	26.5	40.2	36.1	35.7
Prunes.....	do.....	23.0	19.4	19.4	19.4	26.4	19.8	19.2	19.2	21.8	17.2	17.3	17.3
Raisins.....	do.....	31.6	25.8	25.5	25.5	32.4	22.7	22.4	22.4	30.2	23.6	23.1	23.1
Bananas.....	Dozen.....	40.0	37.2	35.7	35.7	44.4	36.6	37.5	37.5	53.3	48.2	45.8	45.8
Oranges.....	do.....	45.2	52.8	49.7	49.7	40.4	38.7	42.6	42.6	47.6	49.3	48.5	48.5

¹ The steak for which prices are here quoted is called "rump" in this city, but in most of the cities included in this report it would be known as "sirloin" steak.

RETAIL PRICES OF FOOD,

OF FOOD FOR 51 CITIES ON CERTAIN SPECIFIED DATES—Continued.

Columbus, Ohio.			Dallas, Tex.					Denver, Colo.					Detroit, Mich.				Fall River, Mass.			
Feb. 15, 1921.	Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15—		Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15—		Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15—		Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15—		Jan. 15, 1922.	Feb. 15, 1922.		
			1913	1921			1913	1921			1913	1921			1913	1921				
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.		
35.2	31.3	31.3	19.6	37.1	33.0	33.0	22.5	31.0	28.8	28.5	22.8	36.0	31.9	32.5	31.0	53.3	51.6	51.6		
31.5	26.5	26.2	18.3	35.2	29.1	29.5	18.4	27.1	23.6	23.4	18.2	30.3	25.0	25.2	24.0	41.3	39.5	39.5		
28.6	25.4	24.8	17.6	31.2	26.3	25.6	15.9	23.6	22.0	22.1	18.2	28.1	24.7	24.7	22.6	27.9	26.2	26.4		
23.0	18.6	18.4	15.4	25.8	20.0	19.7	14.5	18.3	16.1	15.9	14.5	20.3	17.4	17.7	17.0	20.9	19.2	19.5		
15.8	12.9	12.5	11.8	20.7	16.3	15.8	9.1	12.0	9.9	9.8	10.3	13.5	11.3	11.1	.....	15.0	12.0	12.2	
27.4	23.8	25.5	20.4	33.7	32.5	32.5	16.5	30.5	26.3	26.5	16.8	31.7	27.9	29.5	17.7	30.7	27.8	27.3		
41.2	34.4	33.5	36.0	51.6	42.3	42.6	26.3	46.3	40.8	41.7	22.4	43.0	36.8	37.4	24.8	43.0	37.5	37.4		
47.5	40.2	45.5	28.8	51.7	51.2	54.2	27.0	52.0	49.5	52.5	24.0	52.8	49.4	53.5	28.7	51.8	45.4	46.8		
36.2	32.1	34.0	20.5	43.0	35.0	37.5	15.5	30.3	30.4	31.4	16.7	31.8	34.2	36.9	19.0	35.3	35.5	36.9		
41.5	33.7	35.0	18.7	35.7	30.9	31.1	26.0	39.3	31.3	30.3	20.0	41.6	35.8	36.7	24.8	38.9	43.7	43.8		
38.3	33.3	32.9	.....	39.1	31.8	32.5	.....	40.8	36.5	36.5	.....	38.5	31.9	31.2	.....	49.7	32.9	32.7
14.0	12.0	11.0	10.0	15.7	15.0	12.0	8.4	12.8	10.0	9.8	8.8	13.0	13.0	13.0	9.0	15.0	14.0	14.0		
15.4	12.0	11.0	.....	15.4	14.0	13.8	.....	13.4	12.3	11.5	.....	14.5	11.6	10.9	.....	16.0	14.0	13.4
56.6	41.8	44.6	39.0	57.4	44.3	45.2	40.0	49.5	37.4	37.2	40.4	54.4	43.1	44.4	38.4	54.9	45.1	44.4		
32.0	26.7	25.3	.....	32.0	28.0	27.8	.....	38.4	31.0	28.7	.....	36.1	28.4	26.6	.....	36.2	35.0	30.7
29.1	26.4	25.0	.....	34.6	30.6	30.3	.....	32.8	28.5	28.2	.....	30.8	27.1	25.9	.....	33.7	33.5	33.5
36.6	29.9	30.4	.....	20.0	38.5	33.8	26.1	41.1	35.4	35.4	21.3	36.7	32.2	31.3	23.6	39.6	33.8	33.8	
17.2	12.4	13.7	16.0	33.6	19.0	19.0	16.3	22.7	17.2	17.7	15.9	20.0	14.6	15.7	14.8	18.8	15.3	15.2		
35.7	21.5	21.8	.....	24.4	20.3	20.4	.....	25.8	22.1	23.6	.....	23.9	20.4	20.5	.....	27.7	21.8	21.8
40.4	46.1	39.7	26.3	35.8	43.3	44.6	29.0	44.7	42.8	43.5	31.2	47.9	54.3	50.7	37.7	74.6	70.2	66.4		
30.0	36.5	.....	.....	34.0	.....	.....	.....	40.0	34.0	35.0	24.8	35.0	39.8	39.5	25.0	.....	42.9	42.6
10.7	8.1	7.9	5.6	10.2	9.1	9.1	5.3	10.8	8.3	8.2	5.6	11.0	8.6	8.6	6.2	10.9	9.7	9.7		
6.6	4.8	4.8	3.3	6.7	4.8	4.8	2.7	5.1	3.7	4.0	3.2	6.1	4.6	4.8	3.3	6.5	5.2	5.1		
4.1	3.1	3.1	2.6	4.8	3.3	3.3	2.5	4.0	3.0	2.9	2.7	5.3	4.0	4.0	3.4	8.2	6.0	6.4		
11.4	9.1	8.8	.....	12.1	10.7	10.5	.....	9.9	9.4	9.3	.....	10.8	9.8	9.7	.....	11.1	10.5	10.2
13.8	9.9	9.5	.....	14.3	11.8	11.1	.....	14.4	11.0	10.6	.....	13.6	9.9	9.7	.....	14.8	12.4	11.8
30.1	26.2	25.9	.....	31.1	26.9	26.6	.....	29.9	26.2	25.8	.....	29.8	25.9	25.8	.....	29.9	28.2	27.2
21.0	20.4	19.7	.....	22.2	21.4	21.3	.....	20.4	21.2	21.0	.....	20.0	19.4	19.2	.....	25.3	24.2	23.7
11.2	10.2	10.4	9.3	11.0	10.7	11.0	8.6	9.9	9.3	9.3	8.4	10.5	9.1	9.1	10.0	12.3	9.6	9.6		
7.0	7.3	7.7	.....	9.4	9.5	9.6	.....	9.8	8.9	9.1	.....	6.9	6.9	7.2	.....	8.5	8.1	8.2
2.1	3.3	3.2	2.0	3.8	4.6	4.4	1.1	2.1	2.6	2.7	1.3	1.6	2.7	2.6	1.8	2.4	3.2	3.4		
4.3	9.6	11.9	.....	5.4	10.2	11.0	.....	3.6	8.5	11.5	.....	3.0	8.8	10.3	.....	4.2	9.8	11.8
3.8	6.0	6.3	.....	5.1	6.5	5.8	.....	2.7	5.2	5.2	.....	3.2	6.6	6.3	.....	3.6	6.3	7.8
15.1	13.2	13.1	.....	18.0	15.9	15.9	.....	17.0	15.6	14.9	.....	13.6	11.6	11.7	.....	15.3	13.6	13.7
13.7	13.4	13.1	.....	20.3	17.3	16.9	.....	16.9	14.8	15.0	.....	17.6	14.6	14.8	.....	18.0	16.6	16.6
15.3	15.7	15.9	.....	22.0	21.8	21.8	.....	17.9	17.9	17.7	.....	18.5	16.4	16.5	.....	19.5	18.5	18.2
11.5	12.9	13.8	.....	12.9	14.2	14.3	.....	13.4	13.2	13.4	.....	12.0	12.4	12.2	.....	12.3	13.9	13.6
8.8	6.3	6.5	5.9	9.5	6.7	6.6	5.4	9.3	7.0	7.1	5.1	8.2	5.9	6.1	5.3	8.9	6.2	6.5		
85.9	79.8	77.4	66.7	89.5	88.9	88.9	52.8	71.6	70.7	69.8	43.2	65.2	60.4	60.4	44.2	56.5	57.0	53.9		
37.1	34.4	35.1	36.7	42.6	40.4	40.4	29.4	37.3	35.1	34.9	29.3	36.4	35.7	35.3	33.0	41.8	39.1	39.1		
24.6	18.3	19.5	.....	26.3	22.0	21.6	.....	23.5	19.7	19.9	.....	23.0	19.1	18.8	.....	20.4	17.9	18.5
32.0	24.1	24.4	.....	33.7	26.1	26.1	.....	32.2	25.2	25.3	.....	30.0	24.3	23.4	.....	31.6	25.4	25.4
42.7	36.5	37.7	.....	38.6	33.9	34.4	.....	41.8	33.5	33.4	.....	35.8	32.2	32.1	.....	40.0	32.5	35.0
47.2	44.9	46.2	.....	50.5	54.3	57.3	.....	44.6	47.2	49.2	.....	48.6	50.7	47.9	.....	44.8	44.5	45.3

2 Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES

Article.	Unit.	Houston, Tex.			Indianapolis, Ind.				Jacksonville, Fla.			
		Feb. 15, 1921.	Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15—		Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15—		Jan. 15, 1922.	Feb. 15, 1922.
					1913	1921			1913	1921		
Sirloin steak.....	Pound.....	Cts. 34.6	Cts. 30.4	Cts. 30.4	Cts. 23.5	Cts. 34.9	Cts. 31.5	Cts. 32.6	Cts. 25.8	Cts. 36.1	Cts. 34.2	Cts. 33.1
Round steak.....	do.....	34.3	29.5	30.0	20.8	33.4	29.5	30.8	20.3	32.7	28.8	28.0
Rib roast.....	do.....	29.6	24.4	23.2	16.5	26.7	24.2	23.5	22.5	28.5	26.0	25.8
Chuck roast.....	do.....	25.4	20.8	20.4	14.6	22.4	19.7	20.2	14.3	22.5	16.6	17.0
Plate beef.....	do.....	20.0	16.2	15.7	11.2	16.8	13.7	14.1	10.3	13.8	10.0	9.9
Pork chops.....	do.....	34.3	30.0	29.6	18.0	29.7	26.2	28.1	23.0	35.0	29.2	29.5
Bacon.....	do.....	54.4	48.0	48.4	28.0	43.6	35.1	36.3	25.6	42.1	35.9	35.9
Ham.....	do.....	51.1	48.9	48.9	29.5	51.2	46.4	49.7	26.3	48.1	43.8	47.7
Lamb.....	do.....	37.0	35.0	35.0	17.7	32.5	35.0	37.9	19.5	32.5	36.4	38.3
Hens.....	do.....	37.3	31.6	31.0	21.0	40.7	35.4	34.6	22.0	42.0	35.8	35.4
Salmon, canned, red.....	do.....	38.7	32.5	32.2	.....	33.4	39.5	39.5	.....	38.1	31.1	32.0
Milk, fresh.....	Quart.....	20.0	16.7	16.5	8.0	14.0	11.3	11.0	12.5	22.7	17.7	17.7
Milk, evaporated.....	15-16 oz. can.....	15.0	12.9	12.3	.....	14.8	11.9	10.9	.....	14.8	12.9	12.7
Butter.....	Pound.....	53.1	41.8	42.9	41.8	55.5	41.9	44.4	43.8	61.4	48.9	47.9
Oleomargarine.....	do.....	36.5	30.5	29.6	.....	33.8	29.4	28.2	.....	36.6	29.0	29.7
Nut margarine.....	do.....	32.8	28.1	27.8	.....	31.2	28.2	27.5	.....	33.9	35.0	32.5
Cheese.....	do.....	36.3	30.5	31.1	21.0	40.0	33.1	33.6	22.5	36.9	31.3	31.6
Lard.....	do.....	23.0	16.6	16.8	15.0	17.9	12.3	13.9	15.3	22.4	16.3	16.1
Crisco.....	do.....	25.2	22.2	22.2	.....	24.7	21.0	21.0	.....	26.1	20.8	21.5
Eggs, strictly fresh.....	Dozen.....	31.9	41.4	40.2	29.0	41.2	43.3	39.3	32.5	48.2	51.3	48.0
Eggs, storage.....	do.....	.....	35.7	32.5	24.0	.....	45.0	.....	.....	35.0	35.7	40.0
Bread.....	Pound.....	9.1	7.1	7.0	5.1	10.1	8.6	8.6	6.5	11.5	10.4	10.4
Flour.....	do.....	7.1	5.1	5.1	3.2	6.4	4.6	4.8	3.7	7.3	6.0	6.1
Corn meal.....	do.....	4.4	3.4	3.5	2.6	3.5	2.6	2.8	2.8	3.6	3.0	3.0
Rolled oats.....	do.....	11.5	9.7	8.9	.....	11.0	7.7	7.9	.....	12.0	11.0	10.6
Corn flakes.....	8-oz. pkg.....	14.5	10.5	10.5	.....	14.4	10.1	9.8	.....	14.8	11.4	11.4
Cream of Wheat.....	28-oz. pkg.....	29.9	25.7	25.2	.....	32.4	26.8	26.5	.....	30.1	27.4	27.4
Macaroni.....	Pound.....	21.6	20.4	20.3	.....	20.9	19.1	19.1	.....	22.3	20.4	19.6
Rice.....	do.....	8.2	8.1	7.8	9.2	10.6	9.7	9.6	6.6	8.4	9.0	9.1
Beans, navy.....	do.....	9.3	9.0	9.0	.....	7.2	7.5	7.8	.....	9.7	9.8	9.6
Potatoes.....	do.....	3.9	4.4	4.1	1.3	1.9	2.9	2.9	2.2	3.5	4.0	4.0
Onions.....	do.....	4.6	8.9	10.2	.....	3.5	9.0	11.0	.....	5.1	10.3	11.7
Cabbage.....	do.....	4.3	5.6	4.9	.....	3.6	5.8	5.7	.....	4.3	6.1	4.4
Beans, baked.....	No. 2 can.....	15.4	13.7	13.8	.....	15.0	13.4	13.4	.....	13.9	13.0	12.6
Corn, canned.....	do.....	14.5	13.8	13.9	.....	14.0	14.7	14.9	.....	17.7	17.9	17.5
Peas, canned.....	do.....	19.2	18.3	18.3	.....	14.9	15.4	15.7	.....	20.8	20.0	18.8
Tomatoes, canned.....	do.....	11.5	13.2	13.4	.....	12.3	14.2	14.3	.....	10.4	12.3	13.1
Sugar, granulated.....	Pound.....	8.3	5.9	6.1	5.9	9.2	6.5	6.6	6.1	9.3	6.6	6.7
Tea.....	do.....	71.7	71.3	71.9	60.0	80.9	76.2	75.7	60.0	89.5	89.0	89.8
Coffee.....	do.....	31.9	30.9	30.8	31.3	39.8	37.4	36.6	34.5	39.5	38.4	38.2
Prunes.....	do.....	21.0	19.1	19.3	.....	25.4	20.2	20.1	.....	20.8	19.4	18.6
Raisins.....	do.....	33.7	24.9	24.7	.....	34.8	27.4	26.8	.....	33.1	26.2	25.3
Bananas.....	Dozen.....	36.0	29.7	29.1	.....	31.3	29.0	30.0	.....	33.6	28.8	28.3
Oranges.....	do.....	46.6	45.4	47.7	.....	39.6	46.1	45.8	.....	31.8	29.1	34.0

¹ The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

OF FOOD FOR 51 CITIES OF CERTAIN SPECIFIED DATES—Continued.

Kansas City, Mo.			Little Rock, Ark.			Los Angeles, Calif.			Louisville, Ky.			Manchester, N. H.				
Feb. 15.		Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15—		Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15—		Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15—		Jan. 15, 1922.	Feb. 15, 1922.	
1913	1921		1913	1921		1913	1921	1913	1921		1913	1921	1913	1921		
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
21.9	35.3	33.1	33.6	23.8	35.6	29.4	29.5	22.8	35.8	33.2	33.6	20.1	31.4	29.5	29.5	149.9
20.0	29.4	28.1	28.0	19.4	33.4	27.2	26.8	20.4	31.8	26.5	27.2	18.0	29.9	27.0	27.1	41.5
16.7	25.8	23.4	23.3	18.4	28.5	23.1	22.8	18.6	30.8	28.1	28.2	17.1	24.9	22.6	22.1	25.7
13.8	19.2	16.9	16.7	15.0	22.4	15.9	17.0	16.0	30.8	17.5	17.7	13.3	20.2	17.2	17.5	25.8
10.5	13.2	11.2	11.2	12.0	17.0	13.0	13.4	12.4	18.4	12.8	13.3	11.4	17.7	13.3	13.1	20.6
17.3	25.8	25.6	25.7	19.0	33.1	29.2	28.9	24.4	43.2	36.8	37.7	17.4	26.0	24.6	25.1	30.9
28.4	49.5	41.3	42.6	34.0	51.3	40.3	40.3	33.8	55.2	50.4	50.1	26.6	37.6	31.2	31.8	28.2
27.5	49.6	48.0	50.9	28.8	51.3	44.7	48.1	35.0	61.6	58.5	58.5	26.1	46.2	39.5	42.4	33.5
16.3	31.3	30.6	31.5	18.8	37.2	37.4	35.9	19.2	36.5	29.8	31.2	17.6	35.0	31.3	36.3	43.8
16.1	38.5	31.5	31.6	17.6	35.7	29.3	29.0	28.3	51.1	45.3	44.6	21.5	39.2	34.8	34.6	22.5
8.7	14.7	14.3	14.0	10.0	41.2	33.6	33.2	10.0	16.0	14.0	14.0	8.8	11.0	9.0	8.0	32.0
41.5	53.0	43.7	44.1	45.0	16.0	14.1	12.6	10.0	12.6	11.2	10.3	14.7	13.0	12.1	11.1	13.0
32.7	29.1	28.4	28.4	17.6	35.7	29.3	29.0	28.3	51.1	45.3	44.6	21.5	39.2	34.8	34.6	22.5
30.5	28.3	28.2	28.2	19.0	31.9	29.8	29.6	19.0	32.8	29.3	28.7	17.4	26.0	24.6	25.1	30.9
21.5	39.0	34.3	34.2	21.7	33.3	33.3	33.4	19.5	43.0	36.4	36.4	20.8	36.2	30.6	30.5	21.3
16.1	20.8	15.8	16.5	15.0	22.6	17.2	17.8	17.9	24.7	17.1	17.0	15.2	16.8	12.8	14.2	16.0
25.4	27.4	23.6	23.7	17.6	25.7	21.7	21.7	17.6	22.6	21.6	21.7	17.6	27.1	22.9	22.8	26.6
17.0	30.0	33.3	40.0	31.7	31.7	31.7	31.7	31.7	31.7	40.2	35.0	20.1	29.2	31.0	25.0	44.0
5.9	11.4	9.7	6.4	6.0	9.5	8.4	8.4	6.2	9.7	9.0	9.0	5.7	10.1	8.9	8.6	8.4
3.0	6.2	4.7	4.7	3.6	7.2	5.3	5.5	3.6	6.7	4.8	4.7	3.6	6.8	5.0	5.4	3.4
2.6	5.5	4.6	4.7	2.4	3.2	2.7	2.7	3.4	5.9	4.2	3.9	2.2	2.9	2.1	2.1	3.6
11.2	8.8	8.3	8.3	12.1	10.6	10.2	10.2	10.6	10.0	9.7	10.9	8.6	8.5	10.1	8.9	8.6
14.7	10.5	10.1	10.1	14.8	10.8	10.0	10.0	13.5	10.8	10.4	14.2	9.9	9.8	14.9	10.3	10.2
30.2	27.0	26.9	26.9	30.9	27.6	26.8	26.8	29.1	24.9	25.3	30.1	26.5	25.1	30.0	26.9	26.9
23.5	21.9	22.0	21.8	22.0	22.1	22.1	22.1	18.4	17.2	17.2	20.4	18.4	18.6	26.2	25.3	25.5
8.7	10.0	8.8	8.9	8.3	7.9	8.2	8.2	7.7	11.1	10.3	9.6	8.1	9.9	9.0	8.8	8.5
8.7	8.7	8.7	9.1	8.6	8.7	8.2	8.5	8.3	6.6	7.0	7.4	8.2	7.8	8.2	7.8	7.8
1.4	2.6	3.1	3.1	1.7	2.9	3.6	3.5	1.0	2.9	3.5	3.4	1.5	1.7	2.6	2.6	1.4
4.8	9.8	11.2	11.2	5.1	9.9	11.5	11.5	3.2	8.8	10.2	3.2	9.5	11.1	3.6	9.3	3.1
3.8	6.0	5.7	5.0	6.3	5.8	2.6	3.7	3.6	5.2	5.9	5.9	2.9	5.9	2.9	5.6	6.2
15.3	13.8	13.6	15.5	13.9	13.4	17.4	15.1	14.6	13.5	12.4	12.5	17.1	15.9	17.1	15.9	15.7
14.1	13.4	13.3	16.2	16.0	16.0	18.8	18.6	18.2	16.3	16.0	15.8	19.8	19.2	18.9	18.9	18.9
15.4	14.3	14.5	18.6	19.4	19.4	18.9	19.5	19.4	17.6	17.0	17.0	21.1	21.9	22.2	22.2	22.2
11.6	13.2	14.1	12.2	13.4	14.3	14.7	15.6	15.6	11.4	13.1	13.3	20.1	19.3	19.5	19.5	19.5
5.6	9.1	6.6	6.7	5.5	9.9	7.1	7.2	5.4	8.6	6.3	6.3	5.2	8.6	6.3	6.5	5.4
54.0	83.2	77.8	76.8	50.0	93.0	90.8	90.2	54.5	71.7	66.7	66.6	60.0	83.4	78.4	77.6	45.0
27.8	38.1	35.3	35.9	30.8	38.7	38.9	38.9	36.3	39.5	37.2	36.7	27.5	37.0	33.5	33.5	32.0
21.6	18.5	19.5	27.1	21.1	21.0	20.1	18.2	17.1	25.8	18.7	19.4	20.9	19.5	19.5	19.5	19.5
34.2	28.7	28.3	33.2	26.0	25.0	30.8	25.6	25.0	30.8	25.3	25.2	32.5	25.1	24.1	24.1	24.1
41.5	41.2	41.5	41.8	49.6	49.0	43.3	41.4	40.9	36.0	34.5	35.5	41.9	40.2	39.9	39.9	39.9
49.4	52.6	53.2	50.7	48.9	49.6	31.7	34.6	36.2	37.7	35.9	41.5	45.7	52.0	53.3	53.3	53.3

² No. 2½ can.

³ No. 3 can.

⁴ Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES

Article.	Unit.	Memphis, Tenn.				Milwaukee, Wis.				Minneapolis, Minn.			
		Feb. 15—		Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15—		Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15—		Jan. 15, 1922.	Feb. 15, 1922.
		1913	1921			1913	1921			1913	1921		
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak.....	Pound.....	20.0	31.5	27.1	27.5	20.5	36.4	33.6	33.6	20.0	30.4	27.3	27.8
Round steak.....	do.....	16.8	28.9	24.1	24.2	18.5	32.9	29.8	29.5	18.0	26.7	24.1	24.6
Rib roast.....	do.....	18.2	25.5	22.2	22.3	17.3	28.4	25.8	26.0	17.7	23.6	22.5	22.1
Chuck roast.....	do.....	13.9	18.2	15.7	15.4	15.0	23.9	20.7	20.7	14.5	19.0	15.8	16.3
Plate beef.....	do.....	10.2	14.9	12.1	11.9	10.8	15.0	12.7	13.0	8.7	11.8	9.3	9.2
Pork chops.....	do.....	18.6	27.7	23.2	23.8	15.3	28.2	25.6	27.3	16.8	28.4	24.6	26.4
Bacon.....	do.....	29.1	44.6	35.1	36.1	26.3	46.6	38.9	39.6	25.0	46.4	41.0	40.7
Ham.....	do.....	26.4	45.3	41.8	45.4	26.8	47.1	43.2	44.7	27.5	47.8	43.0	46.6
Lamb.....	do.....	20.4	35.0	33.9	35.1	19.5	35.8	34.7	38.2	15.0	28.9	29.2	31.7
Hens.....	do.....	19.6	35.8	32.5	31.9	18.8	40.1	34.7	34.7	19.0	35.9	31.8	32.9
Salmon, canned, red.....	do.....	.....	39.9	41.1	40.0	.....	45.9	34.1	33.1	.....	45.8	38.6	38.5
Milk, fresh.....	Quart.....	10.0	17.5	15.0	15.0	7.0	10.0	9.0	9.0	7.0	12.3	10.0	10.0
Milk, evaporated.....	15-16 oz. can.....	.....	15.9	13.6	13.1	.....	15.0	11.8	11.1	.....	15.1	12.2	11.7
Butter.....	Pound.....	42.1	54.4	42.1	42.9	40.2	51.9	39.1	43.4	39.1	49.1	38.8	40.3
Oleomargarine.....	do.....	.....	34.6	29.3	29.9	.....	31.2	25.9	25.0	.....	35.6	27.7	26.8
Nut margarine.....	do.....	.....	32.2	29.1	28.7	.....	29.5	25.4	24.9	.....	28.5	25.9	25.5
Cheese.....	do.....	20.0	36.6	30.2	30.6	22.7	34.7	29.0	30.0	20.8	36.1	30.1	30.8
Lard.....	do.....	15.2	18.8	14.3	15.3	15.1	21.3	15.5	16.0	15.2	19.4	14.2	14.9
Crisco.....	do.....	.....	24.7	20.5	20.8	.....	26.3	21.3	21.3	.....	27.0	22.2	22.1
Eggs, strictly fresh.....	Dozen.....	29.3	38.1	40.8	44.4	29.0	40.8	44.6	44.5	28.1	40.2	41.6	45.2
Eggs, storage.....	do.....	20.0	35.0	30.5	.....	22.0	26.0	37.9	35.0	21.7	32.5	30.5	.....
Bread.....	Pound.....	6.0	11.3	9.2	9.3	5.6	10.1	8.5	8.4	5.7	10.3	8.4	8.4
Flour.....	do.....	3.6	7.3	5.5	5.6	3.1	6.1	4.4	4.7	2.9	5.7	4.7	5.1
Corn meal.....	do.....	2.1	3.0	2.5	2.5	3.3	5.1	3.9	3.8	2.4	4.8	3.5	3.8
Rolled oats.....	do.....	.....	11.5	9.8	9.6	.....	7.7	7.0	7.4	.....	8.0	7.9	7.9
Corn flakes.....	8-oz. pkg.....	.....	14.1	11.2	10.4	.....	13.7	10.0	9.6	.....	14.3	10.4	10.1
Cream of Wheat.....	28-oz. pkg.....	.....	29.3	26.8	26.5	.....	29.8	25.4	25.2	.....	30.8	25.3	25.2
Macaroni.....	Pound.....	.....	18.8	17.5	17.3	.....	20.4	18.3	17.7	.....	17.7	17.7	17.9
Rice.....	do.....	7.5	8.1	7.9	7.8	9.0	11.1	9.7	9.6	8.6	10.1	9.3	9.3
Beans, navy.....	do.....	.....	8.0	8.3	8.3	.....	7.8	7.6	7.7	.....	9.0	8.7	8.6
Potatoes.....	do.....	1.6	2.8	3.6	3.6	1.2	2.1	2.7	2.8	1.0	1.9	2.8	2.8
Onions.....	do.....	.....	3.5	9.2	11.1	.....	3.6	9.6	10.6	.....	4.5	8.2	10.9
Cabbage.....	do.....	.....	3.5	5.1	4.5	.....	2.7	6.3	5.9	.....	4.1	5.8	6.2
Beans, baked.....	No. 2 can.....	.....	16.5	14.6	14.5	.....	13.9	11.8	11.4	.....	16.9	14.4	14.8
Corn, canned.....	do.....	.....	16.5	15.2	14.8	.....	15.6	15.5	14.9	.....	15.6	13.7	14.1
Peas, canned.....	do.....	.....	18.1	17.8	17.7	.....	15.4	15.2	15.1	.....	15.9	15.1	15.7
Tomatoes, canned.....	do.....	.....	11.3	12.7	13.1	.....	13.8	13.5	14.1	.....	14.7	14.3	14.8
Sugar, granulated.....	Pound.....	5.5	9.1	6.5	6.7	5.4	8.4	6.1	6.2	5.6	9.1	6.3	6.6
Tea.....	do.....	63.8	93.1	86.6	86.0	50.0	71.7	68.9	68.4	45.0	66.8	62.9	63.4
Coffee.....	do.....	27.5	36.5	38.0	37.6	27.5	34.1	31.9	31.9	30.8	40.3	40.0	40.1
Prunes.....	do.....	.....	23.9	19.9	20.1	.....	23.2	19.1	19.5	.....	22.7	18.9	18.9
Raisins.....	do.....	.....	33.7	27.6	26.6	.....	31.4	25.6	25.4	.....	31.3	25.2	24.9
Bananas.....	Dozen.....	.....	38.2	30.0	30.0	.....	313.2	101.0	110.1	.....	114.8	111.4	111.1
Oranges.....	do.....	.....	40.4	39.7	46.0	.....	45.9	52.3	51.4	.....	52.7	54.9	52.1

1 Whole.

RETAIL PRICES OF FOOD.

OF FOOD FOR 51 CITIES ON CERTAIN SPECIFIED DATES—Continued.

Mobile, Ala.			Newark, N. J.				New Haven, Conn.				New Orleans, La.				New York, N. Y.			
Feb. 15, 1921.	Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15—		Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15—		Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15—		Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15—		Jan. 15, 1922.	Feb. 15, 1922.
			1913	1921			1913	1921			1913	1921			1913	1921		
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
33.6	28.9	28.9	25.2	40.9	38.2	37.6	30.0	47.1	44.9	44.6	19.5	32.8	30.6	29.4	24.7	40.3	39.2	38.8
33.3	28.9	28.6	24.8	40.5	37.4	36.8	26.2	40.8	36.8	36.3	17.5	30.1	27.7	26.8	23.1	39.9	37.9	37.2
28.6	24.9	25.5	19.6	32.4	31.1	31.7	23.0	34.2	32.2	32.0	18.8	29.0	26.7	26.3	21.1	35.6	34.2	34.0
23.6	19.7	19.0	16.8	22.8	20.4	20.3	17.6	25.3	22.8	21.9	13.8	21.0	19.2	18.5	15.1	23.0	21.4	20.9
18.0	15.9	15.8	11.6	14.3	11.2	11.7	.....	15.7	14.0	13.4	10.8	18.1	16.3	16.0	14.0	20.1	18.4	18.1
36.6	32.4	31.1	19.6	33.6	29.2	29.2	18.4	29.0	27.4	27.6	20.1	41.0	31.5	30.6	19.8	35.4	32.6	32.3
48.6	40.8	41.5	22.0	38.4	34.1	33.6	26.2	47.3	39.5	39.5	29.3	48.0	39.9	39.5	23.1	42.7	37.0	36.1
48.8	44.3	44.6	18.6	30.9	26.6	30.1	30.0	53.2	49.5	51.5	26.0	48.8	44.0	46.0	27.8	52.4	50.4	52.6
36.5	32.2	32.8	20.8	34.6	36.5	37.8	18.8	33.8	35.3	35.4	20.1	38.8	36.8	39.1	16.5	30.5	34.2	35.0
43.1	35.6	37.3	21.8	45.5	37.8	37.5	22.2	47.4	40.9	40.9	20.7	44.3	39.5	36.7	20.4	44.2	37.7	36.8
38.2	32.5	31.9	.....	38.3	31.0	29.0	.....	40.0	36.1	36.1	.....	42.2	38.0	37.3	.....	41.5	31.3	30.3
21.0	15.0	15.0	9.0	18.0	17.0	17.0	9.0	16.0	15.0	15.0	10.0	17.5	14.7	14.7	9.0	16.0	15.0	15.0
15.4	12.5	11.9	.....	14.0	11.4	10.6	.....	14.4	11.9	11.3	.....	14.8	11.9	11.2	.....	14.0	11.2	10.4
61.6	50.9	49.4	44.0	56.1	45.8	45.6	38.7	54.5	45.2	44.2	41.8	59.0	48.0	46.8	41.5	54.7	45.3	45.8
36.6	30.8	29.3	.....	34.9	30.0	28.6	.....	35.1	28.2	28.6	.....	35.2	29.1	27.8	.....	35.6	29.1	27.2
34.8	29.4	29.1	.....	31.1	27.0	26.0	.....	32.4	27.1	26.1	.....	32.8	28.4	27.0	.....	30.8	26.9	25.5
37.7	31.3	31.4	24.5	40.7	35.0	33.5	22.0	37.5	33.2	33.1	22.0	38.1	32.1	31.8	20.0	38.9	33.5	33.1
20.4	15.5	16.5	15.7	20.2	14.8	15.3	14.7	19.4	14.6	15.3	14.7	19.6	14.6	14.5	15.7	20.9	15.9	16.0
26.9	21.5	21.9	.....	24.3	20.1	20.2	.....	25.4	19.8	19.8	.....	24.8	22.0	22.5	.....	25.5	20.1	20.0
45.0	43.9	40.8	43.0	58.1	58.3	58.5	38.0	69.4	65.4	61.1	29.1	40.3	45.9	44.2	38.0	58.8	55.9	58.0
.....	35.0	30.0	25.3	47.5	40.7	43.6	24.8	56.0	41.2	40.3	23.0	30.0	34.7	34.7	26.0	48.6	39.8	43.4
10.1	8.3	8.4	5.6	10.4	8.8	8.5	6.0	11.1	8.5	8.4	5.1	9.7	8.0	8.0	6.0	10.7	9.8	9.0
7.0	5.3	5.2	3.5	6.4	4.8	5.0	3.2	6.3	4.8	5.1	3.8	7.6	5.8	5.8	3.2	6.4	5.0	5.1
3.6	3.0	3.0	3.6	6.9	5.8	5.6	3.2	6.7	5.8	5.9	2.6	3.6	2.9	2.8	3.4	7.0	5.8	5.4
11.5	9.8	10.2	.....	9.2	7.6	7.3	.....	10.4	9.5	9.0	.....	10.7	9.0	9.0	.....	8.9	8.0	7.8
14.6	10.2	10.2	.....	12.7	9.5	9.2	.....	13.4	10.2	9.9	.....	13.5	10.2	9.9	.....	12.5	9.3	9.2
30.8	26.4	25.9	.....	27.7	26.5	25.9	.....	28.9	26.2	25.4	.....	29.8	25.0	24.9	.....	28.6	25.7	25.3
21.0	19.9	20.0	.....	22.5	21.4	21.6	.....	22.5	22.1	21.9	.....	10.2	9.7	9.7	.....	22.4	21.1	21.2
8.5	8.3	8.4	9.0	9.9	8.6	8.5	9.3	11.6	9.1	9.1	7.4	7.9	8.3	8.2	8.0	10.3	8.9	9.0
9.8	8.7	9.0	.....	8.5	7.8	7.8	.....	8.5	8.0	8.0	.....	7.6	7.5	7.6	.....	9.4	8.7	8.5
3.1	3.8	3.6	2.5	4.1	3.8	3.7	1.7	2.5	3.3	3.3	1.9	3.4	4.3	4.1	2.5	3.4	4.1	4.2
3.9	9.7	11.4	.....	3.7	8.8	11.4	.....	3.9	8.8	10.3	.....	3.5	8.3	10.1	.....	4.1	8.6	10.8
3.5	4.1	3.9	.....	3.8	5.2	6.3	.....	4.0	6.0	6.8	.....	3.9	4.3	5.0	.....	3.3	5.0	5.2
14.9	13.2	13.2	.....	12.4	11.3	11.3	.....	15.7	12.7	12.7	.....	15.8	13.1	12.5	.....	13.5	12.4	12.2
17.0	16.6	16.6	.....	17.3	15.9	15.5	.....	20.7	18.3	18.1	.....	15.3	14.0	13.9	.....	16.6	14.9	14.5
18.1	17.0	17.2	.....	17.7	18.1	17.9	.....	22.0	21.3	21.4	.....	17.4	17.1	16.9	.....	17.0	16.3	16.1
11.2	13.1	13.1	.....	10.6	11.5	11.8	.....	22.6	23.2	22.7	.....	12.8	13.2	13.1	.....	10.5	11.8	12.2
9.4	6.4	6.7	5.3	8.4	5.2	5.6	5.2	8.6	5.8	6.0	5.3	8.6	5.9	6.0	4.9	8.2	5.2	5.4
79.9	71.4	71.4	53.8	49.1	50.5	49.8	55.0	56.5	54.5	54.7	62.1	72.0	71.1	70.9	43.3	54.0	49.6	49.8
35.6	33.8	34.6	29.3	31.9	32.8	32.6	33.8	40.1	37.4	38.0	26.4	31.9	30.9	31.1	27.5	32.6	32.0	31.7
24.1	17.2	16.7	.....	19.6	16.6	16.6	.....	18.6	18.0	17.9	.....	22.7	18.6	18.3	.....	21.0	18.3	18.0
32.7	25.2	25.3	.....	30.5	21.8	21.1	.....	31.3	23.5	23.6	.....	32.7	25.3	25.4	.....	31.0	23.8	23.4
29.1	25.8	25.9	.....	47.7	40.5	40.0	.....	38.8	34.6	34.6	.....	23.3	21.7	20.0	.....	44.3	44.4	44.1
42.7	40.3	45.0	.....	49.0	51.2	53.4	.....	44.6	46.4	49.9	.....	46.5	45.0	46.3	.....	55.1	50.9	55.0

² No. 3 can.

³ Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES

Article.	Unit.	Norfolk, Va.			Omaha, Nebr.				Peoria, Ill.		
		Feb. 15, 1921.	Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15—		Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15, 1921.	Jan. 15, 1922.	Feb. 15, 1922.
					1913	1921					
Sirloin steak.....	Pound.....	<i>Cts.</i> 42.3	<i>Cts.</i> 35.8	<i>Cts.</i> 36.0	<i>Cts.</i> 23.0	<i>Cts.</i> 35.0	<i>Cts.</i> 32.4	<i>Cts.</i> 32.0	<i>Cts.</i> 32.4	<i>Cts.</i> 29.6	<i>Cts.</i> 28.6
Round steak.....	do.....	37.4	30.0	29.4	19.2	29.8	28.6	27.3	31.1	28.3	28.0
Rib roast.....	do.....	35.4	30.3	29.0	16.7	24.8	23.2	24.1	25.2	22.8	22.1
Chuck roast.....	do.....	26.5	20.2	19.8	13.5	18.4	18.0	18.7	21.3	18.4	18.1
Plate beef.....	do.....	17.1	13.7	13.2	9.5	11.9	10.3	10.4	14.8	12.2	11.7
Pork chops.....	do.....	33.5	26.9	26.5	16.5	26.9	26.3	27.2	29.5	25.9	26.4
Bacon.....	do.....	44.5	33.3	32.9	25.5	47.9	43.7	45.0	46.7	40.3	39.3
Ham.....	do.....	43.3	38.0	40.0	27.0	50.6	48.0	50.0	49.0	45.0	47.7
Lamb.....	do.....	37.1	37.5	37.5	16.5	31.2	30.6	35.1	33.8	33.1	34.6
Hens.....	do.....	45.5	38.4	37.2	16.9	36.9	31.4	32.1	37.6	33.3	33.3
Salmoff, canned, red.....	do.....	34.3	29.9	30.4	.....	38.9	33.1	33.1	37.8	33.1	33.7
Milk, fresh.....	Quart.....	20.0	17.0	17.0	8.2	14.1	11.7	11.0	13.5	12.0	11.7
Milk, evaporated.....	15-16 oz. can.....	14.8	11.7	11.1	.....	15.1	12.3	11.9	14.6	12.9	11.5
Butter.....	Pound.....	61.9	50.2	46.5	40.0	52.1	39.6	42.3	50.5	40.3	41.4
Oleomargarine.....	do.....	42.6	29.5	28.6	.....	37.3	29.5	29.1	34.3	29.1	28.1
Nut margarine.....	do.....	33.5	30.0	28.1	.....	33.3	28.4	28.1	31.6	28.0	27.5
Cheese.....	do.....	37.8	30.9	31.2	22.9	37.7	31.6	32.3	37.6	32.7	33.0
Lard.....	do.....	21.3	15.5	15.9	16.4	22.6	18.0	18.0	20.5	15.9	15.6
Crisco.....	do.....	24.9	20.3	20.3	.....	27.2	22.3	22.5	26.1	23.1	22.5
Eggs, strictly fresh.....	Dozen.....	46.7	49.5	50.2	25.0	39.5	40.5	41.0	39.1	44.0	39.1
Eggs, storage.....	do.....	.....	40.4	38.3	.....	.....	34.0	32.0	.....	33.2	25.0
Bread.....	Pound.....	10.0	7.8	7.3	5.2	11.5	10.0	9.8	10.8	9.4	9.4
Flour.....	do.....	6.7	4.9	5.0	2.9	5.7	4.0	4.2	6.3	4.7	5.0
Corn meal.....	do.....	4.5	3.1	3.1	2.4	5.0	3.3	3.3	4.6	3.6	3.6
Rollod oats.....	do.....	10.2	9.0	8.2	.....	11.5	10.4	9.8	11.8	9.3	9.1
Corn flakes.....	8-oz. pkg.....	13.9	10.6	10.1	.....	14.9	11.8	10.7	14.8	11.5	10.3
Cream of Wheat.....	28-oz. pkg.....	28.4	26.5	26.0	.....	31.6	26.9	25.9	31.5	28.1	27.8
Macaroni.....	Pound.....	20.2	19.1	19.6	.....	21.1	19.6	19.4	19.6	20.1	19.7
Rice.....	do.....	13.1	9.9	9.9	8.5	11.4	8.7	8.7	10.7	9.4	9.1
Beans, navy.....	do.....	8.8	8.9	8.5	.....	8.0	8.2	8.8	7.8	8.0	8.2
Potatoes.....	do.....	3.4	3.3	3.5	1.3	2.5	2.8	3.0	2.0	2.9	2.9
Onions.....	do.....	5.2	9.2	10.7	.....	3.7	10.1	11.8	4.1	9.3	10.9
Cabbage.....	do.....	4.3	5.3	5.3	.....	3.7	6.5	6.3	3.8	6.1	5.8
Beans, baked.....	No. 2 can.....	11.8	10.6	10.6	.....	17.9	14.7	14.5	15.7	13.4	13.2
Corn, canned.....	do.....	18.0	15.3	15.2	.....	15.0	15.2	15.5	15.5	15.2	15.1
Peas, canned.....	do.....	21.2	21.0	20.7	.....	15.7	15.9	16.5	16.9	16.6	16.6
Tomatoes, canned.....	do.....	12.1	12.2	12.4	.....	13.2	14.2	14.2	12.5	13.6	13.9
Sugar, granulated.....	Pound.....	8.6	5.8	6.1	5.7	9.0	6.3	6.4	9.3	6.9	6.8
Tea.....	do.....	85.8	74.4	74.8	56.0	76.4	71.9	70.6	68.9	61.4	61.4
Coffee.....	do.....	41.9	37.8	37.0	30.0	39.2	37.9	37.9	35.1	31.4	32.9
Prunes.....	do.....	23.1	17.9	18.8	.....	24.6	19.8	20.1	28.1	21.9	22.0
Raisins.....	do.....	32.4	24.8	24.9	.....	34.3	27.4	27.8	32.4	28.5	28.5
Bananas.....	Dozen.....	41.9	33.2	33.6	.....	41.3	41.0	41.5	41.2	41.0	41.4
Oranges.....	do.....	45.0	42.2	43.3	.....	42.2	45.5	50.4	47.4	46.0	48.4

¹ The steak for which prices are here quoted is called "sirloin" in this city, but in most of the cities included in this report it would be known as "porterhouse" steak.

RETAIL PRICES OF FOOD.

OF FOOD FOR 51 CITIES ON CERTAIN SPECIFIED DATES—Continued.

Philadelphia, Pa.				Pittsburgh, Pa.				Portland, Me.			Portland, Oreg.				Providence, R. I.			
Feb. 15—		Jan. 15,	Feb.	Feb. 15—		Jan. 15,	Feb.	Feb.	Jan.	Feb.	Feb. 15—		Jan. 15,	Feb.	Feb. 15—		Jan. 15,	Feb.
1913	1921	1922.	1922.	1913	1921	1922.	1922.	1921.	1922.	1922.	1913	1921	1922.	1922.	1913	1921	1922.	1922.
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
28.3	45.8	42.4	42.9	24.8	42.5	38.6	38.1	52.6	51.4	51.7	22.4	30.4	27.7	28.2	138.2	163.6	161.3	160.8
23.4	38.9	34.1	33.9	21.4	36.3	31.7	31.6	42.2	41.1	40.2	19.5	28.9	25.2	25.5	28.2	49.1	44.8	44.4
21.4	34.1	30.6	29.7	20.6	33.1	29.6	28.9	27.1	27.3	18.7	27.1	24.0	24.0	23.0	35.8	34.6	33.9	
16.5	22.0	18.9	18.5	15.6	24.1	19.7	19.7	19.8	18.0	18.2	15.8	19.9	16.8	17.2	17.4	28.3	25.2	24.6
11.3	12.9	10.3	10.2	11.0	13.8	11.1	11.0	13.8	12.3	13.1	12.4	15.6	12.2	12.7	.....	20.2	16.1	15.7
19.1	33.6	31.2	31.2	20.0	32.7	29.5	29.3	31.5	29.6	29.8	19.2	36.2	29.8	31.4	18.4	34.8	31.8	32.3
23.4	41.3	34.4	34.8	27.2	47.6	39.4	38.3	42.1	35.7	35.5	27.5	49.0	41.5	43.2	21.8	41.6	35.2	34.5
29.0	53.4	50.2	52.1	29.0	55.2	48.8	51.1	47.7	46.1	48.8	28.8	49.2	44.4	45.6	28.5	55.3	53.5	55.2
18.6	37.0	38.0	38.9	21.5	37.1	37.2	38.5	31.2	35.4	36.7	17.0	33.9	28.9	31.1	20.0	36.5	38.8	40.5
21.3	46.0	39.1	39.2	25.3	48.3	41.8	42.0	49.3	42.9	43.2	22.0	40.7	35.8	35.1	22.8	50.6	43.7	43.2
.....	34.9	28.2	28.0	.....	37.7	29.6	29.6	37.5	29.7	29.1	.....	44.4	42.1	41.4	.....	41.1	32.8	32.5
8.0	13.0	11.0	11.0	8.8	15.0	13.0	12.0	16.0	13.8	13.0	9.7	14.8	12.8	11.9	9.0	16.5	14.0	13.8
.....	14.8	12.4	11.6	.....	14.7	11.0	10.7	14.9	12.6	12.2	.....	14.0	12.4	11.6	.....	15.5	12.9	12.2
47.1	61.7	53.9	51.8	43.1	56.0	46.3	46.7	60.7	50.6	49.0	43.5	56.9	41.7	46.3	41.0	55.0	46.7	44.3
.....	35.7	27.5	26.6	.....	33.0	27.9	26.1	39.3	32.6	32.4	.....	37.6	30.8	29.7	.....	36.8	30.6	29.6
.....	31.1	29.3	26.8	.....	30.9	26.8	26.2	33.3	28.4	28.2	.....	34.5	29.1	28.6	.....	31.4	29.1	28.7
25.0	41.0	36.0	35.0	24.5	39.0	33.2	33.1	39.1	34.0	34.4	21.3	41.4	35.6	35.6	22.7	39.5	33.0	32.7
14.4	19.2	13.8	14.5	15.1	18.8	12.7	13.5	19.5	15.3	15.5	.....	17.9	26.6	19.1	18.5	15.0	19.8	14.7
.....	23.8	20.0	20.0	.....	25.5	19.8	20.1	26.2	22.3	22.3	.....	27.3	23.7	24.2	.....	26.6	22.0	22.0
30.1	52.1	54.4	53.6	29.2	49.1	51.9	50.4	63.1	59.3	58.5	32.5	37.4	37.6	36.6	39.0	67.8	65.9	62.3
24.0	.....	43.2	39.7	25.0	49.0	38.6	37.6	55.0	45.4	45.6	25.0	25.0	.....	.....	25.4	49.7	43.3	41.9
4.8	9.6	8.8	8.8	5.4	10.4	8.2	8.1	11.0	9.1	9.1	5.6	9.7	8.4	8.4	6.0	11.5	9.1	8.9
3.2	6.3	4.8	5.0	3.1	6.4	4.8	4.9	6.5	5.0	5.1	2.9	5.9	4.2	4.3	3.4	6.8	5.4	5.6
2.8	4.7	3.9	3.7	2.7	5.7	4.0	4.0	5.1	4.1	4.1	3.5	5.4	3.5	3.6	2.9	5.2	4.1	3.8
.....	9.4	8.5	8.0	.....	11.2	9.5	9.3	8.2	7.3	6.9	.....	10.3	9.3	9.3	.....	11.0	9.9	9.3
.....	12.6	10.3	9.9	.....	13.8	10.4	10.0	14.4	10.5	10.5	.....	14.2	12.3	12.1	.....	14.2	10.7	10.0
.....	28.1	25.4	25.3	.....	29.9	25.9	26.3	29.3	26.6	26.3	.....	32.1	28.3	29.1	.....	30.4	27.8	27.2
.....	22.1	21.5	21.2	.....	22.2	21.3	20.9	23.9	24.4	24.2	.....	17.2	17.5	17.5	.....	23.9	22.9	22.7
9.8	12.3	10.3	10.3	9.2	12.2	9.6	9.7	12.0	10.5	10.3	8.6	11.8	9.8	9.6	9.3	11.4	9.9	9.8
.....	9.0	8.4	8.3	.....	8.0	7.4	7.5	8.4	8.1	8.1	.....	7.6	7.7	7.9	.....	8.6	7.9	8.0
2.1	2.7	3.8	3.9	1.6	2.3	2.9	3.1	2.0	3.0	2.9	.....	1.9	2.3	2.4	1.7	2.2	3.1	3.0
.....	3.2	8.5	10.3	.....	3.7	8.9	10.4	3.3	9.4	11.4	.....	2.9	8.3	9.3	.....	3.9	9.7	11.3
.....	3.0	5.7	5.8	.....	3.7	5.4	5.1	2.1	4.1	4.1	.....	2.9	4.3	5.3	.....	3.4	5.4	6.5
.....	13.6	11.7	11.7	.....	14.8	13.0	12.6	18.5	15.9	16.8	.....	19.8	17.5	17.7	.....	15.1	13.0	12.8
.....	16.2	15.5	15.2	.....	16.0	15.0	14.9	17.7	16.5	16.4	.....	19.9	17.5	18.0	.....	19.6	18.0	18.1
.....	16.9	16.6	16.5	.....	17.0	15.4	15.5	19.7	19.7	20.1	.....	19.1	18.3	18.6	.....	20.5	20.0	20.5
.....	11.0	12.0	12.3	.....	11.2	12.8	13.2	20.3	21.7	22.2	.....	14.7	15.2	15.2	.....	13.6	13.4	13.3
4.9	8.1	5.2	5.6	5.8	9.2	6.1	6.3	8.6	6.1	6.1	6.2	9.4	6.7	6.7	5.1	9.2	5.9	6.1
54.0	62.0	61.2	60.4	58.0	77.1	75.8	75.8	57.1	56.6	57.0	55.0	65.3	62.5	62.5	48.3	59.6	59.4	58.5
25.0	31.4	29.4	29.5	30.0	38.8	35.8	35.6	40.1	39.0	38.9	35.0	39.1	37.5	36.9	30.0	39.9	39.6	39.4
.....	20.9	16.7	16.6	.....	23.7	19.7	19.9	18.8	17.4	17.6	.....	12.0	14.4	14.8	.....	23.3	19.1	18.9
.....	29.2	22.9	23.2	.....	32.3	25.5	26.0	31.4	24.3	23.6	.....	31.1	24.6	24.6	.....	30.7	23.9	23.5
.....	38.8	32.7	34.0	.....	46.0	42.7	40.7	14.0	10.4	10.2	.....	16.9	13.3	13.3	.....	43.1	34.4	35.1
.....	44.2	42.6	48.7	.....	46.0	50.3	46.9	45.1	49.9	54.2	.....	45.6	46.7	49.6	.....	52.5	52.0	54.6

² No. 3 can.

³ No. 2½ can.

⁴ Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPLE ARTICLES

Article.	Unit.	Richmond, Va.						Rochester, N. Y.			St. Louis, Mo.			
		Feb. 15—		Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15, 1921.	Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15—		Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15, 1922.	
		1913	1921						1913	1921				
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	
Sirloin steak.....	Pound.....	21.8	40.5	36.7	36.9	37.2	35.4	34.4	22.8	34.7	31.2	31.5		
Round steak.....	do.....	19.6	36.3	32.2	31.9	33.3	29.7	28.6	20.4	32.9	28.7	29.2		
Rib roast.....	do.....	18.9	31.3	29.8	29.7	28.0	26.7	25.9	17.6	29.7	26.4	26.7		
Chuck roast.....	do.....	14.3	25.2	23.5	21.3	23.5	21.2	20.5	14.2	20.0	18.8	18.9		
Plate beef.....	do.....	11.4	19.7	16.9	16.4	14.8	12.2	11.5	10.2	15.2	12.6	13.1		
Pork chops.....	do.....	18.4	33.9	29.5	28.9	32.7	31.4	31.6	17.1	27.2	23.5	24.3		
Bacon.....	do.....	23.4	39.8	32.7	33.9	36.2	31.3	31.4	23.0	38.3	34.2	34.8		
Ham.....	do.....	23.3	44.3	37.5	39.8	46.7	43.5	45.1	26.7	47.0	42.4	44.5		
Lamb.....	do.....	18.7	40.5	40.3	40.6	32.8	34.2	35.7	17.8	32.4	32.3	34.4		
Hens.....	do.....	20.0	43.6	36.3	37.5	46.5	39.0	40.9	17.4	38.7	33.1	33.2		
Salmon, canned, red.....	do.....	19.6	15.3	15.1	15.1	37.5	30.9	30.9	.....	36.8	32.6	32.2	
Milk, fresh.....	Quart.....	10.0	14.0	14.0	13.0	13.5	13.5	13.5	8.0	15.0	10.0	10.0		
Milk, evaporated.....	15-16 oz. can.....	.....	14.9	14.0	13.2	15.1	12.7	12.0	.....	13.9	11.0	10.1
Butter.....	Pound.....	43.4	63.9	56.0	53.2	55.5	46.7	45.7	40.4	55.9	44.2	45.6		
Oleomargarine.....	do.....	.....	37.9	34.6	31.7	36.6	30.5	29.3	.....	33.7	28.0	26.5
Nut margarine.....	do.....	.....	34.2	29.2	28.1	31.8	28.7	27.6	.....	30.1	25.6	25.0
Cheese.....	do.....	22.3	38.9	32.8	33.1	37.5	33.8	33.9	20.8	35.7	30.6	31.2		
Lard.....	do.....	15.0	21.1	16.8	17.2	19.9	14.8	15.5	13.2	14.3	11.3	12.4		
Crisco.....	do.....	.....	25.5	21.6	21.8	24.7	20.8	20.9	.....	25.7	20.3	20.3
Eggs, strictly fresh.....	Dozen.....	26.8	46.6	53.2	54.4	55.9	60.6	53.4	24.4	39.7	43.1	43.3		
Eggs, storage.....	do.....	20.0	.....	45.0	42.8	46.7	39.0	35.4	20.0	.....	36.9	38.0
Bread.....	Pound.....	5.4	11.1	9.1	9.1	10.8	8.1	8.1	5.5	11.2	9.4	9.6		
Flour.....	do.....	3.3	6.7	5.1	5.2	6.2	4.8	4.9	3.0	5.8	4.3	4.5		
Corn meal.....	do.....	2.0	4.4	3.8	3.9	5.7	4.8	4.9	2.1	3.6	2.6	2.6		
Rolled oats.....	do.....	.....	11.7	10.6	10.4	8.0	7.2	6.9	.....	9.8	8.4	7.9
Corn flakes.....	8-oz. pkg.....	.....	14.2	10.9	10.7	14.1	10.4	9.9	.....	12.4	9.5	9.2
Cream of Wheat.....	28-oz. pkg.....	.....	31.2	28.8	28.3	29.1	26.1	25.1	.....	30.6	25.6	25.1
Macaroni.....	Pound.....	.....	22.0	21.3	21.3	20.6	19.9	19.0	.....	21.1	21.3	21.3
Rice.....	do.....	9.8	12.3	11.8	11.8	10.6	9.3	9.3	8.6	9.3	8.5	8.4		
Beans, navy.....	do.....	.....	9.2	9.6	9.5	8.5	8.2	8.1	.....	7.7	7.4	7.6
Potatoes.....	do.....	1.7	3.4	4.6	4.5	1.6	2.5	2.5	1.5	2.4	3.3	3.3		
Onions.....	do.....	.....	4.7	9.9	10.9	2.6	8.1	9.9	.....	3.3	9.4	11.6
Cabbage.....	do.....	.....	4.1	6.2	6.6	2.1	5.2	4.7	.....	3.5	5.2	4.8
Beans, baked.....	No. 2 can.....	.....	12.2	12.3	12.4	13.0	11.5	11.3	.....	12.7	11.3	11.2
Corn, canned.....	do.....	.....	16.9	15.0	15.7	17.2	16.8	15.8	.....	15.8	14.8	14.8
Peas, canned.....	do.....	.....	20.8	19.6	19.6	18.7	19.1	19.3	.....	16.5	16.3	16.5
Tomatoes, canned.....	do.....	.....	11.9	13.1	13.4	12.1	12.2	12.5	.....	11.5	13.1	13.4
Sugar, granulated.....	Pound.....	5.3	8.9	6.3	6.6	8.5	6.0	6.0	5.1	8.2	6.0	6.1		
Tea.....	do.....	56.0	88.8	82.8	79.8	62.6	61.7	60.3	55.0	70.6	69.4	69.0		
Coffee.....	do.....	27.4	37.8	36.3	35.7	35.9	32.9	33.3	24.3	34.3	32.9	33.1		
Prunes.....	do.....	.....	25.7	20.3	21.3	21.4	19.1	18.9	.....	22.7	19.1	19.1
Raisins.....	do.....	.....	32.5	24.2	24.1	30.5	25.4	25.6	.....	32.0	26.0	24.9
Bananas.....	Dozen.....	.....	46.2	38.3	38.8	46.5	41.0	41.3	.....	37.2	31.2	31.9
Oranges.....	do.....	.....	41.6	40.0	41.3	46.5	50.0	50.3	.....	44.8	42.9	46.3

¹ Pink.

RETAIL PRICES OF FOOD.

OF FOOD FOR 51 CITIES ON CERTAIN SPECIFIED DATES—Continued.

St. Paul, Minn.			Salt Lake City, Utah.				San Francisco, Calif.				Savannah, Ga.			Scranton, Pa.			
Feb. 15, 1921.	Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15—		Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15—		Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15, 1921.	Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15—		Jan. 15, 1922.	Feb. 15, 1922.
			1913	1921			1913	1921						1913	1921		
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
34.7	30.8	30.8	22.6	31.0	26.4	26.5	20.3	32.4	29.4	30.3	33.2	29.6	30.0	21.8	44.8	45.8	45.0
29.2	25.2	25.3	19.5	28.3	23.0	23.1	19.0	30.7	26.1	27.5	29.5	25.7	25.0	18.0	35.7	35.6	34.6
28.9	24.1	24.2	19.2	25.2	21.0	21.6	20.7	30.5	27.5	28.0	26.5	24.1	23.6	18.8	33.9	33.9	32.8
21.7	17.7	18.1	15.0	20.6	16.9	17.1	14.6	21.0	17.2	18.5	20.2	16.5	16.3	14.6	24.9	23.6	23.6
13.3	10.0	9.9	11.5	14.3	12.2	11.8	12.5	18.0	13.8	14.7	16.3	14.2	13.5	10.0	13.6	11.2	11.6
27.1	24.8	26.5	21.4	35.2	28.5	30.2	23.0	41.6	37.3	36.6	32.5	27.9	26.5	18.5	35.6	33.9	32.6
44.4	37.6	40.0	32.0	46.2	38.0	37.7	32.8	58.7	52.1	53.3	40.2	33.6	33.7	24.6	45.1	41.1	42.1
48.0	42.1	45.5	29.0	45.4	42.7	43.3	30.0	56.8	50.8	52.5	43.0	37.8	39.8	25.8	54.1	49.8	52.7
29.3	28.9	33.2	17.9	31.7	27.7	29.3	17.2	35.9	31.6	32.7	41.3	35.8	36.7	20.0	41.6	42.1	42.8
36.2	32.5	33.3	23.9	40.0	34.3	34.8	23.8	50.7	44.4	42.8	36.9	34.1	32.9	22.7	49.6	45.7	45.7
40.8	37.0	36.6	.....	40.4	36.2	36.5	.....	33.5	27.8	27.6	42.5	37.3	37.8	.....	44.0	38.7	38.4
12.0	10.0	10.0	8.9	12.5	9.3	9.0	10.0	15.4	13.8	13.0	22.0	18.0	18.0	8.8	13.7	14.0	13.0
14.5	12.7	12.0	.....	14.5	12.4	11.4	.....	13.1	11.7	10.6	14.5	11.4	10.5	.....	14.6	12.8	12.0
47.4	37.7	39.7	38.6	52.5	40.5	44.2	40.7	57.0	46.4	53.7	60.7	48.1	46.5	40.0	57.0	47.3	45.0
35.2	27.5	27.8	.....	37.5	.....	.....	.....	33.3	28.7	29.8	40.5	32.6	32.5	.....	35.6	29.0	28.0
30.0	27.9	27.0	.....	35.2	28.5	29.5	.....	32.8	28.0	27.7	34.0	32.5	31.3	.....	34.0	28.3	28.3
35.7	30.9	31.6	24.2	34.8	28.8	27.8	20.0	39.2	35.7	36.3	37.5	30.9	31.3	18.8	36.5	32.0	31.8
20.1	14.8	15.4	18.1	24.3	17.5	17.7	17.6	25.5	17.9	18.1	21.5	18.6	18.0	15.8	20.9	16.7	16.9
29.5	24.5	24.4	.....	31.5	25.1	25.1	.....	25.7	22.5	22.6	25.7	20.4	20.3	.....	26.6	22.2	22.4
40.1	42.3	44.9	31.4	41.0	42.1	43.0	25.0	41.4	42.2	35.8	39.0	43.0	39.8	32.5	57.0	62.6	56.6
.....	31.0	.....	23.3	25.0	35.0	45.0	.....	30.0	20.0	.....	.....	34.4	32.0	23.5	40.0	46.1	39.0
10.4	8.4	8.4	5.9	11.8	9.6	9.4	5.7	9.6	8.5	8.5	11.2	7.8	8.0	5.5	12.3	9.8	9.6
5.8	4.9	5.2	2.5	4.6	3.0	3.2	3.3	6.8	5.1	5.1	7.1	5.5	5.5	3.5	7.2	5.7	5.7
4.9	3.8	3.7	3.4	5.0	3.7	3.5	3.4	5.9	4.7	4.9	3.3	2.6	2.6	.....	7.8	7.0	6.9
9.8	9.5	9.7	.....	9.7	10.1	9.9	.....	10.6	10.2	10.0	11.9	9.5	9.0	.....	11.5	10.6	10.3
14.8	11.0	10.7	.....	15.2	13.1	12.8	.....	14.4	11.9	11.7	13.8	9.6	9.3	.....	13.9	11.5	10.7
30.0	25.8	26.0	.....	33.4	28.3	27.3	.....	29.1	25.6	25.4	29.8	26.5	26.3	.....	29.1	27.9	28.0
20.0	18.7	18.5	.....	23.1	21.2	20.9	.....	13.3	13.0	12.7	23.2	19.2	19.0	.....	24.9	23.4	23.5
10.2	9.3	9.1	8.2	9.8	8.5	8.6	8.5	10.5	8.9	8.9	9.0	7.9	8.0	8.5	11.0	9.8	9.8
9.2	9.0	8.9	.....	9.8	8.5	8.7	.....	7.4	7.3	7.5	10.5	9.0	9.2	.....	10.8	9.9	9.6
2.0	2.8	2.8	1.0	1.9	2.0	2.1	1.5	3.0	3.4	3.4	3.2	3.7	3.6	1.7	2.5	3.1	3.1
3.4	7.5	9.7	.....	3.1	7.5	11.0	.....	2.5	6.8	8.8	4.7	9.7	11.6	.....	4.4	8.6	10.6
3.8	6.0	6.1	.....	3.2	4.6	6.3	.....	.....	.....	4.9	7.8	6.4	.....	.....	2.7	4.9	6.0
18.2	14.5	14.3	.....	18.5	17.6	17.7	.....	17.8	15.8	15.6	15.4	13.0	12.7	.....	14.4	12.9	12.9
17.6	15.4	15.4	.....	18.5	15.0	15.0	.....	18.7	16.9	17.1	16.7	15.1	15.5	.....	16.9	17.1	17.5
16.5	16.3	16.3	.....	17.3	15.0	15.2	.....	19.3	17.9	18.0	18.9	16.7	16.7	.....	17.1	17.2	17.7
13.5	14.6	14.1	.....	14.4	12.1	12.5	.....	² 12.3	² 14.2	² 14.1	11.7	12.3	12.7	.....	12.8	13.4	13.1
9.2	6.4	6.6	6.2	10.0	7.4	7.5	5.3	9.2	6.1	6.2	9.0	5.9	6.0	6.1	9.1	6.5	6.6
72.7	63.5	64.2	65.7	82.5	80.9	80.9	50.0	59.6	55.8	55.3	74.2	69.3	69.3	52.5	64.8	61.1	61.0
42.5	40.4	40.4	35.8	50.0	44.0	44.3	32.0	38.2	33.9	34.4	33.8	30.8	30.8	31.3	40.8	38.4	38.0
23.8	19.8	19.8	.....	23.1	15.9	16.6	.....	19.4	16.3	16.9	24.9	18.1	18.1	.....	20.5	17.6	17.5
32.5	27.2	27.2	.....	30.2	24.9	25.3	.....	29.3	22.8	22.6	31.8	23.4	23.7	.....	31.2	26.2	25.6
¹ 14.5	² 12.0	³ 11.9	.....	³ 18.6	³ 15.9	³ 16.1	.....	44.3	37.1	35.0	43.9	33.8	33.2	.....	37.5	36.2	35.6
52.3	55.8	55.4	.....	43.5	44.3	45.1	.....	44.7	48.3	52.3	37.8	36.3	41.2	.....	49.8	51.0	53.3

² No. 2½ can.

³ Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 51 CITIES ON CERTAIN SPECIFIED DATES—Concluded.

Article.	Unit.	Seattle, Wash.				Springfield, Ill.			Washington, D. C.			
		Feb. 15—		Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15, 1921.	Jan. 15, 1922.	Feb. 15, 1922.	Feb. 15—		Jan. 15, 1922.	Feb. 15, 1922.
		1913	1921						1913	1921		
Sirloin steak	Pound	Cts. 22.0	Cts. 33.6	Cts. 29.8	Cts. 30.0	Cts. 35.0	Cts. 30.0	Cts. 30.1	Cts. 25.9	Cts. 44.5	Cts. 39.6	Cts. 41.1
Round steak	do.	20.0	30.0	26.1	28.4	33.1	29.3	29.4	21.8	38.2	33.2	33.9
Rib roast	do.	18.4	26.9	23.6	23.3	24.6	20.1	21.0	20.0	35.4	32.1	31.7
Chuck roast	do.	15.0	19.6	16.9	17.1	19.7	17.5	17.8	15.6	25.1	21.3	22.3
Plate beef	do.	11.4	16.1	13.3	13.7	14.2	12.0	12.0	10.7	15.0	12.8	12.2
Pork chops	do.	23.4	38.4	32.3	33.0	30.2	25.5	25.8	19.3	36.0	33.3	33.1
Bacon	do.	30.0	55.0	45.7	47.0	42.7	36.1	37.2	23.3	42.6	35.6	35.5
Ham	do.	29.2	53.5	47.6	49.3	46.8	41.6	44.8	28.2	54.7	50.9	53.8
Lamb	do.	18.3	33.3	30.5	31.4	35.0	31.3	36.7	21.0	38.1	41.5	41.9
Hens	do.	24.3	41.0	37.1	36.0	35.5	30.7	32.8	21.3	47.5	41.4	41.5
Salmon, canned, red	do.	37.2	31.0	31.0	31.5	39.9	34.9	34.9	37.0	30.9	30.9	30.5
Milk, fresh	Quart	9.1	12.0	13.0	13.0	13.4	12.5	12.5	9.0	16.0	14.0	14.0
Milk, evaporated	15-16 oz. can.	12.7	11.9	10.7	10.7	15.7	13.2	12.4	12.4	14.6	12.6	11.9
Butter	Pound	42.6	57.0	41.1	47.8	56.5	44.2	44.3	44.0	60.3	50.3	48.5
Oleomargarine	do.	34.0	29.2	29.0	34.5	29.9	28.9	28.9	37.2	28.8	27.3	
Nut margarine	do.	33.9	29.7	29.4	32.1	28.5	27.6	33.6	28.3	27.3		
Cheese	do.	21.6	40.1	33.7	33.8	40.4	34.3	34.3	23.5	39.5	35.9	35.8
Lard	do.	17.9	25.9	16.6	17.0	20.6	14.3	14.7	14.4	19.5	15.0	15.3
Crisco	do.	26.5	23.6	23.7	28.0	21.8	22.0	22.0	25.9	21.6	21.5	
Eggs, strictly fresh	Dozen	30.0	41.3	38.9	39.0	43.9	48.6	41.1	26.3	49.9	57.7	56.0
Eggs, storage	do.	22.5	.....	.....	.....	41.5	30.0	20.5	.....	40.0	.....	.....
Bread	Pound	5.4	10.0	7.5	8.1	11.7	9.7	9.6	5.5	10.5	8.6	8.6
Flour	do.	3.0	5.8	4.2	4.6	6.4	5.3	5.3	3.7	6.8	5.3	5.4
Corn meal	do.	3.1	5.2	3.6	3.7	5.1	3.8	4.2	2.5	4.2	3.8	3.6
Rolled oats	do.	8.8	8.7	8.4	11.9	10.9	11.0	11.6	10.0	9.6		
Corn flakes	8-oz. pkg.	14.2	12.2	12.3	15.2	11.0	10.7	13.7	10.3	10.0		
Cream of Wheat	28-oz. pkg.	30.9	27.4	27.4	30.3	28.5	28.0	28.0	28.9	27.3	26.0	
Macaroni	Pound	18.0	18.8	18.9	23.2	20.2	20.2	22.8	21.8	21.8		
Rice	do.	7.7	11.9	10.3	10.5	10.5	9.6	9.4	9.6	10.9	9.8	10.0
Beans, navy	do.	7.3	8.2	8.1	8.5	7.8	7.9	8.6	8.2	8.4		
Potatoes	do.	2.3	2.5	2.6	2.6	3.2	3.1	1.5	2.5	3.8	3.9	
Onions	do.	3.3	8.3	9.9	4.5	10.0	12.8	4.3	9.2	12.0		
Cabbage	do.	3.1	4.7	5.2	3.8	6.8	6.0	3.7	5.6	6.4		
Beans, baked	No. 2 can.	18.5	16.9	16.7	16.7	13.4	13.2	13.0	12.0	11.6		
Corn, canned	do.	19.1	17.7	17.8	16.7	15.5	15.3	15.2	15.2	15.0		
Peas, canned	do.	18.9	18.3	18.2	17.8	17.9	17.6	16.7	16.3	16.4		
Tomatoes, canned	do.	¹ 13.6	¹ 16.4	¹ 15.6	¹ 13.5	¹ 14.2	¹ 14.9	¹ 10.5	¹ 13.1	¹ 13.3		
Sugar, granulated	Pound	6.1	9.7	6.8	6.9	9.7	6.9	5.2	8.8	6.3	6.3	
Tea	do.	50.0	66.5	62.4	62.8	84.7	72.0	70.0	57.5	75.8	74.0	71.8
Coffee	do.	28.0	39.9	38.9	38.6	37.5	35.2	35.8	28.8	35.1	32.2	31.6
Prunes	do.	20.4	17.8	17.7	25.4	19.1	19.5	22.7	20.6	20.8		
Raisins	do.	30.4	25.0	25.0	35.9	26.1	25.7	31.6	24.5	24.4		
Bananas	Dozen	² 17.4	² 15.1	² 15.1	² 12.0	² 10.2	² 9.6	45.6	38.9	40.0		
Oranges	do.	46.5	47.9	49.4	48.1	48.1	51.0	43.1	45.4	48.1		

¹ No. 2½ can.² Per pound.

Comparison of Retail Food Costs in 51 Cities.

TABLE 6 shows for 39 cities the percentage of increase or decrease in the retail cost of food ⁷ in February, 1922, compared with the average cost in the year 1913, in February, 1921, and in January, 1922. For 12 other cities comparisons are given for the one-year and the one-month periods. These cities have been scheduled by the bureau at different dates since 1913. These percentage changes are based on actual retail prices secured each month from retail dealers and on the average family consumption of these articles in each city.⁸

⁷ For list of articles, see note 2, p. 36.⁸ The consumption figure used from January, 1913, to December, 1920, for each article in each city is given in the MONTHLY LABOR REVIEW for November, 1918, pp. 94 and 95. The consumption figures which have been used for each month beginning with January, 1921, are given in the MONTHLY LABOR REVIEW for March, 1921, p. 26.

Effort has been made by the bureau each month to have perfect reporting cities. For the month of February 99 per cent of all the firms reporting in the 51 cities sent in a report promptly. The following were perfect reporting cities; that is, every merchant in the following-named 40 cities who is cooperating with the bureau sent in his report in time for his prices to be included in the city averages: Birmingham, Boston, Bridgeport, Buffalo, Butte, Charleston, Cincinnati, Cleveland, Columbus, Dallas, Detroit, Fall River, Houston, Indianapolis, Kansas City, Little Rock, Louisville, Manchester, Milwaukee, Minneapolis, Mobile, Newark, New Haven, New Orleans, New York, Norfolk, Peoria, Philadelphia, Pittsburgh, Portland, Oreg., Providence, Richmond, Rochester, St. Louis, St. Paul, Salt Lake City, San Francisco, Savannah, Seattle, and Washington, D. C.

The following summary shows the promptness with which the merchants responded in February:

RETAIL PRICE REPORTS RECEIVED DURING FEBRUARY.

Item.	United States.	Geographical division.				
		North Atlantic.	South Atlantic.	North Central.	South Central.	Western.
Percentage of reports received.....	99	99.5	98	99	99	99
Number of cities in each section from which every report was received.....	40	12	5	11	7	5

TABLE 6.—PERCENTAGE CHANGE IN THE RETAIL COST OF FOOD, IN FEBRUARY, 1922, COMPARED WITH THE COST IN JANUARY, 1922, FEBRUARY, 1921, AND WITH THE AVERAGE COST IN THE YEAR 1913, BY CITIES.

City.	Percent- age in- crease, February, 1922, compared with year 1913.	Percent- age de- crease, February, 1922, compared with February, 1921.	Percent- age de- crease, February, 1922, compared with January, 1921.	City.	Percent- age in- crease, February, 1922, compared with year 1913.	Percent- age de- crease, February, 1922, compared with February, 1921.	Percent- age de- crease, February, 1922, compared with January, 1921.
Atlanta.....	42	10	0.4	Minneapolis.....	40	9	1.2
Baltimore.....	47	10	1.1	Mobile.....		13	0.4
Birmingham.....	43	15	0.1	Newark, N. J.....	40	9	1.0.1
Boston.....	45	9	0.2	New Haven.....	42	10	1
Bridgeport.....		12	0.3	New Orleans.....	43	11	1
Buffalo.....	50	6	1.1	New York.....	47	8	0.4
Butte.....		8	1.1	Norfolk.....		16	1
Charleston, S. C.....	48	13	1	Omaha.....	40	10	1.1
Chicago.....	43	8	1	Peoria.....		9	1
Cincinnati.....	40	11	0.3	Philadelphia.....	44	7	1.0.1
Cleveland.....	35	13	1.0.1	Pittsburgh.....	38	12	1
Columbus.....		13	1	Portland, Me.....		10	1
Dallas.....	41	10	1	Portland, Oreg.....	28	12	1.1
Denver.....	27	12	1.1	Providence.....	46	11	1
Detroit.....	45	8	1.0.1	Richmond.....	56	8	1.0.1
Fall River.....	47	7	0	Rochester.....		9	1
Houston.....		12	1	St. Louis.....	40	11	1.1
Indianapolis.....	37	10	1.1	St. Paul.....		9	1.2
Jacksonville.....	38	11	0.4	Salt Lake City.....	23	14	1.2
Kansas City.....	36	13	4	San Francisco.....	37	10	1.0.4
Little Rock.....	33	11	1	Savannah.....		15	1
Los Angeles.....	35	9	1.1	Scranton.....	52	9	2
Louisville.....	31	9	0.1	Seattle.....	34		1.3
Manchester.....	43	9	2	Springfield.....		11	1
Memphis.....	36	9	1.2	Washington, D. C.....	51	8	1.1
Milwaukee.....	42	9	1.1				

¹ Increase.

Retail Prices of Coal in the United States.^a

THE following table shows the average retail prices of coal on February 15, 1921, and on January 15 and February 15, 1922, for the United States and for each of the cities included in the total for the United States. Prices for coal are secured from the cities from which monthly retail prices of food are received.

In addition to the prices for Pennsylvania anthracite, prices are shown for Colorado, Arkansas, and New Mexico anthracite in those cities where these coals form any considerable portion of the sales for household use.

The prices shown for bituminous coal are averages of prices of the several kinds used. The coal dealers in each city are asked to quote prices on the kinds of bituminous coal usually sold for household use.

The prices quoted are for coal delivered to consumers, but do not include charges for storing the coal in cellar or coal bin where an extra handling is necessary.

AVERAGE RETAIL PRICES OF COAL, PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON FEBRUARY 15, 1921, AND JANUARY 15 AND FEBRUARY 15, 1922.

City, and kind of coal.	Feb. 15, 1921.	1922	
		Jan. 15.	Feb. 15.
United States:			
Pennsylvania anthracite—			
Stove.....	\$15.795	\$14.974	\$14.917
Chestnut.....	15.884	15.014	14.991
Bituminous.....	11.409	9.895	9.709
Atlanta, Ga.:			
Bituminous.....	8.958	7.519	7.481
Baltimore, Md.:			
Pennsylvania anthracite—			
Stove.....	¹ 15.500	¹ 15.000	¹ 15.000
Chestnut.....	¹ 15.500	¹ 14.750	¹ 14.750
Bituminous.....	¹ 9.972	7.850	7.850
Birmingham, Ala.:			
Bituminous.....	10.381	7.192	6.720
Boston, Mass.:			
Pennsylvania anthracite—			
Stove.....	16.000	15.000	15.000
Chestnut.....	16.000	15.000	15.000
Bridgeport, Conn.:			
Pennsylvania anthracite—			
Stove.....	16.000	13.850	13.000
Chestnut.....	16.000	13.850	13.000
Buffalo, N. Y.:			
Pennsylvania anthracite—			
Stove.....	13.250	12.960	12.875
Chestnut.....	13.250	12.960	12.875
Butte, Mont.:			
Bituminous.....	12.512	11.673	11.519
Charleston, S. C.:			
Pennsylvania anthracite—			
Stove.....	¹ 17.875	¹ 17.000	¹ 17.000
Chestnut.....	¹ 17.725	¹ 17.100	¹ 17.100
Bituminous.....	13.250	12.000	12.000
Chicago, Ill.:			
Pennsylvania anthracite—			
Stove.....	15.280	15.410	15.410
Chestnut.....	15.520	15.340	15.380
Bituminous.....	9.107	8.906	8.500
Cincinnati, Ohio:			
Pennsylvania anthracite—			
Stove.....	15.980	15.333	15.000
Chestnut.....	16.125	15.500	15.000
Bituminous.....	8.143	7.000	6.667

^a Prices of coal were formerly secured semiannually and published in the March and September issues of the MONTHLY LABOR REVIEW. Since June, 1920, these prices have been secured and published monthly.

¹ Per ton of 2,240 pounds.

RETAIL PRICES OF COAL.

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AVERAGE RETAIL PRICES OF COAL, PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON FEBRUARY 15, 1921, AND JANUARY 15 AND FEBRUARY 15, 1922—Continued.

City, and kind of coal.	Feb. 15, 1921.	1922	
		Jan. 15.	Feb. 15.
Cleveland, Ohio:			
Pennsylvania anthracite—			
Stove.....	14.663	14.313	14.375
Chestnut.....	14.813	14.438	14.438
Bituminous.....	8.619	8.139	8.033
Columbus, Ohio:			
Pennsylvania anthracite—			
Chestnut.....	15.750	15.083	15.083
Bituminous.....	9.000	7.196	7.207
Dallas, Tex.:			
Arkansas anthracite—			
Egg.....	20.000	18.250	18.250
Bituminous.....	15.500	15.423	15.423
Denver, Colo.:			
Colorado anthracite—			
Stove, 3 and 5 mixed.....	17.600	15.917	15.917
Furnace, 1 and 2 mixed.....	17.600	15.917	15.917
Bituminous.....	11.676	10.836	10.230
Detroit, Mich.:			
Pennsylvania anthracite—			
Stove.....	15.550	14.563	14.563
Chestnut.....	15.550	14.563	14.563
Bituminous.....	10.972	8.750	8.656
Fall River, Mass.:			
Pennsylvania anthracite—			
Stove.....	16.000	15.250	15.250
Chestnut.....	16.000	15.000	15.000
Bituminous.....	13.250	9.167	9.000
Houston, Tex.:			
Bituminous.....	15.286	12.250	12.000
Indianapolis, Ind.:			
Pennsylvania anthracite—			
Stove.....	15.875	15.750	15.625
Chestnut.....	15.875	15.667	15.667
Bituminous.....	9.461	7.550	7.420
Jacksonville, Fla.:			
Pennsylvania anthracite—			
Stove.....	24.000	17.500	17.500
Chestnut.....	23.000	17.500	17.500
Bituminous.....	15.500	13.000	13.000
Kansas City, Mo.:			
Arkansas anthracite—			
Furnace.....	18.250	17.214	17.2 4
Stove, or No. 4.....	18.500	18.125	18.125
Bituminous.....	9.950	8.669	8.688
Little Rock, Ark.:			
Arkansas anthracite—			
Egg.....	17.000	15.000	15.000
Bituminous.....	14.176	12.800	12.375
Los Angeles, Calif.:			
Bituminous.....	19.333	19.000	19.000
Louisville, Ky.:			
Pennsylvania anthracite—			
Stove.....	16.000	16.750	16.750
Chestnut.....	17.500	16.750	16.750
Bituminous.....	8.538	7.096	6.769
Manchester, N. H.:			
Pennsylvania anthracite—			
Stove.....	18.000	16.500	16.000
Chestnut.....	18.000	16.500	16.000
Bituminous.....	13.333	11.000	10.500
Memphis, Tenn.:			
Pennsylvania anthracite—			
Stove.....	18.000	18.000	18.000
Chestnut.....	18.000	18.000	18.000
Bituminous.....	9.500	7.786	7.786
Milwaukee, Wis.:			
Pennsylvania anthracite—			
Stove.....	16.200	15.980	15.980
Chestnut.....	16.260	15.950	15.950
Bituminous.....	11.469	10.407	10.357
Minneapolis, Minn.:			
Pennsylvania anthracite—			
Stove.....	18.250	17.750	17.750
Chestnut.....	18.330	17.750	17.750
Bituminous.....	13.222	11.703	11.775

AVERAGE RETAIL PRICES OF COAL, PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON FEBRUARY 15, 1921, AND JANUARY 15 AND FEBRUARY 15, 1922.

City, and kind of coal.	Feb. 15, 1921.	1922	
		Jan. 15.	Feb. 15.
Mobile, Ala.:			
Pennsylvania anthracite—			
Stove.....			
Chestnut.....			
Bituminous.....	12.688	11.214	10.063
Newark, N. J.:			
Pennsylvania anthracite—			
Stove.....	13.000	12.750	12.833
Chestnut.....	13.000	12.750	12.833
New Haven, Conn.:			
Pennsylvania anthracite—			
Stove.....	15.833	14.000	14.000
Chestnut.....	15.833	14.000	14.000
New Orleans, La.:			
Pennsylvania anthracite—			
Stove.....	22.500	18.000	17.500
Chestnut.....	22.500	18.000	17.667
Bituminous.....	12.545	10.781	10.313
New York, N. Y.:			
Pennsylvania anthracite—			
Stove.....	14.225	13.208	13.142
Chestnut.....	14.225	13.208	13.142
Norfolk, Va.:			
Pennsylvania anthracite—			
Stove.....	16.000	14.000	14.000
Chestnut.....	16.000	14.000	14.000
Bituminous.....	13.143	9.429	9.238
Omaha, Nebr.:			
Pennsylvania anthracite—			
Stove.....	22.000	22.000	22.000
Chestnut.....	22.000	22.000	22.000
Bituminous.....	13.094	11.857	11.857
Peoria, Ill.:			
Pennsylvania anthracite—			
Stove.....	16.000	15.500	15.500
Chestnut.....	16.000	15.500	15.500
Bituminous.....	7.063	6.321	6.393
Philadelphia, Pa.:			
Pennsylvania anthracite—			
Stove.....	¹ 14.975	¹ 14.125	¹ 14.094
Chestnut.....	¹ 14.975	¹ 14.125	¹ 14.094
Pittsburgh, Pa.:			
Pennsylvania anthracite—			
Stove.....	¹ 18.500	¹ 15.500	¹ 15.750
Chestnut.....	¹ 18.667	¹ 15.667	¹ 15.667
Bituminous.....	8.000	6.781	6.781
Portland, Me.:			
Pennsylvania anthracite—			
Stove.....	16.310	15.843	15.843
Chestnut.....	16.310	15.843	15.843
Bituminous.....	11.760		
Portland, Oreg.:			
Bituminous.....	13.991	13.079	13.013
Providence, R. I.:			
Pennsylvania anthracite—			
Stove.....	² 16.500	² 15.000	² 15.000
Chestnut.....	² 16.500	² 15.000	² 15.000
Bituminous.....	² 12.500		
Richmond, Va.:			
Pennsylvania anthracite—			
Stove.....	15.500	14.250	14.250
Chestnut.....	15.500	14.250	14.250
Bituminous.....	12.039	9.846	9.846
Rochester, N. Y.:			
Pennsylvania anthracite—			
Stove.....	13.550	13.450	13.450
Chestnut.....	13.550	13.450	13.450
St. Louis, Mo.:			
Pennsylvania anthracite—			
Stove.....	17.163	16.063	15.938
Chestnut.....	17.163	16.250	16.125
Bituminous.....	7.750	7.053	6.908
St. Paul, Minn.:			
Pennsylvania anthracite—			
Stove.....	18.250	17.750	17.750
Chestnut.....	18.300	17.750	17.750
Bituminous.....	14.383	12.050	12.129

¹ Per ton of 2,240 pounds.

² Fifty cents per ton additional is charged for "binning." Most customers require binning or basketing the coal into the cellar.

AVERAGE RETAIL PRICES OF COAL, PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON FEBRUARY 15, 1921, AND JANUARY 15 AND FEBRUARY 15, 1922—Concluded.

City, and kind of coal.	Feb. 15, 1921.	1922	
		Jan. 15.	Feb. 15.
Salt Lake City, Utah:			
Colorado anthracite—			
Furnace, 1 and 2 mixed.....	17.700	19.125	19.125
Stove, 3 and 5 mixed.....	18.400 ¹	20.000	20.000 ²
Bituminous.....	9.964	9.000	9.000
San Francisco, Calif.:			
New Mexico anthracite—			
Cerrojos egg.....	28.650	27.250	27.250
Colorado anthracite—			
Egg.....	26.750	26.250	26.250
Bituminous.....	19.455	19.250	19.250
Savannah, Ga.:			
Pennsylvania anthracite—			
Stove.....	³ 19.100	³ 17.100	³ 17.100
Chestnut.....	³ 19.100	³ 17.100	³ 17.100
Bituminous.....	³ 15.100	³ 12.267	³ 12.267
Scranton, Pa.:			
Pennsylvania anthracite—			
Stove.....	9.833	9.700	9.700
Chestnut.....	9.833	9.700	9.700
Seattle, Wash.:			
Bituminous.....	⁴ 11.595	⁴ 10.130	⁴ 10.107
Springfield, Ill.:			
Bituminous.....	4.950	4.575	4.450
Washington, D. C.:			
Pennsylvania anthracite—			
Stove.....	¹ 15.536	¹ 14.943	¹ 14.814
Chestnut.....	¹ 15.500	¹ 14.621	¹ 14.621
Bituminous.....	¹ 11.555	¹ 9.096	¹ 9.112

¹ Per ton of 2,240 pounds.

² All coal sold in Savannah is weighed by the city. A charge of 10 cents per ton or half ton is made. This additional charge has been included in the above prices.

³ Prices in zone A. The cartage charge in zone A is \$1.85, which has been included in the average. The cartage charges in Seattle range from \$1.75 to \$2.80, according to distance.

Comparison of Retail Price Changes in the United States and Foreign Countries.

THE index numbers of retail prices published by several foreign countries have been brought together with those of this bureau in the subjoined table after having been reduced to a common base, namely, prices for July, 1914, equal 100. This base was selected instead of the average for the year 1913, which is used in other tables of index numbers compiled by the bureau, because of the fact that in some instances satisfactory information for 1913 was not available. For Belgium, Denmark, Germany, Great Britain, Norway, Sweden, and the city of Rome, Italy, the index numbers are reproduced as published in the original sources. With three exceptions all these are shown on the July, 1914, base in the source from which the information is taken. The index numbers for Belgium are computed on April, 1914, as the base period, those for Germany on the average of October, 1913, January, April, and July, 1914, while those for Rome are based on the first half of 1914. The index numbers here shown for the remaining countries have been obtained by dividing the index for each month specified in the table by the index for July, 1914, or

the nearest period thereto, as published. As shown in the table, the number of articles included in the index numbers for the different countries differs widely. These results should not, therefore, be considered as closely comparable one with another. In a few instances, also, the figures here shown are not absolutely comparable from month to month over the entire period, owing to slight changes in the list of commodities included at successive dates.

INDEX NUMBERS OF RETAIL PRICES IN THE UNITED STATES AND CERTAIN OTHER COUNTRIES.

[July, 1914=100.]

Year and month.	United States: 22 foodstuffs, to December, 1920; since that time, 43 foodstuffs; 51 cities (variable). Weighted.	Australia: 46 foodstuffs; 30 towns. Weighted.	Belgium: 54 articles (variable); Brussels. Not weighted.	Canada: 29 foodstuffs; 60 cities. Weighted.	Denmark: Family food budget; 5 persons. Weighted.	France: Family budget, 13 articles.		Germany: Family food budget; 5 persons. Weighted.
						Cities over 10,000 population (except Paris). Weighted.	Paris only. Weighted.	
1914.								
July.....	100	100	¹ 100	100	100	² 100	100	³ 100
October.....	103	99	.....	108	.....	.....	.....	.....
1915.								
January.....	101	107	.....	107	.....	² 110	120	.....
April.....	97	113	.....	105	.....	.....	114	.....
July.....	98	131	.....	105	128	² 123	120	.....
October.....	101	133	.....	105	.....	.....	118	.....
1916.								
January.....	105	129	.....	112	.....	² 133	134	.....
April.....	107	131	.....	112	.....	² 137	132	.....
July.....	109	130	.....	114	146	² 141	129	.....
October.....	119	125	.....	125	.....	² 146	135	.....
1917.								
January.....	125	125	.....	138	.....	² 154	139	.....
February.....	130	126	.....	141	158	.....	.....	.....
March.....	130	126	.....	144	.....	.....	.....	.....
April.....	142	127	.....	145	.....	² 171	147	.....
May.....	148	127	.....	159	.....	.....	.....	.....
June.....	149	127	.....	160	.....	.....	.....	.....
July.....	143	126	.....	157	166	² 184	183	.....
August.....	146	129	.....	157	.....	.....	.....	.....
September.....	150	129	.....	157	.....	.....	.....	.....
October.....	154	129	.....	159	.....	² 200	184	.....
November.....	152	129	.....	163	.....	.....	.....	.....
December.....	154	128	.....	165	.....	.....	.....	.....
1918.								
January.....	157	129	.....	167	.....	² 211	191	.....
February.....	158	130	.....	169	173	.....	.....	.....
March.....	151	131	.....	170	.....	.....	.....	.....
April.....	151	131	.....	169	.....	² 232	218	.....
May.....	155	132	.....	171	.....	.....	.....	.....
June.....	159	132	.....	172	.....	.....	.....	.....
July.....	164	131	.....	175	187	² 244	206	.....
August.....	168	128	.....	181	.....	.....	.....	.....
September.....	175	128	.....	179	.....	.....	.....	.....
October.....	177	131	.....	182	.....	² 260	238	.....
November.....	179	133	.....	182	.....	.....	.....	.....
December.....	183	134	.....	184	.....	.....	.....	.....
1919.								
January.....	181	140	639	186	186	² 278	248	.....
February.....	169	141	534	181	.....	.....	227	.....
March.....	172	143	424	176	.....	.....	248	.....
April.....	178	145	374	180	.....	² 293	257	.....
May.....	181	146	351	182	.....	.....	268	.....
June.....	180	147	344	185	.....	.....	264	.....

¹ April, 1914.

² Quarter beginning month specified.

³ Average for October, 1913, January, April, and July, 1914.

INDEX NUMBERS OF RETAIL PRICES IN THE UNITED STATES AND CERTAIN OTHER COUNTRIES—Continued.

Year and month.	United States: 22 foodstuffs, to December, 1920; since that time, 43 foodstuffs; 51 cities (variable). Weighted.	Australia: 46 foodstuffs; 30 towns. Weighted.	Belgium: 54 articles (variable); Brussels. Not weighted.	Canada: 29 foodstuffs; 60 cities. Weighted.	Denmark: Family food budget; 5 persons. Weighted.	France: Family budget, 13 articles.		Germany: Family food budget; 5 persons. Weighted.
						Cities over 10,000 population (except Paris). Weighted.	Paris only. Weighted.	
July.....	186	147	354	186	212	2 289	261	.....
August.....	188	148	348	195	.....	.....	238	.....
September.....	184	148	342	193	.....	.....	259	.....
October.....	184	156	337	192	.....	2 201	283	.....
November.....	188	158	341	192	.....	.....	280	.....
December.....	193	158	359	198	.....	.....	285	.....
1920.								
January.....	197	160	410	206	251	2 319	290	.....
February.....	196	163	445	212	.....	.....	297	854
March.....	196	163	473	215	.....	.....	339	1,003
April.....	207	173	488	215	.....	2 379	358	1,123
May.....	211	176	492	224	.....	.....	379	1,178
June.....	215	187	490	228	.....	.....	369	1,133
July.....	215	194	479	227	253	2 388	373	1,156
August.....	203	194	480	221	.....	.....	373	1,049
September.....	199	197	493	215	.....	.....	407	1,032
October.....	194	192	505	213	.....	2 450	420	1,129
November.....	189	186	499	206	.....	.....	426	1,184
December.....	175	184	493	200	.....	.....	424	1,272
1921.								
January.....	169	186	477	195	276	2 429	410	1,265
February.....	155	184	457	190	.....	.....	382	1,191
March.....	153	181	429	178	.....	.....	359	1,188
April.....	149	173	417	171	.....	2 363	328	1,171
May.....	142	168	404	165	.....	.....	317	1,152
June.....	141	165	405	150	.....	.....	312	1,175
July.....	145	161	393	148	236	2 350	306	1,274
August.....	152	158	403	154	.....	.....	317	1,399
September.....	150	154	406	159	.....	.....	329	1,418
October.....	150	.....	411	155	.....	2 348	331	1,532
November.....	149	146	417	149	.....	.....	326	1,914
December.....	147	143	.....	148	.....	.....	323	2,088

Year and month.	Great Britain: 21 foodstuffs; 600 towns. Weighted.	Italy: Family food budget; 5 persons; Rome. Weighted.	Netherlands: 27 foodstuffs; Amsterdam. Weighted.	New Zealand: 59 foodstuffs; 25 towns. Weighted.	Norway: Family food budget. Weighted.	South Africa: 18 foodstuffs; 9 towns. Weighted.	Sweden: 21 articles; 44 towns. Weighted.	Switzerland: 9 groups of foodstuffs. Not weighted.
1914.								
July.....	100	4 100	5 100	100	100	6 100	100	7 100
October.....	112	.....	.....	102	.....	.....	2 107	7 103
1915.								
January.....	118	95	.....	111	.....	.....	2 113	7 107
April.....	124	107	.....	113	.....	.....	2 121	7 114
July.....	132½	95	.....	112	.....	6 167	2 124	7 119
October.....	140	100	.....	112	.....	.....	2 128	7 120
1916.								
January.....	145	111	.....	116	.....	.....	2 130	7 126
April.....	149	116	.....	118	.....	.....	2 134	7 129
July.....	161	111	.....	119	8 160	6 116	2 142	7 140
October.....	168	111	.....	120	.....	.....	2 152	7 144
1917.								
January.....	187	124	.....	127	.....	.....	160	148
February.....	189	127	.....	126	.....	.....	166	.....
March.....	192	121	.....	126	.....	.....	170	158

2 Quarter beginning month specified.
4 January-July.

5 Year 1913.
6 For calendar year.

7 Previous month.
8 August.

INDEX NUMBERS OF RETAIL PRICES IN THE UNITED STATES AND CERTAIN OTHER COUNTRIES—Concluded.

Year and month.	Great Britain: 21 foodstuffs; 600 towns. Weighted.	Italy: Family food budget; 5 persons; Rome. Weighted.	Netherlands: 27 foodstuffs; Amsterdam. Weighted.	New Zealand: 59 foodstuffs; 25 towns. Weighted.	Norway: Family food budget. Weighted.	South Africa: 18 foodstuffs; 9 towns. Weighted.	Sweden: 21 articles; 44 towns. Weighted.	Switzerland: 9 groups of foodstuffs. Not weighted.
April.....	194	120	.....	127	.....	.....	175	.....
May.....	198	123	.....	128	.....	.....	175	.....
June.....	202	136	.....	128	.....	.....	175	179
July.....	204	137	.....	127	.....	6 128	177	.....
August.....	202	143	.....	127	214	.....	181	.....
September.....	206	142	.....	129	.....	.....	187	192
October.....	197	148	.....	130	.....	.....	192	.....
November.....	206	166	.....	130	.....	.....	200	.....
December.....	205	157	.....	132	.....	.....	212	197
1918.								
January.....	206	177	.....	133	.....	128	221	.....
February.....	208	181	.....	134	.....	129	227	.....
March.....	207	199	.....	134	.....	131	235	204
April.....	206	200	.....	137	.....	134	247	.....
May.....	207	202	.....	139	.....	136	258	.....
June.....	208	199	.....	139	.....	135	261	230
July.....	210	203	.....	139	279	134	268	.....
August.....	218	208	.....	141	.....	134	280	.....
September.....	216	219	.....	141	.....	135	284	251
October.....	229	235	.....	140	.....	139	310	.....
November.....	233	249	.....	144	275	135	320	.....
December.....	229	254	.....	150	275	134	330	252
1919.								
January.....	230	259	195	145	279	136	339	.....
February.....	230	258	212	142	278	137	334	.....
March.....	220	243	205	141	278	137	331	257
April.....	213	230	196	142	276	139	337	.....
May.....	207	232	186	142	283	139	328	.....
June.....	204	225	204	143	290	141	319	261
July.....	209	206	210	144	289	139	310	.....
August.....	217	207	207	146	291	145	313	.....
September.....	216	214	203	148	298	145	309	.....
October.....	222	241	204	150	300	154	307	.....
November.....	231	246	202	153	297	167	309	.....
December.....	234	252	199	155	299	170	307	245
1920.								
January.....	236	275	203	158	299	177	298	244
February.....	235	299	205	160	297	187	290	.....
March.....	233	300	205	162	298	183	291	244
April.....	235	310	206	162	305	183	297	243
May.....	246	325	209	163	311	188	294	.....
June.....	255	315	210	163	311	194	294	.....
July.....	258	318	217	167	319	197	297	246
August.....	262	322	219	171	333	196	308	.....
September.....	267	324	223	173	336	195	307	.....
October.....	270	341	226	177	340	197	306	262
November.....	291	361	220	176	342	196	303	.....
December.....	282	375	208	179	342	188	294	.....
1921.								
January.....	278	367	199	178	334	172	283	243
February.....	263	376	200	175	308	165	262	287
March.....	249	386	199	169	300	160	253	234
April.....	238	432	193	169	300	156	248	231
May.....	232	420	189	167	292	152	237	213
June.....	218	409	186	166	290	144	234	210
July.....	220	402	185	164	292	139	232	214
August.....	226	416	184	163	297	134	234	209
September.....	225	430	184	161	290	133	228	206
October.....	210	461	184	156	288	.....	218	200
November.....	200	459	173	152	281	.....	211	198
December.....	195	.....	159	150	268	125	202	192

⁶ For calendar year.

Wholesale Prices in February.

A DISTINCT upward trend of wholesale prices in February, as compared with the previous month, is shown by information gathered in representative markets by the United States Department of Labor through the Bureau of Labor Statistics. The increase, which was most pronounced among farm products and food-stuffs, brought the bureau's weighted index number up to 151 for February, a gain of 2 per cent over the level of the month before.

Farm products, owing to rapid advances in cotton, wheat, corn, oats, rye, flaxseed, cattle, hogs, and sheep, rose from a weighted average of 116 in January to 126 in February, an increase of over $8\frac{1}{2}$ per cent. Food products, following those of the farm, advanced 3 per cent over the January level. In the group of miscellaneous commodities, including among others such important articles as bran and mill-feed middlings, cottonseed meal and oil, linseed meal, and slaughterhouse tankage, the increase was $2\frac{3}{4}$ per cent.

In the four groups of cloths and clothing, fuel and lighting, building materials, and chemicals and drugs no change in the general price level was reported. Metals, on the other hand, decreased approximately $1\frac{1}{4}$ per cent and house-furnishing goods one-half of 1 per cent in the two months.

Of the 327 commodities, or price series, for which comparable data for January and February were obtained, increases were found to have occurred for 101 commodities and decreases for 102 commodities. In the case of 124 commodities no change in average price was reported.

INDEX NUMBERS OF WHOLESALE PRICES, BY GROUPS OF COMMODITIES.

[1913=100.]

Commodity groups.	1921, February.	1922	
		January.	February.
Farm products.....	129	116	126
Food, etc.....	150	134	138
Cloths and clothing.....	198	183	183
Fuel and lighting.....	218	183	183
Metals and metal products.....	146	117	115
Building materials.....	221	202	202
Chemicals and drugs.....	178	159	159
House-furnishing goods.....	277	214	213
Miscellaneous.....	180	146	150
All commodities.....	167	148	151

Comparing prices in February with those of a year ago, as measured by changes in the index numbers, it is found that the general level declined approximately $9\frac{1}{2}$ per cent. The greatest decrease is shown for house-furnishing goods, in which prices fell over 23 per cent. Metals declined 21 per cent, fuel and miscellaneous commodities 16 per cent, chemicals and drugs $10\frac{1}{2}$ per cent, and building materials $8\frac{1}{2}$ per cent in average price. Food declined 8 per cent and cloths and clothing $7\frac{1}{2}$ per cent in average price in the same time. The smallest decrease of all is noted for the group of farm products, in which prices declined only $2\frac{1}{3}$ per cent.

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Changes in Wholesale Prices.

IN THE following table the wholesale prices of a number of important commodities in the first two months of 1922 and in July, 1920 and 1921, are shown in comparison with average prices in the last prewar year, 1913. While 1913 can not be regarded as a normal year with respect to the prices of all of the commodities included in the table, it is believed that it furnishes as satisfactory a standard for measuring subsequent price fluctuations as any other single year would afford. To facilitate the comparison, a section of the table gives prices for the period since 1913 expressed as percentages of the average price in that year.

WHOLESALE PRICES, JULY, 1920 AND 1921, AND BY MONTHS, 1922, AS COMPARED WITH AVERAGE PRICES IN 1913.

AVERAGE MONEY PRICES.

Article.	Unit.	1913	July.		1922	
			1920	1921	Jan.	Feb.
FOODSTUFFS.						
<i>(a) Animal.</i>						
Cattle, steers.....	100 pounds.....	\$8. 507	\$15. 381	\$8. 406	\$8. 150	\$8. 638
Beef, fresh.....	Pound.....	. 130	. 255	. 149	. 154	. 145
Beef, salt.....	Barrel.....	18. 923	18. 125	13. 000	13. 400	14. 000
Hogs, heavy.....	100 pounds.....	8. 365	14. 856	9. 725	7. 765	9. 900
Hams, smoked.....	Pound.....	. 166	. 377	. 320	. 221	. 267
Lard, prime.....	do.....	. 110	. 191	. 121	. 100	. 118
Pork, cured, sides.....	do.....	. 127	. 207	. 142	. 116	. 134
Pork, salt, mess.....	Barrel.....	22. 471	36. 250	24. 500	23. 100	24. 875
Poultry, live.....	Pound.....	. 154	. 308	. 255	. 240	. 253
Sheep, ewes.....	100 pounds.....	4. 687	6. 594	2. 906	5. 260	6. 094
Mutton, dressed.....	Pound.....	. 103	. 170	. 104	. 120	. 123
Butter, creamery.....	do.....	. 310	. 553	. 386	. 351	. 363
Cheese, whole milk.....	do.....	. 142	. 246	. 169	. 200	. 204
Eggs, fresh, firsts.....	Dozen.....	. 226	. 423	. 285	. 368	. 316
Milk, fresh.....	Quart.....	. 035	. 070	. 054	. 073	. 071
Oleomargarine.....	Pound.....	. 163	. 317	. 189	. 190	. 175
<i>(b) Vegetable.</i>						
Wheat, No. 1, northern.....	Bushel.....	. 874	2. 831	1. 438	1. 300	1. 522
Wheat flour, patent.....	Barrel.....	4. 584	13. 669	8. 900	7. 000	7. 975
Wheat flour, straights.....	do.....	3. 847	12. 410	6. 895	5. 875	6. 700
Corn, No. 2, mixed.....	Bushel.....	. 625	1. 549	. 614	. 484	. 572
Corn meal.....	100 pounds.....	1. 601	3. 590	1. 350	. 910	1. 105
Oats, standard.....	Bushel.....	. 376	. 935	. 371	. 375	. 398
Rye, No. 2.....	do.....	. 636	2. 232	1. 223	. 809	. 992
Rye flour.....	Barrel.....	3. 123	11. 650	7. 094	4. 940	6. 206
Barley, malting.....	Bushel.....	. 625	1. 214	. 645	. 582	. 633
Rice, Honduras.....	Pound.....	. 051	. 125	. 033	. 049	. 049
Potatoes, white.....	Bushel.....	. 614	3. 570	1. 485	1. 242	1. 189
Sugar, granulated.....	Pound.....	. 043	1. 191	. 055	. 048	. 049
Coffee, Rio, No. 7.....	do.....	. 111	. 131	. 065	. 096	. 090
Prunes.....	do.....	. 066	. 165	. 084	. 098	. 103
Raisins ²	do.....	. 054	. 248	. 188	. 150	. 150
Tea, Formosa.....	do.....	. 248	. 365	. 220	. 300	. 300
Cottonseed oil.....	do.....	. 073	. 132	. 086	. 086	. 101
TEXTILES AND LEATHER GOODS.						
Cotton, middling.....	do.....	. 128	. 410	. 124	. 179	. 181
Cotton yarn, carded.....	do.....	. 221	. 701	. 241	. 326	. 313
Gingham, Amoskeag.....	Yard.....	. 065	. 242	. 108	. 126	. 126
Muslin, bleached.....	do.....	. 081	. 333	. 137	. 147	. 147
Print cloth, 27-inch.....	do.....	. 035	. 142	. 043	. 058	. 056
Sheeting, brown.....	do.....	. 073	(³)	. 100	. 118	. 117
Silk, raw, Kansai.....	Pound.....	3. 640	4. 608	5. 733	6. 762	6. 566
Wool, scoured, medium.....	do.....	. 471	. 909	. 491	. 582	. 673
Worsted yarn, 2-32s.....	do.....	. 777	1. 750	1. 150	1. 277	1. 300

¹ Estimated price. No market quotation.

² 1913, London layer; subsequent prices, coast seeded.

³ No quotation.

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CHANGES IN WHOLESALE PRICES.

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WHOLESALE PRICES, JULY, 1920 AND 1921, AND BY MONTHS, 1922, AS COMPARED WITH AVERAGE PRICES IN 1913—Continued.

AVERAGE MONEY PRICES.

Article.	Unit.	1913	July.		1922	
			1920	1921	Jan.	Feb.
TEXTILES AND LEATHER GOODS—continued.						
Clay worsted suitings.....	Yard.....	\$1.382	\$5.423	\$2.565	\$2.545	\$2.498
Storm serge, 50-inch.....	do.....	.563	1.421	.885	.815	.815
Hides, packers'.....	Pound.....	.184	.294	.139	.165	.160
Leather, chrome calf.....	Square foot.....	.270	.875	.525	.465	.465
Leather, glazed kid.....	do.....	.250	1.025	.675	.700	.700
Leather, sole, oak.....	Pound.....	.449	.900	.550	.525	.525
Shoes, men's calf.....	Pair.....	3.113	9.100	7.000	6.750	6.750
Shoes, women's kid ⁴	do.....	2.175	7.750	5.600	5.250	5.250
Shoes, children's ⁵	do.....	.833	2.470	1.710	1.568	1.568
MINERAL AND METAL PRODUCTS.						
Coal, anthracite, chestnut.....	2,240 pounds.....	5.313	9.551	10.502	10.641	10.633
Coal, bituminous, mine run.....	2,000 pounds.....	2.200	6.000	4.600	3.750	3.600
Coke, furnace.....	do.....	2.440	14.375	2.906	2.750	3.038
Copper, electrolytic.....	Pound.....	.157	.190	.125	.136	.129
Copper wire.....	do.....	.167	.230	.149	.155	.153
Pig iron, Bessemer.....	2,240 pounds.....	17.133	47.150	22.835	21.560	21.460
Pig iron, foundry.....	do.....	16.008	46.400	22.085	21.260	20.835
Steel billets.....	do.....	25.789	62.500	32.250	28.000	28.000
Tin plate, domestic, coke.....	100 pounds.....	3.558	7.500	5.688	4.750	4.713
Pig tin.....	Pound.....	.449	.491	.278	.320	.305
Pig lead.....	do.....	.044	.086	.044	.047	.047
Wire, barbed, fence.....	100 pounds.....	2.309	4.720	3.843	3.530	3.455
Zinc, slab.....	Pound.....	.058	.082	.048	.051	.049
Petroleum, crude, Pennsylvania.....	Barrel.....	2.450	6.100	2.250	3.300	3.250
Petroleum, crude, K.-O.....	do.....	.934	3.500	1.000	2.250	2.250
Petroleum, refined, w. w.....	Gallon.....	.123	.260	.220	.218	.210
Gasoline, motor.....	do.....	.168	.300	.235	.263	.245
BUILDING MATERIALS.						
Brick, common ⁶	1,000.....	6.200	19.845	15.177	13.866	13.749
Cement, Portland ⁶	Barrel.....	1.005	2.084	1.975	1.741	1.716
Crushed stone.....	Cubic yard.....	.900	1.950	1.950	1.850	1.800
Lime, lump ⁶	2,000 pounds.....	4.430	11.148	9.777	8.590	8.533
Gravel.....	do.....	.432	1.142	.969	.941	.947
Hollow tile.....	Block.....	.064	.152	.095	.082	.082
Sand ⁶	2,000 pounds.....	.315	.784	.675	.638	.638
Glass, plate.....	Square foot.....	.318	.820	.700	.500	.500
Glass, window.....	50 square feet.....	2.221	6.555	5.130	4.275	3.420
Lath, pine ⁷	1,000.....	4.284	6.280	4.240	4.360	4.280
Douglas fir, No. 1.....	1,000 feet.....	9.208	29.500	11.500	11.500	12.500
Hemlock ⁸	do.....	24.227	51.750	30.125	30.500	30.500
Maple ⁸	do.....	38.364	112.500	51.250	49.500	49.500
Oak, white, plain ⁹	do.....	60.591	142.500	55.250	60.700	57.500
Pine, white ¹⁰	do.....	36.864	84.000	76.000	62.000	62.000
Pine, yellow, flooring.....	do.....	23.036	65.320	32.270	41.910	43.530
Pine, yellow, timbers.....	do.....	14.464	42.750	19.220	20.470	19.810
Poplar ⁹	do.....	61.727	112.500	53.250	57.500	57.500
Spruce ¹¹	do.....	27.864	49.000	33.500	32.600	31.000
Shingles, red cedar.....	1,000.....	1.967	4.570	2.430	2.990	2.910
Bars, reinforcing.....	100 pounds.....	1.376	3.050	2.100	1.500	1.500
Nails, wire, 8-penny.....	do.....	1.819	4.100	2.913	2.600	2.475
Pipe, cast-iron.....	2,000 pounds.....	23.371	76.300	52.300	47.300	47.300
Steel, structural.....	100 pounds.....	1.510	3.100	2.100	1.500	1.500
Terneplate.....	200 pounds.....	6.937	14.100	12.100	9.600	9.630
Lead, carbonate of.....	Pound.....	.068	.155	.129	.123	.123
Linseed oil, raw.....	Gallon.....	.462	1.520	.744	.720	.818
Turpentine, spirits of.....	do.....	.428	1.599	.613	.909	.903
Zinc, oxide of.....	Pound.....	.054	.090	.073	.073	.073
Putty.....	do.....	.012	.053	.053	.048	.048

¹ 1913, gun metal, button; subsequent prices, kid, lace.

⁵ 1913, July, 1920 and 1921, gun metal, button; subsequent prices, gun-metal polish.

⁶ 1913, from U. S. Geological Survey; subsequent prices, average for United States.

⁷ 1913, New York market, spruce lath; subsequent prices, f. o. b. mill.

⁸ 1913, New York market; subsequent prices, Chicago market.

⁹ 1913, New York market; subsequent prices, Cincinnati market.

¹⁰ 1913, New York market; subsequent prices, Buffalo market.

¹¹ 1913, New York market; subsequent prices, Boston market.

WHOLESALE PRICES, JULY, 1920 AND 1921, AND BY MONTHS, 1922, AS COMPARED WITH AVERAGE PRICES IN 1913—Continued.

AVERAGE MONEY PRICES—Concluded.

Article.	Unit.	1913	July.		1922	
			1920	1921	Jan.	Feb.
CHEMICALS.						
Acid, muriatic.....	Pound.....	\$0.013	\$0.023	\$0.012	\$0.014	\$0.013
Acid, sulphuric.....	do.....	.010	.011	.009	.008	.008
Alcohol, denatured.....	Gallon.....	.366	1.110	.352	.385	.343
Alcohol, grain.....	do.....	2.499	(³)	4.700	4.700	4.700
Borax.....	Pound.....	.038	.083	.058	.055	.055
Glycerine.....	do.....	.197	.283	.150	.164	.165
Soda, ash.....	100 pounds.....	.583	3.900	2.470	2.638	1.925
Soda, caustic.....	Pound.....	.015	.060	.038	.036	.035
Sulphur, crude.....	2,240 pounds.....	22.000	20.000	15.000	15.000	14.000
Tallow.....	Pound.....	.071	.122	.056	.066	.066
Acid phosphate.....	2,000 pounds.....	7.667	21.000	11.600	10.000	9.875
Ammonia, sulphate of.....	100 pounds.....	3.141	6.450	2.210	2.713	2.850
Phosphate rock.....	2,000 pounds.....	3.408	11.000	5.000	3.250	3.250
Soda, nitrate of.....	100 pounds.....	2.469	3.850	2.270	2.350	2.406
HOUSE-FURNISHING GOODS.						
Carpets, Axminster.....	Yard.....	1.076	4.176	3.024	2.784	2.784
Bed, combination.....	Each.....	22.500	65.000	37.250	37.250	37.250
Davenport.....	do.....	34.500	70.500	61.000	61.500	61.500
Dresser.....	do.....	36.000	89.000	54.000	54.000	54.000
Chairs, dining.....	6 chairs.....	15.000	55.500	31.500	31.500	31.500
Table, dining.....	Each.....	18.500	58.000	34.000	34.000	33.500
Plates, white, granite.....	Dozen.....	.463	1.260	1.260	.980	.980
Teacups and saucers, white, granite.....	do.....	.570	1.620	1.620	1.260	1.260
Tumblers, glass.....	do.....	.120	.820	.255	.200	.200
Knives and forks.....	Gross.....	5.750	14.500	13.500	12.000	12.000
MISCELLANEOUS.						
Jute, raw.....	Pound.....	.067	.095	.050	.055	.053
Lubricating oil.....	Gallon.....	.143	.454	.220	.230	.230
Mill-feed middlings.....	2,000 pounds.....	19.452	53.875	13.781	20.250	25.375
Paper, newsprint.....	Pound.....	.023	.058	.053	.035	.035
Rubber, Para.....	do.....	.807	.353	.164	.193	.163
Soap, laundry.....	100 bars.....	3.528	7.056	5.390	4.900	4.900
Starch, laundry.....	Pound.....	.037	.093	.071	.051	.051
Wood pulp.....	100 pounds.....	2.225	8.250	3.438	2.545	2.525

RELATIVE PRICES.

Article.	1913	July.		1922	
		1920	1921	Jan.	Feb.
FOODSTUFFS.					
(a) Animal.					
Cattle, steers.....	100	180.8	98.8	95.8	101.5
Beef, fresh.....	100	196.9	115.1	118.8	112.0
Beef, salt.....	100	95.8	68.7	70.8	74.0
Hogs, heavy.....	100	177.6	116.3	92.8	118.3
Hams, smoked.....	100	226.8	192.5	133.0	160.8
Lard, prime.....	100	173.6	109.5	91.0	107.0
Pork, cured, sides.....	100	162.4	111.1	90.7	105.3
Pork, salt, mess.....	100	161.3	109.0	102.8	110.7
Poultry, live.....	100	199.9	165.5	155.7	163.9
Sheep, ewes.....	100	140.7	62.0	112.2	130.0
Mutton, dressed.....	100	165.9	101.9	117.1	120.1
Butter, creamery.....	100	178.0	124.5	113.1	117.0
Cheese, whole milk.....	100	173.3	119.4	140.8	144.1
Eggs, fresh, firsts.....	100	187.4	126.2	163.0	139.8
Milk, fresh.....	100	196.9	152.4	206.3	199.7
Oleomargarine.....	100	195.3	116.2	116.8	107.7
(b) Vegetable.					
Wheat, No. 1, northern.....	100	324.1	164.7	148.8	174.2
Wheat flour, patent.....	100	298.2	194.2	152.7	174.0

³ No quotation.

CHANGES IN WHOLESALE PRICES.

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WHOLESALE PRICES, JULY, 1920 AND 1921, AND BY MONTHS, 1922, AS COMPARED WITH AVERAGE PRICES IN 1913—Continued.

RELATIVE PRICES—Continued.

Article.	1913	July.		1922	
		1920	1921	Jan.	Feb.
FOODSTUFFS—Concluded.					
(b) Vegetable—Concluded.					
Wheat flour, straights.....	100	322.6	179.2	152.7	174.2
Corn, No. 2, mixed.....	100	247.8	98.2	77.4	91.4
Corn meal.....	100	224.3	84.3	56.9	69.0
Oats, standard.....	100	248.8	98.7	99.7	105.9
Rye, No. 2.....	100	350.9	192.2	127.2	153.0
Rye flour.....	100	373.0	227.1	158.2	198.7
Barley malting.....	100	194.1	103.1	93.1	101.1
Rice, Honduras.....	100	246.6	64.7	97.4	97.4
Potatoes, white.....	100	581.2	241.7	202.2	193.5
Sugar, granulated.....	100	447.3	127.9	112.4	115.2
Coffee, Rio, No. 7.....	100	117.3	58.1	86.5	81.0
Prunes.....	100	251.5	128.7	148.6	156.3
Raisins.....	100	341.0	258.3	206.7	206.7
Tea, Formosa.....	100	147.0	88.6	120.8	120.8
Cottonseed oil.....	100	182.2	118.3	118.1	130.3
TEXTILES AND LEATHER GOODS.					
Cotton, middling.....	100	320.6	96.6	140.0	141.2
Cotton yarn, carded.....	100	316.7	108.9	147.3	141.3
Gingham, Amoskeag.....	100	372.5	166.2	193.9	193.9
Muslin, bleached.....	100	412.4	169.8	181.9	181.9
Print cloth, 27-inch.....	100	411.6	124.3	167.5	163.2
Sheeting, brown.....	100	(*)	136.4	160.3	159.8
Silk, raw, Kansai.....	100	126.6	157.5	185.8	180.4
Wool, scoured, medium.....	100	189.9	102.6	121.6	140.5
Worsted yarn, 2-32s.....	100	225.3	148.1	164.5	167.4
Clay worsted suitings.....	100	392.4	185.6	184.2	180.7
Storm serge, 50-inch.....	100	252.6	157.3	144.9	144.9
Hides, packers'.....	100	160.1	75.5	89.7	87.0
Leather, chrome calf.....	100	324.6	194.7	172.5	172.5
Leather, glazed kid.....	100	409.3	269.6	279.6	279.6
Leather, sole, oak.....	100	200.5	122.6	117.0	117.0
Shoes, men's, calf.....	100	292.3	224.9	216.8	216.8
Shoes, women's, kid.....	100	314.1	226.9	212.7	212.7
Shoes, children's.....	100	296.7	205.4	181.7	181.7
MINERAL AND METAL PRODUCTS.					
Coal, anthracite, chestnut.....	100	179.8	197.6	200.3	200.1
Coal, bituminous, mine run.....	100	272.7	209.1	170.5	163.6
Coke, furnace.....	100	589.2	119.1	112.7	124.5
Copper, electrolytic.....	100	120.8	79.7	86.1	81.9
Copper wire.....	100	137.5	88.8	92.6	91.2
Pig iron, Bessemer.....	100	275.2	133.3	125.8	125.3
Pig iron, foundry.....	100	289.9	138.0	132.8	130.2
Steel billets.....	100	242.4	125.1	108.6	108.6
Tin plate, domestic, coke.....	100	210.8	159.8	133.5	132.4
Pig tin.....	100	109.3	62.0	71.4	68.0
Pig lead.....	100	195.5	100.0	106.8	106.8
Wire, barbed, fence.....	100	204.4	166.4	152.9	149.6
Zinc, slab.....	100	141.2	82.2	86.8	83.4
Petroleum, crude, Pennsylvania.....	100	249.0	91.8	134.7	132.7
Petroleum, crude, K-O.....	100	374.6	107.0	240.8	240.8
Petroleum, refined, w. w.....	100	210.9	178.4	176.4	170.3
Gasoline, motor.....	100	178.3	139.6	156.0	145.6
BUILDING MATERIALS.					
Brick, common.....	100	292.1	223.4	204.0	202.4
Cement, Portland.....	100	200.5	190.2	167.5	165.2
Crushed stone.....	100	216.7	216.7	205.6	200.0
Lime, lump.....	100	270.2	236.9	208.1	206.8
Gravel.....	100	231.0	196.0	193.4	191.5
Hollow tile.....	100	236.9	148.1	128.3	128.3
Sand.....	100	205.7	177.1	167.6	167.6
Glass, plate.....	100	257.6	219.9	157.1	157.1
Glass, window.....	100	295.2	231.0	192.5	154.0
Lath, pine.....	100	162.2	109.4	112.6	110.5
Douglas fir, No. 1.....	100	320.4	124.9	124.9	135.8
Hemlock.....	100	228.6	133.1	134.7	134.7
Maple.....	100	434.3	197.8	191.0	191.0
Oak, white, plain.....	100	357.1	138.5	152.2	144.1

* No quotation.

WHOLESALE PRICES, JULY, 1920 AND 1921, AND BY MONTHS, 1922, AS COMPARED WITH AVERAGE PRICES IN 1913—Concluded.

RELATIVE PRICES—Concluded.

Article.	1913	July.		1922	
		1920	1921	Jan.	Feb.
BUILDING MATERIALS—concluded.					
Pine, white.....	100	276.5	250.2	204.0	204.0
Pine, yellow, flooring.....	100	283.6	140.1	181.9	189.0
Pine, yellow, timbers.....	100	293.4	131.9	140.4	136.0
Poplar.....	100	322.4	152.5	164.7	164.7
Spruce.....	100	191.4	131.0	127.4	121.1
Shingles, red cedar.....	100	232.4	123.6	152.0	148.0
Bars, reinforcing.....	100	221.7	152.6	109.0	109.0
Nails, wire, 8-penny.....	100	225.4	160.1	143.0	136.1
Pipe, cast-iron.....	100	326.5	223.8	202.4	202.4
Steel, structural.....	100	205.2	139.0	99.3	99.3
Terne plate.....	100	203.3	174.4	138.4	138.4
Lead, carbonate of.....	100	229.3	190.1	181.2	181.2
Linseed oil, raw.....	100	328.9	161.0	155.8	176.9
Turpentine, spirits of.....	100	373.6	143.1	212.4	210.9
Zinc, oxide of.....	100	167.3	134.8	134.8	134.8
Putty.....	100	198.1	198.1	179.2	179.2
CHEMICALS.					
Acid, muriatic.....	100	173.1	92.3	107.7	99.2
Acid, sulphuric.....	100	114.0	90.0	80.0	80.0
Alcohol, denatured.....	100	303.4	96.2	105.2	95.0
Alcohol, grain.....	100	(³)	188.1	188.1	188.1
Borax.....	100	220.0	153.3	146.7	146.7
Glycerine.....	100	143.6	75.9	83.1	83.7
Soda, ash.....	100	668.6	423.5	349.3	330.0
Soda, caustic.....	100	412.3	256.8	247.3	238.4
Sulphur, crude.....	100	90.9	68.2	68.2	63.6
Tallow.....	100	172.6	78.9	92.8	92.8
Acid phosphate.....	100	272.9	150.7	130.1	128.5
Ammonia, sulphate of.....	100	206.3	70.7	86.7	91.2
Phosphate rock.....	100	322.7	146.7	95.4	95.4
Soda, nitrate of.....	100	155.9	91.9	95.2	97.5
HOUSE-FURNISHING GOODS.					
Carpets, Axminster.....	100	311.7	225.8	207.9	207.9
Bed, combination.....	100	293.3	165.6	165.6	165.6
Davenport.....	100	204.4	176.8	178.3	178.3
Dresser.....	100	247.2	150.0	150.0	150.0
Chairs, dining.....	100	370.0	210.0	210.0	210.0
Table, dining.....	100	313.5	183.8	183.8	181.1
Plates, white, granite.....	100	272.0	272.0	211.5	211.5
Teacups and saucers, white, granite.....	100	284.1	284.1	221.0	221.0
Tumblers, glass.....	100	266.7	212.5	166.7	166.7
Knives and forks.....	100	252.2	234.8	208.7	208.7
MISCELLANEOUS.					
Jute, raw.....	100	142.0	74.7	82.2	78.5
Lubricating oil.....	100	318.6	154.4	161.4	161.4
Mill-feed middlings.....	100	277.0	70.8	104.1	130.5
Paper, newsprint.....	100	278.0	256.7	169.2	169.2
Rubber, Para.....	100	43.8	20.3	23.9	20.2
Soap, laundry.....	100	200.0	152.8	138.9	138.9
Starch, laundry.....	100	253.4	193.1	140.5	140.5
Wood pulp.....	100	370.8	154.5	114.4	113.5

³ No quotation.

Efficiency in Retail Distribution.

THE excessive cost to the public of a large number of small grocery stores, some them inefficiently managed, was shown by a survey¹ in Madison, Wis., of retailing conditions in that city, where it was found there was one grocery store for every 280 inhabitants. Too many stores, therefore, rather than profiteer-

¹ University of Wisconsin Agricultural Experiment Station. What the retailer does with the consumer's dollar. By Theodore Macklin and P. E. McNall. Madison, 1921. 22 pp.

ing, the report shows, was the cause of the unnecessarily high prices prevailing, as 8 stores out of 36 which gave reliable information operated with deficits ranging from \$200 to \$1,921. The margin of profit barely covered expenses, if at all, in the small stores, while the large stores were able to buy efficiently and to reduce expenses.

Allowing an average income of \$2,000 per family, it was assumed from the population, about 45,000, that the value of foods sold by the 160 stores of the city was about \$6,840,000, and as a matter of fact 79 stores, practically one-half of those in the city, sold goods amounting to nearly one-half of that sum. It was found that a very high proportion of the retail stores were small, as almost four-fifths of the stores sold less than \$50,000 worth of goods annually. On the other hand, 5 of the 79 stores included in the survey handled one-third of the aggregate sales, while 16 of the stores sold more than one-half of the total amount.

The price paid for goods by the retailers accounted for, on an average, 84 or 85 cents out of the consumer's dollar, the balance of 15 or 16 cents on each dollar of sales covering operating costs and profits. Of this amount the costs, including labor, rent, bad accounts, delivery, and miscellaneous expenses took from 11.7 cents to 12.3 cents, while the actual profit averaged from 2.5 cents to 4.5 cents on each dollar paid by consumers.

Although in the small stores members of the storekeeper's family usually give their help without pay while the large stores pay cash for all labor, the costs showed a decided tendency to decrease per dollar of sales in proportion as the volume of sales increased in size. The cost of labor is the largest single item in the operating costs of retail food stores. During the period under consideration it cost from 4.1 cents to 6.8 cents out of each dollar paid by consumers. Delivery costs ranged from 2.2 cents to 2.5 cents per dollar, rent from 1.2 cents to 3.5 cents, the expense being relatively higher for small stores, and miscellaneous expenses amounted to from 1.7 cents to 6.7 cents.

The retail food business in Madison was found to be strictly competitive and those retailers who lost money and those who made the highest profits sold goods of the same quality for practically the same prices. The larger operating costs and the inefficient buying of the smaller stores, however, were the principal factors in maintaining prices at high levels.

Improvement in the retailing system which is dependent upon consolidation or elimination can not be expected to be effected by the retailers themselves and the measures advocated by the report are stimulation of competition between efficient concerns either through cooperative organizations or by municipal control. If cooperation should not prove feasible and if it proved impossible to induce consumers to concentrate their patronage on the more efficient stores as a last resort, the report says:

Some form of municipal commission working with State marketing officials might be developed to investigate and place before the public facts which indicate the conditions of retailing in respective localities. New enterprises could be required to show reasons why they should be licensed for entrance into retailing business. All concerns which were in business and failed to furnish efficient retail services to the public could be closed by revocation of licenses. This, however, represents a step which progressive retailers should attempt to avoid by seeing to it that other less radical measures are effectively applied to improve or remove present inefficiency in the retailing of food.

Per Capita Consumption of Meat and Lard in the United States.

ACCORDING to a statement, dated March 6, 1922, issued by the United States Department of Agriculture, the per capita consumption of dressed meats of various kinds increased during the period 1917 to 1921 from 131.8 pounds to 144.8 pounds per year. While the per capita consumption of beef decreased from 62 to 57.7 pounds, that of veal, mutton, and lamb increased slightly and that of pork increased from 58.4 to 72.8 pounds per year.

The table below shows for each kind of meat and for lard the estimated annual consumption per person from 1917 to 1921:

ESTIMATED ANNUAL PER CAPITA CONSUMPTION OF DRESSED MEAT AND OF LARD IN THE UNITED STATES, 1917 TO 1921.

Kind of meat.	Estimated annual per capita consumption (in pounds) in—				
	1917	1918	1919	1920	1921
Beef.....	62.0	64.7	57.2	61.1	57.7
Veal.....	6.5	7.6	8.2	8.9	8.0
Mutton and lamb.....	4.7	4.7	5.8	5.0	6.3
Goat meat.....	.2	.1	.1	.1	.....
Pork.....	58.4	69.8	67.1	68.9	72.8
Total.....	131.8	146.9	138.4	144.0	144.8
Lard.....	11.7	14.1	12.4	13.1	11.3
Grand total.....	143.5	161.0	150.8	157.1	156.1

It is stated by the department that the Englishman consumes on the average relatively about seven times as much mutton and lamb as the American, while the Frenchman consumes nearly four times as much.

Operating Expenses and Profits in the Retail Meat Trade.

A PRELIMINARY report¹ has been issued by the Bureau of Markets and Crop Estimates of the United States Department of Agriculture giving the results of a survey made to determine the operating expenses and the profits made in 1919 in the selling of meat at retail. A complete canvass was made of 30 representative cities and villages with a total population of 2,884,683 and a partial canvass was made of 6 additional large cities. In the cities and villages completely canvassed, 3,507 stores retailing fresh meats were found, an average of one store for every 823 inhabitants. This count includes stores selling both groceries and fresh meats, as well as those selling meats only, but does not include those grocery stores selling cured meats only, since substantially all grocery stores would then be included.

Not more than 10 or 15 per cent of the straight meat markets were found to have complete records but 214 sets of records were obtained which were sufficiently complete to be susceptible of minute analysis. The total sales of these for the year 1919 amounted to \$24,646,586.91. In addition, similar information was obtained

¹ U. S. Department of Agriculture. Bureau of Markets and Crop Estimates. Survey of the retail meat trade, operating expenses and profits. Preliminary report, January, 1922. Mimeographed.

from 17 chain systems with 216 branch stores and total sales of meats of \$18,425,345.81 which could be analyzed, by branch stores, in the same detail, these branch stores being distributed still more widely than the individual concerns canvassed. Accounting information was obtained from a number of additional concerns which could be grouped and summarized.

The data collected regarding operating expenses have been summarized and analyzed in detail in several different ways. The more important groupings are (1) by types of stores, as individual meat markets and chain stores (2) by classes of service performed, as delivery and nondelivery, and (3) by size of stores, as shown by their annual sales. The chief items of information appearing under these methods of grouping are now available.

As was to be expected the larger stores were found to have much better accounting records than the smaller ones, and the percentage of stores from which accounting data were collected is much larger among those with large annual sales than among those with smaller sales. Since, therefore, a simple average either by number of stores or by total sales of the stores from which data were collected would not be fairly representative, a careful system of weighting of the results was worked out. By a complete canvass of the trade the comparative numbers of smaller stores and larger stores were determined as well as the approximate comparative amounts of meats sold in larger stores and in smaller stores. The data collected by the general canvass furnished a basis for weighting the accounting figures in such way as to give the smaller stores their correct weight in making up the general averages.

There being variations in the different items of operating expenses and also in net profits between the different sections of the country, a system of weighting was also used for combining the results by sections into the general average for the entire country. In general the results were first tabulated, for each of the four sections included, by class of service rendered and by size of stores. These results were then combined for the entire country, giving to the results from each section a weight corresponding to the population of that section.

Since the ordinary small meat market is operated by its owner, an allowance for his salary as distinct from his profit had to be made, and this was done, the amount so allowed being proportioned to the annual sales of the establishment.

The following table shows the operating expenses and profits in each type of store:

OPERATING EXPENSES AND PROFITS IN INDIVIDUAL MEAT MARKETS AND CHAIN STORE SYSTEMS, 1919.

Group.	Number of stores.	Per cent of total sales chargeable to—								
		Cost of goods.	Gross profit.	Net profit.	Expenses.					
					Rent.	Refrigeration.	Interest.	Salaries and wages.	Other expenses.	Total expenses.
Individual markets with family trade, having annual sales of—										
Under \$25,000.....	22	79.98	20.02	1.91	1.64	1.10	0.62	10.90	3.85	18.11
\$25,000 to \$50,000.....	57	80.58	19.42	2.01	1.31	.87	.56	11.13	3.54	17.41
\$50,000 to \$100,000.....	63	82.16	17.84	2.51	1.08	.61	.47	9.81	3.36	15.33
\$100,000 to \$200,000.....	36	82.30	17.70	2.15	1.37	.55	.39	9.34	3.90	15.55
Over \$200,000.....	12	82.12	17.88	3.41	1.37	.33	.36	8.62	3.79	14.47
All carry stores.....	70	82.28	17.72	2.25	1.47	.79	.45	9.85	2.91	15.47
All delivery stores.....	120	80.57	19.43	2.13	1.25	.79	.56	10.68	4.02	17.30
Total.....	190	81.14	18.86	2.17	1.33	.79	.52	10.40	3.65	16.69
Chain stores:										
12 carry systems.....	187	81.42	18.58	3.38	1.27	.59	.44	8.72	4.18	15.20
5 delivery systems.....	29	79.57	20.43	3.47	1.45	.77	.42	9.84	4.48	16.96
Total.....	216	81.14	18.86	3.39	1.29	.62	.43	8.89	4.24	15.47
Individual markets and chain systems combined.....	406	81.14	18.86	2.29	1.33	.77	.51	10.25	3.71	16.57
Stores with large restaurant trade.....	24	84.87	15.13	2.95	.73	.29	.58	6.86	3.72	12.18

In the table below is shown for the delivery establishments the per cent of sales absorbed by each item of delivery expense:

DELIVERY EXPENSE IN INDIVIDUAL MEAT MARKETS AND CHAIN STORE SYSTEMS.

[Sales=100 per cent.]

Group.	Number of stores.	Delivery expense.		
		Wages.	Other.	Total.
Individual markets with family trade, having annual sales of—				
Under \$25,000.....	12	<i>Per cent.</i> 2.07	<i>Per cent.</i> 0.85	<i>Per cent.</i> 2.92
\$25,000 to \$50,000.....	35	1.90	.85	2.75
\$50,000 to \$100,000.....	39	1.49	1.10	2.59
\$100,000 to \$200,000.....	25	.93	1.23	2.16
Over \$200,000.....	9	.80	1.24	2.04
All delivery stores.....	120	1.64	.98	2.62
Chain stores; 5 delivery systems.....	29	.66	1.19	1.85
Stores with large restaurant trade.....	22	.85	.80	1.65

It was found that among the stores with family trade the gross profits (the spread between cost of goods and sales) were approximately 2 per cent greater for the smallest than for the largest stores, the difference being somewhat greater for delivery than for non-delivery stores. Total operating expenses took approximately 3 per cent more of the returns from sales in the smaller than in the larger stores, and accordingly the net profit on the total business was about 1 per cent greater in the larger than in the smaller stores.

The average margin of gross profits on meat sales of the 17 chain store systems was 18.86 per cent of sales, the same as for the individual meat markets. Since the chain store systems had lower operating costs, particularly in the item of wages, their net profits averaged more than 1 per cent higher than those of the individual meat markets.

The principal element in the difference is wages, since in this one item the general average for the chain stores is about one and one-half per cent lower than for individual markets. The explanation of the lower wage expense is in part the smaller percentage of delivery service and in part the larger average sales per store. It may also be in part due to better organization, particularly for the efficient handling of merchandise in sales over the counter, since the wage expense for chain systems is slightly lower than for individual markets of approximately the same size as chain store branches and offering the same class of service.

In the table below is shown the cost of meat at wholesale and the expense of selling it at retail. This table is based upon a quantity of meat which cost \$100 in 1913.

COST OF MEAT AT WHOLESALE AND EXPENSES OF SELLING SAME AT RETAIL¹

Item.	1913	1919	1920	1921
Cost of meat.....	² \$100.00	² \$192.40	² \$173.70	² \$126.77
Wages.....	\$14.82	\$24.30	\$27.95	\$27.87
Rent.....	\$2.56	\$3.16	\$3.53	\$4.02
Ice and refrigeration.....	\$1.15	\$1.83	\$1.99	\$2.05
Wrappings.....	\$0.74	\$1.81	\$2.26	\$1.40
Heat, light, and power.....	\$0.34	\$0.50	\$0.59	\$0.62
Miscellaneous (including interest).....	\$4.79	\$7.72	\$8.87	\$8.79
Total operating expenses.....	\$24.40	\$39.32	\$45.19	\$44.75
Operating expenses in cents per pound handled.....	³ 3.19	³ 5.13	³ 5.91	³ 5.86
Operating expenses in percentages of cost of meat at wholesale.....	24.40	20.42	26.00	35.29

¹ In computing the figures in this table the data for 1913, 1920, and 1921 are estimated on the basis of the data given in the 1919 column and the data contained in the following table:

Item.	1913	July, 1919.	July, 1920.	July, 1921.
Average wage of meat cutters per hour.....	\$0.3226	\$0.5292	\$0.6087	\$0.6078
Rent (index number).....	100.0	123.4	137.7	157.0
Ice and refrigeration: Ice per 100 pounds.....	\$0.2260	\$0.3590	\$0.3910	\$0.4020
Wrappings: Wrapping paper per pound.....	\$0.0364	\$0.0888	\$0.1107	\$0.0687
Heat, light, and power (index number).....	100	146	172	181

² This represents the total selling price at wholesale in the particular year of a total amount of 764.20 pounds of meat consisting of: Bacon 86.47 pounds, fresh beef 387.39 pounds, mess beef 11.76 pounds, smoked ham 83.03 pounds, lamb 32.24 pounds, mutton 24.05 pounds, mess pork 116.27 pounds, and veal 22.90 pounds.

³ It is to be borne in mind that these figures are only approximate, since bone and other waste are included with some meats and the operations of the dealers usually include a small percentage of other goods in addition to meats. The figures do, however, indicate roughly the trend from year to year.

The above table shows that the 764.2 pounds of meat which in 1913 had cost \$100 at wholesale cost, in 1921, \$126.77, an increase of 26.8 per cent. In the same period the cost of selling this amount of meat at retail had risen 83.4 per cent, or from \$24.40 to \$44.75. It is seen that the increase in the cost of selling was greater, proportionally, than that in the wholesale cost. In 1913 the selling expense formed 24.4 per cent of the amount paid at wholesale for the meat; by 1921 it formed 35.29 per cent.

The following table, computed from the table just given, shows the increase in the items of selling expense from 1913 to 1921 and the per cent that these items formed of the total selling expense in both years:

INCREASE IN ITEMS OF SELLING EXPENSE FROM 1913 TO 1921 AND PER CENT EACH ITEM FORMED OF THE TOTAL IN BOTH YEARS.

Item.	Per cent of increase in 1921 over 1913.	Per cent of total selling expense in—	
		1913	1921
Wages.....	88.1	60.7	62.3
Rent.....	57.0	10.5	9.0
Ice and refrigeration.....	78.3	4.7	4.6
Wrappings.....	89.2	3.0	3.1
Heat, light, and power.....	82.4	1.4	1.4
Miscellaneous.....	83.5	19.6	19.6
Total.....	83.4	100.0	100.0

It is seen that among the items the largest increase (89.2 per cent) took place in the cost of wrappings. Wages came next with an increase of 88.1 per cent, and both heat, light, and power, and miscellaneous expense increased more than 80 per cent. The increase in total selling expense was 83.4 per cent. Wages, which formed 60.7 per cent of the total selling expense in 1913, formed 62.3 per cent in 1921, or 1.6 per cent more. Wrappings, the cost of which had constituted 3 per cent in 1913, rose to 3.1 per cent of the selling expense in 1921. The proportion of the selling expense due to the other items either declined or remained the same.

In addition to the operating expense of 20.42 per cent in 1919, the retail dealer received an average of 2.82 per cent as net profit. It was not possible, the report states, to determine the net profit for 1913 or 1921. For 1913 the dealers do not have the records; for 1921 it would be necessary to examine their books after the close of the year; and there are no data from which a trustworthy estimate can be made as there are in the instance of wages and other operating expenses. The trend of operating expenses is, however, some indication of the trend of gross profits, or the retailer's margin between cost of his goods at wholesale and his selling price at retail.

In the year 1919, according to the report, the percentage relationship of operating expenses to volume of business was probably lower than at any other time. During the war years wholesale prices of meats had risen rapidly, and wages and most other operating expenses of the retailer had risen less rapidly. Since midsummer, 1919, the general trend of wholesale prices of meats has been rapidly downward. The general trend of operating expenses, however, continued rapidly upward from 1919 until 1920 and seems to have declined but little prior to July, 1921. In consequence, the percentage relationship of operating expenses to wholesale prices rose to the figures above stated.

Between July, 1920, and July, 1921, there was a slight decline in operating expenses, and it is probable that the decline has been more rapid in recent months. There have been reports from some localities of a downward trend of wages in the meat trade for some

months past. In other localities reports have been to the effect that no such change has occurred. However, the general trend of wholesale meat prices between July, 1921, and January, 1922, has been downward, and it is entirely possible that the relationship of operating expenses to wholesale prices remains substantially unchanged. It may reasonably be assumed, the report states, that the relationship of 1913 is more nearly normal than that of 1921 and that there will in the near future be a tendency in the direction of the relationship of 1913.

In explaining the relationship of operating expenses to wholesale and retail prices it is pointed out that there is a great deal of waste, bone, and fat for which the retailer receives but little return and that there are certain cuts which must be sold at a lower price per pound than the average price paid for the carcass at wholesale. In consequence some preferred cuts of fresh beef must be sold at prices fully twice as high as the average price paid at wholesale, or in some instances at prices three times as high, particularly if there is a considerable amount of trim before weighing.

Moreover, because of varying demand for the different cuts, there is further variation among dealers selling the same grade of meat with the same amount of trim. One dealer will sell sirloin steak at a higher price than another, while selling plate or shank meat at a lower price, and accordingly obtaining merely the same return on the entire carcass. In consequence, it is not possible by study of price quotations to determine the amount of spread between wholesale and retail prices in the trade generally with the same accuracy that is possible in other lines where the goods sold are better standardized or where supply can be adjusted to demand more closely.

On the basis of the weighted average of the differential between carcass prices at wholesale and prices at retail of five of the principal cuts of fresh beef, the relative differential for recent years as compared with 1913 and relative estimated operating expenses in the retail trade are:

	Relative spread in beef prices.	Operating expenses in retail trade.
1913.....	100	100
1919.....	153	161
1920.....	165	185
1921.....	186	183

The report concludes as follows:

While the data here presented can not be regarded as representative of those dealers who by deceptive advertising or other means succeed in exacting an undue profit, the spread between wholesale prices and retail prices charged by reputable dealers in the years 1919, 1920, and 1921 as compared with 1913 seems to correspond roughly to the change in operating expenses. Accordingly, a diminution of that spread will perhaps depend almost entirely upon a diminution in operating expenses. In those sections where there is a downward trend in operating expenses at the present time, the spread between wholesale and retail prices should be diminishing.

As between stores offering delivery and nondelivery service, fairly definite conclusions may be drawn regarding comparative prices at retail. Since the margin of gross profit or spread between wholesale prices paid and retail prices received by the retailer is approximately 2 per cent greater in delivery than in nondelivery stores, the difference being greater in small stores and less in large stores, it is obvious that in regular meat stores similar in other respects the prices of meats with a delivery service are higher but not greatly higher than in stores where the customer carries away his own purchases.

In small stores, it seems that the spread between wholesale and retail prices is not more than perhaps 2 per cent greater than in large stores. However, it is well known in the trade that small dealers can not purchase on such favorable terms as large dealers, particularly in handling accumulations or job lots which the packer or wholesaler may be finding difficulty in moving. If at prices of 12 to 15 cents per pound at wholesale the larger retailer can buy a side or carcass at a reduction of one-half cent as compared with the small dealer, this lower price is the equivalent of

from 3 to 4 per cent. In some instances the small dealer may be able to meet the prices of the large dealer by utilization of the services of members of his family in operating the store or by faithful attention to business. In most instances perhaps there will necessarily be actual difference in prices which must be compensated for by the small dealer by convenience of location in the residence district, where the consumer may without inconvenience purchase by personal selection or where delivery service may be maintained at times that will meet the requirements of customers.

The competition between the chain store and the individual dealer is a serious problem both to dealer and to customer. While chain stores have higher operating expenses than the larger individual markets, their expenses are lower than those of the smaller concerns with which they come principally into competition. The greater buying power of the chain store is a distinct advantage. The small dealer must meet this advantage by selling over the counter at equally favorable prices and accepting a narrower margin of gross profit or by giving at reasonable prices a credit or delivery service, for neither of which the chain store with its hired manager is well suited.

Cost of Living in Copenhagen, Denmark.

THE regular semiannual report¹ of the statistical office on changes in the cost of living in Copenhagen appears in the *Statistiske Efterretninger* for February 3, 1922.

The budget, which is that of a workingman's family of five persons having a yearly expenditure of 2,000 kroner (\$536, par) in 1914, shows an actual expenditure in January, 1922, of 4,233 kroner (\$1,134.44, par), or an increase of 112 per cent over the prewar prices. The decrease over the six months' period July, 1921, to January, 1922, amounted to about 10 per cent, 25 points on the price index, which was considerably less than the reduction in wholesale prices. In the same period, according to a consular report, the wholesale price index had fallen from 253 to 178, a reduction of 30 per cent.

The following table shows the cost of the budget in January and July, 1921, and January, 1922, as compared with July, 1914:

INDEX NUMBERS OF COST OF FAMILY BUDGET IN COPENHAGEN IN JANUARY, 1921, JULY, 1921, AND JANUARY, 1922.

[July, 1914=100.]

Item.	January, 1921.	July, 1921.	January, 1922.
Foodstuffs.....	276	236	197
Clothes, footwear, and laundry.....	292	248	225
Rent.....	130	141	141
Light and heat.....	578	401	333
Taxes.....	244	301	301
Miscellaneous.....	224	214	206
Total.....	264	237	212

Cost of Living in Paris, France.²

A REPORT of the regional cost-of-living committee of Paris, published January 12, 1922, gives the index numbers of food, clothing, rent, heat and light, and miscellaneous items for three-month periods in 1920 and 1921. The only change in the last quarter of 1921 as compared with the third quarter was in the item of rent, which increased from 121 to 133, making a difference of 2 points in the total.

¹ See MONTHLY LABOR REVIEW, December, 1921, pp. 78-80.

² Revue mensuelle des questions sociales, ouvrières et fiscales, February, 1922, pp. 18, 19.

INDEX NUMBERS OF COST-OF-LIVING BUDGET IN PARIS, FIRST HALF OF 1919 TO 1921, INCLUSIVE.

[First half of 1914=100.]

Period.	Food.	Heat and light.	Rent.	Clothing.	Miscellaneous.	Total.
First half of 1914	100	100	100	100	100	100
First half of 1919	260	164	100	296	228	238
1920.						
First quarter.....	306	200	100	405	356	295
Second quarter.....	344	296	100	485	444	341
Third quarter.....	358	349	100	518	510	363
Fourth quarter.....	389	349	100	445	510	370
1921.						
First quarter.....	350	319	100	398	510	338
Second quarter.....	323	308	110	353	400	307
Third quarter.....	310	306	121	318	400	295
Fourth quarter.....	310	306	133	318	400	297

Retail Prices in Budapest, Hungary.

ACCORDING to a consular report from Budapest, dated January 28, 1922, the cost of living in that city has increased to such a degree that it is practically impossible for the poorer classes of the population to procure for themselves the necessaries of life. It is reported that approximately 20 per cent of the population of the city are underfed.

The following list of retail prices of essential articles quoted in Budapest on January 20, 1922, shows the cost of these articles in crowns. The rate of exchange on January 28, 1922, the date of the report, was unofficially quoted at 690 crowns to the American dollar.

RETAIL PRICES IN BUDAPEST, JANUARY, 1922.

[1 crown at par=20.3 cents; 1 kilogram=2.205 pounds; 1 meter=1.09 yards; 1 liter=1.06 quarts.]

Article.	Unit.	Price.	Article.	Unit.	Price.
<i>Clothing.</i>			<i>Foodstuffs—Concluded.</i>		
Overcoats, ready made...	Each....	<i>Crowns.</i> 6,000-8,000	Cream.....	Liter....	<i>Crowns.</i> 60
Overcoats, to order.....	do.....	12,000-14,000	Milk.....	do.....	18-20
Suits, men's, ready made...	do.....	7,000-10,000	Flour, baking.....	Kilo....	28
Suits, men's, to order.....	do.....	12,000-13,000	Sugar, crystal.....	do.....	90
Suiting, men's.....	Meter.....	750-2,000	Sugar, cube.....	do.....	100
Hats, men's.....	Each.....	500-2,000	Chicory.....	do.....	90-128
Socks.....	Pair.....	120-150	Coffee.....	do.....	280-460
Shirts.....	Each.....	800-1,000	Tea.....	do.....	320-600
Collars.....	do.....	100-120	Beef.....	do.....	84-96
Cuffs.....	Pair.....	140-150	Pork.....	do.....	104
Chemise, cotton.....	Each.....	350	Veal.....	do.....	120
Chemise, linen.....	do.....	1,200	Lard.....	do.....	148
Stockings, cotton, ladies'	Pair.....	200-300	Bacon.....	Kilo....	120
Ladies' underwear, cambric.....	Set.....	2,500-3,000	Carp.....	do.....	140-160
<i>Shoes.</i>			Shad.....	do.....	320
Shoes, ready made.....	Pair.....	1,750-2,500	Goose.....	do.....	130
Shoes, to order.....	do.....	2,000-3,500	Duck.....	do.....	130-140
Rubber overshoes, ladies'	do.....	600	Chicken.....	do.....	130
Rubber overshoes, men's.....	do.....	1,200	Turkey.....	do.....	130
<i>Foodstuffs.</i>			Rabbit.....	do.....	150-160
Butter, cooking.....	Kilo....	200	Flour.....	do.....	38
Butter, creamery.....	do.....	260	<i>Vegetables and fruit.</i>		
Eggs.....	Each....	10	Husked peas.....	do.....	46
			Peas.....	do.....	26
			Beans.....	do.....	18-24
			Rice.....	do.....	54-120

RETAIL PRICES IN BUDAPEST, JANUARY, 1922—Concluded.

Article.	Unit.	Price.	Article.	Unit.	Price.
<i>Vegetables and fruit—Con.</i>			<i>Laundry—Concluded.</i>		
		<i>Crowns.</i>			<i>Crowns.</i>
Turnips.....	Kilo.....	36	Shirt, men's.....	Each.....	20
Garlic.....	do.....	70	Chemise.....	do.....	14
Onions.....	do.....	46	Drawers, ladies'.....	do.....	16
Red beets.....	do.....	20	Drawers, men's.....	do.....	12
Cabbage.....	do.....	26	Bed sheets.....	do.....	14
Potatoes.....	do.....	11	Pillowcases.....	do.....	12
Apples.....	do.....	80-120	Handkerchiefs.....	do.....	2½
Grapes.....	do.....	120-130	Laundry soap.....	Kilo.....	96-120
<i>Laundry.</i>			Washing powder.....	do.....	45
Collars.....	Each.....	3½			
Cuffs.....	Pair.....	7			

Retail Food Prices in Switzerland.

A RECENT consular report gives the prices of certain articles of food in Switzerland which are published periodically by the Swiss Grocers' Union. The figures are based upon current prices in different localities in the country and are given in Swiss francs.

AVERAGE PRICES OF FOODSTUFFS IN SWITZERLAND IN 1913, 1920, 1921, AND 1922.

[1 franc at par=19.3 cents; 1 kilogram=2.2 pounds; 1 liter=1.06 quarts.]

Article.	Unit.	Average prices in—			
		January to July, 1913.	March, 1920.	October, 1921.	January, 1922.
		<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>	<i>Francs.</i>
Flour, wheat.....	Kilogram.....	0.40	0.85	0.75	0.75
Rice.....	do.....	.60	1.60	.90	.80
Oatmeal.....	do.....	.45	1.20	.85	.75
White beans.....	do.....	.60	1.60	.50	.65
Yellow peas.....	do.....	.65	2.00	1.20	1.20
Green peas.....	do.....	.40	2.45	1.30	1.30
Lentils.....	do.....	.60	2.00	1.60	1.50
Lard, foreign.....	do.....	1.80	4.40	2.80	2.40
Olive oil.....	Liter.....	3.50	5.70	4.50	4.50
Honey, native.....	Kilogram.....	2.60	7.00	7.00	7.00
Fresh eggs.....	Each.....	.10	.45	.40	.35
Sugar, granulated.....	Kilogram.....	.60	1.80	1.45	1.20
Milk chocolate.....	do.....		8.00	7.00	7.00
Cocoa, cheapest.....	do.....	4.00	5.00	2.80	2.80
Prunes.....	do.....	.70	2.60	1.60	1.30
Coffee, cheapest.....	do.....	2.40	4.40	2.60	2.60
Soap, hard white.....	350-gram piece.....	.40	1.80	.80	.85

Changes in Wholesale Prices in Switzerland, 1921.

SINCE January 1, 1921, the Swiss economist and statistician, Dr. J. Lorenz, has published monthly in the *Neue Zürcher Zeitung* a series of index numbers of wholesale prices in Switzerland.¹ The 71 commodities included in the general index are divided into three groups: Necessaries of life (foodstuffs, beverages, clothing, housing, fuel, lighting); necessaries for agricultural production (fodder

¹ Die Schweizerischen Grosshandels-Indexzahlen im Jahre 1921 von Dr. J. Lorenz. Separatabdruck aus der *Neuen Zürcher Zeitung*.

stuffs and fertilizers); and raw materials for industrial production (coal, metals, cotton, silk, hides, and leather, miscellaneous). The index numbers for January 1, 1920, January 1, April 1, July 1, October 1, and December 1, 1921, and for January 1, 1922, with July 1, 1914, as base, are shown in the following table:

INDEX NUMBERS OF WHOLESALE PRICES IN SWITZERLAND, 1920-1922.

[July 1, 1914=100.]

Item.	Number of articles.	Jan. 1, 1920.	1921					Jan. 1, 1922.	Per cent of increase or decrease Jan. 1, 1922, over—	
			Jan. 1.	Apr. 1.	July 1.	Oct. 1.	Dec. 1.		Jan. 1, 1920.	Jan. 1, 1921.
Necessaries of life.....	33	308.4	270.4	243.3	214.6	206.1	192.4	189.2	-38.6	-30.0
Foodstuffs and beverages.....	22	289.0	256.0	236.0	223.0	214.0	198.0	192.0	-33.5	-24.9
Animal foodstuffs.....	6	294.0	257.0	236.0	216.0	212.0	204.0	199.0	-32.3	-22.5
Vegetable foodstuffs.....	13	287.0	263.0	242.0	232.0	207.0	172.0	170.0	-40.8	-35.5
Beverages, tobacco, etc.....	3	267.0	226.0	215.0	235.0	252.0	252.0	240.0	-10.1	+5.9
Clothing.....	5	407.0	283.0	242.0	207.0	204.0	193.0	193.0	-52.6	-31.8
Textiles.....	4	436.0	283.0	231.0	188.0	206.0	192.0	192.0	-56.0	-32.2
Shoes.....	1	316.0	285.0	276.0	270.0	197.0	197.0	197.0	-37.7	-30.8
Housing.....	6	275.0	293.0	261.0	202.0	191.0	179.0	179.0	-35.0	-38.8
Building materials.....	3	235.0	244.0	219.0	205.0	187.0	181.0	181.0	-23.2	-25.9
Fuel and light.....	3	347.0	380.0	337.0	197.0	197.0	176.0	176.0	-49.3	-53.7
Necessaries for agricultural production.....	12	329.0	188.9	155.4	141.2	156.3	158.7	154.6	-53.0	-18.1
Fodderstuffs.....	4	348.0	184.0	152.0	134.0	153.0	156.0	153.0	-56.0	-16.7
Fertilizers.....	8	242.0	212.0	170.0	176.0	171.0	170.0	160.0	-33.7	-24.3
Raw materials for industrial production.....	26	356.5	222.0	191.2	144.0	166.3	166.6	169.6	-52.4	-23.6
Minerals.....	11	382.0	315.0	289.0	170.0	149.0	151.0	148.0	-61.4	-53.1
Industrial coal.....	4	596.0	655.0	655.0	263.0	246.0	240.0	230.0	-61.3	-64.8
Metals.....	7	297.0	179.0	142.0	132.0	110.0	115.0	115.0	-61.4	-35.8
Pig iron.....	3	395.0	216.0	156.0	144.0	112.0	119.0	119.0	-70.0	-45.0
Textile raw materials and leather.....	6	340.0	159.0	126.0	121.0	171.0	170.0	177.0	-48.0	+11.1
Cotton and cotton yarn.....	4	417.0	178.0	135.0	116.0	198.0	168.0	166.0	-60.2	-6.7
Silk.....	2	298.0	149.0	118.0	126.0	167.0	189.0	211.0	-29.4	+41.2
Hides and leather.....	1	155.0	140.0	127.0	111.0	120.0	116.0	115.0	-25.4	-17.7
Miscellaneous.....	9	371.0	324.0	291.0	242.0	235.0	236.0	234.0	-37.1	-28.0
Total, all groups.....	71	325.6	237.9	208.3	178.6	183.7	177.5	175.6	-46.1	-26.2

The trend of wholesale prices in Switzerland during the year 1921 may be characterized as follows: The first quarter witnessed an unmistakable but still hesitating downward tendency of the price curve. The second quarter began with a rapid fall of prices, especially of coal. In the third quarter the downward movement continued but became rather slow, the price curve reaching its lowest point for 1921 in August. The last quarter began with an upward movement of prices which was not entirely offset by the decreases during November and December. Not until the beginning of 1922 did the general index fall below the low point of 1921.

WAGES AND HOURS OF LABOR.

Average Daily and Monthly Wage Rates of Railroad Employees On Class 1 Carriers, 1917 to 1921.

THE United States Railroad Labor Board has issued a report under the above title. The introduction starts with the following statement:

So many statements have been compiled and published, presumably for the purpose of indicating wage increases accruing to railroad employees, that the board has decided to place in the hands of the public the following statement. This statement is based upon the best information that is now available or that will be available until such time as a comparison can be made of the data now being rendered under the 148 reporting divisions contained in the revised classification.¹

This statement is not intended to show or reflect the total effect of wage increases or wage decreases on operating cost, but will reflect, with reasonable accuracy, the actual average money increases or decreases applying to employees in the respective classes since December, 1917, when the railroads were, as a war necessity, taken over and operated by the Government, including the increases established by Decision No. 2, issued July 20, 1920, by the United States Railroad Labor Board and retroactive to May 1, 1920, also the decrease authorized by Decision No. 147, issued June 1, 1921, by the United States Railroad Labor Board and made effective July 1, 1921. The basis of computation covers straight time only with the exception of train and engine service employees.

Railroad employees are paid on different bases, by the hour, day, week, month, or mile. There are also some allowances, arbitraries, and guarantees, especially in the road, train, and engine service.

Whatever the basis of payment, all rates have been reduced to equivalent daily and monthly rates or earnings in the table that forms the substance of the report. Several pages are devoted to an explanation of the method of compilation.

Hours of labor per day and days per month are not given in connection with the daily and monthly rates. It should be borne in mind that hours differ as between the several occupations and as between the different years within the occupation.

The table is here reproduced in part. The columns of the original tables not printed here show the amount and per cent of change from date to date and the approximate amount of change in the total annual pay rolls of the road.

¹ This relates to the new occupational classification, in which there are 148 classes.

DAILY AND MONTHLY WAGE RATES OF RAILROAD EMPLOYEES ON CLASS 1 CARRIERS, AS OF DECEMBER, 1917, AS ESTABLISHED BY THE U. S. RAILROAD ADMINISTRATION, AND AS UNDER DECISIONS NOS. 2 AND 147 OF THE U. S. RAILROAD LABOR BOARD.

Class of employees.	Number of employees (reports of U. S. Railroad Administration) (estimated in part).	Average daily rates.				Average monthly rates.			
		December, 1917.	U. S. Railroad Administration, January, 1920.	U. S. Railroad Labor Board decisions.		December, 1917.	U. S. Railroad Administration, January, 1920.	U. S. Railroad Labor Board decisions.	
				No. 2, effective May 1, 1920.	No. 147, effective July 1, 1921.			No. 2, effective May 1, 1920.	No. 147, effective July 1, 1921.
<i>Group I.—Supervisory forces.</i>									
Yardmasters.....	3,913	\$5.81	\$8.06	\$9.15	\$8.57	\$151.12	\$239.38	\$269.98	\$253.66
Yardmasters' assistants.....	3,222	5.40	7.07	8.16	7.58	143.45	208.65	239.25	222.93
Train dispatchers and directors.....	5,499	4.74	7.49	8.51	7.88	149.76	236.32	262.84	246.52
Total.....	12,634	5.24	7.56	8.62	8.02	148.57	230.21	259.03	242.71
<i>Group II.—Clerical and station forces.</i>									
Supervisory clerks and clerks with experience of 2 years or more.....	163,867	3.04	4.36	5.40	4.92	77.52	111.18	137.70	125.46
Clerks with experience of 1 year and less than 2.....	48,068	2.47	3.79	4.83	3.79	62.98	96.64	123.16	96.64
Clerks with less than 1 year's experience.....	6,555	2.11	3.43	3.95	3.43	53.81	87.47	100.73	87.47
Train and engine crew callers, train announcers, gatemen, and baggage and parcel room employees.....	11,756	1.95	3.05	4.09	3.29	49.72	77.78	104.30	83.90
Office boys, messengers, chore boys, and others under 18 years of age filling similar positions.....	19,015	1.41	2.57	2.97	2.57	35.95	65.53	75.73	65.53
Janitors, elevator and telephone switchboard operators, watchmen, employees assorting waybills, etc.....	17,632	2.23	3.33	4.13	3.33	56.86	84.92	105.32	84.92
Freight handlers and truckers.....	76,415	2.23	3.33	4.29	3.81	56.86	84.92	109.40	97.16
Sealers, scalars, and fruit and perishable inspectors.....	4,702	2.23	3.33	4.37	3.89	56.86	84.92	111.44	99.20
Stowers or stevedores, callers or loaders, locators or coopers.....	7,057	2.23	3.33	4.45	3.97	56.86	84.92	113.48	101.24
Total.....	346,067	2.61	3.85	4.83	4.25	66.56	98.18	123.17	108.38
<i>Group III.—M. of W. and unskilled labor.</i>									
Maintenance of way and structures foremen.....	8,101	3.44	5.33	6.53	5.73	87.72	135.86	166.46	146.06
Section foremen.....	40,610	2.53	3.94	5.14	4.34	64.51	100.57	131.17	110.77
Masons and bricklayers.....	1,175	3.25	4.75	5.95	5.15	82.87	121.18	151.78	131.38
Masons' and bricklayers' helpers.....	392	2.24	3.44	4.12	3.52	57.12	87.72	105.06	89.76
Painters.....	2,561	3.47	4.93	6.13	5.33	88.49	125.66	156.26	135.86
Carpenters.....	30,194	3.22	4.63	5.83	5.03	82.11	118.12	148.72	128.32
Structural iron workers.....	631	3.58	5.44	6.64	5.84	91.29	138.72	169.32	148.92
Section men.....	275,352	1.93	3.02	3.70	3.02	49.21	77.11	94.45	77.11
Other unskilled laborers.....	108,977	2.24	3.27	3.95	3.27	57.12	83.44	100.78	83.44
Foremen, construction gangs and work trains.....	1,913	3.09	4.50	5.70	4.90	78.80	114.65	145.25	124.85
Other employees, construction gang and work trains.....	28,760	2.06	3.17	3.85	3.17	52.53	80.78	98.12	80.78
Crossing flagmen and gatemen.....	22,572	1.64	2.65	3.33	2.65	41.82	67.52	84.86	67.52
Drawbridge operators.....	1,610	1.95	3.24	3.92	3.24	49.75	82.62	99.96	82.62
Engine-house men.....	62,777	2.18	3.36	4.16	3.36	55.59	85.68	106.08	85.68
Total.....	585,625	2.15	3.29	4.06	3.35	54.92	84.08	103.53	85.43

DAILY AND MONTHLY WAGE RATES OF RAILROAD EMPLOYEES ON CLASS 1 CARRIERS, AS OF DECEMBER, 1917, AS ESTABLISHED BY THE U. S. RAILROAD ADMINISTRATION, AND AS UNDER DECISIONS NOS. 2 AND 147 OF THE U. S. RAILROAD LABOR BOARD—Continued.

Class of employees.	Number of employees (reports of U. S. Railroad Administration) (estimated in part).	Average daily rates.				Average monthly rates.			
		December, 1917.	U. S. Railroad Administration, January, 1920.	U. S. Railroad Labor Board decisions.		December, 1917.	U. S. Railroad Administration, January, 1920.	U. S. Railroad Labor Board decisions.	
				No. 2, effective May 1, 1920.	No. 147, effective July 1, 1921.			No. 2, effective May 1, 1920.	No. 147, effective July 1, 1921.
<i>Group IV.—Shop employees.</i>									
Gang and other foremen:									
Hourly.....	9,891	\$4.05	\$5.97	\$7.01	\$6.37	\$103.28	\$152.23	\$178.75	\$162.43
Monthly.....	16,558	4.97	8.73	9.77	9.13	126.73	222.73	249.25	232.93
Machinists (journeymen).....	56,383	4.80	5.78	6.82	6.18	122.38	147.49	174.01	157.69
Machinists (less than 4 years' experience).....	8,246	2.33	4.60	5.64	5.00	84.91	117.30	143.82	127.50
Boiler makers (journeymen).....	18,018	4.71	5.85	6.89	6.25	120.06	149.12	175.64	159.32
Boiler makers (less than 4 years' experience).....	3,148	3.46	4.62	5.66	5.02	88.42	117.71	144.23	127.91
Blacksmiths (journeymen).....	9,957	4.95	5.88	6.92	6.28	126.14	149.94	176.46	160.14
Blacksmiths (less than 4 years' experience).....	824	3.63	4.64	5.68	5.04	92.59	118.32	144.84	128.52
Sheet metal workers (journeymen).....	11,165	4.40	5.77	6.81	6.17	112.21	147.08	173.60	157.28
Sheet metal workers (less than 4 years' experience).....	1,462	3.19	4.67	5.71	5.07	81.47	119.14	145.66	129.34
Electrical workers (journeymen).....	12,973	4.15	5.71	6.75	6.11	105.94	145.65	172.17	155.85
Electrical workers (less than 4 years' experience).....	4,030	3.22	4.53	5.57	4.93	82.11	115.46	141.98	125.66
Carmen.....	147,782	3.58	5.44	6.48	5.84	91.35	138.74	165.26	148.94
Carmen (less than 4 years' experience).....	12,603	2.68	4.30	5.34	4.70	68.29	109.75	136.27	119.95
Molders (journeymen).....	1,287	4.88	5.76	6.80	6.16	124.40	146.88	173.40	157.08
Molders (less than 4 years' experience).....	190	3.14	4.58	5.62	4.98	80.28	116.69	143.21	126.89
Total mechanics and foremen.....	314,517	3.85	5.59	6.63	5.99	98.11	142.60	169.12	152.80
Helpers, all crafts.....	111,038	2.85	3.96	5.00	4.36	72.70	100.98	127.50	111.18
Helper apprentices.....	6,802	3.11	4.06	5.10	4.46	79.34	103.63	130.15	113.83
Regular apprentices.....	12,692	1.84	2.76	3.80	3.16	46.97	70.38	96.90	80.58
Car cleaners.....	10,727	.....	3.60	4.00	3.18	.....	91.80	102.00	81.09
Total.....	455,776	3.52	5.05	6.07	5.425	89.87	128.64	154.78	138.35
<i>Group V.—Telegraphers, telephoners, etc.</i>									
Telegraphers, telephoners, and block operators.....	21,268	2.78	4.50	5.30	4.82	70.89	114.75	135.15	122.91
Telegraphers-telephoners operating interlockers.....	7,942	2.91	4.67	5.47	4.99	74.20	119.08	139.48	127.24
Levermen, nontelegraphers.....	3,841	2.35	4.16	4.96	4.48	59.92	106.08	126.48	114.24
Telegrapher, clerks.....	11,593	2.40	4.39	5.19	4.71	61.20	111.95	132.35	120.11
Agent, telegraphers.....	19,081	2.50	4.61	5.41	4.93	63.75	117.55	137.95	125.71
Station agent, nontelegraphers.....	9,921	2.81	4.67	5.47	4.99	71.65	119.08	139.48	127.24
Station agents (small nontelegraph station).....	4,000	2.81	4.67	5.07	4.67	71.65	119.08	129.28	119.08
Total.....	77,646	2.65	4.54	5.32	4.85	67.62	115.81	135.68	123.55
<i>Group VI.—Engine-service employees.</i>									
Passenger engineers and motormen.....	12,350	4.39	5.68	6.48	6.00	185.93	253.13	288.82	267.31
Passenger firemen and helpers.....	12,068	2.68	4.18	4.98	4.50	112.83	184.26	219.45	198.45
Freight engineers and motormen, through.....	20,759	5.18	6.65	7.69	7.05	.....	.....	.....	.....
Freight engineers and motormen, local.....	9,458	5.38	7.04	8.08	7.44	175.64	239.16	275.99	253.27

DAILY AND MONTHLY WAGE RATES OF RAILROAD EMPLOYEES ON CLASS 1 CARRIERS, AS OF DECEMBER, 1917, AS ESTABLISHED BY THE U. S. RAILROAD ADMINISTRATION, AND AS UNDER DECISIONS NOS. 2 AND 147 OF THE U. S. RAILROAD LABOR BOARD—Concluded.

Class of employees.	Number of employees (reports of U. S. Railroad Administration (estimated in part)).	Average daily rates.				Average monthly rates.			
		December, 1917.	U. S. Railroad Administration, January, 1920.	U. S. Railroad Labor Board decisions.		December, 1917.	U. S. Railroad Administration, January, 1920.	U. S. Railroad Labor Board decisions.	
				No. 2, effective May 1, 1920.	No. 147, effective July 1, 1921.			No. 2, effective May 1, 1920.	No. 147, effective July 1, 1921.
<i>Group VI.—Engine-service employees—Continued.</i>									
Freight firemen and helpers, through.....	22,332	\$3.38	\$4.85	\$5.89	\$5.25				
Freight firemen and helpers, local.....	9,987	3.36	4.98	6.02	5.38	\$106.11	\$166.84	\$202.38	\$180.52
Yard engineers and motormen.....	19,417	4.27	5.71	7.15	6.51	119.56	159.88	200.17	182.26
Yard firemen and helpers.....	19,807	2.66	4.23	5.67	5.03	74.48	118.44	158.71	149.83
Hostlers.....	8,285	2.65	4.35	5.79	5.15	80.56	132.24	176.01	155.57
Hostler helpers.....	2,489	2.50	3.60	5.04	4.40	76.00	109.44	153.22	133.74
Total.....	136,952	3.78	5.28	6.42	5.81	124.48	180.98	218.80	198.19
<i>Group VII.—Train-service employees.</i>									
Passenger conductors.....	10,301	4.45	6.00	7.00	6.40	163.75	220.71	257.74	235.50
Passenger baggagemen.....	5,401	2.75	4.16	5.16	4.56	98.01	138.90	197.04	174.15
Passenger flagmen and brakemen.....	14,859	2.59	4.00	5.00	4.40				
Freight conductors, through.....	15,982	4.08	5.40	6.44	5.80	91.10	147.07	183.84	161.78
Freight conductors, local.....	8,644	4.47	5.92	6.96	6.32	154.56	208.87	247.72	223.91
Freight brakemen and flagmen, through.....	37,212	2.75	4.08	5.12	4.48				
Freight brakemen and flagmen, local.....	23,692	3.00	4.48	5.52	4.88	109.17	156.28	194.72	170.97
Yard foremen.....	19,123	3.77	5.34	6.96	6.32	105.56	149.52	194.88	177.03
Yard helpers.....	48,660	3.42	5.01	6.48	5.84	95.76	140.28	181.44	163.57
Switch tenders.....	6,031	2.62	4.00	5.04	4.40	79.65	121.60	153.22	133.76
Total.....	189,905	3.32	4.79	5.98	5.35	108.66	160.07	199.52	178.24
<i>Stationary engineers, firemen, etc.</i>									
Stationary engineers (steam).....	1,500	2.18	4.51	5.55	4.91	55.59	115.00	141.52	125.20
Stationary firemen (steam).....	4,000	2.18	3.73	4.77	4.13	55.59	95.00	121.52	105.20
Boiler room water tenders.....	1,000	2.18	3.36	4.16	3.68	55.59	85.68	106.08	93.84
Engine room oilers.....	1,000	2.18	3.73	4.77	4.13	55.59	95.00	121.52	105.20
Coal passers, boiler room.....	500	2.18	3.36	4.16	3.68	55.59	85.68	106.08	93.84
Total.....	8,000	2.18	3.81	4.80	4.19	55.59	97.00	122.40	106.89
<i>Signal department employees.</i>									
Signal foremen, signal inspectors.....	500	4.20	6.00	7.04	6.40	107.10	153.00	179.52	163.20
Assistant foremen.....	500	4.00	6.00	7.04	6.40	102.00	153.00	179.52	163.20
Leading maintainers, gang foremen, and leading signalmen.....	2,000	4.00	6.00	7.04	6.40	102.00	153.00	179.52	163.20
Signalmen, signal maintainers.....	7,500	3.36	5.34	6.38	5.74	85.68	136.13	162.65	146.33
Assistant signalmen, assistant signal maintainers.....	2,000	3.00	4.40	5.44	4.80	76.50	112.20	138.72	122.40
Helpers.....	2,500	2.50	3.92	4.72	4.24	63.75	99.96	120.36	108.12
Total.....	15,000	3.30	5.11	6.11	5.50	84.15	130.27	155.77	140.17
<i>Marine department employees.</i>									
Masters or captains.....	535	5.97	7.12	8.23	7.49	149.62	186.50	215.47	196.16
Mates or first officers.....	262	3.13	4.74	5.78	5.09	82.30	124.40	151.56	133.45
Pilots.....	37	4.79	6.00	7.11	6.37	131.05	164.38	194.38	174.38
Total.....	834	5.02	6.32	7.41	6.69	127.65	166.01	194.46	175.49
Grand total.....	1,820,439	2.88	4.23	5.19	4.54	78.06	115.78	141.56	124.27

Average Earnings of New York State Factory Workers in January, 1922.

THE average weekly earnings of factory workers in New York State in January, 1922, amounted to \$24.34, according to a statement issued by the New York Department of Labor. This represents a decrease of 43 cents from the average earnings in December, 1921, and of \$3.18 from those of January, 1921. The adoption of part-time schedules and the elimination of overtime that prevailed in some factories before the holidays caused the decrease in average earnings in some industries. Wage rate reductions also were factors causing lower earnings in other industries. Seasonal activity was responsible for some of the increases reported. A very few factories reported slight increases in wage rates which, however, could not offset the numerous reductions reported, ranging from 5 per cent to 30 per cent.

The decrease in average earnings from December to January affected factory workers both in New York City and in the remainder of the State. The reduction amounted to 16 cents in New York City and 67 cents in the rest of the State. The January average weekly earnings for New York City and for the State, exclusive of New York, were \$26.40 and \$23.91, respectively.

Reductions in earnings occurred in the stone, clay, and glass products group of industries, in the wood manufactures group (with the exception of the miscellaneous wood products industries, which showed a gain), in the printing and paper goods group, and in the textiles group (except the silk industry, in which earnings increased). The fur, rubber goods, and leather industries also reported reductions in average earnings for the month.

In the metals and machinery group of industries the average weekly earnings in January, 1922, as compared with December, 1921, showed a reduction of 92 cents; in the chemicals, oils, and paints group a reduction of 43 cents.

Gains were shown in the automobile, clothing, and millinery industries and in the food, beverages, and tobacco group of industries (except in the meat-packing industry where earnings decreased).

Wages and Hours of Labor in Canada.

THE Canadian Department of Labor has recently issued as a supplement to the Labor Gazette for February, 1922, its third report on wages and hours of labor. The following table, taken from the report, shows the index numbers of hourly and weekly wages in certain trades from 1901 to 1921:

INDEX NUMBERS OF HOURLY AND WEEKLY RATES OF WAGES IN CANADA
1901 TO 1921.

[1913=100]

Year.	Building trades, 7 classes.		Metal trades, 5 classes.		Printing trades, 2 classes.		Street railways, 1 class.		Steam rail-ways 6 classes. ¹	Average for—		Factories (com-mon labor): Per hour.	Lum-ber-ing: Per hour.
	Per week.	Per hour.	Per week.	Per hour.	Per week.	Per hour.	Per week.	Per hour.		15 classes Per week.	21 classes Per hour.		
1901...	69.3	60.3	72.8	68.6	66.6	60.0	65.7	64.0	70.8	69.8	64.9	.....	.....
1902...	73.2	64.2	74.2	70.2	68.3	61.6	70.0	68.0	73.6	72.7	67.8	.....	.....
1903...	74.6	67.4	76.2	73.3	69.0	62.6	72.1	71.1	76.7	74.2	70.7	.....	.....
1904...	76.3	69.7	78.9	75.9	72.3	66.1	74.0	73.1	78.6	76.4	73.1	.....	.....
1905...	78.6	73.0	81.3	78.6	74.2	68.5	74.4	73.5	78.9	78.6	75.3	.....	.....
1906...	81.7	76.9	82.4	79.8	75.8	72.2	76.7	75.7	80.2	80.8	77.9	.....	.....
1907...	84.8	80.2	85.0	82.4	79.3	78.4	82.2	81.4	85.5	83.9	81.9	.....	.....
1908...	85.9	81.5	87.3	84.7	81.5	80.5	82.5	81.8	86.7	85.5	83.3	.....	.....
1909...	87.3	83.1	88.6	86.2	83.8	83.4	81.5	81.1	86.7	86.9	84.5	.....	.....
1910...	90.0	86.9	89.5	88.2	88.2	87.8	86.5	85.7	91.2	89.4	88.4	.....	.....
1911...	92.6	90.2	92.2	91.0	91.8	91.6	88.1	88.1	96.4	92.1	91.2	94.9	96.3
1912...	97.4	96.0	95.9	95.3	96.0	96.0	92.3	92.3	98.3	96.4	96.2	98.1	98.8
1913...	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1914...	100.3	100.8	100.4	100.5	102.4	102.4	100.6	101.0	101.7	100.6	101.1	101.0	94.7
1915...	100.5	101.5	101.2	101.5	103.6	103.6	97.4	97.8	101.7	101.0	101.6	101.0	89.1
1916...	101.5	102.4	110.4	106.9	105.8	105.8	102.5	102.2	104.9	110.3	105.2	110.4	109.5
1917...	108.8	109.9	124.0	128.0	111.3	111.3	115.1	114.6	110.1	114.5	114.8	129.2	130.2
1918...	123.8	125.9	146.7	155.2	123.7	123.7	130.3	142.9	133.2	131.6	135.1	152.3	150.5
1919...	142.9	148.2	165.3	180.1	145.5	145.9	150.5	163.3	154.2	151.0	158.0	180.2	169.8
1920...	171.9	180.9	189.3	209.4	181.7	184.0	179.1	194.2	186.6	179.3	190.3	215.3	202.7
1921...	164.0	170.5	166.2	186.8	188.3	193.3	177.9	192.1	165.3	168.8	176.5	190.6	152.6

¹ Per mile, day, etc.

In the table below are shown the rates of wages and hours of labor, as of September, 1921, in certain selected trades and cities:

RATES OF WAGES AND HOURS OF LABOR IN SEPTEMBER, 1921, IN SELECTED TRADES AND CITIES IN CANADA.

Trade.	St. John.		Montreal.		Quebec.		Ottawa.	
	Wages per hour.	Hours per week.	Wages per hour.	Hours per week.	Wages per hour.	Hours per week.	Wages per hour.	Hours per week.
Building:								
Bricklayers.....	\$0.90	44-48	\$0.90	50	\$0.75	54	\$0.90	44
Carpenters.....	.60	48	.65	44-50	\$.52 ¹ -.55	60	.75	44
Electrical workers.....	.....	.....	\$.62 ¹ -.75	42 ¹ -50	.46-.60	50-60	.80	44
Painters.....	.75	44-48	.60-.65	49 ¹ -60	.52-.60	48-54	.65	44
Plumbers.....	\$.45-.65	48-80	.62 ¹ -.75	44-60	.50	54-60	.80	44
Stoncutters.....	.80	48	.75-.80	44-49 ¹	1.60	48	.90	44
Plasterers.....	.90	44-48	.80	44-60	.70	51	.85	44
Builders' laborers.....	\$.33 ¹ -.35	54	.30-.40	44-60	.45	54-60	.50	44-54
Metal:								
Blacksmiths.....	.50-.65	44-50	.50-.70	44-60	.50-.60	49 ¹ -60	\$0.60-.65	40-60
Boilermakers.....	.55-.65	44-50	.50-.60	42 ¹ -60	.65-.70	54	.60-.65	50
Machinists.....	.50-.60	54	.50-.70	42 ¹ -60	.45-.60	49 ¹ -60	.56-.63	44-50
Molders, iron.....	.55-.60	50-54	.65-.75	40-60	.40-.55	48-60	.45-.68	45-54
Pattern makers.....	.....	44 ¹	.70-.80	45-50	.40-.60	49 ¹ -60	.69-.77	44-50
Sheet-metal workers.....	.45-.60	48	.60-.62 ¹	42 ¹ -48	.60	54	1.75	44
Printing: ²								
Compositors, job.....	\$29.35-31.25	48	\$36.00	48	\$26.00	48	\$35.00	44-48
Compositors, news-paper.....	\$30.00-33.00	45-48	\$36.00-40.00	48	\$26.00	48	\$38.00	45
Linotype oper-ators, newspaper.....	\$30.00-35.00	48	\$36.00	48	\$27.00	48	\$38.00	45
Pressmen, cylin-der, job.....	\$27.50-30.00	44	\$36.00-40.00	48	\$23.00	48	\$35.00	44-48
Pressmen, web, newspaper.....	\$30.00	48	\$35.20-40.70	48	\$25.00	48	\$34.00	48
Bookbinders.....	\$32.00	48	\$34.00-42.00	48	\$20.00-26.10	50	.....	.....
Electric railways, light, and power:								
Conductors and motormen.....	1.55	54	.48	60	.45	60	.55	54
Electric linemen.....	1.47-.57	54	.45-.54	48-60	.50-.54	50	.54-.65	48-54
Miscellaneous:								
Chauffeurs.....	\$25.00	54	\$21.00-24.00	50-70	\$25.00-30.00	48-75	\$21.00-26.00	44-77
Teamsters.....	\$19.00-23.00	54-60	\$21.00-22.50	60	\$18.00	60	\$18.00-21.00	44-60

¹ June rate ² Day work only. ³ Per week. ⁴ Per week, June rate. ⁵ Per week, March rate.

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RATES OF WAGES AND HOURS OF LABOR IN SEPTEMBER, 1921, IN SELECTED TRADES AND CITIES IN CANADA—Concluded.

Trade.	Toronto.		Winnipeg.		Calgary.		Vancouver.	
	Wages per hour.	Hours per week.	Wages per hour.	Hours per week.	Wages per hour.	Hours per week.	Wages per hour.	Hours per week.
Building:								
Bricklayers.....	\$1.00	44	\$1.15	44	\$1.15	44	\$1.06½	44
Carpenters.....	.90	44	.90	44	.90	44	.81½	44
Electrical workers.....	\$0.77 - .87½	44	\$0.85½ - .90	44-49	.90	44	\$0.75 - .90	44
Painters.....	.75	44	.81	44	.80	44	.75	44
Plumbers.....	.90	44-48	1.00	44	1.00	44	.90	44
Stonecutters.....	.90	44	1.00	44	1.15	44	1.81½ - 1.06½	44
Plasterers.....	1.00	44	1.07½	44	1.15	44	1.00 - 1.12½	44
Builders' laborers.....	.50 - .60	44-50	.50 - .55	48-60	\$0.40 - .50	49-60	.50 - .62½	44-50
Metal:								
Blacksmiths.....	.60 - .70	48-50½	.65 - .80	44-55	.83 - .85	44	.80	44-55
Boilermakers.....	.60 - .80	44-50	.67½ - .76½	40-50	.80	44	.75 - .78	44
Machinists.....	.60 - .75	44-50	.65 - .72	40-59	.85	44	.67½ - .84	40-50
Molders, iron.....	.60 - .75	44-50	.67½ - .76½	44-50	.85	44	.75	44
Patternmakers.....	.72 - .85	44-48	.74 - .80	50	.85 - .88	44	.76½ - .85	44
Sheet-metal workers.....	.90	44	.60 - .82½	44-50	.90	44	.87½ - .90	44
Printing:²								
Compositors, job.....	\$35.20 - 36.00	44-48	\$36.00 - 44.00	44-48	3 44.00	44	\$39.60 - 40.50	44-48
Compositors, newspaper.....	3 38.00	48	3 48.00	46	3 45.00	45	3 40.50	45
Linotype operators, newspaper.....	3 38.00	48	3 48.00	46	3 45.00	45	3 40.50	45
Pressmen, cylinder, job.....	3 36.00	48	336.00 - 46.00	44-48	3 44.00	44	\$39.60 - 43.50	44-48
Pressmen, web, newspaper.....	3 37.00	48	3 44.00	48	3 35.00 - 45.00	45	3 40.50	48
Bookbinders.....	\$32.64 - 36.00	48	4 39.00	48	3 44.00	44	\$39.60 - 40.50	44-48
Electric railways, light and power:								
Conductors and motormen.....	.60	48	.60	48	{ 5.67½ } { 6.72½ }	48	.65	48
Electric linemen.....	.72 - .78	44	.92½	44	.87½	44-48	.87½	44
Miscellaneous:								
Chauffeurs.....	\$20.00 - 24.50	57-65	\$25.00 - 28.00	48-84	7 25.00 - 30.00	72	3 25.00	44
Teamsters.....	.45 - .50	48-60	\$22.50 - 28.00	48-54	8 90.00 - 100.00	44-60	9 4.00 - 4.50	48-54

1 June rate.
2 Day work only.
3 Per week.

4 Per week, March rate.
5 Two-man cars.
6 One-man cars.

7 Per week, June rate.
8 Per month.
9 Per day.

Trend of Wages in Italy, 1899-1921.

GENERAL wage statistics for the prewar period covering the various industries, occupations, and localities are practically nonexistent in Italy, so it is difficult to determine how much wages have actually increased there during and since the war as compared with prewar times. In spite of this difficulty two Italian statisticians have recently made attempts to determine the extent of this increase. A summary of the results obtained is given below.

Wage Statistics Computed by the National Accident Insurance Fund.

IN AN article, "The wages of workers according to statistics of the National Accident Insurance Fund," in the November, 1921, issue of *Rassegna della Previdenza Sociale*, Carlo Vismara, actuary of this fund (*Cassa Nazionale Infortuni*), which is the principal

carrier of the Italian compulsory industrial accident insurance system, makes the following introductory remarks:

The fact that before the World War the economic-social phenomenon of workers' wages seldom claimed the attention of economists, statisticians, or the Government is easy to understand. The even, normal trend of wages, characterized by a steady but slow upward tendency, left everybody indifferent. When, however, during the war and the years following it, workers' wages increased continuously and in a spectacular manner this apathy became unjustifiable. In Italy this indifference was especially marked, Italian statistics remaining entirely or nearly silent on the subject, as if it were only of secondary interest or of no interest at all. Whenever the National Accident Insurance Fund addressed requests for information on wage statistics to persons or authorities, who, in view of their position, would be supposed to possess ample data, such information was rarely obtained; on the contrary, the answer frequently consisted of a counter request for data.

It is due to the absolute lack of positive data that of late fantastic and contradictory statements have frequently been made as to wages current in Italy, statements based solely on individual superficial impressions. Fabulous wage rates have been quoted in such statements, and it has been asserted that there is no longer a worker in Italy who does not earn at least 1,000 lire [\$193, par] per month. Statistics to refute such off-hand statements were, however, lacking.

In order to shed some light on the trend of wages in Italy during the last two decades, the National Accident Insurance Fund has attempted to determine approximately the average wage of Italian industrial workers for each of the years 1899 to 1921. The wage statistics compiled by the Insurance Fund are based upon data secured by it as to the wages earned by workers injured in accidents and upon applications by employers for insurance, showing the total amount paid out in wages by each employer to the workers to be insured against accident.

The wage statistics of the fund begin with 1899, the first year after the workmen's accident insurance law of March 17, 1898, became effective. In the following table are shown for each year of the period 1899 to 1921 the total amount of wages paid to workers insured with the National Accident Insurance Fund, the average number of workers insured, and the average annual and daily earnings per worker. The average daily earnings per worker are computed in this table from the average annual earnings on the assumption that each worker works 226.4 full working-days per year, this figure having been ascertained from wage statistics for the year 1899 covering 11,130 workers injured in accidents during that year.

AVERAGE ANNUAL AND DAILY EARNINGS OF WORKERS INSURED WITH THE ITALIAN NATIONAL ACCIDENT INSURANCE FUND, 1899 TO 1921.

[1 lira at par=19.3 cents.]

Year.	Total amount of wages received by all insured workers.	Average number of insured workers.	Average annual earnings per worker.	Average daily earnings per worker.
	<i>Lira.</i>		<i>Lira.</i>	<i>Lira.</i>
1899.....	94,120,684	178,439	527.47	2.33
1900.....	111,921,356	202,355	553.09	2.44
1901.....	137,875,468	245,501	561.61	2.48
1902.....	196,175,297	340,256	576.55	2.55
1903.....	245,717,500	421,363	583.15	2.58
1904.....	215,039,291	370,198	580.88	2.57
1905.....	214,443,663	373,570	574.04	2.54
1906.....	242,847,186	406,183	597.88	2.64
1907.....	292,479,857	436,687	669.77	2.96
1908.....	320,094,447	480,988	665.49	2.94

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AVERAGE ANNUAL AND DAILY EARNINGS OF WORKERS INSURED WITH THE ITALIAN NATIONAL ACCIDENT INSURANCE FUND, 1899 TO 1921—Concluded.

Year.	Total amount of wages received by all insured workers.	Average number of insured workers.	Average annual earnings per worker.	Average daily earnings per worker.
	<i>Lire.</i>		<i>Lire</i>	<i>Lire.</i>
1909.....	341,149,156	453,094	752.93	3.33
1910.....	329,835,748	447,283	737.42	3.26
1911.....	357,975,824	479,141	747.12	3.30
1912.....	397,691,019	516,710	769.66	3.40
1913.....	428,569,515	534,736	801.46	3.54
1914.....	529,779,055	662,895	799.19	3.53
1915.....	628,100,195	783,695	801.46	3.54
1916.....	712,661,442	781,093	912.39	4.03
1917.....	754,071,929	679,736	1,109.36	4.90
1918.....	937,195,532	685,360	1,367.45	6.04
1919.....	1,326,170,427	662,628	2,001.38	8.84
1920.....	2,665,774,659	844,059	3,158.28	13.95
1921.....	(1)	(1)	(1)	² 18.91

¹ Data not yet complete.

² Based on wages of workers injured in accidents during the first six months of the year.

From the preceding table it will be seen that from 1899 to 1915 there was gradual, and, with few insignificant exceptions, continuous upward movement of wages in Italy. Beginning with 1915 and up to 1917 this movement became more accelerated and after 1917 the steady rise of wages assumed a phenomenal character. If the average wages for the years 1914 to 1921 are compared with those for 1913 the increase in per cent (decrease in 1914) was as follows:

AVERAGE DAILY WAGES, 1913 TO 1921, AND PER CENT OF INCREASE OVER 1913.

Year.	Average daily wage.	Per cent increase or decrease over 1913.
	<i>Lire.</i> ¹	
1913.....	3.54	.....
1914.....	3.53	² 0.28
1915.....	3.54	.....
1916.....	4.03	13.84
1917.....	4.90	38.42
1918.....	6.04	70.62
1919.....	8.84	149.72
1920.....	13.95	249.07
1921.....	18.91	434.18

¹ One lira at par = 19.3 cents.

² Decrease.

The average wage rates prevailing in each of 37 insurance districts in 1919, 1920, and 1921 are shown in the following table:

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WAGES AND HOURS OF LABOR.

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AVERAGE DAILY EARNINGS OF WORKERS INJURED IN ACCIDENTS, BY INSURANCE DISTRICTS, 1919 TO 1921.

[1 lira at par=19.3 cents.]

Insurance district.	1919	1920	1921 ¹	Insurance district.	1919	1920	1921 ¹
	<i>Lire.</i>	<i>Lire.</i>	<i>Lire.</i>		<i>Lire.</i>	<i>Lire.</i>	<i>Lire.</i>
Turin.....	9.93	15.46	20.66	Chieti.....	7.80	9.01	11.50
Alessandria.....	8.10	12.76	16.91	Aquila.....	8.22	11.43	15.30
Novara.....		12.48	17.04	Benevento.....	6.01	8.67	12.13
Genoa.....	10.35	16.73	22.87	Caserta.....	6.19	9.68	13.91
Milan.....	9.08	14.50	19.90	Naples.....	7.23	10.26	15.34
Bergamo.....	9.35	13.83	17.44	Bari.....	7.70	9.70	12.00
Cremona.....	6.36	13.63	17.53	Lecce.....	7.75	10.30	11.94
Vicenza.....	9.49	13.10	16.59	Potenza.....	6.02	4.40	4.79
Venice.....	11.12	15.07	18.81	Cosenza.....	7.75	10.33	12.66
Udine.....	9.46	14.66	17.29	Reggio di Calabria.....	6.62	9.00	11.45
Padua.....	7.53	11.43	15.62	Palermo.....	6.81	10.16	13.31
Reggio nell' Emilia.....	9.63	14.96	18.52	Catania.....	7.27	10.70	14.40
Bologna.....	10.52	16.23	19.81	Caltanissetta.....	6.54	8.93	10.48
Forli.....	10.04	15.98	20.71	Cagliari.....	7.22	10.25	13.74
Pisa.....	7.95	16.18	23.28	Sassari.....	6.66	10.67	11.10
Florence.....	8.34	15.10	19.87	Tripoli.....	5.24	17.42	11.88
Siena.....	7.09	12.52	15.76	Bengazi.....	14.00	18.76	10.09
Ancona.....	7.15	11.84	14.65				
Perugia.....	6.45	10.32	13.31	Kingdom of Italy.....	8.84	13.95	18.91
Rome.....	8.88	13.05	19.37				

¹ Based on data for the first 6 months.

The preceding table shows that wages vary greatly in the various territorial insurance districts. Wages are highest in the northern and northern central districts, while the lowest wages are being paid in the districts south of Naples, in Sicily, and in Sardinia. In the north African colonies Tripoli and Cyrenaica (Bengazi) wages in 1920 were even higher than in northern Italy, but in 1921 they fell to the low level of southern Italy.

On the basis of the daily earnings of workers injured in accidents, the National Accident Insurance Fund, has also compiled a table showing for the years 1915-1920 the number and per cent of such workers in each classified wage group. This table is reproduced below:

NUMBER AND PER CENT OF WORKERS, INJURED IN ACCIDENTS, IN EACH CLASSIFIED DAILY WAGE GROUP, 1915 TO 1920.

[1 lira at par=19.3 cents.]

Number.

Wage group.	Workers, injured in accidents, in each classified wage group in—					
	1915	1916	1917	1918	1919	1920
0.01 to 1.99 lire.....	15,885	15,059	10,564	4,196	1,698	787
2.00 to 2.99 lire.....	19,616	17,984	14,721	7,674	2,905	1,025
3.00 to 3.99 lire.....	25,842	24,028	17,859	9,531	4,539	1,821
4.00 to 4.99 lire.....	15,682	16,603	17,602	10,629	5,198	2,684
5.00 to 5.99 lire.....	8,584	10,899	14,272	9,751	5,561	2,876
6.00 to 6.99 lire.....	4,135	6,153	10,329	9,202	6,445	3,610
7.00 to 7.99 lire.....	3,470	4,446	6,659	7,741	6,311	3,648
8.00 to 8.99 lire.....	783	2,112	4,699	6,029	7,260	5,266
9.00 to 9.99 lire.....	403	1,400	2,662	3,445	5,338	4,205
10.00 to 10.99 lire.....	264	1,014	1,929	3,628	8,376	7,009
11.00 to 11.99 lire.....	83	531	1,093	1,617	3,821	4,148
12.00 to 12.99 lire.....	67	342	1,005	1,411	5,157	7,397
13.00 to 13.99 lire.....	37	175	597	802	2,677	4,593
14.00 to 14.99 lire.....	31	136	440	680	2,276	5,395
15.00 to 15.99 lire.....	14	76	329	574	1,841	5,279

NUMBER AND PER CENT OF WORKERS, INJURED IN ACCIDENTS, IN EACH CLASSIFIED DAILY WAGE GROUP, 1915 TO 1920—Concluded.

Number.

Wage group.	Workers, injured in accidents, in each classified wage group in—					
	1915	1916	1917	1918	1919	1920
16.00 to 16.99 lire.....	7	53	227	384	1,362	6,179
17.00 to 18.99 lire.....	11	47	163	426	1,564	7,203
19.00 to 20.99 lire.....	3	14	79	230	920	6,844
21.00 to 22.99 lire.....		5	22	125	371	3,571
23.00 to 25.99 lire.....	3	5	13	107	444	4,054
26.00 to 30.99 lire.....		2	6	76	195	2,700
31.00 to 35.99 lire.....		1	3	12	66	961
36.00 to 50.99 lire.....		3	2	13	22	749
51.00 to 124.00 lire.....				1	1	123
Total.....	94,920	101,098	105,275	78,284	74,348	92,127

Per cent.

0.01 to 1.99 lire.....	16.736	14.895	10.034	5.359	2.284	0.854
2.00 to 2.99 lire.....	20.667	17.789	13.984	9.803	3.908	1.113
3.00 to 3.99 lire.....	27.226	23.768	16.965	12.175	6.106	1.977
4.00 to 4.99 lire.....	16.522	16.423	16.721	13.578	6.991	2.913
5.00 to 5.99 lire.....	9.044	10.781	13.557	12.456	7.480	3.122
6.00 to 6.99 lire.....	4.357	6.087	9.812	11.755	8.669	3.919
7.00 to 7.99 lire.....	3.656	4.398	6.326	9.889	8.488	3.960
8.00 to 8.99 lire.....	.825	2.099	4.464	7.702	9.765	5.716
9.00 to 9.99 lire.....	.424	1.385	2.529	4.401	7.180	4.564
10.00 to 10.99 lire.....	.278	1.003	1.832	4.635	11.266	7.608
11.00 to 11.99 lire.....	.087	.525	1.038	2.066	5.139	4.502
12.00 to 12.99 lire.....	.070	.338	.954	1.802	6.936	8.029
13.00 to 13.99 lire.....	.038	.173	.567	1.024	3.600	4.986
14.00 to 14.99 lire.....	.032	.134	.417	.868	3.061	5.856
15.00 to 15.99 lire.....	.014	.075	.312	.733	2.476	5.730
16.00 to 16.99 lire.....	.007	.052	.215	.490	1.832	6.707
17.00 to 18.99 lire.....	.011	.045	.154	.543	2.104	7.819
19.00 to 20.99 lire.....	.003	.014	.075	.294	1.237	7.428
21.00 to 22.99 lire.....		.005	.021	.160	.499	3.876
23.00 to 25.99 lire.....	.003	.005	.012	.137	.597	4.400
26.00 to 30.99 lire.....		.002	.006	.097	.262	2.931
31.00 to 35.99 lire.....		.001	.003	.015	.089	1.043
36.00 to 50.99 lire.....		.003	.002	.017	.030	.813
51.00 to 124.00 lire.....				.001	.001	.134
Total.....	100	100	100	100	100	100

A glance at the preceding table shows that since 1915 the number of workers in the low-wage groups has grown smaller from year to year while that in the medium and high-wage groups has increased gradually. In 1915 the per cent of workers earning less than 5 lire (96.5 cents, par) per day was still 81.151. By 1920 it had dwindled to 6.857 per cent. On the other hand, while the per cent of workers earning daily wages in excess of 21 lire (\$4.05, par) was only 0.003 per cent in 1915 it was 13.197 per cent in 1920. The table also definitely refutes statements frequently made in the press and in public speeches during the war and in post-war times that nearly every Italian worker earns a daily wage of 20 lire (\$3.86, par) or more and that moderate wage rates have disappeared entirely. From the table it is plainly evident that a considerable per cent of the workers still earn wages below 8 lire (\$1.54, par) per day and that the great majority of the workers come within the wage groups ranging from 8 to 21 lire (\$1.54 to \$4.05, par) per day.

Mr. Carlo Vismara, the actuary of the National Accident Insurance Fund, admits that average wage rates determined on the basis of the earnings of workers injured in industrial accidents are open to criticism. In the first place the number of workers injured in accidents, on which the wage statistics discussed here are chiefly based, is much smaller than that of the insured workers. The per cent of injured workers which in 1899 was 6.4 per cent of the insured workers has, however, gradually risen to 19 per cent by 1907, and in 1920 was 15.4 per cent. Secondly, the average wage rates computed by the National Accident Insurance Fund do not cover all the Italian workers because only part of them are insured with that fund, many employers insuring their workers either in trade accident insurance associations or in special funds or in private insurance companies licensed to underwrite industrial accident insurance. A third objection could be made in view of the fact that the accident risk is not the same in all industries and that in many industries certain classes of workers are more subject to accidents than others. Finally, cost-of-living bonuses, which have been paid in many industries during the last few years are not always reported by employers when they report to the insurance fund the wages paid to injured workers. The average wage rates ascertained for the last few years by the fund may, therefore, be considerably lower than the actual earnings of the workers.

In spite of the objections noted above, these statistics are, nevertheless, the most methodically computed general wage statistics existent in Italy to-day.

Wage Statistics Computed by Giustino Madia (Genoa).

THE second effort to determine the trend of wages in Italy was made by Giustino Madia, of Genoa, in an article on "The increase of wages from 1914 to 1921," published in the October and November, 1921, issues of the *Giornale degli Economisti* (Rome). His computation is based on official statistics, wage rates established by collective agreements, and data furnished him by chambers of labor and other labor organizations. The author's method of computing average wage rates is somewhat crude. If, for instance, there are 10 different occupations or wage groups in an industry he simply adds the individual rates current for each occupation or group and divides the sum by 10, regardless of the number of workers in each group.

The statistics in question, which cover the years 1914 to 1921, show, however, in addition to the general average rate of wages also the average rate of wages in the principal industry groups; and, further, compare the nominal average wages with the "real" average wages; that is, with the actual purchasing power of the wages received. For this reason the statistics of Mr. Madia have been reproduced below in spite of the method used in their computation.

In the following table are shown the daily average wage rates in the principal industry groups of Italy for the years 1914 to 1921:

AVERAGE DAILY WAGE RATES IN ITALY, BY INDUSTRY GROUPS, 1914 TO 1921.

[1 lira at par=19.3 cents.]

Wage rates.

Industry group.	1914	1915	1916	1917	1918	1919	1920	1921
	<i>Lire.</i>	<i>Lire.</i>	<i>Lire.</i>	<i>Lire.</i>	<i>Lire.</i>	<i>Lire.</i>	<i>Lire.</i>	<i>Lire.</i>
Mining, quarrying, etc.	3.00	3.35	4.19	6.10	7.83	8.69	11.36	19.50
Iron and steel and metal working	2.51	2.75	3.32	4.73	7.32	13.71	16.25	19.02
Navigation.....	3.75	.....	.....	.....	.....	.....	.....	19.02
Chemical industry.....	3.39	3.55	4.04	5.44	7.58	8.68	11.76	14.76
Textile industry.....	1.63	1.75	2.02	2.39	3.14	5.70	9.30	13.50
Transportation.....	6.75	.....	.....	.....	.....	7.51	12.04	24.75
Building trades.....	3.89	3.39	4.29	5.97	6.65	10.25	15.38	26.00
Printing trades.....	4.84	5.31	5.37	5.85	7.05	14.25	20.54	30.00
Paper industry.....	2.29	2.52	2.49	3.66	4.56	4.73	6.49	16.23
Hides and leather.....	4.17	3.70	6.19	8.03	12.47	17.74	22.00	22.00
Woodworking.....	4.92	5.23	6.10	6.84	7.13	9.40	16.22	37.00
Food industries.....	2.36	2.63	2.79	4.03	5.72	9.60	19.56	27.50
Generation of power, light, and heat	4.76	5.29	4.75	6.87	9.00	13.60	14.55	19.00
Agriculture.....	2.25	.....	.....	.....	.....	11.50	14.00	14.00
Miscellaneous.....	5.21	6.00	.....	.....	.....	9.84	18.77	18.77
General average.....	3.71	3.80	4.14	5.44	6.67	10.37	15.15	21.21

Index numbers.

Mining, quarrying, etc.	100	111	139	203	261	318	483	776
Iron and steel and metal working	100	109	127	186	254	500	655	776
Navigation.....	100	.....	.....	.....	.....	.....	.....	507
Chemical industry.....	100	104	119	160	223	256	346	435
Textile industry.....	100	107	123	146	192	349	570	828
Transportation.....	100	.....	.....	.....	.....	111	178	366
Building trades.....	100	87	110	153	170	263	395	673
Printing trades.....	100	109	109	120	147	232	424	619
Paper industry.....	100	110	108	159	199	206	283	708
Hides and leather.....	100	88	148	192	299	425	527	527
Woodworking.....	100	106	124	139	145	191	331	752
Food industries.....	100	111	118	170	242	406	828	953
Generation of power, light, and heat	100	111	99	144	189	285	305	399
Agriculture.....	100	.....	.....	.....	.....	511	622	622
Miscellaneous.....	100	.....	.....	.....	.....	188	360	360
General average.....	100	102	111	146	179	279	408	571

The preceding table shows, like the statistics computed by the National Accident Insurance Fund, an uninterrupted progressive increase of the general average wage rate of Italian workers, the increase being most intensive in the years 1917 to 1921, but especially in 1919 and 1920. The general average wage rates in the preceding table are considerably higher than those computed by the National Accident Insurance Fund. This discrepancy may in part be due to the method used by Mr. Madia in averaging wage rates and in part to the fact that in the wage statistics computed for the last few years by the National Accident Insurance Fund cost-of-living bonuses were frequently not considered. The table shows that in 1921 the woodworking industries paid the highest average wage rate, the next highest rates being paid in the printing trades, the food industries, and the building trades, while the lowest average rate, even lower than in agriculture, was paid to textile workers. If the relative increase of wages in 1921 as compared with 1914 is considered, the average wage rate of the food industries shows the greatest increase (853 per cent), the textile industry (728 per cent) and the iron and steel and metal-working industries (676 per cent) coming next, while the smallest relative increase (260 per cent) was obtained by

workers in the miscellaneous group which contains clerical workers, Government employees, and several of the less important trades and industries.

After having ascertained the general average wage rate for each year Mr. Madia proceeds to investigate the purchasing power of wages during the war and in postwar times, as compared with that of wages in 1914. With this aim in view he first computes for each year the average increase in the cost of living, based on official index numbers of wholesale and retail prices and of the budget of a workman's family. In computing the average increase he weights each of the three indexes in accordance with the number of commodities considered in the respective index. The cost-of-living index obtained in this manner he compares with the index of wage rates and ascertains whether the increase in wages has kept step with the increase in the cost of living. The results of this investigation are shown in the following table:

PURCHASING POWER OF AVERAGE WAGES IN ITALY IN EACH YEAR, 1915 TO 1921, AS COMPARED WITH 1914.

Year.	Index numbers of—					
	Wholesale prices.	Retail prices.	Workman's family budget.	Cost of living. ¹	Wages.	Purchasing power of wages.
1914.....	100.0	100.0	100.0	100.0	100.0	100.0
1915.....	² 135.5	³ 116.7	.....	133.6	102.0	76.8
1916.....	² 207.1	³ 130.2	.....	195.6	111.0	56.9
1917.....	² 307.5	³ 170.3	.....	287.1	146.0	50.9
1918.....	² 434.6	³ 242.5	.....	406.0	179.0	44.2
1919.....	² 376.5	⁴ 373.3	286.8	345.2	279.0	80.6
1920.....	² 642.5	⁴ 470.1	378.5	515.7	408.0	79.4
1921.....	⁵ 628.7	.....	436.3	596.7	571.0	95.8

¹ Weighted average of first three columns.

² 40 commodities.

³ 7 commodities.

⁴ 21 commodities.

⁵ 76 commodities.

Even if the above computation is assumed to be only approximately correct it would indicate that during the entire period of the war the purchasing power of wages in Italy decreased from year to year and that in 1918, the last year of the war, the purchasing power of wages has decreased 56 per cent as compared with 1914, although the actual wages had increased by 79 per cent. The large increase in wages in 1919 and the less intensive increase in prices during the same year brought the purchasing power to within 20 per cent of normal. In 1920, although wages continued to increase, prices rose in such a phenomenal manner that the purchasing power of wages remained practically the same as in 1919. In 1921 wages experienced another sensational rise, while the rise in the cost of living was considerably less marked, and thus the purchasing power of wages finally came very near to that of prewar times.

Wages and Hours of Labor in Japanese Coal Mines.

ACCORDING to an article contained in the International Labor Review for February, 1922, coal miners form approximately 12 per cent of the industrial population of Japan, numbering

348,240 at the end of June, 1919.¹ Almost one-third, (95,283) of the total number employed in the industry on June 30, 1919, were women, and of these, 67,836 were working underground. The following table shows the distribution of coal miners by occupation, age, and sex, on June 30, 1919:

DISTRIBUTION OF COAL MINERS IN JAPAN ACCORDING TO OCCUPATION, AGE, AND SEX, JUNE 30, 1919.

Class of worker.	Under 15 years.		15 and under 20 years.		20 years and over.		Total.		Grand total.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
Underground workers:									
Pick miners.....	193	94	10,925	1,202	84,583	4,220	95,701	5,516	101,217
Timbermen.....	33	26	2,956	713	20,439	3,189	23,428	3,928	27,356
Loaders.....	766	732	10,102	12,568	18,620	38,713	29,488	52,013	81,501
Carriers.....	59	24	2,202	275	11,847	852	14,108	1,151	15,259
Mechanics.....	22	.....	689	2	5,197	4	5,908	6	5,914
Carpenters, blacksmiths, etc.....	12	.....	338	1	2,799	11	3,149	12	3,161
Others.....	332	93	2,970	1,922	12,598	3,195	15,900	5,210	21,110
Total.....	1,417	969	30,182	16,683	156,083	50,184	187,682	67,836	255,518
Surface workers:									
Pick miners.....	.....	.....	2	4	53	22	55	26	81
Dressers.....	129	578	1,484	5,742	3,842	10,838	5,455	17,158	22,613
Carriers.....	77	18	2,366	216	11,594	933	14,037	1,167	15,204
Mechanics.....	108	1	2,371	22	10,947	124	13,426	147	13,573
Carpenters, blacksmiths, etc.....	193	.....	2,190	21	8,996	91	11,379	112	11,491
Others.....	504	198	3,723	2,208	16,696	6,431	20,923	8,837	29,760
Total.....	1,011	795	12,136	8,213	52,128	18,439	65,275	27,447	92,722
Grand total....	2,428	1,764	42,318	24,896	208,211	68,623	252,957	95,283	348,240

By the regulations issued by the Japanese Department of Agriculture and Commerce in August, 1916, the employment of women and children under 15 for more than 12 hours a day is forbidden; the employment of children under 12 years of age is prohibited. A compulsory rest period of one-half hour is provided for where the working hours for women and children exceed 6 per day, and of 1 hour where they exceed 10 hours. Two rest days per month must be allowed to women and children under 14, four rest days to be granted where night shifts are worked.

While little is said in the regulations about working conditions of male miners, each mine operator must forward to the mining bureau for approval the rules of employment in his mines. Generally adult miners are employed on two shifts of 10 hours, although the 8-hour, two or three shift day has been introduced in some mines. Ordinarily the men also have two rest days per month and from 30 minutes to 1 hour for rest period.

Miners are generally paid monthly, the surface workers on a time and the underground workers on a piece-rate basis. In addition to the regular wages bonuses are often paid for good attendance, and quite generally rice and other commodities of daily necessity are

¹ For summary statistics of accidents in Japanese coal mines, contained in the same article, see p. 186 of this issue of the Monthly Labor Review.

furnished by the employer at low prices as a means of offsetting rises in the cost of living. During and immediately after the war also special cost-of-living bonuses were allowed. It is therefore "practically impossible to calculate from the standard wage the actual income of the miners."

There are, it is stated, no general statistics of the average standard daily wages, but those paid in two of the more important coal mines in the Kyushu district in May, 1920, are as follows

	<i>Wages per day.</i>	Mine A.	Mine B.
Pick miners.....	yen ¹ ..	2. 65	2. 92
Timbermen.....	yen ¹ ..	1. 62	2. 25
Loaders.....	yen ¹ ..	1. 45	1. 72
Carriers.....	yen ¹ ..	1. 35	. 97

Pick miners employed by a leading mining company in December, 1919, received 3.44 yen (\$1.71, par) per day or 74.87 yen (\$37.32, par) per month. In December, 1920, the wages paid were 3.56 yen (\$1.77, par) per day and 81.59 yen (\$40.67, par) per month.

Labor turnover among Japanese coal miners is "rather high," and difficulties of obtaining workers have led to the operators' offering special inducements, such as payment of traveling expenses to the coal mining region, etc. The circumstances under which workers may be discharged are limited by the regulations which each mine owner must draw up in accordance with the State mining regulation. Causes of discharge include imprisonment for crime; contravention of State laws and regulations or the rules of the coal mines; laziness; disorderly conduct or disobedience; physical weakness, sickness, or injury; or business reasons, such as the temporary closing of the mines. In the case of discharge owing to physical disability or the closing down of the mines two weeks' notice must be given. Employers are required to pay the traveling expenses of workers discharged under certain conditions: (1) In the case of women and young persons when discharge occurs during the time the worker is receiving compensation on account of disability attributable to his occupation; (2) when discharge is made on the ground of physical disability; (3) in case of discharge, though the employer has ceased to pay compensation, after absence from work for more than three years through disability attributable to occupation.

Wages and Hours of Dock Laborers and Seamen in Norway.

RECENT consular reports from Christiania and Trondhjem, Norway, give the results of the latest agreements concluded in those ports between the various longshoremen's unions and the associations of shipping companies. Laborers loading and discharging coal are not included in these agreements. In Christiania the agreements expire on November 1, 1922, and in Trondhjem on April 30, 1922.

The working hours of dock workers are fixed at 8 per day and 48 per week, beginning at 7 a. m. and ending at 5 p. m. at Christiania, at 6 p. m. at Trondhjem, and at 1 p. m. on Saturdays at both ports.

¹ Yen at par=49.85 cents.

The wage scale as agreed upon in Christiania was effective up to February 15, 1922, after which reductions in the hourly, weekly, and overtime rates were to be made. Prior to February 15 the hourly wages were fixed at 1.80 kroner (48 cents, par), weekly wages at 85 kroner (\$22.78, par), regular overtime rates at 2.70 kroner (72 cents, par), and rates for Sundays and holidays at 3.60 kroner (96 cents, par) per hour, and after that date the rates for hourly and weekly wages were 1.70 kroner (46 cents, par) and 80 kroner (\$21.44, par), respectively, and for overtime and holidays 2.55 kroner (68 cents, par), and 3.40 kroner (91 cents, par), respectively. An additional rate of 2 kroner (54 cents, par) per hour is given for contract work on Sundays and certain holidays and of 1.50 kroner (40 cents, par) for ordinary overtime.

In Trondhjem the rates were 2.10 kroner (56 cents, par) per hour, 2.90 kroner (78 cents, par) for regular overtime, and 4.20 kroner (\$1.13, par) for Sundays and holidays.

The working hours of crews of Norwegian vessels while in port are fixed at 8 hours, between 7 a. m. and 5 p. m., after which officers and men are entitled to overtime pay. The day of work on days of sailing and arrival, however, is extended to 11 hours. The catering department receives no overtime pay until after 8 p. m.

The wages of first mates on Norwegian ships in December, 1921, were approximately from 350 to 400 kroner (\$93.80 to \$107.20, par) per month for vessels of 3,500 tons dead weight, 400 to 425 kroner (\$107.20 to \$113.90, par) for ships of 5,000 tons dead weight, and 425 to 450 kroner (\$113.90 to \$120.60, par) for ships of 7,500 tons dead weight.

MINIMUM WAGE.

Massachusetts.

THE Minimum Wage Commission of Massachusetts, or rather the division of minimum wage of the State department of labor and industries, has issued advance sheets of its report for the year ending November 30, 1921. The work of the year has been marked by a revision of existing decrees rather than the undertaking of new activities. The business depression and downward trend of prices have made difficult the problem of securing compliance with the recommendations of the commission, and have been factors in the findings for lower rates made by the boards called or reconvened in some of the industries, while in others relatively early rates have been advanced. For the first time in the history of the law the commission has been obliged to publish the names of employers failing to comply with the decrees, this being the only form of enforcement which the law provides.

Wage boards have been in session for office and other building cleaners, minor lines of confectionery and food preparations, men's furnishings, and retail stores. Other boards for which early meetings were anticipated were in the brush, laundry, muslin underwear, women's clothing, and men's clothing and raincoat industries; a new board was also being formed for the paper box industry. The decrees entered during the year related to office and other building cleaners, fixing a rate of \$15.40 per week, and of 37 cents per hour where less than 42 hours per week are worked; and for minor lines of confectionery and food preparations, where the rate was \$12.

Inspections were made in candy, canning and preserving, corset making, knit goods, minor lines of confectionery, office cleaners, paper-box making, and wholesale millinery. These inspections resulted in procuring 14,690 records of women employed by 649 firms. Of the firms visited, 550 were in full compliance with the decrees applicable to them, wholesale millinery showing a clean record in this respect, while in corset making the three cases of noncompliance found in two firms were adjusted by raising wages. Candy making, canning and preserving, and knit goods likewise showed a high degree of conformity to the requirements of the decrees. Of the 658 persons receiving less than the minimum wage, 425 or practically two-thirds were among office and other building cleaners. Paper boxes with 92 cases and minor confectionery with 57 account for a large fraction of the remainder. Adjustments had not been made in minor confectionery cases by the end of the year with a single exception, while 134 office cleaners' cases were pending when the report closed.

The fact that the law is not compulsory makes it possible for unwilling employers to decline compliance, and also puts the complying employer at a certain disadvantage in costs. The commission recom-

mends an amendment, as it has for some years past, making the law mandatory, as is the case in all other States having minimum wage legislation. "The law in its present form is unfair to the great majority of employers who voluntarily accept and abide by the decree," and several employers have refused to comply with the decree until it is made mandatory. On the other hand, efforts to repeal are being renewed, but, it is said, with little prospect of success.

Later reports indicate progress in the revision of rates in the hands of boards convened or reconvened during the year. The oldest rate is that for the brush occupation fixing a minimum wage for experienced workers of 15½ cents an hour. At the time that this rate was fixed (1913) the 54-hour week then legal would give a weekly wage of \$8.37. In 1919 the weekly limit was reduced to 48 hours, which would give a minimum wage of but \$7.44. The new rate provisionally approved by the commission on the report of the board is \$14.40 per week, with a learners' entrance rate of \$9.60, to be advanced to not less than \$12 within 6 months. The hourly rates corresponding are 30 cents, 20 cents, and 25 cents, respectively.

In the men's clothing and raincoat occupations the \$15 rate fixed in 1919 for experienced workers will be reduced to \$14.75, learners' rates remaining unchanged; while in women's clothing the rate of \$15.25 established in 1920 is reduced to \$14, adult learners to receive not less than \$11 instead of \$12, and all others not less than \$9 instead of \$10 fixed by the earlier decree.

In men's furnishings the action taken corresponds more nearly to that in the brush industry, the weekly rate of \$9 fixed in 1917 being advanced to \$13.75 for experienced workers. Beginners over 16 years of age will receive \$9, to be advanced to \$10 after three months, and not less than \$12 after six months' experience. Other learners receive not less than \$8 per week as an entrance rate, the entrance rates for these two classes having been \$7 per week under the earlier decree.

While the rates above named are reported as "provisionally approved," and public hearings are to be held before their final ratification, they may be taken as practically fixed for the occupations indicated. An effort is being made to procure a better degree of uniformity in the rates fixed by the different boards, and to this end conferences have been called of the representatives of the public on the different boards. While differences are indicated above which are rather difficult to explain, the fact remains that some of the more glaring inequalities will be removed by the bringing into effect of the rates recommended.

Minimum Wage Orders in North Dakota.

THE operation of the minimum wage law of North Dakota has been affected by the opposition of some of the employers of the State, notably the telephone companies. The act was approved March 6, 1919, its enforcement being intrusted to the workmen's compensation bureau of the State. Disputes as to the capacity of the commission to act during a period of incomplete organization were submitted to the court, and an injunction was issued restraining the

operation of the orders first promulgated until the question of legality was finally determined. The opposition, therefore, did not address itself to the nature of the law, and the compensation bureau chose to drop the contest as to the jurisdictional authority, and, in its reorganized form, to issue a new set of orders. No attempt was ever made to enforce the orders first issued, though technically they remained as orders of the bureau.

Conferences called for the purpose of considering the new orders were said to be very harmonious and indicative of a general feeling of good will. Representatives of the employers' association and of one of the larger telephone companies are reported as expressing themselves as satisfied with the orders adopted and contemplating no opposition thereto. The original list of orders, 8 in number, is not completely covered by the revised list, there being but 5 adopted on February 3, 1922. The occupations formerly covered that are omitted up to the present time are personal service, office occupations, and student nurses. It is said that there is no present need apparent for orders in these occupations.

The current list of orders is newly numbered, beginning with number one. As already indicated, all bear date of February 3, 1922, and become effective in 60 days, or April 4. Order No. 1 relates to public housekeeping, and fixes a rate for experienced workers as waitresses and counter girls of \$14.90, and as chambermaids and kitchen help of \$14.20 per week. Rates fixed by the earlier order were \$17.50 and \$16.70, respectively. Where board is furnished, waitresses and counter girls are to receive \$8.90 per week and chambermaids and kitchen help \$8.25; while with board and lodging the money wage is \$6.80 for the first group and \$5.95 for the second. If lodging only is furnished, \$12.75 and \$12.05, respectively, must be paid. A learning period of four months divided into two equal periods is established, with an entrance wage of \$11.90, advancing to \$13.60 after two months for waitresses and counter girls, and \$11.20 advancing to \$12.90 for chambermaids and kitchen help. Monthly rates throughout are four and one-third times the weekly rate.

The second order covers manufacturing occupations, and fixes a rate of \$14 as against \$16.50 under the order which this supersedes. The learning period is fixed for but two groups, biscuit and candy manufacturing, where it is nine months, and bookbinding and job-press feeding, where it is one year. In other establishments the length of apprenticeship is to be fixed by the bureau in its discretion, in conference with the employer and employee in such occupation; apprenticeship wages are to be similarly determined. Rates during the learning period advance uniformly by stages of three months each, the entrance wage being \$9, that for the second period \$10.50, and that for the third, \$12 per week. The fourth period in bookbinding and job-press feeding calls for a \$13 wage. Not more than 40 per cent of the employees in any manufacturing establishment shall be apprentices except by special permit. Provision is made also for piece-rate and part-time workers.

The third order relates to mercantile establishments. Experienced women are to receive not less than \$14.50 per week or \$62.83 per month. This is a reduction of \$3 per week from the preceding order. Apprenticeship for 12 months is provided for, divided into four equal

periods, the respective minimum rates being \$9.60, \$10.40, \$11.20, and \$12 per week. Not more than 25 per cent of the employees in any mercantile establishment may be apprentices.

Laundries are covered by Order No. 4, which fixes a wage rate of \$14 per week, or \$13.50 where laundry privileges are allowed. The rate superseded was \$16.50. Apprenticeship of five months, divided into periods of three months and two months, is fixed, \$11 per week being the entrance rate, advancing to \$12.50 after three months and to the \$14 standard at the end of the next two months. The number of apprentices may not exceed 25 per cent of the employees.

Order No. 5 applies to telephone occupations and fixes a rate of \$14 per week in towns of 1,800 population and over, and of \$12 in towns of smaller population. The earlier rate was \$16.50. The learning period extends over nine months, the entrance rate in larger towns being \$10 per week, payable for the first month; for the next four months the rate is \$11.50, and for the next four months \$12.50, after which the standard rate is to be paid. In the smaller places the rates for the corresponding periods are \$9, \$10, and \$11. The number of learners may not exceed 35 per cent of the employees. The schedule for part-time workers calls for 29 cents per hour in the larger towns, 25 cents per hour in the smaller towns, if the eight-hour law applies, and where the 8-hour law does not apply, 20 cents. The learners' rates for the different-sized places are also set forth, while for towns of under 500 and for rural exchanges mutual agreement as to work time is to be arrived at and the bureau informed.

The jurisdiction of the minimum wage department of the workmen's compensation bureau extends to a determination of schedules of hours and of sanitary conditions, which are embodied in each order. No reference is made to substandard workers except in the order relating to public housekeeping, in which it is provided that women physically defective by age or otherwise may apply to the bureau and secure a permit for employment under conditions and for wages not specified in the order.

Revisions of Minimum Wage Orders in Washington.

AS POINTED out in the MONTHLY LABOR REVIEW for November, 1921 (p. 113), the order of the Industrial Welfare Commission of the State of Washington of September 10, 1918, fixed a minimum wage for females generally "during the period of the war," telegraph and telephone occupations being excepted. This order having lapsed, the industrial welfare committee, which supersedes the commission created by the act of 1913, has issued revised orders of practically general coverage.

Order No. 23 relates to public housekeeping, and fixes a weekly rate for experienced adults (over 18) of \$14.50. This is for a 6-day week of 48 hours. If less than a week is worked, the wage is \$2.50 per day or 35 cents per hour. Employment may be continuous for not more than 10 consecutive days, and at least 4 days' rest must be given in any 28-day period. If board is furnished, 95 cents per day may be deducted from the wages, and for a room \$2 per week. The

meals are rated at 20 cents for breakfast, 30 cents for lunch, and 45 cents for dinner. A separate order (No. 24) fixes wages for minors, i. e., those under 18, the rate being \$12 for entrance, this to be increased \$1 per week after each 4 months' service until the standard rate of \$14.50 is reached. Night work (between 7 p. m. and 7 a. m.) is forbidden, though by permission females may work until 9 p. m. and males over 16 until 10. Females may not be employed as bell hops, nor may girls under 18 operate elevators, sell cigars and tobacco, act as messengers, bus girls, or cabaret performers.

Order No. 25, laundry and dye works, was noted in the MONTHLY LABOR REVIEW above referred to. The weekly minimum is \$13.20.

Order No. 26 regulates the employment of minors in all occupations and industries other than public housekeeping. As has already appeared, the industrial welfare committee has power to regulate employment conditions generally, and not wage rates only. This order fixes the minimum wage for minors under 18 at \$9 per week, work being limited to six days and eight hours per day, no work to be done between 7 p. m. and 6 a. m. unless authorized by special permit. This does not apply to telephone and telegraph messengers in rural communities and cities of less than 3,000 population not continuously employed and paid by piece rate. No minor may be employed later than 10 p. m. The wage rate is to increase \$1 per week for every six months of service until the standard of \$13.20 is reached. Employment in specified dangerous or otherwise unsuitable occupations is forbidden or restricted.

Telephone and telegraph employees are required by order No. 27 to receive \$13.20 per week for six days' service, the hours not being regulated other than a requirement of one hour for lunch. The order applies not only to telephone or telegraph operators, but to "any public occupation other than public housekeeping, laundry, dry-cleaning and dye works, mercantile and manufacturing." Rest rooms, sanitary conveniences, and proper heat and ventilation are prescribed. Order No. 28 fixes the same standards of wages and surroundings for the mercantile industries.

Manufacturing occupations are covered by order No. 29, which fixes the same weekly rate as is found in all other occupations except public housekeeping, but offers five schedules for apprentices varying in length from 4 weeks to 12 months. The entrance rate is uniformly \$9, \$1 to be added at the termination of each of the four schedule periods, either 1 week, 1 month, 6 weeks, 2 months or 3 months, according to the schedule fixed upon on application of the establishment to the supervisor of women in industry. Provision is made for both time and piece workers. The number of apprentices on time-work may not exceed 25 per cent of the total number of women employed at time rates; if piece rates are paid, the prevailing rate must enable at least 75 per cent of the workers to earn \$13.20 or more per week. Beginners employed at piece rates must earn at least \$9 per week after having been employed 60 days. The number of apprentices and the number of women on piece rates earning less than \$13.20 per week may not exceed 25 per cent of the total number of women employed.

Order No. 30 has no relation to wages, but prescribes working conditions for female employees in the State. The provisions relate to

lighting, ventilation, and temperature (not less than 58° from October to April); floors, which must be dry and sanitary, or if wet, racks or grating must be provided; rest, cloak, and lunch rooms; seats, which women must be permitted to use when not actively engaged; and toilet and wash rooms. Other provisions forbid any woman or minor to be required or permitted to lift or carry excessive burdens; forbid the employment of a woman for four months before confinement or six weeks thereafter, and direct that the requirements for first aid provided by law be complied with.

LABOR AGREEMENTS, AWARDS, AND DECISIONS.

Railroads.

THE revival of the regional conferences between the railway executives and the representatives of the employees in train and engine service constitutes an important development in industrial relations on the railroads. This plan of negotiation was followed before the war but was discontinued while the roads were under Federal control. Secretary of Commerce Hoover extended an invitation to the railway executives and to the chief executives of the railway brotherhoods to meet in conference in Washington early in January of this year for the purpose of discussing questions involving wages and working conditions. At these conferences Mr. Hoover presented for discussion the following memorandum:¹

1. As the means to the restoring of the former relationship of mutual confidence and good will in dealing with questions affecting wages and working conditions it is agreed that a bona fide effort shall be made to reestablish the prewar method of seeking an adjustment of such questions as they arise, from time to time, through "concerted action" in the several regions respectively.

2. It is declared that some readjustment of present rules and wages is desirable in mutual interest, and that the regional conferences shall consider and settle such readjustments from time to time, the first conference to take place at the earliest practicable moment. It is agreed that in case of failure to agree upon particular questions, the differences shall be referred to the Railway Labor Board.

3. The public has a right to expect cheaper transportation and the accomplishment of this end can only be attained by resolute unity of effort of both managers and employees for a higher efficiency in operation, that can be promoted only by determination of both sides to give the fullest measure of service and to maintain considerate relations.

4. The approval of the Railway Labor Board will be sought to the deferment of questions before the board between the trainmen and the railways until these conferences have been held.

The railway executives immediately approved the plan. Representatives of the brotherhoods were without authority to enter into definite negotiations on the matter without the approval of the general chairmen on the roads involved. The general chairmen, at a meeting held on February 2 for the purpose, approved of the plan and adopted the following resolution:¹

We, your committee appointed to draft a resolution to be adopted by the Associations of General Committees of the Brotherhood of Locomotive Firemen and Enginemen, accepting the proposition submitted in the memorandum of Secretary Hoover of the Department of Commerce of the United States, beg leave to submit the following for your consideration:

"Whereas there has been submitted to the Association of General Committees of the Brotherhood of Locomotive Firemen and Enginemen for the eastern, western, and southeastern districts a memorandum presented to the chief executives of the transportation organizations and certain railroad officials by Secretary Hoover, of the Department of Commerce of the United States, which proposition provides for the establishment of regional conferences to consist of representatives of the railroads on the one hand and representatives of the employees on the other hand; and

¹ Brotherhood of Locomotive Firemen and Enginemen's Magazine, Feb. 15, 1922, p. 12.

"Whereas the plan proposed provides that all existing disputes concerning wages and working conditions and other disputes that may arise hereafter affecting each territory named herein, shall be settled by mutual agreement, and in the event of an agreement not being reached all matters remaining in dispute will be submitted to the United States Railroad Labor Board in accordance with the provisions of the transportation act of 1920; therefore, be it

"*Resolved*, That we, the members of the three associations of general committees for the districts named, hereby approve the acceptance of such proposition, with the following understanding of same:

"(1) Secretary Hoover's proposition indicates in paragraph 1 'the restoring of the former relationship' in matters of this character, and having knowledge of the fact that previous to the operation of the railroads by the Federal Government the Brotherhood of Locomotive Engineers and the Brotherhood of Locomotive Firemen and Enginemen negotiated wage increases and rules of employment for engineers, firemen, hostlers, etc., and in like manner the Order of Railway Conductors and the Brotherhood of Railroad Trainmen conducted similar negotiations for the classes of employees represented by them, this former practice will be resumed and the Brotherhood of Locomotive Engineers and the Brotherhood of Locomotive Firemen and Enginemen will be privileged to handle all matters affecting engineers, firemen, hostlers, and hostler helpers.

"(2) It is our understanding that with the creation of these regional conferences there will not follow a demand on the part of anyone to make void the standardization of basic wage rates now established."

Under this plan there are three regional conferences, one for the eastern region, one for the southeastern group, and one for the western roads, constituted for the purpose of discussing and agreeing if possible upon wages and working conditions for train service employees with recourse to the Railroad Labor Board, only in case of failure to agree. Such boards are authorized by the transportation act in the provision that "disputes shall be considered and, if possible, decided in conference between representatives designated and authorized so to confer by the carriers, or the employees or subordinate officials thereof directly interested in the dispute. If any dispute is not decided in such conference it shall be referred by the parties thereto to the board which under the provisions of this title is authorized to hear and decide such dispute." Conference meetings of the eastern group of roads were started in New York on February 16. Conferences between representatives of the southeastern roads and their employees were begun in Washington on February 22. Representatives of western carriers and their train service employees met in Chicago late in February. The conferences of the eastern group were adjourned recently without an agreement, and all differences have been referred to the Railroad Labor Board.

The Regional Adjustment Boards.

Prior to the reestablishment of the regional conferences there were set up regional adjustment boards, one for each of the three regions, agreed upon by representatives of the railroads and the four engine and train service brotherhoods, namely, the engineers, firemen, conductors, and trainmen. These boards were authorized by section 302 of the transportation act which provides that "railroad boards of labor adjustment may be established by agreement between any carrier, group of carriers, or the carriers as a whole, and any employees or subordinate officials of carriers, or organization or group of organizations thereof." They were created for the purpose of handling disputes, which can not be settled locally between a carrier and its employees, growing out of personal grievances or out of the interpre-

tation or application of schedules, agreements or practices on the railroads signatory to the agreement. Agreements establishing these boards in the three regions are practically identical,² but not all carriers are parties to the agreement. The agreement establishing the board for the eastern region was signed by the Baltimore & Ohio and the New York Central and certain associated systems only. The board of adjustment for the western region, which includes practically all the important lines in the West, has already decided 105 cases involving minor disputes.

It is to be hoped that the regional conferences and the regional adjustment boards may lighten in some degree the work of the Railroad Labor Board, whose decisions in the 20 months of its existence number more than 750. Approximately 250 decisions of this body have reached the bureau since January 1 of this year.

Recent Decisions of the Railroad Labor Board.

The most far-reaching of the board's decisions since that determining wages (Decision No. 147; see MONTHLY LABOR REVIEW, July, 1921) have been those relative to hours of service and working conditions of railway employees outside the engine and train service. Decisions have been rendered fixing hours and working conditions for the shop crafts, including blacksmiths, machinists, boiler makers, etc.; the maintenance-of-way employees and railway shop laborers; the railway steamship clerks and freight handlers; the railway signalmen; the firemen and oilers; telegraphers; train dispatchers; supervising mechanics, and the expressmen. Previous rules and regulations covering these classes of employees were promulgated by the Director General of Railroads while the roads were under Federal control. Some of the rules were later agreed upon between the Railroad Administration and the workers, and comprised the so-called national agreements. Such agreements existed between the Railroad Administration and the shop crafts represented in the railway employees' department of the American Federation of Labor, the maintenance-of-way employees, the steamship clerks, the firemen and oilers, and the signalmen. The American Railway Express Co. also concluded an agreement with its employees. Certain conditions of service of the other classes of the above-mentioned employees were determined either by direct order of the Director General of Railroads or through the regional directors who functioned during the Federal operation of the railways.

With the transfer of the roads from public to private control, various disputes arose concerning the rules and regulations governing working conditions. In accordance with the terms of the transportation act such disputes which could not be settled by the representatives of the carriers and their employees were appealed to the Railroad Labor Board. The determination of these matters has necessitated the revision of the war-time regulations.

In its decisions the board has retained the principle of collective bargaining and union recognition. The most important changes involve payment for overtime work, and for intermittent service, the removal

² For summary of the provisions of these agreements see MONTHLY LABOR REVIEW for January, 1922, pp. 151 and 152.

of the inhibition against piecework, and the elimination of certain craft restrictions, making less rigid the division of duty between crafts. All of the decisions provide that eight hours shall constitute a day's work, and that all hours worked beyond this number shall be considered overtime. This requirement is fixed by the Adamson law. Payment of punitive rates for overtime work, however, does not begin until after the ninth or tenth hours, the shop crafts alone retaining the provision for punitive overtime rates for the ninth hour.

The board has ruled that certain matters regulated by the national agreements may not be covered to advantage in all localities by rules of general application. Such matters have been remanded to the carriers and their respective employees for further consideration. Rules governing promotions, discipline and grievances, seniority, vacations, and sick leave with pay are for the most part within this category.

The new regulations governing hours and working conditions have been published in full in the MONTHLY LABOR REVIEW, together with the important changes made thereby. Rules governing the shop crafts were published in the REVIEW for October and December, 1921, and January, 1922. Regulations fixing conditions of work for the maintenance-of-way employees and railway shop laborers appear in the February, 1922, issue of the REVIEW. Decision No. 630 revising the national agreement made between the Railroad Administration and the Brotherhood of Railway Steamship Clerks, Freight Handlers, Express and Station Employees was published in the March, 1922, issue of the REVIEW. The six other decisions affecting firemen and oilers, telegraphers, railway signalmen, foremen and supervising mechanics, train dispatchers, and the employees of the American Railway Express Co. are as follows:

Firemen and Oilers.

RULE 1. Scope.—These rules govern the hours of service and working conditions of stationary and hoisting engineers, stationary firemen, boiler-room water tenders, engine-room oilers or grease-cup fillers, flue blowers and borers, fire knockers and cinder-pit men, fire-builders and coal passers.

It is understood that existing agreements with other organizations are not hereby annulled, unless and until a majority of the employees concerned express a desire for a change.

Stationary and hoisting engineers were not included in this rule under the national agreement.

RULE 2. (a) Except as provided in rule 2 (b), 8 consecutive hours, exclusive of meal period, shall constitute a day's work.

Employees who are required to work during the meal period will be allowed 20 minutes for lunch without loss of pay.

(b) Where service is intermittent, 8 hours' actual time on duty within a spread of 12 hours shall constitute a day's work. Employees filling such positions shall be paid overtime for all time actually on duty or held for duty in excess of 8 hours from the time required to report for duty to the time of release within 12 consecutive hours, and also for all time in excess of 12 consecutive hours computed continuously from the time first required to report until final release. Time shall be counted as continuous service in all cases where the interval of release from duty does not exceed 1 hour.

Exceptions to the foregoing paragraph shall be made for individual positions when agreed to between the management and duly accredited representatives of the employees. For such excepted position the foregoing paragraph shall not apply.

This rule shall not be construed as authorizing the working of split tricks where continuous service is required.

Intermittent service is understood to mean service of a character where during the hours of assignment there is no work to be performed for periods of more than one hour's duration and service of the employees can not otherwise be utilized.

Employees covered by this rule will be paid not less than 8 hours within a spread of 12 consecutive hours.

RULE 3. Time worked in excess of 8 hours will be considered overtime and paid for on the minute basis at pro-rata rate for the ninth and tenth hours and at time and one-half thereafter, except that time and one-half will not be allowed to employees changing shifts at their own request.

Overtime was paid for at the rate of time and one-half for ninth and tenth hours under the agreement.

RULE 4. Employees notified or called to perform work not continuous with the regular work period will be allowed a minimum of 3 hours for 2 hours' work or less, and if held on duty in excess of 2 hours, time and one-half will be allowed on the minute basis.

RULE 5. *Sunday and holiday work—full-day period.*—Time worked on Sundays and the following holidays, namely, New Year's Day, Washington's Birthday, Decoration Day, Fourth of July, Labor Day, Thanksgiving Day, and Christmas shall be paid for at the pro-rata hourly rate when the entire number of hours constituting the regular week-day assignment are worked.

The following paragraph is omitted from the original rule:

"On roads where an agreement or practice more favorable to the employees is in effect, such agreement or practice, in so far as it relates to this rule, may be retained."

RULE 6. *Sunday and holiday work—less than full-day period.*—When assigned, notified, or called to work on Sundays and on the above specified holidays a less number of hours than constitute a days' work within the limits of the regular week-day assignment, employees shall be paid a minimum allowance of 3 hours for 2 hours' work or less, and at the pro-rata hourly rate after the second hour of each tour of duty.

The agreement provided for overtime payment for all time worked before or after the limits of the regular week-day assignment. Under the revised rule punitive overtime payment for such work will not begin until the eleventh hour.

RULE 7. To compute the hourly rate of monthly-rated employees, take the number of working days constituting a calendar year, multiply by eight and divide the annual salary by such total hours, which is exclusive of overtime and disregarding time absent on vacation, sick leave, holidays, or for any other cause. In determining the hourly rate, fractions less than one-half cent will not be counted; one-half cent and over will be counted as 1 cent.

Rules 8 to 16, inclusive, governing discipline and grievances, and rule 17, relating to payment in cases of assignment to higher or lower rated positions are omitted from the decision and remanded in their entirety. In further negotiations on these matters the board calls the attention of the carriers and their employees to principle 8, Exhibit B, of Decision 119, which provides that—

"No employee should be disciplined without a fair hearing by a designated officer of the carrier. Suspension in proper cases pending a hearing, which shall be prompt, shall not be deemed a violation of this principle. At a reasonable time prior to the hearing he is entitled to be apprised of the precise charge against him. He shall have reasonable opportunity to secure the presence of necessary witnesses and shall have the right to be there represented by a counsel of his choosing. If the judgment shall be in his favor, he shall be compensated for the wage loss, if any, suffered by him."

The rules effective under the national agreement and remanded are as follows:

RULE 8. Employees disciplined or dismissed will be advised of the cause for such action in writing, if requested.

RULE 9. An employee disciplined, or who considers himself unjustly treated, shall have a fair and impartial hearing, provided that a written request is presented to his immediate superior within 10 days of date of advice of discipline; the hearing shall be granted within 10 days thereafter, and decision will be rendered within 10 days after completion of hearing. Such employee may select not to exceed three employees to assist at the hearing.

RULE 10. A transcript of an employee's evidence, when taken in writing, will be furnished only to such employee upon verifying and signing same.

RULE 11. A copy of all the evidence taken in writing at the hearing will be promptly made available for use of a properly constituted committee when required in handling cases on appeal, of which notice has been given in accordance with rule 12.

RULE 12. An employee dissatisfied with a decision will have the right to appeal in succession up to and including the highest official designated by the management to handle such cases if notice of the appeal is given the official rendering the decision within 10 days thereafter. The right of the employee to be assisted by duly accredited representatives of the employee is recognized.

RULE 13. If the charge against the employee is not sustained, it shall be stricken from the record. If by reason of such unsustained charge the employee has been

removed from position held, reinstatement will be made and payment allowed for the assigned working hours actually lost while out of the service of the railroad at not less than the rate of pay of position formerly held, or for difference in rate of pay earned, if in the service.

RULE 14. Prior to the assertion of grievances as herein provided, and while questions of grievances are pending, there will be neither a shutdown by the employer nor a suspension of work by the employees.

RULE 15. Employees serving on committees, on sufficient notice shall be granted leave of absence and free transportation for the adjustment of differences between the railroad and its employees.

RULE 16. Railroad officials shall in no way discriminate against any committee or anyone that may be selected from time to time to represent the employees.

RULE 17. Employees temporarily or permanently assigned to higher-rated positions shall receive the higher rate while filling such positions. Employees temporarily assigned to lower-rated positions shall not have their rates reduced.

RULE 18. This agreement shall be effective as of March 1, 1922, and shall continue in effect until it is changed as provided herein or under the provisions of the transportation act, 1920.

Should either of the parties to this agreement desire to revise or modify these rules, 30 days' written advance notice, containing the proposed changes, shall be given and conferences shall be held immediately on the expiration of said notice unless another date is mutually agreed upon.

Railroad Signalmen.

Article I.—Classification.

SECTION 1. *Signalman, signal maintainer.*—A man qualified and assigned to perform work generally recognized as signal work shall be classified as a signalman or signal maintainer.

SEC. 2. *Leading maintainer.*—A signal maintainer, assisted by one or more signal maintainers with their assistants and or helpers, in charge of a section or plant, shall be classified as a leading maintainer.

SEC. 3. *Assistant signalman, assistant signal maintainer.*—A man in training for the position of signalman or signal maintainer and under the direction of the signalman or signal maintainer, performing the work generally recognized as signal work, shall be classified as assistant signalman or assistant signal maintainer.

The number of assistant signalmen and assistant signal maintainers on a seniority district shall be consistent with the requirements of the service and the signal apparatus to be installed or maintained.

The men assigned to these positions should be promoted from helpers. Ability being sufficient, seniority will govern. They will be continued in such positions for a period of four years.

(a) A man failing to show sufficient aptitude within a period of three months to learn the work will be returned to the position of helper, retaining his seniority rights as such.

(b) A man may be promoted to the position of signalman or signal maintainer if a position to which he is entitled is open and he has qualified in less than four years to perform the work, provided a qualified and satisfactory signalman or signal maintainer is not available. If a man so promoted fails to meet the requirements of the position, he will be restored to the position of assistant signalman or assistant signal maintainer to which he is entitled.

At the expiration of four years' service as assistant signalman or assistant signal maintainer he will be offered promotion if a position to which he is entitled is open. He may, if no position is open, continue as assistant signalman or assistant signal maintainer until it is possible to promote him to a position to which he is entitled.

SEC. 4. *Gang foreman, leading signalman.*—A signalman working with and supervising the work of signalmen and other employees specified herein shall be classified as a gang foreman. A signalman temporarily so assigned will be classified as a leading signalman.

SEC. 5. *Helper.*—A man assigned to assist other employees specified herein shall be classified as a signal helper. A signal helper when working alone, or two or more signal helpers working together, may perform such work as filling and cleaning lamps, cleaning and oiling interlocking plants, bonding track, renewing primary batteries, excavating, and handling material, but shall not be permitted to do work recognized as distinctively maintainers' or signalmen's work.

Article II.—Hours of service, overtime, and calls.

SECTION 1. Eight consecutive hours, exclusive of the meal period, except as otherwise provided in these rules, shall constitute a day's work.

SEC. 2. There may be one, two, or three shifts employed. The starting time of any shift shall be arranged by mutual understanding between the local officers and the employees' committee based on actual service requirements.

The time and length of the lunch period shall be subject to mutual agreement.

The national agreement made specific provisions for lunch period where one, two, or three shifts are employed, instead of leaving the matter to local determination.

SEC. 3. Provided for in section 2.

SEC. 4. Provided for in section 2.

SEC. 5. Provided for in section 2.

SEC. 6. An employee's time will begin and end at a designated point, but more than one such point may be named within a specified territory, such as terminal territory.

SEC. 7. Even hours will be paid for at the end of each pay period, fractions thereof will be carried forward.

SEC. 8. Employees will not be required to suspend work during regular hours to absorb overtime.

SEC. 9. Regularly established daily working hours will not be reduced below eight to avoid making force reductions, unless agreeable to the employees affected.

SEC. 10. Except as provided in these rules, no compensation will be allowed for work not performed.

SEC. 11. *Sunday and specified holiday work—Full-day period.*—Work performed on Sundays and the following legal holidays, namely, New Year's Day, Washington's Birthday, Decoration Day, Fourth of July, Labor Day, Thanksgiving Day, and Christmas (provided when any of the above holidays fall on Sunday the day observed by the State, Nation, or by proclamation shall be considered the holiday), shall be paid at the rate of time and one-half, except that employees who are regularly assigned to work on Sundays and holidays, or employees who work in place of those so regularly assigned, will be compensated on the same basis as on week days when the entire number of hours constituting the regular week-day assignment are worked, or when released at their own request before the completion of such hours. If released by the carrier before the expiration of the regular week-day assignment, time and one-half will be allowed for the actual time worked.

Sunday and holiday work will be required only when absolutely essential to the continuous operation of the railroad.

SEC. 12. Overtime will be paid on the actual minute basis at pro rata rate for the ninth and tenth hours of continuous service, exclusive of meal period, and thereafter at rate of time and one-half. Employees will not be required to work more than 10 hours without being permitted to take a second meal period. Time taken for meals will not terminate the continuous-service period.

Overtime rates were paid for the ninth and tenth hours under the agreement.

SEC. 13. Employees released from duty and notified or called to perform work outside of and not continuous with regular working hours, will be paid a minimum allowance of two hours at time-and-one-half rate; if held longer than two hours, they will be paid at the time-and-one-half rate computed on actual minute basis.

Time of employees so notified will begin at the time required to report and end when released. Time of employees so called will begin at the time called and end at the time they return to designated point at home station.

An employee so called less than two hours before his regular starting time will be paid at time and one-half time until his regular starting time, and thereafter at straight time for the regular hours.

SEC. 14. Employees who are subject to call because of the requirements of the service will notify the person designated by the management where they may be called and will respond promptly when called. When such employees desire to leave their home station or section they will procure authority from the person designated by the management who will grant permission if the requirements of the service will permit.

SEC. 15. Camp cars will be the home station, as referred to in these rules, for employees assigned to such cars.

SEC. 16. *Sunday and specified holiday work—Less than full-day period.*—When regularly assigned for service of four hours or less on Sundays and or holidays, employees will be paid for actual time worked with a minimum allowance of three hours at the

pro rata rate. Regular assignments of more than four hours and less than eight hours on these days may be established if agreeable to the employees concerned, the hours to be paid for at the pro rata rate.

Regular assignments of more than four hours and less than eight for work specified in this section were paid for formerly at the overtime rate.

SEC. 17. Hourly-rated employees performing service requiring them to leave and return to home station daily will be paid continuous time, exclusive of meal period, from time reporting for duty until released at home station. Straight time for all straight-time work. Overtime for all overtime work. Straight time for all time traveling or waiting.

SEC. 18. Hourly-rated employees sent from home station to perform work and who do not return to home station on the same day will be allowed time for traveling or waiting in accordance with section 20 of this article. All hours worked will be paid for—straight time for straight-time hours, and overtime rate for overtime hours. Actual expenses will be allowed at the point to which sent if meals and lodging are not provided by the carrier or if camp cars to which employees are assigned are not available.

SEC. 19. Employees permanently transferred by direction of the management will be allowed time for traveling or waiting in accordance with section 20 of this article. They will be allowed free transportation for themselves, the dependent members of their families, and their household effects.

SEC. 20. Employees (except those covered by section 4 of Article V) who do not return to home station on the same day, when not in camp cars and traveling by direction of the management, will be allowed actual time for traveling or waiting during the regular working hours. Actual time, not to exceed eight hours, at the straight-time rate, from the time required to report to the time of arrival at the point to which sent, will be paid as full compensation for traveling or waiting between the end of the regular hours of one day and the beginning of the regular hours of the following day when sleeping accommodations are not available. Actual expenses but no time will be allowed for traveling or waiting between the end of the regular hours of one day and the beginning of the regular hours of the following day when sleeping accommodations are available.

SEC. 21. Employees required by the management to travel on or off their assigned territory in camp cars will be allowed straight time traveling during regular working hours and for Sundays and holidays during hours established for work periods on other days. When traveling in camp cars after working-period hours, no time will be allowed.

Under the national agreement one-half time pay was allowed for time consumed by travel in camp cars between the hours of 10 p. m. and 6 a. m.

SEC. 22. An employee when sent from home station to fill a temporary vacancy for one day will be paid in accordance with section 17 of this article; if for more than one day, he will be paid in accordance with section 18 of this article. While filling such vacancy he will be paid for the hours worked at the established rate for the position, but at not less than his regular rate.

SEC. 23. When an employee is required to fill the place of another employee receiving a higher rate of pay he shall receive the higher rate; but if required to fill temporarily the place of another employee receiving a lower rate, his rate will not be changed.

SEC. 24. Employees will be allowed, when in the judgment of the management conditions permit, to make week-end trips to their homes. Free transportation will be furnished consistent with the regulations. Any time lost on this account will not be paid for. Time not worked on this account may be worked, at the option of the employees, outside of regular hours on other days at straight time for hours so worked.

SEC. 25. Employees required to work during, or any part of, the lunch period shall receive pay for the length of lunch period regularly taken at point employed at straight time, and will be allowed necessary time to procure lunch (not to exceed 30 minutes) without loss of time.

This does not apply where employees are allowed the 20 minutes for lunch without deduction therefor.

Meal hours which were not afforded within the time agreed upon, and which were worked, were paid for at the overtime rate under the agreement, and 20 minutes allowed for lunch at the first opportunity.

SEC. 26. Employees changed from one shift to another will be paid overtime rates for the first shift of each change. Employees working two shifts or more on a new shift shall be considered transferred. This will not apply when shifts are temporarily exchanged at the request of the employees involved.

SEC. 27. When work not covered by this agreement is done outside of regular work period and extra compensation agreed upon, overtime will not apply.

SEC. 28. Eliminated.

The eliminated regulation, referring to pay of female employees, was as follows:

"The pay of female employees for the same class of work shall be the same as that of men, and their working conditions must be healthful and fitted to their needs. The laws enacted for the government of their employment must be observed."

SEC. 29. Omitted.

This rule, which the board considers a matter for local adjustment, is left to determination by the carriers and their employees. The old rule provided as follows:

"When attending court as witnesses for the railroad, employees will receive pay for all time lost at home station with the minimum of eight hours' time for each week day and eight hours at time and one-half for Sundays and holidays. Time will be allowed for traveling or waiting in accordance with section 20 of this article. Actual expenses will be allowed when away from home station and necessary expenses will be allowed when at home. When necessary, the company will furnish transportation and will be entitled to certificate for witness fees in all cases.

SEC. 30. Employees will receive allowance for expenses not later than the time when they are paid for the service rendered.

Article III.—Seniority.

Because a large majority of the carriers and their employees agreed upon the major part of this article comprising seniority rules, the article is omitted. In further negotiations on this matter the board directs the attention of the carriers and their employees to principle 11, Exhibit B, of Decision 119, providing that—

The principle of seniority long applied to the railroad service is sound and should be adhered to. It should be so applied as not to cause undue impairment of the service.

Article IV.—Promotions.

SECTION 1. Promotions to positions coming within the scope of this agreement shall be based on ability, merit, and seniority. Ability and merit being sufficient, seniority shall prevail; the management to be the judge.

SEC. 2. In transferring employees to fill vacancies or new positions, the provisions of section 1 of this article will apply.

SEC. 3. Employees are entitled to promotion only on the district over which their seniority rights prevail.

SEC. 4. Employees declining promotion shall not lose their seniority, except to the employee promoted and only in the next higher rank of service.

SEC. 5. Employees accepting promotion and failing to qualify within 30 days may return to their former positions.

SEC. 6. New positions and vacancies will be bulletined within 30 days previous to or 10 days following the dates such vacancies occur, except that temporary vacancies need not be bulletined until the expiration of 30 days from the date such vacancies occur.

SEC. 7. Promotions to new positions or to fill vacancies will be made after bulletin notice has been posted for a period of 10 days at the headquarters of the gangs and sent to other employees entitled to consideration in filling the positions, during which time employees may file their applications with the official whose name appears on the bulletin. The appointment will be made before the expiration of 20 days from the date the bulletin is posted, and the name of the employee selected will then be announced. New positions or vacancies may be filled temporarily, pending permanent appointment.

SEC. 8. Employees in service will be considered for promotion to position of foreman. Employees promoted to the position of foreman shall retain their seniority rights but shall exercise such seniority rights only when new positions are created or vacancies occur. When force is reduced, a foreman, if no new position or vacancy is open in the class in which he held seniority rights when promoted, will have the right to displace the employee with the least seniority rights in that class and will retain his former seniority rights.

NOTE.—The word "foreman" as used in this section is intended to apply only to an employee whose duties are supervisory and who is not regularly required to work with his men or to do regularly the work of other employees covered by this agreement.

Article V.—Rates of pay.

SECTION 1.—The minimum rates of pay are the rates established by the Labor Board's Decision No. 147 and addenda thereto or where wage adjustments have been made in accordance with the provisions of the transportation act, 1920, and the

decisions of the Labor Board; these rates shall be incorporated in and become a part of this agreement or schedule, and shall remain in effect until or unless changed in the manner provided by the transportation act, 1920.

SEC. 2. Employees promoted to the position of assistant signalman or assistant maintainer, in accordance with section 3, Article I, shall be paid the rate established by section 1, Article V, for the first six months, with an increase of 2 cents per hour for every six months thereafter until they have completed four years' service in accordance with paragraph *b*, section 3 of Article I.

SEC. 3. The hourly rate of a leading signal maintainer, gang foreman, or leading signalman will be 5 cents per hour above the established hourly rate of the signal maintainers or signalman of the class supervised.

SEC. 4. An employee assigned to the maintenance of a section who does not return to home station daily and employees regularly assigned to perform road work may be paid on a monthly basis. Such employees shall be paid not less than the minimum hourly rate established for the corresponding class of employees coming under the provisions of this schedule on the basis of 365 eight-hour days per calendar year. The monthly salary is arrived at by dividing the total earnings of 2,920 hours by 12; no overtime is allowed for time worked in excess of eight hours per day; on the other hand, no time is to be deducted unless the employee lays off of his own accord.

The regularly assigned road men under the provision of this rule may be used, when at home point, to perform shopwork in connection with the work of their regular assignments.

Where meals and lodging are not furnished by the carrier or when the service requirements make the purchase of meals and lodging necessary while away from home point, employees will be paid necessary expenses.

If it is found that this rule does not produce adequate compensation for certain of these positions by reason of the occupants thereof being required to work excessive hours, the salary for these positions may be taken up for adjustment.

The monthly rate under the agreement was figured as follows:

	Hours.
365 (days)×8 (hours).....	2,920
59 (Sundays and holidays at one-half time extra pay)×4.....	236
Total hours to be paid for.....	3,156
3,156×hourly rate÷12=monthly salary.	

Regularly assigned road men could not be assigned under the agreement to shopwork.

Article VI.—Discipline and grievances.

SECTION. 1. An employee who has been in service more than 30 days shall not be disciplined or dismissed without investigation, at which investigation he may be represented by an employee of his choice. He may, however, be held out of service pending such investigation. The investigation shall be held within 10 days of the date when charged with the offense or held from service. A decision will be rendered within 10 days after completion of the investigation.

An employee dissatisfied with the decision shall have a fair and impartial hearing before the next higher officer, provided written request is made to such officer and a copy furnished to the officer whose decision is appealed, within 10 days of the date of the advice of the decision. Hearing shall be granted within 10 days thereafter and a decision rendered within 10 days of the completion of hearing.

The agreement provided for investigation, decision, appeal, hearing, etc., within seven days.

SEC. 2. If an appeal is taken from this hearing it must be filed with the next higher officer and a copy furnished the officer whose decision is appealed within 10 days after the date of the decision.

The hearing on this appeal shall be held within 10 days and a decision rendered within five days after completion of hearing.

SEC. 3. If a further appeal is taken, it must be filed as provided in section 2 of this article within 20 days of the date of the decision appealed from. On such appeals hearings shall be given and decision rendered as promptly as possible.

SEC. 4. An employee who considers himself otherwise unjustly treated shall have the same right of hearing and appeal as provided above if written request is made to his immediate superior within 10 days of the cause for complaint.

The agreement provided for appeal within seven days.

SEC. 5. At the hearing, or on the appeal, the employee may be assisted by a committee of employees, or by one or more duly accredited representatives.

SEC. 6. The right of appeal by employees or representatives, in regular order of succession and in the manner prescribed up to and inclusive of the highest official designated by the carrier to whom appeals may be made, is hereby established.

SEC. 7. An employee on request will be given a letter stating the cause of discipline. A transcript of the evidence taken at the investigation or on the appeal will be furnished on request to the employee or representative.

SEC. 8. If the charge against the employee is not sustained, it shall be stricken from the record. If, by reason of such unsustained charge the employee has been removed from position held, reinstatement will be made and payment allowed for the assigned working hours actually lost while out of the service of the carrier at not less than the rate of pay of position formerly held, or for the difference in rate of pay earned in or out of the service.

SEC. 9. Prior to the assertion of grievances as herein provided, and while questions of grievances are pending, there will neither be a shutdown by the employer nor a suspension of work by the employees.

SEC. 10. Employees serving on committees, on sufficient notice, shall be granted leave of absence and free transportation for the adjustment of differences between the carrier and its employees.

Article VII.—Miscellaneous.

SECTION 1. (a) Employees covered by this agreement and those dependent upon them for support will be given the same consideration in granting free transportation as is granted other employees in the service.

(b) General committees representing employees covered by this agreement will be granted the same consideration as is granted general committees representing employees in other branches of the service.

SEC. 2. The carriers will furnish the employees such general tools as are necessary to perform their work, except such tools as are customarily furnished by skilled workmen.

SEC. 3. It will be the policy to maintain camp cars in good and sanitary condition and to furnish bathing facilities when practicable and desired by the employees and to provide sufficient means of ventilation and air space. All dining and sleeping cars will be screened when necessary. Permanent camp cars used for road service will be equipped with springs consistent with safety and character of car and comfort of employees. It will be the duty of the foreman to see that cars are kept clean. When necessary, in the judgment of the management, kitchen and dining cars will be furnished and equipped with stoves, utensils, and dishes in proper proportion to the number of men to be accommodated.

SEC. 4. The carrier will see to it that an adequate supply of water suitable for domestic uses is made available to employees living in its buildings, camps, or outfit cars. Where it must be transported and stored in receptacles, they shall be well adapted to the purpose.

SEC. 5. An employee covered by this agreement, subject to call and required to have a telephone, shall be given the same consideration relative to the cost of installation and rental of such telephone as is granted other employees on the same railroad working under similar conditions.

SEC. 6. *Date effective and changes.*—This agreement shall be effective as of February 16, 1922, and shall continue in effect until it is changed as provided herein or under the provisions of the transportation act, 1920.

Should either of the parties to this agreement desire to revise or modify these rules, 30 days' written advance notice, containing the proposed changes, shall be given and conferences shall be held immediately on the expiration of said notice unless another date is mutually agreed upon.

Railroad Supervisors of Mechanics.

Decision 726 of the board relates to the controversy relative to hours of service and working conditions between the International Association of Railroad Supervisors of Mechanics and the following railroads:

- Baltimore & Ohio Chicago Terminal Railroad Co.
- Boston & Maine Railroad.
- Colorado & Southern Railway Co.
- El Paso & Southwestern system.
- Gulf Coast lines.
- St. Louis Southwestern Railway Co.
- Southern Pacific Co. (Pacific system).

Rules governing working conditions of this class of employees on the above roads are as follows:

RULE 1. The term "supervisor of mechanics," as hereinafter used, shall be understood to include all foremen below the rank of general foreman supervising mechanics in the maintenance of equipment department.

RULE 2. All supervisors of mechanics, herein specified, shall be compensated on a monthly salary basis.

RULE 3. To determine the daily basis for all employees herein specified, multiply by 12 the regular monthly rate (exclusive of compensation for extra service), and divide the result by the number of days in a year that service has been customarily performed.

RULE 4. Monthly-salaried supervisors of mechanics shall be required to remain on duty only a sufficient length of time after the shift of mechanics which they supervise have completed their tour of duty, to properly turn over the work to their successors, if on a relief position; or if not on a relief position to see that there are no fire hazards and that everything is in proper place and order.

RULE 5. Supervisors of mechanics will not be required to report to work on Sundays, unless they have supervisory duties to perform, or when attending a conference in the interest of the service.

RULE 6. Supervisors of mechanics whose tour of duty consists of seven days per week will be guaranteed two days off each month. If for any reason the supervisor is not permitted to have two days off each month, he will be compensated for those days on the pro-rata basis, in addition to the regular monthly compensation.

RULE 7. There will be no deduction in the compensation of supervisors of mechanics on account of shops working reduced hours.

RULE 8. The entering of employees in the positions occupied in the service, or changing their classification or work, shall not operate to establish a less favorable rate of pay or condition of employment than is herein established.

RULE 9. When a new position is created, the rate of pay will be established to conform to positions of similar character and responsibility.

RULE 10. Foremen temporarily assigned to higher-rated positions will receive the higher rate.

RULE 11. When supervisors of mechanics are required to leave their established headquarters (which will be designated by superior officers), in compliance with the directions of superior officers, they will be paid necessary actual expenses while away.

RULE 12. Employees covered by this schedule and those dependent upon them for support will be given same consideration in granting free transportation as is granted other employees in service.

RULE 13. In filling vacancies or new positions, supervisors of mechanics senior in the service employed on a division or terminal making written application for such position, shall be granted preference where ability is conceded; the superintendent or master mechanic to be the judge.

RULE 14. When a position held by a supervisor of mechanics is abolished, advance notice thereof will be given, and so far as the management is concerned, he may resume his seniority in the craft from which he was promoted.

RULE 15. Efforts will be made to provide suitable employment for superiors of mechanics who have given long and faithful service and have become unable, on account of age or infirmity, to handle their present positions.

RULE 16. In case a supervisor of mechanics accepts an official position with the carrier, or a salaried position as a representative of the employees, he will retain all seniority rights as provided for in rules 13 and 14.

RULE 17. This agreement shall be effective as of March 1, 1922, and shall continue in effect until it is changed as provided herein or under the provisions of the transportation act, 1920.

RULE 18. Should either of the parties to this agreement desire to revise or modify these rules, 30 days' written advance notice, containing the proposed changes, shall be given and conferences shall be held immediately on the expiration of said notice unless another date is mutually agreed upon.

Proposed rules relative to classification of shops, classification of supervisors and mechanics, and duties required in case of industrial disputes have been eliminated. Regulations governing discipline and grievances, vacations, and sick leave, as in cases of other classes of employees, have been left to local determination.

Railway Express Employees.

Decision No. 722 (dockets 1211, 1212, and 1213), effective March 1, 1922, revises certain rules governing hours of service and working conditions of employees in the service of the American Railway Ex-

press Co. The rules which this decision modifies have been in effect since February 15, 1920, when the agreement was signed by the American Railway Express Co. and three of the following four organizations affected by this decision, namely, the Brotherhood of Railway and Steamship Clerks, Freight Handlers, Express and Station Employees; International Brotherhood of Teamsters, Chauffeurs, Stablemen and Helpers of America; Order of Railway Expressmen; and Railway Express Drivers, Chauffeurs, Conductors, and Helpers, Local No. 720 of Chicago Teamsters' Union.

Certain rules have been eliminated by the board. Such rules, which are noted in the following pages, terminate except in such instances as the individual carrier and its employees may agree upon them. Certain other rules have been omitted. In some cases the carrier and its employees have already agreed upon them. This is true of the major part of Article II, comprising seniority rules, Article III, governing discipline and grievances, and Article IV, covering leave of absence. Believing that certain other subjects, heretofore regulated by the rules of the agreement, can not be covered by rules of general application, the board has remanded such of them as involve a dispute to the carrier and its employees for adjustment. Such rules, as noted in the following pages, are omitted.

Following are the new rules. Omissions and eliminations from the former agreement are indicated and the old rules included. Additions are noted in italics. Other important changes in content are indicated in the notes following the rules modified.

Article I.—Scope.

EMPLOYEES AFFECTED.

RULE 1. These rules shall govern the hours of service and working conditions of employees in the service of the American Railway Express Co., subject to the exceptions noted below:

EXCEPTIONS.

These rules shall not apply to—

(a) Machinists, blacksmiths, harness makers, woodworkers, printers, painters, trimmers, carpenters, stationary engineers and stationary firemen, horseshoers, and other similar crafts.

(b) Individuals performing special service requiring only a part of their time from outside employment or business; or employees paid on a commission basis. It being the intent of this agreement that employees affected hereby shall be bona fide salaried employees of the American Railway Express Co.

(c) Agents and others whose duties are of a similar and equally supervisory nature, and who do not perform routine office work.

Chief clerks of agents at agencies *where there are regularly employed 40 or more employees exclusive of officials.*

Special agents and employees under the direction of special agency bureaus, special officers and patrolmen.

General foremen and other officials in supervisory positions who exercise such supervision through subordinate supervisory employees.

Route agents, commercial agents, traveling loss-and-damage supervisors, official chief messengers, superintendents of transportation, superintendents of bureaus of organization, superintendents of claims, and traveling auditors.

Personal office force of such officials as superintendents or their equals or superiors in official rank.

Employees excepted in this paragraph (c) shall retain their seniority rights as provided by rule 26, Article II.

The appointing officer shall be the judge, subject to appeal, as provided in Article III, in the event of questions arising as to the justification for the classification.

RULE 2.—Existing agreements. Omitted.

This rule provided that orders, supplements, etc., affecting working conditions of railway express employees issued by the director general [e. g., supplement 19 to General Order No. 27] where not in conflict with the agreement should remain in force.

Article II.—Seniority.

Rules 3 to 28 omitted.

These rules, governing seniority datum, promotions, seniority districts, vacancies, temporary appointments, changing starting time, reduction of force, transfers, abolition of positions, consolidation of offices, applications, reentering service, etc., have for the most part been agreed upon by the carrier and its employees.

Article III.—Discipline and grievances.

Rules 29 to 38 and 40 to 42, inclusive, omitted.

These rules covered grievances, investigation of dismissals, hearings, appeals, representation, exoneration, suspension, decisions, etc. The rules which have not already been agreed upon between the parties to the dispute are remanded to them for the purpose of adjustment.

COMMITTEES.

RULE 39. Committees of the employees will be granted necessary leave of absence for investigation, consideration, and adjustment of grievances.

Rule 39 of the agreement provided that transportation should be granted where procurable.

Article IV.—Leave of absence.

Rules 43 and 44, governing leave of absence and extension of seniority in such cases, are left to the carrier and its employees for settlement.

Article V.—Hours of service and meal period.

DAY'S WORK.

RULE 45. Except as otherwise provided in these rules, 8 consecutive hours, exclusive of the meal period, shall constitute a day's work.

INTERMITTENT SERVICE.

RULE 46. Where service is intermittent 8 hours' actual time on duty within a spread of 12 hours shall constitute a day's work. Employees filling such positions shall be paid overtime for all time actually on duty or held for duty in excess of 8 hours from the time required to report for duty to the time of release within 12 consecutive hours, and also for all time in excess of 12 consecutive hours computed continuously from the time first required to report until final release. Time shall be counted as continuous service in all cases where the interval of release from duty does not exceed 1 hour.

Exceptions to the foregoing paragraph shall be made for individual positions when agreed to between the management and duly accredited representatives of the employees. For such excepted positions the foregoing paragraph shall not apply.

This rule shall not be construed as authorizing the working of split tricks where continuous service is required.

Intermittent service is understood to mean service of a character where during the hours of assignment there is no work to be performed for periods of more than one hour's duration and service of the employees can not otherwise be utilized.

Employees covered by this rule will be paid for not less than 8 hours within a spread of 12 consecutive hours.

This rule under the agreement read as follows:

"Intermittent service.—RULE 46. Employees at the smaller agencies where not in excess of five employees are regularly employed, including clerks, transfer employees, and drivers, shall be paid overtime at the established overtime rates for the time actually on duty in excess of 8 hours within 12 consecutive hours and, also, for all time in excess of 12 consecutive hours computed continuously from the time required to report for duty to the end of the day's work. Time shall be counted as continuous service in all cases where the interval of release from service does not exceed 1 hour."

REPORTING AND NOT USED.

RULE 47. Hourly-rated employees whose seniority entitles them to regular employment required to report at regular starting time and place for a day's work when conditions prevent work being performed will be allowed a minimum of three hours' pay at pro-rata rates. If held on duty over three hours, actual time so held will be paid for. If required to work any part of the time so held and through no fault of their own are released before a full day's work is performed they will be paid not less than eight hours' pay unless they lay off of their own accord.

This guarantee will not be construed to apply to those who are employed to take care of the fluctuating work that can not be handled by regular forces.

LENGTH OF MEAL PERIOD.

RULE 48. Unless agreed to by a majority of employees in a department or subdivision thereof, the meal period shall not be less than 20 minutes nor more than 1 hour.

The former rule provided a minimum meal period of 30 minutes.

Rules 49 to 51 omitted.

These rules covered provision of meal period on work requiring continuous operation, time when meal period should occur, and payment for work during meal period. Disputes on these questions are left to the carrier and the employees for settlement.

CHANGING STARTING TIME.

RULE 52. Regular assignments (except in train service) shall have a fixed starting time, and the regular starting time shall not be changed without at least 36 hours' notice to the employee affected.

RULE 53. Three-shift position. Omitted.

This rule read as follows:

"Where three consecutive shifts are worked covering the 24-hour period no shift will have a starting time after 12 o'clock midnight and before 5 a. m."

Article VI.—Overtime and calls.

OVERTIME.

RULE 54. Except as otherwise provided in these rules, time in excess of eight hours, exclusive of meal period, on any day, will be considered overtime and paid on the actual minute basis, at the pro rata rates for the ninth hour and at time and one-half thereafter.

The agreement provided for overtime payment for the ninth hour.

NOTIFIED OR CALLED.

RULE 55. Except as provided in rule 56, employees notified or called to perform work not continuous with (before or after) the regular work period shall be allowed a minimum of three hours for two hours' work or less, and if held on duty in excess of two hours, time and one-half will be allowed on the minute basis.

Rules 56 to 60, inclusive, omitted.

These rules, covering absorbing overtime, authorizing overtime, computing overtime, and notification read as follows:

"Rule 56. Employees who have completed their work period for the day and have been released from duty required to return for further service may, if conditions justify, be paid as if on continuous duty.

"Absorbing overtime.—RULE 57. Employees will not be required to suspend work during regular hours to absorb overtime.

"Authorizing overtime.—RULE 58. No overtime hours will be worked except by direction of proper authority, except in cases of emergency where advance authority is not obtainable.

"Computing overtime.—RULE 59. Overtime will be computed by showing the overtime hours at the established overtime rates, and shall be entered on the pay roll records as a separate item.

"Notified.—RULE 60. When time is claimed in writing and such claim is disallowed the employee making the claim shall be notified in writing and reason for nonallowance given."

Article VII.—Sunday and holiday work.

FULL-DAY PERIOD.

RULE 61. Except as otherwise provided in these rules, time worked on Sundays (or day given in lieu thereof) and the following holidays, namely, New Year's Day, Washington's Birthday, Decoration Day, Fourth of July, Labor Day, Thanksgiving Day, and Christmas (provided that when any of the above holidays fall on Sunday, the day observed by the State, Nation, or by proclamation shall be considered the holiday) shall be paid for at the pro-rata hourly rate when the entire number of hours constituting the regular week-day assignment are worked.

NOTE.—Where the exigencies of service require employees to work on Christmas, and they are so worked, they shall be given a day off either in the month of December or January in lieu thereof. If worked on such day off, they shall be paid in accordance with rules 61 and 62.

LESS THAN FULL-DAY PERIOD.

RULE 62. Except as otherwise provided in these rules, when assigned, notified, or called to work on Sundays and on the above-specified holidays a less number of hours than constitute a day's work within the limits of the regular week-day assignment, employees shall be paid at the pro-rata hourly rate for actual time worked with a

minimum of three hours. Time worked before or after the limits of the regular week-day assignment shall be paid for as per rule 54.

Rules 63 and 64 omitted.

These rules are left to the determination of the parties. They provided the method for determination of the daily rate of pay and for a weekly day of rest.

Article VIII.—Train-service employees.

MONTH'S ASSIGNMENT.

RULE 65. For all employees in train service, except those in combination service as defined in rule 69, 240 hours, or less, on runs in regular assignment shall constitute a basic month's work. Deadhead hours, properly authorized, will be counted as service hours. Time for trip of employees on a car scheduled to leave prior to 12 o'clock midnight on the last day of a month will be credited to the month in which the train handling the car is scheduled to arrive.

OVERTIME RATE.

RULE 66. Train-service employees included in rule 65 shall be paid overtime on the actual minute basis for all time on duty each month in excess of 240 hours at pro-rata rates, which shall be determined by dividing the monthly wage by 240. Time in excess of 270 hours shall be paid for at the rate of time and one-half times the hourly rate. Time shall be counted as continuous for each trip from the time required to report for duty until released from duty. Overtime shall be paid for at the end of each month.

Payment at the rate of time and one-half after the eighth hour was provided in the agreement.

Rules 67 to 71 omitted.

These rules regulated for train-service employees conditions governing reporting for duty, combination service, relief periods, and salary for fractional parts of the month. These matters are left to the carrier and its employees.

OVERTIME FOR FRACTIONAL PARTS OF MONTH.

RULE 72. For regular employees in train service working less than a full month in regular assignment, overtime will accrue after a ratable proportion of the 240-hour period has been worked. Such ratable proportion shall be determined in the ratio that the scheduled hours worked during the month bear to the scheduled hours constituting that month's work. By this method overtime for such employees will consist of the time actually on duty in excess of the ratable proportion of the 240-hour period as above determined.

NOTE.—"Scheduled hours" as mentioned above consist of the scheduled train time plus the scheduled terminal time at initial and final terminals for each run.

RELIEF, SUBSTITUTE, AND EXTRA TRAIN EMPLOYEES.

RULE 73. (a) Where relief, substitute, and extra train employees are employed at a fixed monthly salary to work as directed they shall be paid their regular monthly pay and overtime for all time worked in excess of 240 hours per month, at pro-rata rates: time beyond 270 hours at rate of time and one-half. The pro-rata hourly rate shall be determined by dividing the monthly wage of such men by 240, provided that the principle established in rule 80 is maintained.

Hours in excess of 240 were paid for at the rate of time and one-half heretofore.

(b) Where such employees are paid no fixed salary per month but are paid according to time worked at the pay of the run, they should be paid upon the basis provided for regularly employed train employees in rule 72. In the case of such employees the 240 hours per month applicable to employees in regular assignment do not apply since, under the method provided in rule 72, they will receive overtime for time run in excess of a ratable proportion of 240 hours as is the case of regularly employed messengers.

(c) With regard to employees paid no stated salary, but who perform extra work not in place of any regular messenger, they shall be paid as follows:

If substituting or running extra on a run where there is a regular assignment, they shall be paid as per paragraph (b) of this rule, i. e., the regular pay of the run, including the ratable proportion of overtime.

If employed in train service where there is no regular assignment, they shall be paid 60 cents per hour (50 cents per hour for helpers) with a minimum guarantee of eight hours.

The 240-hour provision applicable to employees in regular assignment does not apply to employees covered by this paragraph (c).

REGULAR TRAIN EMPLOYEES WORKING DURING LAY-OVER PERIOD.

RULE 74. (a) When necessary to double or run out of time, such employees shall receive credit for time so spent, which time will apply against the monthly hours of 240, overtime to be paid for time run in excess thereof, provided that where the assigned working hours of the run are less than 240 per month, such service shall constitute a call and be paid for as per paragraph (b) of this rule.

(b) Men called to protect route other than own will be paid as follows: Time shall be computed from the time reporting for duty until the time released from duty for each trip, time to be counted as continuous when the period of relief does not exceed one hour. Deadhead hours duly authorized to be counted as service hours. Compensation for time so occupied shall be paid for on the minute basis at pro-rata rates with a minimum allowance of three hours' pay for two hours' work or less.

During the life of the agreement compensation for time so occupied was paid on the following basis: For the first eight hours pro rata, time thereafter at time and one-half time applied to each trip. (There will be a minimum allowance of two hours at time and one-half time for two hours worked or less. If time exceeds two hours, but is less than eight hours, the bonus of one hour will continue up to and including the seventh hour.)

(c) In the determination of the hourly rate, the monthly rate (own rate, if higher; otherwise, rate of run occupied) should be divided by the scheduled hours constituting a month's work. Time specially compensated for under this provision would not be included in the monthly time of such men applying on their regular assignment. In case such special duty causes absence on regular assignment, the pay of regular assignment will be apportioned as per rules 71 and 72.

Rule 75 omitted.

This rule provided that employees regularly assigned to train service, required to work during lay-over period, who on account of such special assignment missed their regular run, should not suffer loss of salary because of such absence from regular duty.

SHORT TURN-AROUND SERVICE.

RULE 76. Train employees on short turn-around runs shall be paid overtime for all time actually on duty each month in excess of 240 hours, as provided in rule 66. Time to be counted as service time in all cases where the interval of release from duty at any point does not exceed 1 hour; *Provided*, That the minimum service time allowance shall be computed at not less than 8 hours within any one day.

Rules 77 to 89 and 91 to 94, inclusive, omitted.

These rules, remanded to the parties in case of a dispute, governed adjustment of assignment of train-service employees; regulations for transportation and payment of employees attending court at the request of the management; the rating of positions; and general rules governing posting of notices, interpretation of the term "duly accredited representative," transfer by management, or transfer by seniority incapacitated employees, furnishing of office equipment, payment of bond premiums, vehicle service, printing schedules, evasion of application of rates prescribed under the agreement, and the preservation of rates previously or subsequently authorized by the director general.

Rules 90 and 95 eliminated.

These rules terminate unless the carrier and its employees agree to apply them. They read as follows:

RULE 90. Free transportation: Employees covered by this agreement and those dependent upon them for support will be given the same consideration in granting free transportation, where procurable, as is granted other employees in railroad service.

RULE 95. Agreements or practices, except as changed by this agreement, remain in effect.

DATE EFFECTIVE AND CHANGES.

RULE 96. This agreement shall be effective as of March 1, 1922, and shall continue in effect until it is changed as provided herein or under the provisions of the transportation act, 1920.

Should either of the parties to this agreement desire to revise or modify these rules, 30 days' written advance notice, containing the proposed changes shall be given and conferences shall be held immediately on the expiration of said notice unless another date is mutually agreed upon.

Telegraphers.

The regulations governing working conditions of the telegraphers were issued by the Director General of Railroads in Order No. 27, and supplements numbers 13 and 21 thereto. Decision No. 757

(dockets Nos. 1, 2, 3, and 1606) of the Railroad Labor Board modifies to some extent the regulations operative during Government control. The principal changes made in the rules affecting this class of employees relate to overtime, intermittent service, payment for the meal period, and for Sunday and holiday work.

SCOPE.

RULE 1. This schedule will govern the employment and compensation of telegraphers, telephone operators (except switchboard operators), agent-telegraphers, agent-telephoners, towermen, levermen, tower and train directors, block operators, staffmen, and such agents as may be included by the operation of the second paragraph of this rule, and will supersede all previous schedules, agreements, and rulings thereon.

The disputes as to what exclusive agents shall be covered by the rules are remanded to the representatives of the parties on the individual carriers for further negotiation.

BASIC DAY.

RULE 2. Except as specified in rule 3, eight consecutive hours, exclusive of the meal hour, shall constitute a day's work, except that where two or more shifts are worked, eight consecutive hours with no allowance for meals shall constitute a day's work.

INTERMITTENT SERVICE.

RULE 3. At one-shift offices, where service is intermittent, 8 hours' actual time on duty within a spread of 12 hours shall constitute a day's work. Employees filling such positions shall be paid overtime for all time actually on duty or held for duty in excess of 8 hours from the time required to report for duty to the time of release within 12 consecutive hours, and also for all time in excess of 12 consecutive hours computed continuously from the time first required to report until final release. Time shall be counted as continuous service in all cases where the interval of release from duty does not exceed 1 hour.

Exceptions to the foregoing paragraph shall be made for individual positions when agreed to between the management and duly accredited representatives of the employees. For such excepted positions the foregoing paragraph shall not apply.

This rule shall not be construed as authorizing the working of split tricks where continuous service is required.

Intermittent service is understood to mean service of a character where during the hours of assignment there is no work to be performed for periods of more than one hour's duration and service of the employees can not otherwise be utilized.

Employees covered by this rule will be paid not less than 8 hours within a spread of 12 consecutive hours.

This rule authorizes "split tricks," which were not permitted during war-time administration.

OVERTIME.

RULE 4. Except as otherwise provided in these rules, time in excess of eight hours, exclusive of meal period, on any day, will be considered overtime and paid on the actual minute basis, at the pro-rata rates for the ninth hour, and at time and one-half thereafter.

Punitive overtime at the rate of time and one-half was paid for the ninth hour under the former regulation.

CALL RULE.

RULE 5. Employees notified or called to perform work not continuous with the regular work period will be allowed a minimum of three hours for two hours' work or less, and if held on duty in excess of two hours, time and one-half will be allowed on the minute basis.

MEAL PERIOD.

RULE 6. Where but one shift is worked, employees will be allowed 60 consecutive minutes between 11.30 and 1.30 o'clock day or night for meal.

If the meal period is not afforded within the allowed or agreed time limit and is worked, the meal period shall be paid for at the pro-rata rate and 20 minutes, with pay, in which to eat shall be afforded at the first opportunity.

The previous rule provided for payment of the overtime rate for the meal period in cases where such period was not allowed during the agreed time limit, and for 30 minutes with pay to be afforded at the first opportunity.

STARTING TIME.

RULE 7. Regular assignments shall have a fixed starting time and the regular starting time shall not be changed without at least 36 hours' notice to the employees affected.

Where three consecutive shifts are worked covering the 24-hour period, no shift will have a starting time after 12 o'clock midnight and before 6 a. m.

The starting time was fixed under the previous regulations as follows:

"In one-shift offices work shall begin between 6 and 9 a. m. or 5 and 9 p. m.; in other offices no shift will begin between 12 o'clock midnight and 5 a. m.

SUNDAY AND HOLIDAY WORK.

RULE 8. Employees will be excused from Sunday and holiday duties as much as the condition of business will permit.

Time worked on Sundays and the following holidays, namely, New Year's Day, Washington's Birthday, Decoration Day, Fourth of July, Labor Day, Thanksgiving Day, and Christmas (provided when any of the above holidays fall on Sunday, the day observed by the State, Nation, or by proclamation shall be considered the holiday), shall be paid for at the regular hourly rate when the entire number of hours constituting the regular week-day assignment are worked.

When notified or called to work on Sundays and the above specified holidays a less number of hours than constitute a day's work within the limits of the regular week-day assignment, employees shall be paid a minimum allowance of two hours at overtime rate for two hours' work or less, and at the regular hourly rate after the second hour of each tour of duty. Time worked before or after the limits of the regular week-day assignment shall be paid for in accordance with overtime and call rules.

Extra pay was required for Sunday and holiday work under the former regulations.

BASIS OF PAY.

RULE 9. All employees herein specified will be paid on hourly basis.

GUARANTEE.

RULE 10. Regular assigned telegraphers will receive one day's pay within each 24 hours, according to location occupied or to which entitled, if ready for service and not used, or if required on duty less than the required minimum number of hours as per location, except on Sundays and holidays.

This rule shall not apply in cases of reduction of forces nor where traffic is interrupted or suspended by conditions not within the control of the carrier.

DISCIPLINE—PAY FOR TIME LOST.

RULE 11. If the final decision decrees that charges against the employee are not sustained the record shall be cleared of the charge; if suspended or dismissed, the employee will be returned to former position and paid for all wages lost less amount earned in any other service.

SUSPENSION OF WORK DURING REGULAR HOURS.

RULE 12. Employees will not be required to suspend work during regular hours or to absorb overtime.

FREE TRANSPORTATION.

RULE 13. Employees covered by this agreement and those dependent upon them for support will be given the same consideration in granting free transportation as is granted other employees in service.

General committees representing employees covered by this agreement will be granted the same consideration as is granted general committees representing employees in other branches of the service.

CLASSIFICATION OF EMPLOYEES, NEW POSITIONS, ETC.

RULE 14. Where existing pay-roll classification does not conform to rule 1, employees performing service in the classes specified therein shall be classified in accordance therewith.

When new positions are created compensation will be fixed in conformity with that of existing positions of similar work and responsibility in the same seniority district.

ATTENDING COURT—WITNESSES.

RULE 15. Employees taken away from their regular assigned duties, at the request of the management, to attend court or to appear as witnesses for the carrier will be furnished transportation and will be allowed compensation equal to what would have been earned had such interruption not taken place and, in addition, necessary actual expenses while away from headquarters. Any fee or mileage accruing will be assigned to the carrier.

HANDLING TRAIN ORDERS.

RULE 16. No employee other than covered by this schedule and train dispatchers will be permitted to handle train orders at telegraph or telephone offices where an operator is employed and is available or can be promptly located, except in an emergency, in which case the telegrapher will be paid for the call.

HANDLING UNITED STATES MAIL.

RULE 17. When the carrying of the United States mail and parcels post by the employees herein specified becomes unduly burdensome, or interferes with the proper operation of trains, they will be relieved from such work.

HANDLING SWITCHES, ATTENDING SWITCH LIGHTS, ETC.

RULE 18. At stations where section men reside or porters or helpers are employed, employees as per rule 1 will not be required to attend interlocking or switch lights, but will see that they are kept burning.

At stations where employees as per rule 1 are required to care for interlocking or switch lights they will be allowed 75 cents per light per month, with a minimum of \$3 for four lights or less.

REGULAR ASSIGNED MEN DOING EXTRA WORK.

RULE 19. Regularly assigned telegraphers will not be required to perform relief work except in cases of emergency and when required to perform relief work, and in consequence thereof, suffer a reduction in the regular compensation, shall be paid an amount sufficient to reimburse them for such loss, and in all cases they will be allowed actual necessary expenses while away from their regular assigned stations.

EXPRESS AND TELEGRAPH COMMISSIONS.

RULE 20. When express or Western Union commissions are discontinued or created at any office, thereby reducing or increasing the average monthly compensation paid to any position, prompt adjustment of the salary affected will be made conforming to rates paid for similar positions.

DATE EFFECTIVE AND CHANGES.

RULE 21. This agreement shall be effective as of March 16, 1922, and shall continue in effect until it is changed as provided herein or under the provisions of the transportation act, 1920.

Should either of the parties to this agreement desire to revise or modify these rules, 30 days' written advance notice (containing the proposed changes) shall be given and conferences shall be held immediately on the expiration of said notice unless another date is mutually agreed upon.

Rules governing seniority, promotion, discipline, and grievances, as well as those relating to vacations and sick leave with pay are left to the carriers and their respective employees to be mutually agreed upon.

Train Dispatchers.

The controversy relative to hours and conditions of work for train dispatchers is concluded by Decision No. 721 (docket 475) of the Railroad Labor Board. The new rules, made effective March 1, 1922, follow:

Article I.—Scope.

The term "train dispatcher" as herein used shall be understood to include chief, assistant chief, trick, relief, and extra dispatchers, except chief dispatchers vested substantially with the authority of superintendent or assistant superintendent.

Article II.—Hours of service, overtime, and expenses.

- (a) Eight consecutive hours shall constitute a day's work for train dispatchers.
- (b) All time worked in excess of eight hours shall be paid for on the actual minute basis at pro-rata rate for the ninth hour and at the rate of time and one-half thereafter. Time consumed in making transfer shall not be counted as overtime.
- (c) Each train dispatcher will be assigned to established headquarters in accordance with seniority provisions and when required to leave such headquarters shall be paid necessary actual expenses in addition to regular salary while away. This section does not apply to relief or extra dispatchers.

Article III.—Rest days and relief service.

- (a) Each regularly assigned train dispatcher (and extra dispatchers who perform six days' dispatching service in one week) will be allowed and required to take one day off per week as a relief day, except when unavoidable emergency prevents furnishing relief. If required to work such relief day, extra compensation will be allowed at pro-rata rate.
- (b) The carrier shall designate an established rest day for each position in accordance with the foregoing section. Reasonable notice shall be given of change in assignment of rest day.
- (c) Where relief requirements regularly necessitate four or more days of relief service per week, relief dispatchers shall be employed and paid the daily rate of each dispatcher relieved, and when not engaged in dispatching service will be assigned to other service and paid therefor a daily rate commensurate with the service rendered.
- (d) Relief requirements of less than four days per week will be performed by extra dispatchers who will be paid the daily rate of each train dispatcher relieved.

Article IV.—Rates and application of pay.

- (a) Train dispatchers shall be monthly employees but the monthly compensation shall be computed on a daily basis.
- (b) When necessary to fix a daily rate of pay it shall be determined by multiplying the regular monthly rate by 12 and dividing the result by 313.
- (c) Loss of time on account of the hours-of-service law or in changing positions by the direction of proper authority shall be paid for at the rate of the position for which service was performed immediately prior to such change. This does not apply in case of transfers account employees exercising seniority.
- (d) Rates of pay for new positions shall be the same as for existing positions of equal scope and responsibility.

Article V.—Miscellaneous.

- (a) Dispatching offices will be maintained as private as possible.
- (b) When assignment by the carrier requires train dispatchers to change their place of residence they will be furnished free transportation for their families and household goods to their new place of residence at time of transfer.
- (c) Train dispatchers and their dependents will be granted as liberal transportation privileges as are accorded other subordinate officials and employees.
- (d) Reasonable notice will be given of reduction in force or change in hours of assigned positions.

Article VI.—Date effective and changes.

(a) This agreement shall be effective as of March 1, 1922, and shall continue in effect until it is changed as provided herein or under the provisions of the Transportation Act, 1920.

(b) Should either of the parties to this agreement desire to revise or modify these rules, 30 days' written notice, containing the proposed changes, shall be given and conferences shall be held immediately on the expiration of said notice unless another date is mutually agreed upon.

Proposed rules relative to pay-roll classification, specification of duties, and preference in employment of experienced train dispatchers were eliminated, such rules terminating except in such instances as any particular carrier and its employees may agree upon them.

Building Industry—Agreement to Uphold Jurisdictional Board.

AN AGREEMENT has recently been entered into upholding the authority of the National Board for Jurisdictional Awards, which is signed by the Associated General Contractors of America, the American Institute of Architects, the Engineering Council, the National Building Trades Employers Association, and the building trades department of the American Federation of Labor. During the past year there has been trouble in the building industry caused by the refusal of the United Brotherhood of Carpenters and Joiners to accept a decision of the jurisdictional board by which the setting of sheet-metal trim on doors and windows was awarded to the sheet-metal workers instead of to the carpenters. The aim of the present agreement is to so strengthen the authority of the board that hereafter its awards can not be disregarded. After recounting the facts concerning the action of the carpenters, the agreement provides for the future as follows:

Resolved, That in order to correct the above-mentioned conditions, the several signatories to the plan of this board be urged to instruct their constituent members, each in its respective field as follows:

That the members of the American Institute of Architects and of the Federated American Engineering Societies insert in all specifications and contracts for building operations a stipulation that the decisions of the jurisdictional board shall be observed;

That the members of the Associated General Contractors and of the National Association of Building Trades Employers incorporate in their agreements with their subcontractors a provision that will secure a compliance with all decisions of the jurisdictional board and that the members thereof shall refuse employment to any local union or members thereof neglecting or refusing to abide by decisions of the jurisdictional board;

That the building trades department shall instruct local councils to unseat any local union refusing compliance with such decisions, and that associated international unions shall instruct their respective locals to extend neither recognition nor support until such time as delinquent locals accept and abide by all decisions of the jurisdictional board.

Resolved further, That this resolution shall be enforced as expeditiously as possible, beginning with those localities in which the trouble appears to be most acute and where action seems most urgent, and that all these signatories make special and united efforts toward securing general and complete compliance with all the decisions of the jurisdictional board; and

Resolved also, That as and when trouble in any locality is brought to the attention of any of the signatories, such organization shall take the initiative in forming a general committee of representatives from all the signatories for the purpose of dealing with the situation in that locality.

Building Trades in Chicago—Judge Landis' Award, January, 1922.

AMONG the terms of the agreement under which Judge Landis was chosen for umpire in the Chicago building trades dispute was a provision that on or before February 1, 1922, a scale of wages should be fixed to prevail for one year from May 31, 1922. In accordance with this provision, Judge Landis issued in January a scale which differs but slightly from that set by the award of September 7, 1921.¹ The workers objected to that scale because it abolished the uniform rate for the basic trades, substituting varying rates which, in the arbitrator's opinion, corresponded to the differences in skill, time required for learning, hazard and loss of time due to weather in the several trades, and also because they considered the rates set too low. On the first point no concession is made in the new scale; on the second, a few changes have been introduced, the trades affected and the hourly rates set by the two awards being as follows:

Trade.	Hourly rate.	
	September award.	January award.
	<i>Cents.</i>	<i>Cents.</i>
Composition floor laborers.....	72½	78½
Machinery movers and riggers.....	85	92½
Marble setters.....	87½	97½
Seaghola rubbers and polishers.....	75	80
Terrazzo mechanics, assistants.....	80	82½

As in the September award, Judge Landis lists several trades for which he would allow higher rates if they would drop certain practices which he regards as detrimental to the industry, and also states what he considers would be fair rates for several trades not included in the arbitration agreement.

As the September award has not yet been fully established, it is too early to say what will be the fate of this scale. An account of the struggle centering around the attempt to enforce the original arbitration decision will be found in another section of this issue.

 Hat and Cap Industry—New York City.

IN ACCORDANCE with the provision in the working agreement in the hat and cap industry of New York City, which gives either side a right to raise questions of wages and working conditions at the end of every six-months period, the manufacturers submitted a request for a general reduction in wages of 25 per cent, while the union asked for an increase of 10 per cent in the wages of certain classes of workers. The conference committee of workers and employers were unable to agree and the question was submitted to arbitration. The arbitration board was composed of three members chosen from persons not connected directly with the industry. Mr. George Soule represented the union and Mr. Samuel Naitoive the

¹ For full text of this award, see MONTHLY LABOR REVIEW, October, 1921, p. 112.

employers. Dr. J. L. Magnes was chosen impartial arbitrator. Negotiations which began last November were completed on February 17, 1922, when the impartial arbitrator handed down the following decision.

By agreement between the union and the various manufacturers' associations this decision will be applied also in Baltimore, Cleveland, and Indianapolis.

Decision of the Arbitrator in the Arbitration Proceedings Between the Cloth Hat and Cap Manufacturers' Association and the Joint Council of New York of the United Cloth Hat and Cap Makers of North America.

I. FACTS.

There was submitted to the arbitrator for decision the request of the Cloth Hat and Cap Manufacturers' Association for a reduction of 25 per cent in the wages of the workers represented by the joint council of New York of the United Cloth Hat and Cap Makers of North America.

This request was made on the basis of Section A, paragraph 8 of the collective agreement, giving to either side the right of calling for a conference to consider the question of wages, standards of production, methods of division of work.

From the statements as presented by both sides, it seems to be agreed—

(1) That of the 4,500 workers in the industry in New York, not more than half have employment at the present time.

(2) That the average wage in the industry is about \$40 a week.

(3) That of the 2,000 to 2,500 workers with employment, most are working only on part time, making the actual average earnings of those now employed only about \$20 a week.

The point at issue between both sides is as follows:

(1) The manufacturers contend that there is but little business, and consequently but little employment, primarily because of high labor charges, and they contend that with a general reduction of wages of 25 per cent they would be assured of a great deal more business, and, as a consequence, there would be more employment for the workers.

(2) The workers contend that the lack of business is not due to labor charges, but is due primarily to the depressed industrial situation over which neither manufacturers nor workers have control, and that, as a consequence, a reduction in wages would not result in increased business or increased employment.

The arbitrator finds a genuine condition of distress, both among the employers and the workers. Although the manufacturers could not, in the nature of things, prove that increased business would follow a reduction in wages, the arbitrator would have liked to accept this view of the manufacturers in the hope that thereby more employment might conceivably result. But he can not accept this view for the following two reasons:

First. The wage which the workers are receiving at the present time is so very low that it is impossible, from a purely human point of view, to recommend that it be made lower.

Second. Under the present agreement which continues until May 31, 1922, it is incumbent upon both sides to meet not later than May 1 to discuss the terms of a new agreement. In other words, it will be only ten weeks before a new agreement is to be entered into. By that time there will be greater clarity as to the industrial situation, and both sides will be in a better position to determine wage questions than they are now.

On the other hand, it was brought out that, in addition to the question of wages, the question of standards of production is creating difficulties, particularly in the minds of the manufacturers, some of whom seem to feel that if this question could be gone into thoroughly without undue delay, conditions in the industry might be improved.

II. DECISION.

Upon the basis of the above, the arbitrator decides as follows:

(1) There shall be no reduction in wages.

(2) There should be an early conference of both sides to consider questions relating to standards of production, and the agreement arrived at should be the law of the industry even before the expiration of the present agreement, and it should be incor-

porated as the standard of production in any subsequent agreement. In case both sides have not reached an agreement as to standards of production by April 10, the question should be submitted for decision to an arbitrator, whose decision shall be binding on both sides for the period up to May 31, and for the duration of the new agreement then to be determined upon.

(3) In order to expedite this conference on questions relating to standards of production, the arbitrator recommends that meetings begin not later than March 10, and end not later than April 15. In case both sides can not agree by April 15 as to the methods in accordance with which proper standards of production are to be determined, the question of determining such methods should be referred to an arbitrator whose decision should be binding on both sides.

Longshore Work—Hampton Roads and Vicinity

AN AGREEMENT, effective October 1, 1921, to October 1, 1922, has been entered into between the United States Shipping Board Emergency Fleet Corporation, deep-water steamship lines, master stevedores association, and other contracting stevedores of the ports of Hampton Roads and vicinity and the International Longshoremen's Association and its locals 846, 862, and 944 for Newport News and 933, 984, and 985 for Norfolk.

The terms of the agreement provide for the loading, unloading, and bunkering of ships in the ports of Hampton Roads and vicinity and include the preferential shop, a basic eight-hour day, and the following wage scale:

HOURLY WAGE RATES.

Class of work.	Regular time.	Overtime.
General cargo, including barrel oil when part of general cargo, also bulk cargo, ballast, and all coal cargoes, including bunker coal.....	\$0.60	\$0.90
Sulphur and steel dust in bulk or bags.....	.65	.95
Wet hides.....	.75	1.05
Screwing cotton and tobacco aboard ship, frozen meats, and other cargo - in compartments under refrigeration.....	.80	1.10
Explosives in stream.....	1.20	1.80

Overtime rates are paid for working meal hours. When men are on duty through the night and are obliged "to work the midnight and/or the breakfast meal hours the rates for such meal hours shall be double the overtime rate."

Men may be called upon to work any night or on Sunday.

It is stipulated that every effort is to be made to pay wages at localities convenient to the workers. The pay-roll week ends Thursday at 6 p. m. and the men are to be paid off Saturday afternoon, pay windows remaining open from as near 3 p. m. as possible to as late as 7 p. m. if necessary.

Matters in controversy shall be submitted to a committee of six, three members representing the workers and three the employers, one of the latter members being a managing agent of the United States Shipping Board Emergency Fleet Corporation vessels. Majority decisions of this committee are to be final and binding. Should this committee not be able to come to a satisfactory decision, the members shall elect a seventh man to act as chairman. The majority decision of the augmented committee shall be final and binding upon the parties to this agreement.

Any employee found guilty of incompetency, shirking of work, pilfering or poaching of cargo shall be dealt with as the employer sees fit or as circumstances demand. A worker convicted of theft shall be expelled from the union.

Printing—New York City.

ON FEBRUARY 21, 1922, Judge Martin T. Manton, of the United States Court of Appeals, submitted, as chairman of an arbitration board,¹ an important award in the case of the Publishers' Association of New York City and the New York Newspaper Web Pressmen's Union No. 25. The decision deals with wages, hours, and working conditions and in a number of instances affects some very material changes.

Among the more important articles of the award is that giving the publishers "the sole right to determine the number of men necessary to operate and man the presses." Previously this matter had been agreed upon by the publishers and the union.

The sections of the decision which concern hours read in part as follows:

Eight consecutive hours, exclusive of the luncheon period hereinafter provided for considered between the hours of 7 a. m. and 7 p. m., shall constitute a regular day's work. Any eight consecutive hours, exclusive of the luncheon period provided for, between 7 p. m. and 7 a. m., except on Saturday, when the hours shall be in eight consecutive hours between 5 p. m. and 5 a. m., shall constitute a regular night's work. Workmen called for duty between 5 a. m. and 7 a. m. for day work shall receive one dollar extra. Reasonable notice shall be given by the publisher to the workmen for the hours it is desired that they labor. Men working on Saturday and Saturday night on Brooklyn papers shall receive the regular Saturday night scale for Saturday night and a bonus of \$1.50, provided at least four hours elapse between the two shifts.

This is a radical change in the day shift hours as well as the night shift hours. The demands of the publisher's business require it. To permit of four shifts, as heretofore, does not work for the essential purposes of the employment. It is very clear that it has heretofore resulted in the men working not more than eight hours but receiving extra pay for alleged overtime because of the arbitrary hours fixed for the shifts. * * *

The bonus for this service on Saturday night is reduced. The bonus of \$2.28 was granted during the war period. We think the request to entirely eliminate this bonus should not be granted. It is a privilege accorded the publishers to have the same crew man the presses for 16 hours out of the 24 hours which should be recognized, not only by the usual pay therefor, but a bonus to encourage the men. We think this will be helpful to the industry, the publisher as well as the workmen.

Formerly the lunch hour was included in the eight-hour work period. The award provides that the time allowed for luncheon "shall not be part of the regular hours of labor nor shall it be paid for where the intervals between editions permit any press to stop so that the crew can go to lunch. In offices where continuous operation is necessary, if men take their luncheon in turn and the presses continue in operation, each half-hour lunch period shall be counted as a part of the eight-hour work."

The award fixes the following rates of pay:

	8-hour day.	8 hours at night
Foreman (to be fixed by publisher).		
Pressmen in charge (minimum).....	\$8. 50	\$9. 00
Competent pressmen.....	7. 50	8. 00

Overtime to be paid at one and one-half times the regular rates, actual time to be paid for rather than periods of 15 minutes or half hours.

¹ The other two members of the board were Lester L. Jones, representing the publishers, and Albert B. Kreidler, representing the union.

The president of the union involved declares in the New York Herald of March 2, 1922, that, all changes taken into consideration, the reduction in wages in the city will average, on the whole, 20 per cent. In one office the decrease in pay, he estimates, will amount to 35 per cent.

Articles VII, VIII, IX, and X deal, respectively, with the operation, cleaning, and upkeep of the presses, the transfer of press crews, the discharge of employees, and jurisdiction in the pressrooms. The decision states that the sole object of such articles is the clear understanding "that the work shall be carried on under the authority and direction of the publisher."

The following excerpt from Article XI would, it seems, still further confirm such understanding:

The publisher agrees to select a foreman from the membership of the union, if one may be found therein who is competent and otherwise satisfactory to fulfill the duties required of him. If not, a foreman may be selected by the publisher, though he is not a member of the union.

The foreman shall be in every way the unrestricted representative of the publisher in the pressrooms. He can only be discharged or disciplined by the publisher. If he is deprived of his membership in the union that, of itself shall not be sufficient cause for his discharge by the publisher, but if a complaint is made against the foreman it shall first be laid before the publisher, and the publisher agrees that if there is proper and sufficient cause therefor it shall be his duty to discharge such foreman.

The ratio of apprentices is to be determined by the foreman in accordance with the demands of the business. The decision reduces the compensation of these workers. They are to receive under the award \$4.50 in the first and second years and \$5 in the third, fourth, and fifth years for each eight-hour day or night.

At the request of the union made before the award was handed down the decision was to be effective from March 1, 1922, to September 1, 1923.

The award, however, was not signed by the union representative and was strongly objected to by the pressmen, who left their jobs for a brief period, returning to work, however, on March 1 under the terms of the decision.

The president of the union stated that the acceptance of the award "must not be taken to mean that the men or any considerable minority of them consider it other than unfair and unjust. * * * It means that having made a contract, * * * bad though the bargain prove to be, we will keep it."

Coal Mining—Nova Scotia.¹

UNDER the Canadian industrial disputes investigation act of 1907, application for a board of conciliation was made on December 21, 1921, by the president and secretary of the United Mine Workers of America, district No. 26, in a controversy regarding wages between their organization and the Dominion Coal Co., the Nova Scotia Steel & Coal Co., and the Acadia Coal Co.

According to miners' representatives, the dispute affected 10,000 employees directly and 3,000 indirectly.

The establishment of the board was authorized by the minister of labor. Its members were: Mr. U. E. Gillen, of Toronto, chairman;

¹ The Labor Gazette, Ottawa, February, 1922, pp. 142-181.

Col. W. E. Thompson, barrister, of Halifax, and Mayor James Ling, of New Waterford, Nova Scotia, the last named being designated by the employees. The board held 11 meetings in January and ample opportunity was given to the disputants to submit evidence.

In view of the exceptional character of the case the board considered it advisable to incorporate a number of the filed exhibits in its report. Brief excerpts from some of these exhibits will serve to indicate the respective attitudes of the contending parties. For example, the president of the Dominion Coal Co. took the position that unfortunately, markets and prices did not permit of the continuance of the existing rates of wages; that the "company must meet the competition of coal-producing countries where miners' wages have undergone heavy reductions in recent months, or where wage reductions will in all probability take place before the opening of the St. Lawrence navigation next spring."

The secretary of district No. 26 of the United Mine Workers of America in turn called attention to the "handsome earnings" of the company in the last few years, declaring that the miners' increases during the same period "were such, in the race with rising prices, as to leave the wage rate an ever-increasing distance in the rear."

Both the miners and operators submitted lengthy statements in support of their various contentions.

With reference to cost of production the president of the miners' union said:

We have several mines producing three long tons of coal per day, per man. Three tons of coal at the mine mouth is equivalent to \$18 value produced per day per man. Six dollars is much more than the average wage in these mines, but for the sake of easy calculation, we will call it \$6. Hence the actual wage cost per ton must be \$2. These conditions could be developed in all of the mines by practical and economic management, and would consequently obviate the necessity of the present management procuring a reduction in the existing wage rate, and we deny the justice of the companies' proposition in an attempt to reduce the miners' wage or to penalize them in any manner for the impractical and uneconomic management of the mines in this district.

On December 31, 1921, a large number of the men had a rate of \$3.80 per day; on January 1, 1922, the companies put into effect a rate for these men of \$2.44 per day. The union secretary estimated that these men would not work more than 290 days a year, which would make their annual earnings \$707.60. Another union representative declared that "the whole question at issue is, Shall the worker be consigned to a bare sustenance, a mere existence, not more than two weeks from hunger and starvation, or shall the profits of this corporation be guaranteed in order that some shall live in ease and comfort through profits realized from an industry" in the productivity of which they had at no time been a factor?

On the other hand, the companies maintained that it was their opinion if the requisite reductions were made so that such companies could compete in their home markets with foreign coal companies, the mines would be operated to full capacity.

Article 5 of the decision of the board reads as follows:

The companies did not file with the board a statement of earnings or cost of coal per ton f. o. b. cars or vessel that we can make public, but they did provide such statement for the private information of the board. The statement of earnings submitted covering a period of three months ending December 31, 1921, indicates the necessity for an immediate substantial reduction in expenses. It is the unanimous

opinion of this board that the cost of coal f. o. b. cars or vessel as shown by the statement is in excess of what it should be, and that the spread between cost of production and cost to the consumer is too great. The companies involved in this dispute do not retail coal except in the immediate vicinity of the mines.

The following is the final article of the decision in the majority report signed by Mr. Gillen and Mr. Thompson:

The Montreal agreement, dated November 1, 1920, was the result of negotiations between the parties to this dispute and prescribed rates of pay in effect until end of December, 1921. Immediately preceding the Montreal agreement the McKinnon award, dated 15th January, 1920, was in effect; the rates in that award and one or more of the important clauses in the conditions were the result of negotiations between the employer and employees; therefore, after careful consideration of all evidence before this board, we recommend cancellation of the Montreal agreement, the re-creation of the McKinnon award, same to be in full force and effect on and after January 1st, 1922, except that the wages of the datal men, who received \$3.25 or under per day under that award, be reduced 12½ per cent and that the wages of all other men be reduced 20 per cent.

By way of explanation, we may say the datal rates under the McKinnon award were \$3.25, under the Montreal agreement \$3.80, under the notice dated December 19 from the companies abolishing Montreal agreement and making a 25 per cent reduction on rates established by the McKinnon award, \$2.44. Under this award, \$2.85.

Mayor Ling, the third member of the board, in a minority report set forth his opinion that the wage rates proposed by the other two members would if put into effect "condemn thousands of men, women, and children engaged in the mining industry of Nova Scotia to live in a state of semistarvation and work under a wage rate which was arrived at on very incomplete evidence."

The statement filed for the private information of the board by the companies, in re earnings or cost of coal per ton f. o. b. cars or vessels, Mayor Ling regarded as "masked," "unverified," and covering too short a period to form the basis for reasonable conclusions. He said also that such period was an abnormal one, the mines being in operation 50 per cent time and the consequent costs exceptional. He considered that "almost all the other 'evidence' submitted by the companies was conjecture * * * not a statement of facts at all."

Referring to the unanimous opinion of the board that the cost of coal f. o. b. cars or vessels, as shown by the statement of the companies, exceeds what it should be and that "the spread between the cost of production and cost to the consumer is too great," Mayor Ling refused to agree on the "sweeping reductions" in wage costs made in the majority report, which reductions, he thought, would widen "an already dangerous and criminal spread between the producer and consumer."

He submitted a working agreement which contained among others the provisions quoted below:

That all contract rates prevailing December 31, 1921, be reduced 14 per cent.

That a minimum rate of \$3.50 be established for all datal rates other than for boys.

That, bearing in mind the above section, all other datal rates be reduced, but not in any case more than 55 cents per day.

That all datal rates paid by the Nova Scotia Steel & Coal Co. be made to conform to the same class of rates as paid by the Dominion Coal Co., and the Acadia Coal Co.

EMPLOYMENT AND UNEMPLOYMENT.

Employment in Selected Industries in February, 1922.

THE Bureau of Labor Statistics received and tabulated reports concerning the volume of employment in February, 1922, from representative establishments in 13 manufacturing industries and in bituminous coal mining.

Comparing the figures of February, 1922, with those of identical establishments for February, 1921, it appears that there were increases in the number of persons employed in nine industries and decreases in the number of persons employed in five industries. The most important increases—58.4 per cent and 56.4 per cent—appear in the automobile and the hosiery and underwear industries, respectively. The iron and steel industry shows a decrease of 13.6 per cent and paper making a decrease of 11.4 per cent.

When compared with February, 1921, the amount of the pay roll in February, 1922, shows increases in eight industries and decreases in six industries. Automobile manufacturing shows an increase of 82.5 per cent and hosiery and underwear an increase of 60.1 per cent. Percentage decreases of 43.5 and 21 appear in iron and steel, respectively, and car building and repairing.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN FEBRUARY, 1921 AND 1922.

Industry.	Estab-lishments reporting for Feb-ruary, both years.	Period of pay roll.	Number on pay roll.		Per cent of increase (+) or decrease (-).	Amount of pay roll.		Per cent of increase (+) or decrease (-).
			Feb-ruary, 1921.	Feb-ruary, 1922.		Feb-ruary, 1921.	Feb-ruary, 1922.	
Iron and steel.....	109	½ month..	144,679	124,932	-13.6	\$9,393,391	\$5,306,863	-43.5
Automobile manufacturing..	48	1 week..	58,536	92,746	+58.4	1,381,052	2,520,514	+82.5
Car building and repairing..	63	½ month..	62,878	56,882	-9.5	4,220,035	3,335,443	-21.0
Cotton manufacturing.....	60	1 week..	60,453	61,556	+1.8	1,029,897	1,024,034	-0.6
Cotton finishing.....	17	..do..	11,002	12,164	+10.6	241,351	234,596	-2.8
Hosiery and underwear.....	63	..do..	19,215	30,051	+56.4	310,330	496,778	+60.1
Woolen.....	49	..do..	31,796	44,461	+39.8	663,333	953,359	+43.7
Silk.....	45	2 weeks..	16,323	18,305	+12.1	718,542	763,804	+6.3
Men's ready-made clothing..	45	1 week..	22,390	28,824	+28.7	635,025	801,170	+26.2
Leather manufacturing.....	37	..do..	12,080	15,288	+26.6	274,124	341,319	+24.5
Boots and shoes.....	76	..do..	52,404	67,004	+27.9	1,288,036	1,512,597	+17.4
Paper making.....	57	..do..	28,706	25,425	-11.4	722,393	603,259	-16.5
Cigar manufacturing.....	53	..do..	15,573	14,927	-4.1	291,174	252,422	-13.3
Coal mining (bituminous)...	82	½ month..	24,826	24,020	-3.2	1,620,467	1,632,901	+0.8

Comparative data for February, 1922, and January, 1922, appear in the following table. The figures show that in 10 industries there were increases in the number of persons on the pay roll in February as compared with January; and in 4 there were decreases. The largest increases, 9.3 per cent, 4.8 per cent, and 4.6 per cent appear

in iron and steel, automobiles, and cigar manufacturing, respectively. Cotton finishing shows a decrease of 10.1 per cent.

When comparing February, 1922, with January, 1922, nine industries show increases in the amount of money paid to employees and five show decreases. Automobile manufacturing shows the greatest increase, 58 per cent, which brings this industry back to a little above the level of December after the slack work of January. A decrease of 17.9 per cent appears in cotton finishing and one of 5.9 per cent in cotton manufacturing.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN JANUARY AND FEBRUARY, 1922.

Industry.	Estab- lish- ments report- ing for Janu- ary and Feb- ruary.	Period of pay roll.	Number on pay roll.		Per cent of in- crease (+) or de- crease (-).	Amount of pay roll.		Per cent of in- crease (+) or de- crease (-).
			Janu- ary, 1922.	Febu- ary, 1922.		Janu- ary, 1922.	Febu- ary, 1922.	
Iron and steel	108	½ month..	113,656	124,201	+9.3	\$4,568,269	\$5,286,929	+15.7
Automobile manufacturing..	49	1 week...	85,524	89,647	+4.8	1,539,613	2,431,860	+58.0
Car building and repairing..	64	½ month..	58,787	57,006	-3.0	3,025,456	3,343,661	+10.5
Cotton manufacturing.....	58	1 week...	60,895	58,725	-3.6	1,036,146	974,593	-5.9
Cotton finishing.....	17	...do.....	13,534	12,164	-10.1	285,759	234,596	-17.9
Hosiery and underwear.....	61	...do.....	29,609	30,451	+2.8	484,247	512,193	+5.8
Woolen.....	49	...do.....	42,888	43,418	+1.2	880,360	917,898	+4.3
Silk.....	45	2 weeks..	18,300	18,305	(¹)	743,301	763,804	+2.8
Men's ready-made clothing..	47	1 week...	27,014	26,626	-1.4	792,495	756,685	-4.5
Leather manufacturing.....	37	...do.....	15,023	15,288	+1.8	326,603	341,319	+4.5
Boots and shoes.....	77	...do.....	66,230	67,338	+1.7	1,526,133	1,522,520	-.2
Paper making.....	57	...do.....	24,619	24,957	+1.4	585,186	592,893	+1.3
Cigar manufacturing.....	54	...do.....	14,522	15,196	+4.6	256,861	256,512	-.1
Coal mining (bituminous)...	81	½ month..	23,153	23,692	+2.3	1,241,914	1,590,854	+28.1

¹ Increase of less than one-tenth of 1 per cent.

In addition to the data presented in the above tables as to the number of employees on the pay roll, 84 establishments in the iron and steel industry reported 98,468 employees as actually working on the last full day of the pay-roll period in February, 1922, as against 108,599 for the reported pay-roll period in February, 1921, a decrease of 9.4 per cent. Figures given by 83 plants in the iron and steel industry show that 97,867 employees were actually working on the last full day of the pay period reported for February, 1922, as against 88,547 for the same period in January, 1922, an increase of 10.5 per cent.

Changes in Wage Rates and Per Capita Earnings.

DURING the period January 15 to February 15, 1922, there were wage changes made by some of the establishments in 13 of the 14 industries.

Iron and steel.—All employees in one mill were reduced 25 per cent in wages, while in two other mills the reduction to all employees amounted to 15 per cent. A decrease in wage rates of 13 per cent was made to 65 per cent of the men in one establishment. Four establishments reported a wage reduction of 10 per cent, affecting approximately 50 per cent of the force; while in four other establishments one-half of the employees were reduced 4½ per cent in wages. A wage

cut of 8 per cent, affecting 50 per cent of the force, was reported by one concern. Another concern reduced the wages of 18 per cent of the employees about 3 per cent. Increase in force and in amount of time worked was reported for this industry. An increase of 5.9 per cent in per capita earnings was shown when January and February pay rolls were compared.

Automobiles.—A wage-rate decrease of 5 per cent was reported by one establishment, affecting 12 per cent of the force. More time was worked and the per capita earnings showed an increase of 50.7 per cent when January and February figures were compared, bringing the industry back to a little above the level of December after the slack work of January.

Car building and repairing.—The entire force of one shop was reduced 10 per cent in wages, while a decrease of 6 per cent was made to 5 per cent of the force in another shop. Practically all establishments increased their hours of work. The per capita earnings were 14 per cent higher for February than for January.

Cotton manufacturing.—Seven plants reported wage rate decreases of 20 per cent, affecting all of the employees of three plants; but the number of employees affected in the remaining four plants was not stated. Another concern reported a reduction of 11 per cent, but did not state the percentage of men affected. The wages of all employees in two establishments were decreased 10 per cent. The entire force in one plant had wage reductions ranging from 5 to 10 per cent. Two establishments reported a wage cut of $8\frac{1}{3}$ per cent, affecting the entire force. When the per capita earnings for January and February were compared a decrease of 2.5 per cent was shown, as less time was worked in several establishments due to strikes.

Cotton finishing.—A 15 per cent decrease in rates of wages was reported by one plant, but the percentage of employees affected was not stated. Six establishments reported a wage rate cut of 10 per cent, affecting all men in one establishment and 95 per cent of the men in five establishments. Reductions in rates of wages caused the per capita earnings for February to be 8.6 per cent less than those for January.

Hosiery and underwear.—A decrease of 16 per cent in rates of wages was made by one plant to 95 per cent of the force, while all the men in another plant were cut 15 per cent in wages. Two establishments reported a wage reduction of $12\frac{1}{2}$ per cent, affecting the entire force in the first establishment and 90 per cent of the force in the second establishment. When comparing the pay rolls for January and February an increase of 2.9 per cent was shown.

Woolen.—Improved business conditions were reported for this industry, due to more time worked and increased orders. The per capita earnings for February were 3 per cent higher than those for January.

Silk.—One-half of the force in one mill was reduced 10 per cent in wages. An increase in per capita earnings of 2.7 per cent appeared when January and February figures were compared.

Men's clothing.—A decrease of 20 per cent in wages was reported by one establishment but the number of employees affected was not stated. About 56 per cent of the employees in one establishment were reduced 12 per cent in wages, while three-fourths of the force in

another plant had a wage decrease of 10 per cent. Comparing the per capita earnings of February with those for January, a decrease of 3.1 per cent was shown.

Leather.—A decrease of 12 per cent, affecting 87 per cent of the force, was reported by one tannery. About 35 per cent of the men in one establishment were reduced 10 per cent in wages, while 75 per cent of the men in another establishment had a wage rate decrease of approximately 8 per cent. An increase of 2.7 per cent in per capita earnings appeared when January and February figures were compared.

Boots and shoes.—An increase of 9 per cent was granted to 2 per cent of the men in one factory. A 10 per cent cut, affecting 12½ per cent of the force, was reported by another plant. Comparing the per capita earnings for January with those for February a decrease of 1.9 per cent was shown.

Paper making.—In three mills a decrease of 10 per cent in wages was made, affecting the entire force in one mill, 95 per cent of the force in the second mill, and 36 per cent of the force in the third mill. One-tenth of the men in one establishment were cut 6½ per cent in wages. Business conditions remained much the same for this month and the per capita earnings show no change when compared with the past month.

Cigar manufacturing.—One-half of the force in one concern was granted an increase in wages of 7 per cent. The wages of 75 per cent of the men in another plant were reduced 10 per cent. As compared with the per capita earnings of January those for February showed a decrease of 4.6 per cent.

Bituminous coal mining.—All men in two mines had respective wage decreases of 30 and 12 per cent. More time was worked throughout the industry, and the per capita earnings increased 25.2 per cent over last month in the mines reporting.

Cleveland Plan of Unemployment Compensation.¹

By WILLIAM J. MACK.

THE plan of compensating and preventing unemployment evolved and adopted by the ladies' garment industry in Cleveland has been in effect for six months. It is part of a market agreement, the original purpose of which was to prevent a recurrence of the industrial conflict of 1918 by establishing an impartial judicial body to decide all disputes and disagreements. I shall not discuss now the organization and development of that impartial machinery or the accompanying change of attitude on both sides from a feeling of mistrust and hostility to one of confidence and cooperation. While practically every other center is in the midst of a bitter fight, the manufacturers and the union in Cleveland are working out jointly and harmoniously various phases of this experiment which, our experience has convinced us, is fundamentally sound, progressive, and constructive.

Generally speaking, the two big problems, production and unemployment, have for the most part been considered separately, as

¹ Address delivered by William J. Mack, impartial chairman of the ladies' garment industry of Cleveland, at the 15th annual meeting of the American Association for Labor Legislation, Pittsburgh, Dec. 27-29, 1921. Reprinted from American Labor Legislation Review, March, 1922.

if they were entirely unrelated. Production has been treated by many engineers scientifically, from the point of view of the manufacturers, and without particular regard to the effect of one or another system on the workers. The problem of unemployment has been generally neglected until, during periods of depression, the fear of the effect of widespread unemployment on the safety and comfort of the public has created a demand for immediate emergency relief measures. Such measures have temporarily relieved the hardship and suffering of the victims of unemployment, but they have not prevented the periodic recurrence of the condition, or made us better prepared to combat it.

The plan in operation in the ladies' garment industry in Cleveland hits at the very crux of the problem, for it aims directly at the immediate reduction and the ultimate elimination of widespread unemployment in this industry. It is based on the premise that the problems of production and of unemployment, far from being unrelated, are very closely related. Ordinarily, when an employer calls for increased production, his workers are afraid that if they put forth their best efforts, they may thereby work themselves out of a job. If they were assured of a certain minimum period of employment, they would more readily increase their productivity. The Cleveland plan has made it worth while for the manufacturers to assure their workers of a certain continuity of employment, by making the cost of production by continuous employment a great deal less than the cost of production by intermittent employment.

The cost of production is one of the first considerations of all manufacturers. That cost is involved with wages, as we all know.

Guaranty of Good Production by Workers.

AT THE request of the manufacturers, and after long negotiations, it was finally agreed that instead of the dual system of paying some workers a weekly wage irrespective of their production, and paying others for each unit of production a wage determined by bargaining, wages should be paid according to standards of production, and what constitutes a fair and proper production should be determined by industrial engineers under the supervision of the impartial chairman.

Workers have always been suspicious of time studies and stop-watches, and here they were not only agreeing to their use, but cooperating. This was a revolutionary change. It has been successful because it was agreed that the engineers would be selected and paid by the union and the manufacturers' association jointly, and that they should share equally the responsibility and have joint control over the installation of the standards. It was further agreed that the standards should be based on the time of the average worker in each shop and not upon either the very fast or the very slow workers; that no time studies should be taken upon any worker without his knowledge; that each side should have the right to have the standards reviewed upon its complaint; that the wages of the workers under standard should be based on their actual production; and that all workers who make the standard, i. e., who do any work in exactly the time determined by the engineers as fair for the average normal worker should be paid 10 per cent above the minimum scale for that operation; others to be

paid more or less, according to their production, but not less than the minimum. This arrangement was in effect a guaranty of good production by the workers to their employers. In return, the workers wanted a guaranty that they would be relieved of the menace of unemployment.

There was a strong feeling in certain quarters that because the ladies' garment industry is in its very nature seasonal, any guaranty should be of earnings rather than of a minimum period of work. This would relieve the workers of the hardship of a long period of unemployment, but as compared with a guaranty of employment it has certain disadvantages. It would not spur the worker to increase his production during the rush periods, because he would feel that he had his minimum guaranty anyhow, and for the same reason it would not stimulate the manufacturers to keep their workers employed after they had earned that guaranteed amount. Moreover, from the community or social viewpoint, the important thing is to prevent unemployment. Every industry owes its workers not merely enough to keep themselves and their families out of want, but it owes them the opportunity to work, and it also owes the community freedom from the distress of widespread unemployment. We therefore concluded that a money guaranty would not solve the problem, and determined that the guaranty should be one of employment.

Guaranty of Employment by Manufacturers.

UNDER the Cleveland plan, each manufacturer guarantees to his regular workers who do not leave voluntarily and are not justifiably discharged 20 weeks of work during each half year. The workers must bear the burden of the other 6 weeks. If the employer fulfills his guaranty by giving them such work, he has met his obligation; but if he does not provide 20 weeks of work out of the 26 weeks, then, for the unemployed part of the 20 weeks, his employees become entitled to two-thirds of their respective minimum wages. The agreement for 1922 provides a 41-week guaranty for the whole year instead of 20 weeks each half year.

At the time this plan was put into effect the whole country was in an industrial depression, and no one knew how long it would last or how serious it would be. To meet the contention of the manufacturers that under the depressed conditions this two-thirds might amount to more than they could stand, this limitation was fixed: That no manufacturer should be liable to his workers for more than $7\frac{1}{2}$ per cent of his total direct labor pay roll for the six-month period. In order to have accurate records in case of a dispute, each employer is required to submit to the impartial chairman each week an employment report of his regular workers, showing the time they are laid off and the time they absent themselves voluntarily; also to deposit with the impartial chairman each week an amount equal to $7\frac{1}{2}$ per cent of his total direct labor pay roll for that week.

We decided not to put this money into one general market fund to pay the workers of all the manufacturers, for it would be unfair to the manufacturer who through his own efforts is able to fulfill his guaranty to use his money to pay the workers of another manufacturer who for any reason has not been able to fulfill his guaranty.

The fund of each manufacturer is, therefore, kept separate, and it is provided that instead of letting the funds increase from year to year, as in most unemployment funds in individual experiments, each manufacturer will receive at the end of each six-month period so much of his own fund as has not been needed to pay his workers for unemployed time. On the other hand, if a worker is able to secure other work during his lay-off, that does not affect his right to draw his unemployment pay from his regular employer. At first glance this may seem unfair to the employer. But the unemployment pay is not merely a substitute for employment in general; it is in the nature of a penalty imposed on the particular employer for failure to get work for his own employees, and thus is an incentive for every employer to keep his workers busy. Moreover, it must be obvious that if a worker would lose his right to unemployment pay from his regular employer in case he secured a temporary job elsewhere, it might be to his interest to remain idle and draw his unemployment pay rather than to get a temporary job and lose that pay. Our plan makes it worth while for the workers to get temporary jobs whenever they can. Thus it also benefits the community by reducing the number of even the temporarily unemployed.

We think that this plan is more comprehensive than the usual unemployment funds or insurance, in that it not only provides for a money payment in the event of unemployment, but also furnishes a very great incentive for the manufacturer to give continuous employment, and for the worker to work. Furthermore, by the time that unemployment insurance laws are enacted generally, this plan will have secured statistics that will be of the utmost value and importance in the administration of any unemployment insurance law—an accurate record for each worker, of the time of voluntary and of involuntary unemployment and of idle time in the factory.

Incentive to Efficiency.

THE knowledge that by giving their workers greater continuity of employment they can save a large overhead, can avoid a considerable and expensive labor turnover and thus gain the increased production that always accompanies the increased stability of a permanent labor force, and that they can at the same time save directly $7\frac{1}{2}$ per cent of their total direct labor pay roll for the entire year—this has made manufacturers strive to get all possible orders, even those that they formerly did not consider worth while. And the fact that even under the abnormal conditions of the last six months a great many manufacturers have received back a substantial part, and in some instances all, of their unemployment fund, shows that the incentive of this plan has been a real stimulus, and that as a consequence unemployment in our industry in Cleveland has been reduced. The increase in the efficiency and productivity of the workers and the decrease in waste attendant upon this combination of production standards and continuity of employment have resulted in an increase in the earnings of the workers and a decrease in the unit cost of production (and therefore an increase in profits) to the manufacturers.

With the incentive that an arrangement like this offers, over and above the ordinary incentive of the desire for profits, not only will

manufacturers now find some orders desirable that formerly did not interest them, but they will consider it worth while to examine into the efficiency of their sales department as well as of their production department, and to try by the application of scientific principles, to eliminate in the sales department also the waste that to-day is too prevalent throughout industry. In this connection it is interesting to know that studies recently made of the sales department of one of the big manufacturing companies of this country show that only 15 per cent of the time of the salesmen is devoted to actual selling, and that of the remaining 85 per cent, 10 per cent is consumed in clerical work, and 75 per cent in "walking and waiting"—and that is a concern whose production department and general management have been highly systematized and are very efficient. If this firm, by applying scientific principles to its sales department, increases the productive time of its salesmen only 15 per cent, it will double their selling capacity. Were the Cleveland plan or some similar arrangement in general operation, with its penalty for failure to keep workers employed and with the incentive of a large saving of overhead, labor turnover, and the unemployment fund itself, for employers who do keep their workers employed, every manufacturer might well be expected to try in some such way to increase the selling capacity of his organization in order to gain the benefits that would come from fulfilling his guaranty of employment.

To sum up, the Cleveland plan is based on the premise that the problem of production and the problem of unemployment are closely interwoven. It is a combination of a guaranty of production by the workers to their employers, and a guaranty of employment by the employers to their workers. It provides new and substantial incentives for the workers to give full production and for the employers to give their workers as great a continuity of employment as they can. Thus far it has been so successful and so satisfactory to both sides that, with the rest of the country engaged in industrial strife, this unique agreement has just been renewed. It is not peculiar either to the ladies' garment industry or to Cleveland, but its basic principles can be adapted to practically any industry or locality. I believe it takes us far along the road not merely to the relief of the unemployed but to the prevention of unemployment.

Changes in Employment Reported by the United States Employment Service.

THE report of the monthly industrial survey made by the United States Employment Service shows that the 1,428 firms reporting, in 65 principal industrial centers, which usually employ a total of 1,600,000 workers, had 3,894 more employees on February 28 than on January 31, 1921. This was an increase of 0.57 per cent. This monthly survey is based on actual figures taken from the larger industrial pay rolls of the country.

Of the 65 cities included in the survey, increases in employment are reported in 44, these increases ranging from 0.098 per cent in Worcester, Mass., to 27.3 per cent in Sioux City, Iowa. Decreases in employment, ranging from 0.2 per cent in Boston, Mass., to 66.3 per cent in Manchester, N. H., are reported in 21 cities.

Industrial classifications showing increases in employment are food and kindred products; iron and steel and their products; lumber and its manufacture; leather and its finished products; liquors and beverages; chemicals and allied products; stone, clay, and glass products; metals and metal products other than iron and steel; tobacco manufactures; vehicles for land transportation; railroad repair shops; and miscellaneous industries. The industries which show a decrease are textiles and their products; and paper and printing.

Investigation of Employment in Maryland.¹

THE State Board of Labor and Statistics of Maryland has tabulated the results of inspections of various industries as to employment therein by months for 1921, and is planning to have the same inspectors make the same inspections in 1922, so that the data for the two years may be compared. The record for January, 1922, shows that at that time 557 establishments employed 431 more persons than 593 establishments did in January, 1921.

Fifty-six of the fathers of 4,373 children who received general working permits in 1920 were unemployed. Of the fathers of 2,503 children who received general working permits in 1921, 137 were unemployed.

EMPLOYMENT IN MARYLAND INDUSTRIES, JANUARY, 1921 AND 1922.

Industry.	January, 1921.			January, 1922.		
	Total number of establishments.	Total number employed.	Average number employed per establishment.	Total number of establishments.	Total number employed.	Average number employed per establishment.
Clothing.....	128	4,184	32.7	126	5,138	40.8
Retail, department, and 10-cent stores.....	175	1,430	8.2	183	1,429	7.8
Wholesale establishments.....	44	394	8.7	35	331	9.2
Office, banks, and insurance companies.....	83	1,059	12.8	57	866	15.2
Cleaning, dyeing, and pressing establishments.....	18	54	3	16	80	5
Hairdressing and barber shops.....	16	54	3.4	17	49	2.9
Jewelry, plating and silverware.....	12	60	5	6	49	8.1
Manufacturing chemist.....	2	16	8	2	11	5.5
Printing, engraving, photography, and advertising.....	17	98	5.8	13	77	5.9
Shoes, boots, and repairing.....	11	67	6.1	10	218	21.8
Furniture and house decorating.....	7	146	20.9	7	160	22.9
Hotels and lunch rooms.....	5	279	55.8	9	300	33.3
Plumbing and heating.....	5	45	9	5	29	5.8
Building and contracting.....	7	789	112.7	4	562	140.5
Auto, garage, and repairing.....	2	11	5.5	2	6	3
Straw hats.....	4	1,467	366.8	3	1,160	386.7
Painting.....	4	14	3.5	6	29	4.8
Furs and fur garments.....	7	44	6.3	9	47	5.2
Iron, foundry and machine shops.....	6	198	33	2	63	31.5
Buttons and badges.....	1	4	4	1	4	4
Paper products.....	2	20	10	2	17	8.5
Confectionery.....	2	96	48	3	36	12
Places of amusement.....	3	27	9	3	19	6.3
Transportation.....	3	11	3.7	6	21	3.5
Copper, tin and sheet metal.....	2	892	446	3	1,185	395
Dairy.....	1	2	2	1	4	4
Lumber and millwork.....	2	19	9.5	1	4	4
Umbrellas and canes.....	1	104	104	1	108	108
Textiles.....	1	2	2	.....	.....	.....
Soft drinks.....	1	29	29	.....	.....	.....
Canning and packing.....	2	94	47	2	47	23.5
Messenger service.....	1	7	7	2	9	4.5
Wooden boxes.....	4	243	60.8	4	265	66.3
Millinery.....	2	4	2	.....	.....	.....
Laundry.....	2	20	10	3	33	11
Cigars and cigarettes.....	2	6	3	3	6	2
Optical goods.....	1	10	10	.....	.....	.....
Marble works.....	.....	.....	.....	3	9	3
Food products.....	.....	.....	.....	1	3	3
Brooms and brushes.....	.....	.....	.....	1	58	58
Miscellaneous.....	7	18	2.6	5	16	3.2
Total.....	593	12,017	20.3	557	12,448	22.3

¹ Information forwarded by the State Board of Labor and Statistics of Maryland, under date of Mar. 8, 1922.

Activities of Public Employment Offices in Massachusetts.¹

DURING the month of January, 1922, the number of persons placed by the four offices was 2,115, an increase of 311, or 17.2 per cent, over the number placed by the three employment offices during the month of January, 1921. The number of persons called for was 2,406, an increase of 16.1 per cent over the number called for by employers at the three offices in operation in January, 1921. This increase in the number of placements and the number of persons called for indicates that while there is still a great surplus of labor on the market, conditions in general for this year show some improvement over the previous year.

Employment in New York State Factories in February, 1922.

A THREE per cent increase in factory employment occurred from January to February. With the exception of the 4 per cent increase last September, this is the largest gain since the beginning of the depression. These statements are contained in an analysis of more than 1,500 manufacturers' reports, issued by the industrial commissioner of the New York State Department of Labor. Improved business conditions and seasonal demand were the chief factors causing the gain in employment. The reopening of factories after the semiannual shutdowns for inventories and repairs was also responsible for greater employment. Most of the reductions reported were again due to seasonal lulls.

Seasonal activity and the suspension of labor troubles caused the clothing group of industries to report the largest increase for the month of any of the chief industry groups. This gain was largely the result of the very substantial increase reported by the women's clothing manufacturers—the outstanding gain of the month.

Employment in the metals, machinery, and conveyances industries continued the upward trend begun in September, which was broken by a small decline in January. The only reduction occurred in the manufacture of iron and steel.

The food-products and tobacco group of industries also showed a gain in employment over January as the result of seasonal activity. The most substantial gains were in the manufacture of candy and in the miscellaneous groceries industry.

Increases in employment in the textile group of industries occurred in the wool-manufactures division and in the knit-goods division. The increased number of employees in these industries was seasonal and was partly due to the reopening of some factories which had been closed in January. The cotton-goods mills reported the only reductions in the group.

All of the industries in the wood-manufactures group, with the exception of the miscellaneous wood-products division, reported increases in employment from January to February. In the sawmill and planing-mill products industry, the gain was due to a resumption

¹ News notes from the Massachusetts Department of Labor and Industries received at the U. S. Bureau of Labor Statistics Feb. 23, 1922.

of activity following the seasonal lull. Improved demand was the chief cause for the increases in the furniture and piano industries.

In the stone, clay, and glass-products group of industries there were two substantial reductions in employment because of seasonal inactivity. These occurred in the brick and the glass industries, but they were offset by large increases in the lime, cement, and plaster industry and in the miscellaneous stone and mineral products industries.

The volume of employment in the paper-making industry was slightly greater in February than in January. A substantial reduction in the number of employees in the paper box and tube industry was reported as the result of the continued lack of demand.

Unemployment in Ten Cities of Pennsylvania, February 1, 1922.

FIGURES showing the estimated number of persons employed in certain industries at 10 specified places in Pennsylvania, as of February 1, 1922, have been furnished to this bureau by the bureau of employment of the Pennsylvania Department of Labor and Industry. These figures are shown in the table below:

NUMBER AND PER CENT OF PERSONS UNEMPLOYED IN CERTAIN CITIES OF PENNSYLVANIA, FEBRUARY 1, 1922, BY INDUSTRY.

[Data are for Altoona, Erie, Harrisburg, Johnstown, McKeesport, New Kensington, Philadelphia, Pittsburgh, Scranton, and Williamsport, Pa.]

Industry.	Persons unemployed in each specified industry.		Industry.	Persons unemployed in each specified industry.	
	Num-ber.	Per cent.		Num-ber.	Per cent.
Building and construction.....	27,175	8.7	Metals and machinery.....	87,100	27.7
Clerical and professional.....	25,805	8.2	Paper and printing.....	620	.2
Clothing and textiles.....	15,990	5.1	Wholesale and retail.....	21,710	6.9
Common laborers.....	61,100	19.5	Woodworking and furniture.....	1,420	.5
Mining and quarrying.....	29,075	9.3	Machine workers (female).....	4,500	1.4
Transportation.....	17,375	5.5	Miscellaneous.....	12,775	4.1
Domestic and personal.....	4,075	1.3			
Food and tobacco.....	3,675	1.2	Total.....	314,110	100.0
Hotels and restaurants.....	1,715	.5			

As is shown in the table above more than a quarter of the 314,110 persons reported out of work in the 10 cities were workers in the metals and machinery industry. Common laborers were next most numerous, forming 19.5 per cent of the total unemployed. The industries in which there was the least unemployment were paper and printing, woodworking and furniture, and hotels and restaurants.

Conditions of Employment in Wisconsin, 1920-21.¹

SINCE July, 1920, the statistical department of the Wisconsin Industrial Commission has issued every month an estimate of conditions of employment, the basis of such estimate being the reports received from large employers as to the total number of their employees and total amount of pay rolls. Up to January, 1922, only factories and mines were represented in the index of employment. Commencing with the new calendar year correspondents have been secured for all other lines of industries. The commission is now receiving monthly reports from 1,334 employers, among them 496 farmers.

The attempt has been made to secure reports from employers which will cover one-third of all the employees in Wisconsin in the given lines of industry. However, the index includes only 10 per cent in trade; 5 to 10 per cent in building construction, and one-half of 1 per cent in agriculture.

Public Employment Offices.

THERE were 4,259 placements by public employment offices in January, 1922, 652 more than in January, 1921. The orders for help, however, for the first month of the present year were 5,217, 92 less than in the corresponding month of the preceding year. There were only half as many orders for woods laborers in January, 1922, as in January, 1921. The number of men employed in ice harvesting has been decreasing year by year as a result, no doubt, of the expansion of the manufacture of artificial ice.

Renewed efforts have been made to induce farmers to make use of the public employment offices. It is expected that such offices will be able to meet all the requests for labor from farmers. There has been, however, a marked shortage of farm hands at Madison. According to reports from 502 farms there were not only fewer hired hands but also fewer full-time family laborers employed on the farms on January 1, 1922, than on January 1, 1921.

Private Employment Offices.

AN ADVISORY committee is to make up a schedule of reasonable fees for private employment agencies. In this connection one of the deputies of the commission has tabulated the records of the National Clerical Bureau, the most important private employment office in Wisconsin. These statistics will show the kind of placements made by this office and its gross income according to wage groups. Data of a similar character from agencies in the same line of work in other States have been collected by the National Clerical Bureau and presented to the commission.

Complaints have again been made that some of the Wisconsin employers are availing themselves of the private employment agencies in other States. The labor department of another State has complained of an employer in Wisconsin who imported a great number of men through a private employment agency and dismissed them when

¹ Progress of work report, January, 1922, from the Industrial Commission of Wisconsin.

they had made enough to cover their fare because they were not able to pass physical examination. The chairman of the commission, in his recent address before the Road School, emphasized the fact that "the State can not tolerate practices of this kind which result in burdening Wisconsin communities with a lot of penniless men, while there are thousands of Wisconsin citizens who are eagerly looking for employment."

Unemployment in Foreign Countries.

SINCE the last publication in the MONTHLY LABOR REVIEW of data on unemployment in foreign countries (March, 1922, pp. 126 to 131), the situation as regards the state of employment has become more unfavorable in all countries reviewed, with the exception of Great Britain where the per cent of unemployed persons has remained stationary. Briefly summarized, the situation in the individual countries at the latest date for which data are available was as follows:

Great Britain.—Employment during January was bad and showed little change from the very low level of other recent months. In practically all the principal industries large numbers of workpeople were unemployed and short-time working was general. In the coal-mining, tin-plate and sheet-steel, and hosiery trades the improvement previously reported was maintained on the whole, and employment was fair, but there was a further decline in the iron-mining, building, brickmaking, and cement industries, and in several branches of the metal trades. Among dock laborers employment continued slack; it was also slack among seamen, but was rather better than a month ago. Agricultural operations were hindered by rain or snow; the supply of labor was generally in excess of the demand, but unemployment in agriculture was confined, on the whole, to casual workers.

Germany.—The January 31, 1922, issue of the Reichs-Arbeitsblatt in its summary statement concerning the labor market in December states that some decline in employment was experienced during the month. This was due principally to the reaction which regularly sets in after Christmas, and to the advent of colder weather. To these causes must also be added the prevalent epidemic of influenza. The decline would appear also to be due to the long anticipated decrease in sales and the cessation of replacement of stock resulting from decreased purchasing power, but the extent of this can not be gauged from the statistical evidence available.

France.—The scanty official data published on employment indicate a slight decrease in employment. On the whole, employment seems, however, to be normal. The only industry in which operation has been considerably restricted is the automobile industry.

Italy.—The unemployment situation had become very serious by the end of November the number both of totally and of partially unemployed having increased considerably. In a few districts, as for instance in that of Turin, there has been a slight decrease in unemployment chiefly due to improved business conditions in the textile industry, but in the country as a whole the extent of unemployment has become alarming. It remains to be seen whether the recently

concluded emigration treaty with Brazil, which will make it possible for thousands of Italian workers to emigrate, and the initiation of productive unemployment relief (public works, etc.) will relieve the situation in the next few months.

The industrial situation has remained practically unchanged. Although symptoms of a change for the better are perceptible in a few industry groups they can not be looked upon as the precursors of a general improvement in business conditions. The productive capacity of Italian industries which during the war underwent an unnaturally strong development now encounters decreased consumption at home and steadily increasing foreign competition. Employers are of the belief that a lowering of the costs of production is the only means for gradually overcoming the present business depression. They have entered into negotiations with the trade-unions on wage reduction but only in a few industries have these negotiations led to any result. The industrial depression is most seriously felt by the so-called heavy industries which depend upon countries abroad for their supply of coal and iron.

Belgium.—The employment situation remained practically stationary in November. There was a slight increase in the number of totally and partially unemployed but the number of working days lost by them has decreased. The approach of winter caused a decrease in employment in quarries, construction work, transportation, and the clothing industry. In all other industries the situation showed some improvement.

Returns of public employment exchanges which are available for December show a slight increase in the number of applicants for work but a decrease in the number of applicants per 100 vacancies.

Holland.—The employment situation took a pronounced turn for the worse in November and December, only a few industries, especially the textile industry, showing a slight revival which was due to the fact that Dutch factories obtained a part of the orders which German factories, overwhelmed with orders, could not fill. In the metal working industries the situation was very bad. The great metal workers' strike continued into December and gained in extent. It is reported to have been settled at the beginning of January, after two and one-half months' duration. The largest increase in unemployment is reported in the building trades, transportation, the tobacco and cigar industry, and the diamond industry. In the last-named industry the increased unemployment is due to the return to Holland of numerous diamond workers who emigrated to Antwerp.

Denmark.—The number of unemployed has been steadily rising from week to week during the last three months. From 62,044 in the first week of November, 1921 (16,000 in the corresponding week of 1920), the number of unemployed rose to 78,893 in the last week of December, and to 89,690 in the last week of January, 1922. Unemployment is most extensive in the building trades due to the season. Extensive unemployment prevails also in the iron and steel industry.

It should also be noted that the Danish Employers' Association gave notice that on February 1, 1922, it would abrogate the agreement concluded with the trade-unions as to the eight-hour day. On January 23 the Federation of Danish Trade-Unions, which has a

membership of 90,000, replied to this notice by issuing a first notice of a strike of all members. Thereupon the employers' association issued a notice of a lockout of all trade-union members whose contracts expired on February 1. The lockout was to become effective on February 3 and would affect about 100,000 workers in the iron, lumber, brick, cement, paper, oil, sugar, textile, clothing, and shoe industries. On January 27, the employers' association issued a further series of first and second lockout notices (two notices being required by agreement) affecting about 70,000 workers, chiefly in the house-building and shipbuilding trades. This will make the total number of workers affected by lockouts 170,000, in addition to almost 90,000 unemployed, including all printers and the employees of the daily newspapers who are covered by a second notice of a lockout to take effect February 3.

Norway.—Since September 10, 1921, when the number of unemployed was 24,000, unemployment has steadily increased, 41,500 workers being reported unemployed on January 10, 1922. This figure does not include about 10,000 persons employed at emergency public works. A total of 15,000,000 kroner (\$4,020,000 par) has been appropriated during 1920-21 from State funds for such emergency works. Of this amount, 9,200,000 kroner (\$2,465,600 par) have so far been expended, in addition to 9,000,000 kroner (\$2,412,000 par) expended by communes for such works.

A slight improvement in the business situation is reported by woodworking industries, sawmills, cellulose factories, and paper factories. The fishing industry, one of Norway's most important industries, is encountering serious export difficulties. Parliament has granted to it a subsidy of 5,000,000 kroner (\$1,340,000 par). In the interest of greater ability to compete in the world's markets, the Norwegian industry is demanding a reduction of freight rates and of wages. "Arbeidsgiveren" (January 6, 1922) reports that negotiations with trade-unions have led to wage reductions for machinists (20 per cent), seamen and firemen (17 per cent), tailors (15 per cent), bookbinders (8½ to 10 per cent), dairy workers (14 per cent), textile workers (19 to 23 per cent), workers in alcohol factories (10 per cent), in the chocolate industry (10 per cent), in the paper industry (20 to 24 per cent), and in the wood-working industry and sawmills (22 per cent), and stevedores (17 to 51 per cent).

Sweden.—The industrial depression continues. The situation in the iron and steel industry is very bad. Of the 134 blast furnaces in existence only 21 are being operated. Four shipbuilding yards have shut down. At the beginning of 1922 only 4,069 workers were at work in shipyards as compared with 10,907 on September 1, 1920. Most of the shipping companies are in financial difficulties. During the same period the number of workers employed in the machinery industry fell from 60,000 to 27,000, and in the electrical industry it decreased by 47 per cent. Extensive unemployment is also reported by the tobacco industry and the printing trades. The most prosperous industry is the textile industry. Not only is there no unemployment in this industry but some mills even work overtime. Lumber yards and sawmills still have large stocks on hand acquired at much higher than the prevailing prices. In the paper

pulp industry conditions have somewhat improved, due to large purchases by American paper factories.

Austria.—During the first two weeks of January the employment situation in Vienna took a noteworthy turn for the worse. Since September, 1921, the number of unemployed had steadily decreased, but in December unemployment began to increase again and by the middle of January it had once more reached the level of September, with 27,478 unemployed, of whom 12,869 were in receipt of unemployment donations. Among the unemployed on January 14, 1922, there were 5,113 metal workers, 4,260 building trade workers, 2,356 workers in foodstuff industries, and 1,157 tailors.

Canada.—According to the Employment Service of Canada the curve of employment, based upon returns from 5,800 firms with a total of 641,146 persons on the pay roll, showed a slight upward trend during the half month ending January 15, 1922. The increases in staff reported, which gave employment to approximately 19,000 additional workers, indicated partial recovery from the heavy declines registered at the end of the year. This recovery was more pronounced than that recorded in the early part of January, 1921, and the next report should show whether it will prove to be merely temporary, as in 1921. In the latter year it was not until April that the favorable tendency which continued for the next six months became noticeable. The winter contraction of industry set in early in November and employment reached a new low level at the end of December. Partial recovery was evident during the fortnight under review in many of the manufacturing industries, notably in iron and steel and textiles. The mining and construction groups as well as commerce reported still further curtailment. Taking employment on January 17, 1920, as a base, the employment index on January 15, 1922, was 80.6 as against 77.9 on December 31, 1921, and 90.4 on January 15, 1921.

A summary of the latest statistical reports on unemployment in foreign countries is given in the following table.

SUMMARY OF LATEST REPORTS ON UNEMPLOYMENT IN FOREIGN COUNTRIES.

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MONTHLY LABOR REVIEW.

[738]

Country.	Date.	Number or per cent of unemployed.	Source of data.	Remarks.
Great Britain.....	Jan. 31, 1922..	1,925,450 (number of unemployment books lodged), representing 16.2 per cent of all persons insured against unemployment.	Labor Gazette, February, 1922.....	Of the 1,925,450 persons having lodged their unemployment books, 1,546,470 were males and 378,980 were females. In addition 287,499 insured persons (165,576 males and 121,923 females), or 2.4 per cent of all insured persons, were systematic short-time workers and entitled to out-of-work donation. The per cent of totally unemployed on December 30, 1921, was 16.2, and that of short-time workers, 2.7.
.....do.....	.....do.....	16.8 per cent of trade-union members.....	.....do.....	The per cent of unemployed trade-union members was 16.5 at the end of December, 1921, and 6.9 at the end of January, 1921.
Germany.....	Jan. 1, 1922..	164,322 received unemployment donations.	Reichs-Arbeitsblatt, Jan. 31, 1922....	Of the 164,322 persons receiving unemployment donations, 131,389 were males and 32,933 were females. On Dec. 1, 1921, the total number was 149,126.
.....do.....	Dec. 31, 1922..	1.6 per cent of trade-union members.....	.....do.....	The per cent of unemployed trade-union members was 1.4 at the end of the last week of November, 1921, and 4.1 at the end of December, 1920.
France.....	Feb. 4, 1922..	18,826 persons on the live register of employment exchanges.	Bulletin du Marché du Travail, Feb. 11, 1922.	Of the 18,826 persons on the live register of employment exchanges 13,503 were males and 5,323 were females.
.....do.....	Feb. 10, 1922..	9,721 persons in receipt of unemployment benefits from departmental and municipal unemployment funds.	.....do.....	Of the 9,721 persons in receipt of unemployment benefits, 7,688 were males and 2,033 were females. At the end of the preceding week the number of persons receiving unemployment benefits was 9,640.
Italy.....	Dec. 1, 1921..	512,260 totally unemployed, 181,002 partially unemployed.	British Labor Gazette, February, 1922.	The corresponding figures for Nov. 1, 1921, were 492,368 totally unemployed and 131,167 partially unemployed.
.....do.....	.....do.....	114,336 persons in receipt of unemployment allowances.	.....do.....	Of the 114,336 persons in receipt of unemployment allowances 76,833 received allowances under the compulsory insurance scheme and 37,473 received allowances under the provisional unemployment relief scheme. The totally unemployed receiving no allowance at all, therefore, numbered 397,924.
Belgium.....	Nov., 1921..	104,588 members of unemployment funds, or 13.9 per cent of the total membership, were either out of work or on short time.	Revue du Travail, January, 1922....	The corresponding per cent for October, 1921, was 13.6. The aggregate days of unemployment in November numbered 1,511,527, as compared with 1,688,547 in October.
.....do.....	Dec., 1921....	15,165 applications for employment at public employment exchanges.	.....do.....	The number of applicants for work in November was 15,922. For every 100 vacant situations there were 186 applicants in December, as against 197 in November.
Holland.....	Dec., 1921, first week.	45,566 totally unemployed.....	Reichs-Arbeitsblatt, Jan. 31, 1922....	The corresponding number for the week ending October 29 was 27,960. Later newspaper reports estimate the number of unemployed at the end of 1921 at 60,000.
Denmark.....	Jan. 28, 1922..	89,690 totally unemployed.....	British Labor Gazette, February, 1922.	Of the 89,690 unemployed persons, 37,594 were in Copenhagen, 22,082 in the islands, and 30,014 in Jutland. On Dec. 30, 1921, the number of unemployed was 78,893.
.....do.....	Dec. 30, 1921..	25.2 per cent of trade-union members....	Statistiske Efferetninger, Jan. 13, 1922.	The corresponding per cent on Nov. 25, 1921, was 20.8 and on Dec. 31, 1920, 15.1.
Norway.....	Jan. 10, 1922..	41,500 totally unemployed.....	British Labor Gazette, February, 1922.	The corresponding number on Dec. 10, 1921, was 32,300.
.....do.....	Nov. 30, 1921.	15.7 per cent of trade-union members.....	.....do.....	The corresponding per cent on Oct. 31, 1921, was 15.1 and on Nov. 30, 1920, 3.1.

Sweden.....	do.....	117,000 unemployed.....	Reichs-Arbeitsblatt, Jan. 31, 1922....	The corresponding number on Oct. 31, 1921, was 100,000.
	do.....	28.7 per cent of trade-union members.....	Sociala Meddelanden, No. 2, 1922....	The corresponding per cent at the end of October, 1921, was 26.8 and at the end of November, 1920, 7.
Austria (Vienna)..	Jan. 14, 1922..	27,478 unemployed.....	Amtliche Nachrichten des Österr Bundesministeriums für Soziale Verwaltung, Jan. 31, 1922.	The corresponding number on Dec. 31, 1921, was 19,576.
	do.....	12,869 persons in receipt of unemployment grants.	do.....	The corresponding number on Dec. 31, 1921, was 9,476.
Canada.....	Jan. 1, 1922..	15.1 per cent of trade-union members....	Employment, Feb. 15, 1922.....	The corresponding per cent on Dec. 1, 1921, was 11.1 and on Jan. 1, 1921, 13.

Employment Conditions in Denmark in 1921.

A CONSULAR report of February 4, 1922, received by this bureau, gives an account of industrial conditions in Denmark in 1921, taken from the annual report on commerce and industries of the Danish Statistical Department. According to this account the year 1921 was the worst year known, the results of the world-wide economic depression being felt not only in agriculture and the fishing industry but also and to an even greater degree in other industries. Retailers with stocks bought at advanced rates were afraid to buy more and could not sell what they had. There was a general disinclination on the part of the public to buy. Business in certain wholesale lines fell off from one-fifth to one-tenth of normal during the first months of 1921. This, of course, resulted in the curtailment of production and the laying off of large numbers of workmen. It is stated that the proportion of unemployed, which had been 6 per cent in November, 1920, had, by March, 1921, risen to 24 per cent. During the summer the percentage dropped somewhat but was 24 again in December. The actual number of persons unemployed at the end of the year was 78,893, divided according to industry as follows:

	Number.
Industries and trade.....	64, 578
Commerce and transportation.....	10, 158
Agriculture.....	2, 810
Other.....	1, 347
Total.....	78, 893

The following table shows the average number of persons employed in specified industries in 1913, 1920, and in February and November of 1921:

AVERAGE NUMBER OF PERSONS EMPLOYED IN SPECIFIED INDUSTRIES IN DENMARK IN 1913, 1920, AND FEBRUARY AND NOVEMBER, 1921.

Industry.	Average number of persons employed in—			
	1913	1920	1921	
			Febru-ary.	Novem-ber.
Sugar.....	1, 200	1, 629	1, 223	1, 773
Tobacco.....	4, 185	7, 729	5, 014	3, 705
Cotton and clothing.....	6, 526	7, 277	3, 358	5, 225
Knit goods.....	1, 393	1, 734	1, 001	1, 574
Sawmilling.....		1, 657	1, 304	1, 139
Furniture and frames.....	1, 150	1, 701	1, 053	1, 024
Tanning and boots and shoes.....	2, 150	4, 361	2, 346	2, 698
Glass.....	1, 106	1, 167	773	372
Silverware and electroplate.....		1, 291	950	917
Metal, tin, iron, electromechanical.....		5, 750	3, 377	3, 585
Shipyards (steel ships).....	12, 000	9, 263	8, 986	5, 214
Machine, iron foundries.....		9, 088	7, 309	5, 661
Paper, pasteboard and wall paper.....	1, 500	2, 501	1, 793	1, 251
Printing and lithographing.....	1, 748	2, 587	2, 369	2, 298
Matches, rubber, and oil.....		2, 683	1, 811	1, 381

¹ Approximate.

Wages were also affected by the general business conditions. The following statement shows the average rate of wages per hour paid to Danish laborers at certain periods of 1920 and 1921:

	Kroner. ¹
1914.....	0.50
1920, last quarter.....	2.03
1921:	
First quarter.....	2.00
Second quarter.....	1.86
August to December.....	1.68

Just before the April, 1921, scale of wages became effective, lock-outs occurred in the clothing, boot and shoe, metal, brick, and lumber industries which involved about 70,000 workers. According to the agreement that was made, wages were again to be revised on publication of the index number of prices for July, the wages to be increased or decreased 2 øre (0.5 cent, par) for every 3 points of change in the index number. This agreement resulted in a reduction of the average wage to 1.68 kroner (45 cents, par). There has been no change since.

Volume of Employment in the United Kingdom in January, 1922.

THE following statement as to the condition of employment in Great Britain and Ireland in January, 1922, as compared with December, 1921, and January, 1921, has been compiled from figures appearing in the British Labor Gazette for February, 1922. Similar information for October, 1921, was published in the January, 1922, MONTHLY LABOR REVIEW.

While there was considerable variation in the several industries, employment as a whole during January continued bad, showing little change from the very low level of recent months. In practically all industries large numbers of workpeople were unemployed and short-time working was general.

When the number of seamen employed in January, 1922, is compared with the number in December, 1921, an increase of 12.7 per cent is shown. Employment in the cement trade during January was very slack and showed a decline of 12.2 per cent. Iron mining shows a decrease of 12 per cent, and the lace trade a decrease of 10.2 per cent.

Comparing January, 1922, with December, 1921, the earnings of employees show an increase of 1.2 per cent in the paper trades and 0.8 per cent in the worsted trades. Decreases of 15.8 per cent, 14.5 per cent, and 12.3 per cent appear in the cement, brick, and jute trades, respectively.

An increase of 31.7 per cent in the linen trade and of 14.6 per cent in the hosiery trade are shown when the number of persons employed in January, 1921, and January, 1922, are compared. A decrease of 70.3 per cent appears in iron mining, 51.2 per cent in cement, and 39 per cent in iron and steel works.

The aggregate earnings of employees in January, 1922, when compared with those for January, 1921, show an increase of 38.1 per cent in the hosiery trade and of 28.6 per cent in the linen trade. Percent-

¹ Krone at par=26.8 cents.

age decreases of 63.4, 37.3, and 36.2 appear in the cement, brick, and glass trades, respectively.

VOLUME OF EMPLOYMENT IN THE UNITED KINGDOM (GREAT BRITAIN AND IRELAND) IN JANUARY, 1922, AS COMPARED WITH DECEMBER, 1921, AND JANUARY, 1921.

[Compiled from figures in the Labour Gazette, London, February, 1922.]

Industry, and basis of comparison.	Per cent of increase (+) or decrease (-) in January, 1922, as compared with—		Industry, and basis of comparison.	Per cent of increase (+) or decrease (-) in January, 1922, as compared with—	
	December, 1921.	January, 1921.		December, 1921.	January, 1921.
Coal mining:			Other clothing trades:		
Average number of days worked.....	-0.4	+1.4	Dressmaking and millinery—		
Number of employees.....	-5	-13.1	Number of employees.....	-4.9	-15.5
Iron mining:			Wholesale mantle, costume, blouses, etc.—Number of employees—		
Average number of days worked.....	+13.5	-16.5	London.....	-1.1	-4.6
Number of employees.....	-12.0	-70.3	Manchester.....	+4.2	+12.5
Quarrying:			Glasgow.....	-4.7	-12.7
Average number of days worked.....	-11.3	-13.0	Corset trade—Number of employees.....	+4	-3.1
Number of employees.....	-5.3	-20.6	Woodworking and furnishing: ¹		
Pig iron: Number of furnaces in blast.....	+16.9	-62.8	Number of employees.....	-8	-1.8
Iron and steel works:			Brick trade:		
Number of employees.....	-6.1	-39.0	Number of employees.....	-4.0	-12.3
Number of shifts worked.....	-7.0	-44.1	Earnings of employees.....	-14.5	-37.3
Tin-plate, steel, and galvanized sheet trades: Number of mills in operation.....	-1.8	+109.6	Cement trade:		
Cotton trade:			Number of employees.....	-12.2	-51.2
Number of employees.....	-4.8	+4	Earnings of employees.....	-15.8	-63.4
Earnings of employees.....	-9.0	+3.2	Paper, printing, and bookbinding trades:		
Woolen trade:			Paper trades—		
Number of employees.....	-2.9	-12.7	Number of employees reported by trade-unions.....	(³)	(³)
Earnings of employees.....	-8.0	-27.9	Number of employees reported by employers.....	+3.6	-10.0
Worsted trade:			Earnings of employees reported by employers.....	+1.2	-16.4
Number of employees.....	+3	-6.1	Printing trades—		
Earnings of employees.....	+8	-5.4	Number of employees reported by trade-unions ¹	+1.0	-2.5
Hosiery trade:			Number of employees reported by employers.....	-3.4	-11.2
Number of employees.....	-3	+14.6	Earnings of employees reported by employers.....	-6.8	-16.4
Earnings of employees.....	-7.2	+38.1	Bookbinding trades—		
Jute trade:			Number of employees reported by trade-unions ¹	-2.6	-5.3
Number of employees.....	-3.6	-17.9	Number of employees reported by employers.....	-3.4	-15.1
Earnings of employees.....	-12.3	-6.6	Earnings of employees reported by employers.....	-5.9	-20.6
Linen trade:			Pottery trade:		
Number of employees.....	-2.2	+31.7	Number of employees.....	-3.7	-13.1
Earnings of employees.....	-6.5	+28.6	Earnings of employees.....	-5.8	-29.0
Silk trade:			Glass trades:		
Number of employees.....	-4.7	-9.1	Number of employees.....	-3.7	-17.7
Earnings of employees.....	-10.3	-20.9	Earnings of employees.....	-9.6	-36.2
Carpet trade:			Food preparation trades:		
Number of employees.....	-6	-9.5	Number of employees.....	-3.2	+2.0
Earnings of employees.....	-9.5	-27.7	Earnings of employees.....	-7.0	-9.3
Lace trade:			Dock and riverside labor: Number of employees.....	-5	-10.5
Number of employees.....	-10.2	-19.9	Seamen: Number of employees.....	+12.7	+8.1
Earnings of employees.....	-4.6	-9.0			
Bleaching, printing, dyeing, and finishing:					
Number of employees.....	-1.3	-6.0			
Earnings of employees.....	-4.0	-8.6			
Boot and shoe trade:					
Number of employees.....	-2.4	+7			
Earnings of employees.....	-4.8	+8.0			
Leather trades: Number of employees ¹	-8	+9			
Tailoring trades:					
Number of employees.....	-2	-13.4			
Earnings of employees.....	-2	-3			
Shirt and collar trade:					
Number of employees.....	(²)	-14.2			
Earnings of employees.....	-1.3	-7.0			

¹ Based on unemployment.

² Increase of less than one-tenth of 1 per cent.

³ No report.

Report of Employment Exchanges in the United Kingdom.

AS REPORTED by the British Labor Gazette for February, 1922, the operations of the employment exchanges for the five and one-half weeks ending January 10, 1922, are summarized as follows: The average daily number of applications from workpeople during the period was 27,526; of vacancies notified, 3,183; and of vacancies filled, 2,679. This means more than 8 applications for every vacancy and 10 applications for every vacancy filled.

When comparing the daily average of applications from workpeople for December, 1921, and January, 1922, a decrease of 6.1 per cent is reported, while the daily average of vacancies notified and vacancies filled showed decreases of 2.9 per cent and 3.3 per cent.

The average daily number of applications from adults was 25,127—18,977 men and 6,150 women. There were 2,810 average daily vacancies reported for adults—1,860 for men and 950 for women. The average number of positions filled daily, when compared with the previous month, showed an increase of 0.5 per cent among men, while in the case of women there was a decrease of 4 per cent.

In the men's department, there were slight increases in the number of vacancies filled in domestic service, the transport trades, food, tobacco, drink and lodgings trades, and general laborers. Decreases occurred in the number of vacancies filled in shipbuilding, commercial and clerical occupations, agriculture, and the textile trades.

With reference to juveniles, 37,118 applications were received from boys and 4,326 vacancies were notified for boys. Of the vacancies notified, 3,782, or 87.4 per cent, were filled.

The number of applications received from girls was 34,858. The number of vacancies notified was 6,769, of which 5,430, or 80.2 per cent, were filled.

Of the total vacancies filled by juveniles (9,212), 1,594, or 17.1 per cent were filled by applicants who obtained their first situation since leaving school.

The following table shows, for men and for women, the number of applications from workpeople, vacancies notified, and vacancies filled, during the five and one-half weeks ending January 10, 1922:

APPLICATIONS FROM WORKPEOPLE, VACANCIES NOTIFIED, AND VACANCIES FILLED DURING THE FIVE AND ONE-HALF WEEKS ENDING JANUARY 10, 1922.

Groups of trades. ¹	Applications from workpeople.		Vacancies notified.		Vacancies filled.	
	Men.	Women.	Men.	Women.	Men.	Women.
Building.....	82,475		6,411		5,890	
Construction of works.....	10,730		19,633		18,806	
Engineering and iron founding.....	115,328	5,032	1,933	207	1,704	191
Shipbuilding.....	41,539		1,878		1,769	
Construction of vehicles.....	3,268		128		101	
Miscellaneous metal trades.....	50,754	6,525	221	130	172	98
Domestic service.....	5,919	28,169	593	20,190	429	12,108
Commercial and clerical.....	9,262	7,404	1,270	1,053	1,056	872
Conveyance of men, goods, etc.....	55,419	4,538	1,711	405	1,515	390
Agriculture.....	3,302	279	752	158	689	153
Textiles.....	34,713	70,289	357	1,848	277	1,494
Dress (including boots and shoes).....	11,538	25,022	229	1,899	180	1,463
Food, tobacco, drink, and lodging.....	6,141	7,154	252	517	196	394
General laborers.....	42,625	3,066	13,943	176	13,620	170
All other trades.....	96,298	27,035	6,513	1,908	5,923	1,504
Total.....	569,311	184,513	55,824	28,491	52,327	18,837

¹ Casual occupations (dock laborers and coal laborers) are excluded from this table and from all other figures above. The number of casual jobs found for workpeople in these occupations during the period was 1,551.

Employment Situation in Italy at the Close of 1921.

THE American consul at Rome states that according to a review of the labor situation in the January 10, 1922, issue of the *Rivista Politica e Finanziaria*, a slight improvement is generally observable in Italy. In northern Italy, however, the continuous drought has affected industries depending on hydroelectric power and has resulted in a decrease in the number of working hours per week. In the individual industries the situation was as follows:

Textile industries.—Most of the cotton mills are operated on full time. The rise in prices of imported raw cotton and imported textiles has contributed to improve the situation. It seems, however, that there exists apprehension about a possible stagnation in March in view of the fact that dealers have completed their stock purchases.

Silk factories are reported to be working at full capacity and a scarcity of skilled labor appears to be felt. Unemployment is confined to the ranks of unskilled labor.

Conditions in the woolen industry are not so favorable. The factories in Lombardy have not resumed normal activity since the strike. Some improvement is noted in Piedmont.

The hemp industry is still at low ebb. This condition is attributed to large world stocks. Many factories have reduced their working hours to 20 or 25 per week. Some improvement was observed during the second half of 1921 and it is hoped that this tendency will continue during 1922.

Iron and metal industries.—The demand for material coming from the engineering and mechanical trades as well as the exhaustion of certain classes of products, such as tubes, on the Italian market has contributed to an increase in employment in iron and metal works. In the Province of Turin unemployment has been reduced from 13,057 in August to 10,842 in December. In most cases the reduction in unemployment has affected skilled labor. In Campania, iron and metal works are operated on full time. Conditions in central Italy are not so favorable, particularly in the copper works. This is attributed to lack of orders and foreign competition. Moreover, many large works are practically shut down on account of proposed reorganizations and await new arrangements with financial institutions before being able to resume operations.

Machinery industry.—Unemployment appears to be decreasing in this industry group. Railway repair shops are working at normal capacity. Small shops are also revealing signs of activity and report a steady coming in of orders. In most cases an average of 48 hours per week is provided for.

The more important naval yards appear also to reveal signs of increasing activity as a result of Government orders. Nevertheless, unemployment is still heavy in the larger mechanical plants, as well as in electrical shops. The small naval yards of the country also report unemployment as a result of the lowering of freight rates.

Chemical industry.—The tendency among factories producing medicinal and drug compounds is towards normal business. The soap industry has also been in a position to offer more employment lately.

Wood and lumber industry.—Unemployment in this industry group appears to be slowly decreasing. Reports from southern Italy state

that 58 hours per week are put in by workers engaged in producing the woodwork for wagons and carriages. Furniture factories report increased employment due to foreign orders.

Glass industry.—Unemployment still prevails in the glass industry. This is attributed to competition from Czechoslovakia, to high wages demanded by skilled labor, and to the stamp tax on bottles used for liquors, wines, and perfumery.

Paper industry.—The Lombardy paper factories are not very active and give no indication of ability to employ a larger number of workers before spring. Southern Italian paper mills are operated at full capacity, however, and in some cases are run on a 60-hour per week employment basis instead of the normal one of 48 hours per week. This condition in southern Italy is due to increased orders.

Toy industry.—Very little employment is afforded by this industry owing to foreign competition.

Felt and woolen hat industry.—This industry is employing approximately its normal quota of workers. From Monza, which is its most important center, it is reported that only 120 workers out of 4,500 are unemployed. The immediate future activity of this industry is, however, uncertain owing to the unsatisfactory conditions which exist in Roumania, Poland, and other countries to which a large amount of the production is exported.

Leather and shoe industry.—In Lombardy the shoe industry, which in the last months of 1921 had attained its normal capacity of employment, showed a tendency to reduce the number of its workers at the close of the year. In Campania conditions appear to be more favorable. Here the tanning industry, which up to September employed only 75 per cent of its normal number of workers, is now experiencing a shortage of labor. It is noted at the same time that Italian factories can not export their products to Great Britain owing to German competition.

Foodstuffs industry.—Reports from Campania indicate that following the free entry of grain authorized by the Government there has been increased activity in the mills of that region. Wheat products also have lately given employment to a larger number of workers as a result of orders received from northern Italy and Great Britain.

The canning industry is recovering from its depression. During November great activity was shown in tomato canning owing to the late crop.

Building trades.—No tendency to increased employment has been noted in the building trades. In some sections of the country, as in Turin, building laborers appear to be unwilling to return to their native villages during the period in which no work can be obtained. As a result some 2,645 building laborers are without work in the Turin district.

HOUSING.

Building Operations in Representative Cities in 1921.

THIS report shows the number of buildings covered by building permits issued in 1921 in 189 cities of the country, together with the stated estimated cost of such buildings. In comparison there is shown like information for 1920, so far as such figures are available. For 140 cities data are here given for both years, while data can be given for 49 other cities for 1921 only.

A year ago the Bureau of Labor Statistics for the first time collected information on building permits, the inquiry covering the building operations of 1920.

Early this year the bureau requested information for 1921 from the building inspectors of the 287 cities of the United States having a population of 25,000 or over. In addition to the 189 cities here shown as giving the information in full, 30 cities have sent incomplete reports which could not be used in these tables. No reply has as yet been received from the other 68 cities.

These tables show the information in a somewhat condensed form. The figures for housekeeping dwellings are shown completely segregated, but under "Other residential buildings" are included hotels, clubs with bedrooms, and other buildings used for residential purposes, and under "New nonresidential buildings" are included amusement buildings, churches, factories, garages, office buildings, public buildings, schools, sheds, stables and barns, and stores. This collective information will be shown in detail in a bulletin to be issued later by the bureau.

The tables show under the heading "Housekeeping dwellings" the number and estimated cost of one-family dwellings, two-family dwellings, one and two family dwellings with stores combined, multi-family dwellings, and multi-family dwellings with stores combined. The number of families these dwellings were planned to house was obtained in every case in 1921 but was not reported in a number of cases in 1920.

In looking over the table it can be seen that in the majority of the cities a much larger number of dwelling-house permits were issued in 1921 than in 1920. In some cities more than twice as many dwelling permits were issued as in 1920. In a few industrial cities, however, such as Akron, the number of houses projected was far smaller than in 1920.

In 1920 the average cost of one-family and two-family houses as shown by the number reporting was about \$4,600, while in 1921 the average cost was about \$4,300.

Although in many cities the number of nonresidential buildings was larger than in 1920, the money expended in their construction was much less. This is accounted for in part by the fact that the number

of large-sized factories and office buildings projected during 1921 was materially smaller than during 1920 and in part by the decreased cost of building material.

"Additions, alterations, and repairs" show much the same condition as "nonresidential buildings" in that the number of permits was greater but the amount spent was less. This indicates that many minor alterations were made, but that the number of large additions to factories, stores, etc., was not so great.

Installation permits were not asked for in 1920. They were included, however, on the 1921 questionnaire. Under installation permits are included permits for the installation of boilers, water tanks, gas engines, elevators, etc., and the erection of signs and awnings. It will be seen that only about one-third of the cities report such permits to have been issued by the building inspector.

The figures reported under "Grand total" therefore show in most cities under "Number" a larger figure in 1921 than in 1920, while under "Costs" the amount was less in 1921 than in 1920. This is accounted for partly by the fact that fewer large industrial buildings were built and partly by the fact that the costs of erecting dwellings and of making repairs was less.

As it is expected that reports will yet be received from other cities no summary is made at this time.

NUMBER AND ESTIMATED COST OF BUILDINGS COVERED BY PERMITS ISSUED IN 194 CITIES IN 1921 (AND IN 1920 SO FAR AS DATA ARE AVAILABLE) FOR NEW CONSTRUCTION, BY INTENDED USE OF BUILDINGS.

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City and State.	Year.	New residential buildings—Housekeeping dwellings.															
		One-family dwellings.			Two-family dwellings.			One-family and two-family dwellings with stores combined.			Multi-family dwellings.			Multi-family dwellings with stores combined.			
		Number.	Cost.	Families.	Number.	Cost.	Families.	Number.	Cost.	Families.	Number.	Cost.	Families.	Number.	Cost.	Families.	
Akron, Ohio.....	1920	947	\$4,694,535	947									30	\$1,686,100			
	1921	234	993,800	234													
Albany, N. Y.....	1920	81	452,900	81	15	\$143,000	30										
	1921	179	1,090,900	179	60	583,500	120						1	16,000	3		
Allentown, Pa.....	1920	93	644,310	93	1	12,000	2						3	56,000	18		
	1921	92	422,600	92				1	\$28,000	2			1	25,000	8		
Alameda, Calif.....	1921	134	453,109	134	9	38,400	18										
Altoona, Pa.....	1920	36	158,240	36	17	16,015	34									2	\$26,500
	1921	85	431,455	85	3	18,500	6										
Amsterdam, N. Y.....	1921	50	250,000	50	10	90,000	20										
Atlanta, Ga.....	1920	552	2,672,058	552									39	1,579,000	624		
	1921	1,261	4,804,725	1,261	25	171,700	50	3	6,600	3	35	872,753	300				
Auburn, N. Y.....	1920	29	109,600	29	3	59,000	6										
	1921	16	60,900	16				1	3,000	2			2	10,400	10		
Atlantic City, N. J.....	1920	27	235,944	27	16	310,500	32						10	358,000	75		
	1921	190	1,569,678	190	41	325,732	82	13	230,750	20	21	861,000	74			1	93,500
Aurora, Ill.....	1920	45	246,200	45													
	1921	126	476,760	126													
Baltimore, Md.....	1920	2,053	9,285,900	2,053									4	955,000	108		
	1921	1,849	9,199,200	1,849	34	438,000	68	24	190,680	31	8	1,242,000	212	3	74,400	16	
Bangor, Me.....	1921	60	348,000	60				1	7,000	2						1	11,000
Battle Creek, Mich.....	1920	87	364,350	87	1	6,000	2										
	1921	117	409,480	117	1	5,500	2						2	30,000	8		
Berkeley, Calif.....	1921	548	2,037,490	548	6	25,000	12						23	405,900	146		
Bethlehem, Pa.....	1920	32	113,650	32	4	31,000	8										
	1921	79	281,950	79				3	14,000	3							
Binghamton, N. Y.....	1920	68	295,900	68	12	57,900	24	9	69,000	18	4	18,000	12				
	1921	182	708,500	182	44	214,300	88	6	43,500	12	11	107,800	45				
Boston, Mass.....	1920	63	1,794,435	63	25	(²)	50	17	(²)	51	9	515,000	156				
	1921	136	3,558,900	136	133	(²)	266	2	(²)	2	66	(²)	474				
Brockton, Mass.....	1920	36	173,900	36													
	1921	70	336,400	70	6	34,000	12	2	10,500	2							

¹ Includes cost of two-family dwellings and one or two family dwellings with stores combined.

² Included with one-family dwellings.

³ Includes cost of two-family dwellings and one or two family dwellings with stores combined, and multi-family dwellings.

City and State.	Year.	New residential buildings—Continued.				New nonresidential buildings.		Additions, alterations, and repairs.		Installation permits. ⁴		Grand total, all permits.		
		Total families in house-keeping dwellings.	Other residential.		Total residential.		Number.	Cost.	Number.	Cost.	Number.	Cost.	Number.	Cost.
			Number.	Cost.	Number.	Cost.								
Akron, Ohio.....	1920	.....	6	\$697,800	983	\$7,078,435	2,304	\$11,424,313	966	\$1,844,877	.....	.....	4,253	\$20,347,625
	1921	234	.....	.....	234	993,800	1,252	2,109,346	644	601,972	244	\$95,830	2,374	3,800,948
Albany, N. Y.....	1920	111	1	40,000	97	635,900	256	1,379,280	1,704	1,887,979	.....	.....	2,057	3,903,159
	1921	302	1	500,000	241	2,190,400	461	1,179,975	1,408	793,697	65	47,425	2,175	4,211,417
Allentown, Pa.....	1920	113	.....	.....	97	712,310	264	1,272,765	301	724,635	.....	.....	662	2,709,710
	1921	102	.....	.....	94	475,600	393	1,022,300	365	315,918	.....	.....	852	1,813,818
Alameda, Calif.....	1921	152	.....	.....	143	491,509	198	153,796	292	150,133	.....	.....	633	795,438
Altoona, Pa.....	1920	78	1	700,000	56	900,755	288	415,587	462	269,919	.....	.....	806	1,586,261
	1921	91	1	39,910	89	489,855	345	905,528	1,139	326,528	48	12,965	1,621	1,734,886
Amsterdam, N. Y.....	1921	70	.....	.....	60	340,000	341	623,000	6	20,000	.....	.....	207	983,000
Atlanta, Ga.....	1920	1,176	.....	.....	591	4,251,058	618	6,792,982	1,408	2,328,626	.....	.....	2,617	13,372,666
	1921	1,614	2	353,600	1,326	6,209,378	904	3,680,072	1,506	1,303,094	104	44,232	3,840	11,236,776
Auburn, N. Y.....	1920	35	.....	.....	32	168,600	100	256,562	51	92,687	.....	.....	183	517,849
	1921	28	.....	.....	19	74,300	119	87,110	54	177,120	.....	.....	192	338,530
Atlantic City, N. J.....	1920	137	1	4,000,000	55	4,997,944	179	1,840,990	1,208	9,235,064	.....	.....	1,442	16,073,988
	1921	366	1	130,186	206	3,117,346	108	2,194,188	957	2,297,443	567	266,779	1,898	7,875,756
Aurora, Ill.....	1920	45	.....	.....	45	246,200	86	89,755	176	403,148	.....	.....	307	739,103
	1921	126	.....	.....	126	476,760	137	281,459	172	231,638	.....	.....	435	989,857
Baltimore, Md.....	1920	2,161	1	350,000	2,058	10,590,900	2,033	12,908,850	12,202	7,070,131	.....	.....	16,293	30,629,881
	1921	2,176	2	180,000	1,920	11,324,280	2,307	17,358,530	13,139	8,334,130	361	576,318	17,727	37,593,258
Bangor, Me.....	1921	66	.....	.....	62	366,000	68	70,800	17	7,800	.....	.....	147	444,600
Battle Creek, Mich.....	1920	89	.....	.....	88	370,350	406	194,040	119	25,400	.....	.....	613	589,790
	1921	127	.....	.....	120	444,980	523	574,813	179	91,362	.....	.....	822	1,111,155
Berkeley, Calif.....	1921	706	3	90,000	580	2,558,390	17	131,000	1,105	507,645	.....	.....	1,702	3,197,035
Bethlehem, Pa.....	1920	40	1	500	37	145,150	100	250,582	106	358,940	.....	.....	243	754,672
	1921	82	2	805,000	84	1,100,950	176	301,421	77	104,745	.....	.....	337	1,507,116
Binghampton, N. Y.....	1920	122	.....	.....	93	440,800	351	492,650	1,943	528,509	.....	.....	2,387	1,461,959
	1921	327	.....	.....	243	1,074,100	639	530,969	170	377,540	291	12,561	1,343	1,995,170
Boston, Mass.....	1920	320	1	60,000	115	1,369,435	930	16,313,697	5,381	10,484,536	.....	.....	6,426	28,167,668
	1921	878	.....	.....	337	3,558,900	1,359	14,412,197	6,278	6,087,055	1,479	1,543,881	9,453	25,602,033
Brockton, Mass.....	1920	36	.....	.....	36	173,900	399	893,044	250	458,665	.....	.....	685	1,525,659
	1921	84	.....	.....	78	380,900	455	1,007,824	304	296,715	.....	.....	837	1,685,439

⁴ Number and cost of installation permits not included in 1920.

NUMBER AND ESTIMATED COST OF BUILDINGS COVERED BY PERMITS ISSUED IN 194 CITIES IN 1921 (AND IN 1920 SO FAR AS DATA ARE AVAILABLE) FOR NEW CONSTRUCTION, BY INTENDED USE OF BUILDINGS—Continued.

City and State.	Year.	New residential building—Housekeeping dwellings.														
		One-family dwellings.			Two-family dwellings.			One-family and two-family dwellings with stores combined.			Multi-family dwellings.			Multi-family dwellings with stores combined.		
		Number.	Cost.	Families.	Number.	Cost.	Families.	Number.	Cost.	Families.	Number.	Cost.	Families.	Number.	Cost.	Families.
Brookline, Mass.	1920	19	\$464,000	19	8	\$193,000	16									
	1921	26	458,000	26	32	458,800	64				2	\$512,000	28			
Butte, Mont.	1920	12	20,570	12				1	\$2,000	1						
	1921	2	2,000	2				2	3,500	2						
Cambridge, Mass.	1920	10	117,200	10	1	11,000	2									
	1921	3	34,400	3	20	162,300	40									
Camden, N. J.	1920	32	102,700	32												
	1921	145	498,250	145												
Canton, Ohio.	1920	240	915,000	240	15	46,000	30	2	4,000	4	5	77,000	20	6	\$26,000	18
	1921	347	1,644,116	347	2	30,000	4				10	180,000	52			
Cedar Rapids, Iowa.	1920	187	886,810	187				2	4,000	2	1	17,000	4	1	22,000	3
	1921	320	1,192,292	320	1	6,000	2	1	2,000	2	1	61,000	12			
Charleston, S. C.	1920	170	625,360	170				5	25,500	5	3	22,600	12			
	1921	184	505,315	184				8	33,615	8	3	30,000	12			
Charlotte, N. C.	1920	162	597,855	162				2	4,000	2	1	45,000	12			
	1921	300	1,189,420	300	2	47,000	4	6	13,850	6	4	15,000	9			
Chattanooga, Tenn.	1920	44	198,250	44				1	8,000	1	1	119,000	64			
	1921	149	411,050	149	3	19,000	6	5	32,100	7						
Chelsea, Mass.	1920	4	24,000	4	1	7,500	2									
	1921	1	5,800	1	29	180,000	58									
Chester, Pa.	1920	30	282,300	30	3	7,000	6	16	111,800	20				1	5,000	3
	1921	43	259,575	43				2	74,500	4						
Chicago, Ill.	1920	2,079	17,723,250	2,079	54	541,700	108	47	564,400	60	33	3,472,000	709	2	177,000	47
	1921	4,638	22,577,360	4,638	893	8,273,650	1,786	232	2,900,740	368	384	24,218,060	5,261	29	1,463,000	199
Chicopee, Mass.	1920	60	206,300	60												
	1921	100	335,200	100	33	191,400	66				12	121,000	62	2	45,000	10
Cicero, Ill.	1921	262	1,367,440	262	68	764,200	136	39	552,100	49	3	26,600	6			
Clarksburg, W. Va.	1921	154	586,175	154												
Cleveland, Ohio.	1920	1,139	6,370,680	1,139	685	4,247,120	1,370				32	993,500	259			
	1921	1,450	12,383,750	1,450	827	(?)	1,634				121	3,503,000	980			
Clifton, N. J.	1921	215	850,000	215	145	794,700	290	16	107,600	24	2	30,000	11			
Colorado Springs, Colo.	1921	116	295,085	116							3	34,530	24			
Colorado Springs, Colo.	1920	112	305,060	112							3	41,000	14			
Columbia, S. C.	1921	177	493,468	177	25	70,900	50									

¹ Included with one-family dwellings.

² Includes cost of two-family dwellings.

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City and State.	Year.	New residential buildings—Continued.				New nonresidential buildings.		Additions, alterations, and repairs.		Installation permits.		Grand total, all permits.		
		Total families in house-keeping dwellings.	Other residential.		Total residential.		Number.	Cost.	Number.	Cost.	Number.	Cost.	Number.	Cost.
			Number.	Cost.	Number.	Cost.								
Brookline, Mass.	1920	35		27	\$657,000	126	\$1,177,500	120	\$680,538			273	\$2,515,038	
	1921	118	1	61	1,502,909	160	964,014	138	907,476			359	3,374,399	
Butte, Mont.	1920	13		13	22,570	61	118,100	263	84,710			337	225,380	
	1921	4		4	5,500	38	12,125	112	72,493			154	90,118	
Cambridge, Mass.	1920	12		11	128,200	267	4,219,093	598	863,923			876	5,211,216	
	1921	43		23	196,700	279	818,578	551	618,681	165	\$232,221	1,018	1,866,180	
Camden, N. J.	1920	32	1	33	242,700	438	1,835,464	478	714,116			949	2,792,280	
	1921	145		145	498,250	490	973,097	543	436,970			1,178	1,908,317	
Canton, Ohio.	1920	312	1	269	1,418,000	819	1,232,550	675	559,899			1,763	3,210,449	
	1921	403		359	1,854,116	973	1,424,616	734	537,642			2,066	3,816,374	
Cedar Rapids, Iowa	1920	189	1	190	914,810	476	925,268	249	363,814			915	2,203,892	
	1921	331		324	1,239,292	661	1,507,829	370	275,994			1,355	3,023,115	
Charleston, S. C.	1920	187		178	711,860	238	2,288,562	150	289,591			566	3,290,013	
	1921	204		195	561,530	61	498,152	209	291,412	7	1,650	472	1,352,744	
Charlotte, N. C.	1920	176		165	631,855	122	1,418,815	85	252,910			372	2,303,580	
	1921	322	2	314	1,313,050	82	600,305	85	159,037			481	2,072,392	
Chatanooga, Tenn.	1920	54		46	221,250	65	2,199,489	1,926	462,581			2,037	2,883,320	
	1921	226		165	581,150	322	1,257,960	1,674	563,674	132	64,245	2,293	2,467,029	
Chelsea, Mass.	1920	6		5	31,500	70	400,287	174	163,280			249	595,067	
	1921	59		30	185,800	104	234,160	130	93,580			264	573,540	
Chester, Pa.	1920	59	2	52	845,100	212	799,137	134	355,095			448	1,999,332	
	1921	47		45	334,075	192	219,746	91	233,280			328	787,101	
Chicago, Ill.	1920	3,003	10	2,225	24,593,850	1,421	55,568,800	3,600	4,440,000			7,246	84,602,650	
	1921	12,252	5	6,181	62,108,810	17,291	63,044,200	2,328	7,874,900			25,800	133,027,910	
Chicopee, Mass.	1920	166		106	513,900	133	951,950	66	62,400			305	1,528,250	
	1921	238	5	152	695,050	176	238,905	81	82,725	1	2,500	410	1,019,180	
Cicero, Ill.	1921	453	3	374	2,779,340	276	927,347	27	59,075	11	2,800	688	3,768,562	
Clarksburg, W. Va.	1921	163	1	158	627,175	174	267,505	172	100,380	16	12,500	520	1,007,560	
Cleveland, Ohio.	1920	2,768		1,856	11,611,300	5,227	47,867,912	4,237	4,719,388			11,320	64,198,600	
	1921	4,084	3	2,401	19,221,750	479	20,926,950	12,926	46,531,323			15,806	86,680,023	
Clifton, N. J.	1921	540		378	1,782,300	318	976,465	96	65,625			792	2,824,390	
Colorado Springs, Colo.	1921	116		116	295,085	301	106,138	425	163,935			842	565,158	
Columbia, S. C.	1920	138	1	118	349,801	179	325,789	713	384,766			1,010	1,060,356	
	1921	241	1	206	635,368	144	466,734	1,266	468,768			1,616	1,570,870	

NUMBER AND ESTIMATED COST OF BUILDINGS COVERED BY PERMITS ISSUED IN 194 CITIES IN 1921 (AND IN 1920 SO FAR AS DATA ARE AVAILABLE) FOR NEW CONSTRUCTION, BY INTENDED USE OF BUILDINGS—Continued.

City and State.	Year.	New residential buildings—Housekeeping dwellings.														
		One-family dwellings.			Two-family dwellings.			One-family and two-family dwellings with stores combined.			Multi-family dwellings.			Multi-family dwellings with stores combined.		
		Number.	Cost.	Families.	Number.	Cost.	Families.	Number.	Cost.	Families.	Number.	Cost.	Families.	Number.	Cost.	Families.
Columbus, Ga.....	1921	60	\$105,715	60	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1920	334	1,456,050	334	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Columbus, Ohio.....	1921	867	3,788,715	867	200	1,276,700	400	16	90,200	17	9	134,500	33	.....	.....	.....
	1920	208	512,075	208	2	6,000	4	.....	.....	.....	.....	.....	.....	.....	.....	.....
Council Bluffs, Iowa....	1921	356	977,765	356	9	46,000	18	7	16,000	9	2	80,000	40	.....	.....	.....
	1921	114	532,382	114	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cumberland, Md.....	1920	82	327,350	82	4	38,000	8	.....	.....	.....	.....	.....	.....	.....	.....	.....
Davenport, Iowa.....	1921	148	656,015	148	3	28,000	6	2	16,000	2	2	40,000	16	3	57,000	20
	1920	413	1,927,850	413	12	110,000	24	1	7,000	2	1	100,000	6	.....	.....	.....
Denver, Colo.....	1921	1,426	4,469,350	1,426	39	279,000	78	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1920	4,007	15,108,350	4,007	440	3,761,300	880	.....	.....	.....	.....	.....	.....	.....	.....	.....
Detroit, Mich.....	1921	3,160	12,382,176	3,160	605	4,771,005	1,210	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1921	614	1,970,375	614	4	9,800	8	2	83,000	3	1	35,000	12	.....	.....	.....
Duluth, Minn.....	1921	62	313,300	62	94	803,050	188	.....	.....	.....	.....	.....	.....	.....	.....	.....
East Cleveland, Ohio....	1921	49	433,100	49	2	11,000	4	2	20,600	3	.....	.....	.....	.....	.....	.....
Easton, Pa.....	1920	362	1,500,000	362	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
El Paso, Tex.....	1921	634	2,228,728	634	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1921	307	2,101,250	307	11	82,000	22	2	22,500	2	5	361,000	84	.....	.....	.....
Evanston, Ill.....	1920	11	45,750	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Everett, Mass.....	1921	7	34,000	7	4	31,500	8	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1921	111	277,500	111	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Everett, Wash.....	1920	28	179,550	28	7	34,682	14	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fall River, Mass.....	1921	67	225,586	67	12	69,550	24	5	51,300	8	14	114,000	42	.....	.....	.....
	1920	45	214,250	45	13	117,700	26	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fitchburg, Mass.....	1921	61	25,285	61	23	110,700	46	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1920	2,100	1,100,000	2,100	100	200,000	200	100	250,000	200	100	400,000	600	25	28,000	8
Flint, Mich.....	1921	215	413,660	215	30	72,000	60	37	70,000	55	6	17,000	18	.....	.....	.....
	1920	24	49,250	24	4	14,000	8	.....	.....	.....	.....	.....	.....	.....	.....	.....
Galveston, Tex.....	1921	99	462,647	99	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1920	258	1,356,950	258	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gary, Ind.....	1921	292	1,016,800	292	1	7,000	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1920	186	550,000	186	35	180,000	70	10	55,000	10	5	21,950	16	.....	.....	.....
Grand Rapids, Mich....	1921	598	2,095,600	598	8	31,500	16
	1920	209	801,413	209	13	104,000	26
Hamilton, Ohio.....	1921	192	668,600	192

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City and State.	Year.	New residential buildings—Continued.				New nonresidential buildings.		Additions, alterations, and repairs.		Installation permits.		Grand total, all permits.		
		Total families in house-keeping dwellings.	Other residential.		Total residential.		Number.	Cost.	Number.	Cost.	Number.	Cost.	Number.	Cost.
			Number.	Cost.	Number.	Cost.								
Columbus, Ga.....	1921	88		62	\$186,715	14	\$323,815	25	\$73,850			101	\$584,380	
Columbus, Ohio.....	1920	365		346	1,585,350	1,400	6,350,565	1,127	2,321,255			2,873	10,257,170	
	1921	1,317		1,092	5,290,115	2,134	1,961,715	1,447	1,997,890	77	\$15,390	4,750	9,295,110	
Council Bluffs, Iowa.....	1920	216		211	526,075	153	925,890	133	159,992			497	1,611,957	
	1921	423		374	1,119,765	196	795,030	215	217,270			785	2,132,065	
Cumberland, Md.....	1921	132	1	121	628,882	145	267,655	164	183,255	1	3,000	431	1,080,792	
Davenport, Iowa.....	1920	90	1	87	560,350	377	568,603	487	347,389			951	1,476,342	
	1921	192		158	797,015	285	691,045	253	237,485	327	107,885	1,023	1,833,340	
Denver, Colo.....	1920	445		427	2,144,850	1,240	4,036,710	1,236	961,600			2,903	7,143,160	
	1921	1,624		1,470	5,148,350	1,958	3,181,240	1,721	1,332,825	434	315,910	5,583	9,978,325	
Detroit, Mich. *	1920	6,266	3	4,629	27,337,130	9,394	34,658,730	5,400	15,741,355			19,423	77,737,215	
	1921	6,743		4,077	24,958,381	8,069	21,050,106	5,469	12,077,566			17,615	58,086,053	
Duluth, Minn.....	1921	637		621	2,098,175	706	882,988	1,145	701,019	161	42,051	2,633	3,724,233	
East Cleveland, Ohio.....	1921	472		179	1,968,350	373	478,412	51	68,633	21	99,120	624	2,614,515	
Easton, Pa.....	1921	59		54	470,700	107	643,480	267	344,466			428	1,458,646	
El Paso, Tex.....	1920	422		372	1,650,000	288	1,555,200	65	102,000			725	3,337,200	
	1921	634	40	674	3,075,303	99	1,258,600	841	282,000			1,614	4,615,903	
Evanston, Ill.....	1921	415		325	2,560,750	370	1,174,545	172	279,618			867	4,020,913	
Everett, Mass.....	1920	11		11	45,750	183	526,715	161	243,925			355	816,390	
	1921	15		11	65,500	249	400,868	191	81,871			451	548,234	
Everett, Wash.....	1921	115		112	282,500	353	32,500	1,511	143,693			1,976	458,693	
Fall River, Mass.....	1920	42		35	214,232	367	2,756,590	285	777,760			687	3,748,582	
	1921	141		98	460,436	362	736,435	347	497,342			807	1,694,213	
Fitchburg, Mass.....	1920	71		58	331,950	158	775,387	106	615,058			322	1,722,395	
	1921	119		87	171,985	208	231,220	150	78,443			445	481,648	
Flint, Mich.....	1920	3,200	12	2,437	5,375,000	1,039	5,044,000	849	124,525			4,325	10,543,525	
	1921	348		288	572,660	934	1,702,508	1,605	420,237			2,827	2,695,405	
Galveston, Tex.....	1920	32		28	63,250	385	282,282	3,149	323,076			3,562	668,608	
	1921	103	1	101	489,647	447	317,800	4,197	767,433			4,745	1,574,880	
Gary, Ind.....	1920		1	313	2,061,150	209	878,055	215	340,319			737	3,279,524	
	1921	494	13	356	1,736,555	356	690,387	180	377,536			902	2,794,478	
Grand Rapids, Mich.....	1920		1	237	826,950	957	2,934,430	585	687,320			1,779	4,448,700	
	1921	630		610	2,150,600	1,420	2,630,331	876	826,201	189	28,250	3,095	5,635,382	
Hamilton, Ohio.....	1920	235		222	905,413	163	282,607	203	276,336			588	1,464,356	
	1921	192		192	668,600	153	167,771	204	235,809			549	1,072,180	

HOUSING.

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NUMBER AND ESTIMATED COST OF BUILDINGS COVERED BY PERMITS ISSUED IN 194 CITIES IN 1921 (AND IN 1920 SO FAR AS DATA ARE AVAILABLE) FOR NEW CONSTRUCTION, BY INTENDED USE OF BUILDINGS—Continued.

City and State.	Year.	New residential buildings—Housekeeping dwellings.														
		One-family dwellings.			Two-family dwellings.			One-family and two-family dwellings with stores combined.			Multi-family dwellings.			Multi-family dwellings with stores combined.		
		Number.	Cost.	Families.	Number.	Cost.	Families.	Number.	Cost.	Families.	Number.	Cost.	Families.	Number.	Cost.	Families.
Hartford, Conn.	1920	37	\$265,850	37	93	\$1,025,000	186				20	\$584,000		1	\$35,000	
	1921	56	437,280	56	143	1,309,225	286				70	1,119,000	375			
Haverhill, Mass.	1920	80	290,800	80	4	24,000	8	1	\$2,000	1	4	47,500	21			
	1921	68	221,700	68	8	40,500	16	2	8,800	3	8	58,000	30			
Hazleton, Pa.	1921	12	49,900	12	5	31,700	10	1	17,500	2	2	37,000	14			
Highland Park, Mich. .	1921	33	283,470	33	14	103,800	28	5	75,100	10	10	285,250	105	9	663,500	74
Hoboken, N. J.	1920							1	4,000	1						
	1921															
Holyoke, Mass.	1920	49	250,000	49	10	150,000	20									
	1921	53	297,400	53	23	267,700	46									
Houston, Tex.	1920	940	2,859,624	940							30	551,300	120	9	40,900	27
	1921	2,286	5,613,557	2,286	44	230,200	88				37	407,200	198			
Indianapolis, Ind.	1920	557	2,337,279	557	58	309,000	116				17	399,650	510			
	1921	1,438	5,100,000	1,438	200	1,509,000	400	100	700,000	150	31	1,575,000	525	15	100,000	52
Jackson, Mich.	1920	138	666,155	138	2	17,000	4							3	28,000	10
	1921	94	332,376	94	1	4,000	2	2	6,500	2				3	40,300	9
Jacksonville, Fla.	1920	200	785,947	200							4	75,000	20	3	40,300	9
	1921	566	1,788,475	566	20	397,900	40	23	99,800	34	12	200,000	71	5	157,500	36
Jersey City, N. J.	1920	36	88,900	36	23	192,500	46									
	1921	43	235,626	43	211	2,124,608	422	22	240,000	27	19	2,305,000	478			
Kalamazoo, Mich.	1920	174	401,365	174	5	23,000	10									
	1921	191	649,050	191	1	6,000	2	4	17,300	7						
Kansas City, Kans.	1920	144	309,160	144												
	1921	395	977,360	395												
Kansas City, Mo.	1920	816	2,987,700	816							22	742,000	748			
	1921	1,806	6,316,750	1,806	22	167,500	44				91	1,787,000	728			
Kearney, N. J.	1921	108	700,000	108	32	300,000	64	9	80,000	9	6	60,000	24			
Kenosha, Wis.	1920	187	815,110	187	5	31,000	10	4	73,000	4						
	1921	106	408,450	106	3	27,000	6	7	85,500	12				1	35,000	4
Knoxville, Tenn.	1920	170	508,560	170												
	1921	483	1,447,585	483	3	33,400	6				1	9,700	3	1	8,000	4
Kokomo, Ind.	1921	145	371,742	145	6	30,000	12	2	10,000	2						
Lakewood, Ohio.	1921	231	1,708,655	231	313	1,868,445	626	4	75,400	8	2	40,000	12			

1921

City and State.	Year.	New residential buildings—Continued.				New nonresidential buildings.		Additions, alterations, and repairs.		Installation permits.		Grand total, all permits.		
		Total families in house-keeping dwellings.	Other residential.		Total residential.		Number.	Cost.	Number.	Cost.	Number.	Cost.	Number.	Cost.
			Number.	Cost.	Number.	Cost.								
Hartford, Conn.....	1920	1	\$1,100,000	152	\$3,009,850	382	\$16,484,162	971	\$1,197,312			1,505	\$20,691,324	
	1921	717		289	2,865,505	617	3,017,074	1,162	1,110,066	243	\$555,571	2,291	7,548,216	
Haverhill, Mass.....	1920	110		89	364,300	201	569,650	68	202,800			358	1,136,750	
	1921	117		86	329,000	223	202,530	80	243,550			389	775,080	
Hazelton, Pa.....	1921	38		20	136,100	70	164,410	34	72,786			124	373,296	
Highland Park, Mich..	1921	250		71	1,412,120	407	714,980	212	155,300	352	1,064	1,042	2,283,464	
Hoboken, N. J.....	1920	1		1	4,000	49	1,395,030	170	576,339			220	1,975,369	
	1921					34	186,500	228	363,001			262	549,501	
Holyoke, Mass.....	1920	1	150,000	60	550,000	154	2,670,295	147	231,900			361	3,452,195	
	1921	99	120,000	77	685,100	167	202,850	120	178,000			364	1,065,950	
Houston, Tex.....	1920	1,087		979	3,451,824	233	3,967,977	192	410,085			1,404	7,829,886	
	1921	2,572	150,000	2,368	6,400,957	303	2,451,255	140	434,925	1	190,000	2,812	9,477,137	
Indianapolis, Ind.....	1920	1,183		632	3,036,929	1,720	9,456,445	4,337	2,100,388			6,689	14,593,762	
	1921	2,565	1,870,000	1,788	10,845,000	2,358	4,705,000	5,200	2,300,000	790	480,000	10,136	18,330,000	
Jackson, Mich.....	1920	142		140	683,155	507	286,233	450	253,793			1,097	1,223,181	
	1921	108		100	370,876	450	512,794	114	435,296			664	1,318,966	
Jacksonville, Fla.....	1920	229		207	901,247	123	1,046,452	150	973,390			480	2,921,089	
	1921	747		626	2,643,675	557	2,089,561	1,461	303,343	296	49,000	2,940	5,085,579	
Jersey City, N. J.....	1920	82	32,000	61	313,400	379	3,985,620	716	3,159,829			1,156	7,458,849	
	1921	970	4,500	296	4,909,734	554	6,439,881	753	1,010,107	203	243,250	1,806	12,602,972	
Kalamazoo, Mich.....	1920	184	3,500	180	427,865	161	782,358	142	185,870			483	1,396,093	
	1921	200		196	672,350	407	576,172	301	88,640			904	1,337,162	
Kansas City, Kans.....	1920	144		144	306,160	26	745,500	283	228,635			453	1,280,295	
	1921	395		395	977,360	14	473,000	498	266,520			907	1,716,880	
Kansas City, Mo.....	1920	1,564	100,000	839	3,829,700	1,226	7,331,245	2,351	2,361,320			4,416	13,522,265	
	1921	2,578	250,000	1,921	8,521,250	1,337	4,620,700	1,103	2,583,325	24	14,250	4,385	15,739,525	
Kearney, N. J.....	1921	205		155	1,140,000	165	838,000	60	40,000			380	2,018,000	
Kenosha, Wis.....	1920	201		196	919,110	409	964,829	861	688,835			1,466	2,572,774	
	1921	128	50,000	118	605,950	304	481,226	242	178,485	181	104,340	845	1,370,001	
Knoxville, Tenn.....	1920	170	12,500	171	521,060	52	1,352,637	768	595,344			991	2,469,041	
	1921	489		486	1,480,985	190	730,776	754	453,650			1,430	2,665,411	
Kokomo, Ind.....	1921	166		155	429,442	105	278,349	71	52,158			331	759,949	
Lakewood, Ohio.....	1921	877		550	3,692,500	537	1,499,700	112	162,898			1,199	5,355,098	

NUMBER AND ESTIMATED COST OF BUILDINGS COVERED BY PERMITS ISSUED IN 194 CITIES IN 1921 (AND IN 1920 SO FAR AS DATA ARE AVAILABLE) FOR NEW CONSTRUCTION, BY INTENDED USE OF BUILDINGS—Concluded.

City and State.	Year.	New residential building—Housekeeping dwellings.														
		One-family dwellings.			Two-family dwellings.			One-family and two-family dwellings with stores combined.			Multi-family dwellings.			Multi-family dwellings with stores combined.		
		Number.	Cost.	Families.	Number.	Cost.	Families.	Number.	Cost.	Families.	Number.	Cost.	Families.	Number.	Cost.	Families.
Lawrence, Mass.	1920	18	\$79,700	18	71	\$497,000	142				13	\$169,500		4	\$22,000	
	1921	50	254,300	50	89	756,750	178	8	\$81,500	16	20	219,500	63			
Lexington, Ky.	1920	74	304,100	74	13	116,550	26	1	3,500	1	3	42,000	18	1	15,000	4
	1921	127	1,825,300	127												
Lima, Ohio	1920	68	147,500	68				2	10,500	4	6	37,000	18			
	1921	105	525,000	105	25	208,000	50									
Lincoln, Nebr.	1920	141	686,900	141							2	440,000				
	1921	235	983,250	235							1	10,000	6			
Lorain, Ohio	1920	102	390,553	102				4	11,000	8	1	12,000	4	1	10,000	3
	1921	128	494,734	128	4	23,000	8	1	8,000	2	1	10,000	4	1	31,000	4
Los Angeles, Calif.	1920	8,850	25,124,628	8,850	550	3,213,818	1,100				205	4,098,488	1,036			
	1921	13,303	30,763,921	13,303	1,651	8,141,293	3,202				602	8,570,763	2,967			
Louisville, Ky.	1920	415	1,909,400	415												
	1921	602	3,197,500	602							11	397,000	75			
Lynn, Mass.	1920	18	75,500	18	1	7,000	2									
	1921	80	225,286	80	9	74,387	18				2	80,000	42			
Macon, Ga.	1920	82	215,749	82							2	27,035	8			
	1921	154	426,553	154							1	25,000	8			
Malden, Mass.	1920	24	144,225	24	9	53,000	18	1	8,000	1	1	212,000	65			
	1921	38	140,900	38	13	107,200	26				4	85,000	30			
Manchester, N. H.	1920	83	112,465	83	1	1,200	2				1	15,000	6			
	1921	157	379,727	157	13	58,800	26				2	107,000	27			
Mansfield, Ohio	1921	72	204,025	72												
Marion, Ohio	1921	42	96,000	42				1	4,500	2						
Medford, Mass.	1920	90	318,601	90	11	99,000	22									
	1921	118	590,000	118	60	450,000	120	3	20,800	3	1	40,000	15			
Memphis, Tenn.	1920	437	2,052,705	437	4	8,000	8	17	123,200	18	5	72,000	16			
	1921	938	3,866,340	938	6	30,000	12	12	106,800	18	23	903,600	277			
Meriden, Conn.	1921	19	88,800	19	15	79,250	30	1	2,000	1	7	66,500	21			
Milwaukee, Wis.	1920	555	3,637,301	555	68	592,800	136	12	151,400	16	5	351,000	77			
	1921	993	5,485,250	993	391	3,065,650	782	57	592,800	62	16	1,605,000	375			
Minneapolis, Minn.	1920	995	3,608,105	995	12	124,250	24				25	1,652,200	553			
	1921	2,714	9,772,745	2,714	92	(?)	184				60	2,164,600	676			
Moline, Ill.	1921	38	205,000	38												
Montclair, N. J.	1921	182	1,716,927	182	12	114,331	24	2	31,000	2	3	225,000	48	5	95,775	20

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City and State.	Year.	New residential buildings—Continued.				New nonresidential buildings.		Additions, alterations, and repairs.		Installation permits.		Grand total, all permits.		
		Total families in house-keeping dwellings.	Other residential.		Total residential.		Number.	Cost.	Number.	Cost.	Number.	Cost.	Number.	Cost.
			Number.	Cost.	Number.	Cost.								
Lawrence, Mass.....	1920		2	\$20,000	108	\$788,200	191	\$1,236,990	202	\$523,801			501	\$2,548,991
	1921	307			167	1,312,050	299	1,263,245	195	470,225			661	3,045,520
Lexington, Ky.....	1920	123	1	18,000	93	499,150	271	1,256,205	495	301,099			859	2,056,454
	1921	127			127	1,825,300	169	430,378	445	319,845	17	\$5,150	758	2,580,673
Lima, Ohio.....	1920	90	1	75,000	77	270,000	33	280,175	18	108,325			128	658,500
	1921	155			130	733,000	18	4,950	33	4,290			181	742,240
Lincoln, Nebr.....	1920				143	1,126,900	262	818,285	131	165,310			536	2,110,495
	1921	241			236	993,250	346	519,452	122	83,760			704	1,596,462
Lorain, Ohio.....	1920	117	1	8,000	109	431,553	165	465,636	300	326,404			574	1,223,593
	1921	146			135	566,734	261	500,753	242	236,725			638	1,304,212
Los Angeles, Calif.	1920	10,986	10	482,200	9,615	32,919,134	9,455	19,415,418	6,485	7,689,048			25,555	60,023,600
	1921	19,572	8	145,000	15,564	47,620,977	12,873	25,718,020	8,769	9,422,389			37,206	82,761,386
Louisville, Ky.....	1920				417	1,933,400	383	4,300,000	1,693	752,860			2,493	6,986,260
	1921	677			613	3,594,500	1,132	3,059,200	1,536	774,600	5,355	742,537	8,636	8,170,837
Lynn, Mass.....	1920	20			19	82,500	381	753,963	294	190,212			694	1,026,675
	1921	140			91	379,673	455	703,299	321	273,129			867	1,356,101
Macon, Ga.....	1920	90			84	242,784	121	742,546	539	435,342			744	1,420,672
	1921	162			155	451,553	72	251,087	496	207,757	56	15,739	779	926,136
Malden, Mass.....	1920	108			35	417,225	194	498,135	213	234,115			442	1,149,475
	1921	94			55	333,100	338	754,477	197	160,673			590	1,248,250
Manchester, N. H.....	1920	91			85	128,665	239	2,057,559	466	426,571			790	2,612,795
	1921	210			172	545,527	307	391,825	489	277,080			968	1,214,432
Mansfield, Ohio.....	1920	72			72	204,025	204	417,000	75	50,121			351	671,146
Marion, Ohio.....	1920	44	1	3,500	44	104,000	236	266,922	78	20,855			358	391,777
	1921	112	1	12,000	102	429,601	187	845,399	86	187,524			375	1,462,524
Memphis, Tenn.....	1920	256			182	1,100,800	300	279,820	104	144,991			586	1,525,611
	1921	479			463	2,255,905	324	2,102,995	776	1,814,365			1,563	6,173,265
Meriden, Conn.....	1920	1,245			979	4,906,740	613	3,083,284	924	858,840	668	528,161	3,184	9,377,025
	1921	71			42	236,550	155	650,250	35	23,850			232	910,650
Milwaukee, Wis.....	1920	784			640	4,732,501	2,189	6,677,581	1,500	3,435,448			4,329	14,845,530
	1921	2,212	1	125,000	1,458	10,873,700	3,217	5,114,051	2,122	2,428,941	24,394	6,093,693	31,191	24,510,385
Minneapolis, Minn.....	1920	1,572			1,032	5,444,555	2,625	7,739,825	3,008	2,730,445			6,665	15,914,825
	1921	3,574	3	308,000	2,869	12,245,345	331	7,744,195	3,597	2,706,490			6,797	22,696,030
Moline, Ill.....	1920	38	1	600,000	39	805,000	173	356,231	287	60,298			499	1,221,529
	1921	276			204	2,183,033	216	1,164,336	159	290,340	6	310	585	3,638,019

* Included with one-family dwellings.

* Includes cost of two-family dwellings.

NUMBER AND ESTIMATED COST OF BUILDINGS COVERED BY PERMITS ISSUED IN 194 CITIES IN 1921 (AND IN 1920 SO FAR AS DATA ARE AVAILABLE) FOR NEW CONSTRUCTION, BY INTENDED USE OF BUILDINGS—Continued.

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City and State.	Year.	New residential buildings—Housekeeping dwellings.														
		One-family dwellings.			Two-family dwellings.			One-family and two-family dwellings with stores combined.			Multi-family dwellings.			Multi-family dwellings with stores combined.		
		Number.	Cost.	Families.	Number.	Cost.	Families.	Number.	Cost.	Families.	Number.	Cost.	Families.	Number.	Cost.	Families.
Montgomery, Ala.....	1920	45	\$56,970	45	4	\$13,000	8									
	1921	83	198,664	83												
Mount Vernon, N. Y....	1920	148	1,559,700	148	4	47,000	8									
	1921	163	1,469,750	163	14	162,000	28	10	\$103,500	12	3	\$74,784	21	4	\$82,000	22
Muncie, Ind.....	1920	61	140,550	61												
	1921	48	126,626	48	3	14,000	6	2	3,500	2	1	15,000	4			
Muskegon, Mich.....	1920	284	584,423	284	20	120,000	40									
	1921	129	289,952	129												
Muskogee, Okla.....	1921	237	876,490	237	10	70,000	20				1	10,000	3			
Nashville, Tenn.....	1920	149	446,209	149							2	80,000	36			
	1921	422	1,264,603	422							6	118,000	48			
Newark, N. J.....	1920	174	1,130,750	174	62	808,457	124				16	522,293	99			
	1921	266	1,914,912	266	316	3,256,340	632	35	400,050	52	78	1,352,100	325	25	518,500	118
New Bedford, Mass....	1920	123	500,000	123	66	528,000	132									
	1921	222	948,200	222	134	998,200	268	5	50,000	8	3	30,000	12	4	100,000	12
New Britain, Conn.....	1920	61	320,300	61	22	140,000	44	1	8,000	1	13	121,000	46	4	146,000	24
	1921	43	208,815	43	35	207,815	70	9	102,600	12	30	267,200	90			
New Brunswick, N. J..	1921	33	105,000	33	46	230,000	92					8,000	4			
Newburg, N. Y.....	1921	56	330,000	56				2	16,000	4	1	25,000	4			
New Haven, Conn.....	1920	58	608,366	58	31	315,000	62				11	580,000	137			
	1921	94	695,000	94	89	766,100	178				30	679,000	172			
New Orleans, La.....	1920	442	1,676,021	442	137	506,939	274	15	83,875	20	11	215,500	55			
	1921	976	2,159,459	976	469	1,967,932	938	161	163,401	163	81	852,730	243	5	478,000	15
Newport, R. I.....	1921	45	270,300	45												
Newport News, Va....	1921	42	133,590	42				1	2,500	1	5	15,000	20			
New Rochelle, N. Y....	1920	154	1,608,410	154	8	51,550	16									
	1921	185	1,722,975	185	13	123,000	26	12	172,000	18	3	27,000	12	1	22,000	6
Newton, Mass.....	1920	115	1,474,325	115	4	35,500	8									
	1921	208	1,912,900	208	18	174,800	36	2	24,000	2	1	13,000	3			
New York City:																
Borough of Brook-	1920	2,221	12,476,025	2,221	733	7,853,800	1,466	115	1,523,200	230	44	3,604,000	550			
lyn.	1921	4,004	24,844,465	4,004	2,794	27,157,050	5,588	932	10,476,385	1,740	409	27,007,700	5,250	4	272,800	54
Borough of Bronx..	1920	374	2,302,275	374	167	1,697,200	334	4	63,500	6	22	3,425,000	844	2	185,000	50
	1921	1,643	16,332,849	1,643	838	(2)	1,676				277	39,834,900	10,718			

² Included with one-family dwellings.

³ Includes cost of two-family dwellings.

City and State.	Year.	New residential buildings—Continued.				New nonresidential buildings.		Additions, alterations, and repairs.		Installation permits.		Grand total, all permits.		
		Total families in house-keeping dwellings.	Other residential.		Total residential.		Number.	Cost.	Number.	Cost.	Number.	Cost.	Number.	Cost.
			Number.	Cost.	Number.	Cost.								
Montgomery, Ala.	1920	53		49	\$69,970	108	\$132,064	1,046	\$267,041			1,203	\$469,075	
	1921	83		83	198,664	75	1,360,239	1,170	200,556			1,328	1,759,459	
Mt. Vernon, N. Y.	1920	156		152	1,608,700	195	157,932	126	390,875			473	2,155,507	
	1921	246		194	1,892,034	388	1,308,188	228	396,062			810	3,596,284	
Muncie, Ind.	1920	65		62	155,550	31	20,450	37	33,600			130	209,600	
	1921	64		55	156,126	58	922,242	45	60,453			158	1,138,821	
Muskegon, Mich.	1920	324	1	305	\$300,000	326	660,279	420	139,877			1,051	1,804,579	
	1921	129		129	289,952	329	554,013	465	122,776			923	966,741	
Muskogee, Okla.	1920	260		248	956,490	74	208,766	70	54,407			392	1,219,663	
	1921	185		151	529,299	196	681,299	1,429	738,720			1,776	1,946,228	
Nashville, Tenn.	1920	470	3	431	355,000	446	1,048,793	1,372	491,092	1,193	\$24,455	3,442	3,301,943	
	1921	397	2	254	1,125,000	1,174	16,318,628	1,197	2,692,528			2,625	22,597,656	
Newark, N. J.	1920	1,393	1	721	125,000	1,299	8,238,906	1,291	2,898,037	590	274,360	3,901	18,978,205	
	1921	255	3	192	760,000	412	3,950,900	145	447,300			6,749	6,185,800	
New Bedford, Mass.	1920	522		368	2,126,400	422	3,477,671	92	212,560			882	5,816,631	
	1921	176		101	735,300	258	1,625,966	426	211,116			785	2,572,382	
New Britain, Conn.	1920	215	1	118	8,000	293	667,530	393	134,463			804	1,596,423	
	1921	129		80	343,000	96	76,700	175	35,000			351	454,700	
New Brunswick, N. J. .	1920	64		59	371,000	87	477,000	65	42,000			211	890,000	
	1921	257		100	1,503,366	549	2,246,323	720	1,384,654			1,369	5,134,343	
Newburgh, N. Y.	1920	444		213	2,140,100	660	3,085,059	782	1,162,669			1,655	6,387,808	
	1921	444		618	2,580,335	377	6,379,963	545	1,967,358			1,540	10,927,596	
New Orleans, La.	1920	791	13	1,694	98,000	531	5,769,397	716	1,302,739			2,941	8,738,397	
	1921	2,335	2	45	147,875	139	270,300	228	198,913			412	1,000,277	
Newport, R. I.	1920	45		48	151,090	87	394,688	15	13,410			136	559,188	
	1921	63		162	1,659,960	87	597,273	182	331,619			431	2,588,852	
Newport News, Va.	1920	170		216	2,141,975	323	620,227	232	442,512	50	5,029	821	3,209,743	
	1921	247	2	119	75,000	336	1,073,094	201	291,050			656	2,873,969	
New Rochelle, N. Y. .	1920	123		230	1,509,825	382	1,004,731	264	344,085			876	3,490,516	
	1921	249	1	230	23,000	230	2,147,700	264	344,085			876	3,490,516	
Newton, Mass.	1920	123		230	1,509,825	382	1,004,731	264	344,085			876	3,490,516	
	1921	249	1	230	23,000	230	2,147,700	264	344,085			876	3,490,516	
New York City:														
Borough of Brook-	1920	4,467		3,113	25,457,025	6,183	30,869,607	5,442	11,789,752			14,738	68,116,384	
lyn.	1921	16,636		8,143	89,758,400	4,117	24,541,475	7,410	12,548,292			19,670	126,848,167	
Borough of Bronx.	1920	1,608	1	570	7,674,975	545	10,910,625	695	2,906,930			1,810	21,492,530	
	1921	14,037		2,758	56,167,749	771	15,982,990	676	2,516,944	3,632	1,000,213	7,837	75,667,896	

NUMBER AND ESTIMATED COST OF BUILDINGS COVERED BY PERMITS ISSUED IN 194 CITIES IN 1921 (AND IN 1920 SO FAR AS DATA ARE AVAILABLE) FOR NEW CONSTRUCTION, BY INTENDED USE OF BUILDINGS—Continued.

		New residential buildings—Housekeeping dwellings.														
City and State.	Year.	One-family dwellings.			Two-family dwellings.			One-family and two-family dwellings with stores combined.			Multi-family dwellings.			Multi-family dwellings with stores combined.		
		Number.	Cost.	Families.	Number.	Cost.	Families.	Number.	Cost.	Families.	Number.	Cost.	Families.	Number.	Cost.	Families.
New York City—Con.	1920	22	\$1,503,500	22							22	\$13,565,000	1,134			
	1921	33	713,300	33	90	\$747,000	180				109	33,435,000	4,532	6	\$1,480,000	89
Borough of Queens.	1920	3,521	20,993,793	3,521				144	\$1,151,450	167	23	1,750,000	300			
	1921	7,958	45,975,700	7,958	1,050	7,849,025	2,100	814	9,346,645	1,128	196	6,845,400	1,767	19	903,100	303
Borough of Richmond.	1920	1,292	3,608,443	1,292		7,300	2	4	61,200	8						
	1921	2,594	8,392,712	2,594												
Niagara Falls, N. Y.	1920	103	531,654	103	16	102,250	32	3	12,000	3	2	26,000	8	1	18,000	4
	1921	161	754,300	161	38	282,433	76	21	173,631	30	5	55,000	19			
Norfolk, Va.	1920	259	1,211,160	259	10	71,490	20	4	20,000	4	8	149,500	52	5	109,000	24
	1921	290	1,341,668	290	32	236,510	64	4	25,653	8	9	277,350	38	4	87,000	19
Norristown, Pa.	1920	26	124,800	26							1	5,000	5			
	1921	60	300,000	60	6	60,000	12									
Norwalk, Conn.	1920	962	3,345,927	962	13	150,900	26	5	45,400	7	11	287,594	95	6	80,000	30
	1921	2,089	6,132,655	2,089	44	311,725	88	21	96,250	26	83	1,744,500	455	6	85,214	23
Oakland, Calif.	1920	185	1,232,950	185	3	49,000	6	1	18,000	1						
	1921	308	3,032,950	308	17	661,500	34				20	270,000	180			
Ogden, Utah.	1920	455	908,150	455							8	98,500	42			
	1921	509	2,393,050	509	1	7,000	2	4	15,500	4	4	490,500	160	1	20,000	3
Omaha, Nebr.	1920	988	3,994,110	988	4	36,000	8				17	1,119,000	302			
	1921	14	118,730	14	5	47,870	10	18	169,150	19	2	40,000	12			
Orange, N. J.	1920	46	211,600	46	14	99,150	28				3	110,000	56	3	48,000	38
	1921	70	341,750	70	128	817,100	256							12	288,000	100
Passaic, N. J.	1920	78	435,829	78	39	312,800	78									
	1921	230	1,123,211	230	160	1,237,529	320				4	50,000	37			
Paterson, N. J.	1920	1,296	10,332,000	1,296				9	2,237,500							
	1921	2,244	12,169,100	2,244							15	810,000	162			
Philadelphia, Pa.	1920	301	677,829	301							32	212,200	106			
	1921	135	792,929	135												
Phoenix, Ariz.	1920	58	177,535	58	1	4,000	2									
	1921	85	260,600	85				2	3,700		5			1	6,500	
Plainfield, N. J.	1920	162	574,700	162				1	6,300	1			44			
	1921	980	3,553,920	980				9	40,500	3	3	75,500				
Portland, Mich.	1920	2,865	8,585,755	2,865	25	148,750	50	17	51,300	30	11	709,527	172	4	52,000	19
	1921	19	124,580	19	18	92,000	36									
Portland, Me.	1920	17	87,900	17	15	113,900	30				2	8,000	13			
	1921															

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[1918]

City and State.	Year.	New residential buildings—Continued.				New nonresidential buildings.		Additions, alterations, and repairs.		Installation permits. ⁷		Grand total, all permits.		
		Total families in house-keeping dwellings.	Other residential.		Total residential.		Number.	Cost.	Number.	Cost.	Number.	Cost.	Number.	Cost.
			Number.	Cost.	Number.	Cost.								
New York City—Con.														
Borough of Manhattan.	1920	1,156	3	\$1,915,000	47	\$16,983,500	736	\$79,216,360	4,008	\$42,999,703		4,791	\$139,199,563	
	1921	4,837	7	14,675,000	248	51,050,300	688	69,982,141	3,414	23,573,060		4,350	144,605,501	
Borough of Queens.	1920	3,988			3,688	23,895,213	3,226	14,197,355	3,328	4,547,924		10,242	42,640,472	
	1921	13,256	3	51,000	10,040	70,970,870	3,951	10,692,953	3,300	3,752,907	368	13,991	81,663,823	
Borough of Richmond.	1920	1,302	1	14,560	1,298	3,691,503	728	1,147,138	674	1,407,747		2,700	6,246,388	
	1921	2,594	1	7,500	2,595	8,400,212	845	1,770,698	703	576,257		4,143	10,747,167	
Niagara Falls, N. Y.	1920	150	1	35,000	126	724,904	343	2,644,407	291	304,235		730	3,673,546	
	1921	286	1	60,000	226	1,325,364	449	1,741,066	316	291,751		991	3,358,181	
Norfolk, Va.	1920	359	2	120,000	288	1,681,060	361	2,254,999	330	704,533		1,029	4,640,592	
	1921	419			339	1,968,181	382	2,764,002	324	282,036	100	1,145	5,051,711	
Norristown, Pa.	1921	31	1	70,000	28	199,800	60	118,200	65	90,525		153	408,525	
Norwalk, Conn.	1921	72			66	360,000	22	31,000	42	131,000		130	522,000	
Oakland, Calif.	1920	1,120			997	3,909,821	1,676	3,932,802	1,769	1,559,145		4,442	9,401,768	
	1921	2,681	6	152,297	2,249	8,522,641	2,199	5,540,815	2,412	1,660,485	183	7,043	15,789,616	
Oak Park, Ill.	1920	192			189	1,299,950	463	609,862	140	149,399		792	2,059,211	
	1921	720	2	1,800,000	545	5,764,450	590	866,129	149	170,781		1,284	6,801,360	
Ogden, Utah.	1921	477			443	1,001,650	110	175,422	(6)			553	1,177,072	
Omaha, Nebr.	1920	678	1	4,000	520	2,936,050	537	6,380,800	302	2,119,120		1,359	11,435,970	
	1921	1,298	2	245,000	1,011	5,394,110	686	5,268,430	253	715,860	8	1,958	11,386,000	
Orange, N. J.	1921	55	1	15,000	40	390,750	180	459,779	384	532,186	13	617	1,385,665	
Passaic, N. J.	1920	168			66	468,750	153	920,120	119	205,165		338	1,594,035	
	1921	426			210	1,446,850	215	1,105,200	206	229,590	350	981	2,783,081	
Paterson, N. J.	1920	156			117	748,629	340	2,148,320	1,054	789,036		1,511	3,685,985	
	1921	587			394	2,410,740	317	1,632,135	1,371	935,017	31	2,113	4,982,072	
Philadelphia, Pa.	1920		2	255,000	1,307	12,844,500	1,565	22,829,350	7,121	18,500,195		9,993	54,174,045	
	1921	2,406	6	419,570	2,265	13,398,670	2,190	14,273,775	7,540	14,278,500	2,659	14,664	42,774,770	
Phoenix, Ariz.	1921	407	1	50,000	334	940,029	214	551,910	393	305,444	5	946	1,799,373	
Plainfield, N. J.	1921	135	1	125,000	136	917,929	224	550,163	73	203,888		433	1,671,980	
Pontiac, Mich.	1921	60			59	181,535	202	726,659	215	121,502	111	587	1,086,349	
Portland, Me.	1920		1	300	89	271,100	206	140,410	344	980,111		639	1,391,621	
	1921	207			168	683,500	313	353,540	433	601,203		914	1,638,243	
Portland, Oreg.	1920		2	325,000	994	3,994,920	3,036	5,224,795	5,958	2,630,405		9,988	11,850,120	
	1921	3,136	1	40,000	2,923	9,587,332	4,399	2,883,088	7,355	2,348,663		14,677	14,819,083	
Poughkeepsie, N. Y.	1920	55			37	216,580	100	432,565	81	116,910		218	766,055	
	1921	60			34	209,800	139	617,242	90	223,266		263	1,050,308	

⁶ Number and cost of repairs not reported.

NUMBER AND ESTIMATED COST OF BUILDINGS COVERED BY PERMITS ISSUED IN 194 CITIES IN 1921 (AND IN 1920 SO FAR AS DATA ARE AVAILABLE) FOR NEW CONSTRUCTION, BY INTENDED USE OF BUILDINGS—Continued.

City and State.	Year.	New residential buildings—Housekeeping dwellings.														
		One-family dwellings.			Two-family dwellings.			One-family and two-family dwellings with stores combined.			Multi-family dwellings.			Multi-family dwellings with stores combined.		
		Number.	Cost.	Families.	Number.	Cost.	Families.	Number.	Cost.	Families.	Number.	Cost.	Families.	Number.	Cost.	Families.
Providence, R. I.	1920	109	\$972,900	109	30	\$307,200	60				4	\$105,000	18			
	1921	192	1,140,300	192	145	1,501,300	290				8	299,000	49	4	\$90,000	35
Pueblo, Colo.	1920	100	183,100	100												
	1921	284	460,740	284							1	5,500	4			
Quincy, Ill.	1920	8	30,100	8							1	20,000	3			
	1921	18	109,400	18												
Revere, Mass.	1921	106	197,825	106	20	121,300	40				5	47,000	6			
Richmond, Ind.	1921	24	117,650	24	8	24,825	16				1	3,000	1			
Richmond, Va.	1920	170	1,103,285	170	7	55,000	14				5	22,500	5	3	197,000	33
	1921	579	3,487,825	579							18	1,092,500	162			
Roanoke, Va.	1920	136	545,735	136												
	1921	351	1,442,365	351												
Rochester, N. Y.	1920	287	1,675,198	287	17	146,300*	34				2	20,000	3	3	27,000	12
	1921	951	5,288,953	951	109	876,100	218				4	67,050	8	4	2,060,000	142
Rockford, Ill.	1920	168	633,800	168	8	51,750	16				6	41,350	6	1	10,000	4
	1921	241	864,500	241	25	131,000	50				8	29,000	8	4	69,500	37
Rock Island, Ill.	1920	60	155,150	60												
	1921	87	183,900	87	3	19,600	6				1	6,000	1			
Sacramento, Calif.	1920	190	729,985	190	1	5,000	2				28	199,200	82	3	29,900	
	1921	619	1,900,692	619	12	74,300	24				8	82,306	10	21	327,250	84
Saginaw, Mich.	1920	388	1,042,675	388	2	6,700	4				2	22,000	6			
	1921	243	696,655	243							3	15,700	4			
St. Joseph, Mo.	1920	286	947,990	286	1	8,000	2				2	160,000	100			
	1921	7	16,800	7												
St. Louis, Mo.	1920	451	1,817,470	451							32	451,600				
	1921	1,016	3,825,595	1,016							176	2,411,000	1,056			
St. Paul, Minn.	1920	727	2,559,957	727	2	24,000	4				12	1,454,600				
	1921	1,724	6,569,892	1,724	42	371,960	84				15	107,400	17	55	1,824,450	362
Salem, Mass.	1920	8	41,000	8	1	5,000	2									
	1921	13	70,500	13	2	15,000	4				2	22,000	4			
Salt Lake City, Utah.	1920	255	999,663	255							4	34,000	4	4	369,000	120
	1921	744	2,050,300	744	15	80,000	30				1	5,000	1	7	93,500	51
San Diego, Calif.	1920	591	2,034,730	591										5	51,200	
	1921	1,285	3,233,569	1,285							3	17,000	4	27	475,850	158
San Francisco, Calif.	1920	733	5,588,179	733										26	593,000	183
	1921	1,009	4,266,966	1,009	91	870,735	182				171	3,770,102	1,218			

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City and State.	Year.	New residential buildings—Continued.				New nonresidential buildings.		Additions, alterations, and repairs.		Installation permits.		Grand total, all permits.		
		Total families in house-keeping dwellings.	Other residential.		Total residential.		Number.	Cost.	Number.	Cost.	Number.	Cost.	Number.	Cost.
			Number.	Cost.	Number.	Cost.								
Providence, R. I.....	1920	187	1	\$100,000	144	\$1,485,100	1,075	\$5,344,000	2,854	\$3,205,100	.....	.....	4,073	\$10,034,200
	1921	566	1	2,000,000	350	5,030,600	1,413	5,460,100	3,707	3,156,400	.....	.....	5,470	13,647,100
Peublo, Colo.....	1920	100	.....	.....	100	183,100	318	407,956	192	148,014	.....	.....	610	739,070
	1921	288	.....	.....	285	466,240	409	286,346	455	413,070	.....	.....	1,149	1,165,656
Quincy, Ill.....	1920	11	1	40,000	10	90,100	11	178,400	(e)	(e)	.....	.....	21	268,500
	1921	20	1	40,000	20	160,400	14	68,150	20	71,000	.....	.....	54	299,550
Revere, Mass.....	1921	152	.....	.....	131	366,125	153	286,640	86	92,820	.....	.....	370	745,585
Richmond, Ind.....	1921	41	.....	.....	33	145,475	105	510,515	119	59,180	.....	.....	257	715,170
Richmond, Va.....	1920	222	.....	.....	185	1,377,785	673	3,410,971	1,180	2,130,522	.....	.....	2,038	6,919,278
	1921	741	2	23,000	599	4,603,325	1,049	3,054,307	1,228	1,619,157	.....	.....	2,876	9,276,789
Roanoke, Va.....	1920	136	.....	.....	136	545,735	265	487,875	358	202,395	.....	.....	759	1,236,005
	1921	351	1	15,000	352	1,457,365	416	602,075	451	207,505	.....	.....	1,219	2,266,945
Rochester, N. Y.....	1920	336	.....	.....	309	1,868,498	1,684	6,310,921	1,329	1,727,526	.....	.....	3,322	9,906,945
	1921	1,319	.....	.....	1,068	8,292,103	2,550	6,159,500	1,796	1,468,347	117	\$20,865	5,531	15,940,815
Rockford, Ill.....	1920	198	2	95,500	186	860,400	459	1,064,700	784	490,805	.....	.....	1,429	2,415,905
	1921	351	.....	.....	280	1,140,000	513	625,550	557	232,675	.....	.....	1,350	1,998,225
Rock Island, Ill.....	1920	60	.....	.....	60	155,150	246	252,481	383	125,030	.....	.....	689	532,661
	1921	94	.....	.....	91	209,500	263	212,916	392	114,600	.....	.....	746	537,016
Sacramento, Calif.....	1920	261	.....	.....	222	964,085	383	1,718,000	1,128	834,558	.....	.....	1,733	3,516,643
	1921	737	1	8,075	661	2,392,623	565	1,543,366	1,405	826,246	33	9,030	2,664	4,771,205
Saginaw, Mich.....	1920	398	.....	.....	392	1,071,375	987	1,261,664	796	364,444	.....	.....	2,175	2,697,483
	1921	251	.....	.....	247	727,355	842	1,929,058	868	388,956	.....	.....	1,957	3,045,369
St. Joseph, Mo.....	1920	388	.....	.....	289	1,115,990	169	803,715	244	246,280	.....	.....	702	2,165,985
	1921	7	.....	.....	7	16,800	11	13,400	26	3,945	.....	.....	44	34,145
St. Louis, Mo.....	1920	.....	.....	.....	483	2,269,070	3,604	11,052,708	4,613	4,372,300	.....	.....	8,700	17,694,078
	1921	2,072	1	1,000,000	1,193	7,236,595	4,921	5,438,015	4,930	1,827,841	.....	.....	11,044	14,502,451
St. Paul, Minn.....	1920	.....	.....	.....	741	4,038,557	1,089	4,694,878	854	549,171	.....	.....	2,684	9,282,606
	1921	2,194	.....	.....	1,837	8,933,702	2,221	4,140,872	943	764,342	195	345,757	5,196	14,184,673
Salem, Mass.....	1920	10	.....	.....	9	46,000	134	181,250	528	320,472	.....	.....	671	547,722
	1921	21	1	28,000	18	135,500	162	325,340	718	682,084	.....	.....	898	1,142,924
Salt Lake City, Utah.....	1920	379	.....	.....	263	1,402,663	263	2,052,670	284	384,020	.....	.....	810	3,839,353
	1921	826	.....	.....	767	2,228,800	316	2,264,166	373	216,967	.....	.....	1,456	4,709,933
San Diego, Calif.....	1920	.....	.....	.....	596	2,085,930	675	825,461	1,131	530,667	.....	.....	2,402	3,442,058
	1921	1,450	.....	.....	1,316	3,739,419	1,107	3,816,087	1,452	629,879	127	42,667	4,002	8,228,052
San Francisco, Calif.....	1920	1,098	3	176,375	853	7,228,289	361	15,018,478	4,412	4,483,792	.....	.....	5,626	26,730,552
	1921	2,683	2	155,000	1,410	10,268,068	420	8,337,821	2,783	3,110,000	1,700	528,783	6,313	22,244,679

^e Number and cost of repairs not reported.

NUMBER AND ESTIMATED COST OF BUILDINGS COVERED BY PERMITS ISSUED IN 194 CITIES IN 1921 (AND IN 1920 SO FAR AS DATA ARE AVAILABLE) FOR NEW CONSTRUCTION, BY INTENDED USE OF BUILDINGS—Continued.

City and State.	Year.	New residential buildings—Housekeeping dwellings.														
		One-family dwellings.			Two-family dwellings.			One-family and two-family dwellings with stores combined.			Multi-family dwellings.			Multi-family dwellings with stores combined.		
		Number.	Cost.	Families.	Number.	Cost.	Families.	Number.	Cost.	Families.	Number.	Cost.	Families.	Number.	Cost.	Families.
San Jose, Calif.	1921	251	\$698,091	251	4	\$17,800	8	3	\$3,890	3	7	\$74,800	38			
Savannah, Ga.	1920	265	1,348,750	265							3	705,000				
	1921	281	1,226,664	281							22	153,200	66			
Scranton, Pa.	1920	39	170,700	39	3	30,000	6									
	1921	61	254,250	61	7	54,500	14									
Seattle, Wash.	1920	1,431	3,450,160	1,431							19	222,400				
	1921	1,775	4,319,930	1,775							27	565,400	186			
Sheboygan, Mich.	1921	86	391,282	86	2	21,000	4									
Shreveport, La.	1920	643	2,362,380	643												
	1921	1,157	2,728,315	1,157												
Sioux Falls, S. Dak.	1921	303	859,475	303												
Somerville, Mass.	1920	5	32,000	5												
	1921	11	60,000	11	77	507,800	154				3	37,200	18	2	\$105,000	21
Spokane, Wash.	1920	143	480,400	143							1	45,600				
	1921	432	1,147,245	432							1	12,500	6			
Springfield, Mass.	1920	253	888,475	253	49	267,900	98				9	308,000	112			
	1921	495	1,508,650	495	121	733,600	242	4	33,000	6	16	182,800	84			
Springfield, Mo.	1921	194	570,635	194												
Springfield, Ohio.	1920	60	180,000	60	40	70,000	80	10	30,000	20	10	30,000	50	10	20,000	30
	1921	230	701,500	230	10	75,000	20	2	12,500	3						
Stamford, Conn.	1920	77	406,330	77	10	56,000	20	3	25,000	3	2	309,000	82	1	8,000	3
	1921	96	525,075	96	33	209,300	66				4	42,000	16	3	27,000	12
Superior, Wis.	1920	32	116,800	32												
	1921	104	344,910	104												
Syracuse, N. Y.	1920	188	1,041,500	188	48	301,500	95	4	29,500		4	22,000				
	1921	348	1,823,400	348	117	795,600	234	6	27,000	9	11	95,300	36			
Tacoma, Wash.	1920	421	899,895	421				4	18,000	8	2	47,000	18			
	1921	785	1,642,330	785							10	139,000	58			
Terre Haute, Ind.	1920	74	217,700	74												
	1921	758	1,187,222	758												
Toledo, Ohio.	1920	463	1,563,442	463							30	271,500				
	1921	482	1,576,357	482	33	228,200	66	25	144,621	28	3	25,000	10	2	66,000	14
Topeka, Kans.	1920	59	215,800	59							1	14,000	4			
	1921	158	577,210	158							1	100,000	30			

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City and State.	Year.	New residential buildings—Continued.				New nonresidential buildings.		Additions, alterations, and repairs.		Installation permits.		Grand total, all permits.		
		Total families in house-keeping dwellings.	Other residential.		Total residential.		Number.	Cost.	Number.	Cost.	Number.	Cost.	Number.	Cost.
			Number.	Cost.	Number.	Cost.								
San Jose, Calif.....	1921	300			265	\$794,581	132	\$192,835	350	\$298,196	50	\$10,000	797	\$1,295,612
Savannah, Ga.....	1920		1	\$200,000	269	2,253,750	162	1,650,500	76	116,600			507	4,020,850
	1921	347			303	1,379,864	178	638,880	229	181,015			710	2,199,759
Seranton, Pa.....	1920		2	4,500	44	205,200	311	2,415,639	196	396,275			551	3,017,114
	1921	75			68	308,750	410	1,327,687	148	496,875	1	20,000	627	2,153,312
Seattle, Wash.....	1920		4	302,000	1,454	3,974,560	3,252	6,925,045	4,996	2,731,200			9,702	13,630,805
	1921	1,961	6	187,500	1,808	5,072,830	3,851	5,495,815	5,152	2,240,520	34	7,100	10,845	12,816,265
Sheboygan, Mich.....	1921	90	1	55,000	89	467,282	171	883,089	505	196,398	222	67,906	987	1,614,675
Shreveport, La.....	1920	643			643	2,362,380	603	2,712,685	1,031	611,555			2,277	5,686,620
	1921	1,157			1,157	2,728,315	495	641,067	1,309	542,975	2	3,500	2,963	3,915,857
Sioux Falls, S. Dak.....	1921	303			303	859,475	208	346,970	74	42,000			585	1,248,445
Somerville, Mass.....	1920	5			5	32,000	186	1,202,880	203	154,226			394	1,389,106
	1921	204			93	710,000	332	948,713	251	179,742			676	1,838,455
Spokane, Wash.....	1920				144	525,400	801	1,993,179	676	517,755			1,621	3,036,334
	1921	438			433	1,159,745	1,200	443,829	957	506,863	3	13,600	2,593	2,124,037
Springfield, Mass.....	1920	463			311	1,464,375	610	3,597,038	488	1,613,641			1,409	6,675,054
	1921	827			636	2,458,050	770	1,846,850	548	1,364,634			1,954	5,669,534
Springfield, Mo.....	1921	194			194	570,635	173	152,120	296	165,715			663	888,470
Springfield, Ohio.....	1920	240			130	330,000	114	210,000	161	260,000			405	800,000
	1921	253			242	789,000	380	362,026	200	201,363			822	1,352,329
Stamford, Conn.....	1920	185	1	40,000	94	844,330	216	644,194	176	231,540			486	1,720,064
	1921	190			136	803,375	296	710,430	132	116,855			564	1,630,660
Superior, Wis.....	1920	32	1	55,000	33	171,800	244	176,885	473	1,267,711			750	1,616,396
	1921	104			104	344,910	323	350,549	471	191,673			898	887,132
Syracuse, N. Y.....	1920		2	36,000	246	1,430,585	896	3,240,585	1,039	2,244,595			2,181	6,915,680
	1921	627	1	35,000	483	2,776,300	1,171	1,939,898	1,264	1,122,400			2,918	5,838,598
Tacoma, Wash.....	1920	447			427	964,895	1,028	2,999,109	1,608	707,444			3,063	4,671,448
	1921	843			795	1,781,330	1,370	2,088,290	2,391	723,322			4,556	4,592,942
Terre Haute, Ind.....	1920	74			74	217,700	246	305,611	402	233,918			722	757,229
	1921	753			758	1,187,222	259	253,324	99	191,280			1,116	1,631,826
Toledo, Ohio.....	1920				493	1,834,942	1,159	3,584,304	1,229	1,349,020			2,881	6,732,266
	1921	600			545	2,040,178	1,734	3,859,371	1,832	1,889,661			4,111	7,789,210
Topeka, Kans.....	1920	63			60	229,800	272	1,141,904	164	286,090			496	1,657,794
	1921	188			159	677,210	496	431,550	295	246,471			950	1,355,231

NUMBER AND ESTIMATED COST OF BUILDINGS COVERED BY PERMITS ISSUED IN 194 CITIES IN 1921 (AND IN 1920 SO FAR AS DATA ARE AVAILABLE) FOR NEW CONSTRUCTION, BY INTENDED USE OF BUILDINGS—Concluded.

		New residential buildings—Housekeeping dwellings.																
City and State.	Year.	One-family dwellings.			Two-family dwellings.			One-family and two-family dwellings with stores combined.			Multi-family dwellings.			Multi-family dwellings with stores combined.				
		Number.	Cost.	Families.	Number.	Cost.	Families.	Number.	Cost.	Families.	Number.	Cost.	Families.	Number.	Cost.	Families.		
Trenton, N. J.	1920	152	\$784,597	152	9	(2)	18											
	1921	283	1,049,530	283									2	\$40,126	18	2	\$48,400	16
Troy, N. Y.	1920	8	52,555	8	13	\$136,045	26											
	1921				43	344,000	86											
Tulsa, Okla.	1920	501	2,311,390	501	223	1,540,926	446	66	\$770,463	66	24	577,500	315					
	1921	882	3,139,559	882	26	87,100	52	6	42,500	6	48	507,350	177	7	41,200	21		
Utica, N. Y.	1920	70	403,300	70	7	63,200	14	2	12,500	4	1	6,000	3					
	1921	207	1,152,975	207	130	866,500	260	6	41,000	11								
Waltham, Mass.	1921	127	247,242	127	3	24,500	6				1	10,000	4					
Warren, Ohio.	1921	162	566,925	162	2	11,000	4	3	16,000	5								
Washington, D. C.	1920	660	4,955,381	660							16	3,295,000						
	1921	1,656	11,158,146	1,656							24	2,131,000	539					
Waterbury, Conn.	1920	187	819,500	187	12	85,500	24	2	41,000	3	27	282,000	85	3	110,000	21		
	1921	117	470,800	117	31	178,350	62				30	266,250	92					
Watertown, N. Y.	1921	84	385,000	84										1	10,000	4		
West Hoboken, N. J.	1920	3	24,500	3														
	1921	19	95,000	19	4	32,000	8				4	140,000	58	4	81,000	29		
West New York, N. J.	1921	17	111,000	17	75	900,000	150	9	108,000	18	4	61,300	4	8	98,650	22		
Wichita, Kans.	1920	485	1,597,833	485				2	6,600	4	8	91,935	32	6				
	1921	1,245	3,088,902	1,245	17	87,460	34	3	11,250	3	8							
Wilmington, N. C.	1921	123	368,000	123	19	116,000	38	4	17,500	4								
Worcester, Mass.	1920	333	1,411,005	363	17	125,000	34	6	48,000	8	15	164,000	48					
	1921	479	1,711,380	479	55	420,700	110	11	79,500	17	28	312,000	100	2	53,000	9		
Yonkers, N. Y.	1920	265	2,674,900	265							2	209,000						
	1921	329	2,523,800	329							7	416,500	104					
Youngstown, Ohio.	1920	236	1,599,500	296	4	48,000	8	12	100,500	13	4	95,000	16					
	1921	450	1,053,000	450	50	90,000	100	25	90,000	50	25	75,000	88	12	25,000	36		
York, Pa.	1920	19	77,000	19	1	8,000	2											
	1921	66	304,395	66														
Zanesville, Ohio.	1921	53	191,192	56														

² Included with one-family dwellings.

⁵ Includes cost of two-family dwellings.

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City and State.	Year.	New residential buildings—Concluded.				New nonresidential buildings.		Additions, alterations, and repairs.		Installation permits.		Grand total, all permits.		
		Total families in house-keeping dwellings.	Other residential.		Total residential.		Number.	Cost.	Number.	Cost.	Number.	Cost.	Number.	Cost.
			Number.	Cost.	Number.	Cost.								
Trenton, N. J.	1920	170	2	\$1,232,500	163	\$2,017,097	492	\$3,061,903	612	\$1,340,850			1,267	\$6,419,850
	1921	317	2	444,000	289	1,582,056	584	1,015,692	647	708,082			1,520	3,305,830
Troy, N. Y.	1920	34			21	188,600	33	55,420	319	452,961			373	696,981
	1921	86			43	344,000	60	774,500	300	343,877			403	1,462,377
Tulsa, Okla.	1920	1,028	17	63,525	831	5,263,804	479	3,671,172	403	449,510			1,713	9,384,486
	1921	1,138	7	62,110	976	3,879,819	522	2,174,250	409	1,250,671	3	\$21,600	1,910	7,326,340
Utica, N. Y.	1920	91	1	40,000	81	525,000	390	1,298,982	312	621,447			783	2,445,429
	1921	478			343	2,060,475	603	1,021,055	215	125,210	1	150	1,162	3,206,890
Waltham, Mass.	1921	137	1	85,000	132	366,742	210	413,606	53	59,475			395	839,823
Warren, Ohio.	1921	171	1	15,000	168	608,925	283	797,140	140	66,250			591	1,472,315
Washington, D. C.	1920		3	1,450,000	679	9,700,381	935	5,232,445	2,728	2,960,114			4,342	17,892,940
	1921	2,195	5	2,347,350	1,685	15,636,496	3,082	7,433,900	2,748	3,366,002	540	494,936	8,055	26,931,334
Waterbury, Conn.	1920	320	1	35,000	232	1,373,000	361	1,576,680	397	1,019,410			990	3,969,090
	1921	271	1	70,000	179	985,400	381	1,706,024	374	460,501			934	3,151,925
Watertown, N. Y.	1921	88			85	395,000	262	611,960	315	772,660			662	1,779,620
West Hoboken, N. J.	1920	3	1	12,000	4	36,500	60	617,115	130	114,094			194	767,709
	1921	269			27	208,000	145	218,200	35	32,000			207	458,200
West New York, N. J.	1921	269			112	1,372,000	8	810,000	18	26,000			138	2,208,000
Wichita, Kans.	1920				495	1,665,733	573	1,844,948	709	364,282			1,777	3,874,963
	1921	1,336	4	385,000	1,283	3,763,197	876	2,996,358	854	642,168			3,013	7,401,723
Wilmington, N. C.	1921	165			146	501,500	66	263,500	51	147,100			263	912,100
Worcester, Mass.	1920	453			401	1,748,005	806	2,625,067	994	2,375,014			2,201	6,748,086
	1921	715	2	371,000	577	2,947,580	984	2,069,769	940	1,476,907	6	1,250	2,507	6,495,506
Yonkers, N. Y.	1920				267	2,883,300	254	1,572,800	133	379,100			654	4,835,800
	1921	433	1	146,000	337	3,086,300	353	1,037,100	162	474,300			852	4,597,700
Youngstown, Ohio.	1920	333			316	1,843,000	733	1,212,110	288	240,560			1,337	3,295,670
	1921	724			562	1,333,000	694	3,121,000	200	100,000	150	192	1,606	4,554,192
York, Pa.	1920	21			20	85,000	191	342,829	519	272,732			730	700,561
	1921	66			66	304,395	307	211,607	648	479,714			1,021	995,716
Zanesville, Ohio.	1921	56			56	191,192	156	234,615	86	54,395			298	480,202

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INDUSTRIAL ACCIDENTS AND HYGIENE.

Dust Explosions in Industrial Plants.¹

THE Bureau of Chemistry of the United States Department of Agriculture has been conducting investigations of the causes of dust explosions in grain elevators and in various industrial plants in an effort to obtain data which would be of assistance in developing methods for the prevention of these disasters. These investigations were undertaken primarily because of the large number of grain dust explosions which have resulted in great loss of life and property. The most serious grain dust explosion yet recorded in this country occurred in March, 1921, when an explosion in the largest grain elevator in the world, located at South Chicago, Ill., caused a loss of six lives and about \$3,750,000 worth of property. An explosion of starch a little over two years ago cost forty-three lives and a property loss of about \$3,000,000. In addition to explosions in the handling, milling and threshing of grain, explosions have occurred in starch factories, sugar refineries, cocoa and chocolate plants, spice works, woodworking plants, paper mills, shoe factories, and similar types of industries. Six lives were lost in an explosion of aluminum dust in a Wisconsin factory recently and nine men were killed in an explosion of hard rubber dust in a Michigan factory. It seems evident therefore that explosions are possible in any type of industry where any dust that can be ignited is created during the operating processes.

A curious feature of the explosions is the fact that the most disastrous ones have happened at a time of day when the plant was not operating at full capacity. This may be accounted for by the general slowing down toward the end of the day resulting in less careful attention to possible causes of explosion such as a hot box, overheated journal, hot motor, defective electric equipment, and similar causes.

In addition to the more evident causes of explosions such as open flames from lanterns, torches, and matches, investigation has added numerous other causes such as the breaking of an incandescent electric light bulb in a dust cloud and the settling under certain conditions of light, fluffy dusts on lamp globes. Several recent explosions have originated in the exhaust fan used in the removal of fine dust from buffing or polishing wheels or from certain kinds of milling equipment. The sparks resulting from foreign material passing through the fan and striking the blades, or the loosening of a blade, ignites the fine cloud of dust passing through the fan. Static electricity is also one of the possible causes. In general, it is said, it should be accepted that any source that will ignite gas will ignite dust, causing an explosion of the dust if it is in suspension in proper proportions.

Contrary to the rule in the explosion of detonating materials where the greatest force is present at the point of origin the primary explosion of dust is usually of a small quantity in suspension which, however, is of sufficient force to shake into suspension the dust which has settled through the plant. This feeds the flame of the first explosion and causes a secondary one in which high pressure is built

¹ Dust explosions—their nature, causes, and methods of prevention, by David J. Price. In Proceedings Tenth Annual Safety Congress. National Safety Council. [Chicago, 1922.] pp. 165-171.

The menace of dust explosions, by Hylton R. Brown. In American Industries, January, 1922, pp. 31, 32.

up so that the greatest damage is likely to be done at the point farthest from the point of origin.

Dust explosions are possible where the dust and air are mixed in certain proportions, and it has been found possible to ignite dust clouds when one-fiftieth of an ounce of dust was present per cubic foot of air. Preventive measures include the elimination of dust in sufficient quantities to form dust clouds and elimination of the cause of ignition. Electric lamp bulbs should be protected with vapor-proof equipment and care taken to prevent dust ignition from sparks from motors, switches, or blown fuses. Construction should also be of such a type as to prevent the accumulation of dust in dangerous quantities, as it has been demonstrated that although a plant may be fireproof it can be wrecked by a dust explosion.

The study of woodworking plants covered a number of recent serious explosions. One in which shavings and dust from the finishing machines were deposited in a brick vault resulted in the serious injury of several employees. It was impossible to determine definitely the cause of this explosion. The rule prohibiting smoking in the plant was strictly enforced and there were no pulleys, shaftings, or bearings, or electric wiring within the vault. It was thought that the fire within the vault was caused either by sparks entering the vault from the boilers or through the cyclone collectors on the roof or by spontaneous combustion of the dust within the vault. An explosion which occurred in the cabinet department of a talking machine factory was believed to have been caused by a back draft from the boilers igniting the dust in a shaving separator and dust collector on the roof of the building.

In addition to the precautionary measures already indicated for the prevention of an explosion attention should also be given, it is stated, to the release of pressure from the building if an explosion should occur. This can be accomplished in various ways, by means of weighted doors which will open with the force of the explosion and by roof vents, or the vault for the collection of dust may be built with one section or side wall of such light material that it will blow out easily and thus permit the explosion to escape without injuring the main section of the plant.

Eye Hazards in Industry.

THE necessity for more general consideration of the losses to both industry and workers from preventable eye accidents is discussed in a chapter on "Eye conservation," by Dr. Earle B. Fowler (pp. 374-390) in the recent report¹ of the Federated American Engineering Societies. The report of the Industrial Commission of Pennsylvania, which shows that 18 workmen lost both eyes and 652 lost one eye in industrial accidents in that State in 1920, indicates the seriousness of the situation throughout the country. The report states that it is estimated that approximately 15,000, or 13.5 per cent, of the total blind population in the country lost their eyesight through industrial accidents and that 10.6 per cent of all permanently disabling accidents involve the eye. In addition to the incalculable

¹ Federated American Engineering Societies. Committee on elimination of waste in industry. Waste in industry. Washington, D. C., 1921. 409 pp.

loss to the individual the cost of maintaining these blind persons and the actual economic loss can not be estimated.

Great reductions in this class of accidents have been effected in many industrial plants through the provision of goggles or safety devices on machines for workers who are subjected to hazards from dust and flying objects, and several companies report almost complete elimination of serious injuries to the eye. Several States and the United States Bureau of Standards have devised safety codes in which the particular kind of goggle or protector required in different occupations is specified. These codes give explicit information as to the best designs and methods of testing any protector. The nine dangerous operations specified in the national code are processes in which there are flying objects such as chipping, calking, and riveting; processes such as use of abrasion wheels, where protection is necessary from dust and small flying particles; operations presenting dust and wind hazards such as automobile driving, locomotive driving and fring; processes such as casting where there is danger from splashing metal; protection from gases, fumes, and liquids, as in the handling of acids and caustics, galvanizing tanks and japanning; protection from dust and small particles in sand-blasting; operations where protection is required from reflected light or glare; and processes where protection is required from radiant energy such as oxy-acetylene welding and cutting, open-hearth and Bessemer furnace work which require moderate reduction in the radiation, and processes which require large reduction in the visible radiation, such as electric arc welding and cutting.

The provision of goggles requires attention to the resistance of glass to breakage and the holding of the fragments in the frame after breakage, the use of glass of different colors for different processes in which intense light or heat is produced, and provision of lenses which correct defects in vision.

Even with strict attention to all preventive measures a certain number of eye accidents will be unavoidable and to meet this situation prompt and efficient treatment must be provided and workers must be educated not to attempt to remove foreign bodies from the eye themselves.

The extent of substandard vision has been determined, the report says, by a number of investigations. That the number of workers with faulty vision is large is shown by a study by the Life Extension Institute in New York City in 1919 in which 53 per cent of 10,000 employees in factories and commercial establishments who were examined were found to have uncorrected faulty vision. In some other studies even a higher percentage of defective vision has been found. The provision of proper glasses has resulted in greatly improved productivity, one company reporting 28 per cent improvement in production.

Good illuminating conditions also greatly affect output, a study for the Illuminating Engineering Society showing that of 446 plants investigated 22.3 per cent had poor or very poor lighting conditions while only 8.7 per cent had excellent conditions. Adequate illumination, including the best lighting systems, plenty of daylight through a maximum amount of window space, and proper placing of machines, could be provided, it is stated, for the entire industry of the country for about one-half to 1 per cent of wages.

Lead Poisoning in Potteries.¹

POISONING from lead in the pottery trades is the subject of a recent bulletin of the United States Public Health Service.

The investigation, first proposed by the Brotherhood of Operative Potters because of the belief that dippers and some other pottery workers were discriminated against by life insurance companies, was extended when the survey was undertaken to cover all the hazardous processes in these trades. Although there have been two previous surveys, the first a general survey by Dr. Alice Hamilton, made for the Bureau of Labor Statistics, and the second a study of 47 plants in Ohio by Dr. Emery R. Hayhurst, it was considered desirable because of the rapid progress in industrial hygiene and sanitation to know what progress had been made, if any, toward eliminating plumbism in this particular industry.

The study by Dr. Hamilton revealed many hazards due to poor working conditions, which evidently have not been corrected in many instances, since this study found the incidence of lead poisoning in the potteries to be still very high.

It is almost impossible to compare the three surveys since the methods employed were so different. The one by Dr. Hamilton covered cases reported over a period of two years, while the other two surveys took cases found at the time investigation was made. Another point of difference was the source of information. Dr. Hamilton secured her list from physicians, hospital records, and statement of workers of their own or fellow workers' symptoms and some physical examinations; Dr. Hayhurst, from examinations and reports of workers as to absent workers who complained of symptoms of plumbism; while the present study depended entirely upon examinations for its list of cases, which were divided into positive, presumptive, and suggestive cases. In spite of the differences in the investigations, however, the following table summarizing the results of each survey is of interest:

SCOPE OF EACH SURVEY.

	Hamilton.	Hayhurst.	Present study.
Date.....	1911-12.....	1914.....	1919-20.
Kind.....	Period.....	Status.....	Status.
Location.....	9 States.....	Ohio.....	New Jersey, Ohio, Pennsylvania, West Virginia.
Number of plants.....	68.....	47.....	92.
Number of employees.....	No record.....	8,146.....	17,297.
Number exposed.....	2,505.....	2,585.....	1,902.
Number examined.....	No record.....	No record.....	1,809.
Number of cases reported.....	179 in 1910, 331 in 1911.....	Found and reported, 109.....	Found, 270.
Rate per 100.....	1910, 7.2; 1911, 13.2.....	4.2.....	15.0.
Directed by.....	U. S. Department of Labor.....	Ohio State Board of Health.....	U. S. Public Health Service.
Sources.....	Reports from: (1) Physicians, (2) hospital records, (3) questioning and examinations, (4) reports from fellow workers, and (5) labor unions.	Physical examinations by reported cases not observed.	Physical examinations.

¹ U. S. Public Health Service. Lead poisoning in the pottery trades, by Bernard J. Newman, William J. McConnell, and others. Washington, 1921. 223 pp. Bulletin No. 116.

The present study, which covered 92 plants with 17,297 employees, reports 1,902 persons, or 11 per cent, as exposed to a lead hazard while the investigation of Dr. Hayhurst reports 2,585 exposed persons out of a total of 8,146 employees, or 32 per cent. In the present study there were 139 cases of positive poisoning found and 106 presumptive cases giving a positive rate of 7.7 per cent of the number examined and a positive and presumptive rate of 13.5 per cent.

The pottery industry in this country is an important one with a steadily increasing output and market so that the present situation indicates a permanency in the industry which warrants serious consideration of the health hazards and of methods to improve working conditions. The field study covered in general the period from January to August, 1919, and in addition to the examination of 1,809 workers in the glaze departments, 1,436 of whom were men and 373 women, the sanitary conditions of plants were investigated and dust samples of the air were taken. These dust samples were analyzed for per cent of lead, for per cent of soluble lead, for dust count, and for weight. The glaze mixtures were also analyzed. The great differences of opinion among authorities as to the diagnosis of lead poisoning were taken into consideration and a very complete schedule prepared so as to insure uniformity in the results of the examinations. The persons examined for lead poisoning were classified as positive cases—divided into acute and chronic—presumptive, suggestive, and negative. Only the most generally recognized symptoms and signs such as a combination of marked pallor, colic, wrist drop, lead line, etc., were accepted as indicating positive plumbism, while less clearly marked symptoms placed them in the presumptive class. The suggestive group included those who presented certain common symptoms which might indicate a degree of lead poisoning. Of the number examined, 168 were found with symptoms suggestive of lead poisoning, and including the positive and presumptive cases with the suggestive the rate is increased from 7.7 for the positive cases to 22.8 per cent for the three classes together. The emphasis in the report, however, is placed upon the positive cases since the purpose of the report, it is stated, is not to get high rates but to discover the factors which are the sources of danger in the industry. A number of interesting points were brought out in relation to the effects of lead poisoning. A study of the blood pressures of 1,411 men and 358 women showed that lead poisoning at first seems to increase the blood pressure materially but after a time this high blood pressure may or may not be maintained. While age is a factor in the consideration of blood pressure, the positive group, which showed the highest rate of variation in blood pressure among both men and women, had the lowest age variation. A study of the pulse rate did not prove that the lead caused any significant change in the pulse. The effect of plumbism on muscular control was shown in a series of tests on 1,295 male and 342 female workers, which indicated, after making allowance for age, that "as the intensity of lead poisoning increases the individual gradually loses muscular power."

Under the causative factors in plumbism the attempt was made to discover the relationship of personal hygiene to lead poisoning and between plant hygiene and sanitation and lead poisoning, and to adjust the results according to the age and sex distribution of the

workers and the length and intensity of exposure to the lead hazard. Of the cases of positive plumbism 86 of the 126 male cases were over 40 years of age and 7 of the 13 cases among women, the average age for men being 44.4 years and for women 39.8 years. The presumptive and suggestive groups also showed higher rates in the group 40 years and over, the rates increasing gradually as age increases. The positive rate of plumbism, 7.7, when divided by sex showed a rate of 8.8 for men and 3.5 for women, but the average length of exposure for men was 17 years and of the female group 9.9 years.

In occupations in which the numbers are of reliable size the highest rate of positive poisoning among the men was found among the dippers whose rate was 17.2 per cent, followed by a rate of 10.1 per cent for oddmen and 9.8 per cent for glaze mixers. The rate for women did not define hazardous occupations so clearly because of the small numbers involved, except in the occupations of ware gatherers, which had a rate of 4.8 per cent out of a total of 62 examined, and dipper's helpers, with a rate of 4.0 per cent out of 149 examined.

The personal habits which seem to be factors in contracting lead poisoning were eating in workrooms and the use of stimulants—tea, coffee, and liquors—especially the latter. The plant conditions which were conducive to lead poisoning were air dustiness, fatigue, wet, heat and cold, drinking from cups and containers exposed to the dust of the room, and lack of washing facilities and proper toilet facilities, while the means recommended for the reduction of the lead hazard included provision of proper eating rooms, special work clothing, medical attention, better ventilation, prevention of dust, and installation of modern improvements in pottery production such as continuous kilns, automatic ware dipping, and use of glazes with a lower lead content or the use of fritted glazes.

Industrial Medicine in Belgium.

AN ACCOUNT of an interesting development in group medicine in Liège, Belgium, is given in the *Journal of the American Medical Association*, February 18, 1922 (pp. 527, 528). A group of workmen organized some years ago in a mutual benefit society have developed this system of medical and surgical service. The group, which consists of about 50,000 workmen and their families comprising altogether about 120,000 persons, is located in an area having an average radius of about 12 miles. The ordinary medical services are rendered by local practitioners and the members of the organization and their families also receive at their homes, at their physician's, or in the various clinics the care of numerous specialists. From the start the rule was established that every chronic case and every case in which surgery is indicated shall be referred at the request of the attending physician to the "cabinet central consultatif," a diagnostic group consisting of a surgeon, an internist, and various specialists who have at their disposal all necessary research facilities. Any obscure or doubtful case thus has the advantage of examination by a specialist, assisted by laboratory

researches and roentgenologic examinations, after which the entire cabinet considers the findings of the various experts and decides upon the course of treatment or kind of surgical intervention to be followed.

The federation has recently founded a hospital for the housing of the various services, which is to be opened soon. The hospital, which is located in the center of the industrial region it serves, is to cost approximately 2,000,000 francs (\$386,000, par) and will have 60 beds, 2 operating rooms, and a large staff of specialists. This group of workmen with very limited resources has succeeded in perfecting an organization which is said to have considerable scientific and professional interest and which assures to its members adequate care at a minimum cost to the individual.

Coal-Mining Accidents in Japan During 1919.

AN ARTICLE appearing in the International Labor Review for February, 1922, contains statistics as to the number of accidents which occurred in the coal mines of Japan during the year 1919.¹ According to this article there were 190,807 such accidents, distributed according to severity as follows:

	Number.
Slight injuries:	
Underground work.....	165,226
Surface work.....	19,311
Total.....	184,537
Serious injuries:	
Underground work.....	4,908
Surface work.....	597
Total.....	5,505
Deaths:	
Underground work.....	707
Surface work.....	58
Total.....	765
Grand total.....	190,807

In all the larger coal mines employers have established medical institutions for the workers. The State regulations require that relief must be given by the employer when a miner is injured, falls ill, or is killed in the course of his work, provided the accident is not the result of a serious fault on the worker's part. The rules on this subject are as follows:

When a miner is injured or falls ill the employer shall, at his own expense, arrange for the miner to be medically treated, or shall bear the expense necessary for such medical treatment.

Pecuniary aid, up to a daily sum of at least one-half of the wage due to the miner per day, must be paid during the time he is not in receipt of wages through absence from work on account of such accident or illness. When such aid continues for more than three months, the employer may reduce it to one-third of the employee's wages.

If the injury or illness causes the miner such physical or mental disability as is described below, the employer shall extend relief on the following scale: If perma-

¹ For a summary of the wages paid and hours worked in these coal mines, given in the same article, see p. 95 of this issue of the MONTHLY LABOR REVIEW.

nently and totally disabled, and requiring constant attendance, not less than 170 days' wages; if permanently and totally disabled for any work, not less than 150 days' wages; if disabled for his former work, incapable of recovering his former health, or disfigured in the face, in the case of a woman, not less than 100 days' wages; if permanently partially disabled, but able to engage in former work, not less than 30 days' wages.

In the case of the death of a miner, the employer must pay to the surviving relatives of the deceased an amount equal to his wages for not less than 170 days, and contribute not less than 10 yens [\$4.99, par] as funeral expenses to the relative of the deceased miner in charge of the funeral arrangements.

Each employer must draw up rules for the relief of his employees in accordance with the above regulations, and must submit them for the approval of the chief of the mining bureau in that locality before commencing mining operations. "In many cases the allowances made to the workers exceed those prescribed in the rules, sometimes being twice as much."

WORKMEN'S COMPENSATION AND ACCIDENT INSURANCE.

Comparative Benefits of Compensation Laws.

THE very considerable diversity existing among the compensation laws of the various States as to amounts, duration, and mode of determination makes it extremely desirable for insurance companies and others interested to have access to a ready comparison of these points. Such a showing is made in an analytic form in tables presented in Bulletin No. 275 of the United States Bureau of Labor Statistics, this matter being a part of a general analytical comparison of the laws. A compact and convenient "bird's-eye view" of the schedules of compensation as established by the laws of the various States has been prepared by Mr. Stanley L. Otis, director of the bureau of workmen's compensation, New York State Department of Labor. This shows in the different tables the benefits for death, including payments to survivors, burial expenses, expenses of lost sickness, minimum and maximum payments per week, total maximum liability, and maximum period. Corresponding completeness marks the separate tables for permanent total disability, dismemberment, permanent partial disability in other cases than dismemberment, temporary total disability, temporary partial disability, medical aid, and waiting period. There is also a "miscellaneous" table showing the date of enactment of the original and amending statutes, their nature (elective or compulsory), forms of insurance contemplated, and employments covered.

Report of the Governor of Hawaii on Industrial Accident Boards.

THE Governor of Hawaii in his annual report, covering the year ending June 30, 1921, presents in summary form an account of the operations of the workmen's compensation act of the Territory. Separate boards exist for the four counties, the principal one being that for the county of Honolulu. This board reports a total of 2,120 employers making returns under the act, an increase of 325 over last year. Of these, 61 are self-insurers under authorization of the board, most of them being government and municipal bodies; 11 plantations are included.

A total of 3,285 accidents is reported for the year. This is an increase in number reported, but it is thought that this is the result of closer reporting, slight injuries receiving notice. Prompt first-aid treatment and the consequent reduction of infection are said to lead to a material decrease in the average period of disability. Nearly 60 per cent (1,927) of the total number of injured persons returned to work within the seven-day waiting period. Medical and surgical cost of these short-term injuries aggregated approximately \$9,855, exclusive of the plantations, which maintain independent hospitals and resident physicians. It is said that voluntary compensation is paid as a rule in these minor cases, though the law makes no requirement therefor, the final report frequently stating that full wages have been paid in addition to the required surgical and medical fees.

There were 1,117 accidents causing disability extending from two weeks to three months, while in 32 cases the disability had not terminated at the time of the report, although it was presumably not permanent. Besides these, 132 cases had not been finally reported on.

Compensation for death involved one-half of the 28 fatal cases, there being no dependents in 10 instances, while in 4 the only surviving beneficiaries were nonresident aliens not entitled to compensation under the act. If the beneficiaries live out the compensation periods, the total amount payable for these fatalities will be \$47,733.42. In 5 instances the maximum amount of \$5,000 allowed under the act was awarded. Compensation periods varied from 6 to 13 years. There was one case of permanent total disability calling for a payment of \$4,321.20 during a period of 312 weeks. Permanent partial disabilities called for \$25,733.42, while lump sum payments aggregated \$12,934.98. Adding all benefits, including medical and hospital services with the exception of plantations and city and county cases, the total amounts to \$132,766.04.

Much need still continues for the extension of information to employers practically ignorant of the act, 1,125 such being interviewed and instructed during the year. The foregoing data, as indicated, relate to the board operating in Honolulu County alone. The reports as to other counties are much less detailed and relate to a much smaller industrial population.

Pennsylvania.

THE statistical department of the Pennsylvania Compensation Rating and Inspection Bureau has issued a Statistical Analysis of Workmen's Compensation Insurance¹ in the State covering the five-year period from January 1, 1916, to December 31, 1920. On account of the importance of the coal-mining industry of the State the first three tables, as well as some others, show the transactions under the headings: All business, All business except coal mining, and Coal mining. All insurance carriers report earned premiums on all business for the 5 years amounting to \$80,290,028. Losses incurred amounted to \$35,506,041 and expenses to \$24,793,472. This shows a loss ratio of 44.2 per cent and an expense ratio of 30.9 per cent. For participating companies the loss ratio was 43.4 per cent of the earned premiums and the expense ratio 18.3 per cent, while for all nonparticipating carriers the loss ratio was 44.6 per cent and the expense ratio 36.8 per cent, or just about double the expense ratio of participating carriers. The magnitude of the coal-mining industry is indicated by the fact that it represented more than one-fourth of the total business in so far as premiums earned are concerned, the amount being \$22,653,560, while the losses incurred approximated one-third of the total, being \$11,159,989; expenses totaled \$6,563,863. The loss ratio is therefore higher than the average for all business, being 49.3 per cent, while the expense ratio falls somewhat below, being 29 per cent. For all business except coal mining the loss ratio was 42.2 and the expense ratio was 31.6 per cent.

¹ For review of report for the years 1916 to 1919 see MONTHLY LABOR REVIEW, May, 1921, pp. 135-138.

In connection with the summary for the five years it is of interest to note that the business for 1920 showed a higher loss ratio than the average for the five years, being 46.3 per cent, while the expense ratio fell relatively the same distance below the average, being 28.5 per cent. Participating companies reflected practically the same situation with a loss ratio of 45.1 per cent and an expense ratio 17.6 per cent, while for nonparticipating companies both loss and expense were higher in 1920 than the average for the five years, being 47.2 and 37.6 per cent, respectively. The statement for 1920 shows also the profit ratio, which for all insurers was 30.1 per cent, the ratio for participating companies being 42.3 and for nonparticipating 20.

Data for 1920 are further shown in detail by presenting separate statements for the 41 companies doing insurance business in the State in all industries except coal mining, while for coal mining the business is conducted by 6 carriers. In all business except coal mining the average loss ratio for all insurers was 43.8 per cent and the average expense ratio 29.3 per cent, with a profit ratio of 31.7 per cent. The loss ratio for individual companies ranged from 100.3 per cent in the case of one of the smaller companies to 16.1 per cent in the case of the Laundry Owners' Mutual; while the expense ratio ranged from 42.2 per cent for two companies, one of them, one of the largest doing business in this State, to 8.6 per cent in the smaller company whose losses exceeded its premiums. The State fund with \$1,417,393 earned premiums, ranking third in this respect, had a loss ratio of 51.1, an expense ratio of 11.9, and a profit ratio of 43 per cent.

In coal mining the State fund is the largest carrier, having earned premiums amounting to \$1,722,073 with a loss ratio of 50.1, the average for all insurers being 52.8, and an expense ratio of 13.2, the average for all insurers being exactly double this, 26.4 per cent, showing also a profit ratio of 42.7 per cent as compared with the average for all insurers of 25.9 per cent.

Table III shows pay rolls, premiums, and losses by policy years, together with number of compensable accidents, and accidents per \$10,000,000 pay roll. The data for the year 1920 relate only to the State fund experience, so that no general comparison can be made. The accident rate is based only indirectly on the number of persons employed, since it is computed on the pay roll, and would be influenced by changes in wage rates. However, a steady reduction in the rate for the four years 1916 to 1919 is indicated in the number of accidents per \$10,000,000 pay roll, being 351 for 1916, 289 for 1917, 210 for 1918, and 192 for 1919. For the State fund alone in 1920 the number was 287. Omitting coal mining, the number of accidents per \$10,000,000 pay roll for the years named are 305, 245, 174, 163, and 209 (State fund only); while for coal mining the numbers are, respectively, 883, 590, 497, 450, and 451 (State fund only).

Other tables show the compensation cost by severity of injury, pure premium experience by industry classification, accident rates in principal industries (based on pay roll and not on number of employees), dependency, ages of dependent children, remarriage, permanent total and permanent partial disabilities, fatalities, causes of accidents, etc. Deaths totaling 2,930 in industries other than coal mining left 5,025 dependents, the average compensation cost per death being \$2,163. In 626 cases only widows survived, while in

1,040 cases there were widows and children totaling 3,700. In these cases benefits ranged from an average of \$2,068 for the widow alone to \$6,266 where there was a widow and 8 or more children. In 93 cases only children survived, 208 in number. Where there was but one child the average benefit was \$1,464, while the single family of 8 children called for \$6,802.

Of 1,665 widows in industries except coal mining, 155 have remarried, while in mining 167 out of 1,010 remarried, the rate being 3.28 for all industries except coal mining and 6.38 in coal mining. This compares with the rate shown in the Dutch Royal Institute table of 3.46. The average age of all widows in the first group was 39.9 and of those remarrying 29.6. Of the 155 remarrying, 33 remarried under one year from the death of the husband, 69 after one year but under two, 40 after two years but under three, 10 after three years but under four, and 3 after more than four years. Of the 167 miners' widows remarrying, 65 remarried during first year, 66 the second, 24 the third, and 10 the fourth, while after four years but 2 remarried. These figures are, of course, based on an experience of comparatively short duration, so that though there appear to be but few remarriages after the third year, the actual number will increase with the continued duration of the law, though the remarriage rate may not be correspondingly affected.

The tables showing causes of accidents resulting in two or more deaths and of causes of fatal and permanent accidents by principal industry groups are sufficiently detailed to indicate the points of danger to which attention should be given in prosecuting the campaign for accident reduction, but can not be reproduced in a brief review.

Compensable Accidents in Wisconsin, 1915 to 1920.

THE Industrial Commission of Wisconsin has published as one issue of the "Safety Review" a study of compensable accidents for the period 1915 to 1920.¹ Occasional reports have been issued on limited phases of the question, but the present pamphlet of 124 pages analyzes in considerable detail all compensable accidents (those causing a disability of seven days or more) showing accident frequency, severity, and causes and nature of injuries. Accidents for the year 1920 are made the basis for the major part of the studies, though a few of the tables cover the entire period 1915 to 1920.

Accident frequency can be determined in only a very general way, as the number of workmen in the various industries can not be ascertained. Insurance is based not so much on the number of workmen covered as on the pay roll, and while an approximate correctness might be arrived at as to the number of employees for a single year, the fluctuations in rates of pay render the comparison of different years difficult if not impracticable. Some effort is made on the basis of reports of representative employers showing the accident frequency since 1915. Three periods of high frequency are discovered: 1916-17, when industry began to speed up to meet the war demand; 1918, when a large turnover was experienced, green

¹ Wisconsin. Industrial Commission. General accident statistics for Wisconsin. Madison, 1921. 124 pp. Wisconsin Safety Review, Vol. II, No. 4.

hands taking the place of experienced workers being inducted into the Army; and 1920, for which no satisfactory explanation is easily found.

In discussing severity and causes of industrial accidents the report follows the scheme devised by the committee on statistics and compensation cost of the International Association of Industrial Accident Boards and Commissions. Table 1 shows for the six-year period 1915 to 1920, a total of 89,436 injuries, of which 1,054 were fatal, 68 caused permanent total disability, 6,700 permanent partial disability, while the results of 81,614 were temporary. On the basis of computation used it was estimated that 13,798,057 days were lost as the result of these accidents. The most prolific cause of injuries is the handling of objects, 21,857, machines coming next with 17,984 accidents charged against them, followed by falls of persons, responsible for 11,332 accidents. Severity does not follow in the same order, machines being responsible for 3,585,728 days lost while falls of persons and handling of objects were responsible each for less than one-half that amount, the former 1,695,767 days and the latter 1,337,957 days. Indeed, handling of objects, the most frequent cause of injuries, ranks lower in severity than falling objects to which 7,840 accidents were attributed, causing 1,423,182 days lost; and vehicles, 5,540 injuries, with 1,524,010 days lost.

The injuries occurring in the year 1920 are, as already stated, the subject of detailed and exhaustive analysis. In the main, industries are considered together, but some important industries were selected and made the subject of more intensive study as to causes of accidents therein. The five industries selected for this purpose are metal working, paper and paper products, logging, lumbering and other wood industries, construction work, and mines and quarries. There are also several line charts devoted to a graphic representation of number and severity of injuries in these industries. It is not feasible to attempt reproduction of the material set forth, but the following gives in compact form the results of the general study:

PERCENTAGE OF ACCIDENTS DUE TO THE VARIOUS CAUSES, IN SPECIFIED INDUSTRIES, CLASSIFIED BY NUMBER AND SEVERITY, 1920.

Cause.	Industry.									
	Metal.		Wood.		Paper.		Construction.		Mines and quarries.	
	Number.	Severity.	Number.	Severity.	Number.	Severity.	Number.	Severity.	Number.	Severity.
Machines.....	27.6	39.1	30.0	35.9	31.1	43.5	9.3	10.6	1.8	2.0
Hoisting apparatus.....	4.6	5.1	2.2	3.2	1.8	12.9	5.3	7.5	5.1	17.5
Vehicles.....	1.6	3.2	7.3	8.9	1.9	.3	5.0	9.9	20.3	5.0
Dragging, skidding, river driving.....	.0	.0	4.9	1.2	.2	4.1	.0	.0	.0	.0
Falling objects.....	8.3	5.4	7.5	9.9	8.1	1.9	10.8	12.7	23.6	38.8
Falls of persons.....	5.2	6.9	8.4	6.6	11.8	7.5	24.2	34.3	7.8	1.1
Stepping on or striking against objects.....	5.5	3.2	5.4	1.9	6.5	1.3	9.8	5.3	6.0	9.3
Hand tools.....	6.0	5.8	10.8	6.0	5.7	2.5	7.4	2.3	11.4	15.4
Handling objects.....	27.7	15.5	19.0	13.9	26.0	11.6	19.4	5.0	18.0	5.2
Electricity.....	.4	1.2	.1	.2	.3	4.1	.5	3.3	.0	.0
Explosives.....	.9	8.1	.3	3.5	.8	9.0	.5	.1	1.8	4.6
Hot and corrosive substances.....	9.2	2.3	.6	3.6	3.3	.4	3.0	1.5	1.8	.2
Miscellaneous.....	3.0	4.2	3.5	5.2	2.5	.9	4.8	7.5	2.4	.9
All causes.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The study of causes is regarded as "by far the most important phase of industrial accident statistics, since it serves to bring out the danger points in industry." The importance of accident prevention is enforced by such a presentation as is made in the pamphlet under consideration, showing the large number of days lost and the sums paid out as indemnity and medical aid, which nevertheless fall far short of offsetting the loss to workmen, while representing an unrequited burden to the employer or rather to the consumer upon whom the cost of payment ultimately falls.

Statistics of Compensation in Great Britain.

THE British Home Office, in its latest annual report on Statistics of Compensation and Proceedings Under the Workmen's Compensation Act and Employers' Liability Act covers the year 1920. In the main, the data relate to the seven great groups of industries for which returns are required from employers in fuller detail—mines, quarries, railways, factories, docks, constructional work, and shipping. Employers are to report in these industries the average number of persons employed throughout the year. The total reported for these groups for the year 1920 was 8,348,150. The total number of accidents compensated during the year was 385,517, or 46 per 1,000 workmen; of these 3,531, or 0.42 per 1,000, were fatal. Payments for compensation aggregated £5,978,009 (\$29,091,981, par), of which £755,657 (\$3,677,405, par) was for fatal cases and £5,222,352 (\$25,414,570, par) was for nonfatal cases.

The average payment in case of death in 1920 was £214 (\$1,041, par) and in case of disablement £13 14s. (\$66.67, par). Reports during the war are not available, but in 1914 the corresponding amounts were for death £161 (\$783.51, par), and for disability £6 7s. (\$30.90, par). The large increase in these amounts is mainly due to the additional compensation provided for by the workmen's compensation (war addition) act, 1917.

The figures given above represent only the actual payments made to workmen or their dependents, and do not include medical and legal costs and administrative expenses, nor the reserves and overhead of insurance companies. Returns furnished by insurance companies to the board of trade in reference to their insurance business in this field show an income in premiums of £8,851,607 (\$43,076,345, par) or, including interest from reserve, £9,047,559 (\$44,029,946, par); of this but £2,980,755 (\$14,505,844, par) went in payments under policies, £2,921,959 (\$14,219,713, par) being spent in payment for commission and expenses of management, £1,476,869 (\$7,187,183, par) being transferred to reserves, and £1,667,976 (\$8,117,205, par) being set aside for profits. These figures cover the entire employers' insurance business of the companies, and not merely the seven industries named above; for these it is estimated that the charge for compensation approximated £8,500,000 (\$41,365,250, par).

An analysis of the number of persons employed and the total compensation paid in the seven industry groups reported for shows that in shipping the cost of compensation per person employed was 16s 6d. (\$4.01, par); factories, 9s. 3d. (\$2.25, par); docks, 29s. 5d. (\$7.16, par);

mines, 37s. 3d. (\$9.06, par); quarries 19s. (\$4.62, par); constructional work 13s. 5d. (\$3.26, par); railways, 11s. 8d. (\$2.84, par), the average for the entire number being 14s. 4d. (\$3.49, par). The cost of compensation in the coal mining industry is about 2.44d. (4.953 cents, par) per ton of coal raised.

From returns of cases terminated in 1920 in the seven industry groups a table is developed showing the percentage of cases lasting specific periods; the table follows:

Industry.	Percentage of cases terminated in 1920 in which compensation had lasted—					
	Less than 2 weeks.	2 weeks and less than 3.	3 weeks and less than 4.	4 weeks and less than 13.	13 weeks and less than 26.	26 weeks and over.
Shipping.....	6.33	16.92	15.99	47.31	9.44	4.01
Factories.....	9.77	30.14	18.42	36.72	3.79	1.16
Docks.....	8.46	22.20	16.75	43.70	6.12	2.77
Mines.....	6.65	33.16	18.77	34.09	3.95	3.38
Quarries.....	10.14	32.49	18.40	33.95	3.32	1.70
Construction work.....	19.88	26.60	16.38	31.84	3.85	1.45
Railways.....	16.17	30.25	15.65	29.96	4.51	3.46
Total.....	8.97	30.92	18.33	35.62	3.99	2.17

This table does not include cases terminated by payments of lump sums, which are usually of considerable duration. For instance, of 20,281 such cases of accidental injury, 4,459 were commuted to lump sum payments after more than 26 weeks' previous weekly payments, 6,919 after weekly payments for less than 26 weeks, while in 8,903 cases lump sum settlements were made without previous weekly payments. Besides the foregoing, lump sum settlements were made in 530 cases of industrial disease.

Of the 381,986 disablement cases in which compensation was paid during 1920, 40,030 continued from 1919, and 39,024 remained outstanding for further consideration at the end of the year 1920. Of this latter number 13,895 had lasted more than one year, including 1,538 cases (mostly in the mining industry) which had lasted over 10 years.

Of the fatal cases reported during the year, 27 were due to industrial disease, two-thirds of these being cases of lead poisoning, 3 of anthrax, while the remaining 6 were due to as many different causes. The total number of cases of industrial diseases coming under observation during the year was 6,012, while 4,440 were subject to payment coming over from previous years. The mining industry furnishes the large majority of cases under this head, nystagmus (a nervous oscillation of the eyeball) being responsible for 2,865 cases in 1920. Subcutaneous cellulitis over the patella (miner's beat knee) accounted for 1,322 other cases, and a similar affection of the hand for 763. Acute bursitis over the elbow and inflammation of the synovial lining of the wrist joint together furnished nearly 200 additional cases.

It is of interest to note that while the workmen's compensation act of 1906 exists alongside the earlier (1880) employers' liability act, the use of the latter by workmen is almost negligible, and the number of cases under it has steadily fallen since 1907, when the number was 604, up to the year covered, when but 69 cases were brought under the liability act.

LABOR LAWS AND COURT DECISIONS.

Criminal Syndicalism and Sabotage.

By DANIEL F. CALLAHAN.

A NEW title was recently introduced into the law books of the United States, its terms being imported from Europe, where, especially in France, the words "syndicalism" and "sabotage" have for a number of years had currency as expressive of certain ideas that have grown up in connection with industrial and political agitation. The spirit of the legislation on this subject in the United States approximates that of certain provisions of the defense of the realm act of Great Britain and still more closely resembles the unlawful associations act of Australia,¹ which was directed to the activities of the Industrial Workers of the World and similar groups.

The Australian statute bears date of December 21, 1916, and within four months after that time the Legislatures of Idaho and Minnesota passed laws "defining criminal syndicalism [and] prohibiting the advocacy thereof." Similar legislation was enacted in other States in the years immediately following, until 19 States and the Territories of Alaska and Hawaii now have statutes on this subject.² A few cities are also known to have passed ordinances in the same field. So far as the State enactments are concerned, they have been generally upheld as constitutional by the courts, but some, at least, of the ordinances have not been sustained, as going into a realm beyond their proper concern.

These laws combine political, economic, and industrial aspects. So far as overt acts are specified, it may be said that they are mainly if not entirely of a nature denounced by the common law or the criminal codes. Many other laws, similar to these in varying degree, condemn violence and terrorism for the purpose of securing political revolution (as, for instance, Kentucky, Acts of 1920, ch. 100), or economic or political reform (as, for instance, West Virginia, Acts of 1919, ch. 24), and it is difficult to differentiate in some cases. It is the purpose of the present study to review briefly the enactments which have a prominent industrial element, and to give some account of their interpretation and enforcement by the courts, chiefly those of last resort.

The list of cases is not exhaustive, but is offered as fully representative of those that have come before the higher courts. It

¹ Act No. 41 of 1916 amended by Act No. 14, 1917.

² Alaska, Acts of 1919, ch. 6; Arizona, Acts of 1918, ch. 13; California, Laws of 1919, ch. 188; Hawaii, Acts of 1919, ch. 186 and Suppl. Acts of 1921, ch. 216; Idaho, Acts of 1917, ch. 145; amended by Acts of 1919, ch. 136; Indiana, Acts of 1919, ch. 125; Iowa, Laws of 1919, ch. 372; Kansas, Laws of 1920, ch. 37; Michigan, Acts of 1919, ch. 255; Minnesota, Acts of 1917, ch. 215; Montana, Acts of 1918, ch. 7; Nebraska, Acts of 1918, ch. 9; Nebraska, Acts of 1919, ch. 231; Nevada, Stats. of 1919, ch. 22; North Dakota, Acts of 1918, ch. 12; Ohio, Acts of 1919, p. 189; Oklahoma, Acts of 1919, ch. 70; Oregon, Acts of 1919, ch. 12, and the new law of 1921, ch. 34; South Dakota, Acts of 1918, ch. 38; Utah, Acts of 1919, ch. 127; Washington, Acts of 1919, chs. 173, 174; and Wyoming, Acts of 1919, ch. 76.

would not be possible to estimate the nature and number of actions under these laws in which the judgment of the trial courts was accepted without appeal. The movement is practically a war-time development, no State having taken original action on the subject since 1920. However, new or supplemental laws were enacted in 1921 in Hawaii and Oregon, in both of which laws had been previously enacted. Whether repeals or extensions will mark the future remains to be seen.

Criminal syndicalism and sabotage are in most of the States included in the same act. Washington, however, has a separate act for each; the laws of Arizona and North Dakota cover sabotage only, that of North Dakota being restricted to the period of the war. The laws of Indiana and Wyoming apply only to syndicalism.

Definitions.

THE statutory definitions of criminal syndicalism vary, but most of them are similar to that of the early law of Idaho, which is as follows:

SECTION 1. Criminal syndicalism is the doctrine which advocates crime, sabotage, violence or other unlawful methods of terrorism as a means of accomplishing industrial or political reform. The advocacy of such doctrine, whether by word of mouth or writing, is a felony punishable as in this act otherwise provided.

A few of the laws define sabotage. Thus, the Minnesota statute declares it to mean the "malicious damage or injury to the property of an employer by an employee."

Penalties.

IN SIXTEEN of the jurisdictions the acts are practically the same as that of Idaho, which was the first law of this kind enacted in the United States. In 10 of the statutes the maximum penalty is 10 years' imprisonment or \$5,000 fine or both. The California statute provides for punishment by imprisonment for not less than 1 year nor more than 14 years. South Dakota provides punishment of not less than 1 year nor more than 25 years, or by a fine of not less than \$1,000 nor more than \$10,000 or by both such fine and imprisonment. The North Dakota law divides the offense of sabotage into two degrees; the first degree is punishable by imprisonment for from 1 year to life, the second by imprisonment for not less than 1 year nor more than 20 years. The Washington laws state that the offense of sabotage and criminal syndicalism are felonies, punishment not being provided for in the acts.

Cases Under the Laws.

Minnesota.

THE Minnesota statute came before the courts of that State in the leading case of *State v. Moilen*,³ which decided most of the points that have since arisen under similar statutes. Upon the question of the constitutionality of the statute the court said: "Sabotage as practiced by those advocating it as an appropriate and proper

³ *State v. Moilen et al.* (Apr. 19, 1918), 167 N. W. 345. Contained in U. S. Bureau of Labor Statistics Bul. 258, p. 134.

method of adjusting labor troubles embraces, among other lesser offensive acts, the willful and intentional injury to or destruction of the property of the employer in retaliation for his failure or refusal to comply with wage or other kindred labor demands. It amounts to malicious mischief and is a crime at common law as well as by statute. * * * It requires no argument to demonstrate that the subject matter of this statute was and is within legislative cognizance, vesting in that body the clear right to prohibit the advocacy or teaching of the iniquitous and unlawful doctrines which it condemns." Upon the question as to whether it was class legislation the court decided that, "While the practice of sabotage applies only between employer and employee, the other methods of terrorism referred to in the statute are not so limited, and the statute in that respect has general application. * * * Though often vigorously challenged as class legislation, statutes applying only to that [employer and employee] relation have in later years been sustained by the courts with few exceptions." With regard to the provisions of the Constitution against excessive fines and cruel and unusual punishments the court said that the purpose of such provisions was to prevent "such punishments as burning at the stake, the pillory, stocks, dismemberment, and other extremely harsh and merciless methods of compelling the victim to atone for and expiate his crime." Finally, in deciding whether the facts presented by the indictment, which involved the circulation of certain posters, disclosed a violation of the statute the court said:

The whole atmosphere given out by the posters is one of intimidation, indicative of a purpose to incite fear in the employers of labor and to compel submission to labor demands. If the defendant intended some innocent phase of the doctrine of sabotage he should have made it appear upon the face of the posters, and, not having done so, the jury were justified in finding that he was advocating sabotage in this offensive form.

The case of *State v. Workers' Socialist Pub. Co. et al.* (185 N. W. 931) was decided on December 2, 1921. The corporation, its managing editor, and its business manager were convicted under the statute for publishing an article in a newspaper stating among other things that capital will never submit without the "bloodiest battle history has ever known," and that the workers must learn to fight until the capitalist class is overthrown and "rests bloodstained at the feet of the labor giant." They appealed to the supreme court of the State. It was there held that the article advocated violence and bloodshed as a means of accomplishing industrial ends and was a crime under the statute. The act was held applicable to corporations as well as persons. Intent was not an ingredient of the offense, it was held, and the convictions as to the corporation and managing editor were upheld, even though the managing editor had no knowledge of the publication of the article. The conviction of the business manager was reversed, as he had no editorial duties and was not criminally liable under the statute unless he circulated the paper, knowing its contents.

Washington.

The Washington laws seem to be a development of the criminal anarchy law of 1909, which is almost identical with the New York

law on that subject.⁴ In 1917 the Legislature of Washington passed a criminal syndicalism law which was vetoed by the governor on March 20, 1917. It was passed over the veto on January 14, 1919,⁵ the act, however, being repealed when separate acts on the subject of sabotage and criminal syndicalism were passed by the same legislature and approved March 19, 1919.⁶

The case of *State v. Hennessy* (195 Pac. 211) came before the Supreme Court of Washington and was decided in January, 1921, the offense being assembling with and aiding an organization of the Industrial Workers of the World. The decision held that the statutes in question were not class legislation and that the legislature may pass regulations that will bear with equal weight upon all in like situation or of the same class. The act was held to be neither unconstitutional as abridging the freedom of speech nor void because of indefiniteness. Whether intent to violate the law was an essential element of the crime committed depended upon the aim of the legislature, and under the law in question one became guilty whether or not intent was present. The court also held that one who joined a group formed to advocate sedition, etc., in one county could be prosecuted in another county but that the accused should have the right to be tried in the county in which the offense was alleged to have been committed.

This decision was followed by a similar case, *State v. Hastings et al.* (196 Pac. 13), decided in March, 1921, in which conviction was sustained. Frank Hastings contended that his conviction was not warranted, since he had made a statement about the time of his arrest, to the effect that shortly before his arrest he had destroyed his membership card in the Industrial Workers of the World. It was held that the statement would not preclude the jury from finding that he was a member at the time covered by the information. Elias Matson, the other defendant, contended that the offense with which he was charged must be shown to have been committed in the county where the trial was had. The court held that the place of arrest was not controlling in the face of ample testimony that his home was in the other county and that he was only temporarily absent therefrom at the time of arrest. In the same month the conviction of Joe Hemhelter and others (*State v. Hemhelter et al.*, 196 Pac. 581), because of their membership in the Industrial Workers of the World was upheld.

C. E. Payne appealed from a conviction under the law because of the evidence admitted. The action of the trial court was upheld (*State v. Payne*, 200 Pac. 314) in admitting as evidence a letter written by the secretary-treasurer of a branch of the Industrial Workers of the World organization on its usual letterhead, addressed to the defendant and found in his possession at the time of his arrest, which letter was in answer to a letter written by defendant and which showed active participation in the organization.

New trials were granted in several cases because of the admission of hearsay evidence as to the purposes of the Industrial Workers of the World.⁷

⁴ Washington Laws of 1909, p. 894, secs. 310, 311. Remington and Ballinger's Ann. Code of Wash., secs. 2562, 2563. Consolidated Laws of New York, 1909, Vol. IV, "The Penal Law" art. 14, secs. 160-162, p. 2544.

⁵ Wash., Session Laws, 1919, ch. 3.

⁶ *Idem.*, chs. 173, 174. Given in U. S. Bureau of Labor Statistics Bul. 277, pp. 332, 333.

⁷ *State v. Gibson et al.* (April, 1921), 197 Pac. 611, and *State v. Pettilla et al.* (August, 1921), 200 Pac. 332.

A conviction for criminal syndicalism was reversed and a new trial ordered by the supreme court in the case of *State v. McLenner* (200 Pac. 319, August, 1921). At the trial of this case a pamphlet by Vincent St. John, entitled "The I. W. W., Its History, Structure, and Methods," was introduced in evidence to prove the objects and purposes of the organization and that it came within the State syndicalism acts. The pamphlet contained the following: "Failing to force concessions from the employers by the strike, work is resumed and sabotage is used to force the employers to concede to demands of the workers." The trial court in instructing the jury concerning the meaning of sabotage stated that it was a crime under the laws of Washington and defined sabotage by quoting sections 1 and 2 of chapter 173, Washington Session Laws of 1919. Upon appeal to the supreme court this instruction was held reversible error. That court held that the trial court could have taken judicial notice of the meaning of the word or "could define the word in its own language, or adopt for that purpose words from any person or any statute." The court continued: "But there may be a question whether the statute quoted by the court gives, or was intended to give, a definition of the word 'sabotage.' It does not on its face purport so to do, nor is the word to be found anywhere in the act or its title. We do not, however, decide that the act does or does not properly define the common meaning of the word. But if it should be conceded that it was there properly defined, yet we are convinced the court committed prejudicial error in informing the jury 'that sabotage is a crime under the laws of the State of Washington.'" It was held probable that the "jury was misled into the belief that the defendant was charged with the statutory crime of sabotage and not with a violation of the syndicalism law of the State," and therefore the court erred.

In a case of conviction of the statutory crime of sabotage, based on membership in the Industrial Workers of the World, O. Kowalchuk and other defendants appealed to the supreme court. The appeal was based on several grounds, one of which was that error was committed by the trial court in admitting evidence of the unlawful purposes of the organization. The supreme court held (*State v. Kowalchuk et al.* (August, 1921), 200 Pac. 333) that the evidence admitted did not fall within the ruling in the Gibson case above cited because it was not hearsay evidence. William Josh testified that he was at one time a member of the organization, was acquainted with its leaders and organizers, and that the members of the organization were instructed by them to do certain acts covered by the statute, "the object and purpose being to make the operation of industries unprofitable to their owners and cause their abandonment, when they would be seized and operated by the workers themselves." This testimony being from a former member was testimony as to the facts directly, "not what some third person stated to him was the fact."

Kansas.

Proceedings in habeas corpus were brought before the Supreme Court of Kansas by William Danton seeking release from custody on a charge of criminal syndicalism. That court denied the writ (*In re Danton* (February, 1921), 195 Pac. 981), holding that the accused at the preliminary examination boasted of membership in the Indus-

trial Workers of the World, that he was distributing their literature, and that that evidence was sufficient to hold him for trial. In June, 1921, another case was decided by the same court (*State v. Berquist*, 199 Pac. 101). C. E. Berquist was arrested upon a charge of violating the statute defining criminal syndicalism. The words of the statute were: "Any person who shall * * * become a member of * * * any society of persons * * * which teaches * * * the doctrine of criminal syndicalism, sabotage * * * is guilty of a felony." The information rested wholly upon the allegation of Berquist's membership in the Industrial Workers of the World, but it was not alleged that he became a member in Kansas. A motion to quash the information was sustained, the court deciding that "the mere coming into this State of one who had theretofore become a member of such an organization as the statute condemns does not, according to its terms, render him subject to prosecution here." The decision was distinguished from the holding of the Supreme Court of the State of Washington in the case of *State v. Hennessy* noted before. The Washington court had held that a prosecution may be maintained in a county other than that in which defendant joined the organization because of the use of the expression "be a member of," in the Washington statute, while the Kansas statute, as quoted above, reads "become a member of."

California.

The Supreme Court of California in July, 1919, upheld the validity and sufficiency of the statute defining and prescribing penalties for the offense of criminal syndicalism and sabotage in the case *Ex parte McDermott* (183 Pac. 437). In the District Court of Appeals of California the conviction of J. P. Malley for violation of the criminal syndicalism act was affirmed the next year (*People v. Malley* (October, 1920), 194 Pac. 48). In each case the defendant was charged with having "circulated and publicly displayed certain books, papers, pamphlets, documents, and other printed and written matter, in his possession and custody, and under his control, containing and carrying written advocacy, teaching, and advising of criminal syndicalism." The court held that if an indictment is in the same language as that of the statute it is to be understood in the same sense as the statute; that the legislature may repress anything deemed hurtful to the general good, subject only to constitutional limitations; and that it was "'unlawful' acts of force and 'unlawful' methods of terrorism that the legislature struck at, not acts which were permissible and within the law."

Later, Charles Lesse was convicted of criminal syndicalism. He appealed upon the grounds that a book relating to the doctrines of the Industrial Workers of the World was admitted as evidence and that the jurors, who admitted that they entertained unfavorable opinions of the Industrial Workers of the World, could not give him a fair and impartial trial. The District Court of Appeals of California affirmed the judgment of the trial court (*People v. Lesse* (April, 1921), 199 Pac. 46), holding that there was no error in admitting in evidence a publication made under the authority of the Industrial Workers of the World organization. With reference to the jury it was held that the defendant was "of course entitled to a jury that

would try him fairly and impartially upon the facts of the case, but he was not entitled to a jury who would excuse or condone unlawful acts of violence by him, because, forsooth, he might make the pretense of believing or might in fact believe that they were right."

Two cases arising under the statute were decided by the supreme court of the State in November, 1921. In the case of *People v. Steelik* (203 Pac. 78) the defendant was convicted because of his membership in the Industrial Workers of the World. With reference to that organization the court said that there was "overwhelming evidence in the case at bar to justify a conclusion by the jury that the I. W. W. is an organization as clearly denounced by the statute as unlawful as though it was mentioned by name." The constitutionality of the statute was attacked by the defendant. In deciding the case the court cited and followed several cases.⁸ The criminal syndicalism act was summarized "as an act to punish the advocacy of crime or wrong, engaging in conspiracies to commit crime or unlawful acts, or the commission of crime or unlawful acts, as a means of changing industrial or political control." The court said that it was "proper to seek desired changes in political and industrial control; but, when criminal or unlawful means are used to effect political control, the means is punishable under the act defining and prohibiting criminal syndicalism as well as under the act defining the crime." The right of free speech it was held, "was guaranteed to prevent legislation which would, by censorship, injunction, or other method prevent the free publication by any citizen of anything that he deemed it was necessary to say or publish. The right of free speech does not include the right to advocate the * * * criminal destruction of property. * * * The statute does not prevent the publication, it punishes the publisher, and declares punishable the character of the publication denounced by the act as illegal." The record was held to justify the defendant's conviction of the offense of criminal syndicalism.

In the second case, that of *People v. Taylor* (203 Pac. 85), the defendant was a member and an authorized organizer of the Communist Labor Party. He was convicted under two counts. The district court of appeals affirmed the action on one of the counts, but reversed the judgment on the other. Taylor petitioned for a transfer of the case to the supreme court, contending that the indictment was bad, on grounds of insufficiency. The judgment of the court of appeals was affirmed. The court held that the acts alleged to constitute criminal syndicalism should be specified in the indictment, but failure to do so would not be grounds for holding the indictment bad where the defendant was fully advised by the indictment that he was charged with belonging to an illegal organization and by the district attorney that the organization was the Communist Labor Party, in which his membership was admitted. The appellate court in this case could not reverse the judgment of conviction as there was no miscarriage of justice resulting from failure to specify the organization in the indictment. The court said that it was "well to remember in this type of case that, while the defendants may be charged with an attempt to destroy this Government, they are

⁸ *State v. Hennessey*, 195 Pac. 211; *State v. Fox*, 127 Pac. 111; *Ex parte McDermott*, 183 Pac. 437; *People v. Most*, 64 N. E. 175.

entitled to its protection until convicted of crime as any other citizen or individual, and one of these fundamental rights is that when they are charged with crime they should know the particular crime they are charged with." The fourth count in the indictment was framed under the fifth subdivision of section 2 of the act, which deals with the commission, by personal act or conduct, of any of the things prohibited by the statute. It was not shown that the defendant committed any unlawful acts of force or violence but merely advocated them. Because of lack of evidence to warrant conviction on that charge the judgment on that count was reversed.

J. G. Weiler was a codefendant with Taylor in the foregoing situation but was tried separately, with practically the same results (*People v. Weiler*, 204 Pac. 410). The constitutionality of the law was challenged as penalizing certain acts if done for a certain purpose, but not if done for other purposes. The court ruled against such a contention, saying that it signified no more than that certain things could have been penalized that were not. The act was also said to be void for indefiniteness, but it was held that the terms used had received ample judicial construction and their meaning was well understood. The conviction on the count of organizing communist labor groups was sustained. The other counts specified no particular circumstance, and were held insufficient.

Nevada.

The statute of Nevada relating to criminal syndicalism was held not objectionable as class legislation denying equal protection of the law, in the case, *Application of Moriarity* (191 Pac. 360), in August, 1920. The court declared the test to be "whether all persons similarly situated are affected alike in respect to the privileges conferred and the liabilities imposed." It was held that the statute did "not aim at any class, nor does it deny to any person equal protection of the law, but it is expressly intended to reach 'any person,' regardless of the class to which he belongs who commits any of the acts designated."

New Mexico.

One of the latest cases in the reports is the case of *State v. Diamond*, (202 Pac. 988), November, 1921. This case was based on a statute of New Mexico which did not relate to criminal syndicalism or sabotage, but which declared unlawful an act the purpose of which is the destruction of organized government.⁹ Jack Diamond was convicted under the statute, for soliciting members for the Industrial Workers of the World. Upon appeal from the conviction, the supreme court of the State held the law unconstitutional. The court held that the right of free speech was violated by the statute, as no distinction was made in the law "between the man who advocates a change in the form of our Government by constitutional means, * * * and the man who advocates the overthrow of our Government by armed revolution or other form of force or violence." With reference to the want of certainty, the court said:

⁹ New Mexico, Laws of 1919, ch. 140.

Where the statute uses words of no determinative meaning, or the language is so general and indefinite as to embrace not only acts commonly recognized as reprehensible, but also others which it is unreasonable to presume were intended to be made criminal, it will be declared void for uncertainty.

City Ordinances.

An ordinance of Kansas City, Mo.,¹⁰ declared that "any person who * * * aids or abets any person in the circulation of any writing, posters, or circulars of any kind, intended to promote sedition, disloyalty to the Government, or sabotage or incendiarism, is hereby declared to be a vagrant." Philip Taft was charged with idleness, membership in an organization opposed to the prosecution of the war, and with circulation of literature, etc., intended to hinder the Government in the exercise of its war powers. He was convicted and imprisoned, and sued out a writ of habeas corpus in the supreme court of the State to test the legality of his imprisonment, on the ground of the ordinance being unconstitutional. He was discharged, the court holding (*Ex parte Taft* (November, 1920), 225 S. W. 457) that the part of the ordinance relating to sedition, etc., covered "matters of Federal rather than State cognizance." Similarly, an ordinance of the city of Los Angeles relative to the display of flags, etc., of organizations espousing principles or theories antagonistic to the Constitution was held unconstitutional (*Ex parte Hartman* (March, 1920), 188 Pac. 548) because the language was "so broad and comprehensive as to render criminal the display or possession of a flag or emblem of a peaceful organization or society which espoused or advocated amendment of the Federal Constitution or of our form of Government, National or State, in respects admittedly proper from a legal point of view."

United States.

The Senate of the United States on May 6, 1918, passed a bill entitled "A bill to declare unlawful associations proposing by physical force, violence, or injury to bring about any governmental, social, industrial, or economic change in the United States, and prescribing punishment for persons engaged in the activities of such associations, and for other purposes."¹¹ The bill was reported to the House with amendment, accompanied by a report (No. 758), and was referred to the calendar,¹² but never acted upon.

Chapter 75 of the Acts of the Sixty-fifth Congress, second session,¹³ amended the espionage act,¹⁴ Title I, section 3, and added: "Whoever, when the United States is at war * * * shall willfully by utterance, writing, printing, publication, or language spoken, urge, incite, or advocate any curtailment of production in this country of any thing or things, product or products, necessary or essential to the prosecution of the war in which the United States may be engaged, with intent by such curtailment to cripple or hinder the United States in the prosecution of the war, and whoever shall willfully advocate, teach, defend, or suggest the doing of any of the acts or things in this

¹⁰ Ordinance No. 33205.

¹¹ 65th Cong., 2d sess., Senate bill 4471, Cong. Record, vol. 56, pt. 6, p. 6091.

¹² Cong. Record, vol. 56, pt. 9, p. 9238.

¹³ U. S. Stats. at Large, vol. 40, p. 553, approved May 16, 1918.

¹⁴ *Idem*, p. 217, approved June 15, 1917.

section enumerated * * * shall be punished by a fine of not more than \$10,000 or imprisonment for not more than 20 years or both." The espionage act was repealed by the resolution terminating war measures.¹⁵ At the same session Congress enacted "That when the United States is at war, whoever, * * * shall willfully injure or destroy, or shall attempt to injure or destroy, any war material, war premises, or war utilities, as herein defined, shall, upon conviction thereof, be fined not more than \$10,000 or imprisoned not more than 30 years, or both."¹⁶

Several immigration statutes have been passed by Congress within the past few years with reference to aliens who advocate certain radical doctrines.¹⁷ Many judgments have been rendered and convictions sustained under the above statutes. The decisions indicate that proof of membership in the Industrial Workers of the World or the Communist Party is sufficient to sustain an order for the deportation of aliens under the laws last noted,¹⁸ while proof of active membership in the Industrial Workers of the World was held to sustain convictions under the espionage act.¹⁹

Injunctions in the Building Trades.

THE conditions affecting labor, contractors, material men, and indeed every factor entering into the building industry have received a large amount of attention in recent months. The conviction and sentence of contractors and material men for maintaining and enforcing unlawful agreements has been given wide publicity, while the methods of labor unions have likewise been the subject of much comment and criticism.

An outstanding event in the progress of the efforts to arrive at a solution of the difficulties surrounding the whole subject is the promulgation of a consent decree on February 28, 1922, enjoining the officers and members of the Bricklayers, Masons, and Plasterers' International Union of America from the continuance of certain practices which have been the subject of consideration and investigation covering a period of several months. At a conference held February 24 in the office of the Attorney General of the United States between representatives of the United States Department of Justice and officers and counsel of the International Association of Bricklayers, Masons, and Plasterers, the results of these investigations were brought together, and a decree covering the points involved was agreed upon. The matter was a proceeding in equity in the District Court of the United States for the Southern District of New York, in which the United States was petitioner and the union named, its officers and members, were defendants. In its report of this conference the Department of Justice points out that it had been engaged through the United States

¹⁵ *Idem*, vol. 41, p. 1359, approved Mar. 3, 1921.

¹⁶ *Idem*, vol. 40, p. 533, approved Apr. 20, 1918.

¹⁷ *Idem*, vol. 39, p. 889, passed Feb. 5, 1917, over President's veto; vol. 40, p. 1012, approved Oct. 16, 1918; vol. 41, p. 593, approved May 10, 1920, and p. 1008, approved June 5, 1920.

¹⁸ *United States ex rel. Diamond v. Uhl*, 266 Fed. 34; *United States ex rel. Rakics v. Uhl*, 266 Fed. 646; *United States v. Wallis*, 268 Fed. 413; *Ex parte Bernat*, 255 Fed. 429; *Skeffington v. Katzeff et al.*, 277 Fed. 129.

¹⁹ *Haywood et al. v. United States*, 268 Fed. 795; *E. Anderson et al. v. United States*, 269 Fed. 65; *C. W. Anderson et al. v. United States*, 273 Fed. 20.

attorney for the Southern District of New York and his staff of special assistants, together with other agencies of the Department of Justice, in an extensive investigation of the building trades and housing situation, resulting "in the recent indictment and conviction of large numbers of manufacturers and dealers in building materials, many of whom have paid large fines and some of whom are now serving sentences in jail."

Following the agreement for the issuance of a decree, the Attorney General, H. M. Daugherty, and William Hayward, United States attorney for the Southern District of New York acting for the United States, and the officers, national and local, of the union, on February 27 signed a statement that they had read the petition and decree in the case, understood the contents thereof, and consented to its being filed and entered in the Federal court. In pursuance of this agreement, on February 28, Mr. Learned Hand, United States district judge, signed a decree perpetually enjoining and restraining, directly and indirectly, the officers named, individually and in their official capacity, as well as all members of the international and local unions, "their and each of their agents, servants, attorneys, confederates, and all persons acting in aid of or in conjunction with them, or any of them, under their authority, suggestion, or direction;" also "all persons who though not now members, do become members of the said Bricklayers, Masons and Plasterers' International Union of America," from carrying into effect in the manner described in the petition the restraints of trade and commerce in building materials or other like articles as set forth in the petition. The injunction also extends to any express or implied agreements, rules, contracts, etc., amongst themselves or with others, "like those hereby adjudged illegal or enjoined."

The injunction covers seven heads and perpetually restrains directly and indirectly from:

(a) Entering into, making, adopting, or enforcing any contracts, understandings, agreements, rules, regulations, provisions or resolutions which in anywise, directly or indirectly prescribe, determine, limit or curtail the productive capacity of any defendant member within any given time. This decree recognizes the principle that labor is not a commodity, and that different human beings are capable of different productive capacities within the same time, and nothing herein contained shall be construed as preventing the defendants from regulating the hours of labor or the conditions of labor as to wages, health, sanitation, safety, or advancement of the defendant members, save and except that each individual defendant is to be entirely at liberty to render such services in kind, quality or quantity as he may be capable of performing within the hours of labor that may be determined upon, or under the conditions as to wages, health, sanitation and the like that may be prescribed.

(b) Entering into, making, adopting or enforcing any contracts, understandings, agreements, rules, regulations, provisions, or resolutions of any kind or character of a mutually exclusive character, i. e., whereunder any trade or employers' or contractors' society or association agree that its members engage the services exclusively of the defendant members, and where the defendant members in turn agree that they will confine their services exclusively to the members of such trade or employers' or contractors' society or association.

(c) Entering into, making, adopting or enforcing any contracts, understandings, agreements, rules, regulations, provisions, or resolutions of any kind or character which restrain, prohibit, hinder, or otherwise prevent any of its members from engaging their services to any employer by reason of the fact that such employer is utilizing stone, brick or any other building material which has been dressed or finished or purchased at the source of its production, or at any other point or place, that is to say, that is in so far as the services of the defendant members are concerned, the employer shall be at liberty to utilize any building materials wherever the same may have been dressed, cut,

carved, finished, manufactured, produced or purchased from whatever source except that nothing herein contained shall be construed to apply to materials produced or manufactured by convict labor.

(d) Entering into, making, adopting or enforcing any contracts, understandings, agreements, rules, regulations, provisions, or resolutions of any kind or character in anywise restraining, hindering, prohibiting, or otherwise preventing any of its members from engaging their respective services to any individual, firm, copartnership or corporation engaged in the various industries mentioned by reason of the fact that such individual, firm, copartnership or corporation is not a member of any trade or employers' or contractors' society, association or organization.

(e) Entering into, making, adopting or enforcing any contracts, understandings, agreements, rules, regulations, provisions or resolutions of any kind or character, respecting the services of the defendant members, which in anywise accords or grants a preference respecting such services to any individual, firm, copartnership or corporation by virtue of the fact that such individual, firm, copartnership or corporation is a member of or belongs to any trade, employers' or contractors' society, association, or organization.

(f) Entering into, making, adopting or enforcing any contracts, understandings, agreements, rules, regulations, provisions or resolutions whereby or whereunder the defendant members or any portion of them agree or are obliged to confine their respective services exclusively to any group of individuals who constitute or belong to a trade or employers' or contractors' society, association or organization.

(g) Entering into, making, adopting or enforcing any contracts, understandings, agreements, rules, regulations, provisions, or resolutions of any kind or character whereby and whereunder the defendant members are restrained, prohibited, hindered, or otherwise prevented from engaging their services upon any structure, or building in order to aid or assist or enforce the collection of a debt, or an alleged indebtedness due from the owner, architect or builder to any individual, firm, copartnership or corporation, or any other third person, save and except that nothing herein contained shall be deemed as restraining or enjoining the defendant members from refusing to continue their services for or in behalf of any person, firm or corporation, which has, or which is alleged to have defaulted in the payment to the defendant members for services rendered by them.

Copies of this decree are to be printed and published, each local union to be furnished with three copies thereof, the decree to be read at open meeting among all local unions at their next regular meetings, and a copy to be printed and appended to the constitution and by-laws of the Bricklayers, Masons and Plasterers' Union and all constitutions hereafter adopted, printed or promulgated. Excepted from the operation of the decree are three local unions of New York, Nos. 4, 34 and 37 together with their members, both present and future.

In connection with this decree attention may be called to an agreement on the subject of jurisdiction, noted in this issue of the MONTHLY LABOR REVIEW under the heading "Labor Agreements, Awards and Decisions," in which the Associated General Contractors of America and other agencies, acting with the American Federation of Labor, formulate a method of securing the observance of the determinations of National Board of Jurisdictional Awards. The terms of this agreement apparently were arrived at a few days before the issue of the consent decree above described, and the question naturally arises as to the effect of the provision of the agreement that employers shall decline to employ persons or members of organizations who refuse to abide by the jurisdictional findings of the board.

In connection with this matter of jurisdiction, mention may be made of an injunction granted by the United States District Court for the Northern District of Ohio (*Central Metal Products Corporation v. O'Brien*), involving a situation which was most potent in leading to the agreement promulgated by the General Contractors

and the American Federation of Labor, but which is only indirectly referred to in the consent decree reproduced above. In this case the Central Metal Products Corporation had agreed to furnish a large amount of metal doors, metal sash, metal frames and casings for the Cleveland (Ohio) City Hospital. The manufacturer was to install, and in carrying out its contract employed members of the United Brotherhood of Carpenters and Joiners to do the work. The Amalgamated Sheet Metal Workers complained that the installation of material of this description belonged to them, and entered into a controversy on the subject, demanding that the city of Cleveland breach its contract with the Metal Products Co. on account of its refusal to discharge the carpenters and let the metal workers have the job. Threatened strikes, and finally actual strikes, led to the city ordering the plaintiff company to cease work, and it and its workmen were finally driven off by the police under threats of arrest. Action was thereupon brought to restrain the sheet metal workers and the officers of the city from interfering with the performance of the contract and attempting the destruction of the business reputation of the company. The court found that there was a conspiracy between the union and the city, injurious to the plaintiff and entitling it to an injunction. The union officers had attempted to induce the city to break its contract by persuasion and coercion, in violation of the law. The Clayton Act could not be appealed to, since the dispute was not a labor dispute within the terms of that act, the persons active in the matter not being employees, former employees or persons seeking employment. The sympathetic strikes and secondary boycotts indulged in were likewise illegal.

A case bearing directly upon the subject matter of the consent decree was decided recently in the United States District Court for the District of Missouri (*Shea & Donnelly Co. v. Lammert*), the plaintiff company quarrying and selling cut stone at Bedford, Ind., for use in various States. It was a nonunion concern, and the Journeymen Stone Cutting Association and Building Trades Council of St. Louis instituted a boycott against its products, having an agreement between themselves not to use material worked by nonunion men; also agreeing that employment on the one hand and service on the other should be restricted to members of the respective associations and unions. The constitution of the Journeymen Stonecutters' Union provided that "no member of this association shall carve, pick, or set any material cut by men who have been working in opposition to this association." A "white list" was issued, naming the cut stone companies accepting the arrangements provided by the union; while the building trades council announced its purpose of taking "action to assist the stonecutters' union in keeping nonunion stone out of this locality." The court found the action indicated to be violative of the legal rights of the plaintiff company and issued an injunction restraining the defendants from interfering with the sale, delivery and use of the stone produced by it. Threats of boycotts or other coercive measures were likewise enjoined. The "white list" was said to be of the same nature and effect as the black list, it being a threat to carry out a boycott.

The seventh point of the decree is illustrated in a case before the Appellate Division of the Supreme Court of New York, decided in

March, 1921 (*Brescia Construction Co. v. Stonemasons' Contractors' Association*). In this case Brescia contracted to do the stone and mason work on the foundations of a building project, but was unable to continue work after he had begun it by reason of the interference of a local employers' association of which he had formerly been a member, but from which he had been expelled on account of a dispute with regard to the subject of dues. Brescia sued for damages and an injunction against both the employers' and employees' associations, and was answered by the defendants by the submission to court of the agreement between them that the workmen would not work on jobs for contractors not in good standing with the employers' association. The trial term of the court accepted this as a good defense, but the Appellate Division reversed this judgment and granted an injunction. It was pointed out that whether or not Brescia was justly expelled from the employers' association, it was unjust and oppressive to him to seek to enforce by arbitrary measures the collection of a debt claimed to be due, without a determination in due form of the legal rights of the parties such as the courts would afford. The tendency toward the establishment of a monopoly was also pointed out as a reason for granting the injunction desired. It may be added that if this point is well taken it obviously stands as an obstruction to the enforcement of the agreement proposed by the jurisdictional board of the American Federation of Labor noted above, by which employers are to refuse employment to workmen who do not accept the conclusions of the jurisdictional board. The expulsion or suspension of recalcitrant organizations is usually said to lie within the power of a center or parent organization, this being a part of the internal discipline of the body; but when action in the nature of boycotts and blacklists is involved and third parties are affected or called upon to participate, a careful scrutiny of the effects of such arrangement on the rights of others is permitted, and the principles of law and equity apply.

Related to the same general subject as the foregoing, but arising out of a different proceeding was a case before the Superior Court of Cook County, Ill. (*Carpenters' Union v. Citizens' Committee to Enforce the Landis Award*), in which the union sought an injunction to prevent interference by the committee named. The Landis award, for the enforcement of which the citizens' committee was organized, was an arbitration voluntarily submitted to by certain branches of the building trades and contractors, etc., of Chicago, in which rates were fixed, as well as a number of the conditions of employment. The carpenters' union had made no submission in connection with this award and was therefore not subject to it. The citizens' committee was a group of bankers, lawyers, merchants, etc., in no business relations with the carpenters' union, and not themselves directly engaged in building operations. They had, however, organized for the purpose of influencing contractors and others who employed the carpenters, the object being to induce such contractors to refuse to employ carpenters except upon the terms and conditions of the Landis agreement, or conditions dictated by the committee analogous thereto. The methods alleged were the refusal of credit and the use of other coercion, the end in view being the establishment of the so-called "open shop" or "American plan." It was further charged

that the committee was raising \$5,000,000 as a fund to be used in carrying out its purpose, which was claimed to be a conspiracy, and therefore unlawful and entitling the petitioners to an injunction.

The citizens' committee claimed that the union had an adequate remedy at law and was therefore not entitled to relief in equity, and demurred accordingly. The court overruled this demurrer, whereupon the committee admitted that the carpenters were not parties to the Landis award, but alleged that the committee was acting solely for the public benefit, charging further that the carpenters had had an agreement with the contractors which they had broken. They also alleged that the carpenters were 100 per cent organized, thus constituting an unlawful monopoly; further, that they did not come into court "with clean hands," having broken contracts and engaged in slugging, sabotage, and extortion. It was claimed also that the by-laws of the union forbidding the use of nonunion material and working with nonunion men were against public policy and void.

The court discussed the relative rights of the parties, upholding freedom of contract and the lack of power to control individual actions by tests of membership or nonmembership in any organization. An award under an arbitration is nothing more than a private contract between the parties to the submission and has no binding effect in law upon any one not in privity with them. The citizens' committee might properly recommend the Landis award and aid parties willing to receive their assistance with regard to its acceptance; "but they have not the right to do any illegal act which seeks to compel another, against his will and to his injury, to adopt the Landis award." Labor organizations are likewise lawful, including combinations to seek increase of wages.

It was then pointed out that the erection of buildings was either rendered costly by the agreement of such controlling organizations as were involved in the situation in case the parties agreed by conceding each other's demands, or that the erection was entirely stopped in case of disagreement and the cessation of work. In either case the result is a burden to the paying public, who is the ultimate consumer in the building industry. "In other words, in these industrial disputes both sides being well organized, the loss in economic wealth by strikes and lockouts if they disagree, and by too high prices if they agree, is borne by the great unorganized mass of the people."

These observations were submitted in reference to the contentions of the union that the defendant committee was nothing more than "malicious intermeddlers, with no interest in the question," while the defendants claimed that they are endeavoring to protect the interests of the public. "Of course, it is conceded that no self-appointed committee has, in a strictly legal sense, the right to represent the public or the people. This must be done by their duly selected officials." The sending of so-called investigators to buildings where union carpenters were employed, trying to induce employers to put up signs saying "This building is being erected under the Landis award," distributing cards and stickers and recommending to employers the fixing of rates to correspond to the Landis award, are "in the circumstances attending them and the physical presence of these investigators an interference and annoyance, without justifiable

cause," and any resultant damage would be actionable. It is akin to picketing, and the rule relative thereto would apply. "Good intentions under such circumstances where damage results is no defense."

While this finding was favorable to the contention of the union, and would apparently under other circumstances have sustained the issue of a decree in the complainants' favor, it was in evidence that members of the union had attacked and severely wounded nonunion carpenters who were working under the terms of the Landis award, thus violating the rule of equity that "he who comes into equity must come with clean hands." Therefore, "even though the complainant may have a legal cause of action against the defendants, courts of equity, being courts of conscience, would never interfere on behalf of a complainant whose own conduct in connection with the same difficulty or transaction had been unconscientious or unjust, or marked by want of good faith, or had violated any principles of equity and righteous dealing, which the court has as its purpose the jurisdiction to sustain." The motion for a preliminary injunction was therefore denied.

Injunctions Against Employers Breaching Contract, New York.

A BRIEF account of the legal effect of collective agreements was given in the MONTHLY LABOR REVIEW for February, 1921 (pp. 168-171). As there indicated, the legal status of such contracts is not well defined, but the matter would seem to be reaching adjustment, the list of cases being enlarged under an apparently growing readiness of the parties to such agreements to ask for adjudications under them from the courts. One of the most recent cases of this nature has attracted wide attention by reason of the fact that it is an attempt by employees to secure from employers an observance of an agreement through proceedings in equity instead of by the use of strikes or other forms of protest. In the case in hand (*Schlesinger v. Quinto*, Sup. Ct. of N. Y., 192 N. Y. Supp. 564), the International Ladies' Garment Workers' Union and a subordinate organization, the Joint Board of Cloak Makers' Union of the City of New York, sought to prevent the Cloak, Suit and Skirt Manufacturers' Protective Association from breaking a contract or collective agreement into which they had entered in May, 1919. The agreement was to be effective for three years, or until June 1, 1922. In November, 1921, the manufacturers' association instituted piecework and a 48-hour week, though the agreement provided for time-work and a 44-hour week.

The papers submitted by the two parties made directly conflicting statements, and introduced much matter that was entirely aside from the subject in hand. Claims of a prior breaking of the contract by the employees were held by the court not to be valid in view of the continuing conduct and since the situation as it existed received further ratification on June 3, 1921. There was no question in regard to the action of the employers' association adopting the methods indicated as to piecework and hours of labor, contravening the terms of the collective agreement. "Thus out of the mass of affidavits

submitted by both sides, with denials and some conflict of facts, there survives clearly a preponderance of evidence in favor of plaintiff establishing its right to the extraordinary relief sought."

The application by the employees' union was said to be novel "in the respect that for the first time an employees' organization is seeking to restrain their employers' organization from violating a contractual obligation." Well-established principles of law were applicable, however, and it was found that action by the association bound its members to repudiate a legal obligation, such act constituting a conspiracy under the doctrine laid down in the case, *Hitchman Coal & Coke Co. v. Mitchell* (245 U. S. 229, 257, 38 Sup. Ct. 65). An injunction therefore issued restraining the association, its officers, attorneys, members, etc., from combining and conspiring in any way to instigate or advise the members of the organization to cease performing or to violate the provisions contained in the collective agreement entered into between the parties in 1919 and 1921.

Wide publicity has been given to this case, both because of the intrinsic interest and on account of the presumed novelty. However, it is not accurate to say, as the judge in this case said, that this is "the first time" that employees have sought by equity to reap the benefits of a collective agreement, as several of the cases cited in the *MONTHLY LABOR REVIEW* above referred to are of that nature. (See also Clark's *Law of the Employment of Labor*, pp. 235-240.)

Attention may also be called to the case on page 208, *Carpenters' Union v. Citizens' Committee to Enforce the Landis Award*, in which a union was seeking protection through the agency of an injunction, though there was here no question of a contract relation.

Pennsylvania Court Decisions on Workmen's Compensation Cases.

A RECENT volume issued by the workmen's compensation bureau of the Department of Labor and Industry of Pennsylvania treats of Pennsylvania court decisions on workmen's compensation cases, and is in effect a handbook of the bureau's procedure and practice. The volume is the third in the series, but is practically a complete presentation of the construction of the law as determined by court decisions, since the cases that appeared in volumes 1 and 2 are digested in the present volume. The text of the law is also given, the rules or practice of procedure and list of forms, a review of five years' compensation in the State, a discussion of what constitutes employment in interstate commerce, commutation tables for determining the present value of \$1 per week for various periods, and a review of the developments in the operation of the law. This matter, together with lists of referees and courts, goes far toward making the book a "complete working guide in itself," which is the announced purpose of the chairman of the board.

In the summary of experience the statement is found that "into more than 320,000 stricken homes, within an average of 19 days after the accident, have gone a certificate, signed by the chairman of the board, that the injured man's voluntary agreement with his employer has been found properly executed and that compensation will be paid under it. In addition to this, in five years over 1,000,000

Pennsylvania workmen have experienced either the medical or compensation benefits of the law." Satisfaction with this system is said to be so general that not an employer in the State would defend the old method of adjustment or indicate a desire to go back to it. The care to prevent agreements at less than the amount fixed by the law is set forth, but the board retains control of the agreement after its approval so as to be able to effect adjustments if their need be disclosed.

As to the establishment of an exclusive State fund, the opinion is expressed that experience should determine the desirability or undesirability of such a fund. A competitive fund exists in this State, which transacts a very considerable amount of the insurance business.

Emphasis is laid upon the inseparable connection between compensation and rehabilitation. The social results of proper compensation and restoration to employment are emphasized as being of special importance in a State in which the number of foreign-born workmen makes it necessary to exercise great care lest discontent influence the attitude of the injured workman toward industry and the State.

General Orders of Industrial Commission of Wisconsin.

THE Industrial Commission of Wisconsin is charged by the law of the State with making general orders prescribing what shall be regarded as reasonably safe places of employment and reasonably safe methods and processes of production. Section 2394-48 of the statutes requires employers to make the places of employment safe, to adopt methods and processes "reasonably adequate," and to do everything "reasonably necessary" to safeguard life and health of their employees. In determining what are the reasonable regulations which employers must adopt, the commission organizes advisory committees made up of men competent to pass upon the subject.

Quarries.

THE latest orders issued relate to quarries, the subject having been under consideration with an advisory committee organized in December, 1920. Recommendations of this committee were drafted as tentative orders for discussion at public hearings, following which changes were approved and the orders adopted in November, 1921. Following publication in the official State paper they became effective January 7, 1922. These orders have the force and effect of law, and violations are punishable accordingly.

The orders set forth the general safety precautions to be observed, provisions for care of the injured, define the duties and responsibilities of superintendents, and prescribe the rules to be observed as to inspection, equipment, hoisting men, storage and use of explosives, blasting, hoists, haulage, etc. Besides these precautions, the commission prescribes rules to be posted regulating the conduct of quarrymen generally, and in particular the use of explosives. The pamphlet contains also extracts from the statutes and general orders of the commission, which are of importance to quarrymen.

Sanitation.

THE foregoing is an original draft and issue. While the investigation of the subject of quarries was going on, another advisory committee was considering the revision of the general orders on sanitation. These orders were originally effective February 20, 1913, and the present revision embodies the changes suggested by the experience as accumulated during the eight years of their operation. The matter was before the committee from the autumn of 1919 through the winter of 1921, the recommendations being subject to public hearings and revisions until a final adoption by the commission on July 19, 1921. All the old orders relating to ventilation and exhaust systems were repealed, and a new set adopted. The rules as to general sanitation were also extensively changed. The provisions relating to toilet rooms have been affected during the history of the order by a new draft of the State building code. In their present form the orders are grouped under three heads, Ventilation, Toilet rooms, and General sanitation. A minimum of 400 cubic feet of air space is to be furnished each employee, and temperature and humidity are to be regulated to avoid extremes. Ventilating systems must be installed where necessary, including exhaust systems. Requirements as to toilets cover the usual provisions as to numbers, location, cleanliness, etc. Under general sanitation it is directed that adequate washing facilities be maintained in establishments where injurious or poisonous materials are handled, where food is prepared, in glue factories, foundries, machine shops and like establishments. The supply of drinking water, dressing rooms, cleanliness, first aid provisions, the use of protective clothing and equipment, and the installation of safety valves on equipment carrying pressure are among the items covered. An appendix gives a list of the common industrial poisons, describing the mode of entrance and effects.

LABOR ORGANIZATIONS.

Civil-Service Employees and Trade-Union Organizations in France.¹

THE Council of State of France, in a decree of January 17, 1922, decided that groups of civil-service employees may not organize into trades-unions. The decree in question was in answer to an appeal of the National Union of Excise Agents against a decision of the director of the excise branch of the tax service withholding the list of the personnel of the office for the year 1920.

The decision states that while the law of 1884 grants legal rights to trade-unions, the only associations authorized by the law are those whose exclusive purpose is the study and defense of the economic, industrial, and commercial interests of their members. This is considered to limit the authorization to unions of employers or workers as representatives of special interests and does not include civil employees who represent the public interest. Benefiting, as this latter class does, by regulations governing their work and pay and by the control of Parliament, they are obliged, in accepting this employment, to accept certain obligations and to renounce certain rights, such as the right to strike, which are incompatible with the continuity indispensable to the progress of such service and the national life. This point was further stressed by Parliament in the law of March 12, 1920, which had for its object the extension of the scope of trade-unions to include the liberal professions but which failed to include associations of public employees.

Activities of Organized German Labor.²

AS A RESULT of the widely reported explosion at a large chemical works at Oppau, which took several hundred lives some months ago, the German labor unions are endeavoring to stimulate the interest of their members in those sections of the works council law of February 4, 1920, which provide that a representative of each works council shall interest himself in and assist in all measures taken toward minimizing accidents in the establishment. The works councils are urged to avail themselves of their privilege of appointing one of their members to participate in the investigation of any factory accident, whether the investigation is conducted by the factory owner or by the official factory inspector. It is believed that with such participation the investigation will be more thorough and the confidence of the workmen in it greater.

¹ Les fonctionnaires et les Syndicats in *Revue mensuelle des questions sociales, ouvrières et fiscales*, February, 1922, p. 17.

² Consular report from Berlin, dated Jan. 18, 1922.

In a survey of the accomplishments of the German trade-unions in 1921, the *Korrespondenzblatt des Allgemeinen Deutschen Gewerkschaftsbundes* (the official organ of the Federation of the Social-Democratic Trade-Unions) in its issue of January 7, 1922, said:

The most important work of the unions during the past year was in the socio-political field. The question of unemployment and the needs of the unemployed particularly occupied the attention of the unions. Thanks to them, the insufficient financial aid given to the unemployed was several times increased and the number of the unemployed was decreased to an extent which must cause the envy of other countries. However, it must be said that the decrease in unemployment was partly due to the depreciation of the German mark, which led to a demand for German merchandise and German labor.

Another matter attacked by the unions was the question of tax reforms. A determined attempt has been made to solve this question by means of an expedited and increased taxation of those values which have not suffered by the depreciation of German money, such as improved and unimproved real estate, and the unions can count upon recognition of their effort.

During the year there were submitted to the preliminary Federal economic council drafts of laws relating to employment exchanges, the settlement of labor disputes, the hours of labor, and regulation of wages. At the present time there is pending legislation covering the projected labor court and governing home labor.

German labor is much encouraged by the reference to the eight-hour law made by the minister of labor, in which he emphatically stated that his party had no reason to withdraw from the stand it had taken championing the eight-hour law. The vigorous stand taken by the minister is especially reassuring to the mine workers, who recently have been urged by the operators to agree to longer hours.

STRIKES AND LOCKOUTS.

Effect of Strikes and Other Causes on Output in Bituminous Coal Mines.

THE February 25 and March 11, 1922, reports on the production of coal, issued by the United States Geological Survey, contain statistics showing the reduced production of bituminous coal, due to strikes and other causes. The following table shows the percentages of lost output due to each specified cause:

PER CENT OF FULL-TIME OUTPUT AT BITUMINOUS COAL MINES PRODUCED IN THE UNITED STATES AND PER CENT OF OUTPUT LOST DUE TO EACH SPECIFIED CAUSE.

Period and year.	Per cent of full-time output—							Total.
	Pro-duced.	Lost, because of—						
		Trans- porta- tion con- di- tions.	Labor short- age.	Strikes.	Mine disa- bility.	No market.	Other causes.	
1921.								
Week ending—								
Jan. 22.....	53.2	2.4	12.9	(2)	3.2	37.1	1.2	46.8
Jan. 29.....	47.4	2.4	12.1	(2)	3.2	43.4	1.5	52.6
Feb. 5.....	45.4	2.0	11.5	(2)	3.1	46.9	1.1	54.6
Feb. 12.....	43.6	1.5	11.8	(2)	2.5	49.7	.9	56.4
Feb. 19.....	41.1	1.4	11.8	(2)	2.8	52.3	.6	58.9
Feb. 26.....	42.8	1.5	12.2	(2)	2.9	49.7	.6	57.2
1922.								
Week ending—								
Jan. 21.....	48.8	.6	.8	0.4	2.2	46.8	.4	51.2
Jan. 28.....	53.5	1.5	1.2	.4	2.8	40.3	.3	46.5
Feb. 4.....	54.0	1.3	.8	.2	2.7	40.7	.3	46.0
Feb. 11.....	57.4	1.3	1.0	.8	2.8	36.4	.3	42.6
Feb. 18.....	57.1	1.1	1.0	.3	3.0	37.3	.2	42.9
Feb. 25 ³	57.6	1.3	1.1	.3	3.4	36.1	.2	42.4

¹ Includes also per cent of output lost through strikes.

² Included in figure for labor shortage.

³ Figures subject to revision.

It is evident from the above table that only about half the full-time output was actually produced in any of the periods for which data are given. In all but one instance the 1922 output was nearer to full-time output than that of the corresponding period in 1921. The figures for 1922 show a continuous increase in proportion of full-time output, reaching nearly three-fifths of the full-time output in the last three weeks of February, as compared with only a little over two-fifths of the full-time output in the corresponding weeks in 1921.

The lost output was, in both 1921 and 1922, due largely to lack of market; labor shortage and strikes combined accounting for less than 3 per cent in 1921 and between 1 and 2 per cent in 1922.

Coal Miners' Strike in Czechoslovakia.

THE American consul at Prague reports that a strike of coal miners in Czechoslovakia commenced on February 3, 1922. The strike was precipitated by the miners in the Falknov district, and on February 7 there were approximately 150,000 miners on strike, not only in coal mines but in mineral and salt mines as well.

The strike had its origin in an attempt of the mine owners to reduce wages. Due to the appreciation of the Czechoslovakian crown within the last three months and the simultaneous depreciation of the German mark the coal-mine operators have been unable to sell lignite to Germany. Many factories in the German States of Saxony and Bavaria had to shut down owing to the high cost of Czechoslovakian coal. Because of this fact the operators notified the miners that a reduction of wages would be necessary since the mines were being operated at a loss.

It is stated that, in order to avoid the threatened strike, the Government, through the minister of public works, intervened and offered to indemnify the operators for their losses during the following two weeks if the operation of the mines should result in a loss and pending a decision of a commission which is to ascertain whether the cost of living has declined sufficiently to justify a reduction of wages. When this offer was presented by the Government to the miners it was rejected.

It is reported that owing to the shortage of coal caused by the strike a number of factories have shut down and laid off indefinitely their employees.

According to the local press, while the number of bituminous miners in 1921 exceeded the number employed in 1913 by 22.5 per cent, the production was 18 per cent less in the later year. The number of lignite miners had increased 46.4 per cent during the same period and the production had decreased 9 per cent.

The daily wages of miners in the lignite districts in 1921 averaged about 90 crowns (\$18.27, par; the exchange rate during 1921 averaged about 72 crowns for the dollar), while in prewar times their wages averaged about 5.65 crowns (\$1.15, par). Wages in 1921 were therefore about 16 times as high as they were in 1913.

The revenues of the Government are being considerably reduced by reason of the coal strike. The loss of the coal tax amounts to 4,000,000 crowns (\$812,000, par) daily. The loss to railways from loss of freight amounts to 4,500,000 crowns (\$913,500, par) per day, and the daily loss to the miners themselves in wages is estimated at 7,500,000 crowns (\$1,522,500, par).

 Strikes and Lockouts in Rumania, 1920.¹

THE Rumanian Ministry of Labor and Social Welfare has recently published statistics of labor disputes covering the period March 1 to December 31, 1920. These statistics show that 332 strikes, involving a loss of 559,291 working-days, occurred during the period under review. Of these strikes, 73, with a loss of 231,485

¹ Korrespondenzblatt des Allgemeinen Deutschen Gewerkschaftsbundes, vol. 32, No. 1. Berlin, Jan. 7, 1922.

working-days, took place in State, provincial, or municipal establishments. The working-days lost owing to strikes were distributed among the various industry groups as follows:

NUMBER AND PER CENT OF WORKING-DAYS LOST ON ACCOUNT OF STRIKES, MARCH 1 TO DECEMBER 31, 1920, BY INDUSTRY GROUPS.

Industry group.	Working-days lost.	
	Number.	Per cent.
Metal working.....	198,553	35.50
Transport and storage.....	182,313	32.60
Woodworking.....	53,352	9.54
Stones and earths.....	39,945	7.14
Foodstuffs.....	17,990	3.29
Chemicals.....	17,036	3.04
Textiles.....	15,423	2.75
Clothing.....	10,989	1.97
Machinery.....	9,633	1.72
Paper.....	7,541	1.35
Miscellaneous.....	5,907	1.06
Distribution of power, water, electricity, and gas.....	570	.10
Building and construction.....	39	.01
Total.....	559,291	100.00

The majority (190) of the strikes were caused by demands for wage increases. Nearly all these strikes led to wage agreements.

A general strike, involving 339 establishments, among which were 71 State, provincial, and municipal establishments, was called for October 18, 1920. This strike caused a loss of 441,401 working-days.

The number of lockouts during the period under review was 35. Of these lockouts 23 occurred in the woodworking industry, 9 in the metal-working industry, and one each in the paper, foodstuffs, and clothing industries.

CONCILIATION AND ARBITRATION.

Conciliation Work of the Department of Labor in February, 1922.

By HUGH L. KERWIN, DIRECTOR OF CONCILIATION.

THE Secretary of Labor, through the Division of Conciliation, exercised his good offices in connection with 10 labor disputes during February, 1922. These disputes affected a total of 45,907 employees. The table following shows the name and location of the establishments or industries in which disputes occurred, the nature of the disputes (whether strike, lockout, or controversy not having reached strike or lockout stage), the craft or trade concerned, the cause of the dispute, its present status, the terms of settlement, the date of beginning and ending, and the number of workmen directly or indirectly affected.

About one-third of the force of commissioners has been assigned to and has been working during the month on matters connected with the impending suspension of work in the anthracite and bituminous coal mines of the country. On March 1, 1922, there were 47 strikes before the department for settlement and in addition 22 controversies which had not reached the strike stage. Total number of cases pending, 69.

LABOR DISPUTES HANDLED BY THE UNITED STATES DEPARTMENT OF LABOR THROUGH ITS DIVISION OF CONCILIATION, FEBRUARY, 1922.

Name of company or industry and location.	Nature of controversy.	Craft concerned.	Cause of dispute.	Present status.
Miami Cycle Co., Middletown, Ohio.	Controversy.	Metal polishers.	Wage cut, open shop.	Unable to adjust.
Four companies: Dorf Co.; Eastern Cap Co.; Robinson, Fleishman Co.; Samuel Fridenberg, Baltimore, Md.	Strike.....	Cap makers.....	Wage cut, longer hours.	Adjusted.
Three shops, Memphis, Tenn.	.....do.....	Meat cutters.....	.....	Pending.
Painters, decorators, and paper hangers, Memphis, Tenn.	Controversy.	Painters, etc.....	Conditions.....	Adjusted.
Bilber Leather Co., Philadelphia, Pa.	.....do.....	Leather workers.	Discrimination.....	Do.
Longshoremen, Columbia River.	Strike.....	Longshoremen..	Wages agreement...	Pending.
Cotton mills, Massachusetts, Rhode Island, New Hampshire.	.....do.....	Textile workers.	Wages, etc.....	Do.
Building trades, Astoria, Oreg.	Controversy.	Building trades.	Wage cut, open shop.	Do.
Enterprise Manufacturing Co., Philadelphia, Pa.	.....do.....	Pattern makers.	Discrimination.....	Adjusted.
The California Hotel Co., Pasadena, Calif.	.....do.....	Waitresses.....	Working conditions.	Pending.

LABOR DISPUTES HANDLED BY THE UNITED STATES DEPARTMENT OF LABOR THROUGH ITS DIVISION OF CONCILIATION, FEBRUARY, 1922—Concluded.

Name of company or industry and location.	Terms of settlement.	Date of—		Workmen affected.	
		Beginning.	Ending.	Directly.	Indirectly.
Miami Cycle Co., Middletown, Ohio.	Openshop, with new employees.	(1922.) Feb. 1	(1922.) Feb. 4	24	100
Four companies: Dorf Co.; Eastern Cap Co.; Robinson, Fleishman Co.; Samuel Fridenberg, Baltimore, Md.	Arbitration; no cut made.....	Feb. 6	Feb. 22	35	.....
Threeships, Memphis, Tenn.	Arbitration; present rate continued.	Jan. 31	Feb. 2	280	0
Painters, decorators, and paper hangers, Memphis, Tenn.	Employees continue work without change.	Feb. 6	Feb. 10	160	0
Bilder Leather Co., Philadelphia, Pa.	Strike ended but commissioner trying to obtain better conditions.	Jan. 4	Feb. 4	256	0
Cotton mills, Massachusetts, Rhode Island, New Hampshire.	.....	Feb. 6	.....	45,000	.....
Building trades, Astoria, Oreg.	.....	Feb. 8	.....	150	.....
Enterprise Manufacturing Co., Philadelphia, Pa.	Collective bargaining recognized; agree to reemploy the 2 men.	Feb. 18	Feb. 27	2	200
The California Hotel Co., Pasadena, Calif.	.....	Feb. 9	.....	.....	.....
Total.....	.....	.....	.....	45,907	300

COOPERATION.

Some Developments in Cooperation in the United States.

Cooperative Live-stock Shipping in Iowa.

A BULLETIN (No. 200) dealing with the cooperative shipping of live stock during 1920, recently issued by the agricultural experiment station of the Iowa State College of Agriculture and Mechanic Arts, gives 1904 as the year in which the first cooperative live-stock associations were formed in Iowa. Growth was slow at first and 12 years afterwards there were only 57 such associations in the whole State. During 1919 and 1920 as part of the general wave of enthusiasm for cooperative effort "the ambition to have a cooperative shipping association at every shipping point came near to being realized in more than one county." On January 1, 1921, there were 610 separate associations in active operation, and more than 700 towns or villages where live stock was being handled on some basis more or less cooperative in character.

Early in 1920, the college undertook to make a State-wide survey of this cooperative live-stock shipping movement for the purpose of learning (1) the history and growth of the movement, (2) its present magnitude, (3) the future of the organizations and the business methods pursued by them, (4) the achievements in terms of financial saving, more efficient handling, or better market distribution, (5) the difficulties which beset the movement, and (6) the outlook for its future development.

It was found that in many cases the shipping society is an entirely separate organization but often it is a department of a more general cooperative association which does a store business, buys farm supplies, or runs a grain elevator. The size of the associations varies from 50 to 200 members. Figures obtained show that each association handled, on an average, 76.9 cars of stock per year. From this it is estimated that the cooperative associations of the State shipped a total of about 49,754 cars during 1920, or more than one-fourth of all the live stock shipped from Iowa. The stock so shipped, it is figured, had a value of about \$103,837,000.

The estimates of saving furnished by different associations varied a good deal. * * * Probably the net gain in 1920 with its fluctuating live-stock prices did not exceed 35 cents a hundred on the average, but even this modest sum means about \$55 per car, or a total of \$2,736,470 on the 49,754 cars estimated to have been shipped cooperatively in 1920.

The shipping associations in Iowa occupy a "strikingly favorable position" as to markets, since the State is practically surrounded by the chief stockyard markets and has within its borders or within a short distance outside, some ten local packing plants and about an equal number of packers' concentration points or reloading stations.

Certain difficulties were found, however, which, though not peculiar to Iowa, hindered the development of the movement. These are: (1) Opposition by local business men or by other organizations, (2) difficulties in obtaining service from the railroads and from the markets, (3) troubles within their own ranks, due to the insecurity of their hold over members or control of an adequate volume of stock, and (4) difficulty in securing competent and permanent managers and establishing suitable business systems in their organizations.

Cooperative Moving Pictures.

ACCORDING to the February, 1922, issue of *Cooperation*, cooperative moving-picture theaters are being operated in Benld, New Athens, and Staunton, Ill., and in Newmanstown, Pa. In New Athens the initiative was taken by the manager of the local cooperative store, who undertook to raise the necessary money among the people of the community. A sum of \$15,000 in cash was raised, a mortgage loan for a similar amount was obtained from the local bank, and a theater seating 700 people was built. For four nights a week the theater society shows moving pictures, charging 10 cents admission, the profits being applied on the mortgage. On the other two nights of the week the theater is rented to outsiders.

Cooperative Potato Marketing in Minnesota.

THE University of Minnesota, cooperating with the Bureau of Markets of the United States Department of Agriculture, in September, 1921, issued a bulletin (No. 195) on "Local cooperative potato marketing in Minnesota." The study was limited to associations which are organized primarily for the purpose of marketing potatoes or other vegetables or which have established potato departments especially for handling such business. The report shows that between 1908 and 1920, 122 associations were organized but that most of these (87) were organized in the last two years, cooperative potato marketing having made little headway up to that time.

These cooperative societies handled, according to the report, 22.6 per cent of the total 1920 potato crop of Minnesota. This is a small proportion when compared with the business done by cooperatives in other lines of business. Thus, during the same year 38.9 per cent of the grain crop was handled by cooperative elevators, 63.8 per cent of all the butter produced in the State was made by the cooperative creameries, and 65 per cent of the live stock shipped was sent by cooperative live-stock shipping associations.

The development of the cooperative marketing of potatoes has been limited by the small extent to which potatoes were grown in some sections, by the fact that the grades of potatoes are only crudely established and that up to 1920 the problems of successful potato marketing were still unsolved, and by poor methods in bookkeeping. The report states that "no cooperative managers in the past have kept such poor records as the managers of potato-shipping associations. In the aggregate it is probably the largest reason for their failures."

The strictly potato growers' associations usually have less than 100 members, and many of them have less than 50 members. Associations with over 200 members, it was found, usually have a large supply business and sometimes grain and live stock in addition. The investigation disclosed a general tendency toward a combination of several kinds of cooperative business under one management. There is often difficulty, however, in obtaining a manager capable of handling several lines and of keeping the accounts straight. This last is an especial difficulty. "Minnesota farmers have already had several disastrous experiences with such combinations."

The different methods by which the business can be run are discussed at length and the advantages and disadvantages of each pointed out.

It is very difficult, the report states, to show by figures how much producers have benefited themselves by cooperative marketing.

In the long run, associations can pay better prices than private buyers only if their business is more efficiently managed. On the whole, they have undoubtedly been less well managed thus far. * * * There are certain points in Minnesota, however, where the associations have been more efficient than the private buyers, and have forced prices up and cut down profits, and in many cases forced the less efficient of the private buyers out of business. * * *

Even if it were true, which is not probable, that thus far cooperative marketing has netted the growers no financial gains, this would be no reason for quitting. As long as progress is being made toward better business methods, better management, better records and accounts, and as a result of these changes, more strong, successful associations are being developed, then it is worth while to go on. And this no doubt is what is happening. The biggest gains made thus far are in business methods and in records and accounts. The Minnesota Potato Exchange has rendered a very important service in both these particulars. The work of the exchange in marketing potatoes for the local associations is also very important. It takes out of the hands of the local manager that part of his work which he is least able to do and turns it over to specialists in that field. Managers of member associations should find their duties much simpler than formerly. * * *

We can therefore expect to have still more cooperative potato marketing. There will, of course, be many failures. We can expect that sooner or later a good many of the 87 associations organized in 1919 and 1920 will go under. Naturally many of these were ill-timed, poorly organized, and poorly financed. Out of it all, however, will come an increasing number of strong associations. In the end, we shall have a much larger proportion of our potatoes than at present marketed by cooperative potato-shipping associations.

Cooperative Associations in Nebraska.

THE bureau of markets and marketing of the Nebraska State Department of Agriculture has recently published in its Bulletin No. 109 the results of a survey of the cooperative associations in Nebraska for the year 1920. This is the second survey of the kind, the first having been made for 1919. The present report indicates that the cooperative associations "have branched out more during 1920 and are handling a more varied supply of goods" than in 1919. Data are given for 485 cooperative societies, the statistics of operation for which are shown for 1920 in the table following:

STATISTICS OF OPERATION OF NEBRASKA COOPERATIVE ASSOCIATIONS IN 1920,
BY TYPE OF SOCIETY.

Type of society.	Number of societies reporting.	Amount of capital.	Amount of business.
Elevators.....	244	\$3,024,648	\$52,113,291
Combined elevators and lumber yards.....	56	1,527,735	15,789,193
Lumber yards.....	4	43,750	377,710
Implement associations.....	5	35,860	244,959
Creameries.....	13	259,975	2,552,140
Stores.....	114	1,587,824	9,275,371
Combined stores and elevators.....	39	847,555	9,527,345
Live-stock associations.....	1	300	140,000
Social societies.....	1	5,480	.....
Combined elevators, stores, and lumber yards.....	6	185,397	3,053,700
Telephone companies.....	2	2,080	400
Total.....	485	7,520,604	93,074,109

Of the societies reporting, 401 return patronage dividends while 84 return dividends on stock. The 485 societies reported a total of 57,756 members, of whom 27,162 belonged to the elevator associations and 11,421 to the 95 cooperative store societies which distribute their savings in proportion to patronage.

It was found that the handling of coal was a great aid to the grain elevators during 1920. During the year, "when grain prices tumbled overnight, the elevator which handled side lines of coal, etc., was the one which was tided over the situation more easily. In the handling of coal, idle capital was used and the profit made on coal balanced in part the loss on grain."

The investigation disclosed the fact that a large proportion of the total capital of the associations was invested in buildings and real estate, leaving too small a proportion for working capital.

New Law Authorizing Formation of Cooperative Marketing Associations.

UNDER a law (Acts of 1921-22, Public No. 146, 67th Cong.) approved February 18, 1922, persons engaged in the production of agricultural products may organize associations for the processing or marketing of their products in interstate or foreign commerce. These must, however, be mutual benefit associations and conform to one or both of the following principles: One man, one vote, regardless of amount of stock held in the society; and interest on share capital not to exceed 8 per cent per annum. In addition, the business done for nonmembers must not exceed that done for members. The Secretary of Agriculture is to have power to determine whether the practices of any of the associations so formed are such as to constitute a monopoly or restraint of trade.

The act is reproduced in full below:

SECTION 1. Persons engaged in the production of agricultural products as farmers, planters, ranchmen, dairymen, nut or fruit growers may act together in associations, corporate or otherwise, with or without capital stock, in collectively processing, preparing for market, handling, and marketing in interstate and foreign commerce, such products of persons so engaged. Such associations may have marketing agencies in common; and such associations and their members may make the necessary contracts

and agreements to effect such purposes: *Provided, however,* That such associations are operated for the mutual benefit of the members thereof, as such producers, and conform to one or both of the following requirements:

First. That no member of the association is allowed more than one vote because of the amount of stock or membership capital he may own therein, or.

Second. That the association does not pay dividends on stock or membership capital in excess of 8 per centum per annum.

And in any case to the following:

Third. That the association shall not deal in the products of nonmembers to an amount greater in value than such as are handled by it for members.

SEC. 2. That if the Secretary of Agriculture shall have reason to believe that any such association monopolizes or restrains trade in interstate or foreign commerce to such an extent that the price of any agricultural product is unduly enhanced by reason thereof, he shall serve upon such association a complaint stating his charge in that respect, to which complaint shall be attached, or contained therein, a notice of hearing, specifying a day and place not less than thirty days after the service thereof, requiring the association to show cause why an order should not be made directing it to cease and desist from monopolization or restraint of trade. An association so complained of may at the time and place so fixed show cause why such order should not be entered. The evidence given on such a hearing shall be taken under such rules and regulations as the Secretary of Agriculture may prescribe, reduced to writing, and made a part of the record therein. If upon such hearing the Secretary of Agriculture shall be of the opinion that such association monopolizes or restrains trade in interstate or foreign commerce to such an extent that the price of any agricultural product is unduly enhanced thereby, he shall issue and cause to be served upon the association an order reciting the facts found by him, directing such association to cease and desist from monopolization or restraint of trade. On the request of such association or if such association fails or neglects for thirty days to obey such order, the Secretary of Agriculture shall file in the district court in the judicial district in which such association has its principal place of business a certified copy of the order and of all the records in the proceeding, together with a petition asking that the order be enforced, and shall give notice to the Attorney General and to said association of such filing. Such district court shall thereupon have jurisdiction to enter a decree affirming, modifying, or setting aside said order, or enter such other decree as the court may deem equitable and may make rules as to pleadings and proceedings to be had in considering such order. The place of trial may, for cause or by consent of parties, be changed as in other causes.

The facts found by the Secretary of Agriculture and recited or set forth in said order shall be prima facie evidence of such facts, but either party may adduce additional evidence. The Department of Justice shall have charge of the enforcement of such order. After the order is so filed in such district court and while pending for review therein the court may issue a temporary writ of injunction forbidding such association from violating such order or any part thereof. The court may, upon conclusion of its hearing, enforce its decree by a permanent injunction or other appropriate remedy. Service of such complaint and of all notices may be made upon such association by service upon any officer or agent thereof engaged in carrying on its business, or on any attorney authorized to appear in such proceeding for such association, and such service shall be binding upon such association, the officers, and members thereof.

Approved, February 18, 1922.

Cooperative Movement Abroad.

Bulgaria.

ACCORDING to information from the International Labor Office, quoted in the February, 1922, issue of the International Cooperative Bulletin, at the end of 1920 there were 993 cooperative organizations in affiliation with the Central Bulgarian Cooperative Bank. These societies are, according to type, as follows:

	Number.
Raiffeisen credit societies.....	800
Schultze-Delitzsch banks.....	62
Consumers' societies.....	64
Productive societies.....	40
Miscellaneous societies.....	27
Total.....	993

India.

THE International Labor Review for February, 1922, contains an article by Henry W. Wolff on "The cooperative movement and labor in India." The author states that the development of the cooperative movement will "stand permanently as a distinguishing landmark in Indian history." Begun in 1905, by the middle of 1920 there were over 1,500,000 active members of 39,000 cooperative societies. These societies, he states, are "doing an immense amount of good, both economically and educationally, in a variety of ways"—stimulating and improving agriculture and industry; arousing a desire for education, providing employment; encouraging thrift; cheapening money; and opening a prospect of a more satisfactory existence.

Cooperation appears in a variety of forms in India. The writer attributes this many-sidedness in cooperation to the fact that India began with cooperative credit, which does not constitute an end in itself but is a means for the attainment of many other ends. The credit being established, Indian cooperators are now turning to distribution, production, small industries, housing, insurance, farming, land settlement, the maintenance of dispensaries, etc.

All this has been done through self-help. The Government has steadfastly refused monetary aid, taking the stand that the effort must come from the people themselves and that Government assistance of this kind would destroy the self-reliance necessary for a real cooperative movement. In matters of administration, however, State assistance was necessary, since the Indian people were almost universally ignorant, and a force of registrars has been provided to assist in the practical problems of the movement.

More important and valuable than the material benefits of cooperation, in Mr. Wolff's opinion, are the changes for the better brought about in matters moral, social, and intellectual. Not only has the movement brought about, in a country where less than 10 per cent of the population can read and write, a widespread desire for education, but to the best of its ability it is supplying the means for providing education. "Wherever a cooperative society is formed," according to a report quoted by the author, "it sets up a school, if there is not already one." And not only that, but there is plainly evident a marked diminution of litigation, the cooperative society being asked to act as arbitrator. "Even castes draw together, members of different castes joining societies in groups, of high or low together."

By the light of Indian experience it may with confidence be taken as proved that cooperation, practiced on self-help lines—which condition has in India shown itself to be essential—forms the hope of backward countries with large laboring populations.

Italy.

IN AN article contained in the *International Labor Review* for January, 1922, is given an account of the Italian cooperative movement. According to this article the movement in that country underwent during and immediately after the war a remarkable development. In 1915, it was estimated, there were 7,420 cooperative societies in Italy; there are now 15,510 such societies, and if credit and agricultural societies be included, about 20,000. The membership has doubled in the same time and is now placed at almost 3,000,000.

During the war the cooperative movement, especially the consumers' movement, became virtually a public department for the distribution of commodities by the State. Now, however, the societies find themselves again confronted with the opposition of the competitive system and are feeling the pressure of a general restriction of credit and of growing financial problems. On the other hand, it is stated, the various ministerial programs all lay great stress on the cooperative movement, and it has "now definitely taken its place as one of the decisive elements in the life of the nation."

The Italian cooperative movement has been characterized by "excessive division within the movement, particularist tendencies, and mutual rivalries, and, secondly [by] an over-great reliance upon State credit and assistance." But for some time past there has been a growing tendency toward federation within provincial and even national limits. The separate branches of the movement are not so fully developed in Italy as in other countries.

Agricultural cooperation is inferior to that in Germany and France, credit cooperation is inferior to the same type of cooperation in Germany, and the consumers' movement inferior to the consumers' movement in Great Britain. But the characteristic of Italian cooperation is its variety. It has attained a certain degree of development in every branch, and here it differs from cooperation in other countries, which has developed in more one-sided ways.

Again, Italy is pre-eminent in certain types of cooperation, for instance, in her labor cooperative societies, more particularly in those which undertake public contracts, in her agricultural cooperative societies, which undertake the direct management of estates, and in such interesting forms of consumers' cooperation as the "independent supply organizations." Under present social conditions these types are of great importance, and Italy has the advantage of not being obliged to have recourse to an absolutely new form of organization and also of being able to benefit by prewar attempts and by experiments.

At the present time there are about 5,000 cooperative labor societies which undertake the construction of roads, bridges, harbors, and other public works. These societies have received preferential treatment by the Ministry of Public Works; in some years 15 per cent of the contracts given out by it have been awarded to these societies, and it is pointed out in this connection that in certain years before the war the budget of this one ministry, owing to the great need for public works, amounted to one-eighth of the total national budget.

Russia.

THE *International Cooperative Bulletin* for February, 1922, contains an account of an interview with the president of the Russian Central Union of Cooperative Societies, the "Centrosoyus." According to this account the autonomy of the Russian cooperative

societies was restored by the soviet decree of April 7, 1921, and by September the reorganization of the societies on an independent basis had been accomplished. Under the new conditions the consumers' societies elect their representatives to the various administrative bodies independently. The district societies hold meetings of these delegates and elect their own board, which in turn appoints delegates to the provincial unions. Each provincial union sends three delegates to a conference at which the board of directors of the Centrosoyus is elected. Elections take place in July and hold for one year. The council of delegates meets quarterly, examines the accounts and reports of the executive board, and acts as a supervisory council surveying the work of the administrative body. The decree of April 7, above mentioned, provides that the central executive committee, which is the highest legislative body under the Soviet Government, may appoint a representative on the board of directors of the Centrosoyus. This right has never been made use of, however.

During the last four months of the year the independent trade of the Centrosoyus amounted to 26,000,000 rubles (\$13,379,600, par). The goods thus handled were almost entirely home produced and included foodstuffs, raw materials, hides, skins, furs, bristles, and flax. Of these, 79 per cent was obtained from Russia cooperative productive societies, 15 per cent from the State factories, and the remaining 6 per cent from private sources. The Centrosoyus has entered into a contract with the Government under which it is to deliver to the latter 15,000,000 poods (541,695,000 pounds) of grain, a certain per cent being delivered on the first of each month. This supply is being obtained entirely from cooperative sources and is collected from the different agricultural unions of Russia.

Most of the inland trade of Russia, it is stated, is carried on through the Centrosoyus and the channel of distribution to the consumer is almost entirely through cooperative channels. At the same time the Centrosoyus is accumulating surplus stores of raw materials, partly for export and for exchange for other goods from western Europe and partly for home manufacture.

A delegation from the national cooperative wholesale societies of a number of European countries will shortly go to Russia for the purpose of establishing trade relations with the Russian cooperative movement.

IMMIGRATION.

Statistics of Immigration for January, 1922.

By W. W. HUSBAND, COMMISSIONER-GENERAL OF IMMIGRATION.

THE following tables show the total number of immigrant aliens admitted into the United States and emigrant aliens departed from the United States in January, 1922, and for the six months' period from July to December, 1921. The tabulations are presented according to the countries of last permanent or future permanent residence, races or peoples, occupations, and States of future permanent or last permanent residence. The last table (Table 6) shows the number of immigrants admitted under the Percentum Limit Act of May 19, 1921, up to March 8, 1922.

TABLE 1.—INWARD AND OUTWARD PASSENGER MOVEMENT IN JANUARY, 1922, AND DURING THE SIX MONTHS ENDING DEC. 31, 1921.

Period.	Arrivals.					Departures.			
	Immigrant aliens admitted.	Non-immigrant aliens admitted.	United States citizens arrived.	Aliens de-barred.	Total.	Emigrant aliens departed.	Non-emigrant aliens departed.	United States citizens departed.	Total.
July to December, 1921.	200,121	65,287	133,111	6,678	405,197	137,878	86,749	162,735	387,362
January, 1922.....	15,928	6,705	12,057	892	35,582	7,708	7,877	15,519	31,104

TABLE 2.—LAST PERMANENT RESIDENCE OF IMMIGRANT ALIENS ADMITTED, AND FUTURE PERMANENT RESIDENCE OF EMIGRANT ALIENS DEPARTED, JANUARY, 1922, AND SIX MONTHS ENDING DEC. 31, 1921, BY COUNTRIES.

Country.	Immigrant.		Emigrant.	
	July 1 to Dec. 31, 1921.	January, 1922.	July 1 to Dec. 31, 1921.	January, 1922.
Austria.....	2,754	217	368	9
Hungary.....	5,535	89	3,011	119
Belgium.....	1,306	115	705	84
Bulgaria.....	287	17	544	29
Czechoslovakia, Republic of.....	10,728	1,237	5,238	199
Denmark.....	1,594	78	444	27
Finland.....	1,595	101	879	25
France, including Corsica.....	3,155	174	1,314	118
Germany.....	9,752	1,216	2,582	135
Greece.....	3,329	46	4,865	345
Italy, including Sicily and Sardinia.....	36,829	1,942	38,702	2,212
Netherlands.....	1,195	54	522	31
Norway.....	2,465	97	876	55
Poland, Republic of.....	26,225	606	26,114	545
Portugal, including Cape Verde and Azores Islands.....	1,699	23	4,694	147
Rumania.....	5,758	1,395	2,751	107
Russia.....	7,004	1,569	4,387	109
Serbs, Croats, and Slovenes, Republic of.....	5,913	74	7,782	171
Spain, including Canary and Balearic Islands.....	480	32	4,788	630

TABLE 2.—LAST PERMANENT RESIDENCE OF IMMIGRANT ALIENS ADMITTED, AND FUTURE PERMANENT RESIDENCE OF EMIGRANT ALIENS DEPARTED, JANUARY, 1922, AND SIX MONTHS ENDING DECEMBER 31, 1921, BY COUNTRIES—Concluded.

Country.	Immigrant.		Emigrant.	
	July 1 to Dec. 31, 1921.	January, 1922.	July 1 to Dec. 31, 1921.	January, 1922.
Sweden.....	3,699	228	1,117	27
Switzerland.....	2,042	106	571	34
Turkey in Europe.....	1,382	51	123	30
United Kingdom:				
England.....	9,500	383	3,599	287
Ireland.....	6,117	142	1,109	68
Scotland.....	4,970	330	535	46
Wales.....	553	33	41	2
Other European countries.....	246	24	512	52
Total, Europe.....	156,092	10,439	118,113	5,643
China.....	2,182	422	3,913	474
Japan.....	3,089	250	2,584	300
India.....	217	30	196	27
Turkey in Asia.....	1,820	67	1,298	19
Other countries of Asia.....	626	28	46	4
Total, Asia.....	7,934	797	8,037	824
Africa.....	429	19	75	7
Australia, Tasmania, and New Zealand.....	599	55	328	71
Pacific Islands, not specified.....	39		24	3
British North America.....	21,979	3,001	2,410	199
Central America.....	527	26	545	63
Mexico.....	6,737	1,223	4,479	424
South America.....	1,508	133	1,036	135
West Indies.....	4,257	233	2,806	336
Other countries.....	20	2	25	3
Grand total.....	200,121	15,928	137,878	7,708
Males.....	93,260	8,226	103,663	6,282
Females.....	106,861	7,702	37,215	1,426

TABLE 3.—IMMIGRANT ALIENS ADMITTED AND EMIGRANT ALIENS DEPARTED DURING JANUARY, 1922, AND SIX MONTHS ENDING DECEMBER 31, 1921, BY RACES OR PEOPLES.

Race or people.	Immigrant.		Emigrant.	
	July 1 to Dec. 31, 1921.	January, 1922.	July 1 to Dec. 31, 1921.	January, 1922.
African (black).....	3,109	137	1,069	88
Armenian.....	2,039	73	154	15
Bohemian and Moravian (Czech).....	2,625	233	2,929	133
Bulgarian, Serbian, and Montenegrin.....	1,265	42	4,600	111
Chinese.....	2,041	602	3,823	455
Croatian and Slovenian.....	3,542	121	3,484	80
Cuban.....	500	22	479	66
Dalmatian, Bosnian, and Herzegovinian.....	230	14	372	6
Dutch and Flemish.....	2,437	177	1,384	115
East Indian.....	138	23	157	22
English.....	16,431	1,469	5,375	474
Finnish.....	1,487	92	872	26
French.....	7,015	778	1,757	176
German.....	18,256	1,909	3,347	192
Greek.....	3,585	79	4,905	336
Hebrew.....	36,852	3,056	390	68
Irish.....	9,403	498	1,299	96
Italian (north).....	5,158	506	4,728	416
Italian (south).....	31,854	1,498	34,214	1,826
Japanese.....	2,858	234	2,569	298
Korean.....	35	1	27	1
Lithuanian.....	779	115	3,409	71
Magyar.....	5,546	260	3,240	137
Mexican.....	6,227	912	4,170	406

TABLE 3.—IMMIGRANT ALIENS ADMITTED AND EMIGRANT ALIENS DEPARTED DURING JANUARY, 1922, AND SIX MONTHS ENDING DECEMBER 31, 1921, BY RACES OR PEOPLES—Concluded.

Race or people.	Immigrant.		Emigrant.	
	July 1 to Dec. 31, 1921.	January, 1922.	July 1 to Dec. 31, 1921.	January, 1922.
Pacific Islander.....	4	.....	3	.....
Polish.....	5,672	174	24,020	472
Portuguese.....	1,612	26	4,760	160
Rumanian.....	1,068	289	3,357	89
Russian.....	1,191	221	1,874	75
Ruthenian (Russniak).....	578	22	353	9
Scandinavian (Norwegians, Danes, and Swedes).....	8,792	536	2,620	135
Scotch.....	8,065	694	923	94
Slovak.....	4,946	830	2,146	52
Spanish.....	1,134	76	5,365	700
Spanish American.....	820	42	1,027	121
Syrian.....	1,044	50	1,079	35
Turkish.....	32	2	169	3
Welsh.....	575	41	96	6
West Indian.....	588	44	498	64
Other peoples.....	588	30	835	79
Total.....	200,121	15,928	137,878	7,708
Males.....	93,260	8,226	100,663	6,282
Females.....	106,861	7,702	37,215	1,426

TABLE 4.—IMMIGRANT ALIENS ADMITTED AND EMIGRANT ALIENS DEPARTED DURING JANUARY, 1922, AND SIX MONTHS ENDING DECEMBER 31, 1921, BY OCCUPATIONS.

Occupation.	Immigrant.		Emigrant.	
	July 1 to Dec. 31, 1921.	January, 1922.	July 1 to Dec. 31, 1921.	January, 1922.
Professional:				
Actors.....	392	57	69	7
Architects.....	65	11	35	2
Clergy.....	764	58	330	41
Editors.....	51	3	14	.....
Electricians.....	358	30	80	6
Engineers (professional).....	609	49	228	22
Lawyers.....	81	7	37	3
Literary and scientific persons.....	244	14	88	12
Musicians.....	407	105	141	9
Officials (Government).....	467	62	147	23
Physicians.....	273	42	88	8
Sculptors.....	107	10	71	5
Teachers.....	1,413	69	274	23
Other professional.....	1,408	128	346	23
Total.....	6,637	645	1,948	184
Skilled:				
Bakers.....	916	96	332	23
Barbers and hairdressers.....	884	55	234	20
Blacksmiths.....	553	47	207	9
Bookbinders.....	63	5	9	1
Brewers.....	24	2	12	.....
Butchers.....	647	73	232	8
Cabinetmakers.....	102	10	102	6
Carpenters and joiners.....	2,108	172	781	45
Cigarette makers.....	26	1	5	.....
Cigar makers.....	99	5	66	10
Cigar packers.....	1	2	5	.....
Clerks and accountants.....	5,471	523	1,197	103
Dressmakers.....	2,628	151	236	14
Engineers (locomotive, marine, and stationary).....	548	37	138	26
Furriers and fur workers.....	85	6	21	3
Gardeners.....	236	26	132	10

TABLE 4.—IMMIGRANT ALIENS ADMITTED AND EMIGRANT ALIENS DEPARTED DURING JANUARY, 1922, AND SIX MONTHS ENDING DECEMBER 31, 1921, BY OCCUPATIONS—Concluded.

Occupation.	Immigrant.		Emigrant.	
	July 1 to Dec. 31, 1921.	January, 1922.	July 1 to Dec. 31, 1921.	January, 1922.
Skilled—Concluded.				
Hat and cap makers.....	103	9	9	2
Iron and steel workers.....	369	47	132	11
Jewelers.....	89	7	44	7
Locksmiths.....	344	33	21	3
Machinists.....	669	80	685	23
Mariners.....	1,658	119	787	121
Masons.....	972	55	242	20
Mechanics (not specified).....	1,104	97	474	30
Metal workers (other than iron, steel and tin).....	120	9	42	2
Millers.....	129	4	30	1
Milliners.....	396	25	26	2
Miners.....	1,394	135	1,639	116
Painters and glaziers.....	485	45	240	18
Pattern makers.....	27	2	8	.....
Photographers.....	118	12	36	3
Plasterers.....	66	8	29	3
Plumbers.....	132	11	37	6
Printers.....	242	20	52	3
Saddlers and harness makers.....	52	8	16	1
Seamstresses.....	1,351	75	74	6
Shoemakers.....	1,888	90	540	28
Stokers.....	205	27	135	8
Stonecutters.....	108	5	61	5
Tailors.....	3,240	195	596	51
Tanners and curriers.....	78	3	22	2
Textile workers (not specified).....	92	7	60	1
Tinners.....	127	9	25	1
Tobacco workers.....	12	2	.....	.....
Upholsterers.....	46	4	15	.....
Watch and clock makers.....	201	9	20	2
Weavers and spinners.....	785	58	340	7
Wheelwrights.....	5	1	8	.....
Woodworkers (not specified).....	53	1	21	1
Other skilled.....	1,428	103	765	63
Total.....	32,489	2,535	10,940	825
Miscellaneous:				
Agents.....	330	23	119	12
Bankers.....	84	7	66	16
Draymen, hackmen, and teamsters.....	216	11	47	7
Farm laborers.....	6,255	547	1,752	117
Farmers.....	4,634	450	3,648	179
Fishermen.....	263	37	93	4
Hotel keepers.....	109	4	66	5
Laborers.....	20,248	1,713	73,673	4,225
Manufacturers.....	144	4	114	8
Merchants and dealers.....	4,469	499	2,592	281
Servants.....	31,305	1,854	3,005	170
Other miscellaneous.....	6,451	654	2,537	211
Total.....	74,508	5,794	87,712	5,235
No occupation (including women and children).....	86,487	6,954	37,278	1,464
Grand total.....	200,121	15,928	137,878	7,708

TABLE 5.—FUTURE PERMANENT RESIDENCE OF IMMIGRANT ALIENS ADMITTED AND LAST PERMANENT RESIDENCE OF EMIGRANT ALIENS DEPARTED, JANUARY, 1922 AND SIX MONTHS ENDING DECEMBER 31, 1921, BY STATES AND TERRITORIES.

State or Territory.	Immigrant.		Emigrant.	
	July 1 to Dec. 31, 1921.	January, 1922.	July 1 to Dec. 31, 1921.	January, 1922.
Alabama.....	321	10	91	2
Alaska.....	73	4	67	3
Arizona.....	813	66	841	49
Arkansas.....	118	8	32	7
California.....	13,794	1,450	9,164	758
Colorado.....	750	59	343	35
Connecticut.....	4,169	263	4,357	219
Delaware.....	262	22	274	12
District of Columbia.....	1,001	60	249	16
Florida.....	1,559	144	775	75
Georgia.....	239	28	94	8
Hawaii.....	1,110	7	563	.....
Idaho.....	286	33	128	16
Illinois.....	15,434	1,223	10,332	401
Indiana.....	1,820	132	1,326	40
Iowa.....	1,317	79	455	29
Kansas.....	634	64	175	31
Kentucky.....	241	20	67	6
Louisiana.....	656	58	491	63
Maine.....	1,916	237	279	13
Maryland.....	1,188	100	748	22
Massachusetts.....	13,421	987	12,079	401
Michigan.....	7,270	581	5,468	316
Minnesota.....	3,072	251	1,439	62
Mississippi.....	164	18	43	12
Missouri.....	1,987	153	845	48
Montana.....	554	46	292	21
Nebraska.....	880	81	323	31
Nevada.....	115	18	156	10
New Hampshire.....	953	97	256	13
New Jersey.....	10,691	856	7,382	237
New Mexico.....	199	31	117	30
New York.....	63,911	4,457	42,436	3,036
North Carolina.....	156	6	47	11
North Dakota.....	582	38	171	12
Ohio.....	8,769	624	7,875	298
Oklahoma.....	332	31	95	11
Oregon.....	1,141	169	616	31
Pennsylvania.....	20,169	1,477	18,627	671
Philippine Islands.....	5	1	.....	.....
Porto Rico.....	181	39	200	20
Rhode Island.....	2,047	165	1,229	32
South Carolina.....	116	12	28	8
South Dakota.....	359	24	102	14
Tennessee.....	267	15	62	4
Texas.....	5,068	895	1,761	226
Utah.....	557	29	210	40
Vermont.....	896	80	102	4
Virginia.....	917	31	173	9
Virgin Islands.....	9	.....	6	.....
Washington.....	3,143	331	1,764	158
West Virginia.....	1,237	74	1,224	66
Wisconsin.....	2,866	208	1,732	38
Wyoming.....	356	36	95	23
Total.....	200,121	15,928	137,878	7,708

TABLE 6.—STATUS ON MARCH 22, 1922, OF THE IMMIGRATION OF ALIENS INTO THE UNITED STATES, UNDER THE PERCENTUM LIMIT ACT OF MAY 19, 1921.

Country or place of birth.	Total admitted July 1, 1921, to Mar. 22, 1922. ¹	Total admissible, fiscal year 1921-22.	Number admissible during remainder of year.
Albania.....	248	287	39
Austria.....	3,092	7,444	4,352
Belgium.....	1,567	1,557	(²)
Bulgaria.....	301	301	.....
Czechoslovakia.....	13,878	14,269	391
Danzig.....	55	285	230
Denmark.....	2,228	5,644	3,416
Finland.....	2,042	3,890	1,848
Fiume.....	10	71	61
France.....	3,606	5,692	2,086
Germany.....	13,100	68,039	54,939
Greece.....	3,439	3,286	(²)
Hungary.....	6,016	5,635	(²)
Italy.....	42,020	42,021	1
Luxemburg.....	89	92	3
Netherlands.....	1,736	3,602	1,866
Norway.....	3,340	12,116	8,776
Poland (including Eastern Galicia).....	26,061	25,800	(²)
Portugal (including Azores and Madeira Islands).....	2,348	2,269	(²)
Rumania.....	7,356	7,414	58
Russia (including Siberia).....	18,225	34,247	16,022
Spain.....	761	663	(²)
Sweden.....	5,932	19,956	14,024
Switzerland.....	2,755	3,745	990
United Kingdom.....	29,362	77,206	47,844
Yugoslavia.....	6,635	6,405	(²)
Other Europe (including Andorra, Gibraltar, Lichtenstein, Malta, Memel, Monaco, San Marino, and Iceland).....	111	86	(²)
Armenia.....	1,530	1,588	58
Palestine.....	207	56	(²)
Syria.....	996	905	(²)
Turkey (Europe and Asia, including Smyrna District).....	1,085	653	(²)
Other Asia (including Persia, Rhodes, Cyprus, and territory other than Siberia which is not included in the Asiatic Barred Zone. Persons born in Siberia are included in the Russia quota).....	523	78	(²)
Africa.....	184	120	(²)
Australia.....	278	271	(²)
New Zealand.....	75	50	(²)
Atlantic islands (other than Azores, Madeira, and islands adjacent to the American Continents).....	81	60	(²)
Pacific islands (other than New Zealand and islands adjacent to the American Continents).....	11	22	11
Total.....	201,283	355,825	³ 157,015

¹ Including aliens who were admitted in excess of quota of certain nationalities for the month of June, 1921, and charged against the quota for the fiscal year 1921-22, as provided in House Joint Resolution No. 153.

² Admissions in excess of the quota for the year represent temporary admissions made in cases involving unusual hardship.

³ Not deducting excess of 2,473 over quota, admitted from countries indicated.

WHAT STATE LABOR BUREAUS ARE DOING.

Kentucky.

THE commissioner of agriculture, labor, and statistics writes¹ that through the cooperation of the United States Employment Service his office has been able to put one more labor inspector in the field. This has been made possible by combining inspection and employment work.

For the last six months the city of Louisville has been cooperating better with the State office in the matter of free employment. The commissioner also reports that Kentucky has not suffered as much from the unemployment problem as other parts of the country and that drifters knowing this are coming in from other States.

Michigan.²

SINCE July, 1921, when the industrial accident board, the labor department, the industrial relations commission, and the board of boiler rules were consolidated into the department of labor and industry, the labor division of that department has been interested in an intensive campaign for the prevention of industrial accidents. Instructions have been given to all the department's inspectors to pay special attention to this matter of accident prevention and to cooperate with all agencies engaged in such work. A very great majority of the employers are very cheerfully complying with the inspectors' orders, notwithstanding the cost of required improvements.

Reports received at the department show a reduction of accidents and some of the large establishments are said to have made splendid records.

The plan is to promote the organization of safety committees in every plant in Michigan and where practicable to have a department representative call at the plants in person and point out to the employees their duties under the law, as no establishment can be successful in eliminating accidents unless the workers do their part in the matter of safety appliances.

Massachusetts.³

Investigation of Infected Injuries.

AN INVESTIGATION of infected injuries to workmen has been conducted by the department of labor and industries. In this connection 500 cases of reported injuries have been investigated.

¹ Letter to the United States Commissioner of Labor Statistics dated Mar. 11, 1922.

² Statement from the Michigan Department of Labor and Industry forwarded under date of Mar. 10, 1922.

³ News notes from the Massachusetts Department of Labor and Industries which reached the Bureau of Labor Statistics Feb. 23, 1922.

These cases were not confined to a single industry but included septic injuries arising in the building trades, manufacturing, mercantile and other establishments. The investigation included the examination of the provisions for treatment of injuries in the establishment, the method of treatment, and the number of days that elapsed after the accident before infection appeared. The investigation shows that adequate attention is not given the slightest injuries in industry. In nearly all of the cases covered, from one to ten days elapsed after the injury before first-aid treatment was administered. In fatal cases investigated, slight cuts, lacerations, and small burns became infected and caused death by sepsis in six instances. In three instances, sepsis followed slight injury from splinter. The investigation points to the need of education of employees to make use of the first-aid facilities which are provided under the law.

Wage Reductions.

Among the cotton mills in Massachusetts announcing a 20 per cent reduction in wages to employees, are the following: Otis, Ware; Thorndike, Thorndike; Palmer Mill, Otis Co., Three Rivers; Cordis, Millbury; Boston Duck, Bondsville; Lancaster, Clinton; Hamilton Bay State, Lowell; Lyman, Holyoke; and Dwight and Parkhill, Chicopee.

North Carolina.⁴

ALTHOUGH one of the principal manufacturing States of the Union, North Carolina is "one of the most delinquent in providing and maintaining industrial standards for the protection of the worker." This declaration is made by the commissioner of the department of labor and printing of that State in the report of the department for the biennial period 1919-1920. He emphasizes the importance of proper industrial safety standards and of providing for the enforcement of such standards. The commissioner also makes a plea for a workmen's compensation law and a boiler inspection law. He states that the general assembly of 1919 passed an act considerably strengthening the previous child labor legislation but not conforming with the Federal statute regulating child employment and that the need for a more up-to-date child labor law is obvious.

There were more strikes and lockouts of a serious character in North Carolina during the period covered by the above-mentioned report than during the previous decade, which points to the necessity of legally creating some means for the equitable adjustment of future industrial disputes.

The department is of the opinion that the eight-hour day should be made applicable to adult as well as child labor.

Farms and Farm Labor.

It is stated that the farmers are facing the necessity of disposing of their product at less than the production cost so that they may be able to secure food and feedstuffs at prices which have not declined

⁴ Source: 32d report of the Department of Labor and Printing of North Carolina, 1919-1920. Raleigh, 1921. 718 pp.

as much as the prices of commodities which these farmers have on hand and can not afford to carry over. The need is stressed for the cooperation of city and town employers with the farmers to bring about a more equitable distribution of the labor supply.

In general, the education and financial conditions of agricultural workers show a considerable improvement over those described in previous reports.

The Trades.

The information on the trades was compiled before the acute industrial depression of the fall of 1920. The replies received from the trades were not so numerous nor so representative as the department had hoped for. The following figures will, however, serve to indicate the trend in hours and wages:

Average hours of labor and wages in organized trades: 1918, 8 $\frac{5}{12}$ hours, at \$5.31 highest and \$4.18 lowest average daily wage; 1920, 8 $\frac{2}{15}$ hours, at \$6.82 highest and \$5.59 lowest average daily wage. Unorganized workers: 1920, 9 hours, at \$5.81 highest and \$5.33 lowest average daily wage.

Factories and Mills.

The following table gives some of the more important data relating to certain industries of the State:

INDUSTRIAL STATISTICS FOR FURNITURE FACTORIES, KNITTING MILLS, COTTON MILLS, AND MISCELLANEOUS FACTORIES OF NORTH CAROLINA, BIENNIAL PERIOD 1919-1920.

Item.	Furniture factories.	Knitting mills.	Cotton mills.	Miscellaneous factories. ^a
Number reporting.....	124	169	377	5,582
Investment.....	\$14,790,323	^b \$31,144,466	^c \$166,614,466	^d \$699,802,985
Value of plants.....	\$14,761,625			^d \$249,390,668
Value of yearly output.....	\$32,106,739	^e \$21,263,571	\$237,980,155	\$462,247,078
Yearly pay roll.....	\$7,334,310			^f \$71,685,972
Total horsepower.....	14,478	22,338	218,883	^g 261,037
Number of persons employed.....	9,299	16,493	73,592	84,083
Men.....	8,721	5,775	40,476	74,551
Women.....	418	9,443	26,493	9,324
Children.....	160	1,275	6,623	208
Highest average daily wage paid men.....	\$4.74	\$5.60	\$6.56	\$4.96
Lowest average daily wage paid men.....	\$2.52	\$2.61	\$2.92	\$2.70
Highest average daily wage paid women.....	\$1.96	\$4.35	\$4.23	\$3.08
Lowest average daily wage paid women.....	\$1.51	\$1.80	\$2.46	\$2.15

^a Industrial enterprises other than cotton, woolen, cordage, silk, and knitting mills, and furniture factories.

^b Actual and authorized.

^c Actual and authorized; reported by 339 mills.

^d Reported by 5,536 establishments.

^e Estimate reported by 117 mills.

^f Reported by 4,945 establishments.

^g Employed by 5,177 establishments

Oregon.⁵

THROUGH the amendment⁶ of the compensation law July 1, 1921, the State Industrial Accident Commission of Oregon "was authorized to establish rules for organization and educational work in accident prevention." Employers who comply with such rules are allowed an independent reduction of 5 per cent per year in their premium charges.

⁵ For previous report on Oregon safety work, see MONTHLY LABOR REVIEW, November, 1921, pp. 201, 202, and February, 1922, p. 155.

⁶ See MONTHLY LABOR REVIEW, August, 1921, Washington, p. 166.

One of the industrial accident commissioners of Oregon, writing on the development of safety work in the State in a recent issue of the Insurance Research and Review Service, says: "The question has been asked whether some employers perfect a safety organization and then fail to give it proper support," and if others do not consider such organization merely as a means to obtain a reduction in rate.

In this connection the commissioner states that while different employers show various conditions and degrees of activity in the movement, the campaign for safety has on the whole made satisfactory progress. The commission's attitude in the matter is liberal. However, where there is obvious failure to meet requirements the rate reduction is withdrawn. Moreover, no one will be deceived by "an ineffective paper organization," as the law's experience rating provisions "operate to take up the 'slack'." The movement has not been under way long enough, the commissioner thinks, to warrant conclusions as to its effectiveness. A greater number of both employers and workers are showing a real interest in safety work than was previously the case.

Through the efforts of safety committees much has been accomplished in the way of physical safeguarding, and the demands for speakers, films, and other material are increasing as the committees realize more and more the need for arousing the interest of the workers themselves in accident prevention.

Wisconsin.⁷

General Industrial Conditions.

THERE were seven-tenths of 1 per cent more employees in the factories and mines of Wisconsin in January, 1922, than in the preceding month. There was, however, a decrease of 6.3 per cent in the total wages paid and of 7.4 per cent in average earnings. In comparison with July, 1920, there was a decrease of 33.2 per cent in the total number of factory employees, of 52.5 per cent in wages, and 28.5 per cent in average weekly earnings. The average weekly earnings in August, 1920, were \$29.84 and in January, 1922, \$19.82. The average decrease in wage rates seems to be about 20 per cent. The decrease in earnings is greater because of the reduction in hours of labor and of part-time employment.

The average working time in January, 1922, as reported by 140 large factories was 48 hours per week while in August, 1920, in these same factories, the average was 54 hours per week.

Conferences and Special Meetings.

On January 23 the industrial commission conducted a meeting of the State apprenticeship committee; on February 9 and 10, meetings of the electrical safety code committee; on February 9, a meeting of the safety and building construction committee.

Publications.

Among the latest publications of the commission are general orders on sanitation for 1921; general orders on quarries, 1922; and the

⁷ Progress of work report, January, 1922, from the Industrial Commission of Wisconsin.

Wisconsin Safety Review on general accident statistics for the State. The ninth annual report on workmens' compensation for 1919-1921 is in the hands of the State printer.

Inspection Statistics, 1921.

In 1921 inspections were made in 10,275 industrial establishments by the 11 district deputies. During the same period 1,982 elevators, 921 boilers, 98 refrigerating machines, and 100 mines and quarries were also inspected by the commission.

In the same year the building division passed upon 41 plans for fire escapes, 71 plans for elevators, and 990 building plans. This division's deputies had 682 office interviews and made 1,004 field inspections. The fire prevention division not only kept in touch with and inspected practically all fire departments in the State but made 8,855 inspections for fire hazards.

Woman and Child Labor.

Woman's department field inspections.—Woman deputies visited 319 establishments in the month of January. Inspections were made for woman and child labor in all business places in Beloit, Johnson Creek, Lake Mills, Middleton, and Neenah. Smaller cities of the State which have never before been inspected by woman deputies are being completely surveyed as quickly as possible.

Child labor.—The juvenile placement bureau conducted by the commission since September, 1921, has been recognized by the United States Employment Service. The commission's deputy, who is in charge of the bureau, has been designated superintendent of guidance and placement for Milwaukee of the juvenile division of the United States Employment Service.

Two large employers had been discharging minors who were working under child labor permits as soon as these children became sufficiently experienced to earn more than 16 cents an hour as provided under the minimum wage law. The Commission advised the offending companies that they would not be granted any more child labor permits, as it is "intolerable" that children should be withdrawn from school and put into industry only to be discharged when they become experienced in the work they take up. The action of the commission seems to have stopped the practice.

Minimum wage.—The principal tobacco warehouse firms have been requested to submit their views regarding a solution of the difficulties involved in the application of the minimum wage to tobacco stemming warehouses. Tobacco stemmeries "are to pay such piece rates as will enable 75 per cent of the women employees under 50 years of age to earn 28 cents per hour when the tobacco is steam cased and 25 cents per hour where the tobacco is moistened by water." The largest firm has informed the commission that this arrangement is satisfactory and will provide for the employment of elderly employees whose age handicaps them in earning the minimum wage.

The woman's department has begun a study in Milwaukee to ascertain the inadequacy of home-work rates. As there is a great variety of articles made in homes this study will have to be quite detailed and will require some months for completion.

Apprenticeship.

The number of indentured apprentices on January 31, 1922, was 1,254, which was the same as reported for December 31, 1921.

A committee has been appointed by the State Electrical Contractors Association to promote apprenticeship in the electrical industry. The unions of electrical employees are also aligning themselves with this movement. The master photo-engravers and the photo-engravers' union in Milwaukee have been discussing apprenticeship and have reached an agreement that all learners are to be indentured.

CURRENT NOTES OF INTEREST TO LABOR.

Friendly Societies in Australia and New Zealand.

STATISTICS of the number of friendly societies (societies paying sick and death benefits) in Australia and New Zealand and of their branches, together with their receipts, expenditures, membership, amount of funds, and capital per member for the years mentioned, are shown in the following statement taken from a report¹ on such societies from the State of Victoria:

FRIENDLY SOCIETIES IN THE COMMONWEALTH AND NEW ZEALAND.

[£1 at par=\$4.8665; 1s.=24.3 cents; 1d.=2.03 cents.]

State.	Return for the year.	Number of separate societies.	Number of branches.	Number of members.	Total receipts.	Total expenditure.	Amount of funds.	Capital per member.
Victoria.....	1920	55	1,475	143,021	£681,232	£564,220	£3,173,678	£ s. d. 22 3 10
New South Wales.....	1919	39	1,925	184,174	709,542	699,928	2,217,796	12 0 10
South Australia.....	1919	17	593	68,542	289,421	247,403	1,419,167	20 14 1
Queensland.....	1920	18	564	55,776	243,522	183,724	1,031,614	18 9 11
Tasmania.....	1920	14	192	23,214	92,555	82,828	280,315	12 1 6
Western Australia.....	1920	15	250	18,675	104,291	88,824	294,120	15 15 0
Total, Commonwealth.....		158	4,999	493,402	2,120,563	1,866,927	8,416,690	17 1 2
Total, New Zealand.....	1920	33	732	74,210	487,024	373,387	2,321,176	31 5 7
Total, Australasia.....		191	5,731	567,612	2,607,587	2,240,314	10,737,866	18 18 4

Emigration from Austria.

THE American consul at Vienna reports that according to data furnished by the Austrian Emigration Bureau, 5,176 persons have emigrated oversea from Austria since January 1, 1921. Of this total, 1,982 were from Vienna, the capital of the country. The countries of destination were chiefly the United States (4,157), Brazil (649), and Argentina (198). Since the revolution and up to the spring of 1921, 7,600 persons have emigrated from Austria to the Americas.

Medical Factory Inspection Service in Prussia.

ACCORDING to a recent consular report from Berlin, the Prussian Government, granting a long-standing request of organized labor, has created a board of five inspecting physicians (*Gewerbeärzte*) whose duty it will be to collaborate with the Prussian factory inspectors in all matters of industrial hygiene, and to study the prevention and cure of diseases peculiar to certain trades and occupations.

¹ Victoria. Office of the Government statist. Forty-third annual report on friendly societies, 1920. Melbourne, 1921, p. xvi.

These medical inspectors are classed as State officials and will work under the supervision of the presidents of the various administrative districts (*Regierungsbezirke*) of the Prussian State. Their powers closely parallel those of the factory inspectors. Especially are they authorized to inspect without previous notice to the owner any factory within their jurisdiction.

Prussia has lagged behind other German States in the appointment of medical factory inspectors. In Bavaria, Saxony, and Baden physicians have for a number of years been on the staff of the factory inspection services of these States to look after factory hygiene.

Educational Courses for Unemployed in Switzerland.

ACCORDING to a report from the American consul at Geneva, the unemployment situation in Switzerland remains acute. Federal and cantonal authorities must still face the problem of providing assistance for more than 130,000 people who are totally or partially unemployed. In order that the idle workers should use the period of their enforced idleness to improve their technical training, the Federal Government issued a decree on September 30, 1920, which authorizes the cantons to make it compulsory for unemployed persons in receipt of assistance to attend technical or other educational courses.

In pursuance of the above order the council of state of the Canton of Geneva inaugurated on January 18, 1922, a series of educational courses for the unemployed. The administration and supervision of these courses is in the hands of the department of public instruction, while the actual conduct of the courses is carried on by a mixed commission composed of specialists in vocational instruction and the representatives of various trade organizations. The courses are held in school buildings and public halls of the city of Geneva.

All the unemployed persons of the canton, men and women alike, whether receiving financial assistance from the State or not, are eligible for instruction. For all those under 20 years of age, who are in receipt of unemployment allowances, attendance at the courses is compulsory.

The full program of instruction consists of 14 hours of lessons per week, plus 2 hours of physical training. Workmen who attend the full courses pertaining to their trade will receive at the end of the courses a certificate stating this fact. The interest manifested in the courses has been keen, there having been 370 registrations on February 2 alone.

The courses comprise (1) instructive lectures (2 hours per week) on elementary hygiene, political and economic constitution of Switzerland, labor legislation, and art; and (2) practical courses (4 hours, twice a week) for the following occupational groups—carpenters and joiners; cabinetmakers, turners, wood carvers, upholsterers; tanners, iron workers, locksmiths; chain makers, watchmakers, jewelers; building-trades workers (with special courses in drawing); (3) recreative courses (2 hours per week)—travel films and films showing the principal industries of Switzerland and foreign countries, literature, and music; (4) French (2 hours per week) for foreign unemployed not speaking French and for French-speaking unemployed; (5) physical training (2 hours per week), gymnastic exercises.

OFFICIAL PUBLICATIONS RELATING TO LABOR.

United States.

HAWAII.—*Governor. Report to the Secretary of the Interior [for the fiscal year ended June 30, 1921].* Washington, 1921. 132 pp. Map.

This report deals mainly with industrial and business conditions in the islands. The section relating to the work of industrial accident boards during the fiscal year 1920-21 is reviewed on pages 188 and 189 of this issue of the MONTHLY LABOR REVIEW.

NORTH CAROLINA.—*Department of Labor and Printing. Thirty-second report, 1919-1920.* Raleigh, 1921. 716 pp.

This publication is reviewed on pages 236 and 237 of this issue of the MONTHLY LABOR REVIEW.

PENNSYLVANIA.—*Compensation Rating and Inspection Bureau. Statistical Analysis of Workmen's Compensation Insurance in Pennsylvania, from January 1, 1916, to December 31, 1920.* [Harrisburg, 1921.] 62 pp.

This report is reviewed on pages 189 to 191 of this issue of the MONTHLY LABOR REVIEW.

— *Department of Labor and Industry. Bureau of Employment. Annual report, 1920.* Harrisburg, 1921. 47 pp.

This report states that in the early spring and during the entire summer of that year strenuous efforts were made to secure farm labor for the various sections of the State. In five months farm placements were increased over 600 per cent.

The shortage of unskilled or common labor in Pennsylvania was so serious in August, 1920, that representatives of the Commonwealth were appointed to interview admitted aliens at Ellis Island and the port of Philadelphia and to direct and distribute such aliens according to their occupations and the local needs of the State. The foreign consuls in New York City and Philadelphia and several foreign immigration societies cooperated in this matter. The State employment office at Philadelphia became a center of distribution for alien labor.

Among the nationalities specially noted are the Spanish and the Dutch. A greater number of Spanish emigrants entered the United States in 1920 than in any other recent year, many of them having left Spain because of syndicalist and other labor difficulties. Almost all of the emigrants from Holland were dairy farmers, truck or garden farmers, grain or general farmers, and farm laborers, expecting to become American citizens and eventually owners of small farms. They are reported as being the highest type of farm labor that has come to the United States since 1848 to 1860, when so many Germans came to this country because of the revolution in Germany.

The following figures indicate to some extent the importance of the work of the State employment offices of Pennsylvania for 1920:

Applications for work filed in the several State employment offices	310, 943
Orders for labor filed by employers.....	557, 882
Persons referred to jobs.....	242, 702
Persons who received jobs and were placed on pay roll.....	227, 796
Average number of persons placed per day.....	760
Average number of persons placed per month.....	19, 000
Average daily wage of persons placed.....	\$5. 40
Potential wage value of placements per day.....	\$4, 100
Potential wage value of placements per month.....	\$102, 600
Potential wage value of placements per year.....	\$1, 230, 098

The orders for labor reported by the State employment offices during the year covered were 79 per cent in excess of the applications for jobs; 73.2 per cent of those making application for work were placed; and 93.8 per cent of those referred to positions received the jobs to which they were sent.

The placements by private employment offices for 1920 numbered 163,984.

— *Workmen's Compensation Board. The workmen's compensation act of 1915 as amended by the acts of 1919 and 1921. The rules of procedure of the board, compensation districts, forms, and also decisions of the courts of Pennsylvania for the year 1920, together with a digest of the decisions of the courts of 1916-1917-1918-1919. Harrisburg, 1921. 308, [3] pp.*

This publication is reviewed on pages 211 and 212 of this issue of the MONTHLY LABOR REVIEW.

WISCONSIN.—*Industrial Commission. General accident statistics for Wisconsin [1915-1920]. Madison, 1921. 124 pp. Wisconsin Safety Review, vol. II, No. 4.*

This publication is reviewed on pages 191 to 193 of this issue of the MONTHLY LABOR REVIEW.

— — — *General orders on quarries, effective January 7, 1922. [Madison, 1922.] 27 pp.*

— — — *General orders on sanitation, including ventilation, toilet rooms, and general sanitation. Revision effective, 1921. [Madison, 1921.] 36 pp.*

The above orders are reviewed on pages 212 and 213 of this issue of the MONTHLY LABOR REVIEW.

UNITED STATES.—*Department of Labor. Women's Bureau. Negro women in industry. Washington, 1922. v, 65 pp. Bulletin No. 20.*

A brief digest of the data contained in this survey was given in the MONTHLY LABOR REVIEW for April, 1921, pages 141 and 142.

— *Treasury Department. Public Health Service. Lead poisoning in the pottery trades. Washington, 1921. 223 pp. Public Health Bulletin No. 116.*

This publication is reviewed on page 183 to 185 of this issue of the MONTHLY LABOR REVIEW.

Foreign Countries.

AUSTRALIA (Victoria).—*Office of the Government statist. Forty-third annual report on friendly societies, 1920. Melbourne, 1921. xvi, 22 pp.*

Statistics from this report are given on page 241 of this issue of the MONTHLY LABOR REVIEW.

CANADA.—*Department of Labor. Wages and hours of labor in Canada. September, 1920 and September, 1921. Ottawa, 1922. 27 pp. Wages and hours of labor report No. 3. Issued as a supplement to the Labor Gazette, February, 1922.*

Some of the most important data contained in this report are reproduced in this issue of the MONTHLY LABOR REVIEW, pages 86 to 88.

— (QUEBEC).—*Minister of Public Works and Labor. General report for the year ending June 30, 1921. Quebec, 1921. 176 pp. Illustrated.*

This report gives information on industrial conditions, statistics of accidents and accident prevention, registration of children under the child labor act, employment agencies, and strikes.

— (SASKATCHEWAN).—*Bureau of Labor and Industries. First annual report for the 12 months ended April 30, 1921. Regina, 1921. 49 pp.*

This publication gives information regarding number of employees and output of coal mines, building construction and prices of building materials, factory inspection, activities of minimum wage board, accidents and accident prevention, employment and unemployment, strikes and trade disputes, trade-union agreements, and wages in building, metal, and printing trades and on electric railways.

DENMARK.—*Sygekasseinspektoratets. Beretning for Aaret 1920. [Copenhagen, 1921.] 92 pp.*

This is the annual report of the State inspection of sickness insurance funds in Denmark for the year 1920. The number of funds, number of members, amounts of payments to members and various details connected with the administration of the funds are given in the report.

FRANCE.—*Ministère du Travail et de la Prévoyance sociale. Bulletin de l'inspection du travail. Vingt-huitième année, 1920. Paris, 1920. 139 pp. Numéros 1 et 2.*

This report contains the text of the eight-hour law for the mining industry of France, passed June 24, 1919, the report of the mining commission and the debate on the bill in the Chamber of Deputies and in the Senate.

GREAT BRITAIN.—*Committee on National Expenditure. First interim report. London, 1922. 172 pp. Cmd. 1581.*

Chapter III of Part II of this report deals with the expenditure relative to the administration of the Ministry of Labor, including estimates of the cost of the employment exchanges and unemployment insurance from 1912-13 to 1922-23, with recommendations regarding the future of these services. Chapter IV covers old-age pensions.

— *Second interim report. London, 1922. 113 pp. Cmd. 1582.*

— *Department of Overseas Trade. Economic survey of certain countries specially affected by the war at the close of the year 1919. London, 1920. 118 pp.*

Included in the survey are Belgium, France, Italy, Germany, Austria, Hungary, Bulgaria, Rumania, Czechoslovakia, Poland, Russia, Finland, the Baltic States, the Kingdom of Serbs, Croats and Slovenes, Turkey, Palestine, and Mesopotamia.

— *Home Office. Workmen's compensation. Statistics of compensation and of proceedings under the workmen's compensation act, 1906, and the employers' liability act, 1880, during the year 1920. London, 1921. 15 pp. Cmd. 1545.*

This publication is reviewed on page — of this issue of the MONTHLY LABOR REVIEW.

— *Industrial Fatigue Research Board. Second annual report. London, 1922. 65 pp.*

This second report of the board covers the period from April 1, 1920, to September 30, 1921. The report includes an account of the organization, staff and general work of the board and summarizes the results of special investigations.

— *Ministry of Health. Standardization and new methods of construction committee. Report on the first year's work of the committee, from April, 1919, to April, 1920. London, 1920. 69 pp.*

— *Ministry of Transport. Railway Companies (Staff). Return showing the number of persons employed by the several railway companies of the United Kingdom during the week ended 19th March, 1921 (in substitution of the previous return Cmd. 1494, which is cancelled.) London, 1922. 11 pp. Cmd. 1494.*

— *Registrar of Friendly Societies. Reports for year ending December 31, 1919. London, 1922. 38 pp. Part A.—Appendix (A).*

Contains statistical and other information relating principally to friendly societies, orders and branches, workmen's compensation schemes, loan societies and railway savings banks.

ITALY (MILAN).—*Ufficio del Lavoro e della Statistica. Come si calcolano le indennità caro-viveri. Milan, March, 1921. 63 pp.*

This brochure, published by the municipal statistical and labor office of the city of Milan, Italy, explains the method by which Italian municipal statistical offices compute cost-of-living index numbers. It should be noted that a conference of representatives of the labor offices of all large Italian cities, of the Italian Federation of Labor, and of the Federation of Industrial Employers held at Milan on July 7 and 8, 1920, had fixed uniform rules for the computation of such index numbers and for their use in the adjustment of wages and salaries according to fluctuations in the cost of living. How the index numbers may be used in the adjustment of wages is illustrated in the brochure by numerous theoretical and practical examples.

NETHERLANDS.—*Centraal Bureau voor de Statistiek. Jaarcijfers voor het Koninkrijk der Nederlanden. Rijk in Europa. 1920. 's-Gravenhage, 1921. 324 pp.*

This annual statistical report of the central statistical office of the Netherlands contains chapters on factory inspection; employment offices; unemployment; wages and hours; strikes and lockouts; collective agreements; labor organizations; accident, sickness and unemployment insurance.

— *Woningraad. Jaaverslag van den Woningraad ter voorlichting van de regeering bij de behartiging van de belangen der volkshuisvesting over 1920. 's-Gravenhage, 1921. 36 pp.*

Report of the activities of the Housing Office of Netherlands for 1920.

NEW ZEALAND.—*National provident fund. Actuarial examination for the triennium ended 31st December, 1919. [Wellington, 1921.] 9 pp.*

SWITZERLAND.—*Verwalterkonferenz schweizerischer Arbeitsämter. Protokoll am 8. Oktober 1921. Zürich, 1921. 35 pp.*

The minutes of the seventh conference of managers of Swiss public employment exchanges held at Solothurn on October 8, 1921. The conference discussed the new German bill on employment exchanges and received a report of the Federal Labor Office on measures of the Federal Government for combating unemployment, subsidizing of employment exchanges, and of technical training courses for the unemployed.



