

U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

ROYAL MEEKER, Commissioner

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SPECIAL FEATURES IN THIS ISSUE

Cost of Living in the United States—Clothing and Miscellaneous Expenditures

National Industrial Conference, Washington

Trade-Union Attitude Toward Nationalization of Coal Mines

Changes in Union Scales of Wages and Hours of Labor 1913 to 1919

Development of Shop Committee Systems

Sixth Annual Meeting of the International Association of Industrial Accident Boards and Commissions

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MONTHLY LABOR REVIEW

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Cost of Living in the United States—Clothing and Miscellaneous Expenditures.

Clothing.

IN CONNECTION with the cost-of-living-survey articles which have been appearing in the MONTHLY LABOR REVIEW for several months, Table 1, which follows, presents a summary of expenditures for clothing. In order that the data presented might be as uniform as possible, families having three children under 15 years of age were selected; and in order to show enough cases to make the figures authoritative, data from a number of cities have been combined.

As the clothing requirements in the North are different from those of the warmer climate of the South, the table has been divided into two parts, which are shown side by side. The following cities are included in the northern group:

Boston, Mass.	Fall River, Mass.	Omaha, Nebr.
Bridgeport, Conn.	Fort Wayne, Ind.	Philadelphia, Pa.
Buffalo, N. Y.	Grand Rapids, Mich.	Pittsburgh, Pa.
Chicago, Ill.	Indianapolis, Ind.	Portland, Me.
Cincinnati, Ohio.	Kansas City, Kans.	Providence, R. I.
Cleveland, Ohio.	Kansas City, Mo.	St. Louis, Mo.
Columbus, Ohio.	Lawrence, Mass.	St. Paul, Minn.
Des Moines, Iowa.	Manchester, N. H.	Scranton, Pa.
Detroit, Mich.	Milwaukee, Wis.	Syracuse, N. Y.
Duluth, Minn.	Minneapolis, Minn.	Trenton, N. J.
East St. Louis, Ill.	Newark, N. J.	Wichita, Kans.
Evansville, Ind.	New York, N. Y.	Wilmington, Del.

The following cities are included in the southern group:

Atlanta, Ga.	Houston, Tex.	Mobile, Ala.
Baltimore, Md.	Jacksonville, Fla.	New Orleans, La.
Birmingham, Ala.	Knoxville, Tenn.	Norfolk, Va.
Charleston, S. C.	Little Rock, Ark.	Oklahoma City, Okla.
Dallas, Tex.	Louisville, Ky.	Richmond, Va.
El Paso, Tex.	Memphis, Tenn.	Savannah, Ga.

Under each of these groups the figures are shown separately for males and for females; and under each sex division, for the husband and wife, respectively, and for children 12 and under 15 years of age, 8 and under 12 years of age, 4 and under 8 years of age, and under 4 years of age.

The total number of families represented in the northern group of cities is 641; in the southern group, 207. These numbers appear in the first line of the table in the columns for husband and wife. The corresponding numbers in the columns for children are the number of families having children of the sex-and-age group named in the box head; and the number of children shown in the same columns are the number of the sex-and-age group specified. For example, in the male group, under northern cities, there were 295 families having male children 4 and under 8 years of age, and there were 351 such children in these families.

The table gives, for each person or group of persons in these families, the average number per family and per person of a long list of articles of clothing that were purchased during the year, together with the average cost per family, per person, and per article, of each article.

As no families were included in the survey in which there was not a husband and a wife, in their case of course the average per family and per person is the same.

TABLE 1.—AVERAGE NUMBER OF ARTICLES OF CLOTHING PURCHASED IN ONE YEAR PER FAMILY AND PER PERSON, AND AVERAGE COST PER FAMILY, PER PERSON, AND PER ARTICLE.

Males.

Item.	Northern cities.					Southern cities.				
	Average number and cost of articles of clothing for—									
	Husband.	Male children—				Husband.	Male children—			
12 and under 15 years.		8 and under 12 years.	4 and under 8 years.	Under 4 years.	12 and under 15 years.		8 and under 12 years.	4 and under 8 years.	Under 4 years.	
Number of families.....	641	107	212	295	209	207	31	82	103	62
Number of children.....		119	243	351	231		34	96	122	66
Average number of children per family.....		1.1	1.1	1.2	1.1		1.1	1.2	1.2	1.1
Hats, felt:										
Average number per family.....	0.7	0.1	0.4	0.6	0.2	0.8	0.2	0.4	0.5	0.2
Average cost per family.....	\$1.94	\$0.20	\$0.43	\$0.61	\$0.21	\$3.10	\$0.29	\$0.50	\$0.56	\$0.15
Average number per person.....	0.7	0.1	0.3	0.5	0.2	0.8	0.2	0.3	0.4	0.2
Average cost per person.....	\$1.94	\$0.18	\$0.38	\$0.51	\$0.19	\$3.10	\$0.26	\$0.43	\$0.47	\$0.14
Average cost per article.....	\$2.91	\$1.44	\$1.18	\$1.01	\$0.90	\$3.73	\$1.50	\$1.41	\$1.14	\$0.94
Hats, straw:										
Average number per family.....	0.4	0.04	0.2	0.4	0.2	0.4	0.1	0.1	0.3	0.1
Average cost per family.....	\$0.80	\$0.02	\$0.14	\$0.35	\$0.21	\$1.31	\$0.15	\$0.19	\$0.33	\$0.12
Average number per person.....	0.4	0.03	0.2	0.3	0.2	0.4	0.1	0.1	0.2	0.1
Average cost per person.....	\$0.80	\$0.02	\$0.12	\$0.29	\$0.19	\$1.31	\$0.13	\$0.16	\$0.28	\$0.11
Average cost per article.....	\$2.25	\$0.56	\$0.79	\$0.93	\$0.90	\$3.20	\$1.13	\$1.39	\$1.22	\$0.19
Caps:										
Average number per family.....	0.6	1.9	1.3	1.0	0.9	0.3	1.6	1.6	1.1	0.9
Average cost per family.....	\$0.65	\$1.59	\$0.99	\$0.66	\$0.64	\$0.39	\$1.19	\$1.14	\$0.71	\$0.51
Average number per person.....	0.6	1.7	1.2	0.8	0.8	0.3	1.5	1.4	0.9	0.8
Average cost per person.....	\$0.65	\$1.43	\$0.86	\$0.56	\$0.58	\$0.39	\$1.09	\$0.98	\$0.60	\$0.48
Average cost per article.....	\$1.10	\$0.82	\$0.74	\$0.69	\$0.70	\$1.20	\$0.74	\$0.71	\$0.67	\$0.60
Suits, wool:										
Average number per family.....	0.6	1.0	0.9	0.7	0.2	0.7	0.8	0.9	0.6	0.05
Average cost per family.....	\$14.09	\$9.81	\$6.74	\$3.50	\$0.52	\$18.87	\$7.59	\$7.95	\$3.31	\$0.19
Average number per person.....	0.6	0.9	0.8	0.6	0.2	0.7	0.7	0.8	0.5	0.05
Average cost per person.....	\$14.09	\$8.82	\$5.88	\$2.94	\$0.47	\$18.87	\$6.92	\$6.79	\$2.79	\$0.18
Average cost per article.....	\$25.09	\$10.00	\$7.60	\$5.03	\$3.02	\$26.05	\$9.80	\$8.57	\$5.77	\$4.00

TABLE 1.—AVERAGE NUMBER OF ARTICLES OF CLOTHING PURCHASED IN ONE YEAR PER FAMILY AND PER PERSON, AND AVERAGE COST PER FAMILY, PER PERSON, AND PER ARTICLE—Continued.

Males—Continued.

Item.	Northern cities.				Southern cities.					
	Average number and cost of articles of clothing for—									
	Hus- band.	Male children—				Hus- band.	Male children—			
12 and under 15 years.		8 and under 12 years.	4 and under 8 years.	Under 4 years.	12 and under 15 years.		8 and under 12 years.	4 and under 8 years.	Under 4 years.	
Suits, cotton:										
Average number per family	0.1	0.2	0.3	2.0	1.3	0.2	0.2	0.2	2.6	1.6
Average cost per family	\$0.91	\$1.40	\$1.07	\$2.91	\$1.34	\$2.25	\$1.64	\$1.10	\$3.98	\$1.47
Average number per person	0.1	0.2	0.3	1.6	1.2	0.2	0.2	0.2	2.2	1.5
Average cost per person	\$0.91	\$1.26	\$0.93	\$2.44	\$1.21	\$2.25	\$1.50	\$0.94	\$3.36	\$1.38
Average cost per article	\$13.52	\$7.50	\$3.66	\$1.49	\$1.02	\$12.94	\$7.28	\$4.76	\$1.51	\$0.91
Coats (separate):										
Average number per family	0.03	0.01	0.03	0.01	0.01	0.01	.....	0.1	0.1	.....
Average cost per family	\$0.19	\$0.02	\$0.06	\$0.01	\$0.02	\$0.04	.....	\$0.16	\$0.09	.....
Average number per person	0.03	0.01	0.02	0.01	0.01	0.01	.....	0.1	0.1	.....
Average cost per person	\$0.19	\$0.02	\$0.05	\$0.01	\$0.02	\$0.04	.....	\$0.14	\$0.07	.....
Average cost per article	\$6.43	\$2.50	\$2.04	\$3.98	\$4.00	\$2.67	.....	\$1.50	\$0.75	.....
Pants (separate), wool:										
Average number per family	0.4	0.6	0.6	0.4	0.02	0.3	0.7	0.5	0.5	0.03
Average cost per family	\$1.88	\$1.07	\$1.05	\$0.57	\$0.01	\$1.98	\$1.77	\$0.96	\$0.65	\$0.02
Average number per person	0.4	0.6	0.5	0.3	0.02	0.3	0.6	0.5	0.4	0.03
Average cost per person	\$1.88	\$0.96	\$0.91	\$0.48	\$0.01	\$1.98	\$1.61	\$0.82	\$0.55	\$0.02
Average cost per article	\$4.93	\$1.74	\$1.79	\$1.48	\$0.44	\$5.77	\$2.49	\$1.75	\$1.27	\$0.50
Pants (separate), cotton:										
Average number per family	0.3	0.9	0.9	0.7	0.1	0.2	1.0	1.8	0.9	0.2
Average cost per family	\$0.94	\$1.49	\$1.00	\$0.64	\$0.03	\$0.81	\$1.58	\$2.38	\$0.84	\$0.07
Average number per person	0.3	0.8	0.8	0.6	0.1	0.2	0.9	1.5	0.8	0.2
Average cost per person	\$0.94	\$1.34	\$0.87	\$0.53	\$0.03	\$0.81	\$1.44	\$2.04	\$0.71	\$0.07
Average cost per article	\$3.00	\$1.63	\$1.07	\$0.91	\$0.39	\$3.41	\$1.63	\$1.34	\$0.90	\$0.44
Overcoats:										
Average number per family	0.2	0.1	0.3	0.5	0.3	0.2	0.1	0.1	0.3	0.4
Average cost per family	\$4.72	\$1.27	\$2.23	\$2.85	\$1.37	\$3.77	\$0.84	\$0.81	\$1.74	\$1.75
Average number per person	0.2	0.1	0.3	0.4	0.3	0.2	0.1	0.1	0.3	0.3
Average cost per person	\$4.72	\$1.14	\$1.95	\$2.40	\$1.24	\$3.77	\$0.76	\$0.69	\$1.47	\$1.64
Average cost per article	\$20.73	\$10.46	\$7.39	\$6.23	\$4.22	\$20.01	\$8.67	\$6.04	\$5.44	\$4.72
Mackinaws:										
Average number per family	0.02	0.2	0.1	0.05	0.01	0.01	.....	.....	.....	.....
Average cost per family	\$0.20	\$1.94	\$0.74	\$0.28	\$0.07	\$0.10	.....	.....	.....	.....
Average number per person	0.02	0.2	0.1	0.04	0.01	0.01	.....	.....	.....	.....
Average cost per person	\$0.20	\$1.74	\$0.65	\$0.23	\$0.06	\$0.10	.....	.....	.....	.....
Average cost per article	\$10.08	\$7.98	\$6.55	\$5.89	\$4.83	\$9.88	.....	.....	.....	.....
Raincoats:										
Average number per family	0.04	0.05	0.1	0.04	0.01	0.1	0.2	0.04	0.04	.....
Average cost per family	\$0.40	\$0.18	\$0.20	\$0.14	\$0.04	\$0.62	\$0.81	\$0.22	\$0.11	.....
Average number per person	0.04	0.04	0.05	0.03	0.01	0.1	0.1	0.03	0.03	.....
Average cost per person	\$0.40	\$0.16	\$0.17	\$0.12	\$0.03	\$0.62	\$0.74	\$0.19	\$0.09	.....
Average cost per article	\$9.22	\$3.75	\$3.86	\$3.89	\$8.00	\$8.00	\$5.00	\$6.00	\$2.88	.....
Sweaters and jerseys:										
Average number per family	0.2	0.4	0.4	0.5	0.4	0.2	0.4	0.5	0.4	0.3
Average cost per family	\$1.01	\$1.51	\$0.91	\$1.12	\$0.75	\$0.65	\$1.22	\$1.22	\$0.86	\$0.68
Average number per person	0.2	0.4	0.3	0.4	0.3	0.2	0.4	0.4	0.3	0.3
Average cost per person	\$1.01	\$1.36	\$0.79	\$0.94	\$0.68	\$0.65	\$1.11	\$1.04	\$0.72	\$0.64
Average cost per article	\$4.39	\$3.37	\$2.48	\$2.39	\$2.13	\$3.64	\$2.90	\$2.62	\$2.10	\$2.23
Cleaning, pressing, and repairing:										
Average cost per family	\$0.86	\$0.10	\$0.05	\$0.06	\$0.04	\$1.03	\$0.06	.....	\$0.01	.....
Average cost per person	\$0.86	\$0.09	\$0.04	\$0.05	\$0.04	\$1.03	\$0.05	.....	\$0.01	.....
Overalls:										
Average number per family	1.0	0.3	0.6	0.8	0.3	1.0	0.03	0.2	0.3	0.02
Average cost per family	\$1.96	\$0.36	\$0.55	\$0.74	\$0.25	\$2.24	\$0.05	\$0.16	\$0.27	\$0.01
Average number per person	1.0	0.3	0.5	0.7	0.3	1.0	0.03	0.1	0.3	0.02
Average cost per person	\$1.96	\$0.32	\$0.48	\$0.62	\$0.22	\$2.24	\$0.04	\$0.14	\$0.23	\$0.01
Average cost per article	\$1.97	\$1.04	\$0.90	\$0.87	\$0.80	\$2.28	\$1.50	\$1.04	\$0.79	\$0.50
Jumpers:										
Average number per family	0.4	0.04	.....	0.03	0.1	0.3	.....	.....	.....	.....
Average cost per family	\$0.75	\$0.03	.....	\$0.03	\$0.04	\$0.77	.....	.....	.....	.....
Average number per person	0.4	0.03	.....	0.03	0.05	0.3	.....	.....	.....	.....
Average cost per person	\$0.75	\$0.03	.....	\$0.02	\$0.03	\$0.77	.....	.....	.....	.....
Average cost per article	\$1.96	\$0.75	.....	\$0.78	\$0.69	\$2.33	.....	.....	.....	.....

TABLE 1.—AVERAGE NUMBER OF ARTICLES OF CLOTHING PURCHASED IN ONE YEAR PER FAMILY AND PER PERSON, AND AVERAGE COST PER FAMILY, PER PERSON, AND PER ARTICLE—Continued.

Males—Continued.

Item.	Northern cities.					Southern cities.				
	Average number and cost of articles of clothing for—									
	Hus- band.	Male children—				Hus- band.	Male children—			
		12 and under 15 years.	8 and under 12 years.	4 and under 8 years.	Under 4 years.		12 and under 15 years.	8 and under 12 years.	4 and under 8 years.	Under 4 years.
Shirts, cotton:										
Average number per family.	3.4	4.9	4.7	3.2	0.3	4.3	6.6	7.1	4.3	0.6
Average cost per family.	\$4.29	\$3.64	\$3.12	\$1.74	\$0.12	\$6.01	\$4.99	\$5.13	\$2.69	\$0.25
Average number per person.	3.4	4.4	4.1	2.7	0.3	4.3	6.1	6.1	3.6	0.6
Average cost per person.	\$4.29	\$3.28	\$2.72	\$1.47	\$0.11	\$6.01	\$4.55	\$4.38	\$2.27	\$0.24
Average cost per article.	\$1.26	\$0.75	\$0.66	\$0.54	\$0.43	\$1.41	\$0.75	\$0.72	\$0.62	\$0.41
Shirts, wool:										
Average number per family.	0.2	0.1	0.05	0.1	0.01	0.1	.....	.....	0.04	.....
Average cost per family.	\$0.49	\$0.07	\$0.06	\$0.07	\$0.01	\$0.19	.....	.....	\$0.02	.....
Average number per person.	0.2	0.1	0.04	0.05	0.01	0.1	.....	.....	0.03	.....
Average cost per person.	\$0.49	\$0.07	\$0.05	\$0.06	\$0.01	\$0.19	.....	.....	\$0.02	.....
Average cost per article.	\$2.51	\$1.33	\$1.23	\$1.19	\$1.00	\$3.27	.....	.....	\$0.48	.....
Shirts, silk:										
Average number per family.	0.1	0.01	.....	0.01	.....	0.01	.....	.....	.....	.....
Average cost per family.	\$0.24	\$0.02	.....	\$0.01	.....	\$0.04	.....	.....	.....	.....
Average number per person.	0.1	0.01	.....	0.01	.....	0.01	.....	.....	.....	.....
Average cost per person.	\$0.24	\$0.02	.....	\$0.01	.....	\$0.04	.....	.....	.....	.....
Average cost per article.	\$3.51	\$2.00	.....	\$1.00	.....	\$4.00	.....	.....	.....	.....
Undershirts, cotton:										
Average number per family.	0.8	0.3	0.6	0.9	1.8	1.1	0.5	0.4	1.0	1.2
Average cost per family.	\$0.75	\$0.20	\$0.31	\$0.38	\$0.74	\$1.14	\$0.30	\$0.22	\$0.43	\$0.50
Average number per person.	0.8	0.3	0.5	0.7	1.6	1.1	0.4	0.3	0.8	1.2
Average cost per person.	\$0.75	\$0.18	\$0.27	\$0.32	\$0.67	\$1.14	\$0.27	\$0.19	\$0.36	\$0.47
Average cost per article.	\$0.95	\$0.66	\$0.53	\$0.44	\$0.41	\$1.08	\$0.66	\$0.57	\$0.44	\$0.40
Undershirts, wool:										
Average number per family.	0.2	0.1	0.1	0.2	0.3	0.1	.....	.....	.....	0.2
Average cost per family.	\$0.53	\$0.21	\$0.04	\$0.16	\$0.24	\$0.14	.....	.....	.....	\$0.24
Average number per person.	0.2	0.1	0.05	0.2	0.3	0.1	.....	.....	.....	0.2
Average cost per person.	\$0.53	\$0.19	\$0.04	\$0.13	\$0.22	\$0.14	.....	.....	.....	\$0.22
Average cost per article.	\$2.31	\$1.48	\$0.75	\$0.88	\$0.74	\$1.64	.....	.....	.....	\$1.04
Drawers, cotton:										
Average number per family.	0.7	0.3	0.6	0.8	0.8	1.0	0.3	0.5	1.1	0.9
Average cost per family.	\$0.72	\$0.21	\$0.31	\$0.34	\$0.32	\$1.06	\$0.15	\$0.23	\$0.36	\$0.33
Average number per person.	0.7	0.3	0.5	0.6	0.7	1.0	0.2	0.4	0.9	0.9
Average cost per person.	\$0.72	\$0.19	\$0.27	\$0.28	\$0.29	\$1.06	\$0.14	\$0.20	\$0.31	\$0.31
Average cost per article.	\$0.98	\$0.67	\$0.54	\$0.45	\$0.41	\$1.05	\$0.59	\$0.46	\$0.33	\$0.35
Drawers, wool:										
Average number per family.	0.2	0.1	0.1	0.1	0.1	0.1	.....	.....	.....	.....
Average cost per family.	\$0.48	\$0.16	\$0.05	\$0.13	\$0.08	\$0.09	.....	.....	.....	.....
Average number per person.	0.2	0.1	0.1	0.1	0.1	0.1	.....	.....	.....	.....
Average cost per person.	\$0.48	\$0.14	\$0.04	\$0.11	\$0.07	\$0.09	.....	.....	.....	.....
Average cost per article.	\$2.35	\$1.55	\$0.80	\$0.94	\$0.62	\$1.58	.....	.....	.....	.....
Union suits, cotton:										
Average number per family.	1.3	2.2	2.0	1.8	0.5	1.3	1.8	1.9	1.9	0.5
Average cost per family.	\$1.96	\$2.12	\$1.83	\$1.57	\$0.38	\$2.15	\$1.89	\$2.05	\$1.71	\$0.50
Average number per person.	1.3	2.0	1.8	1.5	0.4	1.3	1.6	1.7	1.6	0.5
Average cost per person.	\$1.96	\$1.91	\$1.60	\$1.32	\$0.34	\$2.15	\$1.73	\$1.75	\$1.45	\$0.47
Average cost per article.	\$1.50	\$0.97	\$0.90	\$0.85	\$0.82	\$1.63	\$1.07	\$1.06	\$0.92	\$0.96
Union suits, wool:										
Average number per family.	0.3	0.3	0.2	0.3	0.1	0.04	.....	0.04	.....	0.03
Average cost per family.	\$0.94	\$0.55	\$0.41	\$0.35	\$0.12	\$0.14	.....	\$0.05	.....	\$0.06
Average number per person.	0.3	0.3	0.2	0.2	0.1	0.04	.....	0.03	.....	0.03
Average cost per person.	\$0.94	\$0.50	\$0.36	\$0.29	\$0.10	\$0.14	.....	\$0.05	.....	\$0.06
Average cost per article.	\$3.49	\$1.97	\$1.72	\$1.34	\$1.15	\$3.50	.....	\$1.50	.....	\$2.00
Underwaists:										
Average number per family.	.....	.....	0.5	1.2	1.0	.....	.....	0.4	1.4	1.1
Average cost per family.	.....	.....	\$0.19	\$0.33	\$0.29	.....	.....	\$0.09	\$0.32	\$0.32
Average number per person.	.....	.....	0.5	1.0	0.9	.....	.....	0.3	1.1	1.1
Average cost per person.	.....	.....	\$0.17	\$0.27	\$0.26	.....	.....	\$0.08	\$0.27	\$0.30
Average cost per article.	.....	.....	\$0.36	\$0.28	\$0.27	.....	.....	\$0.23	\$0.23	\$0.28
Rompers:										
Average number per family.	.....	.....	.....	0.4	2.6	.....	.....	.....	1.1	2.5
Average cost per family.	.....	.....	.....	\$0.27	\$1.72	.....	.....	.....	\$0.84	\$1.80
Average number per person.	.....	.....	.....	0.3	2.3	.....	.....	.....	1.0	2.4
Average cost per person.	.....	.....	.....	\$0.23	\$1.55	.....	.....	.....	\$0.71	\$1.69
Average cost per article.	.....	.....	.....	\$0.69	\$0.67	.....	.....	.....	\$0.74	\$0.72

TABLE 1.—AVERAGE NUMBER OF ARTICLES OF CLOTHING PURCHASED IN ONE YEAR PER FAMILY AND PER PERSON, AND AVERAGE COST PER FAMILY, PER PERSON, AND PER ARTICLE—Continued.

Males—Continued.

Item.	Northern cities.					Southern cities.				
	Average number and cost of articles of clothing for—									
	Hus- band.	Male children—				Hus- band.	Male children—			
12 and under 15 years.		8 and under 12 years.	4 and under 8 years.	Under 4 years.	12 and under 15 years.		8 and under 12 years.	4 and under 8 years.	Under 4 years.	
Pajamas:										
Average number per family.....	0.1	0.4	0.3	0.4	0.3	0.1	0.03	0.2	0.2	0.1
Average cost per family.....	\$0.20	\$0.37	\$0.26	\$0.33	\$0.17	\$0.14	\$0.03	\$0.16	\$0.20	\$0.09
Average number per person.....	0.1	0.3	0.3	0.4	0.2	0.1	0.03	0.1	0.2	0.1
Average cost per person.....	\$0.20	\$0.33	\$0.23	\$0.28	\$0.15	\$0.14	\$0.02	\$0.13	\$0.17	\$0.09
Average cost per article.....	\$1.50	\$1.05	\$0.88	\$0.77	\$0.66	\$1.79	\$0.80	\$0.99	\$0.91	\$0.81
Nightshirts:										
Average number per family.....	0.3	0.3	0.5	0.6	0.7	0.2	0.1	0.3	0.5	0.5
Average cost per family.....	\$0.37	\$0.21	\$0.34	\$0.39	\$0.34	\$0.28	\$0.09	\$0.27	\$0.37	\$0.29
Average number per person.....	0.3	0.3	0.4	0.5	0.6	0.2	0.1	0.2	0.4	0.5
Average cost per person.....	\$0.37	\$0.19	\$0.30	\$0.33	\$0.31	\$0.28	\$0.08	\$0.23	\$0.31	\$0.27
Average cost per article.....	\$1.24	\$0.72	\$0.75	\$0.66	\$0.51	\$1.44	\$1.38	\$0.94	\$0.75	\$0.60
Socks, cotton:										
Average number per family.....	10.4	11.5	11.8	12.2	7.9	11.7	13.7	12.3	11.9	8.1
Average cost per family.....	\$2.89	\$4.20	\$3.92	\$3.74	\$2.12	\$3.32	\$5.21	\$4.51	\$3.61	\$2.16
Average number per person.....	10.4	10.3	10.3	10.2	7.2	11.7	12.5	10.5	10.0	7.6
Average cost per person.....	\$2.89	\$3.77	\$3.42	\$3.14	\$1.92	\$3.32	\$4.75	\$3.85	\$3.05	\$2.02
Average cost per article.....	\$0.28	\$0.37	\$0.33	\$0.31	\$0.27	\$0.28	\$0.38	\$0.37	\$0.30	\$0.27
Socks, wool:										
Average number per family.....	0.6	0.3	0.2	0.3	0.6	0.05	.....	.....	.....	0.05
Average cost per family.....	\$0.47	\$0.16	\$0.13	\$0.17	\$0.30	\$0.04	.....	.....	.....	\$0.02
Average number per person.....	0.6	0.2	0.2	0.2	0.6	0.05	.....	.....	.....	0.05
Average cost per person.....	\$0.47	\$0.14	\$0.11	\$0.15	\$0.27	\$0.04	.....	.....	.....	\$0.02
Average cost per article.....	\$0.80	\$0.62	\$0.65	\$0.67	\$0.48	\$0.76	.....	.....	.....	\$0.50
Socks, silk:										
Average number per family.....	0.2	.....	.....	0.01	0.01	0.3	.....	.....	.....	.....
Average cost per family.....	\$0.14	.....	.....	\$0.01	\$0.01	\$0.21	.....	.....	.....	.....
Average number per person.....	0.2	.....	.....	0.01	0.01	0.3	.....	.....	.....	.....
Average cost per person.....	\$0.14	.....	.....	\$0.01	\$0.01	\$0.21	.....	.....	.....	.....
Average cost per article.....	\$0.64	.....	.....	\$0.50	\$0.48	\$0.79	.....	.....	.....	.....
Shoes, high:										
Average number per family.....	2.1	3.4	3.9	3.7	2.9	2.0	2.7	3.4	3.2	2.6
Average cost per family.....	\$10.34	\$12.08	\$11.43	\$9.54	\$5.16	\$10.71	\$10.60	\$11.17	\$8.50	\$4.89
Average number per person.....	2.1	3.1	3.4	3.1	2.6	2.0	2.5	2.9	2.7	2.4
Average cost per person.....	\$10.34	\$10.86	\$9.97	\$8.02	\$4.67	\$10.71	\$9.67	\$9.54	\$7.18	\$4.59
Average cost per article.....	\$4.89	\$3.51	\$2.91	\$2.55	\$1.77	\$5.49	\$3.87	\$3.25	\$2.66	\$1.88
Shoes, low:										
Average number per family.....	0.2	0.6	0.5	0.8	0.4	0.4	0.7	0.8	0.7	0.4
Average cost per family.....	\$0.84	\$1.12	\$0.69	\$1.23	\$0.52	\$1.82	\$1.36	\$1.51	\$1.38	\$0.54
Average number per person.....	0.2	0.6	0.4	0.7	0.4	0.4	0.7	0.6	0.6	0.3
Average cost per person.....	\$0.84	\$1.01	\$0.60	\$1.03	\$0.47	\$1.82	\$1.24	\$1.29	\$1.16	\$0.51
Average cost per article.....	\$4.19	\$1.82	\$1.43	\$1.45	\$1.35	\$4.71	\$1.84	\$2.00	\$1.84	\$1.52
Shoe repairing:										
Average cost per family.....	\$2.67	\$3.39	\$2.65	\$1.78	\$0.32	\$2.56	\$2.85	\$2.73	\$1.31	\$0.17
Average cost per person.....	\$2.67	\$3.05	\$2.31	\$1.50	\$0.29	\$2.56	\$2.60	\$2.33	\$1.10	\$0.16
Shoe shines:										
Average number per family.....	1.8	0.3	.....	.....	.....	3.2	.....	.....	.....	.....
Average cost per family.....	\$0.15	\$0.03	.....	.....	.....	\$0.28	.....	.....	.....	.....
Average number per person.....	1.8	0.3	.....	.....	.....	3.2	.....	.....	.....	.....
Average cost per person.....	\$0.15	\$0.03	.....	.....	.....	\$0.28	.....	.....	.....	.....
Average cost per shine.....	\$0.08	\$0.10	.....	.....	.....	\$0.09	.....	.....	.....	.....
Rubber boots:										
Average number per family.....	0.1	0.03	0.04	0.1	0.01	0.1	.....	.....	.....	.....
Average cost per family.....	\$0.39	\$0.14	\$0.10	\$0.19	\$0.02	\$0.36	.....	.....	.....	.....
Average number per person.....	0.1	0.03	0.03	0.1	0.01	0.1	.....	.....	.....	.....
Average cost per person.....	\$0.39	\$0.12	\$0.09	\$0.16	\$0.02	\$0.36	.....	.....	.....	.....
Average cost per article.....	\$4.86	\$4.83	\$2.60	\$2.41	\$1.87	\$4.70	.....	.....	.....	.....
House slippers:										
Average number per family.....	0.2	0.1	0.1	0.1	0.03	0.1	.....	.....	.....	.....
Average cost per family.....	\$0.26	\$0.08	\$0.05	\$0.11	\$0.03	\$0.14	.....	.....	.....	.....
Average number per person.....	0.2	0.1	0.1	0.1	0.03	0.1	.....	.....	.....	.....
Average cost per person.....	\$0.26	\$0.07	\$0.05	\$0.09	\$0.03	\$0.14	.....	.....	.....	.....
Average cost per article.....	\$1.64	\$1.10	\$0.79	\$1.07	\$1.04	\$2.48	.....	.....	.....	.....

TABLE 1.—AVERAGE NUMBER OF ARTICLES OF CLOTHING PURCHASED IN ONE YEAR PER FAMILY AND PER PERSON, AND AVERAGE COST PER FAMILY, PER PERSON, AND PER ARTICLE—Continued.

Males—Continued.

Item.	Northern cities.					Southern cities.				
	Average number and cost of articles of clothing for—									
	Hus- band.	Male children—				Hus- band.	Male children—			
12 and under 15 years.		8 and under 12 years.	4 and under 8 years.	Under 4 years.	12 and under 15 years.		8 and under 12 years.	4 and under 8 years.	Under 4 years.	
Spats and leggings:										
Average number per family.	0.01	0.02	0.02	0.1	0.1	0.01	0.03	.....	.....	0.05
Average cost per family.	\$0.02	\$0.02	\$0.03	\$0.05	\$0.11	\$0.01	\$0.06	.....	.....	\$0.09
Average number per person.	0.01	0.02	0.02	0.04	0.1	0.01	0.03	.....	.....	0.05
Average cost per person.	\$0.02	\$0.02	\$0.03	\$0.04	\$0.10	\$0.01	\$0.06	.....	.....	\$0.08
Average cost per article.	\$3.10	\$1.14	\$1.56	\$0.96	\$1.32	\$2.50	\$1.95	.....	.....	\$1.83
Rubbers:										
Average number per family.	0.5	0.9	1.1	0.9	0.3	0.1	0.1	0.3	0.1	0.03
Average cost per family.	\$0.68	\$0.84	\$0.90	\$0.68	\$0.17	\$0.11	\$0.20	\$0.10	\$0.10	\$0.02
Average number per person.	0.5	0.8	1.0	0.8	0.3	0.1	0.1	0.2	0.1	0.03
Average cost per person.	\$0.68	\$0.75	\$0.79	\$0.58	\$0.16	\$0.17	\$0.10	\$0.17	\$0.09	\$0.02
Average cost per article.	\$1.29	\$0.95	\$0.81	\$0.72	\$0.61	\$1.21	\$0.88	\$0.77	\$0.70	\$0.75
Articles:										
Average number per family.	0.1	0.02	0.1	0.1	0.01	0.1	.....	.....	.....	.....
Average cost per family.	\$0.22	\$0.04	\$0.08	\$0.11	\$0.01	\$0.11	.....	.....	.....	.....
Average number per person.	0.1	0.02	0.1	0.1	0.01	0.1	.....	.....	.....	.....
Average cost per person.	\$0.22	\$0.03	\$0.07	\$0.10	\$0.01	\$0.11	.....	.....	.....	.....
Average cost per article.	\$2.43	\$2.00	\$1.35	\$1.36	\$0.80	\$2.05	.....	.....	.....	.....
Gloves and mittens, leather, dress:										
Average number per family.	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.01	.....
Average cost per family.	\$0.46	\$0.26	\$0.22	\$0.14	\$0.04	\$0.30	\$0.05	\$0.13	\$0.01	.....
Average number per person.	0.2	0.2	0.2	0.2	0.05	0.1	0.1	0.1	0.01	.....
Average cost per person.	\$0.46	\$0.24	\$0.19	\$0.12	\$0.04	\$0.30	\$0.04	\$0.11	\$0.01	.....
Average cost per article.	\$2.00	\$1.04	\$0.93	\$0.68	\$0.80	\$2.27	\$0.75	\$1.34	\$1.00	.....
Gloves and mittens, leather, work:										
Average number per family.	0.7	.....	.....	.....	.....	0.5	.....	.....	.....	.....
Average cost per family.	\$0.31	.....	.....	.....	.....	\$0.38	.....	.....	.....	.....
Average number per person.	0.7	.....	.....	.....	.....	0.5	.....	.....	.....	.....
Average cost per person.	\$0.31	.....	.....	.....	.....	\$0.38	.....	.....	.....	.....
Average cost per article.	\$0.41	.....	.....	.....	.....	\$0.76	.....	.....	.....	.....
Gloves and mittens, cotton:										
Average number per family.	4.1	0.4	0.5	0.4	0.2	1.8	0.2	0.3	0.1	.....
Average cost per family.	\$0.83	\$0.14	\$0.17	\$0.14	\$0.04	\$0.50	\$0.10	\$0.11	\$0.04	.....
Average number per person.	4.1	0.3	0.4	0.3	0.1	1.8	0.1	0.2	0.1	.....
Average cost per person.	\$0.83	\$0.12	\$0.15	\$0.12	\$0.03	\$0.50	\$0.09	\$0.09	\$0.03	.....
Average cost per article.	\$0.20	\$0.38	\$0.36	\$0.33	\$0.24	\$0.28	\$0.60	\$0.43	\$0.41	.....
Gloves and mittens, wool:										
Average number per family.	0.2	0.7	0.7	0.7	0.3	0.04	0.1	0.1	0.1	0.1
Average cost per family.	\$0.19	\$0.49	\$0.38	\$0.34	\$0.13	\$0.04	\$0.06	\$0.09	\$0.06	\$0.03
Average number per person.	0.2	0.6	0.6	0.6	0.3	0.04	0.1	0.1	0.1	0.1
Average cost per person.	\$0.19	\$0.44	\$0.33	\$0.28	\$0.12	\$0.04	\$0.06	\$0.07	\$0.05	\$0.03
Average cost per article.	\$1.08	\$0.72	\$0.56	\$0.51	\$0.45	\$0.84	\$0.67	\$0.64	\$0.63	\$0.44
Collars:										
Average number per family.	4.8	1.4	0.4	0.2	.....	4.2	0.5	0.3	0.1	.....
Average cost per family.	\$0.80	\$0.27	\$0.08	\$0.03	.....	\$0.85	\$0.13	\$0.06	\$0.02	.....
Average number per person.	4.8	1.3	0.4	0.1	.....	4.2	0.5	0.3	0.1	.....
Average cost per person.	\$0.80	\$0.24	\$0.07	\$0.03	.....	\$0.85	\$0.12	\$0.05	\$0.01	.....
Average cost per article.	\$0.17	\$0.19	\$0.20	\$0.21	.....	\$0.21	\$0.26	\$0.18	\$0.24	.....
Ties:										
Average number per family.	2.1	2.1	1.3	0.9	0.1	2.1	1.6	1.6	0.5	.....
Average cost per family.	\$1.17	\$0.73	\$0.38	\$0.25	\$0.03	\$1.24	\$0.61	\$0.54	\$0.16	.....
Average number per person.	2.1	1.9	1.1	0.7	0.1	2.1	1.5	1.4	0.4	.....
Average cost per person.	\$1.17	\$0.66	\$0.33	\$0.21	\$0.02	\$1.24	\$0.56	\$0.46	\$0.13	.....
Average cost per article.	\$0.55	\$0.35	\$0.29	\$0.29	\$0.27	\$0.59	\$0.37	\$0.33	\$0.32	.....
Handkerchiefs:										
Average number per family.	5.4	4.1	3.4	2.3	0.5	6.3	3.2	2.9	1.7	0.1
Average cost per family.	\$0.72	\$0.45	\$0.28	\$0.18	\$0.03	\$0.81	\$0.35	\$0.29	\$0.14	\$0.01
Average number per person.	5.4	3.7	3.0	1.9	0.5	6.3	2.9	2.5	1.4	0.1
Average cost per person.	\$0.72	\$0.40	\$0.24	\$0.15	\$0.03	\$0.81	\$0.32	\$0.25	\$0.12	\$0.01
Average cost per article.	\$0.13	\$0.11	\$0.08	\$0.08	\$0.06	\$0.13	\$0.11	\$0.10	\$0.08	\$0.09

TABLE 1.—AVERAGE NUMBER OF ARTICLES OF CLOTHING PURCHASED IN ONE YEAR PER FAMILY AND PER PERSON, AND AVERAGE COST PER FAMILY, PER PERSON, AND PER ARTICLE—Continued.

Males—Concluded.

Item.	Northern cities.					Southern cities.				
	Average number and cost of articles of clothing for—									
	Hus- band.	Male children—				Hus- band.	Male children—			
12 and under 15 years.		8 and under 12 years.	4 and under 8 years.	Under 4 years.	12 and under 15 years.		8 and under 12 years.	4 and under 8 years.	Under 4 years.	
Mufflers and scarfs:										
Average number per family..	0.1	0.1	0.03	0.1	.....	0.02	0.03	.....	.....	.....
Average cost per family.....	\$0.09	\$0.04	\$0.02	\$0.05	.....	\$0.03	\$0.01	.....	.....	.....
Average number per person.....	0.1	0.1	0.02	0.05	.....	0.02	0.03	.....	.....	.....
Average cost per person.....	\$0.09	\$0.04	\$0.01	\$0.04	.....	\$0.03	\$0.01	.....	.....	.....
Average cost per article.....	\$1.48	\$0.71	\$0.60	\$0.89	.....	\$1.56	\$0.25	.....	.....	.....
Garters:										
Average number per family..	1.1	1.9	2.1	2.3	1.1	1.1	1.6	1.7	1.4	0.5
Average cost per family.....	\$0.31	\$0.28	\$0.34	\$0.40	\$0.19	\$0.33	\$0.22	\$0.22	\$0.20	\$0.09
Average number per person.....	1.1	1.7	1.9	1.9	1.0	1.1	1.4	1.5	1.2	0.5
Average cost per person.....	\$0.31	\$0.25	\$0.29	\$0.34	\$0.18	\$0.33	\$0.20	\$0.19	\$0.17	\$0.09
Average cost per article.....	\$0.27	\$0.15	\$0.16	\$1.8	\$0.17	\$0.29	\$0.14	\$0.13	\$0.14	\$0.18
Belts:										
Average number per family..	0.4	0.6	0.2	0.1	0.02	0.4	0.5	0.4	0.05	0.02
Average cost per family.....	\$0.29	\$0.26	\$0.09	\$0.03	\$0.01	\$0.34	\$0.19	\$0.18	\$0.02	\$0.01
Average number per person.....	0.4	0.5	0.2	0.1	0.02	0.4	0.4	0.3	0.04	0.02
Average cost per person.....	\$0.29	\$0.24	\$0.07	\$0.02	\$0.01	\$0.34	\$0.17	\$0.15	\$0.02	\$0.01
Average cost per article.....	\$0.76	\$0.47	\$0.39	\$0.34	\$0.26	\$0.81	\$0.39	\$0.50	\$0.41	\$0.50
Suspenders:										
Average number per family..	0.8	0.3	0.5	0.1	.....	0.6	0.2	0.2	0.04	.....
Average cost per family.....	\$0.43	\$0.09	\$0.15	\$0.02	.....	\$0.38	\$0.07	\$0.06	\$0.01	.....
Average number per person.....	0.8	0.2	0.5	0.1	.....	0.6	0.2	0.2	0.03	.....
Average cost per person.....	\$0.43	\$0.08	\$0.13	\$0.02	.....	\$0.38	\$0.06	\$0.05	\$0.01	.....
Average cost per article.....	\$0.55	\$0.32	\$0.27	\$0.30	.....	\$0.58	\$0.37	\$0.28	\$0.20	.....
Umbrellas:										
Average number per family..	0.1	0.02	0.03	0.01	.....	0.1	.....	0.01	.....	.....
Average cost per family.....	\$0.25	\$0.03	\$0.04	\$0.01	.....	\$0.22	.....	\$0.02	.....	.....
Average number per person.....	0.1	0.02	0.02	0.01	.....	0.1	.....	0.01	.....	.....
Average cost per person.....	\$0.25	\$0.03	\$0.03	\$0.01	.....	\$0.22	.....	\$0.01	.....	.....
Average cost per article.....	\$1.86	\$1.50	\$1.25	\$0.75	.....	\$1.88	.....	\$1.25	.....	.....
Pocketbooks:										
Average number per family..	0.1	0.05	0.02	.....	.....	0.1	.....	0.01	.....	.....
Average cost per family.....	\$0.04	\$0.01	\$0.01	.....	.....	\$0.04	.....	\$0.01	.....	.....
Average number per person.....	0.1	0.04	0.02	.....	.....	0.1	.....	0.01	.....	.....
Average cost per person.....	\$0.04	\$0.01	\$0.01	.....	.....	\$0.04	.....	\$0.01	.....	.....
Average cost per article.....	\$0.61	\$0.29	\$0.28	.....	.....	\$0.62	.....	\$0.50	.....	.....
Watches and jewelry:										
Average number per family.....	\$0.91	\$0.70	\$0.07	\$0.03	\$0.03	\$1.07	\$0.13	\$0.13	.....	.....
Average cost per person.....	\$0.91	\$0.63	\$0.06	\$0.02	\$0.03	\$1.07	\$0.12	\$0.11	.....	.....
Other clothing:										
Average number per family.....	\$0.19	\$0.07	\$0.14	\$0.13	\$0.13	\$0.22	\$0.43	\$0.20	\$0.20	\$0.28
Average cost per person.....	\$0.19	\$0.06	\$0.12	\$0.11	\$0.12	\$0.22	\$0.39	\$0.17	\$0.17	\$0.26
<i>Infants' wear.</i>										
Dresses:										
Average number per family.....	.....	.....	.....	.....	1.9	.....	.....	.....	.....	3.8
Average cost per family.....	.....	.....	.....	.....	\$1.20	.....	.....	.....	.....	\$2.72
Average number per person.....	.....	.....	.....	.....	1.7	.....	.....	.....	.....	3.6
Average cost per person.....	.....	.....	.....	.....	\$1.14	.....	.....	.....	.....	\$2.56
Average cost per article.....	.....	.....	.....	.....	\$0.67	.....	.....	.....	.....	\$0.72
Petticoats:										
Average number per family..	.....	.....	.....	.....	0.7	.....	.....	.....	.....	0.9
Average cost per family.....	.....	.....	.....	.....	\$0.26	.....	.....	.....	.....	\$0.38
Average number per person.....	.....	.....	.....	.....	0.6	.....	.....	.....	.....	0.8
Average cost per person.....	.....	.....	.....	.....	\$0.24	.....	.....	.....	.....	\$0.36
Average cost per article.....	.....	.....	.....	.....	\$0.40	.....	.....	.....	.....	\$0.43
Other infants' wear (not specified above):										
Average cost per family.....	.....	.....	.....	.....	\$0.70	.....	.....	.....	.....	\$0.72
Average cost per person.....	.....	.....	.....	.....	\$0.63	.....	.....	.....	.....	\$0.67
Total average cost per family	\$68.33	\$54.67	\$45.43	\$39.90	\$21.69	\$75.79	\$47.18	\$47.15	\$36.16	\$21.48
Total average cost per person	\$68.33	\$49.16	\$39.60	\$33.53	\$19.62	\$75.79	\$43.00	\$40.27	\$30.52	\$20.18

TABLE 1.—AVERAGE NUMBER OF ARTICLES OF CLOTHING PURCHASED IN ONE YEAR PER FAMILY AND PER PERSON, AND AVERAGE COST PER FAMILY, PER PERSON, AND PER ARTICLE—Continued.

Females.

Item.	Northern cities.					Southern cities.				
	Average number and cost of articles of clothing for—									
	Wife.	Female children—				Wife.	Female children—			
		12 and under 15 yrs.	8 and under 12 yrs.	4 and under 8 yrs.	Under 4 yrs.		12 and under 15 yrs.	8 and under 12 yrs.	4 and under 8 yrs.	Under 4 yrs.
Number of families.....	641	87	241	305	225	207	40	78	92	59
Number of children.....		94	266	358	255		41	87	112	64
Average number of children per family.....		1.1	1.1	1.2	1.1		1.0	1.1	1.2	1.1
Hats:										
Average number per family..	1.0	1.3	1.0	1.1	0.4	1.1	1.1	1.1	0.8	0.2
Average cost per family.....	\$4.39	\$3.14	\$2.33	\$1.89	\$0.54	\$5.15	\$2.95	\$2.52	\$1.66	\$0.41
Average number per person.....	1.0	1.2	0.9	0.9	0.3	1.1	1.1	1.0	0.7	0.2
Average cost per person.....	\$4.39	\$2.91	\$2.11	\$1.61	\$0.48	\$5.15	\$2.87	\$2.26	\$1.36	\$0.37
Average cost per article.....	\$4.41	\$2.44	\$2.23	\$1.75	\$1.43	\$4.56	\$2.62	\$2.26	\$1.96	\$1.71
Veils:										
Average number per family..	0.1	0.02	0.01			0.1		0.01		
Average cost per family.....	\$0.08	\$0.05	\$0.02			\$0.10				
Average number per person.....	0.1	0.02	0.01			0.1		0.01		
Average cost per person.....	\$0.08	\$0.05	\$0.02			\$0.10		\$0.04		
Average cost per article.....	\$0.60	\$2.25	\$1.95			\$0.66		\$3.25		
Caps:										
Average number per family..	0.03	0.4	0.4	0.5	1.0	0.1	0.3	0.2	0.5	1.0
Average cost per family.....	\$0.02	\$0.43	\$0.43	\$0.43	\$0.84	\$0.04	\$0.37	\$0.25	\$0.47	\$0.96
Average number per person.....	0.03	0.4	0.4	0.4	0.9	0.1	0.3	0.2	0.4	1.0
Average cost per person.....	\$0.02	\$0.40	\$0.39	\$0.37	\$0.74	\$0.04	\$0.36	\$0.23	\$0.38	\$0.89
Average cost per article.....	\$0.80	\$1.14	\$0.98	\$0.83	\$0.84	\$0.58	\$1.23	\$1.03	\$0.91	\$0.93
Suits, cotton:										
Average number per family..	0.05			0.01		0.1				
Average cost per family.....	\$0.90			\$0.01		\$0.75				
Average number per person.....	0.05			0.01		0.1				
Average cost per person.....	\$0.90			\$0.01		\$0.75				
Average cost per article.....	\$17.98			\$2.50		\$14.09				
Suits, wool:										
Average number per family..	0.2	0.01	0.01		0.01	0.2			0.01	
Average cost per family.....	\$3.91	\$0.11	\$0.01		\$0.02	5.04			\$0.05	
Average number per person.....	0.2	0.01	0.01		0.01	0.2			0.01	
Average cost per person.....	\$3.91	\$0.11	\$0.01		\$0.02	\$5.04			\$0.04	
Average cost per article.....	\$21.22	\$10.00	\$2.98		\$5.00	\$24.27			\$5.00	
Suits, silk:										
Average number per family..	0.01					0.03				
Average cost per family.....	\$0.16					\$0.49				
Average number per person.....	0.01					0.03				
Average cost per person.....	\$0.16					\$0.49				
Average cost per article.....	\$17.46					\$16.74				
Skirts, cotton:										
Average number per family..	0.3	0.2	0.1	0.03		0.4	0.2	0.1	0.02	
Average cost per family.....	\$0.85	\$0.29	\$0.08	\$0.02		\$1.00	\$0.26	\$0.11	\$0.02	
Average number per person.....	0.3	0.2	0.1	0.03		0.4	0.2	0.1	0.02	
Average cost per person.....	\$0.85	\$0.27	\$0.07	\$0.02		\$1.00	\$0.25	\$0.10	\$0.02	
Average cost per article.....	\$2.73	\$1.47	\$1.02	\$0.73		\$2.52	\$1.49	\$1.24	\$0.90	
Skirts, wool:										
Average number per family..	0.2	0.1	0.1	0.03		0.1	0.2	0.1	0.03	
Average cost per family.....	\$1.24	\$0.31	\$0.09	\$0.04		\$0.47	\$0.55	\$0.15	\$0.05	
Average number per person.....	0.2	0.1	0.05	0.03		0.1	0.2	0.1	0.03	
Average cost per person.....	\$1.24	\$0.29	\$0.08	\$0.04		\$0.47	\$0.54	\$0.13	\$0.04	
Average cost per article.....	\$6.25	\$2.99	\$1.74	\$1.35		\$5.70	\$2.44	\$2.30	\$1.58	
Skirts, silk:										
Average number per family..	0.1	0.02				0.1				
Average cost per family.....	\$0.64	\$0.14				\$1.02				
Average number per person.....	0.1	0.02				0.1				
Average cost per person.....	\$0.64	\$0.13				\$1.02				
Average cost per article.....	\$5.73	\$6.00				\$7.05				
Waists, blouses, cotton:										
Average number per family..	1.3	0.8	0.4	0.2		1.5	1.1	0.7	0.3	
Average cost per family.....	\$1.98	\$0.97	\$0.32	\$0.18		\$2.42	\$1.58	\$0.82	\$0.31	
Average number per person.....	1.3	0.7	0.3	0.2		1.5	1.0	0.6	0.2	
Average cost per person.....	\$1.98	\$0.90	\$0.29	\$0.15		\$2.42	\$1.54	\$0.73	\$0.26	
Average cost per article.....	\$1.52	\$1.26	\$0.89	\$0.93		\$1.61	\$1.47	\$1.20	\$1.14	

TABLE 1.—AVERAGE NUMBER OF ARTICLES OF CLOTHING PURCHASED IN ONE YEAR PER FAMILY AND PER PERSON, AND AVERAGE COST PER FAMILY, PER PERSON, AND PER ARTICLE—Continued.

Females—Continued.

Item.	Northern cities.					Southern cities.				
	Average number and cost of articles of clothing for—									
	Wife.	Female children—				Wife.	Female children—			
		12 and under 15 yrs.	8 and under 12 yrs.	4 and under 8 yrs.	Under 4 yrs.		12 and under 15 yrs.	8 and under 12 yrs.	4 and under 8 yrs.	Under 4 yrs.
Waists, blouses, wool:										
Average number per family..	0.01	0.1	0.01	0.01	.....	.....	.....	.....	.....	.....
Average cost per family.....	\$0.05	\$0.14	\$0.03	\$0.04	.....	.....	.....	.....	.....	.....
Average number per person....	0.01	0.1	0.01	0.01	.....	.....	.....	.....	.....	.....
Average cost per person.....	\$0.05	\$0.13	\$0.02	\$0.04	.....	.....	.....	.....	.....	.....
Average cost per article.....	\$4.43	\$2.00	\$2.09	\$4.33	.....	.....	.....	.....	.....	.....
Waists, blouses, silk:										
Average number per family..	0.4	0.1	0.01	.....	0.4	0.1	.....	.....	.....	.....
Average cost per family.....	\$1.59	\$0.21	\$0.01	.....	\$1.93	\$0.08	.....	.....	.....	.....
Average number per person....	0.4	0.1	0.01	.....	0.4	0.05	.....	.....	.....	.....
Average cost per person.....	\$1.59	\$0.19	\$0.01	.....	\$1.93	\$0.07	.....	.....	.....	.....
Average cost per article.....	\$4.12	\$2.57	\$1.69	.....	\$4.44	\$1.50	.....	.....	.....	.....
Dresses, cotton:										
Average number per family..	0.4	3.0	4.1	5.2	5.7	0.6	3.8	5.7	7.3	6.6
Average cost per family.....	\$1.38	\$5.56	\$6.22	\$5.98	\$4.27	\$2.31	\$7.26	\$8.79	\$8.02	\$5.25
Average number per person....	0.4	2.8	3.7	4.5	5.0	0.6	3.7	5.1	6.0	6.0
Average cost per person.....	\$1.38	\$5.14	\$5.63	\$5.09	\$3.77	\$2.31	\$7.08	\$7.88	\$6.59	\$4.84
Average cost per article.....	\$3.53	\$1.84	\$1.53	\$1.14	\$0.75	\$4.15	\$1.92	\$1.53	\$1.09	\$0.80
Dresses, wool:										
Average number per family..	0.1	0.4	0.4	0.3	0.1	0.1	0.3	0.2	0.4	0.02
Average cost per family.....	\$1.36	\$1.94	\$1.42	\$0.89	\$0.15	\$1.57	\$1.98	\$1.24	\$1.13	\$0.06
Average number per person....	0.1	0.4	0.3	0.3	0.1	0.1	0.3	0.2	0.3	0.2
Average cost per person.....	\$1.36	\$1.80	\$1.28	\$0.76	\$0.13	\$1.57	\$1.93	\$1.11	\$0.93	\$0.05
Average cost per article.....	\$12.78	\$4.82	\$3.71	\$2.84	\$2.02	\$16.21	\$6.61	\$5.36	\$2.97	\$3.50
Dresses, silk:										
Average number per family..	0.2	0.1	0.1	0.04	0.02	0.2	0.1	0.1	0.02	.....
Average cost per family.....	\$2.08	\$0.50	\$0.37	\$0.11	\$0.02	\$2.38	\$1.15	\$0.25	\$0.08	.....
Average number per person....	0.2	0.1	0.1	0.04	0.02	0.2	0.1	0.05	0.02	.....
Average cost per person.....	\$2.08	\$0.46	\$0.34	\$0.09	\$0.02	\$2.38	\$1.12	\$0.22	\$0.07	.....
Average cost per article.....	\$13.61	\$7.22	\$5.26	\$2.58	\$1.23	\$13.33	\$9.20	\$4.88	\$3.68	.....
House dresses, bungalow aprons, wrappers:										
Average number per family..	2.0	0.1	0.1	.....	0.1	2.1	0.1	0.04	0.1	.....
Average cost per family.....	\$2.81	\$0.09	\$0.03	.....	\$0.04	\$3.69	\$0.14	\$0.07	\$0.06	.....
Average number per person....	2.0	0.1	0.1	.....	0.1	2.1	0.1	0.03	0.1	.....
Average cost per person.....	\$2.81	\$0.09	\$0.03	.....	\$0.04	\$3.69	\$0.13	\$0.06	\$0.05	.....
Average cost per article.....	\$1.42	\$0.62	\$0.45	.....	\$0.49	\$1.72	\$1.83	\$1.75	\$0.94	.....
Aprons:										
Average number per family..	1.2	0.3	0.2	0.3	0.3	0.9	.....	0.1	0.6	1.1
Average cost per family.....	\$0.59	\$0.15	\$0.11	\$0.16	\$0.10	\$0.49	.....	\$0.04	\$0.37	\$0.53
Average number per person....	1.2	0.3	0.2	0.3	0.2	0.9	.....	0.05	0.5	1.0
Average cost per person.....	\$0.59	\$0.14	\$0.10	\$0.14	\$0.09	\$0.49	.....	\$0.04	\$0.30	\$0.49
Average cost per article.....	\$0.49	\$0.54	\$0.49	\$0.49	\$0.40	\$0.53	.....	\$0.79	\$0.63	\$0.50
Coats, cloaks, cotton:										
Average number per family..	0.04	0.1	0.2	0.3	0.2	0.1	0.1	0.2	0.2	0.2
Average cost per family.....	\$0.76	\$0.90	\$1.15	\$1.31	\$0.63	\$1.27	\$0.85	\$1.14	\$0.92	\$0.67
Average number per person....	0.04	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2
Average cost per person.....	\$0.76	\$0.83	\$1.04	\$1.12	\$0.56	\$1.27	\$0.82	\$1.02	\$0.75	\$0.62
Average cost per article.....	\$17.39	\$8.66	\$6.45	\$5.19	\$2.96	\$21.95	\$11.27	\$6.36	\$4.68	\$3.60
Coats, cloaks, wool:										
Average number per family..	0.2	0.6	0.4	0.4	0.3	0.2	0.3	0.3	0.2	0.2
Average cost per family.....	\$5.32	\$6.47	\$2.99	\$2.36	\$1.03	\$4.17	\$4.22	\$2.60	\$1.49	\$0.90
Average number per person....	0.2	0.5	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2
Average cost per person.....	\$5.32	\$5.99	\$2.71	\$2.01	\$0.91	\$4.17	\$4.12	\$2.33	\$1.22	\$0.83
Average cost per article.....	\$22.41	\$11.48	\$8.37	\$6.49	\$4.00	\$24.00	\$12.98	\$10.14	\$6.85	\$4.41
Raincoats:										
Average number per family..	0.01	0.1	0.1	0.1	0.01	.....	0.1	0.04	0.03	.....
Average cost per family.....	\$0.02	\$0.38	\$0.19	\$0.16	\$0.04	.....	\$0.32	\$0.12	\$0.09	.....
Average number per person....	0.01	0.1	0.1	0.1	0.01	.....	0.05	0.03	0.03	.....
Average cost per person.....	\$0.02	\$0.35	\$0.17	\$0.14	\$0.03	.....	\$0.31	\$0.11	\$0.08	.....
Average cost per article.....	\$3.83	\$4.71	\$3.09	\$2.61	\$4.00	.....	\$6.30	\$3.16	\$2.91	.....
Sweaters, jerseys, cotton:										
Average number per family..	0.04	0.2	0.1	0.2	0.2	0.04	0.2	0.2	0.2	0.2
Average cost per family.....	\$0.17	\$0.80	\$0.34	\$0.41	\$0.33	\$0.16	\$0.60	\$0.53	\$0.36	\$0.36
Average number per person....	0.04	0.2	0.1	0.1	0.2	0.04	0.1	0.2	0.1	0.2
Average cost per person.....	\$0.17	\$0.74	\$0.31	\$0.35	\$0.29	\$0.16	\$0.59	\$0.48	\$0.30	\$0.34
Average cost per article.....	\$4.15	\$3.66	\$3.15	\$2.39	\$1.74	\$3.77	\$4.00	\$2.59	\$2.08	\$1.95

TABLE 1.—AVERAGE NUMBER OF ARTICLES OF CLOTHING PURCHASED IN ONE YEAR PER FAMILY AND PER PERSON, AND AVERAGE COST PER FAMILY, PER PERSON, AND PER ARTICLE—Continued.

Females—Continued.

Item.	Northern cities.					Southern cities.				
	Average number and cost of articles of clothing for—									
	Wife.	Female children—				Wife.	Female children—			
		12 and under 15 yrs.	8 and under 12 yrs.	4 and under 8 yrs.	Under 4 yrs.		12 and under 15 yrs.	8 and under 12 yrs.	4 and under 8 yrs.	Under 4 yrs.
Sweaters, jerseys, wool:										
Average number per family	0.1	0.1	0.2	0.2	0.2	0.04	0.1	0.1	0.2	0.2
Average cost per family	\$0.32	\$0.64	\$0.80	\$0.64	\$0.42	\$0.22	\$0.40	\$0.53	\$0.71	\$0.47
Average number per person	0.1	0.1	0.2	0.2	0.2	0.04	0.1	0.1	0.2	0.1
Average cost per person	\$0.32	\$0.59	\$0.72	\$0.55	\$0.37	\$0.22	\$0.39	\$0.48	\$0.58	\$0.44
Average cost per article	\$5.88	\$4.65	\$3.63	\$3.20	\$2.14	\$5.69	\$4.00	\$4.15	\$3.83	\$3.11
Sweaters, jerseys, silk:										
Average number per family	0.01	-----	-----	-----	-----	-----	-----	-----	-----	-----
Average cost per family	\$0.05	-----	-----	-----	-----	-----	-----	-----	-----	-----
Average number per person	0.01	-----	-----	-----	-----	-----	-----	-----	-----	-----
Average cost per person	\$0.05	-----	-----	-----	-----	-----	-----	-----	-----	-----
Average cost per article	\$8.25	-----	-----	-----	-----	-----	-----	-----	-----	-----
Furs, coats:										
Average number per family	0.03	0.1	0.04	0.03	0.01	-----	-----	0.01	0.02	0.02
Average cost per family	\$0.44	\$0.34	\$0.16	\$0.12	\$0.21	-----	-----	-----	\$0.04	\$0.08
Average number per person	0.03	0.1	0.03	0.02	0.01	-----	-----	0.01	0.01	0.02
Average cost per person	\$0.38	\$0.41	\$0.31	\$0.13	\$0.21	-----	-----	-----	\$0.03	\$0.08
Average cost per article	\$13.49	\$5.50	\$4.88	\$4.00	\$4.58	\$21.50	-----	-----	\$3.50	\$5.00
Cleaning, pressing, and repairing:										
Average cost per family	\$0.24	\$0.10	\$0.11	\$0.08	\$0.03	\$0.24	\$0.09	\$0.04	\$0.02	-----
Average cost per person	\$0.24	\$0.09	\$0.10	\$0.06	\$0.02	\$0.24	\$0.09	\$0.03	\$0.01	-----
Petticoats, cotton:										
Average number per family	1.0	1.6	1.9	2.2	1.7	0.9	2.0	2.2	3.1	3.1
Average cost per family	\$1.07	\$1.25	\$1.14	\$1.18	\$0.75	\$1.08	\$1.69	\$1.53	\$1.61	\$1.60
Average number per person	1.0	1.5	1.7	1.8	1.5	0.9	2.0	1.9	2.5	2.8
Average cost per person	\$1.07	\$1.16	\$1.03	\$1.00	\$0.66	\$1.08	\$1.65	\$1.37	\$1.32	\$1.48
Average cost per article	\$1.12	\$0.76	\$0.61	\$0.54	\$0.43	\$1.25	\$0.85	\$0.71	\$0.52	\$0.53
Petticoats, wool:										
Average number per family	0.02	0.02	0.1	0.2	0.2	-----	0.03	0.04	0.1	0.3
Average cost per family	\$0.03	\$0.02	\$0.11	\$0.13	\$0.15	-----	\$0.04	\$0.05	\$0.10	\$0.28
Average number per person	0.02	0.02	0.1	0.1	0.2	-----	0.02	0.03	0.1	0.3
Average cost per person	\$0.03	\$0.02	\$0.10	\$0.11	\$0.13	-----	\$0.04	\$0.04	\$0.08	\$0.26
Average cost per article	\$1.38	\$0.75	\$1.04	\$0.79	\$0.74	-----	\$1.50	\$1.20	\$0.99	\$0.82
Petticoats, silk:										
Average number per family	0.04	-----	0.01	-----	-----	0.05	-----	-----	-----	-----
Average cost per family	\$0.14	-----	\$0.02	-----	-----	\$0.22	-----	-----	-----	-----
Average number per person	0.04	-----	0.01	-----	-----	0.05	-----	-----	-----	-----
Average cost per person	\$0.14	-----	\$0.02	-----	-----	\$0.22	-----	-----	-----	-----
Average cost per article	\$3.63	-----	\$5.00	-----	-----	\$4.61	-----	-----	-----	-----
Corsets:										
Average number per family	1.0	0.4	0.02	-----	-----	0.6	0.2	-----	-----	-----
Average cost per family	\$2.13	\$0.47	\$0.02	-----	-----	\$1.55	\$0.26	-----	-----	-----
Average number per person	1.0	0.4	0.02	-----	-----	0.6	0.2	-----	-----	-----
Average cost per person	\$2.13	\$0.43	\$0.02	-----	-----	\$1.55	\$0.25	-----	-----	-----
Average cost per article	\$2.07	\$1.16	\$0.75	-----	-----	\$2.43	\$1.28	-----	-----	-----
Brassieres:										
Average number per family	0.4	0.02	-----	-----	-----	0.2	-----	-----	-----	-----
Average cost per family	\$0.22	\$0.01	-----	-----	-----	\$0.11	-----	-----	-----	-----
Average number per person	0.4	0.02	-----	-----	-----	0.2	-----	-----	-----	-----
Average cost per person	\$0.22	\$0.01	-----	-----	-----	\$0.11	-----	-----	-----	-----
Average cost per article	\$0.58	\$0.25	-----	-----	-----	\$0.53	-----	-----	-----	-----
Corset covers, camisoles:										
Average number per family	1.0	0.3	0.04	-----	-----	0.9	-----	-----	0.1	-----
Average cost per family	\$0.62	\$0.17	\$0.03	-----	-----	\$0.61	-----	-----	\$0.07	-----
Average number per person	1.0	0.3	0.04	-----	-----	0.9	-----	-----	0.1	-----
Average cost per person	\$0.60	\$0.16	\$0.03	-----	-----	\$0.68	-----	-----	\$0.06	-----
Average cost per article	\$0.60	\$0.59	\$0.78	-----	-----	\$0.61	-----	-----	\$1.05	-----
Combination, cotton:										
Average number per family	0.4	0.3	0.1	0.02	-----	0.6	0.3	0.1	0.3	-----
Average cost per family	\$0.42	\$0.26	\$0.05	\$0.02	-----	\$0.67	\$0.27	\$0.03	\$0.07	-----
Average number per person	0.4	0.3	0.05	0.01	-----	0.6	0.3	0.05	0.2	-----
Average cost per person	\$0.42	\$0.24	\$0.04	\$0.01	-----	\$0.67	\$0.26	\$0.03	\$0.06	-----
Average cost per article	\$1.08	\$0.86	\$0.88	\$1.00	-----	\$1.19	\$0.83	\$0.63	\$0.28	-----

TABLE 1.—AVERAGE NUMBER OF ARTICLES OF CLOTHING PURCHASED IN ONE YEAR PER FAMILY AND PER PERSON, AND AVERAGE COST PER FAMILY, PER PERSON, AND PER ARTICLE—Continued.

Females—Continued.

Item.	Northern cities.					Southern cities.				
	Average number and cost of articles of clothing for—									
	Wife.	Female children—				Wife.	Female children—			
		12 and under 15 yrs.	8 and under 12 yrs.	4 and under 8 yrs.	Under 4 yrs.		12 and under 15 yrs.	8 and under 12 yrs.	4 and under 8 yrs.	Under 4 yrs.
Combination, silk:										
Average number per family	0.01					0.02				
Average cost per family	\$0.01					\$0.05				
Average number per person	0.01					0.02				
Average cost per person	\$0.01					\$0.05				
Average cost per article	\$2.83					\$2.20				
Union suits, cotton:										
Average number per family	1.3	1.4	1.1	1.1	0.4	0.7	0.7	0.8	1.0	0.3
Average cost per family	\$1.37	\$1.43	\$1.05	\$0.94	\$0.32	\$0.81	\$0.89	\$0.94	\$0.9	\$0.26
Average number per person	1.3	1.3	1.0	0.9	0.3	0.7	0.6	0.8	0.8	0.3
Average cost per person	\$1.37	\$1.33	\$0.95	\$0.80	\$0.28	\$0.81	\$0.87	\$0.84	\$0.81	\$0.24
Average cost per article	\$1.05	\$1.03	\$0.96	\$0.89	\$0.91	\$1.12	\$1.37	\$1.11	\$0.97	\$0.91
Union suits, wool:										
Average number per family	0.1	0.1	0.1	0.2	0.1	0.04		0.1	0.1	
Average cost per family	\$0.21	\$0.19	\$0.20	\$0.28	\$0.11	\$0.13		\$0.12	\$0.08	
Average number per person	0.1	0.1	0.1	0.2	0.1	0.04		0.1	0.1	
Average cost per person	\$0.21	\$0.17	\$0.18	\$0.24	\$0.10	\$0.13		\$0.11	\$0.07	
Average cost per article	\$2.13	\$1.37	\$1.60	\$1.57	\$1.28	\$3.06		\$1.58	\$1.29	
Shirts, cotton:										
Average number per family	1.7	2.00	1.6	1.5	1.4	2.2	1.4	1.2	1.1	1.6
Average cost per family	\$0.62	\$0.70	\$0.57	\$0.48	\$0.55	\$0.70	\$0.39	\$0.45	\$0.44	\$0.76
Average number per person	1.7	1.8	1.4	1.2	1.2	2.2	1.4	1.1	0.9	1.5
Average cost per person	\$0.62	\$0.65	\$0.51	\$0.41	\$0.49	\$0.70	\$0.38	\$0.40	\$0.37	\$0.70
Average cost per article	\$0.36	\$0.36	\$0.36	\$0.33	\$0.39	\$0.31	\$0.28	\$0.37	\$0.39	\$0.48
Shirts, wool:										
Average number per family	0.1	0.1	0.1	0.2	0.4			0.03	0.4	0.3
Average cost per family	\$0.06	\$0.07	\$0.10	\$0.14	\$0.31			\$0.02	\$0.15	\$0.19
Average number per person	0.1	0.1	0.1	0.2	0.4			0.02	0.3	0.3
Average cost per person	\$0.06	\$0.06	\$0.09	\$0.12	\$0.27			\$0.01	\$0.13	\$0.18
Average cost per article	\$1.17	\$1.15	\$1.21	\$0.77	\$0.74			\$0.59	\$0.41	\$0.60
Chemises, cotton:										
Average number per family	0.1	0.05	0.02		0.01	0.1	0.1	0.04	0.01	
Average cost per family	\$0.08	\$0.05	\$0.01		\$0.01	\$0.11	\$0.10	\$0.04	\$0.01	
Average number per person	0.1	0.04	0.02		0.01	0.1	0.1	0.03	0.01	
Average cost per person	\$0.08	\$0.04	\$0.01		\$0.01	\$0.11	\$0.10	\$0.03	\$0.01	
Average cost per article	\$1.01	\$1.00	\$0.45		\$0.30	\$0.92	\$0.80	\$0.95	\$0.75	
Chemises, silk:										
Average number per family	0.01									
Average cost per family	\$0.03									
Average number per person	0.01									
Average cost per person	\$0.03									
Average cost per article	\$4.12									
Drawers, cotton:										
Average number per family	0.9	2.6	2.9	3.1	1.8	1.3	2.8	3.7	4.8	2.8
Average cost per family	\$0.53	\$1.27	\$1.22	\$1.12	\$0.59	\$0.81	\$1.48	\$1.50	\$1.36	\$0.66
Average number per person	0.9	2.4	2.6	2.7	1.6	1.3	2.7	3.3	3.9	2.6
Average cost per person	\$0.53	\$1.17	\$1.11.	\$0.95	\$0.52	\$0.81	\$1.45	\$1.23	\$1.12	\$1.61
Average cost per article	\$0.57	\$0.48	\$0.43	\$0.36	\$0.32	\$0.64	\$0.53	\$0.41	\$0.28	\$0.24
Drawers, wool:										
Average number per family	0.1	0.1	0.1	0.2	0.1		0.1		0.3	0.1
Average cost per family	\$0.06	\$0.12	\$0.08	\$0.16	\$0.09		\$0.11		\$0.11	\$0.03
Average number per person	0.1	0.1	0.1	0.2	0.1		0.05		0.2	0.05
Average cost per person	\$0.06	\$0.11	\$0.07	\$0.14	\$0.08		\$0.11		\$0.09	\$0.02
Average cost per article	\$1.13	\$0.83	\$0.67	\$0.76	\$0.63		\$2.25		\$0.40	\$0.50
Underwaists:										
Average number per family		0.8	1.4	1.7	1.3		0.8	1.2	2.0	1.1
Average cost per family		\$0.28	\$0.43	\$0.45	\$0.33		\$0.21	\$0.34	\$0.52	\$0.27
Average number per person		0.7	1.2	1.5	1.1		0.8	1.0	1.7	1.0
Average cost per person		\$0.25	\$0.39	\$0.38	\$0.29		\$0.20	\$0.30	\$0.43	\$0.25
Average cost per article		\$0.35	\$0.32	\$0.26	\$0.26		\$0.26	\$0.29	\$0.25	\$0.25
Rompers:										
Average number per family				0.05	0.7				0.1	0.5
Average cost per family				\$0.03	\$0.38				\$0.09	\$0.35
Average number per person				0.04	0.6				0.1	0.5
Average cost per person				\$0.02	\$0.34				\$0.07	\$0.32
Average cost per article				\$0.58	\$0.56				\$0.89	\$0.65

TABLE 1.—AVERAGE NUMBER OF ARTICLES OF CLOTHING PURCHASED IN ONE YEAR PER FAMILY AND PER PERSON, AND AVERAGE COST PER FAMILY, PER PERSON, AND PER ARTICLE—Continued.

Females—Continued.

Item.	Northern cities.					Southern cities.				
	Average number and cost of articles of clothing for—									
	Wife.	Female children—				Wife.	Female children—			
		12 and under 15 yrs.	8 and under 12 yrs.	4 and under 8 yrs.	Under 4 yrs.		12 and under 15 yrs.	8 and under 12 yrs.	4 and under 8 yrs.	Under 4 yrs.
Nightdresses, cotton:										
Average number per family.	1.1	1.1	1.0	1.2	1.1	1.0	0.8	1.0	1.1	1.0
Average cost per family.	\$1.21	\$0.98	\$0.76	\$0.74	\$0.62	\$1.27	\$0.68	\$0.76	\$0.68	\$0.52
Average number per person.	1.1	1.1	0.9	1.0	1.0	1.0	0.7	0.9	0.9	0.9
Average cost per person.	\$1.21	\$0.91	\$0.68	\$0.63	\$0.55	\$1.27	\$0.66	\$0.68	\$0.56	\$0.48
Average cost per article.	\$1.14	\$0.86	\$0.77	\$0.64	\$0.54	\$1.32	\$0.91	\$0.75	\$0.63	\$0.54
Pajamas, cotton:										
Average number per family.	0.01	0.05	0.1	0.1	0.1	0.04	.....	.....	0.02	0.03
Average cost per family.	\$0.01	\$0.01	\$0.05	\$0.09	\$0.07	\$0.10	.....	.....	\$0.02	\$0.02
Average number per person.	0.01	0.04	0.1	0.1	0.1	0.04	.....	.....	0.02	0.03
Average cost per person.	\$0.01	\$0.04	\$0.04	\$0.08	\$0.06	\$0.10	.....	.....	\$0.02	\$0.02
Average cost per article.	\$1.67	\$0.94	\$0.77	\$0.78	\$0.91	\$2.50	.....	.....	\$0.88	\$0.50
Kimonos, cotton:										
Average number per family.	0.1	0.05	0.04	0.02	0.03	0.2	0.1	0.01	.....	0.03
Average cost per family.	\$0.19	\$0.13	\$0.08	\$0.02	\$0.03	\$0.39	\$0.09	\$0.01	.....	\$0.03
Average number per person.	0.1	0.04	0.03	0.01	0.02	0.2	0.05	0.01	.....	0.03
Average cost per person.	\$0.19	\$0.12	\$0.07	\$0.01	\$0.03	\$0.39	\$0.09	\$0.01	.....	\$0.03
Average cost per article.	\$1.95	\$2.75	\$2.11	\$0.99	\$1.27	\$2.39	\$1.75	\$1.15	.....	\$0.75
Kimonos, wool:										
Average number per family.	0.01	0.02	.....	0.01	0.01	.....	.....	.....	.....	.....
Average cost per family.	\$0.02	\$0.09	.....	\$0.03	\$0.03	.....	.....	.....	.....	.....
Average number per person.	0.01	0.02	.....	0.01	0.01	.....	.....	.....	.....	.....
Average cost per person.	\$0.02	\$0.09	.....	\$0.02	\$0.02	.....	.....	.....	.....	.....
Average cost per article.	\$5.17	\$4.00	.....	\$2.83	\$2.00	.....	.....	.....	.....	.....
Stockings, cotton:										
Average number per family.	5.8	8.3	8.6	9.8	7.6	5.4	8.6	9.7	9.9	7.9
Average cost per family.	\$2.01	\$2.72	\$2.79	\$2.96	\$2.04	\$2.10	\$3.20	\$3.39	\$2.72	\$2.09
Average number per person.	5.8	7.6	7.8	8.3	6.7	5.4	8.4	8.7	8.1	7.3
Average cost per person.	\$2.01	\$2.52	\$2.53	\$2.53	\$1.80	\$2.10	\$3.12	\$3.01	\$2.23	\$1.93
Average cost per article.	\$0.35	\$0.33	\$0.32	\$0.30	\$0.27	\$0.39	\$0.37	\$0.35	\$0.27	\$0.26
Stockings, wool:										
Average number per family.	0.1	0.01	0.2	0.2	0.5	.....	.....	0.03	.....	0.1
Average cost per family.	\$0.05	\$0.02	\$0.13	\$0.12	\$0.25	.....	.....	\$0.01	.....	\$0.04
Average number per person.	0.1	0.01	0.2	0.2	0.5	.....	.....	0.02	.....	0.1
Average cost per person.	\$0.05	\$0.01	\$0.12	\$0.10	\$0.22	.....	.....	\$0.01	.....	\$0.04
Average cost per article.	\$0.81	\$1.35	\$0.80	\$0.60	\$0.48	.....	.....	\$0.50	.....	\$0.40
Stockings, silk:										
Average number per family.	0.4	0.1	0.03	.....	0.01	0.9	0.1	0.03	.....	.....
Average cost per family.	\$0.42	\$0.08	\$0.03	.....	\$0.01	\$1.15	\$0.15	\$0.01	.....	.....
Average number per person.	0.4	0.1	0.03	.....	0.01	0.9	0.1	0.02	.....	.....
Average cost per person.	\$0.42	\$0.07	\$0.03	.....	\$0.01	\$1.15	\$0.14	\$0.01	.....	.....
Average cost per article.	\$1.11	\$0.66	\$0.83	.....	\$0.50	\$1.33	\$1.17	\$0.50	.....	.....
Shoes, high:										
Average number per family.	1.3	2.6	2.9	3.1	2.6	1.3	2.6	2.9	3.0	2.6
Average cost per family.	\$6.39	\$9.53	\$8.66	\$7.73	\$4.51	\$6.81	\$11.05	\$9.66	\$7.92	\$4.43
Average number per person.	1.3	2.4	2.6	2.7	2.3	1.3	2.5	2.6	2.4	2.4
Average cost per person.	\$6.39	\$8.82	\$7.85	\$6.59	\$3.98	\$6.81	\$10.78	\$8.66	\$6.50	\$4.08
Average cost per article.	\$4.79	\$3.70	\$3.00	\$2.47	\$1.74	\$5.28	\$4.29	\$3.33	\$2.68	\$1.69
Shoes, low:										
Average number per family.	0.5	0.8	0.8	0.8	0.4	0.7	1.0	0.9	0.9	0.5
Average cost per family.	\$1.52	\$1.74	\$1.49	\$1.30	\$0.50	\$2.90	\$2.72	\$2.17	\$1.61	\$0.78
Average number per person.	0.5	0.8	0.7	0.7	0.4	0.7	1.0	0.8	0.7	0.5
Average cost per person.	\$1.52	\$1.61	\$1.35	\$1.10	\$0.44	\$2.90	\$2.65	\$1.95	\$1.32	\$0.72
Average cost per article.	\$3.22	\$2.10	\$1.92	\$1.61	\$1.12	\$4.11	\$2.72	\$2.49	\$1.87	\$1.4
Shoe repairing:										
Average cost per family.	\$0.93	\$1.98	\$1.68	\$1.31	\$0.14	\$0.82	\$1.63	\$1.32	\$1.20	\$0.16
Average cost per person.	\$0.93	\$1.84	\$1.52	\$1.12	\$0.12	\$0.82	\$1.59	\$1.18	\$0.98	\$0.15
Shoe shines:										
Average number per family.	0.1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Average cost per family.	\$0.01	.....	.....	.....	.....	.....	.....	.....	.....	.....
Average number per person.	0.1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Average cost per person.	\$0.01	.....	.....	.....	.....	.....	.....	.....	.....	.....
Average cost per shine.	\$0.09	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABLE 1.—AVERAGE NUMBER OF ARTICLES OF CLOTHING PURCHASED IN ONE YEAR PER FAMILY AND PER PERSON, AND AVERAGE COST PER FAMILY, PER PERSON, AND PER ARTICLE—Continued.

Females—Continued.

Item.	Northern cities.				Southern cities.				
	Average number and cost of articles of clothing for—								
	Wife.	Female children—				Wife.	Female children—		
12 and under 15 yrs.		8 and under 12 yrs.	4 and under 8 yrs.	Under 4 yrs.	12 and under 15 yrs.		8 and under 12 yrs.	4 and under 8 yrs.	Under 4 yrs.
House slippers:									
Average number per family.	0.3	0.1	0.1	0.1	0.03	0.3	0.1	0.1	0.04
Average cost per family.	\$0.41	\$0.09	\$0.15	\$0.07	\$0.02	\$0.46	\$0.09	\$0.05	\$0.04
Average number per person.	0.3	0.1	0.1	0.1	0.03	0.3	0.05	0.05	0.04
Average cost per person.	\$0.41	\$0.08	\$0.13	\$0.06	\$0.02	\$0.46	\$0.09	\$0.05	\$0.03
Average cost per article.	\$1.56	\$1.08	\$1.07	\$0.79	\$0.62	\$1.67	\$1.88	\$1.06	\$0.94
Spats, gaiters:									
Average number per family.	0.02	0.01	0.01	0.03	0.03	0.01	0.03	0.01	0.02
Average cost per family.	\$0.03	\$0.01	\$0.01	\$0.03	\$0.03	\$0.01	\$0.05	\$0.01	\$0.03
Average number per person.	0.02	0.01	0.01	0.03	0.03	0.01	0.02	0.01	0.02
Average cost per person.	\$0.03	\$0.01	\$0.01	\$0.02	\$0.03	\$0.01	\$0.05	\$0.01	\$0.02
Average cost per article.	\$1.69	\$0.59	\$1.13	\$0.88	\$0.92	\$2.50	\$1.95	\$0.50	\$1.50
Rubbers:									
Average number per family.	0.4	1.0	1.2	0.9	0.2	0.1	0.3	0.2	0.3
Average cost per family.	\$0.37	\$0.85	\$0.92	\$0.58	\$0.13	\$0.09	\$0.21	\$0.16	\$0.20
Average number per person.	0.4	1.0	1.1	0.7	0.2	0.1	0.2	0.2	0.2
Average cost per person.	\$0.37	\$0.79	\$0.83	\$0.50	\$0.11	\$0.09	\$0.20	\$0.14	\$0.16
Average cost per article.	\$0.91	\$0.82	\$0.76	\$0.68	\$0.64	\$0.93	\$0.83	\$0.77	\$0.71
Arctics:									
Average number per family.	0.01	.....	0.05	0.03	0.02	.....	.....	0.01	.....
Average cost per family.	\$0.01	.....	\$0.09	\$0.05	\$0.03	.....	.....	\$0.03	.....
Average number per person.	0.01	.....	0.05	0.03	0.02	.....	.....	0.01	.....
Average cost per person.	\$0.01	.....	\$0.08	\$0.04	\$0.03	.....	.....	\$0.02	.....
Average cost per article.	\$2.63	.....	\$1.71	\$1.72	\$1.53	.....	.....	\$2.00	.....
Gloves, mittens, kid:									
Average number per family.	0.3	0.1	0.2	0.1	0.03	0.2	0.03	0.1	0.03
Average cost per family.	\$0.43	\$0.18	\$0.20	\$0.05	\$0.01	\$0.48	\$0.06	\$0.11	\$0.02
Average number per person.	0.3	0.1	0.2	0.1	0.03	0.2	0.02	0.1	0.03
Average cost per person.	\$0.43	\$0.17	\$0.18	\$0.05	\$0.01	\$0.48	\$0.06	\$0.10	\$0.02
Average cost per article.	\$1.64	\$1.43	\$1.10	\$0.74	\$0.47	\$1.98	\$2.50	\$1.75	\$0.75
Gloves, mittens, cotton:									
Average number per family.	0.3	0.3	0.4	0.4	0.2	0.1	0.2	0.1	0.2
Average cost per family.	\$0.18	\$0.17	\$0.15	\$0.15	\$0.05	\$0.09	\$0.13	\$0.05	\$0.07
Average number per person.	0.3	0.3	0.4	0.4	0.2	0.1	0.2	0.1	0.2
Average cost per person.	\$0.18	\$0.16	\$0.13	\$0.13	\$0.04	\$0.09	\$0.13	\$0.05	\$0.06
Average cost per article.	\$0.70	\$0.50	\$0.38	\$0.35	\$0.24	\$0.73	\$0.64	\$0.38	\$0.35
Gloves, mittens, wool:									
Average number per family.	0.1	0.4	0.5	0.5	0.2	.....	0.1	0.1	0.04
Average cost per family.	\$0.05	\$0.30	\$0.30	\$0.24	\$0.11	.....	\$0.13	\$0.08	\$0.03
Average number per person.	0.1	0.4	0.5	0.4	0.2	.....	0.1	0.1	0.04
Average cost per person.	\$0.05	\$0.28	\$0.27	\$0.21	\$0.09	.....	\$0.13	\$0.07	\$0.02
Average cost per article.	\$0.81	\$0.67	\$0.58	\$0.49	\$0.47	.....	\$1.05	\$0.65	\$0.65
Gloves, mittens, silk:									
Average number per family.	0.2	0.2	0.03	.....	0.01	0.2	0.1	0.01	.....
Average cost per family.	\$0.22	\$0.17	\$0.03	.....	\$0.01	\$0.25	\$0.06	\$0.01	.....
Average number per person.	0.2	0.2	0.03	.....	0.01	0.2	0.1	0.01	.....
Average cost per person.	\$0.22	\$0.16	\$0.02	.....	\$0.01	\$0.25	\$0.05	\$0.01	.....
Average cost per article.	\$0.99	\$0.83	\$0.80	.....	\$0.55	\$1.21	\$0.73	\$1.00	.....
Collars:									
Average number per family.	0.1	0.1	0.1	0.01	.....	0.1	0.1	0.1	.....
Average cost per family.	\$0.06	\$0.05	\$0.02	\$0.01	.....	\$0.06	\$0.06	\$0.01	.....
Average number per person.	0.1	0.1	0.1	0.01	.....	0.1	0.1	0.05	.....
Average cost per person.	\$0.06	\$0.05	\$0.02	\$0.01	.....	\$0.06	\$0.05	\$0.01	.....
Average cost per article.	\$0.58	\$0.56	\$0.37	\$0.42	.....	\$0.83	\$0.44	\$0.10	.....
Collars, cuff sets:									
Average number per family.	0.04	0.05	0.02	0.03	.....	0.05	0.03	0.03	0.02
Average cost per family.	\$0.04	\$0.03	\$0.01	\$0.02	.....	\$0.05	\$0.03	\$0.02	\$0.03
Average number per person.	0.04	0.04	0.02	0.03	.....	0.05	0.02	0.02	0.02
Average cost per person.	\$0.04	\$0.03	\$0.01	\$0.02	.....	\$0.05	\$0.03	\$0.02	\$0.02
Average cost per article.	\$0.93	\$0.65	\$0.65	\$0.55	.....	\$1.07	\$1.25	\$0.88	\$1.30
Ties:									
Average number per family.	.....	0.3	0.1	0.04	.....	.....	0.1	0.1	0.02
Average cost per family.	.....	\$0.15	\$0.03	\$0.01	.....	.....	\$0.08	\$0.06	\$0.01
Average number per person.	.....	0.2	0.1	0.03	.....	.....	0.1	0.1	0.02
Average cost per person.	.....	\$0.14	\$0.03	\$0.01	.....	.....	\$0.08	\$0.05	\$0.01
Average cost per article.	.....	\$0.58	\$0.51	\$0.38	.....	.....	\$0.78	\$0.57	\$0.38

TABLE 1.—AVERAGE NUMBER OF ARTICLES OF CLOTHING PURCHASED IN ONE YEAR PER FAMILY AND PER PERSON, AND AVERAGE COST PER FAMILY, PER PERSON, AND PER ARTICLE—Concluded.

Females—Concluded.

Item.	Northern cities.					Southern cities.				
	Average number and cost of articles of clothing for—									
	Wife.	Female children—				Wife.	Female children—			
		12 and under 15 yrs.	8 and under 12 yrs.	4 and under 8 yrs.	Under 4 yrs.		12 and under 15 yrs.	8 and under 12 yrs.	4 and under 8 yrs.	Under 4 yrs.
Ribbons:										
Average cost per family.....	\$0.01	\$1.75	\$1.69	\$1.17	\$0.18	.....	\$1.56	\$1.77	\$0.95	\$0.32
Average cost per person.....	\$0.01	\$1.62	\$1.53	\$1.00	\$0.16	.....	\$1.52	\$1.59	\$0.78	\$0.30
Handkerchiefs:										
Average number per family.....	3.8	5.0	3.5	2.7	0.4	4.2	4.6	3.2	2.3	0.3
Average cost per family.....	\$0.47	\$0.56	\$0.31	\$0.23	\$0.03	\$0.57	\$0.61	\$0.35	\$0.20	\$0.02
Average number per person.....	3.8	4.6	3.1	2.3	0.4	4.2	4.4	2.9	1.9	0.3
Average cost per person.....	\$0.47	\$0.51	\$0.28	\$0.20	\$0.03	\$0.57	\$0.59	\$0.31	\$0.16	\$0.01
Average cost per article.....	\$0.12	\$0.11	\$0.09	\$0.09	\$0.08	\$0.14	\$0.13	\$0.11	\$0.09	\$0.06
Scarfs:										
Average number per family.....	0.02	0.1	0.1	0.1	0.01	0.02	0.1	0.04	.....	.....
Average cost per family.....	\$0.03	\$0.12	\$0.12	\$0.05	\$0.01	\$0.02	\$0.10	\$0.04	.....	.....
Average number per person.....	0.02	0.1	0.1	0.1	0.01	0.02	0.1	0.03	.....	.....
Average cost per person.....	\$0.03	\$0.11	\$0.11	\$0.04	\$0.01	\$0.02	\$0.10	\$0.03	.....	.....
Average cost per article.....	\$1.34	\$1.28	\$1.01	\$0.73	\$0.99	\$0.94	\$1.00	\$0.92	.....	.....
Garters:										
Average number per family.....	0.1	1.5	2.0	2.1	1.0	0.1	1.2	1.4	1.5	0.5
Average cost per family.....	\$0.02	\$0.29	\$0.37	\$0.39	\$0.16	\$0.02	\$0.17	\$0.21	\$0.24	\$0.07
Average number per person.....	0.1	1.4	1.8	1.8	0.9	0.1	1.1	1.2	1.3	0.4
Average cost per person.....	\$0.02	\$0.27	\$0.33	\$0.33	\$0.14	\$0.02	\$0.17	\$0.19	\$0.19	\$0.06
Average cost per article.....	\$0.18	\$0.20	\$0.19	\$0.18	\$0.17	\$0.20	\$0.15	\$0.15	\$0.15	\$0.15
Belts:										
Average number per family.....	0.02	0.1	0.1	0.1	0.02	0.02	0.1	0.01	0.04	.....
Average cost per family.....	\$0.01	\$0.06	\$0.04	\$0.02	\$0.01	\$0.01	\$0.07	\$0.01	\$0.01	.....
Average number per person.....	0.02	0.1	0.1	0.05	0.02	0.02	0.1	0.01	0.04	.....
Average cost per person.....	\$0.01	\$0.06	\$0.04	\$0.01	\$0.01	\$0.01	\$0.07	\$0.01	\$0.01	.....
Average cost per article.....	\$0.42	\$0.46	\$0.44	\$0.28	\$0.21	\$0.59	\$0.57	\$0.35	\$0.30	.....
Hairpins, fancy combs, ornaments, nets, etc.:										
Average cost per family.....	\$0.30	\$0.06	\$0.02	\$0.01	.....	\$0.35	\$0.05	\$0.02	.....	.....
Average cost per person.....	\$0.30	\$0.05	\$0.02	\$0.01	.....	\$0.35	\$0.05	\$0.02	.....	.....
Sanitary supplies:										
Average cost per family.....	\$0.12	.....	.....	.....	.....	\$0.23	.....	.....	.....	.....
Average cost per person.....	\$0.12	.....	.....	.....	.....	\$0.23	.....	.....	.....	.....
Umbrellas:										
Average number per family.....	0.1	0.1	0.05	0.02	.....	0.1	0.1	0.1	0.02	.....
Average cost per family.....	\$0.21	\$0.10	\$0.06	\$0.02	.....	\$0.20	\$0.15	\$0.07	\$0.03	.....
Average number per person.....	0.1	0.1	0.05	0.01	.....	0.1	0.1	0.05	0.02	.....
Average cost per person.....	\$0.21	\$0.09	\$0.05	\$0.02	.....	\$0.20	\$0.15	\$0.06	\$0.02	.....
Average cost per article.....	\$1.67	\$1.25	\$1.13	\$1.10	.....	\$2.00	\$1.50	\$1.38	\$1.25	.....
Parasols:										
Average number per family.....	.....	0.01	0.02	0.02	0.01	0.01	0.03	0.04	0.1	0.03
Average cost per family.....	.....	\$0.01	\$0.04	\$0.01	\$0.01	\$0.05	\$0.04	\$0.05	\$0.05	\$0.02
Average number per person.....	.....	0.01	0.02	0.02	0.01	0.01	0.02	0.03	0.1	0.03
Average cost per person.....	.....	\$0.01	\$0.03	\$0.01	\$0.01	\$0.05	\$0.04	\$0.04	\$0.04	\$0.02
Average cost per article.....	.....	\$1.00	\$1.44	\$0.65	\$0.65	\$3.17	\$1.50	\$1.30	\$0.64	\$0.72
Handbags and purses, etc.:										
Average number per family.....	0.3	0.1	0.1	0.05	.....	0.2	0.03	0.1	0.03	0.03
Average cost per family.....	\$0.37	\$0.08	\$0.06	\$0.02	.....	\$0.38	\$0.06	\$0.08	\$0.01	\$0.02
Average number per person.....	0.3	0.1	0.1	0.04	.....	0.2	0.02	0.1	0.03	0.03
Average cost per person.....	\$0.37	\$0.08	\$0.06	\$0.02	.....	\$0.38	\$0.06	\$0.07	\$0.01	\$0.02
Average cost per article.....	\$1.31	\$0.57	\$0.52	\$0.50	.....	\$1.68	\$2.50	\$1.03	\$0.37	\$0.50
Watches, jewelry:										
Average cost per family.....	\$0.38	\$0.63	\$0.25	\$0.17	\$0.06	\$0.85	\$1.05	\$0.31	\$0.09	\$0.08
Average cost per person.....	\$0.38	\$0.58	\$0.23	\$0.15	\$0.05	\$0.85	\$1.02	\$0.28	\$0.07	\$0.08
Infants' wear (not specified above):										
Average cost per family.....	.....	.....	.....	.....	\$0.93	.....	.....	.....	.....	\$0.88
Average cost per person.....	.....	.....	.....	.....	\$0.82	.....	.....	.....	.....	\$0.82
Other clothing:										
Average cost per family.....	\$0.38	\$0.16	\$0.22	\$0.17	\$0.20	\$0.40	\$0.51	\$0.27	\$0.31	\$0.27
Average cost per person.....	\$0.38	\$0.15	\$0.20	\$0.14	\$0.18	\$0.40	\$0.49	\$0.25	\$0.25	\$0.24
Total average cost per family..	\$55.75	\$53.18	\$43.18	\$37.57	\$22.35	\$62.08	\$53.03	\$45.46	\$37.90	\$23.98
Total average cost per person..	\$55.75	\$49.24	\$39.07	\$32.02	\$19.73	\$62.08	\$51.68	\$40.65	\$31.10	\$22.12

Miscellaneous Expenditures.

The table which follows is a summary of expenditures of families for miscellaneous items. The figures show for all the families in each of 30 cities and towns the average amount expended per family for each of the items named. Lack of time has prevented the tabulation of these data for all of the 92 localities included in the survey, but it is thought that the figures for the cities included in this table will fairly represent conditions in the various sections of the country.

With the exception of car fares, no attempt has been made to show the number or quantity of the items purchased. Most of the items are self-explanatory. The figures for life insurance include payments on both industrial and old line policies. The item under insurance of "Life, other than members of family" refers to payments made on insurance of relatives or friends from which the family might expect to benefit.

The item "travel" includes expenses for business or other trips not chargeable to vacations or amusements. Expenses for music include cost of lessons, if any, and of music used in connection with them. Expenses for "undertaker" and "cemetery" refer to such expenses in connection with the death of a member of the immediate family only.

TABLE 2.—AVERAGE EXPENDITURE IN ONE YEAR PER FAMILY FOR MISCELLANEOUS ITEMS IN 30 SELECTED CITIES.

Item.	Average expenditure per family for specified miscellaneous items in—														
	At-lanta, Ga.	Bis-bee, Ariz.	Bos-ton, Mass.	Butte, Mont.	Calu-met, Mich.	Cham-bers-burg, Pa.	Char-leston, S. C.	Char-lotte, N. C.	Chi-cago, Ill.	Cleve-land, Ohio.	Dan-ville, Ill.	Den-ver, Colo.	Dover, N. J.	Ever-ett, Wash.	Fall River, Mass.
Number of families.....	160	80	407	102	73	77	100	81	348	245	74	154	74	52	158
Average persons per family.....	5.1	5.0	5.3	4.6	5.3	4.9	5.2	5.7	5.0	4.8	4.7	4.5	5.3	4.6	5.4
Average equivalent adult males per family.....	3.34	3.33	3.54	3.10	3.57	3.29	3.45	3.63	3.39	3.31	3.18	3.11	3.44	3.36	3.73
Insurance:															
Life.....	\$31.37	\$35.79	\$42.39	\$41.59	\$42.38	\$25.65	\$48.80	\$32.22	\$38.73	\$39.85	\$41.47	\$35.24	\$40.76	\$31.82	\$38.77
Accident and health.....	1.83	30.97	.95	11.57	17.31	2.38	.87	1.18	.92	2.67	3.30	2.58	3.22	4.88	.51
Life, other than members of family.....	1.11	.....	1.36	.22	.....	.17	1.83	1.45	.89	.39	.42	.60	1.98	1.29	3.72
Total.....	34.31	66.75	44.70	53.38	59.69	28.20	51.50	34.86	40.53	42.91	45.19	38.41	45.96	37.99	43.00
Dues, contributions, gifts, etc.:															
Church.....	\$6.07	\$9.48	\$12.72	\$9.24	\$11.63	\$8.07	\$10.72	\$13.36	\$8.86	\$12.01	\$11.44	\$6.44	\$8.12	\$7.13	\$15.77
Labor organizations.....	5.93	.85	5.27	5.61	.44	3.24	3.74	.85	7.00	4.73	8.40	5.91	6.31	3.43	4.62
Lodges, clubs, societies, etc.....	2.83	7.09	2.84	4.81	2.67	4.67	3.57	2.85	3.22	2.67	4.03	2.98	2.98	3.92	2.39
Charity.....	1.17	.93	.78	1.57	1.58	.23	3.73	1.15	1.11	2.76	1.32	1.40	2.25	.72	.60
Patriotic purposes.....	4.87	22.10	3.75	13.90	12.52	3.77	8.30	6.26	5.02	15.00	5.32	7.43	7.03	8.54	2.74
Gifts.....	6.66	21.84	5.01	11.27	8.60	7.89	4.58	4.50	7.09	8.70	6.21	8.10	10.69	11.90	4.10
Total.....	27.53	62.29	30.36	46.40	37.43	27.88	34.64	28.97	32.29	45.88	36.73	32.26	37.38	35.63	30.23
Street car fares:															
To work—															
Average number per family.....	378.6	249.9	353.9	427.4	38.9	10.5	416.6	205.2	476.7	421.8	231.2	382.3	195.3	146.8	81.8
Average cost per family.....	\$19.21	\$12.85	\$20.33	\$21.90	\$3.01	\$0.55	\$21.23	\$12.12	\$24.66	\$17.37	\$12.91	\$20.75	\$21.10	\$7.34	\$5.74
To school—															
Average number per family.....	22.8	10.0	16.0	7.3	.....	.....	0.7	0.3	20.5	37.9	1.4	6.5	3.4	18.2	6.6
Average cost per family.....	\$1.14	\$0.50	\$0.88	\$0.31	.....	.....	\$0.02	\$0.02	\$0.98	\$1.54	\$0.03	\$0.30	\$0.17	\$0.91	\$0.32
Other—															
Average number per family.....	115.6	89.7	87.2	170.6	69.3	14.5	165.4	52.5	127.8	172.8	102.7	113.6	24.0	49.2	51.1
Average cost per family.....	\$5.77	\$4.54	\$4.87	\$8.78	\$3.49	\$0.75	\$8.22	\$3.11	\$6.42	\$6.96	\$5.20	\$5.92	\$1.26	\$2.46	\$2.98
Total—															
Average number per family.....	517.0	349.7	457.0	605.3	108.2	25.0	582.7	257.9	625.0	632.5	335.3	502.4	222.7	214.2	139.5
Average cost per family.....	\$26.12	\$17.90	\$26.08	\$30.99	\$6.57	\$1.30	\$29.47	\$15.25	\$32.05	\$25.87	\$18.14	\$26.97	\$22.53	\$10.71	\$9.05
Travel.....	\$3.20	\$13.50	\$1.18	\$4.05	\$1.92	\$3.03	\$2.90	\$2.03	\$1.59	\$0.67	\$2.53	\$0.88	\$3.95	\$6.93	\$2.86

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Amusements, vacations, etc.:

Movies.....	\$5.40	\$14.36	\$6.47	\$11.66	\$6.48	\$3.53	\$9.32	\$6.46	\$8.66	\$9.23	\$8.78	\$5.83	\$9.50	\$10.10	\$7.44
Plays, concerts, etc.....	.46	1.06	.93	1.61	.40	.13	1.46	1.14	1.45	1.27	.25	1.03	.98	1.12	1.06
Other amusements.....	1.02	1.92	1.83	2.15	1.70	1.01	1.01	.10	1.55	5.14	2.54	1.71	3.21	1.29	1.08
Excursions.....	.47	.....	1.45	2.08	.91	2.27	1.27	.26	.60	1.33	.66	.59	1.04	1.72	1.13
Vacations.....	9.09	11.10	4.23	18.09	4.11	3.01	10.56	6.58	3.84	6.89	7.33	12.98	7.27	4.22	3.65
Total.....	16.44	28.44	14.91	35.59	13.60	9.95	23.62	14.53	16.10	23.85	19.56	22.13	22.01	18.46	14.36

Education and uplift:

Newspapers.....	\$7.76	\$8.67	\$7.21	\$9.22	\$5.14	\$6.26	\$8.07	\$5.84	\$9.43	\$9.75	\$9.32	\$7.24	\$8.60	\$6.56	\$8.43
Magazines.....	1.22	3.48	.99	3.17	1.46	1.61	1.47	1.12	1.00	2.32	2.62	1.68	1.27	3.25	.92
Books.....	.22	2.12	.17	2.43	.38	.54	.37	1.46	.51	1.30	.95	1.01	1.79	1.10	.19
Schools, tuition, books, etc.....	5.96	4.47	2.57	6.05	5.91	.87	5.93	7.41	8.43	9.61	2.92	3.14	1.91	2.27	2.43
Music.....	1.17	3.78	2.53	3.34	2.68	.45	1.13	.95	3.56	4.59	3.57	2.48	1.81	2.15	1.69
Total.....	16.33	22.52	13.48	24.21	15.58	9.72	16.97	16.78	22.92	27.57	19.38	15.54	14.78	15.32	13.66

Postage.....

	\$2.04	\$4.19	\$1.56	\$3.36	\$1.48	\$1.86	\$1.40	\$1.37	\$1.60	\$1.96	\$2.38	\$2.59	\$2.80	\$2.64	\$1.37
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Sickness:

Physician, surgeon, oculist.....	\$34.80	\$31.38	\$24.79	\$33.18	\$13.30	\$26.20	\$49.02	\$41.84	\$27.56	\$30.44	\$40.28	\$38.61	\$35.56	\$35.42	\$19.91
Medicine.....	16.76	7.26	7.51	12.56	5.14	8.79	25.89	18.81	7.70	8.22	7.88	10.78	9.46	7.64	5.58
Nurse.....	2.56	3.67	2.70	10.26	2.12	3.68	3.53	5.52	2.35	3.23	1.66	3.76	6.07	2.67	2.99
Hospital.....	1.92	4.79	6.90	5.32	.78	1.99	5.27	9.17	6.89	3.35	2.61	6.80	2.03	3.30	6.49
Dentist.....	5.71	13.39	5.84	16.01	7.01	8.17	7.86	6.08	9.69	8.78	7.10	8.59	4.59	10.07	5.59
Eye glasses.....	1.56	1.58	1.71	1.78	1.54	1.42	1.21	1.83	1.34	2.11	3.30	1.90	1.02	1.47	.94
Other sickness.....	.28	.06	.31	.09	1.39	.....	.....	.95	.30	.40	.27	.55	.....	.....	.47
Total.....	63.58	62.12	49.76	79.22	31.27	50.23	92.77	84.19	55.84	56.51	63.10	71.00	58.73	60.57	41.98

Undertaker.....

Cemetery.....	\$0.94	\$2.56	\$2.07	\$2.94	\$1.27	\$1.30	\$1.99	\$5.88	\$2.22	\$1.19	\$0.41	\$0.31	\$4.57	.....	\$2.42
Liquor.....	.72	.45	.19	.05	.22	.45	1.26	1.11	.72	.09	.54	.16	.70	.....	.59
Tobacco.....	.04	1.46	12.47	13.84	8.50	3.09	1.43	1.17	17.01	12.54	1.34	1.52	12.79	.....	6.19
Insurance, personal property.....	20.78	24.49	17.41	15.63	12.20	24.70	21.29	21.85	17.39	19.71	21.12	14.51	23.95	\$11.72	15.48
Tax, personal property and poll.....	.91	.59	.55	.55	.67	.31	.03	.37	.97	1.10	1.30	.40	1.31	.50	.73
Tax, income.....	2.63	3.56	1.88	4.20	.....	1.53	1.28	4.31	.11	.17	1.84	.72	.89	.23	1.96
Tools.....	.34	1.45	1.30	2.84	1.49	1.38	1.15	2.71	1.87	2.57	3.16	1.59	2.00	4.01	.74
Laundry sent out.....	33.04	8.01	9.08	11.79	2.29	8.70	54.97	20.04	8.55	10.83	17.76	13.12	6.44	5.30	15.43
Cleaning supplies, soap, etc.....	9.99	16.14	11.15	15.13	12.19	10.05	14.85	9.76	12.71	13.96	11.86	11.72	13.98	11.02	8.85
Toilet articles and preparations.....	6.02	7.25	5.03	9.14	5.50	6.13	7.21	7.41	6.20	8.36	7.35	6.91	7.64	5.59	4.76
Barber.....	7.05	7.96	7.41	8.43	6.64	7.12	9.12	9.11	6.72	7.25	7.04	7.53	8.05	6.52	7.61
Telephone.....	2.13	4.80	1.95	9.04	2.60	1.64	3.22	1.94	6.92	2.75	4.47	4.25	1.22	5.22	.91
Moving.....	2.33	2.67	2.79	3.55	1.21	1.01	1.42	1.10	2.57	2.00	2.46	1.75	1.54	2.35	.89
Automobiles, bicycles, motorcycles.....	3.14	68.62	1.25	26.24	6.11	8.40	24.30	8.71	3.63	18.43	4.52	15.28	49.82	25.53	7.18
Servant and day-work wages.....	5.37	11.19	2.27	1.67	3.24	3.51	10.87	9.46	4.31	2.25	4.71	1.31	1.90	3.31	1.26
Other miscellaneous items.....	6.49	14.98	3.87	9.54	6.08	3.23	4.93	5.51	6.59	6.22	14.31	8.46	6.51	6.48	4.31
Total miscellaneous expenses.....	292.48	454.26	262.71	411.91	237.66	214.71	412.58	308.43	301.42	334.64	311.20	299.32	351.51	276.04	235.82

TABLE 2.—AVERAGE EXPENDITURE IN ONE YEAR PER FAMILY FOR MISCELLANEOUS ITEMS IN 30 SELECTED CITIES—Concluded.

Item.	Average expenditure per family for specified miscellaneous items in—														
	Grand Island, Nebr.	Houston, Tex.	Huntsville, Ala.	Johnstown, N. Y.	Manchester, N. H.	Minneapolis and St. Paul, Minn.	New Orleans, La.	New York, N. Y.	Philadelphia, Pa., and Camden, N. J.	Richmond, Va.	St. Louis, Mo., and East St. Louis, Ill.	Salt Lake City, Utah.	San Francisco and Oakland, Calif.	Seattle, Wash.	Wilmington, Del.
Number of families.....	77	98	81	78	112	240	147	518	301	153	227	103	301	197	98
Average persons per family.....	4.5	4.9	5.0	4.5	5.3	4.8	5.3	4.9	4.9	5.2	4.6	5.2	4.5	4.4	4.6
Average equivalent adult males per family.....	3.05	3.33	3.37	3.06	3.51	3.35	3.48	3.45	3.42	3.63	3.20	3.41	3.07	2.92	3.16
Insurance:															
Life.....	\$26.87	\$39.51	\$33.55	\$35.69	\$38.68	\$38.88	\$32.51	\$44.68	\$38.44	\$44.24	\$45.44	\$34.76	\$27.56	\$36.89	\$43.70
Accident and health.....	3.52	1.29	1.52	.78	4.04	3.05	6.14	.76	2.74	10.48	3.61	5.30	2.59	4.52	4.24
Life, other than members of family.....	.47		1.31	1.92	1.06	.38	1.00	.77	1.02	1.48	.63	.03	.09	.16	.67
Total.....	30.86	40.80	36.39	38.38	43.78	42.31	39.65	46.22	42.20	56.19	49.68	40.09	30.24	41.57	48.60
Dues, contributions, gifts, etc.:															
Church.....	\$9.99	\$6.80	\$4.26	\$10.67	\$10.43	\$9.85	\$5.58	\$10.21	\$10.85	\$11.30	\$8.82	\$11.09	\$6.94	\$10.20	\$8.62
Labor organizations.....	5.75	6.59	.15	.91	3.10	3.63	6.38	3.08	2.65	2.72	6.32	7.35	9.38	10.95	3.15
Lodges, clubs, societies, etc.....	2.94	2.40	.94	5.61	3.31	1.71	1.71	3.15	4.00	2.65	2.23	1.70	6.65	3.35	5.60
Charity.....	.92	2.27	1.11	.24	.50	2.05	1.87	1.15	2.01	1.90	.61	1.13	.77	3.03	2.22
Patriotic purposes.....	11.81	7.77	6.52	3.85	6.54	5.41	5.27	6.01	7.13	5.02	8.25	6.96	6.83	10.02	5.08
Gifts.....	6.40	11.32	2.04	5.08	6.73	9.18	5.18	6.07	6.31	3.69	7.05	11.77	8.84	14.76	10.38
Total.....	37.81	37.35	15.01	26.36	30.61	31.84	25.99	29.67	32.95	27.29	33.28	40.00	39.41	52.31	35.05
Street car fares:															
To work—															
Average number per family.....		404.8	35.8	92.5	154.4	426.4	511.9	518.7	496.2	303.2	441.3	389.8	435.9	505.0	246.5
Average cost per family.....		\$26.59	\$1.79	\$6.05	\$8.76	\$21.75	\$27.04	\$27.43	\$29.88	\$13.32	\$25.37	\$31.40	\$24.03	\$26.31	\$20.94
To school—															
Average number per family.....		12.2	14.9		7.4	19.3	3.6	20.4	13.3	22.4	8.3	7.6	28.5	21.9	1.2
Average cost per family.....		\$0.61	\$0.67		\$0.41	\$0.95	\$0.19	\$1.06	\$0.67	\$0.67	\$0.44	\$0.27	\$0.98	\$0.75	\$0.07
Other—															
Average number per family.....		164.4	78.3	27.0	76.8	150.9	152.5	111.0	101.2	118.5	143.1	171.1	190.7	215.5	72.9
Average cost per family.....		\$8.23	\$3.93	\$2.83	\$4.21	\$7.55	\$7.76	\$5.76	\$5.37	\$5.14	\$8.44	\$9.24	\$9.89	\$10.81	\$4.09
Total—															
Average number per family.....		641.4	129.0	119.5	238.6	596.6	668.0	650.1	610.7	444.1	592.7	568.5	655.1	742.5	320.7
Average cost per family.....		\$35.43	\$6.38	\$8.88	\$13.38	\$30.25	\$35.00	\$31.25	\$35.93	\$19.13	\$34.25	\$40.91	\$34.89	\$37.88	\$25.09
Travel.....	\$1.80	\$0.83	\$0.44	\$1.87	\$0.78	\$2.41	\$0.74	\$0.99	\$0.61	\$0.96	\$0.58	\$0.73	\$1.27	\$4.29	\$2.49

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Amusements, vacations, etc.:															
Movies.....	\$7.75	\$9.04	\$7.61	\$5.77	\$6.91	\$7.04	\$8.17	\$8.58	\$10.18	\$4.31	\$7.17	\$8.42	\$10.16	\$7.54	\$11.71
Plays, concerts, etc.....	.58	.60	.70	.49	.96	1.13	.05	2.07	1.63	.83	.56	2.14	2.00	1.72	.21
Other amusements.....	.65	.48	.12	.87	1.31	.50	.65	.91	.59	2.00	1.49	1.33	.64	2.01	2.07
Excursions.....	.18	.19	.02	.56	1.11	.92	.09	1.86	1.65	.35	.60	2.18	2.37	2.29	1.16
Vacations.....	12.75	8.69	2.69	2.81	5.64	4.51	4.50	6.95	6.26	6.10	6.11	3.73	7.96	10.38	10.15
Total.....	21.90	18.99	11.14	10.50	15.93	14.10	13.47	20.36	20.31	13.59	15.94	17.80	23.12	23.94	25.30
Education and uplift:															
Newspapers.....	\$6.34	\$8.87	\$4.40	\$6.16	\$8.84	\$5.85	\$7.30	\$9.48	\$9.11	\$6.71	\$7.90	\$8.35	\$7.01	\$9.40	\$9.39
Magazines.....	2.17	2.05	.78	.93	1.54	1.85	1.12	.69	1.09	.82	1.31	2.85	1.88	3.63	2.20
Books.....	.92	1.23	.95	.68	.46	1.34	.03	.67	.48	.76	.70	2.68	1.14	3.13	1.77
Schools, tuition, books, etc.....	1.84	2.66	6.47	.53	3.40	5.04	4.38	5.99	4.92	2.46	4.01	.55	3.96	2.78	3.27
Music.....	1.68	4.75	.74	.57	4.09	3.66	1.13	1.55	1.90	1.55	3.12	2.34	3.20	2.87	2.50
Total.....	12.95	19.55	13.35	8.87	18.33	17.74	13.95	18.37	17.50	12.29	17.03	16.77	17.20	21.81	19.12
Postage.....	\$2.32	\$3.02	\$2.25	\$2.25	\$2.16	\$2.49	\$1.45	\$2.35	\$1.67	\$1.50	\$2.07	\$2.69	\$2.63	\$2.92	\$2.35
Sickness:															
Physician, surgeon, oculist.....	\$27.98	\$30.67	\$41.07	\$25.25	\$25.25	\$24.88	\$31.19	\$26.51	\$32.53	\$37.44	\$32.08	\$39.68	\$36.96	\$40.81	\$28.61
Medicine.....	10.63	13.44	21.05	8.53	7.19	6.22	12.64	7.89	10.60	17.57	12.88	10.64	7.88	7.38	12.12
Nurse.....	3.51	1.63	1.41	3.46	2.73	2.21	1.55	3.05	2.54	3.69	1.37	4.85	2.85	4.19	3.45
Hospital.....	3.55	2.53	2.19	1.11	5.37	3.98	3.96	4.26	3.60	2.38	1.72	4.43	11.35	11.64	6.63
Dentist.....	9.46	9.73	2.93	5.85	4.32	10.85	6.00	8.22	5.23	5.76	6.94	11.23	14.65	17.60	7.81
Eyeglasses.....	2.13	1.73	1.36	2.31	1.38	1.83	1.19	1.50	2.12	1.22	1.56	2.19	1.95	2.60	4.13
Other sickness.....	.05	.05	.33	.10	.12	.31	.06	.27	.38	.15	.08	.12	.25	.56	1.53
Total.....	57.30	59.78	70.35	46.61	46.36	50.27	56.59	51.70	57.00	68.22	56.64	73.14	75.89	84.76	58.29
Undertaker.....	\$0.19	\$1.31	\$3.38	.....	\$3.70	\$0.91	\$3.27	\$0.91	\$4.18	\$2.39	\$1.25	\$2.18	\$1.03	.....	\$4.96
Cemetery.....	.06	.43	.37	.....	.23	.12	.51	.46	.18	.10	.18	.35	.28	.....	1.60
Liquor.....	.....	1.51	.76	\$13.63	3.00	5.25	10.52	14.06	16.36	.85	11.59	.21	11.04	.....	12.15
Tobacco.....	16.65	13.87	15.22	22.19	18.05	9.92	15.93	17.25	20.66	16.69	19.80	12.83	13.09	\$10.42	25.53
Insurance, personal property.....	.65	1.32	.27	1.01	.94	2.07	.68	.86	.17	.70	.72	.60	.89	.91	.52
Tax, personal property and poll.....	5.91	2.73	1.65	.....	1.97	.43	.97	.01	.47	2.12	.41	2.25	.52	.57	.22
Tax, income.....	.22	.....	.....	.....	.....	.....	.....	.....	.01	.....	.05	.....	.....	.....	.99
Tools.....	3.09	2.92	1.16	3.52	1.43	2.31	1.62	1.16	.144	.27	1.40	2.55	1.49	3.68	.84
Laundry sent out.....	9.58	9.14	10.71	13.85	9.88	6.19	9.83	9.01	11.85	22.87	7.78	20.19	14.40	13.65	11.03
Cleaning supplies, soap, etc.....	11.90	12.95	10.14	10.67	10.64	11.67	15.81	12.21	13.69	12.61	13.28	13.99	12.38	9.94	11.82
Toilet articles and preparations.....	7.02	7.61	5.94	2.94	5.04	5.47	6.30	5.55	7.78	5.89	7.67	7.91	6.09	6.14	5.69
Barber.....	7.07	6.01	7.05	6.33	5.69	5.88	8.75	8.82	9.89	8.30	7.22	0.59	8.96	7.35	9.56
Telephone.....	9.80	7.15	.64	5.13	6.35	9.47	.77	1.76	1.03	3.12	2.50	9.25	5.91	9.71	2.38
Moving.....	2.56	1.78	1.40	.85	1.88	1.50	1.57	1.75	1.15	.96	2.36	2.00	1.79	4.07	.41
Automobiles, bicycles, motorcycles.....	29.11	40.98	23.22	31.47	8.93	15.92	2.33	1.12	2.85	8.88	7.83	26.05	14.19	34.73	19.64
Servant and day-work wages.....	1.04	9.05	6.34	.67	1.12	1.41	10.80	2.82	1.28	3.82	3.46	2.01	1.92	3.80	3.91
Other miscellaneous items.....	7.44	5.67	7.65	5.01	5.40	6.25	5.20	2.92	3.86	3.55	7.22	9.59	5.97	7.59	3.26
Total.....	277.25	340.16	251.20	260.98	255.06	276.16	281.70	284.55	305.05	292.30	304.20	350.70	324.61	352.04	330.80

[1321]

Disability Among Wage Earners.

By BORIS EMMET, Ph. D.

THE study of which this article presents but a summary is based upon the disability experience of the Workmen's Sick and Death Benefit Fund of the United States of America, a sick benefit society organized largely by immigrants from Germany and Austria, in 1884, under the name of Arbeiter Kranken-und Sterbe Kasse für die Vereinigten Staaten von Amerika. A brief description of the character and make-up of this society is given for the purpose of showing to what extent its composition may be considered as representative of the general wage-earning population of the United States.

Membership, Dues, and Benefits.

Membership in the society is confined almost exclusively to wage earners, and any worker of reputable character, between the ages of 16 and 45, may join upon passing a satisfactory medical examination. The membership is divided into three classes. Membership in Classes I and II entitles to disability and death benefits, while membership in Class III carries with it the right to receive a death benefit only.

Membership in the first two classes is confined to males. Class I consists of persons over 18 years of age, who pay an initiation fee of from \$4 to \$7, according to age, and a flat disability assessment of 80 cents as frequently as called upon. The amount of the average annual disability dues in the class, for the period covered by this study (1912 to 1916), was \$5.60, exclusive of a special annual per capita administrative assessment of 72 cents. This tax added to the annual dues brought the total average yearly cost to \$6.32 for each member. The maximum benefit amount paid in this class is \$540, the payments being \$9 per week for the first 40 weeks and \$4.50 per week for the next 40 weeks. Class II consists of persons between the ages of 16 and 18 and calls for the payment of an initiation fee of from \$3 to \$4, according to age. The regular disability dues are 45 cents, payable as frequently as necessary. The average annual dues in this class, during the period 1912 to 1916, amounted to \$3.60, in addition to the special annual per capita administrative assessment of 72 cents, making a total annual cost to each member of \$4.32. Members of Class II are entitled to a maximum benefit amount of \$360, distributed as follows: \$6 per week for the first 40 weeks of disability and \$3 per week for the next 40 weeks.

In both classes cash benefits are paid for all disabilities, that is, for sickness as well as for industrial and nonindustrial accidents, the

benefits beginning with the first day on which the certificate of illness is presented. No medical or hospital care or benefits are furnished to any of the classes of membership.

Verification of Claims.

The society consists of many locals or branches. The verification of claims is in the hands of the officers of these local organizations, who are assisted by special control committees of members and a local branch physician. It is required that the physician's certificate of disability be countersigned by members of the control committees. Disabled members are visited at least twice a week, and when malingering is suspected, special visiting committees may be appointed.

The rules of the organization specify inability to attend to work as the principal requirement for securing benefit payment. A disabled person is required to submit to the control of the organization and to comply strictly with orders of the attending physician. He is not allowed to leave the house without permission of the physician, and then only during hours especially designated in the disability certificate.

Management of Society.

The management of the society is vested in a national executive committee (board of directors) of nine persons. This group includes a chairman, a financial secretary, a treasurer, a recording secretary, and five trustees. There is also a separate control committee of nine members, an arbitration committee of five members, and a supervisory committee of nine members, the latter for the purpose of managing the official monthly organ of the society. Members of all of the above committees, except the arbitration committee, are elected by the membership of the branches.

Growth of Society and Occupational Distribution of Membership.

The growth of the organization, during the period covered by the study, 1912 to 1916, is shown in Table 1.

TABLE 1.—MEMBERSHIP OF SOCIETY, BY YEARS.

Year.	Number of branches.	Number of members.
1912.....	313	40,294
1913.....	329	42,075
1914.....	337	42,821
1915.....	339	43,300
1916.....	347	44,188

The records of the organization are incomplete for the years prior to 1906. Between 1906 and 1911 the number of branches increased from 231 to 284 and the membership from 30,745 to 38,773. There

was a further increase in membership to 44,080 in 1917, but it dropped to 42,630 in 1918, on account of the war, the number of branches remaining the same.

The constitution of the society confines membership to continental United States. The organization has large numbers of members in many of the populous industrial States. About three-fifths of the membership (58.5 per cent of the branches, containing 62.24 per cent of the membership) is located in three eastern States—New York, New Jersey, and Pennsylvania. Fifteen per cent resides in Illinois, Ohio, Wisconsin, Indiana, and Michigan, and a somewhat similar proportion is located in three New England States—Massachusetts, Connecticut, and Rhode Island.

The original charter, as well as the past and present constitution and by-laws, confine membership to wage earners. That the membership of the society is largely wage-earning may be seen from Table 2, which gives the occupational distribution of the membership in Classes I and II during the period 1912 to 1916. The figures given in Table 1 represent not Classes I and II only, upon which the study of disability is based, but the entire society.

TABLE 2.—OCCUPATIONAL DISTRIBUTION OF MEMBERSHIP.¹

Occupation.	Num-ber.	Per cent.
Auto, carriage, and wagon manufacturing employees (including cartwrights, wheelwrights, wagon builders, coachsmiths, auto workers, auto repairers, auto trimmers, carriage makers).....	735	0.4
Barbers.....	1,242	.7
Bartenders (including saloon keepers).....	2,290	1.2
Blacksmiths (including horseshoers).....	2,053	1.1
Bricklayers (including masons).....	2,241	1.2
Carpenters (including joiners).....	11,682	6.3
Clay products manufacturing employees (including brickmakers, potters, kiln workers, terra-cotta workers and burners, tile makers, cement workers).....	652	.4
Clothing manufacturing employees (including tailors, hatters, pocket makers, shirt pressers, clothing cutters, garment makers).....	4,847	2.6
Cooks and waiters (including porters, stewards, bell boys).....	2,335	1.3
Drivers.....	6,890	3.7
Dyers.....	748	.4
Electrical workers (including electricians, and helpers, armature makers, magnet winders, linemen).....	988	.5
Engineers and firemen (stationary or power house).....	3,387	1.8
Farmers, gardeners, and florists.....	1,203	.7
Food employees (other than in slaughtering and meat packing, and including bakers, restaurant workers, lunch-room men).....	7,484	4.0
Freight handlers (including longshoremen, stevedores, dock workers).....	724	.4
Glass workers (including glass cutters, glass polishers, glassers).....	955	.5
Jewelers (including watchmakers, goldsmiths, silversmiths, diamond cutters).....	1,165	.6
Laborers, not specified.....	17,685	9.6
Leather workers (including shoemakers, glove makers, harness makers, pocketbook makers, saddlers).....	4,314	2.3
Liquor manufacturing employees (including brewers, bottlers, malsters).....	14,321	7.7
Machinists (including die setters, tool makers, die makers).....	16,025	8.7
Miners.....	7,067	3.8
Miscellaneous ²	9,258	5.0

¹ This classification of occupations is used throughout this study in showing group disability experience.

² This group includes also the following: Mechanics, packers, bill posters, mill workers, floatmen grinders, millers, street sweepers, framers, foremen, rollers, oilers, cutters, fitters, grain inspectors, lumber inspectors, polishers, backers, pavers, designers, turners, janitors, elevator men, gilders, compounders, chisellers, pressers, estimators, watchmen, laundrymen, peddlers, door men, mill builders, dock builders, postal service employees, truckmen, managers, carvers, students, fishermen, machine builders, riggers, superintendents, overseers, valets, lamp repairers, drawers, sawyers, gas makers, benchmen, braiders, photographers, undertakers, enamellers, butlers, delainers, examiners, modelers, helpers, piano movers, monument setters, shippers, steam drillers, stove mounters, piano tuners, silver chasers, splicers, sextons, chimney sweeps, stickers, case makers, boatmen, and individual members whose occupations were unknown.

TABLE 2.—OCCUPATIONAL DISTRIBUTION OF MEMBERSHIP—Continued.

Occupation.	Num-ber.	Per-cent.
Miscellaneous building construction employees (including hod carriers, paper hangers, shinglers, roofers, slate roofers, floor layers, stair builders, tile layers).....	588	0.3
Miscellaneous manufacturing employees (including mattress makers, box makers, lamp makers, instrument makers, button makers, basket makers, candle makers, factory workers).....	4,164	2.3
Miscellaneous metal workers (including ironworkers, brass finishers, boiler makers, copper-smiths, locksmiths, gunmakers, wire drawers, buflers, stove mounters, drop forgers, fillers, foundry workers, pipe makers, riveters).....	6,907	3.7
Molders.....	2,841	1.5
Painters (including decorators).....	4,389	2.4
Plasterers.....	558	.3
Plumbers (including gas fitters, pipe fitters, steam fitters).....	1,448	.8
Printers and engravers (including bookbinders, compositors, press feeders, electrotypers, lithographers).....	3,391	1.8
Professional (including musicians, draftsmen, chemists, opticians, physicians, dentists, artists, writers, reporters, teachers, lawyers, nurses).....	1,189	.6
Railway employees (including motormen, conductors, trainmen, brakemen, guards elevated road, railroad yardmen, signalmen, railroad workers).....	691	.4
Sheet-metal workers (including tinsmiths, tinners, cornice makers, tin roofers).....	2,343	1.3
Slaughtering and meat-packing employees (including butchers, sausage makers).....	5,716	3.1
Stone and granite workers (including stone cutters, marble workers, granite cutters, quarrymen).....	1,169	.6
Tanners (including leather tannery employees).....	1,466	.8
Textile manufacturing employees (including weavers, spinners, loom fixers, knitters, embroiderers, finishers, bobbin cutters, twisters).....	7,287	3.9
Tobacco and cigars (including cigar makers, tobacco workers, cigar packers).....	8,897	4.8
Trade and clerical (including clerks, stenographers and typewriters, bookkeepers, store-keepers, salesmen, hotel keepers, collectors, agents, milk dealers, coal dealers, merchants).....	5,587	3.0
Woodworkers (including wood carvers, cabinet makers, coopers, piano makers, varnishers, wood turners, wood finishers).....	6,093	3.3
Total.....	185,018	100.0

It is realized, of course, that while some of the occupational designations shown in Table 2 are indefinite or vague, in a great majority of the cases those given in the original records and presented here are sufficiently accurate to warrant their utilization in this study. The occupational designations shown are as of the date on which members were initiated into the organization. The extent to which members changed their occupations while in the society is unknown, although it is thought that the movement of members from occupation to occupation was not very great. The average age of initiated members, for the period covered by the study, was about 30 years, an age at which changes of occupations do not frequently occur.

The extent to which each principal occupation is represented is shown in Table 2.

During the period covered by this study the average age of the members of the society was 42.9 years. The age distribution of the membership of the organization may thus be considered to be considerably different from that of the male (white) wage-earning population of the country at large. As will be shown elsewhere, this fact had a definite bearing upon the method which was used for correcting the so-called crude disability averages of the various occupations.

Nature of Disabilities.

The individual records upon which the disability experience shown herein was based did not contain any information regarding the origin

or cause of disability. Inasmuch as the society pays benefits for accidental injuries as well as for ordinary sickness, its disability experience includes all disabilities—sickness and nonindustrial and industrial accidents.

Although the original records of the organization did not permit, for each disabled person, any separation of accidental disabilities from disabilities due to ordinary sickness, it was found possible to ascertain, for the organization as a whole, the annual extent of disability due to accidents. The result is given in Table 3, which gives the annual number of cases and disability days attributable to sickness and to injuries. The latter term denotes accidental injuries of all kinds and descriptions:

TABLE 3.—EXTENT OF DISABILITY DUE TO SICKNESS AND TO INJURIES.

Year.	Cases.					Disability days.				
	Sickness.		Injuries.		Total.	Sickness.		Injuries.		Total.
	Num-ber.	Per-cent.	Num-ber.	Per-cent.		Num-ber.	Per-cent.	Num-ber.	Per-cent.	
1912.....	7,886	73	2,905	27	10,791	150,908	76	47,361	24	198,269
1913.....	8,461	73	3,068	27	11,529	166,900	78	46,692	22	213,592
1914.....	7,991	71	3,240	29	11,231	184,126	76	57,249	24	241,375
1915.....	8,036	72	3,204	28	11,240	183,812	75	59,899	25	243,711
1916.....	8,453	71	3,417	29	11,870	178,460	73	65,838	27	244,298
Average for 5-year period..	8,165	72	3,167	28	11,332	172,841	76	55,408	24	228,249

During the five-year period, 1912 to 1916, 28 per cent of the total number of cases, and 24 per cent of the disability days, were due to accidental injuries, there being very little variation in the percentage of accidental disabilities from year to year. The extent of non-industrial accidents is unknown, but believed to be relatively small.

Disability Frequency and Duration.

To ascertain the annual variations in the disability frequency of the society as a whole the following table was compiled:

TABLE 4.—VARIATIONS IN ANNUAL DISABILITY RATES, 1912 TO 1916.

Year.	Mem-ber-ship on De-cem-ber 31.	Cases.			Number of cases per 1,000 mem-bers.			Disability days.			Number of disability days per 1,000 mem-bers.		
		Sick-ness.	In-jur-ies.	All disa-bil-ities.	Sick-ness.	In-jur-ies.	All disa-bil-ities.	Sick-ness.	In-jur-ies.	All disa-bil-ities.	Sick-ness.	In-jur-ies.	All disa-bil-ities.
1912.....	40,294	7,886	2,905	10,791	195.7	72.1	267.8	150,908	47,361	198,269	3,745.2	1,175.4	4,920.6
1913.....	42,075	8,461	3,068	11,529	201.1	72.9	274.0	166,900	46,692	213,592	3,966.7	1,109.7	5,076.4
1914.....	42,821	7,991	3,240	11,231	186.6	75.6	262.2	184,126	57,249	241,375	4,299.9	1,336.9	5,636.8
1915.....	43,300	8,036	3,204	11,240	185.6	74.0	259.6	183,812	59,899	243,711	4,245.1	1,383.3	5,628.4
1916.....	44,188	8,453	3,417	11,870	191.3	77.3	268.6	178,460	65,838	244,298	4,038.5	1,489.9	5,528.4
Av. for 5 yrs	42,535	8,165	3,167	11,332	192.0	74.4	266.4	172,841	55,408	228,249	4,063.5	1,302.6	5,366.1

The above presented table shows the annual variations in disability extent, in two ways: In the number of cases of sickness per 1,000 members and in the number of disability days per 1,000 members. The number of disability days is the more reliable indication of the variations in disability because it takes into consideration the frequency as well as the severity or duration of sickness. The results are interesting in view of the fact that the average age of the membership—42.9 years for the entire period—changed but slightly (approximately one year) during the period. The duration of all disabilities per 1,000 members increased more rapidly than the age, the increase over 1912 being 3 per cent in 1913, about 15 per cent each in 1914 and 1915, and 12 per cent in 1916. The increases are evident in all disabilities, in ordinary sicknesses as well as in accidental injuries.

Average Disability.

The disability experience shown in this report is based upon membership Classes I and II. The membership herein given is therefore numerically different from the membership of the entire society as given in Table 1. The total exposure or disability experience upon which the study is based is equal to 185,018 annual full-time memberships. This membership was subjected to a disability extent measured by 43,485 sick persons, disabled an aggregate of 1,223,324 days, or an average of 6.6 days per member and 28.1 days per disabled person. The figure 6.6 represents the actual extent of disabling sicknesses per wage earner of the entire group. It is very close to the estimated results arrived at in the recent sickness survey made by the Metropolitan Life Insurance Co., 6.8 days.¹ The slightly greater extent of disability shown by the Metropolitan survey may be attributed, no doubt, to the following factors: (1) The Metropolitan Life figures cover the experience of congested steel and coal industrial centers where the economic condition of the population is considerably worse and the extent of accidents and sickness, as a rule, higher than the average; (2) the Metropolitan Life studies include all persons 15 years of age and over, while the figures upon which this study is based exclude altogether persons of 15 years of age and include comparatively few persons under 20.

As already stated, the records of the society were not sufficiently detailed to determine, for each individual, the proportion of disability due to industrial accidents. Figures for the society as a whole, as shown in Table 3, indicate that the extent of disability due to accidents of all kinds averaged about one-fourth of the total

¹ Sickness Survey of Principal Cities in Pennsylvania and West Virginia, Sixth Community Sickness Survey, by Lee K. Frankel and Louis I. Dublin, Metropolitan Life Insurance Co., New York, 1917, pp. 76-78.

shown. Generally speaking, therefore, about three-fourths of 6.6 days, or about 5 days, may be said to be the average number of ordinary sickness days per year per wage earner of the small artisan type found in the society.

The society pays a benefit of \$1.50 per day or \$9 per week and furnishes no medical care of any kind. The extent of benefits thus paid is relatively small. Only those actually unable to work are entitled to benefits. Many a member really sick, it is said, can not possibly afford, for the first few days at least, to cut off his regular income by putting himself on the sick list. Nominally, a member may draw benefits beginning with the date of the filing of the physician's certificate, even on the first day of disability. Actually, however, it usually takes more than a day for a member to make up his mind to put himself on the sick list and secure the physician's certificate. This means that for all practical purposes the society has a waiting period of a day or two.

The Age Factor in Disability.

Age is the most important factor in determining disability. Table 5 gives the average annual number of disability days per member of each indicated age group. As may be seen from the column entitled "Average number of disability days per member," the extent of sickness up to the age of 44 is slightly below the average. Beginning with the age group 45 to 49 years the extent of sickness increases progressively. The disability figures show an unmistakable tendency for sickness to increase with age. This tendency is illustrated in Charts A and B, accompanying Table 5.

TABLE 5.—AVERAGE ANNUAL NUMBER OF DISABILITY DAYS PER MEMBER AND PER DISABLED PERSON OF EACH 5-YEAR AGE GROUP.

Age group.	Total number of disability days.	Total number of members (exposure).	Number of disabled persons.	Average number of disability days per member.	Average number of disability days per disabled person.
Under 20 years.....	2,108	406	127	5.2	16.6
20 to 24 years.....	34,296	7,168	1,778	4.8	19.3
25 to 29 years.....	76,619	15,267	3,574	5.0	21.4
30 to 34 years.....	106,162	21,886	4,862	4.9	21.8
35 to 39 years.....	155,209	27,496	6,197	5.6	25.0
40 to 44 years.....	196,206	30,746	7,104	6.4	27.6
45 to 49 years.....	206,860	31,579	7,150	6.6	28.9
50 to 54 years.....	189,850	25,484	6,044	7.4	31.4
55 to 59 years.....	146,777	16,229	4,168	9.0	35.2
60 to 64 years.....	80,459	6,689	1,859	12.0	43.3
65 to 69 years.....	25,361	1,843	557	13.8	45.5
70 years and over.....	3,417	225	65	15.2	52.6
All ages.....	1,223,324	185,018	43,485	6.6	28.1

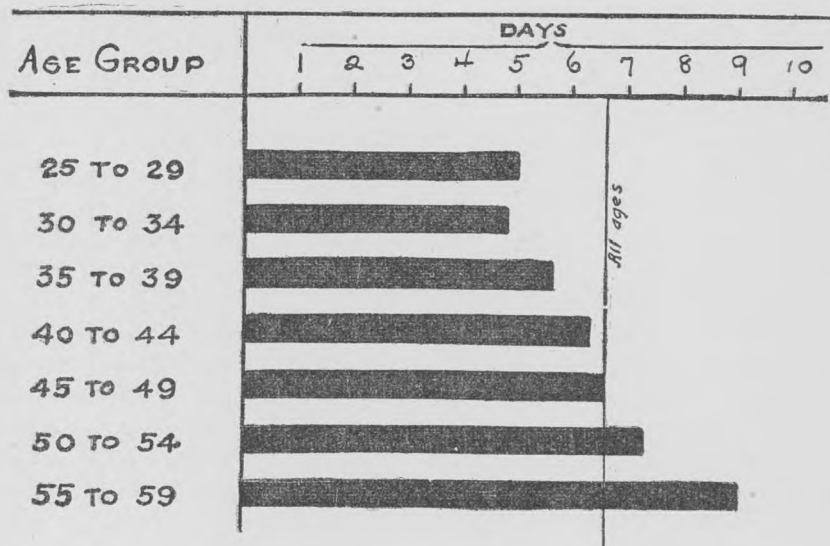


CHART A.—Average annual number of disability days per member (all occupations) in certain age groups.

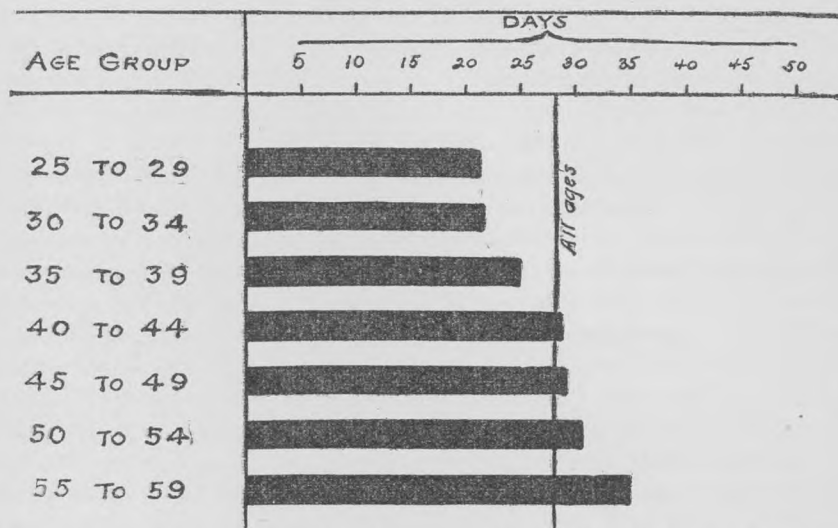


CHART B.—Average annual number of disability days per disabled person (all occupations) in certain age groups.

The meaning of the illustrative charts just presented is so clear that they need not be commented upon at length.

Table 5 shows the influence of age upon disability, in absolute numbers. Table 6 and Chart C, accompanying it, represent an attempt to show in a relative way the influence of the age factor upon disability.

TABLE 6.—PERCENTAGE DEVIATIONS OF DISABILITY DAYS OF EACH INDICATED AGE GROUP FROM THE AVERAGE NUMBER OF DISABILITY DAYS FOR ALL AGE GROUPS.

Age group.	Per member.		Per disabled person.	
	Average number of disability days.	Per cent above (+) or below (-) average for all age groups.	Average number of disability days.	Per cent above (+) or below (-) average for all age groups.
Under 20 years.....	5.2	- 21.2	16.6	-40.9
20 to 24 years.....	4.8	- 27.3	19.3	-31.3
25 to 29 years.....	5.0	- 24.2	21.4	-23.8
30 to 34 years.....	1.9	- 25.8	21.8	-22.4
35 to 39 years.....	5.6	- 15.1	25.0	-11.0
40 to 44 years.....	6.4	- 3.0	27.6	- 1.8
45 to 49 years.....	6.6	± 0	28.9	+ 2.9
50 to 54 years.....	7.4	+ 12.1	31.4	+11.7
55 to 59 years.....	9.0	+ 36.4	35.2	+25.3
60 to 64 years.....	12.0	+ 81.8	43.3	+54.1
65 to 69 years.....	13.8	+109.1	45.5	+61.9
70 years and over.....	15.2	+130.3	52.6	+87.2
All age groups.....	6.6	.....	28.1	.....

The standard of comparison in Table 6 and Chart C is the average number of disability days for all age groups, that is, for the society as a whole. By taking the disability for the entire group (per member, or per disabled person) as equivalent to 100, the disability of each particular group may be reduced to a percentage of this standard unit and an index number arrived at.

In the extent of average disability per member each 5-year age group up to 45 to 49 years, inclusive, shows a negative deviation from the average, that is, an extent of sickness below the average. The least extent of sickness (27.3 per cent less than the average) is found in group 20 to 24 years. The extent of disability increases with age. Age group 45 to 49 years shows an extent of sickness equivalent approximately to the average. This is to be expected in view of the fact that the average age of the member is about 43 years. The extent of disability in the age group 55 to 59 years is about one-third greater than the average, and in age group 60 to 64 years more than four-fifths greater. The age groups 65 to 69 years and 70 years and over show disability extents more than twice as great as the average age.

The figures given in Table 6 indicate that disability does not increase as rapidly with age per disabled person as it does per member. The average per disabled person is approximated in group 45 to 49 years. The number of disability days per disabled person in the 55 to 59 years age group is one-fourth greater than the average. Age groups 60 to 64 years, 65 to 69 years and 70 years

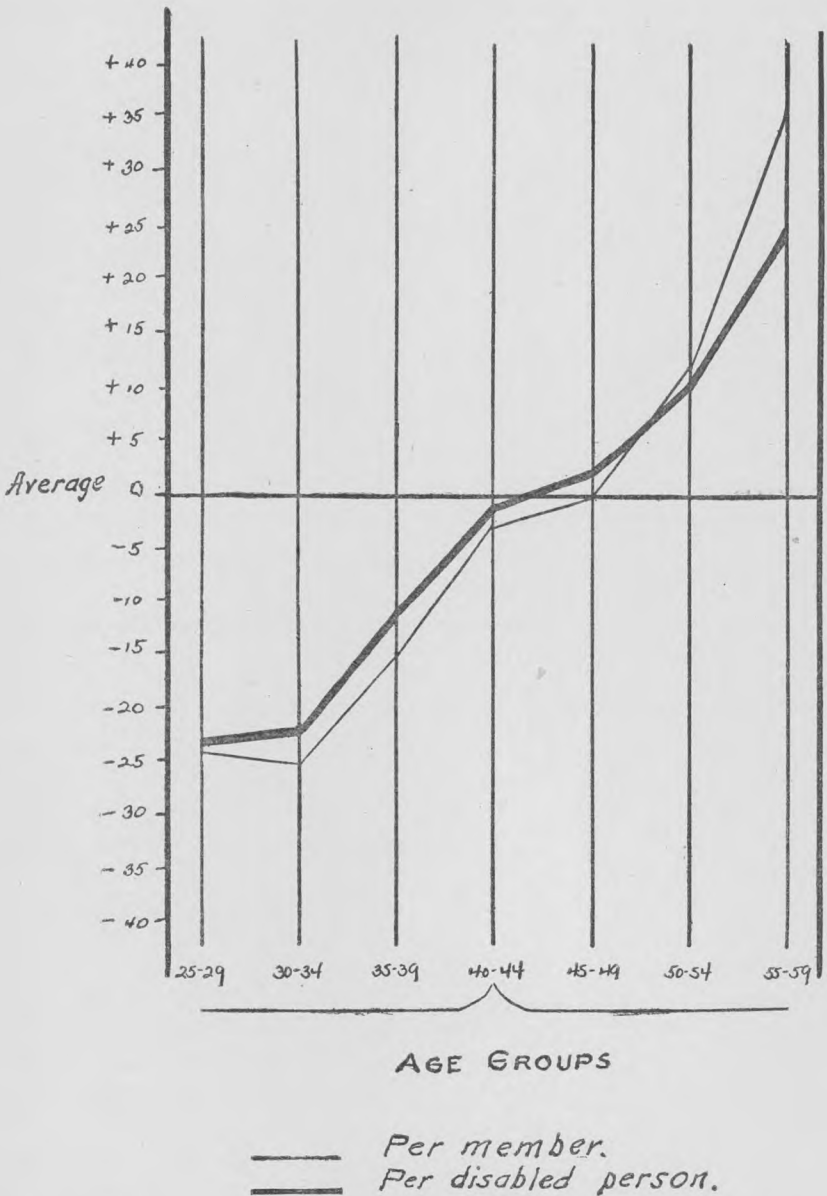


CHART C.—Per cent deviations of disability days of indicated age groups from the average number of disability days for all age groups.

and over, show durations of disability 54.1 per cent, 61.9 per cent, and 87.2 per cent, respectively, greater than the average.

Table 7 shows the number disabled per 1,000 members, in certain 5-year age groups.

TABLE 7.—NUMBER DISABLED PER 1,000 MEMBERS OF EACH 5-YEAR AGE GROUP.

Age group.	Total number of members.	Total number disabled.	Number disabled per 1,000 members.
Under 20 years.....	406	127	312.8
20 to 24 years.....	7,168	1,778	248.0
25 to 29 years.....	15,267	3,574	234.1
30 to 34 years.....	21,886	4,862	222.2
35 to 39 years.....	27,496	6,197	225.4
40 to 44 years.....	30,746	7,104	231.1
45 to 49 years.....	31,579	7,150	226.4
50 to 54 years.....	25,484	6,044	237.2
55 to 59 years.....	16,229	4,168	256.8
60 to 64 years.....	6,689	1,859	278.0
65 to 69 years.....	1,843	557	302.2
70 years and over.....	225	65	288.9
All ages.....	185,018	43,485	235.0

The figures shown in Table 7 exhibit a tendency for sickness to increase with age.

Table 8 is an attempt to establish the relative disability responsibility of each 5-year age group.

TABLE 8.—RELATIVE DISABILITY RESPONSIBILITY OF EACH 5-YEAR AGE GROUP.

Age group.	Total number of members.	Per cent of total membership.	Aggregate disability days of age groups.	Per cent of disability days of entire membership.
Under 20 years.....	406	0.22	2,108	0.17
20 to 24 years.....	7,168	3.87	34,296	2.80
25 to 29 years.....	15,267	8.25	76,619	6.26
30 to 34 years.....	21,886	11.83	106,162	8.68
35 to 39 years.....	27,496	14.86	155,209	12.69
40 to 44 years.....	30,746	16.62	196,206	16.04
45 to 49 years.....	31,579	17.07	206,860	16.91
50 to 54 years.....	25,484	13.77	189,850	15.52
55 to 59 years.....	16,229	8.77	146,777	12.00
60 to 64 years.....	6,689	3.62	80,459	6.58
65 to 69 years.....	1,843	1.00	25,361	2.07
70 years and over.....	225	.12	3,417	.28
All ages.....	185,018	100.00	1,223,324	100.00

The relative disability responsibility in the above table is found by comparing the strength (per cent of total) of each group in the organization with the proportion of disability days for which it is responsible. Without the presence of disability variations due to

age, the per cent strength of each group should be equivalent to the per cent of disability days caused by it. For this reason, it may be said that the extent of discrepancy between the two figures indicates more or less correctly the relative disability responsibility of the unit. Age group denoted as under 20 years, while 0.22 per cent strong, was responsible only for 0.17 per cent of the disability days. On the other hand, age group 70 years and over—only 0.12 per cent strong—was responsible for an extent of sickness more than twice as great as its proportion, to wit, 0.28 per cent. Age group 30 to 34 years, which was 11.83 per cent strong, but responsible only for 8.68 per cent of the disability days, was the least costly to the society.

Age and Occupation as Determinants of Disability.

The two principal factors determining the extent of disability among wage earners are age and occupation. The latter factor, however, applies only to a relatively small number of occupations, those which, owing to the character of the work, are unusually hazardous.

For the purpose of arriving at a true measurement of disability among wage earners the factors of age and occupation must be correlated. This result may be achieved in two ways: (1) By reducing all occupations to an identical age level, a method known as correcting crude rates; and (2) by computing what is known in vital statistics as "specific" disability rates. These rates are arrived at by breaking up each occupation into certain age groups and subsequently comparing different occupations in the same age group.

Two methods may be used in correcting for the age factor in mortality or disability rates. In the first method the standard of correction chosen is the age distribution of the entire unit under special observation, applying to it the varying age disability rates of each of the several parts of the unit—occupation, for instance. Under this method the constant factor of computation is the age distribution of the whole observed unit (the membership of the fund in this study) and the variable, the average number of disability days for the specific age group of each part or occupation. The result of this correction is a series of occupational disability rates which would have resulted had every part (occupation) of the unit had the same age composition as the unit as a whole—the whole organization, in this instance.

In the second method the standard of correction chosen is the population distribution of a large community group of which the unit studied is an integral part—the age distribution, for instance, of the population of the State or of the country. Under this method

the constant factor of computation is the age distribution of the general population. The variable factor is the same as under the first method. The result of correction by this method is a series of occupational disability rates which would have occurred had each of the several parts (occupation) of the unit and the unit as a whole (the members of the fund) had the same age composition as the general population.

Each of the two methods outlined above accomplishes the main object—the elimination of the age factor in the extent of disability of the various occupations. This result is achieved by putting all groups of the unit on an identical age distribution level.

The choice of method to be followed in specific instances will vary with the object in view and with the age composition of the group under observation. If the age distribution of the group is typical of the age distribution of the general population (and similar therefore to it) the selection of method is simple; either of the two will be found useful in every respect. The situation, however, is different when the age composition of the organization studied varies greatly from the age composition of the general population. In such instances the selection of the method for correction would be guided largely by the object of the study. If the main object of the study is the analysis of the unit under special observation, the first method is preferable. If, however, the principal object of the investigation is to make the resultant disability rates available for comparison with the disability rates of the general population, the second method is more desirable. In the absence of disability rates for the general population such a comparison, of course, is impossible. Precisely this situation was found in this study and for this reason the first method furnishes a more valuable result. Both, however, were used.

Corrected Average Number of Disability Days.

Table 9 shows the so-called crude and corrected annual average number of disability days per member, age group 25 to 59 years. The corrections are made by both of the methods previously described.

TABLE 9.—CRUDE AND CORRECTED ANNUAL AVERAGE NUMBER OF DISABILITY DAYS PER MEMBER IN AGE GROUP 25 TO 59 YEARS.

Occupation.	Annual average number of disability days per member.		
	Crude (irrespective of specific age distribution within occupation).	Corrected for age factor according to method—	
		I. (Constant: Age distribution of membership of fund. Variable: Average days of disability for specific age group of particular occupation.)	II. (Constant: Age distribution of male (white) population of United States. Variable: Same as under Method I.)
Automobile, carriage, and wagon manufacturing employees.....	5.99	5.86	5.70
Barbers.....	5.57	5.88	6.58
Bartenders.....	6.17	5.98	5.39
Blacksmiths.....	7.09	6.89	6.51
Bricklayers.....	7.35	7.13	6.62
Carpenters.....	6.91	6.69	6.46
Clay products manufacturing employees.....	6.44	6.55	6.71
Clothing manufacturing employees.....	4.66	4.44	4.25
Cooks and waiters.....	6.38	6.15	5.44
Drivers.....	8.46	8.59	8.02
Dyers.....	7.06	6.44	6.44
Electrical workers.....	4.54	4.79	4.56
Engineers and firemen.....	6.05	6.01	5.73
Farmers, gardeners, florists.....	5.22	5.28	4.84
Food employees.....	5.94	6.22	5.73
Freight handlers.....	9.61	9.56	9.02
Glass workers.....	6.81	7.09	6.39
Jewelers.....	3.55	3.59	3.88
Laborers, not specified.....	6.88	6.92	6.64
Leather workers.....	5.98	5.75	5.80
Liquor manufacturing employees.....	7.76	7.94	7.20
Machinists.....	5.82	6.11	5.71
Miners.....	9.16	9.67	8.91
Miscellaneous (all other occupations).....	5.69	5.72	5.42
Molders.....	5.71	5.84	5.60
Other building construction employees.....	6.62	6.57	5.94
Other manufacturing employees.....	5.12	5.14	4.80
Other metal workers.....	5.30	5.36	5.15
Painters.....	6.42	6.35	6.25
Plasterers.....	5.51	5.62	6.11
Plumbers.....	5.05	5.56	5.24
Printers and engravers.....	6.02	6.10	5.61
Professional.....	2.43	2.55	2.60
Railway employees.....	7.80	8.37	7.45
Sheet-metal workers.....	5.72	5.56	5.67
Slaughtering and meat-packing employees.....	6.45	6.86	6.08
Stone and granite workers.....	7.69	7.53	6.89
Tanners.....	6.61	5.80	4.82
Textile manufacturing employees.....	4.59	4.49	4.40
Tobacco and cigar workers.....	7.03	6.80	6.80
Trade and clerical.....	4.54	4.70	4.45
Woodworkers.....	6.48	6.14	5.47

Occupational disability extents, as shown by the correction in accordance with Method I, are illustrated in Chart D.

The chart shows occupational disability, in order of magnitude. Miners show the highest annual average number of disability days—9.7 as against 6.4, the average for all occupations. Freight handlers are the next highest group in point of disability, with an average

number of disability days per member of 9.6 per year. Drivers, with an average of 8.6 days of disability per member, come next. Jewelers and professional workers show the least extent of sickness, 3.6 and

Occupation.	Annual average number of disability days per member.									
	1	2	3	4	5	6	7	8	9	10
Miners	1	1	1	1	1	1	1	1	1	9.7
Freight handlers	1	1	1	1	1	1	1	1	1	9.4
Drivers	1	1	1	1	1	1	1	1	1	8.6
Railway Employees	1	1	1	1	1	1	1	1	1	8.0
Liquor Manufacturing Emp.	1	1	1	1	1	1	1	1	1	7.9
Stone & Granite	1	1	1	1	1	1	1	1	1	7.8
Bricklayers	1	1	1	1	1	1	1	1	1	7.7
Glass Workers	1	1	1	1	1	1	1	1	1	7.1
Laborers, not specified	1	1	1	1	1	1	1	1	1	6.7
Blacksmiths	1	1	1	1	1	1	1	1	1	6.7
Slaughtering & meat packing emp.	1	1	1	1	1	1	1	1	1	6.7
Tobacco & Cigars	1	1	1	1	1	1	1	1	1	6.9
Carpenters	1	1	1	1	1	1	1	1	1	6.7
Other Building Construction emp.	1	1	1	1	1	1	1	1	1	6.4
Clay Products Mfg. emp.	1	1	1	1	1	1	1	1	1	6.6
Painters	1	1	1	1	1	1	1	1	1	6.4
Dyers	1	1	1	1	1	1	1	1	1	6.4
Cooks & Waiters	1	1	1	1	1	1	1	1	1	6.4
Food employees	1	1	1	1	1	1	1	1	1	6.2
Machinists	1	1	1	1	1	1	1	1	1	6.1
Printers & Engravers	1	1	1	1	1	1	1	1	1	6.1
Woodworkers	1	1	1	1	1	1	1	1	1	6.1
Bartenders	1	1	1	1	1	1	1	1	1	6.0
Engineers & Firemen	1	1	1	1	1	1	1	1	1	6.0
Barbers	1	1	1	1	1	1	1	1	1	5.9
Auto carriage & wagon mfg. emp.	1	1	1	1	1	1	1	1	1	5.7
Tanners	1	1	1	1	1	1	1	1	1	5.7
Leather Workers	1	1	1	1	1	1	1	1	1	5.8
Molders	1	1	1	1	1	1	1	1	1	5.8
All other occupations	1	1	1	1	1	1	1	1	1	5.7
Plasterers	1	1	1	1	1	1	1	1	1	5.6
Plumbers	1	1	1	1	1	1	1	1	1	5.6
Sheet Metal Workers	1	1	1	1	1	1	1	1	1	5.6
Other Metal Workers	1	1	1	1	1	1	1	1	1	5.6
Farmers, Gardeners, Florists	1	1	1	1	1	1	1	1	1	5.3
Other Manufacturing emp.	1	1	1	1	1	1	1	1	1	5.1
Electrical Workers	1	1	1	1	1	1	1	1	1	4.8
Trade & Clerical	1	1	1	1	1	1	1	1	1	4.7
Textile Manufacturing emp.	1	1	1	1	1	1	1	1	1	4.5
Clothing Manufacturing emp.	1	1	1	1	1	1	1	1	1	4.4
Jewelers	1	1	1	1	1	1	1	1	1	3.6
Professional	1	1	1	1	1	1	1	1	1	3.6
All occupations	1	1	1	1	1	1	1	1	1	6.4

CHART D.—Corrected annual disability days per member for each occupation, age group 25 to 59 years.

2.6 days, respectively, per year. The high disability extent of the first three groups is accounted for by the hazardous character of the work, which makes for frequent industrial accidents.

While Table 9 and Chart D show the crude and corrected average number of disability days per exposed member, Table 10 and Chart E show the occupational average number of disability days per disabled person. These figures are intended to show the relative duration per annum of disabilities of specific occupations.

TABLE 10.—CRUDE AND CORRECTED ANNUAL NUMBER OF DISABILITY DAYS PER DISABLED PERSON IN AGE GROUP 25 TO 59 YEARS.

Occupation.	Annual average number of disability days per disabled person.	
	Crude.	Corrected. ¹
Automobile, carriage, and wagon manufacturing employees.....	25.57	24.84
Barbers.....	30.54	30.28
Bartenders.....	35.67	34.18
Blacksmiths.....	28.44	27.83
Bricklayers.....	30.94	29.45
Carpenters.....	29.25	28.26
Clay products manufacturing employees.....	30.24	33.40
Clothing manufacturing employees.....	26.41	24.96
Cooks and waiters.....	31.25	29.50
Drivers.....	29.09	29.54
Dyers.....	32.17	30.69
Electrical workers.....	22.36	24.26
Engineers and firemen.....	27.46	26.84
Farmers, gardeners, florists.....	26.55	25.78
Food employees.....	29.03	28.98
Freight handlers.....	35.29	33.46
Glass workers.....	29.69	30.92
Jewelers.....	26.16	25.65
Laborers, not specified.....	25.15	25.18
Leather workers.....	28.52	27.03
Liquor manufacturing employees.....	27.61	27.69
Machinists.....	26.66	27.56
Miners.....	29.50	30.11
Miscellaneous (all other occupations).....	25.74	25.60
Molders.....	22.38	22.72
Other building construction employees.....	31.77	30.22
Other manufacturing employees.....	25.19	25.31
Other metal workers.....	23.57	23.54
Painters.....	30.22	29.96
Plasterers.....	28.88	31.40
Plumbers.....	23.14	25.81
Printers and engravers.....	35.57	37.04
Professional.....	22.50	21.06
Railway employees.....	30.26	32.99
Sheet-metal workers.....	26.55	25.95
Slaughtering and meat-packing employees.....	27.64	28.00
Stone and granite workers.....	32.36	32.32
Tanners.....	26.92	24.21
Textile manufacturing employees.....	25.53	25.01
Tobacco and cigar workers.....	27.43	26.50
Trade and clerical.....	27.19	28.07
Woodworkers.....	29.86	28.21
All occupations.....	27.56	27.6

¹ Corrected according to Method I referred to in the preceding table.

In considering the result shown in Table 10 and Chart E it must be remembered that the influence of the age factor has been eliminated by the correction. The table and chart show that printers and engravers suffer the longest disability durations, an average of 37 days per year per disabled person, as against 27.6, the average. The long disability of these members may be attributed perhaps to diseases of the eyes, as well as to the handling of lead working materials.

OCCUPATION	Annual average number of disability days per disabled person										
	5	10	15	20	25	30	35	40	45	50	
Printers & engravers	1	1	1	1	1	1	1	1	1	1	37.0
Bartenders	1	1	1	1	1	1	1	1	1	1	37.2
Freight handlers	1	1	1	1	1	1	1	1	1	1	37.5
Clay products mfg. emp.	1	1	1	1	1	1	1	1	1	1	38.4
Railway employees	1	1	1	1	1	1	1	1	1	1	39.0
Stone & granite workers	1	1	1	1	1	1	1	1	1	1	40.3
Plasterers	1	1	1	1	1	1	1	1	1	1	41.4
Glass workers	1	1	1	1	1	1	1	1	1	1	40.9
Dyers	1	1	1	1	1	1	1	1	1	1	40.7
Barbers	1	1	1	1	1	1	1	1	1	1	40.3
Other bldg. const. emp.	1	1	1	1	1	1	1	1	1	1	40.2
Miners	1	1	1	1	1	1	1	1	1	1	40.1
Painters	1	1	1	1	1	1	1	1	1	1	39.0
Bricklayers	1	1	1	1	1	1	1	1	1	1	39.5
Cooks & waiters	1	1	1	1	1	1	1	1	1	1	39.5
Drivers	1	1	1	1	1	1	1	1	1	1	39.5
Food employees	1	1	1	1	1	1	1	1	1	1	39.0
Carpenters	1	1	1	1	1	1	1	1	1	1	38.2
Woodworkers	1	1	1	1	1	1	1	1	1	1	38.2
Trade and clerical	1	1	1	1	1	1	1	1	1	1	38.1
Slaughtering & meat packing emp.	1	1	1	1	1	1	1	1	1	1	38.4
Blacksmiths	1	1	1	1	1	1	1	1	1	1	37.8
Liquor mfg. employees	1	1	1	1	1	1	1	1	1	1	37.7
Mechanists	1	1	1	1	1	1	1	1	1	1	37.4
Leather workers	1	1	1	1	1	1	1	1	1	1	37.0
Engineers & firemen	1	1	1	1	1	1	1	1	1	1	36.6
Tobacco & cigars	1	1	1	1	1	1	1	1	1	1	36.5
Sheet Metal workers	1	1	1	1	1	1	1	1	1	1	36.0
Plumbers	1	1	1	1	1	1	1	1	1	1	35.8
Farmers, gardeners, florists	1	1	1	1	1	1	1	1	1	1	35.8
Jewelers	1	1	1	1	1	1	1	1	1	1	35.7
All other occupations	1	1	1	1	1	1	1	1	1	1	35.6
Other mfg. employees	1	1	1	1	1	1	1	1	1	1	35.3
Laborers, not specified	1	1	1	1	1	1	1	1	1	1	35.2
Clothing mfg. employees	1	1	1	1	1	1	1	1	1	1	35.0
Textile mfg. employees	1	1	1	1	1	1	1	1	1	1	35.0
Auto. carriage & wagon mfg. emp.	1	1	1	1	1	1	1	1	1	1	34.8
Electrical workers	1	1	1	1	1	1	1	1	1	1	34.3
Tanners	1	1	1	1	1	1	1	1	1	1	34.2
Other metal workers	1	1	1	1	1	1	1	1	1	1	33.8
Molders	1	1	1	1	1	1	1	1	1	1	33.7
Professional	1	1	1	1	1	1	1	1	1	1	33.1
All occupations	1	1	1	1	1	1	1	1	1	1	32.6

CHART E.—Corrected annual disability days per disabled person for each occupation, age group 25 to 59 years.

Specific Annual Average Number of Disability Days.

Table 11 shows occupational disability (annual average number of disability days) per member and per disabled person in specific and identical age groups. The disadvantage of specific rates lies in the fact that their compilation reduces the extent of exposure. The computation involves the breaking up of the entire experience into a number of age groups.

TABLE 11.—ANNUAL AVERAGE NUMBER OF DISABILITY DAYS IN SPECIFIED AGE GROUPS, BY OCCUPATION

Per member.

Occupation.	25 to 29 years.		30 to 34 years.		35 to 39 years.		40 to 44 years.		45 to 49 years.		50 to 54 years.		55 to 59 years.	
	Exposure (number of members).	Average days of disability.	Exposure (number of members).	Average days of disability.	Exposure (number of members).	Average days of disability.	Exposure (number of members).	Average days of disability.	Exposure (number of members).	Average days of disability.	Exposure (number of members).	Average days of disability.	Exposure (number of members).	Average days of disability.
Automobile, carriage, and wagon manufacturing employees..	35	3.8	83	5.7	82	8.9	91	3.5	141	5.0	162	6.5	76	7.8
Barbers.....	112	11.6	125	5.7	188	3.0	253	4.5	273	6.2	167	2.9	49	12.3
Bartenders.....	145	1.9	257	4.7	385	7.5	479	7.6	426	4.7	312	7.4	148	6.2
Blacksmiths.....	129	5.7	220	4.0	281	6.8	385	8.3	335	5.9	326	7.2	221	10.8
Bricklayers.....	167	5.5	237	2.8	277	8.7	351	7.3	305	7.4	386	6.1	282	12.6
Carpenters.....	520	5.9	1,088	5.5	1,531	6.4	1,676	6.6	1,929	6.5	2,166	8.0	1,654	8.0
Clay products manufacturing employees.....	37	3.6	66	11.4	96	9.1	110	7.0	103	4.4	119	4.5	61	5.0
Clothing manufacturing employees.....	230	4.5	390	2.7	604	3.2	749	4.0	1,030	4.2	792	6.0	545	7.5
Cooks and waiters.....	106	3.5	246	3.1	329	4.1	476	7.4	481	5.9	357	7.6	208	12.1
Drivers.....	643	5.8	823	6.9	1,149	8.3	1,427	8.6	1,303	9.0	810	10.6	351	10.0
Dyers.....	56	9.5	47	2.5	97	4.7	123	4.6	134	6.7	124	9.4	116	10.2
Electrical workers.....	217	3.9	178	5.1	143	3.0	151	5.1	78	8.1	51	2.4	20	5.0
Engineers and firemen.....	166	5.3	351	3.5	471	6.3	612	6.6	778	5.7	598	5.8	291	9.4
Farmers, gardeners, and florists.....	122	2.7	132	4.4	126	3.9	211	8.1	242	3.8	155	4.4	91	10.1
Food employees.....	479	3.6	828	5.2	1,322	5.1	1,545	5.4	1,566	5.2	945	8.6	421	11.8
Freight handlers.....	26	11.0	68	2.6	142	6.8	158	10.2	145	9.7	109	14.3	57	13.3
Glass workers.....	126	4.3	142	3.6	116	6.8	139	7.5	150	7.2	131	8.4	81	11.9
Jewelers.....	125	4.6	89	4.8	147	4.5	176	1.7	244	3.1	187	3.7	131	3.8
Laborers, not specified.....	1,732	5.8	2,134	5.9	2,423	6.1	2,839	6.4	2,941	6.9	2,481	7.8	1,446	10.4
Leather workers.....	243	8.4	401	2.3	465	5.1	547	5.6	761	5.8	852	7.1	567	7.1
Liquor manufacturing employees.....	1,321	4.8	1,922	5.4	2,330	6.9	2,688	7.8	2,544	9.3	1,777	9.4	912	11.4
Machinists.....	1,767	4.8	2,621	4.4	2,944	4.7	2,522	7.0	2,124	6.7	1,502	6.6	1,080	8.4
Miners.....	772	6.2	1,077	6.7	1,162	9.3	1,152	9.5	1,160	9.8	688	12.3	473	13.6
Miscellaneous (all other occupations).....	739	4.9	1,057	3.7	1,322	5.3	1,584	5.7	1,642	5.7	1,316	6.2	726	9.2
Molders.....	249	4.6	415	5.7	564	4.7	548	6.2	459	5.9	282	6.6	177	7.1
Other building construction employees.....	48	5.6	45	2.4	103	5.1	87	2.5	98	10.9	105	6.2	42	15.5
Other manufacturing employees.....	430	3.7	457	4.7	621	3.6	628	5.1	670	5.9	542	6.5	403	6.3
Other metal workers.....	624	4.9	910	4.1	1,101	4.4	1,251	4.7	1,082	5.0	878	6.9	598	8.5
Painters.....	260	6.3	409	5.7	604	5.9	767	6.4	796	6.5	778	7.6	463	5.7
Plasterers.....	31	9.2	45	6.0	61	3.7	105	6.4	119	3.6	79	6.7	63	5.7
Plumbers.....	307	5.6	277	3.3	209	3.8	177	5.0	158	7.4	75	7.4	26	6.1
Printers and engravers.....	398	3.9	357	4.0	467	6.0	548	7.2	481	5.1	384	8.6	324	7.1
Professional.....	137	2.6	136	3.4	154	1.4	186	0.9	211	1.4	116	3.9	77	6.6
Railway employees.....	65	2.4	122	7.2	133	8.8	118	6.3	109	10.7	75	5.1	30	19.4
Sheet-metal workers.....	184	3.5	236	4.2	307	4.2	359	5.7	340	7.5	361	4.6	302	9.1

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TABLE 11.—ANNUAL AVERAGE NUMBER OF DISABILITY DAYS IN SPECIFIED AGE GROUPS, BY OCCUPATION—Concluded.

Per member—Concluded.

Occupation.	25 to 29 years.		30 to 34 years.		35 to 39 years.		40 to 44 years.		45 to 49 years.		50 to 54 years.		55 to 59 years.	
	Exposure (number of members).	Average days of disability.	Exposure (number of members).	Average days of disability.	Exposure (number of members).	Average days of disability.	Exposure (number of members).	Average days of disability.	Exposure (number of members).	Average days of disability.	Exposure (number of members).	Average days of disability.	Exposure (number of members).	Average days of disability.
Slaughtering and meat-packing employees.....	418	3.5	804	4.0	1,038	5.5	1,067	5.6	1,031	7.3	825	9.0	278	14.4
Stone and granite workers.....	70	5.3	131	3.5	169	9.0	198	7.0	213	8.3	193	11.1	124	6.5
Tanners.....	29	1.4	104	2.8	179	5.1	231	4.8	297	9.5	256	6.5	187	8.8
Textile manufacturing employees.....	457	4.4	705	4.2	958	3.2	1,233	4.2	1,422	4.7	1,089	4.5	768	7.3
Tobacco and cigar workers.....	528	6.6	894	7.5	1,008	6.2	980	5.6	1,216	6.6	1,349	7.9	1,425	8.0
Trade and clerical.....	694	4.3	719	2.7	899	4.1	829	4.8	844	5.0	573	5.3	274	7.5
Woodworkers.....	323	3.4	568	3.7	789	4.4	990	7.2	1,198	6.7	1,011	7.1	661	10.4

Per disabled person.

Automobile, carriage, and wagon manufacturing employees.....	9	14.9	18	26.3	24	30.5	15	21.4	28	25.0	42	25.3	21	28.2
Barbers.....	24	54.0	30	23.8	36	15.6	41	27.9	43	39.6	56	18.5	13	46.5
Bartenders.....	21	13.0	43	28.2	72	40.3	85	42.9	66	30.3	55	42.1	30	30.4
Blacksmiths.....	37	19.8	46	19.2	60	31.8	96	33.4	75	26.4	81	29.0	78	30.7
Bricklayers.....	42	21.8	44	15.2	68	35.6	86	29.7	76	29.3	85	27.8	75	47.5
Carpenters.....	137	22.3	248	24.3	377	25.8	406	27.3	430	29.3	497	34.7	402	33.1
Clay products manufacturing employees.....	6	22.2	13	57.8	14	62.1	27	28.4	23	19.7	30	17.7	13	23.3
Clothing manufacturing employees.....	42	24.8	61	17.5	91	21.2	143	21.1	165	26.5	151	31.3	113	36.0
Cooks and waiters.....	21	17.9	45	16.9	62	21.9	93	37.7	99	28.7	71	38.3	59	42.5
Drivers.....	178	20.9	226	25.0	330	29.0	417	29.5	402	29.1	244	35.2	95	36.3
Dyers.....	15	35.4	11	10.8	17	37.0	15	37.9	26	34.3	36	32.5	33	35.8
Electrical workers.....	44	19.3	39	23.2	25	17.0	34	22.7	16	39.6	9	13.3	3	33.0
Engineers and firemen.....	49	17.8	74	16.8	108	27.3	127	32.0	159	28.0	122	28.3	81	33.8
Farmers, gardeners, and florists.....	22	15.0	23	25.1	25	19.8	49	34.8	40	22.9	25	27.5	28	32.8
Food employees.....	96	17.9	147	29.5	255	26.2	301	27.6	307	26.3	224	36.3	125	39.8
Freight handlers.....	11	26.1	9	19.4	36	27.0	38	42.3	41	34.4	37	42.3	20	38.0
Glass workers.....	28	19.3	23	22.1	21	37.4	32	32.7	48	22.5	27	40.8	24	40.3
Jewelers.....	19	30.1	18	23.7	23	28.8	22	13.3	30	25.6	20	34.2	17	28.9
Laborers, not specified.....	482	20.9	598	20.9	620	24.0	774	23.3	762	26.5	698	27.6	440	34.2
Leather workers.....	59	34.7	74	12.7	111	21.2	115	26.4	167	26.6	174	34.1	104	38.9
Liquor manufacturing employees.....	318	20.1	508	20.5	638	25.1	751	28.0	728	32.6	553	30.3	298	34.7
Machinists.....	383	22.1	553	21.0	605	23.0	578	30.5	468	30.2	334	29.8	259	35.1
Miners.....	240	20.0	300	24.0	355	30.3	333	33.0	359	29.7	246	34.5	179	36.0

Miscellaneous (all other occupations).....	165	21.9	207	19.0	305	23.0	356	25.5	362	25.7	274	29.7	186	36.0
Molders.....	54	21.1	122	19.4	124	21.3	149	22.7	110	24.7	73	25.6	55	22.8
Other building construction employees.....	14	19.1	8	13.5	22	24.0	13	16.7	24	44.7	19	34.3	10	64.9
Other manufacturing employees.....	88	18.2	94	22.7	113	20.0	128	24.9	130	30.5	115	30.6	95	26.9
Other metal workers.....	139	21.9	184	20.1	248	19.3	280	21.2	223	24.4	214	28.5	160	31.9
Painters.....	58	28.2	78	29.9	127	28.1	169	29.1	167	31.0	174	33.8	93	28.4
Plasterers.....	6	47.5	5	54.4	11	20.5	25	26.7	22	19.6	17	31.2	10	36.0
Plumbers.....	79	21.7	55	16.8	45	17.6	28	31.4	36	32.6	19	29.4	6	26.3
Printers and engravers.....	72	21.6	56	25.7	68	41.5	105	37.8	72	34.1	58	56.6	70	32.9
Professional.....	11	32.5	15	30.7	16	13.6	13	13.0	18	16.9	22	20.7	15	34.0
Railway employees.....	12	12.8	31	28.5	44	26.6	26	28.7	29	40.0	19	20.3	7	83.3
Sheet-metal workers.....	43	15.0	52	19.0	51	25.3	70	29.4	82	31.2	81	20.5	71	38.6
Slaughtering and meat-packing employees.....	91	16.0	165	19.3	244	23.2	230	25.8	244	31.0	217	34.3	84	47.6
Stone and granite workers.....	11	33.8	25	18.2	52	29.3	47	29.4	44	40.0	45	47.5	37	21.9
Tanners.....	3	13.7	20	14.6	36	25.4	48	23.0	89	31.8	69	24.0	50	32.9
Textile manufacturing employees.....	79	25.6	122	24.5	152	20.2	210	24.7	257	26.0	215	22.7	157	35.6
Tobacco and cigar workers.....	163	21.3	248	26.2	281	22.2	277	19.9	288	27.8	298	35.8	330	34.5
Trade and clerical.....	128	23.3	110	17.7	143	25.7	135	29.7	136	31.0	101	30.0	53	38.8
Woodworkers.....	75	14.8	114	18.5	142	24.3	217	33.0	209	30.9	227	31.7	169	40.8

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INDUSTRIAL RELATIONS.

National Industrial Conference, Washington, D. C.

ON SEPTEMBER 3, 1919, following considerable public discussion on the subject, the President sent letters to representatives of employers and of labor, as well as to representatives of the public, inviting them to participate in a general industrial conference to meet in Washington, D. C., October 6. Among those who publicly supported or encouraged the holding of such a conference was Secretary Lane of the Department of the Interior. The specific purpose of the conference was stated by the President in his call as that of "consulting together on the great and vital questions affecting our industrial life, and their consequent effect upon all our people." It would be the duty of the conference to "discuss such methods as have already been tried out of bringing capital and labor into close cooperation, and to canvass every relevant feature of the present industrial situation for the purpose of enabling us to work out, if possible, in a genuine spirit of cooperation, a practicable method of association based upon a real community of interest which will redound to the welfare of all our people." Nevertheless, as will appear, the conference was unable to work out any program, and after the withdrawal of the labor group and the departure of the employers' group on October 22 following the President's suggestion that the public group continue its sessions, the conference was finally declared abandoned on October 23. The public group met briefly on the 23d and the 24th, and after making public a statement of the results of the conference adjourned.

The Chamber of Commerce of the United States and the National Industrial Conference Board were each instructed to select 5 members to represent it, and these, together with 3 representatives of the farmers' organizations and 2 representatives each of the investment bankers and railroad managements, composed the employers' group. The President selected the 22 members of the group representing the public, and asked Mr. Gompers, president of the American Federation of Labor, to select the labor representatives. Mr. Gompers also selected the representatives of the four railroad brotherhoods. The employers' group consisted of 17 delegates, the labor group of 19, and the public group of 22 members.

After the conference convened certain changes were made in the grouping of the appointed delegates, so that, as finally constituted, the conference consisted of the following:

1. *Public Group.*—Bernard M. Baruch, member of New York Stock Exchange; Robert S. Brookings, merchant, St. Louis, Mo.; John D. Rockefeller, jr., capitalist, New York City; Elbert H. Gary, chairman and chief executive officer, United States Steel Corporation, New York City; Dr. Charles W. Eliot, president-emeritus, Harvard University, Cambridge, Mass.; John Spargo, author, New York City; O. E. Bradfute, Xenia, Ohio; Ward M. Burgess, Omaha, Nebr.; Fuller E. Calloway, textile manufacturer, La Grange, Ga.; Thomas L. Chadbourne, New York City; Henry S. Dennison, paper manufacturer, Framingham, Mass.; H. B. Endicott, shoe manufacturer, Dedham, Mass.; Paul L. Feiss, garment manufacturer, Cleveland, Ohio; George R. James, with W. R. Moore Dry Goods Co., Memphis, Tenn.; Thomas D. Jones, retired attorney and business man, Chicago, Ill.; A. A. Landon, American Radiator Co., Buffalo, N. Y.; E. T. Meredith, editor, *Successful Farming*, Des Moines, Iowa; Gavin McNab, attorney, San Francisco, Calif.; L. D. Sweet, Carbondale, Colo.; Louis Titus, San Francisco, Calif.; Charles Edward Russell, journalist, author, New York City; Bert M. Jewell (replaced subsequently by James W. Forrester, International Federation of Railway Clerks), American Federation of Labor, Washington, D. C.; Lillian D. Wald, sociologist and settlement worker, New York City; Gertrude Barnum, ex-assistant director of the Investigation and Inspection Service, United States Department of Labor, Berkeley, Calif.; Ida M. Tarbell, author and publicist, New York City.

2. *Employers' Group.*—Harry A. Wheeler, Chicago, Ill.; Ernest T. Trigg, Philadelphia, Pa.; Herbert F. Perkins, Chicago, Ill.; John J. Raskob, Wilmington, Del.; Homer L. Ferguson, Newport News, Va., representing the United States Chamber of Commerce; J. N. Tittemore, Omro, Wis.; T. C. Atkeson, Washington, D. C.; C. S. Barrett, Union City, Ga., representing farmers' organizations; Edgar L. Marston, New York City, and Howard W. Fenton, Chicago, Ill., representing the Investment Bankers' Association of America; Frederick P. Fish, Boston, Mass.; J. W. O'Leary, Chicago, Ill.; S. Pemberton Hutchinson, Philadelphia, Pa.; Edwin Farnham Green, Boston, Mass.; Leonor Fresnel Loree, New York City, representing the National Industrial Conference Board; and R. H. Aishton, Chicago, Ill., with Carl R. Gray, Baltimore, Md., representing railroad managements.

3. *Labor Group.*—Samuel Gompers, president, American Federation of Labor, Washington, D. C.; Frank Morrison, secretary, American

Federation of Labor, Washington, D. C.; Daniel J. Tobin, Indianapolis, Ind.; Joseph F. Valentine, molders, Cincinnati, Ohio; Frank Duffy, carpenters, Indianapolis, Ind.; W. D. Mahon, street and electric railway employees, Detroit, Mich.; T. A. Rickert, clothing workers, Chicago, Ill.; Jacob Fischer, Indianapolis, Ind.; Matthew Woll, photo-engravers, Washington, D. C.; John L. Lewis, Indianapolis, Ind.; Mrs. Sara Conboy, textile workers, New York; William H. Johnston, machinists, Washington, D. C.; Paul Scharrenberg, seamen, San Francisco, Calif.; John H. Donlin, Washington, D. C.; M. F. Tighe, steel workers, Pittsburgh, Pa.; H. E. Wills, railroad engineers, Washington, D. C.; P. J. McNamara, railroad firemen, Buffalo, N. Y.; W. G. Lee, railroad trainmen, Cleveland, Ohio; L. E. Sheppard, railroad conductors, Cedar Rapids, Iowa.

The Secretary of Labor, as temporary chairman, opened the conference, after a welcome to the delegates by the Director of the Pan-American Union, in whose building the conference was holding its meetings. The Secretary suggested that "there are but two ways by which the general standard of living of the wage worker can be improved. One is by increased productivity, making more material available for wages. The other is by taking the means of increased compensation out of the profits of the employer. * * * The whole world is interested in returning to the highest productive efficiency, having due regard to the health, safety, and opportunities for rest, recreation and improvement of those who toil." The Secretary affirmed the right to strike and to lock out, but deprecated the exercise of those rights. Permanent industrial peace must rest upon industrial justice.

Secretary Lane, who at the start of the second day's proceedings was made permanent chairman of the conference, referred to the conference as a possible constructive agency for the administration of industrial justice.

Organization of the Conference.

Two committees were constituted at the start—one on nominations and the other on organization. Each was composed of nine delegates, three from each of the component groups of the conference.

The principal features of the organization of the conference, as proposed by the committee on organization, were group voting and the presentation, through the respective groups, of all proposals and resolutions for the consideration of the conference. It was provided that the subject should be presented in writing and be considered by the conference only after its presentation had been assented to by the group presenting it, "and when presented and read

to the conference shall not be discussed or debated until reported back to the conference by the general committee having same in charge."

The function of the general committee referred to was to consider such proposals as were reported by the three groups. This committee consisted of 15 conferees, five from each group. The conference appointed four supplemental committees to act upon various resolutions introduced.

All final recommendations of the conference were to be arrived at by a unanimous vote of the three groups, each vote having been reached by a majority rule within the group. If, however, the three groups could not agree upon any proposal any one or all of the groups were permitted to present their conclusions upon any subject and have them made a record in the proceedings of the conference. Subsequently the chair held that the unanimous agreement of groups was necessary only to matters of policy adopted by the conference and did not apply to procedure, which should be governed by a majority vote of the groups in open conference.

Collective Bargaining.

The conference split on the question of collective bargaining and trade-unionism. The introduction of a resolution by the labor group recommending the arbitration of the steel strike raised by implication the crucial question of trade-unionism. The committee by group voting recommended against reporting this resolution as a matter germane to the conference, but a majority of the committee voted in favor of its being reported in without recommendation. After considerable discussion a substitute motion was introduced and accepted by the public and labor groups, to the effect that the decision on the steel strike arbitration be postponed until the committee of 15 should report on the general collective bargaining resolution, which is as follows:

The right of wage earners in trade and labor unions to bargain collectively, to be represented by representatives of their own choosing in negotiations and adjustments with employers in respect to wages, hours of labor, and relations and conditions of employment, is recognized.

This must not be understood as limiting the right of any wage earner to refrain from joining any organization or to deal directly with his employer if he so chooses.

The principal debate on the question was carried on by the public group, Mr. Rockefeller making the first statement in support of the resolution. He pointed out that the resolution was predicated upon the principle of representation in industry, which includes the right to organize and the right to bargain collectively. The principle of representation is one which is fundamentally just and vital to the

successful conduct of industry. With its application in political life consistency demands its corresponding application in industry.

Other members of the public group pointed out that the adoption of the resolution meant the giving of an impetus to the conservative trade-union movement. Numerous instances of successful collective bargaining and its widespread application, particularly in the railroad industry, were emphasized. The principal point made by the labor group was in reply to the contention of the employers in favor of shop councils or shop committees as a form of collective bargaining, and was to the effect that such form of organization did not leave untrammelled the right of the workers to choose their own representatives and that the demand on the part of the employers was tantamount to a demand on their part that they be given the right to a voice or control in the appointment of the employees' representatives.

Various members of the employers' group discussed the resolution at length and finally summed up their arguments in a brief statement. The matter of collective bargaining, they held, was brought before the conference prematurely and should have been taken up only after a full consideration of its implication and the methods of its application. The employers held that the resolution was ambiguous and capable of inconsistent interpretations. They were willing to recognize the principle of establishment collective bargaining and contended that all questions should be settled in the shop and not by men chosen from among employees outside of the shop. "Outside labor union men can not be disinterested. They must necessarily be influenced by loyalty to their union; they desire to promote its aspirations and to see it prosper." They further held that the resolution excluded by its silence the right of workers to join shop councils or associations in individual establishments. Employers also contended that the resolution recognized the right of employees of the Government to join labor unions. It may order them to strike or otherwise control their action as against the Government.

In view of these facts, therefore, the employers submitted a substitute resolution, the first half of which recognized the right of employees to organize and to bargain collectively and to be represented by representatives of their own choosing, and the second half of which granted to employers the corresponding right to deal or not to deal with men or groups of men who are not their employees and chosen by and from among those employees. The substitute resolution proposed was as follows:

Resolved, That, without in any way limiting the right of a wage earner to refrain from joining any association or to deal directly with his employer as he chooses, the right of wage earners in private as distinguished from Government employment to organize

in trade and labor unions, in shop industrial councils, or other lawful form of association, to bargain collectively, to be represented by representatives of their own choosing in negotiations and adjustments with employers in respect to wages, hours of labor, and other conditions of employment, is recognized; and the right of the employer to deal or not to deal with men or groups of men who are not his employees and chosen by and from among them is recognized; and no denial is intended of the right of an employer and his workers voluntarily to agree upon the form of their representative relations.

In the course of further discussion of the problem the committee of 15 practically withdrew its original resolution, intimating that its withdrawal had been governed by the fact that the labor group was putting a special interpretation upon it in insisting that it meant recognition only of the present form of trade-union and labor organizations, and that the labor group was hostile to any system of shop-committee organization or bargaining. In the substitute offered by the public group the words "and other organizations" were inserted after the words "labor unions."

Further debate on the resolution as amended by the public group was continued, but without effect, and the resolution was voted down by both the employers' group and the labor group of the conference. After further adjournment a new collective-bargaining resolution was introduced by the labor group and a vote called for on it in open session of the conference without reference to the committee of 15 under the rules. The new resolution on collective bargaining was as follows:

The right of wage earners to organize without discrimination, to bargain collectively, to be represented by representatives of their own choosing in negotiations and adjustments with the employers in respect to wages, hours of labor, and relations and conditions of employment is recognized.

The discussion on the collective-bargaining resolution having been theretofore largely a matter of definition as to the form of collective bargaining—i. e., whether through the regularly organized trade-unions or through the new system of shop committees—a specific question was directed by a number of the public group to the labor group asking if the new resolution still left open for discussion by the conference the question of the method and the manner of collective bargaining. A reply in the affirmative was given by the labor group. The employers' group replied that no matter what the wording of the resolution there was still danger of misinterpretation of its meaning by the regularly constituted trade-union movement, and that to the trade-unionist the very phrase, collective bargaining, meant one and only one thing—namely, bargaining with the spokesmen of the organized labor movement. Hence this resolution was also defeated by the employers' group. The employers' substitute collective bargaining resolution and the steel strike resolution were also defeated.

Declaring that "the action of the 'employers' group legislated us out of this conference," the labor group withdrew from the conference.

The consideration of the question of collective bargaining raised the question of the control of industry by the workers. The recognition of collective bargaining means recognition of the desire of the worker to participate in the control of industry. Though the issue was never thus clearly defined before the conference it undoubtedly was in the background of the discussions.

Programs of the Three Groups.

At the opening of the conference specific proposals were made by the chairman of each group as bases upon which the conference could work in carrying out the purpose for which it had been assembled. The abrupt dissolution of the conference, however, prevented definite action upon any of them.

Plan of Public Group for Adjustment of Labor Disputes.

Mr. Baruch, chairman of the public group, presented on behalf of his group an outline for a plan of adjustment of labor disputes submitted by the Secretary of Labor.

There shall be created a board of equal numbers of employers and employees in each of the principal industries, and a board to deal with miscellaneous industries not having separate boards. The representatives of labor on such boards shall be selected in such manner as the workmen in the industry may determine. The representatives of the employers shall be selected in such manner as the employers in the industry may determine.

Whenever any dispute arises in any plant or series of plants that can not be adjusted locally the question or questions in dispute shall be referred to the board created for that industry for adjustment. The board shall also take jurisdiction whenever in the judgment of one-half of its members a strike or lockout is imminent. Decisions of the board on questions of wages, hours of labor, or working conditions must be arrived at by unanimous vote. If the board shall fail to come to a unanimous determination of any such question, the question in dispute shall be referred to a general board appointed by the President of the United States in the following manner:

One-third of the number to be appointed in agreement with the organization or organizations of employers most representative of employers; one-third of the number to be appointed in agreement with the organization or organizations of labor most representative of labor; one-third of the number to be appointed by the President direct.

Any question in dispute submitted to the general board for adjudication shall be decided by the unanimous vote of the board. If the general board fails to arrive at a decision by unanimous vote, the question or questions at issue shall be submitted to an umpire for determination. The umpire shall be selected by one of the two following processes: First, by unanimous selection of the general board. Failing of such selection, then the umpire shall be drawn by lot from a standing list of 20 persons named by the President of the United States as competent umpires in labor disputes.

In all disputes that may be pending locally, or before the industrial board, or before the general board, or before the umpire, the employers and employees shall each

have the right to select counsel of their own choice to represent them in presenting the matter in controversy.

Whenever an agreement is reached locally, or by the unanimous vote of the industrial board, or by the unanimous vote of the general board, or by the decision of the umpire, the conclusion arrived at shall have all the force and effect of a trade agreement, which employers and employees shall be morally bound to accept and abide by.

It is understood that this plan would not interfere with any system of joint wage conferences now in existence unless or until the failure to agree in such a conference made a strike or lockout imminent.

Organized Labor's Plan.

Mr. Samuel Gompers, chairman of the labor group, submitted 11 fundamental propositions, which he stated had the unanimous approval of the labor group, including the representatives of the railroad brotherhoods. These proposals included the right of wage earners to organize in trade and labor unions; to bargain collectively; to be represented by representatives of their own choosing in negotiations with employers; the right of freedom of speech, of the press, and of assemblage; and the right of employers to organize into associations and to bargain collectively through their chosen representatives. The resolution furthermore provided for an eight-hour day; one day of rest in each week; overtime paid for at a rate of not less than time and one-half; a living wage for both skilled and unskilled workers; and equal pay for equal work. Women's work should be proportionate to their strength; and the employment of children under 16 years of age for private gain should be prohibited.

Labor's plan for industrial peace called for the establishment in each industry, by agreement between the organized workers and associated employers in the industry, of a national conference board, composed of an equal number of representatives of workers and of employers, to secure continuously improved industrial relations between employers and employed, and to act in an advisory capacity to the Government.

On the ground that the flow of immigration should at no time be greater than the Nation's ability to absorb it, the resolution finally urged the prohibition of all immigration into the United States "until two years after peace shall have been declared."

Employers' Program.

The employers' program as submitted to the Industrial Conference was prepared by that part of the employers' group known as the National Industrial Conference Board and was presented to the conference as an expression of that group by Mr. Harry Wheeler, chairman.

Sound industrial development, it was urged, must be founded upon productive efficiency, which in turn depends not only upon loyalty

and intelligence on the part of the management and men, but also upon a spirit of sincere cooperation between them. A satisfactory employment relation is one which encourages recognitions on the part of those concerned in the industry, of their obligation to increase production to an extent "consistent with the health and well-being of the workers." No intentional restriction of output should be resorted to for the purpose of increasing prices or wages. The establishment rather than the industry as a whole should be made the productive unit.

Safety precautions in working conditions should be taken as far as the nature of the business permits. Efforts should be made to avoid labor turnover. Efficiency of the worker and local wage standards of the industry, as well as the law of supply and demand, should be considered in a determination of wages for any given industry. A living wage should be paid. Equal pay for equal work was also emphasized.

The employers did not commit themselves on the question of hours of labor. The week was favored as the standard of the work schedule and overtime was discouraged. While the principle of collective bargaining was recognized, its arbitrary use was characterized as "an infringement of personal liberty and a menace to the institutions of a free people." In negotiations with employers, however, the right of workers to representatives of their own choosing was denied unless such representatives were selected "by and from among them." Freedom of contract and the principle of the "open shop," fundamentals of individual liberty, should be preserved. The right to strike should be limited to employees in private industry. Training of workers and their proper placement in industry were advised.

Program of the Farmers.

The three farmers' delegates at the conference were seated with the employers' group. However, they rarely voted with the employers and in principle frequently supported the labor group. The farmers' part in the industrial world was given expression in a fairly definite program which emphasized the fact that the interest of the farmer is that of a wage earner and also that of an employer. Attention was called to the need of extending Government credit to the farmers and of removing legal obstacles to the cooperative marketing of their products.

Conclusion.

Labor's program is the clearly defined set of principles for which organized labor has striven for years, and with the possible exception of the proposed national conference boards in the various industries, it contains little that is new. The employers' program confines itself

to a statement of more or less general principles applicable to the management of industry and suggests practically no concrete methods for carrying them into effect. The adoption of the principle that the establishment rather than the industry should be made the unit of production would necessarily limit the settlement of difficult problems to the means of adjustment furnished by individual establishments. In a few particulars the programs coincide. Both provide for a living wage, and both advocate equal pay for equal work, one day of rest in seven, and the discouragement of overtime.

Several individual plans for the adjustment of disputes between labor and capital were submitted and resolutions dealing with practically all the varied industrial problems were put into the record of the conference. The Secretary of Labor's plan, submitted by the public group, in keeping with the idea in calling the industrial conference, presents a comprehensive program for the adjustment of industrial relations.

Following the final adjournment the public group, as has been stated, held a few sessions at the urgence of the President, who tried vainly to save the conference, but the group finally disbanded and urged the calling together of a new committee to outline and formulate a series of industrial standards covering both the conditions and the relations of employment.

Resolutions by Our-Country-First Conference, Chicago, September 8 and 9, 1919.

ON SEPTEMBER 8 and 9, 1919, there assembled in Chicago, in response to a call by the Illinois Manufacturers' Association, nearly 1,000 delegates from 36 States, representing industry, finance, transportation, agriculture, and labor. It was called "Our-Country-First Conference," the purpose being to offer opportunity for industry, business, agriculture, and labor to get together and discuss the great issues now absorbing the public mind, and to work out some plan by which the present unrest may be mitigated and the industrial preeminence of the United States assured.

One of the first acts of the conference was the appointment of a resolutions committee headed by Charles Piez, formerly vice president and general manager of the United States Shipping Board Emergency Fleet Corporation. This committee subsequently reported a set of resolutions covering many topics of national interest, including questions affecting relations between employers and

employed. Excerpts from these resolutions bearing particularly upon labor subjects are reproduced as follows:

Adequate and efficient production is the basis of social well-being and progress for the individual and the community. It is the duty of wage payer, wage earner, and the community to exert every reasonable effort for improving and increasing the quantity and quality of production. It is in the public and individual interest to secure productive efficiency through the stimulus of adequate personal reward. It is essential to recognize that mental effort of management as well as physical labor must be encouraged and properly rewarded and that capital, without which industrial enterprise would be impossible, is equally entitled to receive its adequate compensation, each in accordance with its contributory value.

Both employers and employees must be free as a matter of right to associate themselves, separately or jointly, in a lawful manner, for lawful purposes. Any employer or employee who does not desire so to associate must equally be protected in his fundamental individual right to enter contractual employment relation mutually acceptable and subject to the restrictions of law.

No voluntary combination of employers, employees or both, organized for common purpose and action in respect to the employment relation, should in the public interest be permitted unless it accept legal responsibility for its actions and those of its officers and agents.

The individual worker and his employer should each be free to cease the individual employment relation, provided no contractual obligation is thereby violated. Nevertheless, employee and employer in Government and public utility service, where the public interest is paramount, should be restrained by law from instituting by concerted action a strike or lockout and instead effective machinery should be established in such service for prompt and fair hearing of any requests, differences or disputes touching upon the employment relation and for adequate redress of any grievances proven to be justified. These provisions should be made a part of the written or implied employment contract in such service.

The prevailing high cost of living is the inevitable consequence of such causes as lessened production of necessaries of life and decreased productive efficiency, inflation of money, abnormally high wage rates and unduly high prices, continued exercise of war powers by the Government and governmental wastefulness of expenditures. Employers and employees, individually and by their duly instituted organizations, should pledge themselves to exert every reasonable effort for the elimination of disturbances tending to interrupt or retard production, and for a speedy return of all industry to a normal basis.

While efficiency in production is thus required by the Nation's needs, this conference demands that Congress shall repeal all provisions in its appropriation bills, such as the so-called Tavenner amendment, providing that the appropriations shall not be available for any arsenal or public work wherein efficiency methods are adopted, and it demands that all such provisions be eliminated from subsequent legislation.

This conference disapproves of the establishment of any department under the League of Nations in the interest of any special class of citizens. We refer specially to section 20, establishing an International Bureau of Labor and to part 13 of the Treaty of Peace enunciating some of the purposes thereof.

First Canadian Industrial Conference.

By LEIFUR MAGNUSSON.

THE Canadian Royal Commission on Industrial Relations, whose report¹ was filed with the Government on June 29, of this year, recommended the calling of a national conference of employers and employees to discuss with the premiers of the Provinces the principles underlying industrial relations with a view to their enactment into law by the Provinces, in so far as such legislation is not within the competence of the Federal Parliament of Canada. In pursuance of this recommendation, the Government called a national industrial conference to meet in Ottawa during the week of September 15 to 20, to consider the subject of industrial relations, labor legislation, and the labor features of the peace treaty.²

The national industrial conference thus called into being was a further step taken by the Canadian Government in the hope of finding some means of allaying a widespread feeling of industrial unrest prevailing in Canada. Early in 1919 the privy council had appointed a reconstruction and development committee from persons in private life. This committee then constituted a labor subcommittee, which has been the principal influence behind the Government's labor program. This labor committee urged and secured the appointment of the Royal Commission on Industrial Relations. The members of the committee also formed part of the third group represented at the conference recommended by the royal commission.

Membership of the Conference.

The conference was composed of 194 delegates, 77 each representing employers and employees and 40 the general public. In addition the premiers of the Provinces and other provincial officials sat with the gathering.

The delegates to the conference were invited by the minister of labor. The employees' group represented the membership of the unions composing the so-called international unions, which are

¹ Canada. Royal Commission on Industrial Relations. Report of Commission appointed under order in council (P. C., 670), to inquire into industrial relations in Canada, together with a minority report and supplementary report. (Ottawa, Canada, 1919) 28 pp. (Printed as supplement to the Labor Gazette July, 1919.) A summary of the report appears in the MONTHLY LABOR REVIEW of September, 1919, pp. 36 to 43.

² Proposed agenda and various memoranda relating to the national industrial conference of Dominion and Provincial governments of Canada with representative employers and labor men on the subjects of industrial relations and labor laws, and for the consideration of the labor features of the treaty of peace, Ottawa, September, 1919, 42 pp.

affiliated with the corresponding craft unions composing the American Federation of Labor. No representatives of the industrial unionist, i. e., of the so-called one big union movement, which has developed considerably in the basic industries of lumbering and mining of western Canada were present; nor did the group contain any representatives from the Canadian Federation of Labor or unions organized among Roman Catholic workers. The labor delegates as a whole represented the moderate trade-unionists, although there were a few who represented socialists or revolutionary socialist doctrines. Three woman workers were in attendance—a boot and shoe operative, a telephone operator, and a garment worker. Three of the employees' delegates were officials of the Trade and Labor Congress and represented that body.

The delegates on the employers' side reflected all shades of opinion among Canadian manufacturers, and were said to be very representative of the group interests. It is interesting to observe that while the majority of the labor leaders were of British birth, those on the employers' side were mainly of Canadian or American birth. Some of the Canadian business interests represented at the conference were branches of American establishments.

The third or nonpartisan group was composed of various interests, employers, employees, educators, and public officials. All of the members of the labor committee of the Reconstruction and Development Committee of the Privy Council or Cabinet and some members of the Royal Commission on Industrial Relations were in this group, together with the secretary of the former United States National War Labor Board.

A representative of the United States Chamber of Commerce and another of the National Federation of Construction Industries in the United States briefly addressed the conference as visiting delegates. The only American representative of labor interests to appear at the conference was the President of the Brotherhood of Locomotive Engineers.

Purpose of the Conference and Summary of Results.

The conference met primarily to discuss the recommendations of the Royal Commission on Industrial Relations. The agenda prepared in advance for the conference—partly revised the second day of the proceedings—laid down nine principal topics for discussion, as follows:

1. Uniformity in labor legislation throughout the Dominion.
2. Hours of labor.
3. Minimum wage legislation.

4. Employees' right to organize, recognition of labor unions, collective bargaining.
5. Proposed establishment of joint industrial councils.
6. State insurance against unemployment, sickness, invalidity, old age, etc.
7. Proportional representation.
8. Application where possible of the principle of democratic management recommended by the Commission on Industrial Relations in work controlled by the Government.
9. Other features of report of the Royal Commission on Industrial Relations or any other proposals bearing on relations of employers and employees.

The conference opened with general addresses from certain invited men of prominence. Following these the members of the conference took up in detail the items of the agenda. Each group, employers and employees, selected a speaker to present their respective views on the topic in question. The time to be consumed on each topic obviously had to be limited. During the first four days the respective topics were referred to committees after discussion, while during the remainder of the conference, to expedite matters, it was found necessary to refer the topics to the committees before discussion. Each committee was composed of three employers, three employees, and two members from the third group, the last named being without voting power.

Unanimous agreement was reached on five out of the eight principal topics before the conference. In the case of three points (Nos. 2, 4, and 8) the various interests were unable to agree. Thus it came about that resolutions of contrary intent were filed by each group on the two crucial subjects before the conference, namely, trade-union recognition and collective bargaining, and the 8-hour day. Likewise on the question of the application of the principles of industrial democracy to the public service differing views were expressed. The ninth point in the agenda was the consideration of various miscellaneous topics upon which unanimous resolutions were accepted.

The employers refused to record themselves in favor of collective bargaining and the control of industry by the workers implied therein. Nor were Whitley Councils approved by the employers who pointed out that these councils carried with them the implications of trade-unions and collective bargaining.

The feasibility of an eight-hour day was denied by the employers. In a closely reasoned statement they rested their case almost entirely upon the immediate needs of production and world competition.

Agricultural labor did not figure in the conference except incidentally when the Premier of the Province of Saskatchewan called atten-

tion to the probable effects of an eight-hour day upon his Province which is distinctively an agricultural region. Even under present conditions agricultural labor is drifting to the city to profit by the higher earnings and more favorable conditions of work.

Resolutions and Discussions of the Conference.

Uniformity in labor legislation.—There was a general agreement that uniformity in the labor law of the Provinces was desirable, but that the matter should be further studied by commissions representing the parties in interest, employers, workers, and the public.

The following resolution was passed by the unanimous action of the conference:

That the advantage of uniformity in the laws relating to the welfare of those engaged in industrial work in the several Provinces of the Dominion of Canada be brought to the attention of the Government of Canada and of the Governments of the several Provinces respectively; and, that this National Industrial Conference suggests the following as a means toward the end desired, namely:

The appointment of a board composed as follows:

- (1) As respects the Dominion:
 - (a) A representative of the Government.
 - (b) A representative of the employees.
 - (c) A representative of the employers.
- (2) As respects each of the Provinces:
 - (a) A representative of the Government.
 - (b) A representative of the employers.
 - (c) A representative of the employees.

And that the Dominion Government be requested to ask the Government of each of the Provinces to select or have selected representatives in respect of the Province as above set forth.

Hours of labor.—Fundamental difference of opinion arose on the question of hours of labor. The employees made the point that their demand for an 8-hour day and a 44- or 48-hour week was no new thing and referred to the prevalence of the 8-hour day in various foreign countries. It was brought out that labor in asking for the 44-hour week is not putting forward its ideal; it is putting forward a compromise. "We are endeavoring to fix a compromise," in the words of the only woman who addressed the conference, "between what we consider an ideal working day and the working day which the average employer of labor thinks is absolutely necessary for sufficient production to feed, clothe, and shelter the people of Canada, and also to meet the expenses of the war." The same speaker also pointed out that the 8-hour day and the 44-hour week is a matter of custom in western Canada, and apparently has in no way impaired the competing power of the western against the eastern section.

The employers opposed a reduction in hours on the ground of its inopportuneness at the present time. They contended that Canada

needs increased production to pay the war debt and to maintain competition against other countries, and that the present average hours of 50 per week¹ throughout Canada assure to the worker an adequate standard of health and recreation. They charged that what organized labor sought was not an actual 8-hour day but the basic 8-hour day with the increase in pay that comes through overtime.

The three groups being unable to agree, each passed a resolution embodying its views on the subject, that of the employers being as follows:

Resolved, That appropriate Government commissions, composed of an equal representation of employers and employees of the various industrial, producing, and distributing industries, should be appointed to undertake investigations as to the adaptability of the hours of labor principles of the Peace Treaty to the different industries of the country and to report as early as possible.

The demands of the employees as respects the shorter workday are set forth in the following resolution:

That we agree with the recommendations and finding of the Royal Commission on Industrial Relations, and urge the adoption of an 8-hour day by law throughout the Dominion, with due regard and recognition of the Saturday half-holiday where same prevails and its possible extension.

In industries subjected to seasonal and climatic conditions such as "farming," "fishing," and "logging," if it can be established by investigation that the operation of such a law is impracticable, then exemption shall be granted such industries from the operation of such law.

The third group passed the following resolution:

We approve of the principle regarding employment and hours of labor set forth in the Treaty of Peace and in paragraphs 50 to 53 inclusive of the Report of the Royal Commission, and would recommend that the Governments of Canada enact legislation providing for such in all industries where it is now established, by agreement, at the earliest opportunity, and, after due investigation by a commission, composed of representatives of employers and employees representing the various industries, legislation be enacted by the Governments of Canada providing for the same to be extended in all industries where it can be applied, having due regard to the curtailment of production and distribution.

Minimum-wage legislation.—The employers opened the debate on the minimum wage. They urged through their speaker that the minimum may ultimately become the maximum, that it rewards the slothful no less than the efficient, and that it is now inopportune to fix such a minimum unless other countries do likewise. Canada may as a result suffer in the markets of the world. The employers acknowledged the justice of a minimum wage for women and children.

¹ The Minister of Labor, presiding, subsequent to this introduced a statement showing the results of an inquiry by his department into the hours of labor in Canada. Returns from 612,000 employees showed that 46 per cent worked 8 hours or less per day (including those on basic 8-hour day). Those working 10 hours per day formed 19.7 per cent of the whole. See pp. 204, 205 of this issue of the LABOR REVIEW.

The employees called attention to the fact that the minimum was being asked for only in the case of unskilled workers. The skilled craft unionist can take care of himself. The minimum after all merely sets a certain level of economic life deemed proper, and above that leaves free the forces of competition and efficiency. Every argument advanced in behalf of a minimum wage for women and children applies equally in the case of men. The question is a national one to be looked at "from the national point of view which demands the well-being of the whole people of the country, and the workers are the majority of the people." The minimum wage prevents in fact the competition of the foreign low-standard worker with the higher-standard native worker. Labor in western Canada wants the minimum wage to prevent the Chinese worker from driving out the Canadian workman.

A unanimous resolution on the subject approved uniform minimum-wage laws for women and children throughout the Provinces, but the Government was asked to investigate only the situation as respects wages paid to unskilled labor and to school-teachers:

Whereas it is considered expedient that minimum rates of wage should be fixed throughout Canada for women and children, whether employed at a time rate or according to any other method of remuneration;

Whereas minimum-wage laws for women and children have been enacted in five and are now in operation in four of the Provinces: Therefore be it

Resolved, That this Industrial Conference recommend to the Governments of all those Provinces which have not adopted minimum-wage laws for women and children the speedy investigation of the necessity for such laws, and, if so found, the enactment of such legislation.

It is further recommended that the various Provinces throughout the Dominion adopt a uniform law and method of application, but that in all cases the minimum of wages for women and children is to be determined from time to time, due regard being given to local living conditions.

It is the opinion of this conference that the Dominion Government should appoint a royal commission, composed equally of representatives of labor, employers, and the public, to investigate wages to unskilled workers and issue a report.

Representation has been made to the committee that the remuneration paid female school-teachers in one of the larger Provinces of the Dominion is so low as to discourage the employment of the talent necessary to the proper education of its citizens. Your committee recommends that the various Provincial Governments be asked to investigate such conditions in the respective Provinces, to the end that the children of all Provinces of the Dominion have equal educational opportunity.

Employees' right to organize, recognition of labor unions, and collective bargaining.—The right of employees to organize raised no question. The usual arguments were presented in support of trade-union recognition and collective bargaining, i. e., stability and order in industry and democracy in its conduct. It was brought out that union recognition and collective bargaining do not necessarily imply a closed shop. The employers insisted that until the unions represent a larger proportion of the workers, until they assume responsibility

as unions by incorporation, and until they show their ability to abide by their agreements it will be impossible to require employers to bargain and deal with them. At the same time the employees pointed out the wisdom of furthering the peaceful evolution of the trade-union movement by giving the unions a degree of recognition. Otherwise labor might be driven into the arms of the less considerate union group. Mr. Tom Moore, president of the Trades and Labor Congress, said: "I want to say to you that, whether you will it or not, the trades-unions of this country will continue to exist and they will continue to be an ever-growing factor. If they are met with resistance, if they have to build themselves up in the face of opposition, do not expect that the same tolerance can be exhibited by men who have had to fight every inch of the way as if the same things were conceded to them in a spirit of equality."

As the result of the differing views of the three groups, separate resolutions were passed on this point also. That of the employers was as follows:

(a) Employers admit the right of employees to join any lawful organizations.

(b) Employers should not be required to recognize unions or to establish "closed shops." Employers insist on the right, when so desired, to maintain their plants as "open shops," by which they mean that no employer should discriminate against any employee because of the latter's membership or nonmembership in any organization, and no employee should interfere with any other employee because of the latter's membership or nonmembership in any organization.

(c) Employers should not be required to negotiate, except directly with their own employees or groups of their own employees.

The views of the employees are set forth below:

1. With a view to effecting and maintaining harmonious relations between employers and employees, this conference declares the following principles and policies, and urges their adoption by all employers, relative to their respective employees:

(a) The right of employees to organize.

(b) The recognition of labor unions.

(c) The right of employees to collective bargaining.

2. In these recommendations, without changing the generality of their terms:

(a) "The right of employees to organize" means the right of employees to organize or form themselves into associations for lawful purposes.

(b) "The recognition of labor unions" means the right of employees, or their duly accredited representative or representatives, to recognition of their employer or employers, for the purpose of mutually arranging rules and regulations governing wages and working conditions.

(c) "The right of employees to collective bargaining" means the negotiation of agreements between employers or groups of employers, and employees or groups of employees, through the representative or representatives chosen by the respective parties themselves.

Entering into agreements and bargaining collectively with an association or union of employees does not mean recognition of the "closed shop," unless the agreement so provides.

(d) "Employer" or "employers," as used in clauses 1 and 2, means an employer or employers of any industry and of Federal, Provincial and municipal Governments.

3. That the Federal and Provincial Governments be urged to enact legislation applicable to industries within their respective jurisdiction, to make it unlawful for any employer who shall discharge or refuse to employ or in any manner discriminate against employees merely by reason of membership in labor unions or for legitimate labor-union activities outside of working hours.

Proposed establishment of joint industrial councils.—The discussion of joint industrial councils was carried through at some length. Col. Carnegie, of London, who had come to Canada especially to attend the conference, outlined the working and advantages of Whitley councils and recommended their establishment for Canadian industry. "I would like to say, in conclusion, that the general impression I have formed in regard to Whitley councils, from personal observations at different council meetings and many interviews on the subject with leading employers of labor and leaders of labor unions, is that in spite of their limitations and the objections raised to them by sections of labor and capital, they have proved the best means yet devised for bringing together masters and men of the same industry for serious discussion and mutual help. The facts of their progress are indisputable; there is something, call it what one may, that has broken down suspicion and inspired mutual confidence and conference between employers and employed where these councils have been established."

The discussion on the side of the employers was opened by a representative of the Imperial Oil Co., whose plan, modeled on the industrial representation plan of the Colorado Fuel & Iron Co., has been in force for a period of eight months, with very satisfactory results. The speaker did not think that Canadian industry was ready to commit itself to any particular plan of industrial councils. The representative on the employees' side, the president of the Trades and Labor Congress, called attention to the fact that there were three kinds of joint industrial councils. The one most commonly known is the Rockefeller plan; the second is what is known as the Leitch plan, modeled on the lines of the American Government; while the third type is that which involves the recognition of the trade-union as the authorized spokesman for labor. The speaker charged that the first-named plan was merely a device for the destruction of trade-unionism by granting their theoretical right to existence and seeing to it that they do not function effectively. In his opinion, the so-called Leitch plan brings either benevolent paternalism or malevolent autocracy. "It simply means that if that individual at the top is benevolently inclined, there may be success, provided he remains so at all times; but if he is maliciously inclined, then it is autocracy in its worst form." Naturally the third plan is the one favored by trade-unionists. At the same time it was urged: "Even if the institution of these councils does

mean the complete unionization of this country, let us have them. It does not necessarily follow that if you have representatives from trades-unions every man must be a member of a trades-union, or that, in other words, there must be a closed shop. The railroad brotherhoods have not the closed shop in all instances. There are nonunion men working, but they are satisfied to have the representatives of organized labor represent them on their industrial councils."

The Hon. W. L. Mackenzie King told at length of his connection with the Rockefeller Foundation in the study of industrial relations and the formulation of the Colorado Fuel & Iron Co. plan. He pointed out that the plan in the Colorado Fuel & Iron Co. has not weakened unionism, nor have similar plans at various plants of the Indiana Oil Co. had that effect.

"The representatives on the joint committees to-day are very largely union men. For the first time you have the employers and the officers of unions dealing together, and each is beginning to see the stuff that the other is made of; the employers are beginning to see the stamina of men who have to contend on behalf of those who have to struggle in the world's battle for an existence. Both sides find there is not so much dividing them. Prejudice is being beaten down, because they are getting to know there is a common humanity that unites all of us; that men do not differ very much in individuality whether they be on one side of a question or the other."

It was unanimously agreed that the whole question be referred to a bureau of the Department of Labor for study:

Your committee is of the opinion that there is urgent necessity for greater cooperation between employer and employee. We believe that this cooperation can be furthered by the establishment of joint industrial councils. Your committee does not believe it is wise or expedient to recommend any set plans for such councils.

We therefore recommend that a bureau should be established by the Department of Labor of the Federal Government to gather data and furnish information whenever requested by employers and employees or organizations of employers or employees that whenever it is desired to voluntarily establish such councils the fullest assistance should be given by the bureau.

Unemployment, sickness, and old-age insurance.—On this subject the conference passed the following resolution:

This committee unanimously indorses the recommendations of the Royal Commission on Industrial Relations that a board or boards be appointed to inquire into the subjects of State insurance against unemployment, sickness, invalidity, and old age.

For the effective carrying out of the above this committee recommends—

1. That such board or boards shall be representative of the interests participating in this conference, viz., the Government, the public, the employer, and the employee, and shall include a representative of the women of Canada.
2. That in order to collect necessary data, the Government shall forthwith attach to the proper branches of the labor or other departments concerned experienced

investigators, who shall do the necessary research work and furnish to the board at the earliest opportunity the results of their investigations.

3. That the Government shall set a time limit for the receipt of the report and recommendations as to the advisability of enacting legislation.

4. While this committee has been appointed to consider only the questions of State insurance against unemployment, sickness, invalidity, and old age, it respectfully recommends that the subject of "widows' pensions" be added.

Proportional representation.—Proportional representation was introduced into the agenda of the conference after the gathering convened. The subject aroused no controversy, and the resolution below was unanimously accepted:

Believing that there are defects in the system of the electoral representation in Canada, which defects are stated by the Royal Commission on Industrial Relations to be a contributory cause of social and political unrest, this conference welcomes the declaration of the Prime Minister, on behalf of the Government, that a speaker's conference will be called to investigate the merits of the proportional system, and urges that such action be taken without delay.

Democratic management of Government work.—Unable to agree on the extent to which the idea of joint industrial councils should be applied to Government works, the employers washed their hands of the matter as not their concern.

The undersigned members of your committee beg leave to report that the matter referred to them does not in their judgment come within their province, but that it is entirely a question between the Governments and their employees concerned.

The third group, representing the public, supported the Royal Commission on Industrial Relations urging that its recommendations be put into effect in all work controlled by the Government, involving the establishment of the principles of collective bargaining and the formation of joint plant and industrial councils.

The representatives of the third group on this committee believe that, in so far as the findings of this conference approve and such findings are to the benefit of the public weal, the suggestions of the Royal Commission should be put into effect in all departments and works controlled by the Government in this country.

The employees went somewhat farther than the third group and urged that Government employees be entitled to the right of appeal under the Industrial Disputes Investigation Act and that the wages and working conditions of employees of the Government should not be less favorable than those which now exist for workers in similar employment under private management.

We concur in the recommendations of the Royal Commission on Industrial Relations that the findings of the commission should be put into effect in all works controlled by all Government bodies, where the principle of democratic management can be applied.

We further recommend that employees of all Government bodies should be entitled to the right of appeal under the Industrial Disputes Act, so long as that act remains upon the Statutes of Canada.

We further recommend that the wages and working conditions of employees of Governments should not be less favorable than those which now exist for similar workers in the employment of private individuals or corporations.

Miscellaneous subjects bearing on industrial relations of employers and employees.—The remaining topics before the conference—unemployment relief works, compulsory education, housing, and freedom of speech and press, did not give rise to any extended discussion, and the reports of the committees were duly accepted. One labor representative thought that the freedom of speech resolution should make it absolutely clear that the advocacy of any particular economic doctrine was not to be denied under any circumstances.

Free compulsory education.—Your committee has considered and unanimously adopted the following resolutions:

That this conference indorses the recommendation of the Royal Commission on Industrial Relations, as to the necessity of the extension of equal opportunities in education; and, in view of bringing about this reform;

That the Government of each Province in Canada be asked to establish compulsory education for full time at least up to and including the fourteenth year, and for part time in cities and towns for the two ensuing years; and

That, in all Provinces, education in all grades should be made free, so that the child of the poorest-paid worker be given the opportunity of reaching the highest educational institution.

Freedom of speech and press.—That we unanimously indorse paragraph 70 of the Report of the Royal Commission, as follows:

“(70) The restrictions placed upon the freedom of speech and the liberty of the press, and the denial of the right to read such literature as any portion of the public demanded, was given as one of the principal causes of the present industrial unrest. We have no comment to make upon the policy of the Government in this respect. During the war it was necessary in the interests of the whole country and of the Empire that individual liberty should in many directions be restrained, but we believe that restrictions should not be imposed upon either the freedom of speech or the freedom of the press unless such restrictions are urgently demanded in the interest of the peace of the whole community. We recognize that no person has a right to do anything that is liable to incite the people to commit unlawful acts. A line must be drawn between liberty and license, but care must be taken to avoid creating the impression that the restraints imposed upon the freedom of speech or the liberty of the press are intended to prevent criticism of legislative or governmental action.”

Employment and unemployment.—(First) That in the opinion of this conference adequate provision by public works, or otherwise, should be made by the Federal, Provincial, and municipal Governments in connection with all interests represented at this conference, to avert any serious unemployment crisis which might occur during the ensuing eight months;

(Second) That the various interests represented at this conference adhere strictly to the employment policy agreed upon by the Provincial Governments, which aims at the centralization of labor supply and demand in one agency;

(Third) That provision be made for immediate and continuous survey of available and prospective employment, and for adequate employment machinery to direct unemployed workers to employment available.

Housing.—This conference commends the action of the Dominion and Provincial Governments in their united efforts to improve housing conditions and to provide

facilities for the proper and satisfactory housing of our people and recommends increased cooperation of, and investigation by, the Dominion and Provincial Governments to find a satisfactory solution of the problem.

Conclusion.

In form and manner of procedure the Canadian Industrial Conference was a parliamentary gathering met to discuss the advisability of enacting into laws certain principles to govern industrial relations. Debate on the merits of each question proceeded in the usual parliamentary form. Not confronted, however, with the need of either enacting into law or of formulating a code of principles for the control of industry, the conference more readily disposed of matters by passing them on for further investigation by other Governmental bodies.

The greatest significance of the conference lay in the fact that it brought face to face the workers and the employers of Canada who had hitherto been in rather bitter conflict with one another. There was on both sides of the conference a very evident desire to maintain friendly discussions. Reports going out to the newspapers as to a division of interest within the conference brought forth denials from both sides. On every hand there was the belief that this friendly sitting down together of employers and employees was exceedingly advantageous. The Minister of Labor, who presided, expressed the hope that it would not be necessary for the Government to take the initiative in arranging for future conferences. "No greater tribute could be paid to the success of this gathering than for the parties affected to arrange by mutual desire and agreement to hold another such conference at some future date."

Trade-Union Attitude Toward Nationalization of Coal Mines.

By ETHELBERG STEWART.

Action by British Miners.

THE month of September marked very significant action by organized labor in the two largest coal-producing countries of the world upon the subject of the nationalization of coal mines. In the October REVIEW appeared an article on the English coal industry. This was a survey which brought the subject down to the definite rejection of the nationalization of mines recommended by the second Sankey report, and the proposed substitution of a plan somewhat vaguely outlined in Lloyd George's speech in closing Parliament on August 18.

The British Trade-Union Congress met in Glasgow, Scotland, September 7. The agenda of the Congress previously published did not provide for a discussion of the nationalization of mines. It was, therefore, confidently asserted by the newspapers opposed to nationalization that the Glasgow congress could not enlarge its program to include any resolutions that might come from the miners, and that, therefore, the congress would not support the miners in any vigorous stand to force Government adoption of the larger platform of the Sankey report. However, on September 3, a conference of miners' delegates was called which represented every coal field in Great Britain, and this conference unanimously adopted the recommendation of the executive committee of the Miners' Federation of Great Britain to reject the Government's offer. The resolution which the executive officers of the miners submitted to this delegate conference was as follows:

Being convinced that the Government scheme is wholly unprofitable for the future working of the mines, the executive committee recommends the conference to reject the Government scheme, and records its regret that the Government has no better scheme than the creation of a great trust to secure the economic well-being of the industry.

We are convinced that the only way to place the industry upon a scientific basis for the purpose of giving the advantage of a maximum production to the community, together with the maximum economic and social well-being of the miners, is to at once adopt in its entirety the scheme of nationalization recommended by the majority of the Coal Industry Commission.

We do not, at this stage, recommend the miners to take industrial action to secure the adoption of the coal commission report, but we shall ask the Trades-Union Congress to take the fullest and most effective action to secure that the Government shall adopt the majority report of the commission as to the future governance of the industry.¹

¹ Manchester (England) Guardian, Sept. 3, 1919.

It is significant that Mr. Robert Smillie, who presided, took occasion to refer to the recent Yorkshire strike, and stated "that the Yorkshire miners were not responsible for the Yorkshire strike, but Government departments."

The resolution above cited was transmitted to the officials of the Glasgow congress, which was to meet four days later, and on September 10, the General Trade-Union Congress of Great Britain took up the subject of the miners' resolution. It is significant that while the resolution was introduced by Mr. Smillie, the president of the Miners' Federation, it was seconded by Mr. J. H. Thomas, the secretary of the National Union of Railway Men, and was carried by a vote of 4,478,000 to 77,000. The resolution was as follows:¹

This congress having received the request of the Miners' Federation to consider the Government rejection of the majority report of the Coal Industry Commission, and the adoption in its place of a scheme of District Trustification of the industry hereby declares that, in conjunction with the miners, it rejects the Government scheme for the governance of the industry as a scheme contrary to the best interests of the nation, and it expresses its resolve to cooperate with the Miners' Federation of Great Britain to the fullest extent, with a view to compelling the Government to adopt the scheme of national ownership and joint control recommended by the majority of the commission in their report.

To this end the congress instructs the Parliamentary committee in conjunction with the Miners' Federation to immediately interview the Prime Minister on the matter, in the name of the entire labor movement, to insist upon the Government adopting the majority report.

In the event of the Government still refusing to accept this position, a special congress shall be convened for the purpose of deciding the form of action to be taken to compel the Government to accept the majority report of the commission.

The vote is significant in many ways. First, the membership of the congress has increased from about 3,500,000 members in 1914 to a present membership of 5,265,426, so that the fact that this body had, in previous conventions, gone on record as favoring the nationalization of coal mines lost much of its significance in the face of the question whether the former votes really represented the sentiment of the enormous new additions to its membership. Again, past resolutions favoring nationalization had no immediate significance; there was no prospective sacrifice on the part of the approving delegates to assist the miners in bringing it about. These resolutions were expressions of a general political philosophy. Now, however, the nationalization of mines in England is a live issue in a sense that it never was before. The delegates voting for the resolution, therefore, realized that the vote might mean a locking of horns between the Governmental party in power and every trade-union represented in the Glasgow congress. The speeches of Mr. Smillie in introducing the resolution, and Mr. Thomas, of the railway men, in seconding it, therefore, have peculiar significance.¹

¹ The Daily Herald (London), Sept. 11, 1919.

Speaking to a full house, Smillie reminded the congress that on 42 occasions since 1882 it had passed resolutions affirming the principle of nationalization.

Sometimes there had been general resolutions, but on several occasions there had been nationalization resolutions dealing entirely with the coal mines.

Dealing with the terrible death and accident roll of the mines, Smillie admitted the efforts of managers and others for safety, but declared that output had been the first consideration in the past, and very often safety had been sacrificed to private profit.

Not only did they ask for the nationalization of the mines, they asked that the workers themselves should have an effective voice in the industry in which they invested their lives while their masters invested only their capital.

That was their claim—a claim which they made not for themselves alone, although they would be entitled to ask it for themselves alone—in the interests of the men and boys and girls who were risking their lives.

It was admitted that coal was the lifeblood of the country's industries, and also that it was desirable that they should have the largest output at the lowest possible price, but they would never get the largest output at the lowest price so long as the mines were privately owned.

Hundreds of millions of tons of coal had been left underneath the soil as barriers, miles in length, under private ownership. Coal which could have been produced should have been produced, and would have been produced, but for the private ownership of the mines.

Coal was valuable, but it was not inexhaustible, so, he asked: Was it wise that it should be wasted because of the small number of men who claimed the mineral wealth as well as the surface of the earth?

Dealing with the campaign against the miners, Smillie declared, amid loud applause, that he did not want the strike weapon used; he knew the sufferings and want of a strike, for he had been through them. But there were times when it would be criminal for a leader not to advise men to strike against the selfishness and brutality of their employers.

They felt it was their duty to carry the whole trade-union movement of the country with them, and if the congress accepted the resolution he asked it not to let it rest and not to leave the fighting on the shoulders of the miners themselves.

J. H. Thomas, seconding, said the resolution was not a mere repetition of what [the trade-union] congress had passed before. They ought to realize that they were asked as the greatest assembly of labor ever held to undertake a serious responsibility. If the resolution was carried that was not a miners' question, except that the miners were entitled to say, with other workmen, that their lives must not be subordinated to private profit. It was a citizen's question, and they approached it from the standpoint that the mines should be taken over for the national benefit.

As railway men they were as keen on nationalized railways as the miners were for public ownership of the mines.

There could be nothing more fallacious than to imagine that the form of State ownership they had had during the war was what they wanted now.

Prejudice was being created against their demands by the alleged State mismanagement, for which they were not responsible. During the war the 50 per cent increase on train fares was not imposed to compensate the increased wages, but was enacted to prevent people from traveling on the railways, so that the fullest use of them could be had for war purposes.

Further, the advance of 6s. a ton on coal had never been justified, and was one of the greatest political scandals he had ever known.

It was no use appealing for output if the people who gave no output were allowed to receive the maximum benefit from the labor of the workers.

The Government scheme for the trustification of mines was a danger to the community which must be thwarted.

He wanted to congratulate the miners on the way they had conducted their case, and for the great service they had rendered to labor's cause. They had behaved like statesmen in asking [the] congress to take up their claim. If they had acted on their own he would have been an opponent, as he believed no section of the movement should act on a matter like that without the other sections.

He wanted congress to realize that the present Government would very likely refuse to nationalize the mines, so that when they met again in London, two or three months hence, to again consider the matter, they would have a very serious responsibility confronting them.

It was well that they should not go away from the congress without understanding what they had decided.

They were approaching a grave crisis.

The political significance of the nationalization of coal in England has been thoroughly understood, by the Labor Party at least, for many months. That the Labor Party, as a political organization, foresaw the political issues involved in the coal question is evidenced by the fact that the eighteenth annual conference of the Labor Party held in London June 26, 1918, passed the now somewhat famous Resolution No. XXI. The resolution referred to is quoted from the report of the Labor Party conference as follows:¹

That the conference urges that the coal mines, now under Government control, should not be handed back to their capitalist proprietors, but that the measure of nationalization, which became imperative during the war, should be completed at the earliest possible moment by the expropriation on equitable terms of all private interests in the extraction and distribution of the nation's coal (together with iron ore and other minerals). The conference asks that the supply of these minerals should henceforth be conducted as a public service (with steadily increasing participation in the management, both central and local, of the workers concerned), for the cheapest and most regular supply to industry of its chief source of power, the retail distribution of household coal, at a fixed price, summer and winter alike, and identical at all railway stations throughout the Kingdom, being undertaken by the elected municipal, district, or County council for the common good.

Mr. Robert Smillie (Miners' Federation) moved the resolution, and remarked that the best seams were being worked out, and the principle involved in the resolution was necessary if the coal supply was to be used for the benefit of the nation.

The resolution was seconded and agreed to.

Action of United Mine Workers of America.

While the Glasgow congress was in session the twenty-seventh convention of the United Mine Workers of America met in Cleveland, Ohio, and, among other things, passed a resolution demanding the nationalization of coal mines.

In the background of this action lies the calling of a general policies committee by President Frank J. Hayes, of the United Mine Workers, on March 18, 1919. The call was issued under authority of the executive board and met in Indianapolis, Ind., on the date above named.

¹ Report of the 18th Annual Conference of the Labor Party, pp. 76 and 77.

Representatives, 150 in number, from all of the mine districts were present.

In opening the meeting Mr. Hayes emphasized the following as guiding principles to be followed in the negotiations with the coal operators: The establishment of a 6-hour day, 5 days a week, as a remedy for the widespread whole or part time unemployment among miners; a substantial increase on all existing tonnage, to permit the miner to earn a wage comparing favorably with that earned in other skilled occupations; and nationalization of the mines. With regard to this third point, Mr. Hayes spoke as follows:¹

I urge upon this conference to declare for nationalization of mines. I feel that we should use all the economic and political power of our great organization to attain this end. This recommendation is in accord with the past action of our international conventions. The nationalization of mines will substitute cooperation for competition and insure in a practical way the stability of the great basic industry in which we are engaged. As an indication of what governmental power in our industry can do in a stabilizing way we have but to refer to the progress achieved under the direction of the Federal Fuel Administration. To revert to the old days when competition ran wild would create industrial stagnation and hamper the rightful development of our great coal resources. Under the nationalization of mines we find a practical way to realize the reforms so necessary to the well-being of the mine worker. With the industry on a competitive basis, disorganized and demoralized, we can expect a recurrence of the economic evils which so vitally affected the coal industry a few years ago. Coal is the basis of all modern civilization, entering into every industrial process, and, in view of its utilitarian character, nationalization and control democratically administered will solve, in my judgment, one of the greatest industrial problems of our time. In emphasizing the need of the nationalization of mines we also want to emphasize the right of our people in the premises.

First. The free and unrestricted right to organize.

Second. The right to maintain the function of our economic organization, to collectively bargain with the representatives of the Government with fair and equal representation in such conferences as will determine the wages and conditions under which we must work.

Following the address of President Hayes, the Policy Committee created a subcommittee consisting of the presidents of the various districts. This subcommittee was in session for a day and a half when it brought in a report dated March 20, 1919, consisting of a series of recommendations and resolutions. Sections 3 and 4 of this report are as follows:¹

3. We concur in the recommendation of President Hayes and declare for the nationalization and democratic management of all coal mines in the United States.

4. We recommend that the three resident international officials be empowered to draft or to have drafted for presentation to the special international convention, when convened, a tentative draft of bill to be presented to Congress and providing for nationalization of all coal mines.

In the address of the acting president of the United Mine Workers in opening the Cleveland convention, the action of the policy com-

¹ United Mine Workers' Journal, Apr. 1, 1919.

mittee of March last was referred to and its report incorporated in the address, the acting president adding the following statement:¹

It will be noted that the fourth section of the report of the policy committee empowers the international officials to prepare for presentation to the international convention a tentative draft of a bill to be presented to Congress, providing for the nationalization of all coal mines.

Your officers have given the most serious consideration to this matter, and for a number of reasons we have found it impossible to properly prepare such a measure in the limited length of time which has elapsed since this action was taken. The magnitude of the mining industry and the multiplicity of matters to be considered in the preparation of such a measure would require the assembling of vast masses of statistics bearing upon the area of coal deposits; the extent of developed operations; the capitalization of corporations; the valuation of all deposits and manifold other matters, including costs of production; profits of producers, etc. It was accordingly deemed advisable by your officers not to undertake such a prodigious task, but to await the action of the regular international convention. It is also understood that the present Congress will be unable to give serious consideration to other than the matters which are now pending before it. Your officers have secured, however, such data as have been developed and have likewise secured copies of the proposed measure introduced in the British Houses of Parliament, and have conferred with able legal counselors upon the matter.

The Cleveland convention was, therefore, confronted with the nationalization of coal mines in a far more serious way than ever before. While it is true that local unions have passed nationalization resolutions from time to time for 20 years, and occasionally such resolutions coming from a local union would be indorsed by the national convention, it was understood that this action was more or less perfunctory and had no immediate significance. There is every reason, however, to believe that the delegates at the Cleveland convention realized that they were taking a step which would lead them immediately into the fray, particularly as it was linked up with the issue of nationalization as raised by the Railway Brotherhoods' fraternal delegates who were in attendance at the Mine Workers' Convention.

The convention was confronted not only with the report of the Indianapolis policy committee, but with numerous nationalization resolutions of local organizations, and the whole matter was turned over to a resolutions committee to formulate and bring before the convention a resolution which should embody the entire matter. This committee submitted, and the convention adopted, the nationalization program as embodied in resolutions of which the following is an official copy:

Nationalization.

Coal mining is a basic industry, indispensable to the economic life of the Nation and to the well-being of the Nation's citizens.

The all-important coal resources of our country are owned and controlled by private interests. Under the prevailing system of private ownership coal is mined primarily

¹ United Mine Workers' Journal, Sept. 15, 1919.

for the purpose of creating profits for the coal owners. The production of coal under this system is characterized by an appalling economic waste.

The incomparable natural resources of America, and particularly those of timber and coal, are being despoiled under a system of production which wastes from 33 to 50 per cent of these resources in order that the maximum amount of dividends may accrue to those capitalists who have secured ownership of these indispensable commodities.

We hold that the coal supply of our Nation should be owned by the Commonwealth and operated in the interest of and for the use and comfort of all of the people of the Commonwealth.

Countless generations of men and women will doubtless follow us, and the American people of this generation owe a solemn duty to them in protecting with zealous care and conserving with wise administration those great treasures that a bounteous nature has bestowed upon us in such generous measure.

Our coal resources are the birthright of the American people for all time to come, and we hold that it is the immediate duty of the American people to prevent the profligate waste that is taking place under private ownership of these resources by having the Government take such steps as may be necessary providing for the nationalization of the coal-mining industry of the United States.

Under private ownership, where production is conducted for private gain, the spirit of the times seems to be "After us the deluge."

This must be supplanted by a system where production will be for use and the common good, and economic waste will give way to conservation of the Nation's heritage in the interest of posterity.

We, the United Mine Workers of America, in international convention assembled, representing the workers who have their lives and the welfare of their dependents invested in the coal mines of our country, do therefore

Resolve, That we demand the immediate nationalization of the coal-mining industry of the United States.

That we instruct our international officers and the international executive board to have a bill prepared for submission to Congress containing the following provisions:

1. That the Government, through act of Congress, acquire title to all coal properties within the United States now owned by private interests by purchasing said properties at a figure representing the actual valuation of said properties as determined upon investigation by accredited agents of the Federal Government.

2. That the coal-mining industry be operated by the Federal Government and that the mine workers be given equal representation upon such councils or commissions as may be delegated the authority to administer the affairs of the coal-mining industry, authority to act upon the question of wages, hours of labor, conditions of employment, or the adjudication of disputes and grievances within the industry.

3. Realizing as we do that the masses of the American people, while they have been dispossessed of their right of ownership to the coal and other natural resources upon which their well-being depends, still own and control the Government of the United States whenever they care to exercise their power in the matter; and realizing that the success of our effort to secure nationalization of the coal-mining industry depends upon our ability to convince a majority of the American people of the justice of this proposal, we herewith further instruct our international officers and international executive board to use their influence to bring our demand for nationalization to the attention of the American people and to endeavor to secure the cooperation and support of every progressive force and every liberal, fair-minded individual, with a regard for our duty to posterity and a belief in the principle of common ownership of our natural resources, to the accomplishment of this end.

We further instruct our representatives to urge in the coming conference with the representatives of the railroad workers' unions a working alliance for the purpose of securing the adoption of the Plumb Plan for nationalization of railroads as the initial step in the fight for the principle of nationalization, with the understanding that such alliance will continue to press the issue with unabated vigor until the principle of nationalization has been extended to embrace the coal-mining industry of the Nation.

And be it further resolved, That our organization, for the reasons set forth above, carry its fight for nationalization of mines into the Dominion of Canada and throw its influence wherever possible behind our members in Canada to the accomplishment of that end.

After the adoption of this resolution on Saturday, September 13, a call was issued for a conference between the miners' officials and the chiefs of the Railway Brotherhoods, the date tentatively fixed as October 1. Whether or not this dual alliance will cover any agreements looking further than joint action upon the specific item of nationalization, or whether it will eventually result in something corresponding to the Triple Alliance in Great Britain, which is one of offensive and defensive along practically all lines, can not at this time be determined. It must not be overlooked that during the early months of 1919, the Canadian Coal Miners' Organization at a general convention adopted two significant resolutions, one of which unites them with the United Mine Workers of America, a United States organization, and another which declares for the nationalization of the coal mines of Canada.

It is significant that "socialization" schemes promulgated March 14, 1919, by Germany and Austria were very different from "nationalization," and did not, in fact, apply to the State-owned mines at all. As is well known, Germany has for years owned coal mines in Silesia and Lorraine, and in the Saar and Ruhr districts, but the recently promulgated socialization schemes do not apply to these. While the Austrian act of March, 1919, does empower the German-Austrian Coal Mining Corporation to expropriate private coal-mining concerns of a certain character and under certain conditions, and while this corporation is stated to be a "socialized institution," it is very apparent that the scheme does not conform to what is understood as nationalization in England and in this country.

The action of Holland early in this year in regard to the conditions of labor in the mines did not apply to the State-owned mines of Holland which comprised over half of the mines of the country.

Drastic action was taken by the French Government in the management of the mines during the war and legislation was passed in January, 1918, which paved the way for nationalization by limiting the period of years a cession or franchise to a corporation might run, but nothing specific pointing toward nationalization seems to have been enacted since that time.

Socialization Measures in Germany and Austria.

Compiled by ALFRED MAYLANDER.

Germany.

THE programs of the German National Provisional Government and of the various State Governments, as promulgated after the overthrow of the monarchy in the form of proclamations and addresses, generally contained vague announcements of proposed socialization or nationalization of industry and commerce, and in the second week of its existence the National Provisional Government appointed a commission on socialization composed of well-known economists and men with practical experience in economics and science. This commission was to inquire into all plans for socialization, to discover what undertakings were ripe for socialization and to put suitable plans before the Government, which would investigate them and probably adopt them. No branch of industry would be socialized before the commission had been heard.

The word "socialization" is a very indefinite term. It is based upon the idea that it is impermissible that property which forms the foundation of the economic system and is incapable of increase should be administered in the interests of the individual instead of the community at large. The German Socialization Commission, in which the Independent Socialists were in a majority, has left the question "What form is socialization to take?" as obscure as it was before; but on one point all the members of the commission were agreed, viz, that the worst solution of the problem was State management which is cumbrous and bureaucratic and fails to appoint efficient persons as managers. The fact is not without interest that even Lenin in his brochure recently issued, "The First Duties of the Soviet Government," admits that the attempt to substitute State management for private management in Russia has been a dire failure, and he himself now advocates the latter.

There has been much friction between the Socialization Commission and the Ministry of Economics. After having drafted a general socialization bill and several bills for the socialization of individual industries, it handed in its resignation to the Department of Economics on April 7, 1919. In a long document, signed by Kautsky and Prof. Francke, the commission declared¹ that from the very beginning it had to contend with opposition, either open or secret, from the Ministry of Economics. Dr. Müller, the minister

¹ Vorwärts, Berlin, Apr. 9, 1919.

of economics, it was claimed, had assigned it the rôle of a totally insignificant council, had placed difficulties in the way of its work, and had deprived it of all influence in decisive moments. The Department of Economics, under its present head, had kept back the provisional report of the commission on the socialization of coal mines until its own draft had been forced through the National Assembly.

General Socialization Law.

The General Socialization Law, on which all subsequent socialization bills are based, was enacted by the National Assembly on March 23, 1919. Its text is as follows:¹

ARTICLE 1. It is the moral duty of every German, so far as is compatible with his personal freedom, to make such use of his intellectual and physical powers as will be most beneficial to the community.

The labor force is regarded as the most valuable economic asset of the nation and will be placed under the special protection of the National Government. Every German is to be given the opportunity of earning his livelihood by means of his own exertions. In cases where no such opportunity offers, he must be provided with means for subsistence. Further details will be made the subject of special national laws.

ART. 2. The National Government is authorized—

1. To provide, by means of legislation and on payment of suitable compensation for the transfer to the management of the community of all such economic undertakings as are adapted for the purpose, more specially such as are concerned in the exploitation of mineral resources and in the utilization of the forces of nature.

2. To regulate in cases of urgent necessity the transfer to the management of the community of the production and distribution of economic commodities.

Detailed regulations as to compensation will be issued by means of special national laws.

ART. 3. The tasks of socialization, as regulated by national laws, may be assigned to the National Government, to the Federal States, communes and communal unions or to economic autonomous bodies. The autonomous bodies will be placed under the supervision of the National Government. In the exercise of this supervision the National Government may make use of the authorities of the Federal States.

ART. 4. In the exercise of the authority conferred by article 2 the socialization of hard coal, lignite, briquets, coke, water power, and other natural sources of energy, as well as all forms of energy obtained therefrom will be regulated by special national laws. The coal-mining industry will be the first to be affected. A law regulating coal mining will come into force simultaneously with the enactment of the present law.

ART. 5. This law comes into force on the date of its promulgation.

Die Konjunktur, a widely read economic journal, published the following criticism of the law on the socialization of industry:²

Labor wants socialization as it has been preached and promised to them for decades in speeches and writings. To attain this end they are striking. The Government has recognized this and believes that it will be able to pacify the workers by concessions. But what the National Government offers as socialism will not in the least satisfy the claims of labor. The text of the law on the socialization of industry is a

¹ Reichsgesetzblatt, p. 341.

² Die Konjunktur, Berlin, Mar. 20, 1919.

conglomerate of phrases, born of despair, which the workers will immediately recognize for what it is. All this socialization is nothing but the continuation of the mistaken economic policy of the war disguised under other catchwords.

According to article 2 of the law, economic undertakings are to be transferred to the management of the community. What is meant by "community" (*Gemeinwirtschaft*) is not explained. That is another one of those concepts, by which, from the beginning of the system of war control of industry, the people have been led astray in the most incredible fashion. No one will be attracted by that bait now. What this kind of socialization will look like in practice is evident from the way in which coal mining is to be socialized. That is to say, "Wash me, but do not make me wet." On the one hand, the capitalistic ownership remains as it is; on the other hand, labor remains as it is. But, in order to introduce some change which will warrant the use of the word "socialization" the whole will be capped by a bureaucratic machine, in which representatives of the workers, too, will be active. That will not, it is true, mean an improvement or an increase in output; but it will result in the State sharing directly and indirectly in any profits on the working. A fiscalism will be developed which will benefit neither capital nor labor, but will be in the highest degree injurious to national trade and industry. This fiscal bureaucratization of production is passed off as socialism, and people believe that the workers will be deceived and pacified by this kind of trick. We are afraid that such experiments will not only fail to pacify the workers, but will lead to still greater discontent.

Coal Socialization Law.

On March 2, 1913, the National Assembly passed a law dealing with the socialization of the coal industry. The text of the law is as follows:¹

ARTICLE 1. Coal in the meaning of the present law is pit coal, lignite, briquets, and coke.

ART. 2. The National Government shall regulate the coal industry on a basis of joint administration. The management of the coal industry will be intrusted to a National Coal Council. The composition of the National Coal Council shall correspond to that of the Council of Experts (art. 3). Details as to its formation will be arranged, in conjunction with the Council of Experts, according to the provisions laid down in article 4.

The National Government shall concentrate the production of coal for specified districts in the hands of associations, which latter will be included in one general association. The employees are to participate in the management of these associations. The provisions to be issued in pursuance of article 4 will settle details. The associations shall regulate output, consumption for private purposes, and sales under the supervision of the National Coal Council. The National Government shall exercise the ultimate supervision and regulate the fixing of prices.

The National Coal Council and the associations are to be instituted up to June 30, 1919.

ART. 3. In pursuance of the provisions of article 2, the National Government shall convene a council of experts for the coal industry, which shall consist of 50 members. Of the members of the council of experts, 15 representatives of employees and 13 of employers shall be appointed by the National Government on the proposal of the trade organizations affiliated to the Joint Industrial League of German Employers' and Employees' Associations. The Prussian minister for industry and commerce shall appoint two representatives of employers. The other 20 members shall be appointed by the National Government in such proportion that three of them are

¹ Frankfurter Zeitung, Frankfurt on the Main, Mar. 14, 1919.

taken from trade circles, two from technical circles, one from those of commercial clerks, while there shall be two representatives of employers and two of employees from the coal-consuming industries, two representatives of retail dealers, two representatives of cooperative societies, and one representative each from the circles of urban and rural coal consumers, as well as one representative from each of the circles of experts in coal mining, coal prospecting, transport and boiler engineering. The three representatives of salaried employees are to be proposed to the National Government by the associations of clerks and minor officials affiliated to the joint council.

In the appointment from the circles of the coal consumers the different groups and the different parts of the Empire must as far as possible be considered.

ART. 4. The National Government shall issue the more detailed regulations for the carrying out of the present law. It may provide that contraventions of the provisions issued be punished by fines up to 100,000 marks, and in case of repeated contravention with imprisonment up to one year.

The regulations to be issued in pursuance of paragraph 1 require the previous approval of the National Council and of a committee of 28 members to be appointed by the National Assembly.

The regulations issued are to be submitted to the National Assembly immediately, if the latter is in session, otherwise directly on its meeting. They are to cease to be valid if the National Assembly so resolves within a month of their submission.

ART. 4a. On submitting the budget for the coal industry regulated by this law, the National Government must make to the National Assembly a special report as to the output, sale, and price of coal, as well as to the general wage and working conditions.

ART. 5. This law comes into force at the same time as the General Socialization Law.

The first set of regulations under the law are now in draft¹ and are designed mainly to control the socialization of the marketing of coal. The various syndicates into which coal mine owners were compulsorily formed by the law of 1915,² and others yet to be formed, are to be combined into a National Coal Federation which will carry out the decisions of the National Coal Council. The Supervisory Council of the Federation will include three members nominated by the manual workers, one nominated by the salaried staffs, and one nominated by the consumers. In addition, a representative of the manual workers is to be a member of the executive committee of the Federation. The syndicates of the various mining districts, along with the Gas-Coke Syndicate for the whole country, will be subordinate to the Coal Federation. The syndicates themselves are also to admit delegates from the manual workers and salaried staffs on their supervisory councils and executive committees, on which bodies there will also be a representative of the State. Finally, so-called "Fuel Offices" are to be created in order to insure consideration of the wishes and suggestions of the consumers. Great importance is attached to publicity in the fixing of the coal prices. The consumers are to have the right to fix retail prices of coal, so that the amount of profit made by the merchants may at all times be verifiable. By the reduction of this profit to the absolute minimum, the gradual elimination of superfluous middlemen is

¹Vorwärts, Berlin, June 17, 1919.

²See MONTHLY REVIEW, November, 1915, pp. 83-85.

sought to be attained. Cooperative societies of consumers are to receive the same terms of delivery as the coal merchants.

Wissell, successor to Dr. Müller as minister of economics, speaking recently at the Socialist Party Congress,¹ took occasion to defend the Government policy in the matter of the socialization of the coal industry. He acknowledged that it was a compromise policy and continued:

We are told that the coal law is not a genuine socialization law. The instruments of production still remain in the hands of the private owner. Apart from the question whether it would have been possible to put through such a measure, I have examined the matter from all sides and with a perfectly open mind, and have come to the conclusion that if we had introduced pure socialization of the coal-mining industry at the present time, we should have seriously discredited the cause of socialization. The value of the coal mined in Germany in the year ending September 30, 1918, was 3,338 million marks. In May of this year the same output would have been worth 7,848 million marks. Within seven months the rise in price far exceeds four billion marks, being such as to double—and more than double—the value of the German prerevolution coal production, and the movement is still in the same direction. The coal tax alone now brings in one billion marks. If this inevitable development had taken place after a measure of pure socialization, it would have supplied a very powerful argument for the adversaries of socialism. The State as employer would have had to pay even higher wages than those now prevailing. For people think there is no limit to what they can demand from the State, and never think of the duty owed to the State. Under full socialization, that is to say, taking over all industrial undertakings as State property, we should to-day have to spend a sum for which no one in a position of authority could assume the responsibility. The most extreme socialists recognize the duty of paying compensation when expropriating individual branches of industry. But what we should pay in the shape of compensation to-day would come to three times as much as what would have sufficed before the revolution, owing to the depreciation of German paper currency. Germany can not pay the coal mine owners with immense sums of depreciated currency and then after a few years redeem her debt when the currency has greatly appreciated. Possibly the masses are unable to understand this. But it has to be remembered that the conditions prevailing when we came into power were altogether different from what our theory assumed. Recent experiences in Austria have shown that the worse the conditions in trade and industry the greater are the difficulties of socialization. A single false step now on the road to socialization might mean ruin. Failure must follow if more is attempted than is economically possible. We have not discredited the idea and we have taken no steps calculated to ruin the country. At the present time Germany has no superfluous means. The country needs 1,500 marks per annum for each family to pay the interest on the national debt alone. Then there is the huge foreign debt.

In conclusion, Herr Wissell emphasized the importance of organization of trade and industry for the benefit of the community and not of the individual. Only thus could they continue to exist. The Government aimed at the formation in industry of self-governing bodies, but as these were not yet in existence, it must be careful not to relax the bonds of industrial discipline too much.

¹ Vorwärts, Berlin, June 17, 1919.

Socialization of the Potash Industry.

The various steps taken in the direction of the socialization of the potash industry are described in *Wirtschaftsdienst*¹ by Dr. Alfred Schmidt, who points out that this industry seemed eminently adapted for management on socialistic lines, because under the potash law of May 25, 1910, its various branches had been amalgamated in the Potash Syndicate, and a large measure of control introduced.

On April 24, 1919, the potash industry law was passed, which, intended as an enabling act, only introduced a provisional state of affairs and was to pave the way for the transition to socialistic management. The law provided for the creation of a National Potash Council, and the Government was charged with the summoning of a council of experts which was to discuss the details of the new order of things. The final regulation of the socialistic management of industry took place when the law of July 19, 1919, was passed, and at the same time regulations were issued for the carrying out of the law of April 24, 1919.

Under these enactments the potash industry was regulated not by means of radical deviation from the existing order of things, but by employing the arrangements already existing, with due regard to the relationship of the existing régime to the ideals aimed at. The Potash Syndicate was retained, although the powers giving it its preponderating influence on the industry were transferred to a new body, the National Potash Council, to which the syndicate is subordinated.

The National Potash Council is based on the idea of socialized management by all those interested not only in the processes of production, but in any economic branch. This is shown by its composition, for to it belong representatives of the producers, workers, directors of the syndicate, technical and commercial employees, agricultural consumers, the potash trade, the chemical industry, an expert committee for the mining, manufacture, etc. of potash, as well as representatives of the Federal States and Provinces. Equal representation is given to employers and employees.

From the National Potash Council issue a number of committees. The chairman and vice chairman of these committees are nominated on each occasion by the Imperial Minister of Economics, while the other members are elected by the National Potash Council under special rules. It is the function of the National Council to conduct the industry from the standpoint of socialized management. It lays down general guiding principles for the industry, especially with a view to increasing home production and

¹ *Wirtschaftsdienst*, Berlin, Aug. 1, 1919.

encouraging home agriculture. It may demand from all taking part in the industry information as to the economic conditions in it, but may not do this outside the domain of output and sale of potash if the information would endanger trade secrets.

In accordance with the law the potash producers have to combine in the Potash Syndicate not later than October 31, 1919. By "potash producer" is understood not only the owners of potash mines but also the owners of special factories.

The general legal regulations for companies apply also to the legal status, but a few special regulations have been issued. To the executive committee of the Syndicate must belong one person appointed by the board of control from a list of five suitable persons submitted by the workers' representatives of the National Potash Council. Furthermore, the Syndicate must have a board of control, and to this must belong, among others, four persons; two must be representatives of the workers, one a representative of the salaried employees, and one a representative of the consumers, chosen from a list of two, three, or four suitable persons submitted to the Syndicate. In this way the idea of socialized management is realized in the formation of the new Potash Syndicate as well. The worker is no longer regarded as an employee whose interests must run counter to those of the employer, but as himself a producer, and he is represented on the Syndicate in accordance with that view. But due regard is paid to the character of the Syndicate as an amalgamation of producers by the fact that the executive of the Syndicate charged with the selection of the board of control is given a choice of several persons proposed as representatives of the workers, although the number of these persons is extremely limited. In this case the equal representation of workers and employers is intentionally avoided in contrast to that of the National Potash Council. Moreover, in the National Potash Council the workers' and producers' representatives are directly elected by the organizations of the two groups concerned.

The National Potash Council approves the by-laws of the Syndicate and determines the activities of the "participation offices," which are composed of equal numbers of the representatives of the producers and workers.

Mention must next be made of the "potash inquiry office." This determines the proportional shares in the general sales, the so-called "participation figures" of the various measures, and controls a portion of the regulations issued by the National Potash Council in connection therewith. These functions of the inquiry office are of great importance, and it should be emphasized that they do not as heretofore appertain to the Syndicate. The inquiry office is empowered to demand information from the Syndicate and its members as to the quantities of potash sold, as to the

prices agreed upon and the conditions of delivery, as to storage and sales conditions, and as to other business arrangements. It may inspect business premises, go down the mines, and, finally, demand an inspection of business ledgers and papers, with a view to confirming the information supplied. An appeal against decisions of the potash inquiry office may be made to the "potash appeal office."

The activities of the Syndicate are circumscribed by the regulations drawn up by the potash inquiry office or by the National Potash Council direct. The Syndicate regulates sales on the basis of the participation figures and its by-laws. The import from abroad of all potash salts, potash products, and potash combinations is permitted only to the Syndicate. The participation figures will be rearranged every five years, the first rearrangement taking place on January 1, 1923.

Potash prices have been made the subject of special regulation. Hitherto maximum prices were valid for the various potash salts; this regulation is retained. The National Potash Council is to fix the selling price to home consumers. The National Potash Council may grant price rebates to consumers of large quantities, and in certain cases may order lower prices charged. All consumers are permitted to combine with a view to obtaining rebates. The prices for foreign sale and delivery by the Syndicate may not be lower than the home prices. The minister of economics, who has supreme control of the potash industry and is authorized to take part in the discussions of all organizations of the socialistic management of the industry, may grant exceptions to this rule.

The National Potash Council, not the Syndicate, is authorized to forbid the opening of new shafts, and to close down mines, factories, and similar works, after payment of compensation, but it may make use of this right only when further regulations on this subject have been issued by the legislature.

As regards social policy the potash law establishes a lower and an upper wage board for safeguarding the average wages of the workers and salaries of the minor officials and employees. This office may demand information from the owners as to hours of labor, wages, and salaries, and it is within its province to encourage the conclusion of wage-scale agreements. The whole structure of socialization regards workers and salaried employees as two distinct categories, and does not, as is so strenuously demanded in many quarters, regard them both as mere workers. Propaganda in Germany is carried on by an agricultural technical potash office. Its expenses, like those of the entire organization of the socialistic management of the potash industry, are borne by the Syndicate.

Other Socialization Schemes.

The general socialization bill and the bills on the socialization of the coal and potash industry are so far the only socialization bills which have been enacted into laws. Schemes and bills are, however, under consideration for the socialization of the metal and chemical industries, electricity, water power, agriculture, deep-sea fishing, and the municipalization in large cities of all public utilities. Owing to lack of space, these schemes and bills can not be discussed here for the present.

Austria.

The session of the National Assembly that gave Austria a democratic constitution also enacted a fundamental law for socialization and established a commission, with plenary powers, whose function was to be the preparation of the way for the socialization of trade and industry.

General Socialization Law.

This law, dated March 14, 1919, has the following text:¹

ARTICLE 1. On grounds of public welfare, suitable industrial and commercial establishments may be expropriated in favor of the State, the provinces, or the communes, and administered by the State directly, or placed under the administration of statutory corporations.

The exercise of these rights shall be regulated by special expropriation, land reform, and home colonization laws.

ART. 2. Industrial and commercial establishments adapted to the purpose may be combined by law into statutory associations and placed under the supervision of the State or of other statutory associations.

ART. 3. Provision shall be made by a special law for the representation of the salaried and manual labor staffs in the administration of the establishments where they are employed.

ART. 4. A special State commission for socialization shall be set up and intrusted with the drafting of the laws provided for in articles 1 to 3. The executive committee of the commission shall consist of a president, a vice president, and three members, elected by the National Assembly on the proposal of the main committee of that assembly. The president of the commission shall possess the status of a secretary of state.

ART. 5. The executive committee shall nominate as members of the socialization commission for one year representatives of the various public departments concerned and the statutory associations, and experts from among the salaried and labor staffs and employers, in addition to other specialists.

ART. 6. The president of the commission shall have the right to make, either in person or through deputies, the requisite investigations for the preparation of the work intrusted to him, and with this object, to consult experts, to inspect commercial and industrial concerns, to examine their books and business records, and to collect from them any information relating to the working of their business.

At the request of the president these investigations shall be carried out by competent State officials.

¹Neue Freie Presse, Vienna, Mar. 15, 1919.

ART. 7. (Prescribes penalties to be inflicted on persons refusing to give the commission the requisite facilities for examining books, etc., or otherwise impeding it in the discharge of its duties.)

ART. 8. Official secrecy is strictly to be observed in carrying out the investigations provided for in article 6. (Breaches of confidence to be punished with imprisonment up to three months, or a fine not exceeding 20,000 crowns.)

ART. 9. Provision shall be made in the budget for the personal and administrative expenses of the office of the socialization commission. The amount of remuneration to be paid for work done by the members of the commission and other experts, whose services have been called in, shall be fixed by the executive committee.

ART. 10. This law shall come into operation on promulgation. The secretary of state shall be intrusted with the duty of putting the law into force.

The first plenary session of the Austrian Socialization Commission was held in Vienna on April 10, 1919. Dr. Bauer, the president of the commission, in his inaugural speech declared that the only question to be discussed was that of method.¹ Consequently the commission should not lose a single day in finding a solution of the problems referred to it. He submitted to the commission five preliminary drafts of bills: (1) For the expropriation of the owners of economic concerns; (2) as to the public utility institutions and similar establishments; (3) as to socialization by communes; (4) as to the establishment of works councils; and (5) as to the socialization of the electric supply system.

The commission decided, on the proposal of its president, to appoint six subcommissions to deal with: (1) General purposes; (2) manufacturing industry; (3) agriculture and forestry; (4) communal policy; (5) organization of industrial establishments; and (6) finance.

The Government Scheme.

In a speech delivered to the conference of the executive committee of the Austrian trade-unions, Dr. Bauer, the secretary of state for socialization, sketched the general scheme of the socialization laws, which, on April 24, 1919, were referred to a committee by the National Assembly. According to *Die Konjunktur*² Dr. Bauer spoke as follows:

We shall endeavor to build up a socialistic organization on the democratized establishments, an organization which shall subordinate the establishment to the interest of the community. This, of course, can not take place in equal proportions in the various branches of industry. In general, a distinction can roughly be made between partial and complete socialization.

Partial socialization will be applied to institutions which have already been developed during the war. During the war industrial establishments have been largely organized into industrial unions for purposes of war economics. These where they exist, we shall not demolish; on the contrary, we must make an effort to organize new ones, but they must not resemble the old ones. For hitherto such partial socialization has only meant the banding together of capitalists, under the supervision of a State

¹ Neue Freie Presse, Vienna, Apr. 11, 1919.

² Die Konjunktur, Berlin, May 15, 1919.

commissioner, whose supervision, however, meant little, since as a rule he knew less about the business than the employer. That, of course, was not socialization, and we must not imagine that it was. Rather must the industrial union be the means of subordinating the establishments, in so far as these are allowed to remain in the hands of the employers, to the domination of the State, the workers, and the salaried employees and the consumers, viz, those groups for whose sake the establishment may be said to exist. To socialize all industries completely will for the present be scarcely possible on account of the many small and medium sized establishments in a number of industries. But it is precisely branches of industry of this kind that are already linked together into these industrial unions, and we shall only have to modify the constitution of their administrative body. Assuming that into these industrial unions, for instance, we place in equal numbers representatives of the employers of the industry, the workers and salaried employees, the consumers, and, lastly, experts appointed by the State, then we have a board of directors in which the employers constitute only one-fourth of the members. When a board of this kind fixes the prices of the goods and the wages and makes collective agreements, and when it regulates the production of the individual establishments, it does so no longer in the interests of the employers only, since these form only one-fourth of the board, but also in the interests of the workers and salaried employees, of the consumers, and of the community.

By subordinating the individual employer to the control of an industrial union in which the decision rests not with the employers, but with the representatives of the whole nation, the position of the employer will be the following: His power is substantially limited from below in his establishment by the works council,¹ and from above by the Union Board of Directors. Thus we attain a substantial limitation of the power of the employer, and the power left to him is that which under these circumstances is really due to him, i. e., the power of a manager of the establishment.

But this is only a partial socialization, and although in many cases we shall have to content ourselves with this intermediate form, still I believe that, in large-scale industry, we shall have to go forward to complete socialization, viz., to the complete exclusion of the capitalists. This complete exclusion is effected in two stages. The first of these is represented by the act of expropriation: we take his establishment away from him. The second consists in the organization of the new administration which is to take his place.

As to the expropriation procedure, many comrades have a very simple idea of the business, i. e., that the establishment shall be simply taken away from the employer without any compensation. But I confess that under present circumstances and for our country I consider this procedure to be quite impossible, because it would work terrible mischief among us. If we take away their establishments and leave them their other means, we should not have a single farthing with which to carry on the business. We should, therefore, have to confiscate not only factories, dwellings, and plots of ground, but all capitalistic property, and we should thus have to declare null and void paper securities and war loans. But everyone who knows who are the present owners of war loans is well aware that savings banks, rural cooperative banks, etc., would become bankrupt, and every peasant, every small burgher, every official, and every salaried employer and worker would lose his investments. But even this is not the chief hindrance; much more tremendous are the international difficulties which would result from it. Many of the largest enterprises in Austria belong wholly or partially to foreign capitalists. The foreign countries would not submit to it. And even if they did submit to it, we know that we are quite unable to do without foreign capital for the reconstruction of our national trade and industry. We can not

¹ Works councils were established in Austria by a law which came into force July 25, 1919. See MONTHLY LABOR REVIEW, September, 1919, p. 133.

even pay for our food to-day without the help of foreign credit. Only with foreign credit can we get the raw materials which we need, and only with foreign capital can we develop our industry. But we can not obtain credit if we legalize confiscation of private property.

We must, therefore, manage things differently. When we wish to expropriate completely the owners of large-scale establishments, we shall pay a compensation. For that purpose we must enact a law regulating the payment of compensation in cases of expropriation. The bill laid before the Socialization Commission regulates the matter provisionally in the following way. The decision to expropriate an industry shall be made by the Government. As soon as the Government shall notify the employers in question that they are to be expropriated it may also immediately take over the establishments. The actual process of expropriation and the assessment of the amount of compensation shall then come before a court of arbitration constituted for the purpose. As to the compensation, it is to be assessed according to the permanent (*dauerhaft*) value, and war profits are not to be considered in the computation. The payment of the compensation shall not be made in money, or at least not usually in money, for otherwise we should again have to print paper currency, which would be injurious, but in such a manner that the expropriated capitalist must accept at their face value special bonds, which he receives instead of the shares. The idea is simply this: The man has ceased to be an employer; he is now only a private person possessing an annuity. It is therefore fair that we should give him his 4 per cent on the capital which he invested in the establishment, but nothing more.

What becomes of the enterprise when it is taken over? It seems to us obvious that it can not be managed by the State. We do not want to bureaucratize our industries, but the administration will be regulated by another law relating to socialized industrial organizations. These organizations will be constructed in the following manner: If we want to socialize any industry whatsoever, for example, an iron industry, we establish for this purpose, by means of an executive decree, an institution of our own, called, for instance, German-Austrian Iron Community Works. This body will possess legal personality; it will be completely separated from the State; it will be registered as a business concern in the trade register, and will take over the given establishment. How will the institution be administered? At its head will be a board of directors which will be composed of something like one-third each of (a) representatives of the workers and salaried employees, who will be elected either directly by the workers and salaried employees or by their works councils; (b) representatives of the consumers of the commodities in question; and (c) representatives of the State, possibly of the province, or of the commune which has a special interest in the establishment. This will be the composition of the board of directors, which chooses the managers, who are to administer the establishment. The whole is under special State supervision. In particular, the decisions as to the use to be made of the net profits require the sanction of the Government. It will be provided that the net profits shall be divided between the State and the salaried employees and workers according to a fixed formula. The share falling to these last may either be divided between the individual workers and salaried staff, or it may be taken over by the administration of the works council, for the purpose of social welfare schemes. The decision as to what shall be done rests with the representatives of the workers alone, and the representatives of the State and of the consumers will have nothing to say about it.

The decisive question is that of the acquisition of capital, for when we have the undertaking in our hands we have still done nothing toward this; we must also be in a position to invest capital in it and to carry on the business in a proper way. The undertaking may not issue shares; for having once eliminated the capitalist we do not want him to get in again. It can, therefore, borrow money for itself only at a fixed rate of interest; and the question also arises whether the capitalists will lend money, for a

bond has less power of attraction than a share. But in order to secure capital for the socialized industrial institutions a decree would be issued to the effect that the minister of finance has the right to make it compulsory for all banks, savings banks, and credit societies to invest in the bonds of these socialized industrial undertakings a percentage of all capital held on deposit, this percentage to be fixed by the minister himself. The State can thus see to it that the funds required by the undertakings are forthcoming. This is the first step toward the socialization of banking. The State prescribes for the banks the uses to which they shall put their deposits.

Hand in hand with these laws goes a further law, granting to the communes the right to expropriate establishments working to supply local needs, for example, the provision establishments, bakeries, breweries, transport establishments, brick works, pharmacies, etc., in order either to administer them municipally or to hand them over for administration to the socialized industrial institutions. This law also has already been drafted.

It can indeed be said, and with truth, that even this so-called complete socialization is still incomplete. For the capitalist loses his power over the undertaking; he becomes a mere annuitant, but as such he still remains in existence, for he still has the right to receive interest from this undertaking. To put an end to this by degrees is a problem for taxation legislation, and possibly for a modification in the law of inheritance. Thus, in the course of a few generations we shall be in a position to abolish absolutely all unearned incomes. The first step toward that is the property tax. The anxiety which is widespread among the working classes that this will in some way be postponed is quite unfounded. The matter is actually being worked out. If many feel it to be long drawn out, they must not forget that it is not easy so to construct the law that it shall be made as difficult as possible for people to evade it, and that for that purpose a number of preparatory measures must precede it.

This somewhat lengthy speech of the Austrian Minister for Socialization has been reproduced here nearly in full because it gives a clear outline of the Government's socialization plans.

Bills for the Socialization of the Coal and Electricity Industries.

The principal provisions of the two most important socialization bills so far drafted by the Austrian Government, those for the socialization of the coal and electricity industries, the text of which was published in the *Neue Freie Presse*, are reprinted below from the *British Labor Gazette*.¹

1. *Coal*.—Under the act of March 14, 1919, the State is empowered to expropriate coal-mining concerns which do not exclusively subserve local demands or the requirements of a single undertaking of which they are components. Royalties will be paid for 20 years as indemnification for mining rights, and an indemnity will also be paid for surface plant and buildings. The royalty is to vary with the calorific value of the marketable coal obtained. Where new plant is required to get the coal, the royalty is to be reduced to one-third. The rights and liabilities of expropriated concerns will be taken over by the German-Austrian Coal Mining Corporation, a socialized institution to be organized for the purpose. The Corporation will be administered by a committee of 23 members: Representing the State (5), the provinces (5), the board of management (1), works managers (2), the works council (5), the Coal Trading Corporation (see below) (3), the financial institution issuing the corporation's bonds (1), and the Federation of Austrian Manufacturers (1). Capital is to be advanced by the State and

¹ *Labor Gazette*, London, July, 1919, p. 277.

the provinces and repaid by fixed installments. Net profits are to be divided as follows:

- 10 per cent to reserve fund.
- 10 per cent for extensions and exploration.
- 20 per cent to the salaried staff and workers.
- 60 per cent to the State and the Provinces.

The marketing of coal is reserved to another specially created organization, the German-Austrian Coal Trading Corporation, whose functions of distribution will include the control of prices (including retail prices) and of export and import. Any coal not placed at the disposal of the corporation (at an equitable price) may be commandeered without compensation by the Ministry of Commerce. The administrative committee is to consist of 22 members (at first nominated by the State and thereafter elected). These will appoint a president from outside their own number, and two vice presidents. The members of the committee will represent the State (7, including 2 experts), the provinces (4), the municipality of Vienna (1), the board of management (1), the works committee (2), the coal mining corporation (see above) (2), the Federation of Austrian Manufacturers (2), agricultural federations (1), other consumers (2). The board of management will consist of the president of the corporation and three others, not members of the administrative committee but persons devoting their energies exclusively to the work of the corporation. These will be appointed by the administrative committee. Initial capital will be advanced by the treasury and repaid in fixed installments. Net profits will be distributed as follows:

- 20 per cent to general reserve.
- 13½ per cent to the works council for the benefit of the staff and workpeople.
- 66⅔ per cent to the State, which may use it as a special reserve fund.

2. *Electricity.*—It is proposed to establish in each province a socialized provincial electricity institution to supply electrical power and develop new sources of such power. The province, the State, the provincial capital, a federation of the remaining communes, the workers and salaried staff, the board of management, the financial houses issuing the bonds, leading statutory organizations of consumers, and engineering experts are to be represented on the administrative committee, which may also include representatives of private electricity works and of their managers. This committee will elect an executive and a board of management. The provincial institutions will combine to form a federation for German Austria. The federation will assist in procuring funds, drafting schemes and regulations, regulating prices with a view to their equalization, and constructing long-distance lines. It will be administered by a committee similar to those described above, and will appoint an executive and a board of management. Uniformity will be further secured by the establishment of a "water power and electric supply office" directly subordinate to the cabinet. No further concessions will be granted to private firms or persons for the generation or sale of electric current, or for the utilization to these ends of water power; but sanction may be given to private persons or bodies to construct electrical works to supply electricity for their own consumption. Existing private installations may be extended to enable them to render sufficient supplies which they already partially afford. Private electricity works, however, are liable to be socialized in pursuance of an act for the commandeering of industrial concerns. A register of such installations is to be compiled and published. Six months' notice must be given of any proposal to socialize any of these undertakings. Undertakings not on the register or not socialized within three years may not be socialized till fifteen years have elapsed. Compensation will be determined by the value of the outlay and average of the net profits for the preceding seven years (excluding the highest figure and the lowest and multiplying the average of the remainder by 12½). The compensation to be paid will

be the mean of the "outlay value" and the "going-concern value." The provincial institutions and the federation are to be held responsible for the utmost efficiency and coordination of their operations. In fixing scales of charges the economic need of the consumer is to be the primary consideration, but care must be taken to provide a minimum sum for the payment of interest and the repayment of advances by installments.

Proposed Closer Cooperation Among Scandinavian Governments On Labor Matters.¹

THE war has brought the Scandinavian countries closer together politically, socially, and economically. Early in the war a diplomatic conference took place and two other conferences were held during the war for the discussion of the high cost of living and the problems of food distribution. These gatherings were sponsored and participated in by Government officials. Since 1907 the officials of the respective social insurance institutes, as well as persons interested in related problems, have met in triennial conferences. Independent of official action the labor groups of the three countries, both prior to and during the war, worked in the closest harmony.

A more intimate and wider cooperative effort in labor matters was urged upon the Governments by a member of the Scandinavian Inter-Parliamentary Union, at the eighth meeting in Stockholm, in August, 1916. Mr. Castberg, who is a Labor Democratic Party member of the Norwegian Storting, outlined for the Scandinavian countries the organization of an Inter-Scandinavian association for labor legislation. The organization and functions of this association would be parallel to those of the International Association for Labor Legislation. In urging his motion before the Inter-Parliamentary Union Mr. Castberg said, among other things:

I look upon social inequality and unrest as the most fundamental cause of the disgrace that Christianity and civilization have not yet been able to make impossible war between the nations. The prevailing competitive economic system which rests upon present social conditions has created among the nations an anarchy of distrust, envy, and hatred, bellum omnium contra omnes. Social ideals are international. Their triumph is a step in the direction of permanent peace among the peoples. If the Scandinavian people point the way they will be performing an undying service for the cause of peace.

As a result of the discussions in the Inter-Parliamentary Union in August, 1916, the following meeting of the union in Christiania, 1917, urged the respective Scandinavian Governments to bring about closer cooperation in the field of labor, and at the meeting of May 24, 1918, the matter was referred more directly to the meeting

¹ Sociale Meddelelser, Utgitt av Departementet for Sociale Saker. Christiania, 1919. No. 5.

of the Scandinavian Ministers of State, which was taking place in Copenhagen.

In April, 1919, an invitation was issued by the Danish Government to the Governments of Norway, Sweden, Finland, and Iceland, to meet in a conference on the 25th of that month, to discuss the matters in question. This meeting passed a resolution calling for immediate action by the various Governments, to bring about the cooperation desired in labor matters, but suggested at the same time that this cooperation be made broader and more inclusive, so as to include cooperation in all fields of social legislation. This cooperation was to include exchange of opinion in all matters of social legislation, determination of uniform principles for the development of such legislation, and the preparation of ways and means for far-reaching reciprocity in the field in question. The Copenhagen conference resolved that for the carrying out of this cooperative work a commission should be appointed, assisted, in the handling of special problems, by experts. The special commission was directed to investigate at the earliest date possible how far the Scandinavian countries shall in the future act together in matters affecting labor, and to have especially in mind the need for a united front at the International Labor Conference at Washington.

The Copenhagen conference proceeded to draft a set of by-laws for the permanent commission. The draft provides that each of the Governments represented shall appoint not exceeding seven delegates, among whom shall be representatives of capital and labor. The commission is to meet at least once every year. The officials of the Governments represented, who have to deal with labor and social problems in their respective countries, are authorized to communicate directly with each other. Uniformity in the statistical output and the reports of the Governments is sought, and arrangements have been made for the publication of an inter-Scandinavian bulletin as a means of communication for those interested. At the Washington conference the special commission is directed to present the principles agreed upon by the respective Scandinavian countries.

The principles which the commission is directed to present include the 8-hour day; restriction of night work and Sunday work to industries in which they are absolutely necessary for technical reasons or in the interest of the public welfare; prohibition of the employment of children under 14 years of age; restriction in the employment of juvenile workers under 18 years of age to occupations which do not endanger physical development and do not curtail school training; prevention of unemployment by a system of relief works, unemployment insurance, and by establishing a close-knit unemployment service which shall be a monopoly.

The problems of accident compensation were also discussed at the conference, which declared that the workers of the Scandinavian countries should have equality of treatment with respect to accident compensation. The conference expressed itself as favoring the extension of the obligation to insure and demanded an investigation as to how far disability caused by industrial diseases should be compensated.

The negotiations among the Scandinavian countries are still in a formative state, but indicate at the same time the fixed desire of these States to be considered as acting as units in all labor matters and on questions of broad social policy. As the Scandinavian countries possess powerful labor movements it may be expected that this official drawing together of the countries will have considerable influence upon international labor legislation.

LABOR TURNOVER.

Employment Policy and Labor Stability in a Pacific Coast Department Store.

By PAUL F. BRISSENDEN.

Part I. Statistical Analysis of Employment Records.

UP TO the present time students of the labor stability problem have centered their attention almost exclusively upon factory labor. Such statistics of labor turnover as are available, therefore, throw light on the mobility of labor in manufacturing rather than mercantile establishments. "Outdoor" industries (construction work, farm labor, lumbering and mining, marine and dock labor, etc.), transportation and public utilities and wholesale and retail trade have been given very little study. The Bureau of Labor Statistics has published two detailed reports on individual manufacturing establishments¹ and the great majority of the concerns included in its several summary reports on the stability of labor in various localities² were manufacturing concerns. In these summary articles there were included, however, two or three public utility and mercantile establishments and a copper mine. The Bureau has published two detailed reports dealing with labor mobility in industries of the "outdoor" group just referred to: One on "The Labor Turnover of Seamen on the Great Lakes"³ and the other on "Labor Turnover Among Employees of a California Copper Mining and Smelting Company."⁴ The report presented in the present article deals with a large Pacific Coast department store which has had a comprehensive employment department in operation for a number of years. The article presents figures showing the extent and distribution of the labor shift and describes the labor and employment policies of the store management, and the various welfare and service activities carried on among its employees.

¹ Labor turnover and employment policies of a large motor vehicle manufacturing establishment, MONTHLY LABOR REVIEW, October, 1918; Labor policies and labor turnover in the California oil refining industry (reporting two oil refineries), MONTHLY LABOR REVIEW, April, 1919.

² Published in the MONTHLY LABOR REVIEW, as follows: Cleveland and Detroit, January, 1919; San Francisco Bay region, February, 1919; Cincinnati, March, 1919; Milwaukee, April, 1919; Chicago, September, 1919.

³ MONTHLY LABOR REVIEW, June, 1918.

⁴ MONTHLY LABOR REVIEW, May, 1919.

General Extent of Instability.

The detailed statistical analysis presented in the following pages covers the 12-month period ending November 1, 1918. For that period the extent of labor shift is shown classified according to sex, season of the year, department group (which to a certain extent reveals the occupation), and character of separation and reason assigned for it. There is also shown the proportion of the accessions in the different departments, etc., which are rehiring. Added to this detailed analysis of the labor turnover from November, 1917, to November, 1918, is a record of the accessions (persons hired and rehired) and classified separations by months from November 1, 1918, to June 1, 1919. Although detailed figures were not available for any period prior to November 1, 1917,¹ it was possible to get summary figures for the two years preceding the year reported in detail. The figures for the three years ending November 1, 1918, together with those for the 7 months following that date—thus bringing the whole record down to June 1, 1919—are given in Table 1:

¹ Except, in one or two cases, that detailed figures have been included for September and October, 1917.

TABLE 1.—LABOR TURNOVER, BY YEARS, FROM NOV. 1, 1915, TO JUNE 1, 1919.

Period or year ending—	Hired.			Character of separations.									Average daily attendance.	"Per cent of turnover"	Labor flux.					
				Discharged.			Laid off.			Quit.								Total.		
	Males.	Fe-males.	Total.	Males.	Fe-males.	Total.	Males.	Fe-males.	Total.	Males.	Fe-males.	Total.			Males.	Fe-males.	Total.	Males.	Fe-males.	Total.
	<i>Number.</i>																			
Nov. 1, 1916.....	557	637	1,194	26	12	38	273	285	558	204	170	374	503	467	970	807	120	1,060	1,104	2,164
Nov. 1, 1917.....	618	902	1,520	31	28	59	260	354	614	365	494	859	656	878	1,534	851	180	1,274	1,780	3,054
Nov. 1, 1918.....			1,674			62			431			1,075	429	1,139	1,568	899	174			3,242
Nov. 1, 1918, to June 1, 1919 ¹			465			20			124			240			384	913	72			849
	<i>Per cent distribution.</i>																			
Nov. 1, 1916.....				5	3	4	54	61	58	41	36	39	100	100	100					
Nov. 1, 1917.....				5	3	4	40	40	40	56	56	56	100	100	100					
Nov. 1, 1918.....						4			27			69			100					
Nov. 1, 1918, to June 1, 1919.....						5			32			63			100					
	<i>Annual rate per 1,000 full-year workers.</i>																			
Nov. 1, 1916.....			1,480			47			692			463			1,202	807				2,682
Nov. 1, 1917.....			1,786			69			722			1,009			1,800	851				3,586
Nov. 1, 1918.....			1,862			69			479			1,196	2,665	1,543	1,744	² 899				3,606
Nov. 1, 1918, to June 1, 1919 ³			875			38			233			451			721	913				1,596

¹ Figures for this period taken from Table 2.² There were on the pay roll Nov. 1, 1918, 977 employees, of whom 175 were male and 802 female. Assuming that the average daily attendance figure, 899, is made up of the same proportions of male and female employees, the average daily attendance of males is 161 and of females, 738. The total separation rate figures for the two sexes are based upon these figures. See Table 8.³ Rates for this period reduced to yearly basis by multiplying rate for 7 months by $\frac{12}{7}$.

The table shows the number, per cent distribution, and annual rate per 1,000 full-year workers of accessions and classified separations for each of the four periods indicated. For the first two years the figures for accessions and for classified separations are given for each sex. The extent of the labor mobility is best shown by the rate of entering and leaving, that is to say, the number of accessions and separations taking place for each thousand equivalent full-year workers employed. The latter number in the case of the establishment under consideration is represented by the average daily attendance. The rates given in these pages are, therefore, rates per 1,000 employees in average daily attendance, which means exactly the same thing as the rate per 1,000 equivalent full-year workers.¹ The average daily attendance figures are obtained from daily attendance records kept for each department in the store. The figures in the column headed "Labor flux" are obtained by adding the total separation to the total accession figures. This labor flux figure represents, so far as any one figure can represent it, the total stability situation in the establishment. It shows the whole amount of movement, whether it is movement in or movement out. The figures for the 7-month period ending with May 31, 1919, are not directly comparable in all parts of the table with the other figures. They are decidedly not comparable in the upper section of the table which shows the actual numbers entering and leaving. However, in the rate and per cent distribution sections of the table these figures can be fairly compared with the earlier ones. They are made strictly comparable in the rate section by multiplying the rate for the 7-months period by twelve-sevenths. This gives us the annual rate of accession and separation for the part of this year for which records are now available. The "per cent of turnover"² is given not because it is really necessary, but to show its relation to the separation rate. If the total rates of separation, shown at the bottom of the table, are divided by 10 the result is the same as the so-called "per cent of turnover." In the one case we have the separation rate per 1,000, in the other the separation rate per 100, full-year workers.

The advantage of using rates, instead of a "per cent of turnover" which is rigidly defined as one particular rate, regardless of the actual turnover situation at any given time and place, is that it is then possible to measure labor stability by the accession rate when it most accurately indicates stability, and by the separation rate when that most accurately measures it. With the "per cent of turnover"

¹ Except in so far as absentee or paid vacation time may be included in computing the number of full-year workers. If such time is included it results in a somewhat larger base figure and, therefore, in a somewhat smaller turnover showing, than is the case with the average daily attendance figures.

² Based on gross separations as stipulated by the Rochester Conference of Employment Managers in May, 1918. See the MONTHLY LABOR REVIEW, June, 1918, pp. 172, 173.

method—framed up on an a priori basis which takes it for granted that separations must always measure turnover—it is never possible to take any account of accessions as a factor in labor mobility. In this paper it is taken for granted that neither accessions nor separations, as such, measure "turnover," but that it is measured by the replacements. If the number of accessions is smaller than the number of separations, the former number must represent replacements. If the number of separations is smaller, the separations represent replacements and measure the turnover.¹

In Table 1 the replacements are set in bold-faced type. It is evident that during the three years and seven months ending with May 31, 1919, there were 4,853 accessions and 4,456 separations required for the maintenance of a working force which averaged 867 full-year employees during that period of 43 months. It also appears that the annual replacement or labor stability rate was 1,202 per 1,000 full-year workers in 1916, 1,786 per 1,000 in 1917, 1,744 in 1918, and 721 in the first half of 1919. If the flux rates be taken, it is evident that in 1916 there were 2,682 movements in or out for each 1,000 full-year employees; in 1917 there were 3,586; in 1918 there were 3,606; in the first half of 1919 there were 1,596. During the first part of the whole period there was a considerable increase in the labor flux, this increase being due, however, rather to the increase in the separation rate than to an increasing accession rate. The years 1917 and 1918 were not greatly different from each other. They were both very heavy turnover years, 1918 being slightly worse than 1917, although the rate of replacement was somewhat greater in the earlier year. The first half of 1919, however, shows a really remarkable increase in stability. The annual flux rate for 1918 was 3,606. The annual rate for the first half of 1919 was 1,596. The corresponding replacement figures were 1,744 and 721. This means a decrease in the mobility of labor in this establishment from 1918 to 1919 of 56 per cent. At the same time the accession rate has been cut down from 1,862 to 875, or 53 per cent, and the separation (also, in this case, the replacement) rate from 1,744 to 721, or 59 per cent.² This shows that the decrease in mobility which has been brought about has been the result of large reductions in both accession and separation rates. But it is due rather more to cuts in the separation rate than in the accession rate. It is further evident that the biggest factor in the reduction of the separation and replacement rates was the reduction accomplished in the quitting rate, which was 1, 196 per 1, 000 in 1918 and only 451 for the first half of 1919.

¹ This whole matter has been more fully gone into in a preceding article: Labor turnover among employees of a California copper mining and smelting company, MONTHLY LABOR REVIEW, May, 1919, section on "Method of computing the turnover."

² This means the same thing as a reduction in the "percentage of turnover" (Rochester fashion) of from 174 to 72 per cent.

But this is not the whole story. The lay-off rate was cut down from 479 in 1918 to 233 in 1919, or 51 per cent. The discharge rate was reduced from 69 in 1918 to 38 in 1919, or 45 per cent.

During the 43 months' period there has evidently been an important change brought about in the percentage distribution of the different kinds of separation. Discharges have remained about 4 or 5 per cent of all separations from first to last. Lay-offs, however, which in 1916 made up more than half (58 per cent) of the separations in 1919 constituted less than one third of them. And voluntary separations (quits), which in 1916 made up only 39 per cent of all separations, constituted in 1919 not less than 63 per cent of them. The data on sex given in this table are rather fragmentary. Rates are given by sex only up to 1918 and they indicate, as would be expected, that the turnover was much higher at that time among males than among females.

Seasonal Distribution of Turnover.

More detailed figures in regard to labor stability in the establishment here reported are available only for the latter part of the period covered by the figures of Table 1. For the 12-month period from November 1, 1917, to October 31, 1918, and on some points the 21-month period from September 1, 1917, to May 31, 1919,¹ there are presented in the following pages figures indicating (1) the seasonal trend of labor mobility from month to month, (2) the proportion of the total labor flux due to hiring and rehiring and to discharges, lay-offs, and quits, (3) the proportions discharged and quitting for specified causes, (4) the proportion of the turnover, as thus classified, attributable to each of 19 department groups in the establishment, (5) the distribution of the turnover between the sexes, and (6) the relative responsibility for labor flux of long and short service employees, respectively. The most of this material, as stated, refers to the year ending October 31, 1918.

The following two tables give the detailed record of the labor flow from month to month. Table 2 shows, by months, the number, per cent distribution, and rate per 1,000 full-year workers of the different kinds of separations, and the number and rate per 1,000 of those rehired and hired. It presents this analysis for the period from September, 1917, to May, 1919, inclusive.

¹ Tables 2 and 3, presenting turnover statistics by months, include the 2 months (September and October, 1917) just preceding the 12-month period specially studied in this report, and Table 2 adds monthly figures for the 7 months (November, 1918, to May, 1919, inclusive), following the selected 12-month period.

TABLE 2.—LABOR MOBILITY, BY MONTHS, FROM SEPTEMBER, 1917, TO MAY, 1919, SHOWING THE NUMBER, PER CENT DISTRIBUTION, AND RATE PER 1,000 FULL-YEAR WORKERS OF THE DIFFERENT KINDS OF SEPARATIONS AND THE NUMBER AND RATE PER 1,000 FULL-YEAR WORKERS HIRED.

Month.	Average daily attendance.	Total rehired.	Total accessions.	Separations.				Labor flux. ¹
				Discharged.	Laid off.	Quit.	Total.	
<i>Number.</i>								
September, 1917.....	892	37	190	18	4	104	126	316
October, 1917.....	907	23	111	9	7	47	63	174
November, 1917.....	928	.....	183	11	15	79	105	288
December, 1917.....	1,185	.....	324	8	305	110	423	747
January, 1918.....	837	.....	36	7	82	80	169	205
February, 1918.....	793	32	94	6	13	50	69	163
March, 1918.....	847	37	134	5	.....	81	86	220
April, 1918.....	856	15	92	7	3	77	87	179
May, 1918.....	868	16	91	4	1	85	90	181
June, 1918.....	884	38	170	3	.....	91	94	264
July, 1918.....	875	14	120	6	2	85	93	213
August, 1918.....	874	25	163	.....	3	160	163	326
September, 1918.....	929	20	172	3	5	109	117	289
October, 1918.....	914	26	95	2	2	68	72	167
November, 1918.....	970	40	168	8	8	38	54	222
December, 1918.....	1,175	17	76	2	28	27	57	133
January, 1919.....	907	11	15	.....	35	35	70	85
February, 1919.....	747	3	7	1	50	24	75	82
March, 1919.....	844	31	58	4	1	39	44	102
April, 1919.....	881	40	72	4	.....	38	42	114
May, 1919.....	870	31	69	1	2	39	42	111
<i>Per cent distribution of separations.</i>								
September, 1917.....	.....	.....	.....	14	3	83	100	.....
October, 1917.....	.....	.....	.....	14	11	75	100	.....
November, 1917.....	.....	.....	.....	10	14	75	100	.....
December, 1917.....	.....	.....	.....	2	72	26	100	.....
January, 1918.....	.....	.....	.....	4	49	47	100	.....
February, 1918.....	.....	.....	.....	9	19	72	100	.....
March, 1918.....	.....	.....	.....	6	.....	94	100	.....
April, 1918.....	.....	.....	.....	8	3	89	100	.....
May, 1918.....	.....	.....	.....	4	1	94	100	.....
June, 1918.....	.....	.....	.....	3	.....	96	100	.....
July, 1918.....	.....	.....	.....	6	2	91	100	.....
August, 1918.....	.....	.....	.....	.....	2	98	100	.....
September, 1918.....	.....	.....	.....	3	4	93	100	.....
October, 1918.....	.....	.....	.....	3	3	94	100	.....
November, 1918.....	.....	.....	.....	15	15	70	100	.....
December, 1918.....	.....	.....	.....	4	49	47	100	.....
January, 1919.....	.....	.....	.....	.....	50	50	100	.....
February, 1919.....	.....	.....	.....	1	67	32	100	.....
March, 1919.....	.....	.....	.....	10	2	89	100	.....
April, 1919.....	.....	.....	.....	10	.....	90	100	.....
May, 1919.....	.....	.....	.....	2	5	93	100	.....
<i>Annual rate per 1,000 full-year workers.²</i>								
September, 1917.....	.....	498	2,556	242	54	1,399	1,695	4,251
October, 1917.....	.....	304	1,469	119	93	622	834	2,301
November, 1917.....	.....	.....	2,366	142	194	1,022	1,358	2,724
December, 1917.....	.....	.....	3,281	81	3,089	1,114	4,284	7,565
January, 1918.....	.....	.....	516	100	1,176	1,147	2,422	2,939
February, 1918.....	.....	484	1,422	91	197	757	1,043	2,466
March, 1918.....	.....	524	1,899	71	.....	1,148	1,218	3,117
April, 1918.....	.....	210	1,290	98	42	1,079	1,220	2,510
May, 1918.....	.....	221	1,258	55	14	1,175	1,244	2,502
June, 1918.....	.....	516	2,308	41	.....	1,235	1,276	3,584
July, 1918.....	.....	192	1,646	82	27	1,166	1,275	2,921
August, 1918.....	.....	343	2,238	.....	41	2,197	2,238	4,476
September, 1918.....	.....	258	2,222	39	65	1,408	1,511	3,733
October, 1918.....	.....	341	1,247	26	26	893	945	2,192
November, 1918.....	.....	495	2,078	99	99	470	668	2,747
December, 1918.....	.....	174	776	20	286	276	582	1,358
January, 1919.....	.....	146	198	.....	463	463	926	1,125
February, 1919.....	.....	48	113	16	803	384	1,203	1,316
March, 1919.....	.....	441	825	57	14	555	626	1,450
April, 1919.....	.....	545	981	54	.....	518	572	1,553
May, 1919.....	.....	428	952	14	28	538	579	1,531

¹ Sum of accessions and separations.

² The actual monthly rates on which these annual rates are based represent the ratio of total accessions, separations or flux, as the case may be, for each month to the average daily attendance for the same month. These monthly rates were put on an annual basis, as shown in this table, by multiplying by 12.

The figures in this table show a distinctly favorable change in the direction of greater stability during the period of nearly two years ending with the middle of 1919. The most convenient and reliable index of the total movement of labor involved in maintaining the requisite labor force is found in the flux rate at the lower right-hand corner of the table. In September, 1917, this rate was 4,251 per 1,000 full-year workers; in May, 1919, it was 1,531 per 1,000. There were very wide changes from month to month, these being particularly noticeable toward the end of the calendar year, at the holiday season, but the trend has been on the whole downward. Comparing corresponding months, it will be seen that in May, 1918, the labor flux was 2,502, nearly 70 per cent higher than in May of this year. All of the months of 1919 reported are more stable than the corresponding months of 1918. It should be noted, however, that November of 1918 was slightly worse than the preceding November.

The flux rate is made up of the separation and accession (hiring) rates. An inspection of these latter two rates in Table 2 indicates that both have been reduced in the past two years, but that the accession rate has been reduced more than the separation rate. The accession rate dropped from 2,556 to 952, the separation rate from 1,695 to 579. It would appear, then, that the turnover has been reduced by eliminating unnecessary separations and unnecessary hirings, but most of all by cutting down on unnecessary hirings. Although the total hiring rate was cut down very considerably, it will be observed that the rehiring rate decreased very slightly or not at all. Evidently the employee who had worked for the company before was considered as more likely to stick than the employee hired for the first time. The percentage distribution of the separations show all through the period a fairly constant uniformity of distribution of the different types of separation. About 65 per cent, on the average, are quits, 30 per cent are lay-offs, and 5 per cent discharges. The proportion of lay-offs is higher than in most manufacturing establishments and is made so by the abnormally large number of employees laid off during and after the holiday season, at which time the percentage of those quitting is seen to be lower than usual. High hiring rates are in evidence in November and December, with high separation rates closely following. It is evident that there was considerable improvement in the 1918 holiday record over that of 1917. The separation-rate figures in Table 2 show that for the greater part of the year the separation rate is practically determined by the quitting rate. The exceptional time is, of course, the holiday season, when the separation rate is determined quite as much by the lay-off as by the quitting rate.

TABLE 3.—LABOR MOBILITY, BY MONTHS, FROM SEPTEMBER, 1917, TO OCTOBER, 1918, CLASSIFIED ACCORDING TO CHARACTER OF ACCESSIONS AND NATURE AND CAUSE OF SEPARATIONS.

Month and year.	Hired.									Separated.																	Total separations.	Average daily attendance.	Separation rate, per 1,000 (monthly basis).	Separation rate, per 1,000 (yearly basis).											
	New.				Rehired.					Discharged.							Laid-off.			Quit.																					
	Experienced.	Learners.	Laborers.	Total.	Experienced.	Learners.	Laborers.	Total.	Total hired.	Lazy.	Incompetent.	Unreliable.	Careless.	Trouble breeder.	Insubordinate.	Misconduct.	Dishonesty.	Total.	To decrease force.	Temporarily employed.	Total.	Wages.	Heavy, wet, dusty.	Ill health.	School.	Needed at home.					Other positions.	Family moving.	Dissatisfied.	Vacation; needed rest.	War.	Marriage; pregnancy.	All other reasons.	Total.			
1917.																																									
Sept.....	96	28	29	153	35	...	2	37	190	...	2	...	1	...	14	1	...	18	2	2	4	7	2	4	9	23	...	38	16	3	2	1	4	2	...	104	126	63	892	141	1,695
Oct.....	74	9	5	88	23	23	111	...	2	1	...	4	2	...	9	3	4	4	7	1	1	...	17	12	47	63	907	907	69	834	
Nov.....	183	4	2	1	...	11	15	...	15	7	15	7	1	2	12	79	105	928	113	1,358			
Dec.....	...	...	...	...	...	...	...	...	324	...	3	4	2	1	...	8	305	...	305	...	5	2	10	7	10	40	...	10	9	1	1	15	110	423	1,185	357	4,284
1918.																																									
Jan.....	36	...	2	1	3	1	...	7	82	...	82	...	10	2	2	...	13	5	22	...	7	2	5	4	...	80	169	837	202	2,423			
Feb.....	40	18	4	62	29	1	2	32	94	...	...	...	...	...	...	6	13	...	13	12	2	2	...	1	...	...	...	6	2	...	...	...	50	69	793	87	1,044
Mar.....	57	12	28	97	34	...	3	37	134	1	...	...	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	83	247	102	1,218	
Apr.....	17	38	12	77	15	...	...	...	92	...	1	...	1	...	...	...	...	3	3	12	...	...	...	...	...	...	...	...	...	...	...	...	...	87	826	104	1,220
May.....	27	48	10	75	...	7	...	...	91	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	90	826	104	1,220
June.....	54	66	12	132	13	...	...	...	170	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	91	94	106	1,276
July.....	23	68	15	106	...	11	...	...	120	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	85	93	106	1,275
Aug.....	20	107	11	138	...	24	...	...	163	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	169	163	187	2,238
Sept.....	72	60	20	152	18	...	1	20	172	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	109	117	99	1,511
Oct.....	42	12	15	69	18	3	1	26	95	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	72	914	79	945
Total 1.	352	429	127	908	139	71	13	223	1,674	2	21	8	8	5	1	13	4	62	422	9	431	228	22	117	127	75	135	154	48	45	39	24	261	1,075	1,568	899	1,744			

¹ Totals are for 12-month period ending with October, 1918, except the subdivided accession figures, which are totals of the 9-month period ending with October, 1918, there being no figures reported for November and December, 1917, and January, 1918.

² Going into business, 3; leaving city, 33; going into "essential work," 6; on account of housing conditions, 2; unknown, 17.

The last table which shows the labor flux by months is Table 3. It covers the 14-month period ending with October 31, 1918, and makes a still further subdivision of the accessions and separations to indicate (1) the number each month hired new and rehired, who were experienced, the number who were learners, and the number who were laborers; and (2) to show the number quitting and discharged for various specified reasons. This same classification of reasons for leaving appears also in Tables 4 and 5, and it will be discussed in connection with them.

TABLE 4.—NUMBER, PER CENT DISTRIBUTION, AND ANNUAL RATE PER 1,000 FULL-YEAR WORKERS OF EMPLOYEES HIRED AND REHIRED AND OF THOSE LEAVING FOR SPECIFIED REASONS IN YEAR ENDING OCTOBER 31, 1918.

	Number.	Per cent distribution.	Annual rate per 1,000 full-year workers. ¹
Accessions:²			
Hired new.....	903	80	1,010
Rehired.....	223	20	248
Total.....	1,131	100	1,258
Separations:			
Discharged—			
Incompetent.....	21	34	23
Misconduct.....	13	21	14
Careless.....	8	13	9
Unreliable.....	8	13	9
Trouble breeder.....	5	8	6
Dishonesty.....	4	6	4
Lazy.....	2	3	2
Insubordinate.....	1	2	1
Total discharged.....	62	100	69
Laid off.....			
	431		479
Left voluntarily—			
Wages.....	228	21	254
Family moving.....	154	14	171
Other position.....	135	13	150
School.....	127	12	141
Ill health.....	117	11	130
Needed at home.....	75	7	83
Dissatisfied.....	48	4	53
Vacation; needed rest.....	45	4	50
War.....	39	4	43
Marriage (women).....	24	2	27
Work too heavy or disagreeable.....	22	2	24
All other reasons ³	61	6	68
Total, left voluntarily.....	1,075	100	1,196
Total separations.....	1,568		1,744

¹ Based on standard working force of 899 full-year workers.

² For nine months ending Oct. 31, 1918.

³ See note 2, p. 96.

Nature and Proximate Causes of Separations.

Reference has already been made to the proportions of all separations which are to be classified as lay-offs, discharges, and quits, respectively. The figures of Table 1 show that from 1915 to 1919 the proportion of discharges remained fairly constant, at about 4 or 5 per cent. During the same period the proportion of quits increased from 39 to 63 per cent. The quitting rate and the discharge rate

both increased very considerably from 1915 to 1918 and it is to these particular increases that the increase of turnover from 1915 to 1918 is due. It is to be observed also that it is due rather more to the increase in the quitting than in the discharge rate. Between 1918 and 1919 both quitting and discharge rates have been very materially reduced, the former 62 per cent and the latter 45 per cent. As to lay-offs there has been a distinctly favorable showing, not only between 1918 and 1919, but all the way back through the four-year period. The proportion of lay-offs has been reduced from 58 to 32 per cent, running as low as 27 per cent in 1918, and the lay-off rate has dropped from 692 to 233 per 1,000. The large decrease in turnover accomplished between 1918 and 1919 has been achieved then, so far as separations are concerned, by cutting down quitting frequency 62 per cent, lay-off frequency 51 per cent, and discharge frequency 45 per cent. The increased stability is due most of all to the fact that fewer employees quit, but also it is very largely due to the fact that fewer have been laid off or discharged. Nor must it be forgotten that this is only one side of the shield. Labor stability may be increased not only by reducing the number of unnecessary separations of various kinds but also by cutting down the number of unnecessary hirings. An inspection of Table 1 shows that the annual accession rate went through roughly the same course during the four-year period as did the discharge rate, the quitting rate, and the total separation rate. From 1915 to 1918 it underwent a considerable increase. From 1918 to 1919 it underwent a much more considerable decrease. So that unnecessary hirings as well as unnecessary separations were responsible for the increased mobility between 1915 and 1918 and the elimination of needless hirings as well as the elimination of needless quits, lay-offs, and discharges was responsible for the increased stability achieved between 1918 and 1919. As noted in the discussion of Table 2, there has been practically no change in the proportions of quits, lay-offs, and discharges during the last two years.

Except in the case of lay-offs, the fact that the nature of the separation is known does not help much to a knowledge of the actual cause of the separation. A man is laid off, in the sense in which the word is here used, because there is, at the time, no more work for him in his customary occupation. A man may be discharged, and he may quit, for any one of a score of reasons. At the establishment here reported there was a consistent effort made to get at the real reason behind each voluntary resignation. At the same time a careful record was kept of the company's reason for discharging.¹

¹ See page 96.

The summary results of this record for the year ending October 31, 1918, are presented in Table 4.

The only classification of the accessions is into "hired new" and "rehired." During the nine months for which data were available it appears that 20 per cent of all of those hired had been in the company's service at some previous time. Among the reasons assigned for discharge the most frequent seem to have been incompetency, "misconduct," carelessness, and unreliability. Among those leaving voluntarily the most prevalent reasons given are dissatisfaction with wages, desire to take another position (which in some cases is desired because of the higher wage offered), family moving out of town, going to school, and ill health.

Using the rate column as a basis, it is evident that, during the year reported, 1,744 employees left per 1,000 employed. Of this number 479 per 1,000 left because laid off for lack of work, 254 per 1,000 left because of unsatisfactory wage conditions, 171 left because of family moving, 150 left to take a more satisfactory position, 141 left for school, 130 left on account of ill health, and 83 left because needed at home. These reasons account for 1,408 of the total of 1,744.

In Table 5 the classification of causes made in the preceding table is presented in more detailed form by department groups within the establishment. In Table 6 the departmental group classification is retained, but only the general nature of the separation is given.

TABLE 5.—LABOR MOBILITY, INCLUDING NATURE OF ACCESSIONS AND SEPARATIONS AND CAUSES OF SEPARATIONS, YEAR ENDING NOV. 1, 1918, CLASSIFIED BY OCCUPATION GROUPS.

Occupation group.	Average daily attendance.	Classified accessions—Feb. 1 to Nov. 1, 1918.								Total hired—12 months.	Separations.													Total separations.	Annual separation rate (per 1,000).													
		Hired new.				Rehired.					Discharged.			Laid off.		Left voluntarily.																						
		Experienced.	Learners.	Laborers.	Total.	Experienced.	Learners.	Laborers.	Total.		Total (9 months).	Lazy.	Incompetent.	Unreliable.	Careless.	Trouble breeder.	Insubordinate.	Misconduct.	Dishonesty.	Total.	To decrease force.	Employed temporarily.	Total.			Wages.	Work too heavy or disagreeable.	Ill health.	School.	Needed at home.	Other position.	Family moving.	Dissatisfied.	Vacation; needed rest.	War.	Marriage; pregnancy.	All other reasons.	Total.
1.	41	9	26	35	4	3	7	42	46	2	2	2	2	2	2	4	5	5	6	1	5	6	1	5	8	1	5	4	2	3	3	1	1	38	47	1,146		
2.	111	27	41	79	10	3	32	102	153	1	1	1	1	1	1	1	29	30	18	14	16	9	9	16	1	1	16	1	1	4	6	1	105	138	1,243			
3.	16	9	3	12	2	2	4	16	22	2	2	2	2	2	2	2	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	13	21	1,313			
4.	39	24	32	56	11	3	14	70	121	5	1	1	1	1	1	1	7	7	37	17	10	6	13	2	6	13	2	2	4	1	3	61	105	2,692				
5.	46	14	13	28	7	1	8	36	40	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	34	38	826				
6.	20	7	16	24	1	1	2	26	43	2	2	2	2	2	2	2	15	15	11	11	11	11	11	11	11	11	11	11	11	11	11	26	41	2,050				
7.	169	86	115	208	20	8	28	236	421	1	3	1	1	1	1	9	157	157	46	4	28	30	12	22	34	5	6	13	13	4	3	12	213	379	2,213			
8.	49	20	15	64	5	5	5	46	89	2	1	1	1	1	1	8	39	39	11	11	11	11	11	11	11	11	11	11	11	11	11	52	99	2,020				
9.	102	76	46	33	155	13	13	17	219	2	1	1	1	1	3	12	13	18	6	32	10	23	17	21	17	17	17	17	17	17	17	155	172	1,686				
10.	30	23	6	29	15	3	28	47	50	1	1	1	1	1	1	1	3	3	6	2	2	2	1	1	1	1	1	1	1	1	1	16	23	767				
11.	62	9	41	12	62	9	4	2	130	2	1	1	1	1	2	7	43	44	26	1	6	9	4	13	10	4	6	6	2	3	83	139	2,242					
12.	67	23	27	12	62	10	10	21	83	2	1	1	1	1	1	5	11	12	16	7	9	15	7	12	9	1	9	2	4	93	110	1,642						
13.	8	5	3	6	14	2	2	16	19	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	5	625				
14.	31	1	8	9	13	2	15	24	52	1	1	1	1	1	1	1	27	27	6	4	4	2	2	2	2	2	2	2	2	2	2	3	50	1,613				
15.	2	1	2	3	2	2	2	5	8	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	10	12	6,000			
16.	12	2	7	39	4	4	52	64	64	1	1	1	1	1	1	3	12	13	11	3	4	2	2	2	2	2	2	2	2	2	2	35	51	4,250				
17.	10	1	1	2	2	2	2	3	13	1	1	1	1	1	1	2	9	10	1	1	1	1	1	1	1	1	1	1	1	1	1	11	26	2,600				
18.	21	5	2	3	10	2	2	2	12	1	2	2	2	2	2	2	2	2	3	1	1	1	1	1	1	1	1	1	1	1	1	21	25	1,190				
19.	63	12	26	3	41	9	4	2	56	82	1	1	1	1	1	2	12	12	19	4	9	1	13	16	1	4	1	4	6	6	73	87	1,381					
Total...	899	352	429	127	908	139	71	13	223	1,181	1,674	2	21	8	8	5	1	13	4	62	422	9	431	228	22	117	127	75	135	154	48	45	39	24	161	1,075	1,568	1,744

1 Going into business, 3; leaving city, 33; going into "essential work," 6; account of housing conditions, 2; unknown, 17.

DESCRIPTION OF OCCUPATION GROUPS.

1. Sales people: Coats and suits; gowns and dresses; waists and petticoats.
2. Sales people: Women's and children's wear; millinery, laces, ribbons, etc.; patterns (Home and McCall), etc.
3. Shoe salesmen: Shoes; shoe repair shop.
4. Sales people: Men's and boys' furnishings and clothing.
5. Sales people: Dress goods; silks and velvets; dress linings; domestics; linens and wash goods; bedding.
6. Sales people: Hardware and household goods; crockery; silverware.
7. Miscellaneous sales people: Art needlework; notions; rugs and draperies; jewelry and cutlery; leather and fancy goods; trunks, bags, etc.; drugs and sundries; stationery, books, toys, and sporting goods; music; 5, 10, 15 cent section; bargain booth; bargain basement.
8. Candy and candy kitchen; bakery and candy kitchen; delicatessen.
9. Waiters and fountain attendants: Lunch counter; cafe; soda fountain; employees' cafeteria.
10. Alteration and millinery workroom employees.
11. Stock-room employees: Mail service and wrapping department assistants; service assistants.
12. Miscellaneous service personnel: Receiving room; welfare service employees; matrons; detectives; contingent; hairdressing and manicuring; children's barber shop; miscellaneous service personnel.
13. Craftsmen: Carpenters; electricians; engineers; painters.
14. Cashiers.
15. Messengers.
16. Porters.
17. Delivery department employees.
18. Telephone and elevator operators.
19. Office employees, clerical and administrative: Main office; cash office; auditing office; advertising office; window dressers; post office; purchasing office; commissary; miscellaneous.

TABLE 6.—LABOR MOBILITY BY OCCUPATION GROUP,¹ YEAR ENDING OCT. 31, 1918, SHOWING THE NUMBER, PER CENT DISTRIBUTION, AND RATE PER 1,000 FULL-YEAR WORKERS OF THE DIFFERENT TYPES OF SEPARATION AND THE NUMBER AND RATE PER 1,000 HIRED.

Occupation group.	Average daily attendance.	Number hired.	Separations.				Labor flux.
			Discharged.	Laid off.	Left voluntarily.	Total.	
<i>Number.</i>							
1.....	41	46	4	5	38	47	93
2.....	111	153	2	30	106	138	291
3.....	16	22	3	5	13	21	43
4.....	39	121	7	37	61	105	226
5.....	46	40	3	1	34	38	78
6.....	20	43	.....	15	26	41	84
7.....	169	421	9	157	213	379	800
8.....	49	89	8	39	52	99	188
9.....	102	219	4	13	155	172	391
10.....	30	50	1	6	16	23	73
11.....	62	130	7	44	88	139	269
12.....	67	88	5	12	93	110	198
13.....	8	19	.....	1	4	5	24
14.....	31	52	.....	27	23	50	102
15.....	2	8	.....	2	10	12	20
16.....	12	64	3	13	35	51	115
17.....	10	13	2	10	14	23	39
18.....	21	14	2	2	21	25	39
19.....	63	82	2	12	73	87	169
Total.....	899	1,674	62	431	1,075	1,568	3,242
<i>Per cent distribution of separations.</i>							
1.....			9	11	81	100	.....
2.....			1	22	77	100	.....
3.....			14	23	62	100	.....
4.....			7	35	58	100	.....
5.....			8	3	89	100	.....
6.....			.....	37	63	100	.....
7.....			2	42	56	100	.....
8.....			8	40	53	100	.....
9.....			2	8	90	100	.....
10.....			4	26	70	100	.....
11.....			5	32	63	100	.....
12.....			5	11	85	100	.....
13.....			.....	20	80	100	.....
14.....			.....	54	46	100	.....
15.....			.....	17	83	100	.....
16.....			6	25	69	100	.....
17.....			8	38	54	100	.....
18.....			8	8	84	100	.....
19.....			2	14	84	100	.....
Total.....			4	27	69	100	.....
<i>Annual rate per 1,000 full-year workers.</i>							
1.....	41	1,122	98	121	927	1,146	2,268
2.....	111	1,378	18	270	955	1,243	2,621
3.....	16	1,375	188	313	813	1,313	2,688
4.....	39	3,103	179	949	1,564	2,692	5,795
5.....	46	870	65	22	739	826	1,696
6.....	20	2,368	.....	750	1,300	2,050	4,418
7.....	169	2,491	74	929	1,260	2,243	4,734
8.....	49	1,816	163	796	1,061	2,020	3,836
9.....	102	2,147	39	127	1,520	1,686	3,833
10.....	30	1,667	33	200	533	767	2,434
11.....	62	2,097	113	710	1,419	2,242	4,339
12.....	67	1,313	75	179	1,388	1,642	2,955
13.....	8	2,375	.....	125	500	625	3,000
14.....	31	1,677	.....	871	742	1,613	3,290
15.....	2	4,000	.....	1,000	5,000	6,000	10,000
16.....	12	5,333	250	1,083	2,917	4,250	9,583
17.....	10	1,300	200	1,000	1,400	2,600	3,900
18.....	21	667	95	95	1,000	1,190	1,857
19.....	63	1,302	32	190	1,159	1,381	2,683
Total.....	899	1,862	69	479	1,196	1,744	3,606

¹For description of occupation groups, see p. 101.

Departmental and Occupational Responsibility for Turnover.

The employment records of this establishment are kept by store departments, of which there are about 90. The figures furnished by the company for the 90 departments have been rearranged and grouped under 19 departmental group heads, as shown in Tables 5 and 6. Other statistics by departmental groups are presented in Tables 7, 8, and 11. Table 5 shows by departmental groups the nature of the separations and accessions and the causes assigned for the separations. The highest separation rates are among messengers and porters; the lowest separation rate and the highest stability are found in groups 13, carpenters, electricians, etc.; 10, alteration and millinery workroom employees; and 5, sales people in dress goods, domestics, etc. As to the last-named groups, it appears that the oldest employees in length of service drift into these departments and are willing to remain year after year at about the same salary. Moreover, as to all three of these high stability groups, it is evident from an inspection of the classified reasons for quitting shown in Table 5, that very small proportions of those who left did so on account of wages, which item appears to account for a fairly large part of the turnover in the store as a whole.¹

Table 6 shows by occupation groups and for the year ending October 31, 1918, the number, per cent distribution, and rate per 1,000 full-time workers of the different types of separation and the number and rate per 1,000 hired. An inspection of the rate section shows that not only the separation but also the accession rate for messengers and porters is unusually high. The best single index for comparing the stability of the personnel of the different department groups is the single column of labor flux figures at the lower right-hand corner of the table. The average flux for all departments is 3,606 per 1,000 full-time persons employed. Nine department groups have flux rates higher than the average and 10 rates lower than the average. The relative stability of all the department groups may be seen from the following list of the departments arranged in order of increasing mobility:

Group number.	Labor flux rate per 1,000 full-year workers.
5. Sales people: Dress goods, domestics, silks, velvets, etc.....	1,696
18. Telephone and elevator operators.....	1,857
1. Sales people: Coats and suits, gowns and dresses.....	2,268
10. Alteration and millinery workroom employees.....	2,434
2. Sales people: Women's and children's wear, millinery, laces, etc.....	2,621
19. Office employees, clerical and administrative, etc.....	2,683
3. Shoe salesmen.....	2,688

¹ The figures of Table 4 show that of a total separation rate of 1,744, voluntary quitting on account of wages was responsible for 254 or 15 per cent.

Group number.	Labor flux rate per 1,000 full-year workers.
12. Miscellaneous service personnel: Receiving room, welfare, etc.....	2, 955
13. Carpenters, electricians, engineers, and painters.....	3, 000
14. Cashiers.....	3, 290
Average for entire store.....	3, 606
9. Waiters and fountain attendants, lunch counter, café, etc.....	3, 833
8. Employees in bakery and candy kitchen.....	3, 836
17. Delivery department employees.....	3, 900
11. Stock-room employees, mail service and wrapping department.....	4, 339
6. Sales people: Hardware and household goods, crockery, etc.....	4, 418
7. Miscellaneous sales people, toys, sporting goods, art needlework, notions, etc.....	4, 734
4. Sales people: Men's and boys' clothing and furnishings.....	5, 795
16. Porters.....	9, 583
15. Messengers.....	10, 000

There is evident here, a range of labor flux among departments of from 1,696 to 10,000 per 1,000 employees. In terms of the separation rate per 100 (the Rochester "percentage of turnover") it involves a range of from 63 to 600 per cent with an average of 174 per cent. There appears among the sales people, the employees characteristic of the department store, a very wide range in the flux rate, running from 1,696 to 5,795 per 1,000. It is highest of all among men's and boys' clothing salesmen. As would be expected the office and clerical employees prove to be relatively stable. On the other hand, porters, messengers, waiters, and other personal service employees are relatively unstable. It appears from the lay-off rates in Table 6 that the highly mobile occupation groups in most cases have unusually high lay-off rates.

Some of the comments made by the company upon the labor stability of the different departments may be summarized: Employees in Group 1 are relatively stable on account of good wages plus percentage on sales. The high turnover in sales group 4, men's and boys' clothing and furnishings, is due to men leaving for military service or to go into some "essential" occupation. In groups 8 and 9 the turnover is relatively high because full time is allowed only to the best workers and because a good many of the woman employees are married and they leave frequently because needed at home. High turnover in Group 7 is reported as largely due to the high labor flux among seasonal help used in toy and sporting goods departments and to the same conditions prevailing more generally in the bargain basement, where, also, more inexperienced help is used, including a large percentage of school people. The seasonal factor enters, also, in the mail service and wrapping department personnel in Group 11. Low stability among porters is attributed (1) to the

fact that it is "common labor," (2) to the high proportion leaving for military service or "essential" work, and (3) to the fact that women found this work too hard. In Group 6, hardware and household goods salesmen, where the turnover is higher than in most of the sales departments, the departure of men for military and "essential service" is cited as the main factor.

Additional figures for the 19 department groups appear in Tables 7, 8, and 11. Tables 7 and 8 show for each group the number and rate per thousand full-year employees in each group of active and separated male and female employees who had served specified periods of time. Table 11 summarizes Table 7 by dividing the male and female active and separated employees of each department group into two parts with respect to their length of service, viz, those who had served less than one year ("unstable" employees) and those who had served more than one year ("stable" employees). Table 13 is similar to Table 7, but instead of the total numbers and rates in each service group, it shows for five selected occupation groups and for each sex the average weekly numbers and rates assignable to each service period.¹ Table 16 deals with three selected department groups—groups selected to show three of the important occupational types in the store: sales people, waiters (and other personal service employees), and office and clerical employees. The figures are worked out by combination and summary of the figures in Tables 7 and 13. They compare for each of the three groups and for employees on the pay roll at the end of the year—the "active" employees as well as the separated employees, those leaving during the year—the rate distribution in each specified length of service period. Thus, 272 in each 1,000 full-year sales people who left during the year had, at the time of leaving, served one week or less, but there were none on the pay roll at the end of the year who had not been employed more than one week. A somewhat similar situation, if less serious, is found in the other two groups, both of which we have observed to be more unstable than the working force as a whole. But they differ from the relatively stable group of office employees hardly at all, except in the short-service groups—the one-year-or-less groups. They differ most of all in the under-one-week group. Consequently, it seems fair to conclude that an important reason why the office employees in this establishment are more stable than the waiters is that somehow they stick or are made to stick more numerously through the first week of service.

¹ Calculated as explained in article on "Labor turnover among employees of a California copper mining and smelting company," MONTHLY LABOR REVIEW, May, 1919, p. 77.

TABLE 7.—NUMBER OF FULL-YEAR EMPLOYEES IN EACH OCCUPATION GROUP OF ACTIVE AND SEPARATED EMPLOYEES WHO HAD SERVED SPECIFIED PERIODS OF TIME DURING YEAR ENDING OCT. 31, 1918.

[1408]

Occupation group.	Average number of full-year workers. ¹		Employees who had served continuously—																				Total.	
			One week or less.		Over 1 to 2 weeks.		Over 2 weeks to 1 month.		Over 1 to 3 months.		Over 3 to 6 months.		Over 6 months to 1 year.		Over 1 to 2 years.		Over 2 to 3 years.		Over 3 to 5 years.		Over 5 years.			
	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.
<i>On pay roll at end of year.</i>																								
1.....	1	40					1		12		4			6		5		7		3		5		43
2.....	3	108			2		3		33		11			17		14		6		3		14		109
3.....	6	10						1	2		2		1	3		2		1		1		1		7
4.....	18	21			2		1	4	3		5		2	2		3		2		4		1		19
5.....	12	34			2		1		9		1		1	8		3		2		3		2		13
6.....	3	17							10		3		1	2		2		1		3		6		4
7.....	22	147			2	2	7	3	39		21	6	27	3	21	4	9	3	10	4	7	25	143	
8.....	34	15							5	1	2	7	5	4	5		2		2		3		12	
9.....	2	100					7		12		2		8	3	4		4		4		1	3	3	
10.....	30	30							30		2		8	3	3		4		6			5	40	
11.....	13	49		1	1	1	2	2	15	2	8	3	10	5	1	1	1	5	4	1	5	4	14	
12.....	13	54					5	2	13	2	10	1	8	3	11	1	5	2	5	6	3	17	60	
13.....	8							1	3		2		2		1		2		2		1		10	
14.....		31							2		3		6		6		6		3			5		31
15.....	1	1							1														1	
16.....	5	7			1	1	1	3	9		7	4	3	9	1				3			5	1	23
17.....	2	8							1		1		1		1				1					1
18.....	2	19				1	1	1	5	1	2		5		4				1		2			2
19.....	16	47					1	5	11	3	3	1	6	6	6		2	3	12	7	9	21	54	
Total.....	161	738		1	2	11	5	36	13	212	19	115	29	145	34	106	8	52	26	71	39	53	175	802

Separated during the year.

1	1	40	1	3	4	10	8	1	7	4	2	1	2	1	3	6	41
2	3	108	1	6	16	26	1	32	18	18	18	9	6	2	1	2	135
3	6	10	3	2	1	5	3	1	1	1	3	1	1	1	1	3	4
4	18	21	15	2	10	3	16	10	17	8	7	4	4	4	3	1	74
5	12	34	1	1	1	2	4	8	1	4	4	4	3	1	1	5	19
6	3	17	1	4	2	9	1	9	3	1	4	2	2	1	1	3	7
7	22	147	9	37	6	39	13	81	12	86	3	39	8	23	3	11	322
8	34	15	7	6	5	3	7	8	6	24	5	4	3	8	2	2	40
9	2	100	3	18	14	2	26	2	52	1	23	2	18	1	6	1	160
10		30	1	1	2	3	9	9	3	3	3	1	1	1	1	1	23
11	13	49	8	4	4	10	9	18	10	23	8	11	7	10	6	2	57
12	13	54	1	8	1	4	2	9	2	26	9	14	5	11	2	10	82
13	8		1	1	1	1	2	2	2	2	9	14	5	11	2	10	87
14		31	3	3	8	16	2	9	5	5	5	1	1	1	1	1	50
15	1	1	2	1	1	1	1	2	2	1	1	1	1	1	1	1	6
16	5	7	5	2	5	3	5	1	5	9	5	6	6	1	4	1	35
17	2	8	3	1	4	4	4	4	3	4	4	4	4	1	1	1	25
18	2	19							1	3	1	3	1	8	4	1	10
19	16	47	6	5	4	3	2	6	12	13	1	4	2	9	4	3	54
Total	161	738	66	103	36	113	62	226	86	319	48	145	53	125	37	47	1,139

¹ Based on daily attendance figures. Sex distribution worked out as explained in note 2 to Table 1.

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TABLE 8.—ANNUAL RATE PER 1,000 FULL-TIME EMPLOYEES IN EACH OCCUPATION GROUP OF ACTIVE AND SEPARATED EMPLOYEES WHO HAD SERVED SPECIFIED PERIODS OF TIME DURING YEAR ENDING OCT. 31, 1918.

Occupation group.	Average number of full-year workers. ¹		Employees who had served continuously—																							
			One week or less.		Over 1 to 2 weeks.		Over 2 weeks to 1 month.		Over 1 to 3 months.		Over 3 to 6 months.		Over 6 months to 1 year.		Over 1 to 2 years.		Over 2 to 3 years.		Over 3 to 5 years.		Over 5 years.		Total.			
	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.	Male.	Fe-male.		
<i>On pay roll at end of year.</i>																										
1.....	1	40						25		300		100		150		125		175		75		125			1,075	
2.....	3	108				19		28		306		102		157		130		56	1,000	130	333	83	1,333		1,011	
3.....	6	10								167	200	333	100	167	300	167	200		167	100	167				1,167	900
4.....	18	21					95		48	222	143	278	238	111	95	167	95	56	95	222	43				1,056	857
5.....	12	34						29		265		29	83	235	250	88		59	250	59	500	88	1,083		912	
6.....	3	17								588		178	333	118		118		59		59		1,000	118	1,333	1,179	
7.....	22	147							99	48	136	265	143	273	184	136	143	61	136	68		182	48	1,144	973	
8.....	34	15				14		48		333		29	133	206	333	118	333		133		200			353	1,465	
9.....	2	100						70		300		320		280	1,000	150		40		40	500	30	1,500	100	1,230	
10.....		30								400		67		267		100		133		200		167			1,333	
11.....	13	49			20	77	20		41	154	306	154	163	231	204	102	77	20	77	102	308	20	1,077		1,000	
12.....	13	54							93	154	241	154	185	77	148	231	204	77	93	154	93	462	56	1,303	1,113	
13.....	8									125		375		250		125		250		125					1,250	
14.....	1	31								65				97		194		194		97				161		1,000
15.....	1	1								1,000																1,000
16.....	5	7								1,283				1,000	800	429	1,800	143		600		1,000	143	4,600	3,571	
17.....	2	8			200	143	200	429		125				125						500				500		375
18.....	2	19					53	500	53	263		500	105		263		211		53		105			1,000	1,105	
19.....	16	47						63	106	234		188	64	63	128	375	128	43	188	255	438	192	1,312		1,149	
Total.....	161	738		1	12	15	37	49	81	287		118	156	180	196	211	144	50	71	155	96	242	72	1,087	1,086	

[1410]

Separated during the year.

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1	1	40	1,000	75	100	250	200	1,000	175	4,000	50	25	50	25	75	6,000	1,025
2	3	108	333	56	148	241	333	296	166	166	83	56	19	333	19	1,250
3	6	10	500	200	.....	.....	166	.....	.....	833	.....	500	100	166	100	500	.....	.....	.....	.....	.....	166	.....	400
4	18	21	833	95	556	143	888	476	944	331	389	190	222	190	167	.....	.....	56	.....	.....	.....	56	.....	1,476
5	12	34	.....	.....	.....	29	.....	59	333	235	83	118	333	.....	250	.....	83	.....	83	29	417	88	1,575	559
6	3	17	333	235	.....	118	.....	529	333	529	.....	176	333	235	667	.....	333	.....	.....	.....	.....	333	176	2,000
7	22	147	409	252	273	265	591	551	545	585	136	265	364	156	136	75	.....	14	91	20	45	7	2,591	2,190
8	34	15	206	400	147	200	206	533	176	1,600	147	267	88	533	59	133	59	133	29	133	59	.....	1,176	3,933
9	2	100	1,500	180	.....	140	1,000	260	1,000	520	500	230	1,000	180	500	60	500	30	.....	.....	.....	.....	6,000	1,600
10	.....	30	.....	33	.....	67	.....	100	.....	300	.....	100	.....	100	.....	33	.....	.....	.....	.....	.....	.....	.....	767
11	13	49	615	82	308	204	692	367	769	469	615	224	538	204	462	41	231	41	77	20	77	20	4,385	1,673
12	13	54	77	149	77	74	154	167	154	481	692	259	385	204	154	185	.....	37	.....	37	77	19	1,769	1,611
13	.....	8	125	.....	.....	.....	125	.....	250	.....	.....	.....	125	.....	.....	.....	.....	.....	.....	.....	.....	.....	625	.....
14	.....	31	.....	97	.....	258	.....	516	.....	290	.....	161	.....	161	.....	32	.....	.....	.....	.....	.....	32	65	1,613
15	1	1	2,000	1,000	1,000	1,000	1,000	1,000	2,000	.....	2,000	2,000	.....	1,000	.....	.....	.....	.....	.....	1,000	.....	.....	6,000	6,000
16	5	7	1,000	285	1,000	429	1,000	143	1,000	1,286	1,000	.....	1,200	.....	.....	143	800	.....	.....	.....	.....	.....	7,000	2,286
17	2	8	1,333	125	.....	.....	2,000	.....	2,000	.....	1,333	.....	2,000	.....	2,000	.....	500	.....	500	.....	500	.....	12,500	125
18	2	19	.....	.....	.....	.....	.....	.....	500	158	500	158	500	421	2,000	.....	500	53	500	.....	500	.....	5,000	947
19	16	47	375	106	250	64	125	128	750	277	63	85	125	191	250	64	63	43	63	106	.....	85	2,065	1,149
Total	161	738	410	140	224	153	385	306	534	432	298	196	329	169	230	64	90	29	56	26	106	27	2,665	1,543

¹ Based on daily attendance figures. Sex distribution worked out as explained in note 2 to Table 1.

[1411]

Length of Service and Labor Turnover.

The length-of-service figures in this article are computed and developed along the same lines and by the same methods used in earlier articles.¹ In Table 7, already referred to, there is given by departments a length-of-service classification of the 175 males and 802 females who were on the pay roll October 31, 1918, and alongside of this a similar classification of the 429 males and 1,139 females who left during the year ending with that date. The table shows for each sex in each department group and in the working force as a whole the number in each group of active and separated male and female employees who had served continuously specified periods of time. Table 8 shows the rates per 1,000 full-time workers for these employees. It appears that the highest separation rate for 1-week-or-less "quitters"² which is the group most of all responsible for turnover, is to be charged to the messengers' group, which has been seen to be the most unstable of the 19 department groups. Turning to the active service rates, it is evident at once that the highest long-term service rates are to be credited, generally, to those departments which have been seen to have the lowest total labor flux rates.

The length-of-service situation, for each sex, in the store as a whole, is shown in Table 9 and for the whole establishment, regardless of sex, in Table 10. The latter table shows the number, per cent distribution, and rate per 1,000 full-year workers, of active and separated employees, who had served continuously for specified periods of time. The figures show, as in Table 7, the length-of-service distribution of employees on the pay roll at the end of the year. They may be assumed to indicate fairly closely the normal length-of-service distribution of the active working force throughout the 12-month period covered in this report. It is quite true that the length-of-service distribution of the active force might have proved materially different had a cross-section been taken at some other date in the year studied. Allowance should be made for a possible margin of error on this score, but it is not believed that this difference is likely to be large enough to be of serious consequence.

¹ See especially: Labor policies and labor turnover in the California oil refining industry, MONTHLY LABOR REVIEW, April, 1919, and Labor turnover among employees of a California copper mining and smelting company, MONTHLY LABOR REVIEW, May, 1919.

² The word "quitters" is used in these pages in the sense of "terminating," and refers to all employees leaving service for whatever reason.

TABLE 9.—NUMBER, PER CENT DISTRIBUTION, AND RATE PER 1,000 FULL-YEAR WORKERS OF EACH SET OF ACTIVE AND SEPARATED MALE AND FEMALE EMPLOYEES WHO HAD SERVED SPECIFIED PERIODS OF TIME.

Length of service.	Number.				Per cent distribution.				Annual rate per 1,000 full-year workers. ¹			
	On pay roll at end of year.		Separated during the year.		On pay roll at end of year.		Separated during the year.		On pay roll at end of year.		Separated during the year.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
One week or less.....		1	66	103	.....	(²)	15	9	.....	1	410	140
Over 1 to 2 weeks.....	2	11	36	113	1	1	8	10	12	15	224	153
Over 2 weeks to 1 month.....	5	36	62	226	3	5	14	20	37	49	385	306
Over 1 to 3 months.....	13	212	86	319	7	26	20	28	81	287	534	432
Over 3 to 6 months.....	19	115	48	145	11	14	11	13	118	156	298	196
Over 6 months to 1 year.....	29	145	53	125	17	18	12	11	180	196	329	169
One year and under....	68	520	351	1,031	39	65	82	91	428	705	2,180	1,397
Over 1 to 2 years.....	34	106	37	47	19	13	9	4	211	144	230	64
Over 2 to 3 years.....	8	52	15	22	5	6	3	2	50	71	90	29
Over 3 to 5 years.....	26	71	9	19	15	9	2	2	155	96	56	26
Over 5 years.....	39	53	17	20	22	7	4	2	242	72	106	27
Total.....	175	802	429	1,139	100	100.0	100	100	1,087	1,086	2,665	1,543

¹ Based on average daily attendance of 161 males and 738 females. Figures obtained as explained in footnote 2 to Table 1.

² Less than two-tenths of 1 per cent.

TABLE 10.—NUMBER, PER CENT DISTRIBUTION, AND RATE PER 1,000 FULL-YEAR WORKERS, OF ACTIVE AND SEPARATED EMPLOYEES, WHO HAD SERVED CONTINUOUSLY FOR SPECIFIED PERIODS OF TIME.

Length of service period.	Number.		Per cent distribution.		Annual rate per 1,000 full-year workers. ¹	
	On pay roll.	Separated.	On pay roll.	Separated.	On pay roll.	Separated.
One week or less.....	1	169	(²)	11	1	188
Over 1 to 2 weeks.....	13	149	1	10	14	166
Over 2 weeks to 1 month.....	41	288	4	18	45	320
Over 1 to 3 months.....	225	405	23	26	250	451
Over 3 to 6 months.....	134	193	14	12	149	216
Over 6 months to 1 year.....	174	178	18	11	194	198
Over 1 to 2 years.....	140	84	14	5	156	93
Over 2 to 3 years.....	60	37	6	2	67	41
Over 3 to 5 years.....	97	28	10	2	107	31
Over 5 years.....	92	37	9	2	102	41
Total.....	977	1,568	100	100	1,087	1,744

¹ Based on standard working force of 899 full-year workers, derived from daily attendance records.

² Less than two-tenths of 1 per cent.

The figures of Table 10 show very clearly the enormous difference in length-of-service distribution between active and separated employees. An inspection of the rate and percentage columns makes it very evident that it is the short-time employee who contributes the overwhelmingly greater proportion of the turnover. Thus, of those leaving, 188 per 1,000 full-year workers, or 11 per cent of all leaving, had served 1 week or less, whereas among the active employees the separation service rate for employees with

service records of 1 week or less was only 1, and this shortest time group made up only one-tenth of 1 per cent of those on the active list.

The data presented in the preceding pages make it quite evident that in all divisions both active and separated groups contain rather large proportions of persons with under-1-year service records. Naturally, this proportion of what may be termed "unstable" employees is a great deal higher among "separated" employees than among those found on the pay roll at any given time—the "active" employees. This difference between the active and separated groups is an important measure of the stability of the working force. If the proportion of under-1-year ("unstable") employees in any occupation group is only slightly greater among separated than among active employees, it follows that the turnover in that group is relatively light. In Table 11, already referred to, a comparison is made between active and separated, stable and unstable, sections of each department group and of the working force as a whole.¹ The table shows the number and per cent distribution of active and separated male and female employees who had served one year or less and more than one year, respectively. A high proportion of under one year employees, either among the active or separated employees, but especially among the latter, indicates, of course, relatively high mobility for the group; and, conversely, a high proportion of over one year employees or ex-employees indicates relatively low mobility. Table 12 summarizes the figures of Table 11, leaving out the department classification but retaining the classification by sex.

¹ See the discussion of this method of analysis in the article on Labor turnover in Cincinnati, MONTHLY LABOR REVIEW, March, 1919, p. 50.

TABLE 11.—NUMBER AND PER CENT DISTRIBUTION OF ACTIVE AND SEPARATED MALE AND FEMALE EMPLOYEES WHO HAD SERVED ONE YEAR OR LESS AND MORE THAN ONE YEAR, RESPECTIVELY, DURING YEAR ENDING OCT. 31, 1918.¹

Occupation group.	Number and per cent of active and separated employees in the stable and unstable groups.															
	Number.								Per cent distribution.							
	On pay roll at end of year.				Separated during year.				On pay roll at end of year.				Separated during year.			
	Over one year group.		Under one year group.		Over one year group.		Under one year group.		Over one year group.		Under one year group.		Over one year group.		Under one year group.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1.....	20	23	7	6	34	47	53	17	100	83						
2.....	4	43	66	1	19	2	116	100	39	61	33	14	67	86		
3.....	3	3	4	6	4	13	4	43	33	57	67	24	76	100		
4.....	8	5	11	13	5	69	31	42	28	58	72	7	93	100		
5.....	12	10	1	21	10	4	9	15	92	32	8	68	68	71	79	
6.....	3	5	1	15	4	3	3	31	75	25	25	75	57	9	43	
7.....	14	47	11	96	6	17	51	305	56	33	44	67	11	5	89	
8.....	4	10	8	12	7	6	33	53	33	45	67	55	18	10	82	
9.....	3	26	97	2	9	10	151	100	21	79	17	6	83	94		
10.....	18	22	2	2	21	45	55	9	91							
11.....	6	12	8	37	11	6	46	76	43	24	57	76	19	7	81	
12.....	12	24	5	36	3	15	20	72	71	40	29	60	13	17	87	
13.....	4	6	5	5	40	60	100	8	92							
14.....	20	11	4	46	65	35	65	8	92							
15.....	2	1	1	5	6	100	17	83	100							
16.....	17	2	6	23	4	1	31	15	74	8	26	92	11	6	89	
17.....	1	1	2	7	18	1	100	33	67	28	72	100				
18.....	7	2	14	7	1	3	14	33	100	67	70	7	30	93		
19.....	16	29	5	25	6	14	27	40	76	54	24	46	18	26	82	
Total.....	107	282	68	520	78	108	351	1,031	61	35	39	65	18	9	82	91

¹ Employees who had served more than one year and one year or less are designated, respectively, "stable" and "unstable."

TABLE 12.—NUMBER, PER CENT DISTRIBUTION AND RATE PER 1,000 FULL-YEAR WORKERS OF EACH SEX WHO HAD SERVED ONE YEAR OR LESS AND MORE THAN ONE YEAR, RESPECTIVELY.

Sex.	Employees who had served one year or less and more than one year, respectively.			
	On pay roll at end of year.		Separated during the year.	
	Stable.	"Unstable."	Stable.	"Unstable."
	Number.			
Male.....	107	68	78	351
Female.....	282	520	108	1,031
Total.....	389	588	186	1,382
Per cent distribution.				
Male.....	61	39	18	82
Female.....	35	65	9	91
Total.....	40	60	12	88
Annual rate per 1,000 full-year workers. ¹				
Male.....	665	422	484	2,180
Female.....	385	710	147	1,407
Total.....	433	654	207	1,537

¹ Based on average number of full-time workers as follows: Males, 161; females, 738; total, 899.

For both the active and separated groups of employees, it quite obviously holds true that as the period of service increases the number of employees serving such period decreases—and that usually at a progressively increasing rate. The length-of-service figures already presented do not show up this tendency for the reason that the length-of-service records were not tabulated on a scale made up of equal time intervals. For example, in Table 10, it is evident that about the same number of separated employees had service records falling within a range of from 1 to 7 days as had service records falling within a range of from 182 to 365 days—a range be it observed which is 26 times as great. The significant comparison to be made is not the one just indicated—between the number leaving in a 7-day period and the number leaving in a twice-7-day or a 26-times-7-day period—but between the number of “quitters” who had worked one week or less and the “average weekly number” of “quitters.” The important item is not so much the number leaving who had, say, over-6-months-to-one-year service records as it is the number of quitters assignable, on the average, to each of the 26 weeks of the over-6-months-to-1-year period—what may be called, briefly, the “average weekly number” leaving (or working on the active force) in each classified service period.

Such a weekly average is the basis of Table 13 which, with this very important difference, is built on the same plan as Table 7. It does not cover as much ground, however. Table 13 includes only 5 occupational groups. These are groups selected because (1) they contain both sexes and (2) they represent fairly well differentiated occupation groups. It is to be noted that the totals are not the sum of the items of the groups shown in the table but represent all employees in the store. The table gives the “average weekly number” and rate per 1,000 full-year employees in each group of active and separated male and female employees in the selected occupation groups who had served continuously specified periods of time. Here the declining scales of numbers indicate much more truly than do the unsubdivided figures the relative importance of long and short time employees as factors in the turnover situation. Relatively high average weekly separation rates, especially in the shorter time periods, indicate relatively low stability—that is to say, high turnover. Thus the very high rate for waiters in the shortest service group probably indicates that a much larger part of the high turnover is concentrated in this short-time group than is the case with some other high-turnover groups. Group 2, on the other hand, with its low 1-week-or-less separation rate, shows considerably greater stability.

TABLE 13.—"AVERAGE WEEKLY NUMBER" AND RATE PER 1,000 FULL-YEAR EMPLOYEES IN EACH GROUP OF ACTIVE AND SEPARATED MALE AND FEMALE EMPLOYEES IN SELECTED OCCUPATION GROUPS, WHO HAD SERVED CONTINUOUSLY SPECIFIED PERIODS OF TIME.

Occupation group.	Sex and average number of full-time workers.	Employees on pay roll at end of period (active employees) who had served continuously.									Separated employees who had served continuously.								
		1 week or less.	Over 1 to 2 weeks.	Over 2 weeks to 1 month.	Over 1 to 3 months.	Over 3 to 6 months.	Over 6 months to 1 year.	Over 1 to 2 years.	Over 2 to 3 years.	Over 3 to 5 years.	1 week or less.	Over 1 to 2 weeks.	Over 2 weeks to 1 month.	Over 1 to 3 months.	Over 3 to 6 months.	Over 6 months to 1 year.	Over 1 to 2 years.	Over 2 to 3 years.	Over 3 to 5 years.
<i>Average weekly number.</i>																			
2.....	M. 3								0.03	1.00									
	F. 108	2.00	1.50	3.66	0.84	0.65	0.27	0.12	.13	6.00	16.00	13.00	3.55	1.38	0.69	0.17	0.11	0.02	
4.....	M. 18			.33	.38	.08	.06	.02	.03	15.00	10.00	8.00	1.89	.54	.15	.06		.01	
	F. 21	2.00	.50	.33	.38	.08	.04	.04	.01	2.00	3.00	5.00	.89	.31	.15				
7.....	M. 22		1.00	.33			.06	.08	.03	9.00	6.00	6.50	1.33	.23	.31				
	F. 147	2.00	3.50	4.33	1.62	1.04	.40	.17	.10	37.00	39.00	40.50	9.56	3.00	.88	.21	.04	.03	
9.....	M. 2						.04			3.00		1.00	2.22	.08	.08	.02	.02		
	F. 100		3.50	3.33	2.46	1.08	.29	.08	.04	18.00	14.00	13.00	5.78	1.77	.69	.12	.06		
19.....	M. 16		.50		.23	.04	.12		.03	6.00	4.00	1.00	1.33	.08	.08	.08	.02	.01	
	F. 47		2.50	1.22	.23	.23	.12	.04	.12	5.00	3.00	3.00	1.44	.31	.35	.06	.04	.05	
All employees..	M. 161		2.00	2.50	1.44	1.46	1.12	.65	.15	.25	66.00	36.00	31.00	9.50	3.60	2.04	.71	.29	
	F. 738	1.00	11.00	18.00	23.56	8.85	5.58	2.04	1.00	.70	103.00	113.00	113.00	35.40	11.10	4.80	.90	.42	
<i>Annual rate per 1,000 full-year workers in each group.</i>																			
2.....	M. 3																		
	F. 108	18.51	13.89	33.89	7.78	6.02	2.50	1.11	1.20	55.56	148.14	120.37	32.87	12.78	6.39	1.58	1.02	0.19	
4.....	M. 18			16.50	19.00	4.00	3.00	1.00	1.50	750.00	500.00	400.00	94.50	27.00	7.50	3.00		.50	
	F. 21	95.24	23.81	15.71	17.62	3.81	1.90	1.90	.48	85.24	142.85	238.10	42.38	14.76	7.14				
7.....	M. 22		45.45	15.00			2.73	3.04	1.36	409.09	272.73	235.45	60.45	10.45	14.09	2.73		1.36	
	F. 147	13.60	23.81	29.46	11.02	7.07	2.72	1.16	.68	251.70	265.31	275.51	65.03	20.40	5.99	1.43	.27	.20	
9.....	M. 2						.20			1,500.00		500.00	1,110.00	.40	.40	.10	.10		
	F. 100		35.00	33.33	24.60	10.80	2.90	.80	.40	180.00	140.00	130.00	57.80	17.70	6.90	1.20	.60		
19.....	M. 16		31.25		14.38	2.50	7.50		1.88	375.00	250.00	62.50	83.13	5.00	5.00	5.00	1.25	.63	
	F. 47		53.19	25.96	4.89	4.89	2.55	.85	2.55	106.38	63.83	63.83	30.64	6.60	7.45	1.28	.85	1.06	
All employees..	M. 161		12.42	15.53	8.94	9.07	6.96	4.04	.63	1.55	409.94	223.60	192.55	59.01	22.36	12.67	4.41	1.80	
	F. 738	1.36	14.91	24.39	31.92	11.99	7.56	2.76	1.36	.95	139.57	153.12	153.12	47.97	15.04	6.50	1.22	.57	

1 For description of occupation groups, see p. 101.

TABLE 14.—TOTAL NUMBER AND "AVERAGE WEEKLY NUMBER" AND ANNUAL RATE PER 1,000 FULL-YEAR WORKERS OF EACH SEX, OF ACTIVE AND SEPARATED MALE AND FEMALE EMPLOYEES, WHO HAD SERVED CONTINUOUSLY SPECIFIED PERIODS OF TIME.

Length of service.	Ap- proximate number of weeks in period.	Total number of employees who had served continuously each classified period. ¹		Employees assignable, on the average, to each weekly service subdivision. ²			
		Active.	Sepa- rated.	Number.		Rate per 1,000 full-year workers. ³	
				Active.	Sepa- rated.	Active.	Sepa- rated.
<i>All employees.</i>							
One week or less.....	1	1	169	1.00	169.00	1.11	187.99
Over 1 to 2 weeks.....	1	13	149	13.00	149.00	14.46	165.74
Over 2 weeks to 1 month.....	2	41	288	20.50	144.00	22.80	160.18
Over 1 to 3 months.....	9	225	405	25.00	45.00	27.81	50.06
Over 3 to 6 months.....	13	134	193	10.31	14.85	11.47	16.52
Over 6 months to 1 year.....	26	174	178	6.69	6.85	7.44	7.62
Over 1 to 2 years.....	52	140	84	2.69	1.62	2.99	4.80
Over 2 to 3 years.....	52	60	37	1.15	.71	1.28	.79
Over 3 to 5 years.....	104	97	28	.93	.27	1.03	.30
<i>Male employees.</i>							
One week or less.....			66		66.00		409.94
Over 1 to 2 weeks.....		2	36	2.00	36.00	12.42	223.60
Over 2 weeks to 1 month.....		5	62	2.50	31.00	15.53	192.55
Over 1 to 3 months.....		13	86	1.44	9.50	8.94	59.01
Over 3 to 6 months.....		19	48	1.46	3.60	9.07	22.36
Over 6 months to 1 year.....		29	53	1.12	2.04	6.96	12.67
Over 1 to 2 years.....		34	37	.65	.71	4.04	4.41
Over 2 to 3 years.....		8	15	.15	.29	.93	1.80
Over 3 to 5 years.....		26	9	.25	.09	1.55	.56
<i>Female employees.</i>							
One week or less.....		1	103	1.00	103.00	1.36	139.57
Over 1 to 2 weeks.....		11	113	11.00	113.00	14.91	153.12
Over 2 weeks to 1 month.....		36	226	18.00	113.00	24.39	153.12
Over 1 to 3 months.....		212	319	23.56	35.40	31.92	47.97
Over 3 to 6 months.....		115	145	8.85	11.10	11.99	15.04
Over 6 months to 1 year.....		145	125	5.58	4.80	7.56	6.50
Over 1 to 2 years.....		106	47	2.04	.90	2.76	1.22
Over 2 to 3 years.....		52	22	1.00	.42	1.36	.57
Over 3 to 5 years.....		71	19	.70	.18	.95	.24

¹ Obtained by dividing approximate number of weeks in period into the corresponding total number for the period.

² For "all employees" from Table 10; for male and female employees, from Table 9.

³ Based on following numbers of full-year employees: Entire force, 899 full-year workers; males, 161 full-year workers; females, 738 full-year workers.

A summary of the figures in Table 13 is presented in Table 14, which shows the total number and "average weekly number" and rate per 1,000 full-year workers, of active and separated employees who had served continuously specified periods of time. The figures show how rapidly the "weekly rate" of separation declines and how entirely out of proportion these separation rates are to the active service distribution rates. It demonstrates also, just as in an article in the April REVIEW¹ it was demonstrated for certain oil refineries, that the great bulk of the turnover is caused by the separation from

¹ Labor policies and labor turnover in the California oil-refining industry, MONTHLY LABOR REVIEW April, 1919, pp. 44-46.

service of those who had worked less than one month and that after the over-3-to-6-months group is passed the decline in the separation rate is roughly proportionate to the decline in the active service rate. This again seems to indicate that there is no very great amount of avoidable turnover caused by the separation of employees who had served six months or more.

Table 15, which makes a comparison of stability between the female sales people of group 2 and the male sales people of group 4, shows the same average weekly service distribution of active and separated employees. It will be referred to in the section devoted to the relation between sex and labor stability. Table 16, which makes a similar comparison between selected occupation groups, was discussed in connection with the subject of occupational and departmental responsibility for turnover.¹

TABLE 15.—COMPARISON OF THE "AVERAGE WEEKLY NUMBER" AND RATE PER 1,000 FULL-YEAR WORKERS IN EACH GROUP OF THE ACTIVE AND SEPARATED FEMALE SALES PEOPLE OF OCCUPATION GROUP 2 WITH THE MALE SALES PEOPLE OF GROUP 4.

Length of service.	Employees assignable, on the average, to each weekly service subdivision.			
	Number.		Rate per 1,000 full-year workers. ²	
	Active.	Separated.	Active.	Separated.
<i>Males.</i>				
One week or less.....		15.00		833.33
Over 1 to 2 weeks.....		10.00		555.56
Over 2 weeks to 1 month.....		8.00		444.44
Over 1 to 3 months.....	0.33	1.89	18.33	105.00
Over 3 to 6 months.....	.38	.54	21.11	30.00
Over 6 months to 1 year.....	.08	.15	4.44	8.33
Over 1 to 2 years.....	.06	.06	3.33	3.33
Over 2 to 3 years.....	.02		1.11	
Over 3 to 5 years.....	.03	.01	1.67	.56
<i>Females.</i>				
One week or less.....		6.00		55.56
Over 1 to 2 weeks.....	2.00	16.00	18.51	148.14
Over 2 weeks to 1 month.....	1.50	13.00	13.89	120.37
Over 1 to 3 months.....	3.66	3.55	33.89	32.87
Over 3 to 6 months.....	.84	1.33	7.78	12.78
Over 6 months to 1 year.....	.65	.69	6.02	6.39
Over 1 to 2 years.....	.27	.17	2.50	1.58
Over 2 to 3 years.....	.12	.11	1.11	1.02
Over 3 to 5 years.....	.13	.02	1.20	.19

¹ See page 105.

² Occupation group 4—18 full-year male employees; occupation group 2—108 full-year female employees.

TABLE 16.—COMPARISON OF THE "AVERAGE WEEKLY NUMBERS" AND RATES PER 1,000 FULL-YEAR WORKERS IN EACH GROUP OF THE ACTIVE AND SEPARATED EMPLOYEES IN THE SELECTED OCCUPATION GROUPS.

Length of service.	Employees assignable, on the average, to each weekly service subdivision.			
	Number.		Annual rate per 1,000 full-year workers. ¹	
	Active.	Separated.	Active.	Separated.
<i>Miscellaneous sales people (group 7).</i>				
One week or less.....		46.00		272.18
Over 1 to 2 weeks.....	2.00	45.00	12.42	266.27
Over 2 weeks to 1 month.....	4.50	47.00	26.63	278.11
Over 1 to 3 months.....	4.70	10.80	27.81	63.91
Over 3 to 6 months.....	1.50	3.23	8.88	19.11
Over 6 months to 1 year.....	1.30	1.20	7.69	7.10
Over 1 to 2 years.....	.46	.27	2.72	1.60
Over 2 to 3 years.....	.25	.04	1.48	.24
Over 3 to 5 years.....	.13	.05	.77	.30
<i>Waiters, etc. (group 9).</i>				
One week or less.....		21.00		205.88
Over 1 to 2 weeks.....		14.00		137.25
Over 2 weeks to 1 month.....	3.50	14.00	34.31	137.25
Over 1 to 3 months.....	3.33	6.00	32.64	58.82
Over 3 to 6 months.....	2.50	1.80	24.50	17.65
Over 6 months to 1 year.....	1.08	.77	10.59	7.55
Over 1 to 2 years.....	.33	.13	3.24	1.27
Over 2 to 3 years.....	.08	.08	.69	.69
Over 3 to 5 years.....	.04		.39	
<i>Office and clerical employees (group 19).</i>				
One week or less.....		11.00		174.60
Over 1 to 2 weeks.....		7.00		111.11
Over 2 weeks to 1 month.....	3.00	4.00	47.61	63.49
Over 1 to 3 months.....	1.20	2.80	19.04	44.44
Over 3 to 6 months.....	.46	.38	7.30	6.03
Over 6 months to 1 year.....	.27	.42	4.29	6.66
Over 1 to 2 years.....	.23	.13	3.65	2.06
Over 2 to 3 years.....	.04	.06	.63	.95
Over 3 to 5 years.....	.14	.06	2.22	.95

¹ Based on the following numbers of full-year employees: Group 7, 169; group 9, 102; group 19, 63.

As already explained in preceding articles of this series, it is possible to arrive at a fairly accurate determination of the "number of equivalent full-year jobs" in any particular group of employees which are always occupied by men who have served one week or less, one to two weeks, and so on—the "number of equivalent full-year jobs" which are, that is to say, affected by varying degrees of turnover. Quite detailed discussions of this matter have appeared in earlier numbers of this REVIEW,¹ and it is therefore treated very briefly here. The steps of the process are indicated in Table 17, which shows, for all employees and for each sex, the separation frequency distribution of the jobs affected by turnover. The items and relations involved in this table are exactly the same as those in Table 8 in the article already published on labor turnover among employees of a California copper mining and smelting company.² An explanation of the whole analysis and of the method of deriving the figures in the various columns has been made in a still earlier

¹ "Labor turnover in the San Francisco Bay region," in the MONTHLY LABOR REVIEW, February, 1919, pp. 59-62; "Labor policies and labor turnover in the California oil-refining industry," MONTHLY LABOR REVIEW, April, 1919, pp. 47-51.

² MONTHLY LABOR REVIEW, May, 1919, p. 80.

number of this REVIEW.¹ The reasoning rests entirely upon the assumed mean-length-of-service figures of column 2. Columns 3 and 8 show, respectively, the standard scale turnover percentages for the different length-of-service groups and the number of equivalent full-year jobs affected by each per 1,000 full-year employees. These two columns show very plainly the relation between the intensity of turnover and the number of equivalent full-year jobs affected by it. Thus, it appears that in the over-1-to-3-months, over-3-to-6-months, and over-6-months-to-1-year groups there were 74, 79 and 149 equivalent full-year jobs (per 1,000 full-year workers) affected by turnover intensities of 508, 170, and 33 per cent, respectively. In contrast with this, it is evident that, at the heavy-turnover end of the scale, in the 1-week-or-less, over-1-to-2-weeks, and over-2-weeks-to-1-month groups there were 2, 5, and 19 equivalent full-year jobs (per 1,000 full-year workers) affected by turnover intensities of 9,025, 3,128, and 1,559 per cent, respectively.

TABLE 17.—SEPARATION FREQUENCY DISTRIBUTION OF JOBS DIRECTLY AFFECTED BY TURNOVER.

Length of service.	Approximate number of weeks in period.	Mean length of service (days).	Corresponding percentage of turnover for one year.	Separated employees who had served each specified period.		Total number of mandays worked by each group.	Equivalent full-year jobs in each group.			
				Total number.	Average weekly number.		Number.	Rate per 1,000 full-year workers.	Average weekly number.	Average weekly rate per 1,000 full-year workers.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<i>All employees.</i>										
One week or less.....	1	4	9,025	169	169.00	676	1.85	2.06	1.85	2.06
Over 1 to 2 weeks.....	1	11	3,218	149	149.00	1,639	4.49	4.99	4.49	4.99
Over 2 weeks to 1 month.....	2	22	1,559	288	144.00	6,336	17.36	19.31	8.68	9.66
Over 1 to 3 months.....	9	60	508	405	45.00	24,300	66.58	74.06	7.40	8.23
Over 3 to 6 months.....	13	135	170	193	14.85	26,055	71.38	79.40	5.49	6.11
Over 6 months to 1 year.....	26	274	33	178	6.85	48,772	133.62	148.63	5.14	5.72
Over 1 to 2 years.....	52	548	.....	84	1.62	46,032	126.12	140.29	2.43	2.70
Over 2 to 3 years.....	52	913	.....	37	.71	33,781	92.55	102.95	1.78	1.98
Over 3 to 5 years.....	104	1,460	.....	28	.27	40,880	112.00	124.58	1.08	1.20
<i>Males.</i>										
One week or less.....	1	4	9,025	66	66.00	264	.72	4.47	.72	4.47
Over 1 to 2 weeks.....	1	11	3,218	36	36.00	396	1.08	6.71	1.08	6.71
Over 2 weeks to 1 month.....	2	22	1,559	62	31.00	1,364	3.73	23.17	1.87	11.61
Over 1 to 3 months.....	9	60	508	86	9.50	5,160	14.10	87.58	1.57	9.75
Over 3 to 6 months.....	13	135	170	48	3.60	6,480	17.70	109.94	1.36	8.45
Over 6 months to 1 year.....	26	274	33	53	2.04	14,522	39.70	246.58	1.53	9.50
Over 1 to 2 years.....	52	548	.....	37	.71	20,276	55.60	345.34	1.07	6.65
Over 2 to 3 years.....	52	913	.....	15	.29	13,695	37.50	232.92	.72	4.47
Over 3 to 5 years.....	104	1,460	.....	9	.09	13,140	36.00	223.60	.35	2.17
<i>Females.</i>										
One week or less.....	1	4	9,025	103	103.00	412	1.12	1.52	1.12	1.52
Over 1 to 2 weeks.....	1	11	3,218	113	113.00	1,243	3.40	4.61	3.40	4.61
Over 2 weeks to 1 month.....	2	22	1,559	226	113.00	4,972	13.62	18.46	6.81	9.23
Over 1 to 3 months.....	9	60	508	319	35.40	19,140	52.43	71.04	5.83	7.90
Over 3 to 6 months.....	13	135	170	145	11.10	19,575	53.63	72.67	4.13	5.60
Over 6 months to 1 year.....	26	274	33	125	4.80	34,256	93.84	127.15	3.61	4.89
Over 1 to 2 years.....	52	548	.....	47	.90	25,756	70.56	95.61	1.36	1.84
Over 2 to 3 years.....	52	913	.....	22	.42	20,086	55.03	74.57	1.06	1.44
Over 3 to 5 years.....	104	1,460	.....	19	.18	27,740	76.00	102.98	.73	.99

¹ Labor policies and labor turnover in the California oil-refining industry, MONTHLY LABOR REVIEW, April, 1919, p. 48.

The figures of columns 3 and 10 of Table 17 form the basis of Table 18, which makes a comparison of the number, in each sex and in the whole work force, of equivalent full-year jobs (expressed in rates per 1,000 full-year workers in each group) affected by the percentage of turnover in the various length-of-service groups. These figures bring out very clearly two fundamental factors in any labor turnover situation: (1) The intensity of turnover of the separating employees in the various stability groups and (2) the relative size of these groups—i. e., the number of equivalent full-year jobs affected. The figures show, in this case also, the quantitative stability relations between the sexes. It is noticeable that it is the relatively large job groups which are affected by the heavy turnover rates. In other words, the relatively large job groups are tied up with under-1-year separations and high turnover and the relatively small job groups with the over-1-year separations and low turnover. It appears that in all groups shown in the table the maximum equivalent weekly number of full-year jobs affected per 1,000 comes in the over-2-weeks-to-1-month group, which represents a turnover for all jobs in it of 1,559 per cent.

TABLE 18.—COMPARISON OF THE EQUIVALENT WEEKLY NUMBER IN EACH SEX OF FULL-TIME JOBS (EXPRESSED IN RATES PER 1,000 FULL-YEAR WORKERS OF EACH SEX) AFFECTED BY CLASSIFIED PERCENTAGES OF TURNOVER.

Length of service.	Corresponding percentage of turnover.	Equivalent weekly number of full-year jobs affected (per 1,000 male and female workers) by percentage of turnover corresponding to the specified length-of-service period.		
		All employees.	Male.	Female.
One week or less.....	9,025	2.06	4.47	1.52
Over 1 to 2 weeks.....	3,218	4.99	6.71	4.61
Over 2 weeks to 1 month.....	1,559	9.66	11.61	9.23
Over 1 to 3 months.....	508	8.23	9.75	7.90
Over 3 to 6 months.....	170	6.11	8.45	5.60
Over 6 months to 1 year.....	33	5.72	9.50	4.89
Over 1 to 2 years.....		2.70	6.65	1.84
Over 2 to 3 years.....		1.98	4.47	1.44
Over 3 to 5 years.....		1.20	2.17	.99

Relative Stability of the Sexes.

In considering the relative stability of the male and female employees of this establishment it is necessary to reexamine several of the tables already discussed. Referring first of all to the separation rates of Table 8, it is evident that, generally, the rates for males exceed those for females. A noticeable exception to this is group 8, composed of employees in the bakery and candy kitchen, where the rates for females run uniformly higher than for males, making in the total a rate more than three times as high for females as for males. An inspection of the summary figures in Table 9 shows that although

the number of active males and females having 1-year-or-less service records were 428 males and 705 females per 1,000, indicating that a much heavier proportion of women than of men had been recruited within the preceding 12 months, nevertheless the 1-year-or-less separation rate is 2,180 per 1,000 for males and only 1,397 per 1,000 for females. The total separation rate is 2,665 for males and 1,543 for females. The men are unquestionably more fickle than the women. But it is worthy of note that, as shown by the percentage distribution figures of Table 9, a larger proportion of the men than of the women endure unto the end. Twenty-two per cent of the males and only 7.6 per cent of the females on the pay roll at the end of the year had been in service over five years. The over-3-to-5 year period shows also a favorable, though diminished, stability balance in favor of the men. The conclusiveness of this tendency is no doubt somewhat weakened by the fact that women have only lately been taken on in appreciable numbers in some departments, with the necessary result that a high proportion of very long service records is for them quite impossible. The same relation is apparent in Table 11, and it is subject to the same qualification. Among the department groups a noticeable and not unlooked-for exception is group 19, office employees, where the proportion of separating over-1-year ("stable") females is well above the corresponding male group. Here female employees are on a fairer footing for comparison with males, since the employment of women in offices dates farther back than it does in most of the other occupations represented. The rates in Table 12 show pretty conclusively that, in this store during the (war) year studied, male employees were far more unstable than female. It appears that 484 men and 147 women per 1,000 left during the year with over-1-year service records and that 2,180 men and 1,407 women per 1,000 left during the year with 1-year-or-less service records.

The same excessive mobility of male employees in this establishment in 1918 is brought out in Table 14. From the figures in the last column it is evident that the average weekly separation rate is for males much more heavily concentrated in the 1-week-or-less service group than it is for females. The average weekly separation rate of all persons leaving with this minimum service record is 188 per 1,000; for the men it is 410 per 1,000; for the women it is 140 per 1,000. This difference appears in still more pronounced form in Table 15, which makes the same comparison but makes it between the female sales people of group 2 and the male sales people of group 4. The "average weekly" separation rate for males who left with 1-week-or-less records is 833 per 1,000. For females with the same service record it is 56 per 1,000. The same difference in stability in favor of females persists, with narrowing margins through nearly the entire service scale.

The number of men's jobs affected per 1,000 full-year male workers appears, from the figures of Table 17 (column 8), to be much greater in every length-of-service division than the corresponding number of women's jobs per 1,000 full-year female workers. Thus, in the over-1-to-3-months, over-3-to-6-months, and over-6-months-to-1-year groups, respectively, there were 88, 110, and 247 equivalent full-year male jobs, as compared with 71, 73, and 127 equivalent full-year female jobs affected by turnover intensities of 508, 170, and 33 per cent, respectively. The "average weekly" number of jobs affected per 1,000 are shown side by side for each sex in Table 18, which, as already remarked, shows the quantitative stability relations between the two sexes. For example, for each week (on the average) of the 2-weeks-to-1-month service group, its particular intensity of turnover—1,559 per cent—affected 12 equivalent full-year men's and 9 equivalent full-year women's jobs per 1,000 full-year male and female employees, respectively, in the establishment. The same differences of stability in favor of female employees are observable throughout the length-of-service scale.

Part II. Description of Employment System and Labor Policies.¹

This department store operates a very comprehensive system of employment and service bureaus of various kinds, including not only the employment department proper, but also educational, research, clinical, and general service divisions. The work of these different agencies is well correlated, and they all cooperate to a greater or less extent in the work of the employment department proper. Advisory to the divisions mentioned, and actively cooperating with most of them, is the employees' cooperative association.

The policy of the company with regard to its employees is distinctly liberal. The management is earnestly desirous of avoiding any spirit of paternalism in carrying out its policies. As the firm has officially expressed it in connection with the establishment of the employees' clinic, these different personnel enterprises are intended to rest "entirely upon a sound business basis, instead of upon a sentimental, charitable, or paternalistic basis."

System of Employment.

The management has given a great deal of very careful attention for some years to the system of selecting, hiring, transferring, and discharging employees. As a result, the store has now developed a very complete and well-centralized employment department. This

¹ This part of the article is very largely based upon the detailed reports submitted to the Bureau of Labor Statistics by the store management. These original reports will be more fully utilized in a forthcoming bulletin on the subject.

department is under the charge of an employment manager who has complete authority in regard to the hiring and discharge of employees, and who is directly responsible for the conduct of these matters to the general manager of the store. The employment manager also has large powers in regard to transfers, promotions, rate setting, etc. In handling the work of the department the employment manager is assisted by one or more employment "selectors" and other assistants with the cooperation, as already indicated, of the educational, research, and other service divisions.

The employment department has kept unusually detailed and comprehensive employment records, especially during the last few years. Particular care is exercised in the matter of classifying the reasons for and circumstances surrounding the separation of employees from the service of the company. It is an invariable rule to interview carefully all employees who leave and to record the reasons assigned by them for quitting or the reasons given by the company in case of discharge.

The employment department has the benefit of the planning and routine development activities of the research department. This latter division has drawn up very detailed and comprehensive outlines and instructions for handling every phase of the employment and personnel end of the business.

Education and Training of Employees.

The educational department carries on two main lines of work—the general education of employees, whether new or old, and the special training and technical education of the new employees, especially those new recruits who are inexperienced. The company announces that this division was installed "to increase the success of the store and its employees by the following means: By studying every phase of the store's business to discover where real excellence exists and where improvements can be made; by giving instructions, either individually or in class work, as the need and desire are found; by interpreting to the store employees the wishes and policy of the management and by suggesting and recommending to the management methods of coordinating employees' personnel and management."

Perhaps the most important line of work undertaken by the educational department is that of the training of the new employees in store methods and department technique. To assist in this work, there are designated from different parts of the store more than a score of the older employees. These are known as "service assistants." They are really vocational instructors, who give special attention to the trade instruction and general coaching at the start of the new employees in their respective sections. For the special

training of these service assistants, various teacher classes have been organized by the educational department and detailed courses of instruction given them as to the subjects to be taught new employees, methods of teaching, and so on.

Related to this general system of training for new employees is the practice of training understudies, which is now being more and more fostered in this establishment. This is very similar to the rather well-known 3-position plan in which each employee is not only training some one else to be ready to occupy his position but is also studying the work of some designated higher position. Employees are thus instructed in the work more as a whole, which tends, it is believed, to greater stability of employment and more general satisfaction. In addition to the work already mentioned, the educational department conducts a number of special courses, such as those for assistant buyers, and other special occupational groups in the store.

Closely correlated with the work of the educational department is that of the research division, which draws up plans and develops methods for use in all of the various service divisions of the establishments. This research division, in cooperation with the various heads of other divisions, has done most of the work of developing the present system of records kept in the time office and the employment bureau, and designed the various employment and other organization charts for the use of the different divisions. A well-equipped library is maintained by this department. It is well stocked with books, including fiction and technical works on salesmanship and pertinent vocational subjects, and regularly receives a number of the current magazines.

Wages and Working Conditions.

The company's policy in regard to wages is very liberal. On October 21, 1918, the company adopted a minimum wage of \$15 per week for all women who had been in the employ of the company for one year or longer. Women over 18 years of age, employed for the first time in this store and without any previous training in this particular field of work, are paid a weekly wage of \$13.50. The legal minimum in the State of Washington is \$13.20. At the end of each 4-months' period the salary is automatically increased 50 cents until the \$15 minimum is reached. Girl employees 16 years of age are paid at the rate of \$10 per week, and the salary automatically increased \$1 at the end of each six-months' period until the employee is 19 years of age, when the \$15 minimum goes into effect. In the commissary departments, the wage rates are \$10 per week for the first six months, \$11 for the second six months, and \$12 thereafter; these rates being in addition to

"two thirty-cent meals each day." Short-hour employees in the commissary or food departments are not employed for less than four hours' work a day and are paid for that time, at the rate of 35 cents per hour, whether there is that much work for them or not. Six-hour employees in these departments are paid at the rate of 30 cents per hour. No bonuses of any description are paid in this establishment, but in certain of the sales departments, the sales people receive percentages on sales of 4 or 5 per cent, depending upon the department.

The amount of salary increase between July, 1917, and July, 1918, for 304 employees, who had been in the service for one year and over, was 33.7 per cent. It is the policy of the management to base the salary adjustments made upon not only the employees' efficiency and ability but also upon current changes in the cost of living, as determined by some competent authority. The work and salary of every employee are considered every six months by a committee consisting of the employment manager, educational director, and the department manager of the department in which the employee is working. This committee makes its recommendations to the store manager. If, at the end of any period, an employee's record does not justify the automatic increase, the change of rate will nevertheless be made, and the employee placed on probation for a definite period. The hours of labor are eight and nine per day, depending upon the kind of work.

Sanitary conditions throughout the store are excellent, and adequate conveniences in the way of rest rooms, cloak rooms, etc., are provided. In the basement there has been recently installed a new ventilating system which changes the air every $3\frac{1}{2}$ minutes. An employees' cafeteria, with rest room adjoining, is maintained in the building under the management of the employees' cooperative association.

An up-to-date clinic is maintained by the company for the treatment of employees who may become ill. Salaries are paid for the full day when employee leaves with permission of the clinic, regardless of the term of employment. Employees not appearing for work because of illness are required to notify their department manager before 9.30, and the department manager immediately notifies the clinical director so that the latter may inquire into the health of the employee. In case of prolonged illness, full salary up to four weeks will be paid by the company to any employee who has been on the pay roll for six consecutive months preceding the date of illness. The doctor is in attendance at the clinic for an hour three days a week for consultation with employees.

Employees' Cooperative Association.

The cooperative association of employees is established, in the words of its constitution, "to increase efficiency, to add to social opportunities, and to create and sustain a just and equitable relation between employer and employee." Supplementary to the main association are a number of special organizations of employees, such as the Athletic Association, Women's Club, Girls' Club, Red Cross Auxiliary, etc.

The main association is organized to include a number of standing and special committees. Among the former are employees' journal committee, cafeteria committee, and social, educational, and welfare committees. Among the special committees are the following: Employees' benefit, cooperative buying, library and roof garden. The business of the association is managed by the council, which is made up of the president, vice-president, secretary, treasurer, and a board of eleven other councilmen elected by the employees from nine different designated sections of the establishment.

The association publishes an attractive monthly paper, which is now running in its fourth year. The staff of the paper is manned by store employees. The object of the journal is stated to be "to advance the cause of industrial cooperation and to create efficiency in its highest form."

As already remarked, the cooperative association owns and operates the employees' cafeteria. It is evident, from what has been said in regard to the nature of the committees that, except for the management of the cafeteria, the association is primarily social and educational in its nature and activities. Within these limits the association takes an active part in counseling and advising with the management. Policies affecting the employees are passed upon by the council of the association before going into effect and this, it is said, has often resulted in changes and modifications advantageous on both sides. It has close relations with some of the service departments in an advisory capacity. This seems to be particularly true of the educational department, and to a less degree of the employment department, but the cooperation between this association and the management or any of the store departments seems to be limited to purely advisory cooperation. The employees' association has nothing to do with the management in any direct sense. The company and the association cooperate very cordially, of course, in the matter of employees' social activities, the company furnishing the large establishment tea room for dancing parties and other social affairs undertaken by the association; and employees, through their association, are occasionally invited for outings at the country summer home of one of the officials.

Other Policies.

All employees receive two weeks' vacation with pay, and all employees who have served for six months receive, as has been already noted, full pay up to four weeks when absent because of illness. Moreover, when the loss of wages would be a hardship and the employee has not yet been in the store six months, the management reserves the privilege of making a special exception.

It was noticed in the statistical section of this article that this company had achieved a very striking reduction in the proportion of employees laid off and that this achievement accounted, in a large measure, for the turnover reduction between 1918 and 1919 and undoubtedly made less severe the inevitably large turnover of the preceding war period. The company has been following this policy up still more thoroughly and has recently determined not to lay off at any time any of the permanent force, as distinguished from seasonal help, except for continuing inefficiency; and separation in the latter case, would not be a lay-off, at all, but a discharge.

Every effort is made by the management to treat all employees as individuals and to consider the merits and needs of each person separately. This, however, is not to be taken, the company states, as a disapproval of collective bargaining. The management, on the contrary, is striving continuously to improve its methods and machinery and to bring about more and more efficient collective bargaining with employees upon such matters as wages, hours of work, and working conditions. The collective bargaining aimed at by the company appears to be on the whole a nonunion type of collective bargaining. The store is an open shop, but there is no opposition whatever to the employment of members of unions and the union scale is paid to whatever craftsmen, such as engineers, electricians, etc., are employed. The company policy can be summed up from this point of view as one of neutrality as to unionism. As already intimated, the company has entered upon its present policy of employment and employee welfare work with the idea that it is a business proposition, with the most pronounced opposition to making it at all philanthropic, and with an intense desire to avoid hand-me-down welfare work. The policies described are believed by the management to be excellent business methods, because through them the cooperation and loyalty of employees is secured to a degree which compensates for the extra expenses. But despite this, it is clear that this institution, so far, provides no machinery for joint management of the department store business, or even for a genuinely cooperative settlement of such matters as wages, hours, and general conditions of employment in the department store.

PRICES AND COST OF LIVING.

Retail Prices of Food in the United States.

THERE was a decrease of 2 per cent in the retail price of 22 articles¹ of food combined, for which consumption weights are secured by the Bureau, in September, 1919, as compared with August, 1919. This is the first decrease shown since June, 1919, when food was less than five-tenths of 1 per cent cheaper than in May. Of the 43 articles for which comparison can be made during the month period, 19 cost less than in August. Onions declined 17 per cent; potatoes, 14 per cent; lard, 9 per cent; cabbage, 8 per cent; plate beef, 6 per cent; chuck roast and lamb, 5 per cent each; round steak, rib roast, and bacon, 4 per cent each; sirloin steak and ham, 3 per cent each; pork chops, Crisco, and bananas, 2 per cent each; and hens, cheese, flour, and sugar, 1 per cent each.

The articles which increased in price were raisins, 8 per cent; rice, 6 per cent; eggs, 5 per cent; canned salmon, 4 per cent; butter, corn meal, rolled oats, coffee, and prunes, 2 per cent each; fresh and evaporated milk, oleomargarine, navy beans, canned corn, peas, and tomatoes, 1 per cent each; and oranges less than five-tenths of 1 per cent.

Nut margarine, bread, corn flakes, Cream of Wheat, macaroni, baked beans, and tea remained the same price.

In September, 1919, the cost of the 22 articles of food for which weights were secured was 6 per cent higher than in September of last year. There was less of an increase during this year period than was shown from August, 1918, to August, 1919, the cost on the latter date being 12 per cent higher than August, 1918. From August to September, 1918, there was an increase of 4 per cent, while from August to September, 1919, there was a decrease of 2 per cent.

During the 12 months from September, 1918, to September, 1919, coffee and prunes increased 61 per cent each; onions, 30 per cent; raisins, 26 per cent; rice, 20 per cent; cheese, 19 per cent; sugar, 15 per cent; lard, 14 per cent; butter, 11 per cent; canned salmon, fresh milk, and potatoes, 10 per cent each; eggs, 8 per cent; flour, 7 per cent; ham and tea, 6 per cent each; hens, 5 per cent; and bread, 2 per cent. Articles which decreased were: Navy beans, 27 per cent;

¹ 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.

plate beef, 17 per cent; chuck roast, 11 per cent; lamb, 6 per cent; round steak and rib roast, 5 per cent each; corn meal, 3 per cent; sirloin steak, 2 per cent; and bacon, 1 per cent. Pork chops decreased less than five-tenths of 1 per cent.

AVERAGE RETAIL PRICE AND PER CENT OF INCREASE OR DECREASE SEPTEMBER 15, 1919, COMPARED WITH SEPTEMBER 15, 1918, AND AUGUST 15, 1919.

Article.	Unit.	Average retail price on—			Per cent of increase (+) or decrease (—) Sept. 15, 1919, compared with—	
		Sept. 15, 1918.	Aug. 15, 1919.	Sept. 15, 1919.	Sept. 15, 1918.	Aug. 15, 1919.
		<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>		
Sirloin steak.....	Pound.....	41.7	42.1	40.9	- 2	- 3
Round steak.....	do.....	39.8	39.5	37.9	- 5	- 4
Rib roast.....	do.....	32.7	32.4	31.2	- 5	- 4
Chuck roast.....	do.....	28.4	26.6	25.3	-11	- 5
Plate beef.....	do.....	21.9	19.3	18.2	-17	- 6
Pork chops.....	do.....	46.1	46.9	46.0	(1)	- 2
Bacon.....	do.....	56.2	57.7	55.6	- 1	- 4
Ham.....	do.....	51.9	56.9	55.2	+ 6	- 3
Lamb.....	do.....	36.9	36.4	34.6	- 6	- 5
Hens.....	do.....	39.4	41.8	41.4	+ 5	- 1
Salmon, canned.....	do.....	30.5	32.3	33.6	+10	+ 4
Milk, fresh.....	Quart.....	14.3	15.5	15.7	+10	+ 1
Milk, evaporated (unsweetened).....	15-16 oz. can.....		16.3	16.5		+ 1
Butter.....	Pound.....	59.2	64.1	65.7	+11	+ 2
Oleomargarine.....	do.....		42.5	42.8		+ 1
Nut margarine.....	do.....		35.8	35.8		(2)
Cheese.....	do.....	36.0	43.5	43.0	+19	- 1
Lard.....	do.....	33.6	42.0	38.2	+14	- 9
Crisco.....	do.....		40.5	39.5		- 2
Eggs, strictly fresh.....	Dozen.....	58.6	60.2	63.2	+ 8	+ 5
Bread.....	Pound ³	9.9	10.1	10.1	+ 2	(2)
Flour.....	do.....	6.8	7.4	7.3	+ 7	- 1
Corn meal.....	do.....	6.9	6.6	6.7	- 3	+ 2
Rolled oats.....	do.....		8.9	9.1		+ 2
Corn flakes.....	8-oz. pkg.....		14.0	14.0		(2)
Cream of Wheat.....	28-oz. pkg.....		25.1	25.1		(2)
Macaroni.....	Pound.....		19.4	19.4		(2)
Rice.....	do.....	13.7	15.5	16.5	+20	+ 6
Beans, navy.....	do.....	16.9	12.3	12.4	-27	+ 1
Potatoes.....	do.....	3.9	5.0	4.3	+10	-14
Onions.....	do.....	5.0	7.8	6.5	+30	-17
Cabbage.....	do.....		5.3	4.9		- 8
Beans, baked.....	No. 2 can.....		17.1	17.1		(2)
Corn, canned.....	do.....		19.1	19.2		+ 1
Peas, canned.....	do.....		19.1	19.2		+ 1
Tomatoes, canned.....	do.....		15.9	16.0		+ 1
Sugar, granulated.....	Pound.....	9.6	11.1	11.0	+15	- 1
Tea.....	do.....	66.4	70.7	70.7	+ 6	(2)
Coffee.....	do.....	30.3	47.8	48.7	+61	+ 2
Prunes.....	do.....	17.4	27.4	28.0	+61	+ 2
Raisins.....	do.....	15.4	18.0	19.4	+26	+ 8
Bananas.....	Dozen.....		39.1	38.4		- 2
Oranges.....	do.....		53.7	53.9		(4)
22 weighted articles combined.....					+ 6	- 2

¹ Decrease of less than five-tenths of 1 per cent.

³ Baked weight.

² No change in price.

⁴ Increase of less than five-tenths of 1 per cent.

During the six-year period, September, 1913, to September, 1919, the increase in the retail price of the 22 articles of food combined was 83 per cent.

Five articles show an increase of over 100 per cent, namely, pork chops, 103 per cent; corn meal, 116 per cent; flour, 121 per cent; potatoes, 126 per cent; and lard, 137 per cent.

AVERAGE RETAIL PRICE AND PER CENT OF INCREASE OR DECREASE SEPT. 15 OF EACH SPECIFIED YEAR COMPARED WITH SEPT. 15, 1913.

Article.	Unit.	Average retail price Sept. 15—							Per cent of increase (+) or decrease (—) Sept. 15 of each specified year compared with Sept. 15, 1913.					
		1913	1914	1915	1916	1917	1918	1919	1914	1915	1916	1917	1918	1919
Sirloin steak.....	Pound.	26.2	27.0	26.5	28.4	33.3	41.7	40.9	+ 3	+ 1	+ 8	+ 27	+ 59	+ 56
Round steak.....	do.	23.3	24.7	23.8	25.7	29.6	39.8	37.9	+ 6	+ 2	+10	+ 27	+ 71	+ 63
Rib roast.....	do.	19.9	20.8	20.4	21.8	25.9	32.7	31.2	+ 5	+ 3	+10	+ 30	+ 64	+ 57
Chuck roast.....	do.	16.4	17.9	16.5	17.7	21.8	28.4	25.3	+ 9	+ 1	+ 8	+ 33	+ 73	+ 54
Plate beef.....	do.	12.3	13.1	12.3	13.1	16.3	21.9	18.2	+ 7	(1)	+ 7	+ 33	+ 78	+ 48
Pork chops.....	do.	22.7	23.6	22.5	26.1	38.8	46.1	46.0	+ 4	- 1	+15	+ 71	+103	+103
Bacon.....	do.	28.1	29.0	27.0	29.6	44.2	56.2	55.6	+ 3	- 4	+ 5	+ 57	+100	+ 98
Ham.....	do.	28.2	29.1	26.2	33.2	40.9	51.9	55.2	+ 3	- 7	+18	+ 45	+ 84	+ 96
Lamb.....	do.	18.7	19.7	20.1	23.3	31.4	36.9	34.6	+ 5	+ 7	+25	+ 68	+ 97	+ 85
Hens.....	do.	21.5	21.9	20.8	24.3	30.2	39.4	41.4	+ 2	- 3	+13	+ 40	+ 83	+ 93
Salmon, canned.....	do.	.....	.....	19.8	20.2	27.7	30.5	33.6	.....	.....	.....	.....	.....	.....
Milk, fresh.....	Quart.	8.9	8.9	8.8	9.1	11.8	14.3	15.7	(1)	- 1	+ 2	+ 33	+ 61	+ 76
Milk, evaporated (unsweetened).	15-16 oz. can.	.....	.....	.....	.....	.....	.....	16.5	.....	.....	.....	.....	.....	.....
Butter.....	Pound.	37.8	37.8	33.5	39.0	49.6	59.2	65.7	(1)	-11	+ 3	+ 31	+ 57	+ 74
Oleomargarine.....	do.	.....	.....	.....	.....	.....	.....	42.8	.....	.....	.....	.....	.....	.....
Nut margarine.....	do.	.....	.....	.....	.....	.....	.....	35.8	.....	.....	.....	.....	.....	.....
Cheese.....	do.	22.1	22.9	22.7	23.0	33.5	36.0	43.0	+ 4	+ 3	+ 4	+ 52	+ 63	+ 95
Lard.....	do.	16.1	15.6	13.8	22.2	29.6	33.6	38.2	- 3	- 3	+38	+ 84	+109	+137
Crisco.....	do.	.....	.....	.....	.....	.....	.....	39.5	.....	.....	.....	.....	.....	.....
Eggs, strictly fresh.....	Dozen	37.5	36.8	34.9	41.3	52.5	58.6	63.2	- 2	- 7	+10	+40	+ 56	+ 69
Bread.....	Pound 2	5.6	6.4	7.0	7.7	9.9	9.9	10.1	+14	+25	+38	+ 77	+ 77	+ 80
Flour.....	Pound 2	3.3	3.7	3.8	4.8	7.3	6.8	7.3	+12	+15	+45	+121	+106	+121
Corn meal.....	do.	3.1	3.3	3.3	3.4	8.2	6.9	6.7	+ 6	+ 6	+10	+165	+123	+116
Rolled oats.....	do.	.....	.....	.....	.....	.....	.....	9.1	.....	.....	.....	.....	.....	.....
Corn flakes.....	8-oz. pkg	.....	.....	.....	.....	.....	.....	14.0	.....	.....	.....	.....	.....	.....
Cream of Wheat.....	28-oz. pkg	.....	.....	.....	.....	.....	.....	25.1	.....	.....	.....	.....	.....	.....
Macaroni.....	Pound	.....	.....	.....	.....	.....	.....	19.4	.....	.....	.....	.....	.....	.....
Rice.....	do.	8.7	8.8	9.1	9.1	10.8	13.7	16.5	+ 2	+ 5	+ 5	+ 24	+ 57	+ 90
Beans, navy.....	do.	.....	.....	7.6	12.1	18.8	16.9	12.4	.....	.....	.....	.....	.....	.....
Potatoes.....	do.	1.9	1.8	1.4	2.8	3.0	3.9	4.3	- 5	-26	+47	+ 58	+105	+126
Onions.....	do.	.....	.....	3.0	4.6	4.6	5.0	6.5	.....	.....	.....	.....	.....	.....
Cabbage.....	do.	.....	.....	.....	.....	.....	.....	4.9	.....	.....	.....	.....	.....	.....
Beans, baked.....	No. 2 can	.....	.....	.....	.....	.....	.....	17.1	.....	.....	.....	.....	.....	.....
Corn, canned.....	do.	.....	.....	.....	.....	.....	.....	19.2	.....	.....	.....	.....	.....	.....
Peas, canned.....	do.	.....	.....	.....	.....	.....	.....	19.2	.....	.....	.....	.....	.....	.....
Tomatoes, canned.....	do.	.....	.....	.....	.....	.....	.....	16.0	.....	.....	.....	.....	.....	.....
Sugar, granulated.....	Pound	5.7	7.9	6.5	7.7	9.8	9.6	11.0	+39	+14	+35	+ 72	+ 68	+ 93
Tea.....	do.	54.5	54.7	54.6	54.6	61.2	66.4	70.7	(2)	(2)	(2)	+ 12	+ 22	+ 30
Coffee.....	do.	29.8	29.7	29.9	29.9	30.5	30.3	48.7	(4)	(2)	(2)	+ 2	+ 2	+ 63
Prunes.....	do.	.....	.....	13.5	13.4	16.3	17.4	28.0	.....	.....	.....	.....	.....	.....
Raisins.....	do.	.....	.....	12.5	12.9	14.8	15.4	19.4	.....	.....	.....	.....	.....	.....
Bananas.....	Dozen	.....	.....	.....	.....	.....	.....	38.4	.....	.....	.....	.....	.....	.....
Oranges.....	do.	.....	.....	.....	.....	.....	.....	53.9	.....	.....	.....	.....	.....	.....
22 weighted articles combined.	.....	.....	.....	.....	.....	.....	.....	.....	+ 4	- 2	+14	+ 48	+ 72	+ 83

1 No change in price.
2 Baked weight.

3 Increase of less than five-tenths of 1 per cent.
4 Decrease of less than five-tenths of 1 per cent.

RELATIVE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN THE UNITED STATES, JANUARY, 1913, TO SEPTEMBER, 1919.

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.	Potatoes.	Sugar.	Coffee.	Tea.	All articles combined.	
1913: Av. for year...	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
January.....	94	92	95	93	92	89	94	93	97	95	108	107	100	100	100	100	99	99	91	106	100	100	100	98
February.....	94	93	95	93	93	90	95	94	98	97	91	108	100	100	100	100	100	98	99	90	100	100	100	97
March.....	97	96	98	98	98	97	97	97	99	100	77	108	100	100	100	100	100	98	99	88	99	100	100	97
April.....	101	99	101	101	101	103	99	99	100	104	73	106	100	100	100	100	100	98	99	87	98	100	100	98
May.....	101	100	101	101	101	100	100	99	100	104	76	94	99	99	100	101	98	99	91	97	100	100	100	97
June.....	102	101	102	102	101	99	101	102	100	103	81	92	99	99	100	101	98	99	104	97	100	100	100	98
July.....	104	104	102	103	101	103	104	104	101	102	87	91	99	99	100	101	98	99	110	100	100	100	100	100
August.....	104	104	102	103	101	104	105	106	102	101	96	92	100	99	100	100	100	100	109	102	100	100	100	101
September.....	103	104	101	103	102	108	104	104	102	101	109	98	100	100	100	100	102	100	110	104	100	100	100	102
October.....	101	104	101	103	102	107	103	102	101	100	121	100	101	101	100	99	103	100	106	101	100	100	100	104
November.....	100	102	100	102	102	102	101	100	101	97	144	101	102	102	100	99	104	100	107	99	100	100	100	105
December.....	99	101	100	101	102	97	99	99	100	98	138	104	102	102	100	99	104	100	106	98	100	100	100	104
1914: Av. for year...	102	106	103	104	104	105	102	102	99	102	102	94	104	100	112	104	105	101	108	108	100	100	100	102
January.....	99	102	100	102	102	99	98	98	100	100	126	104	104	102	110	98	104	100	108	95	99	100	100	104
February.....	99	102	101	103	102	100	98	99	99	104	106	93	104	102	110	99	103	100	108	94	99	100	100	101
March.....	100	103	101	102	102	100	99	99	99	105	90	92	105	101	110	99	103	100	107	93	100	100	100	99
April.....	100	103	102	103	102	103	99	99	99	108	74	86	104	100	110	99	103	100	105	91	100	100	100	97
May.....	102	105	102	103	103	106	99	99	98	106	77	85	103	100	110	99	103	100	112	91	100	101	100	98
June.....	103	106	103	104	103	103	100	100	97	103	82	88	103	100	110	99	103	100	132	93	100	101	100	99
July.....	106	109	105	106	104	106	101	103	97	103	87	89	103	100	110	98	103	101	155	95	99	101	100	102
August.....	110	113	108	109	107	119	107	108	99	104	96	94	103	100	112	106	105	101	111	143	100	101	100	107
September.....	107	110	105	108	107	113	108	108	99	103	107	98	104	100	114	113	109	101	105	145	100	101	100	107
October.....	103	107	104	106	106	110	106	105	98	100	113	98	104	101	114	111	109	101	89	132	99	101	100	105
November.....	100	105	103	104	105	104	104	102	99	97	131	103	104	101	114	112	109	101	83	113	99	101	100	105
December.....	101	103	101	103	103	93	103	100	97	94	139	103	104	101	116	113	107	101	84	110	99	101	100	105
1915: Av. for year...	101	103	101	101	100	96	100	97	93	97	99	93	105	99	124	126	108	104	89	120	101	100	100	101
January.....	100	102	101	101	102	88	101	98	97	95	129	101	105	101	120	124	109	104	85	110	101	100	100	103
February.....	98	100	100	99	101	85	99	96	97	97	98	98	106	100	126	138	110	104	84	118	101	100	100	101
March.....	97	99	99	98	100	85	98	95	96	99	74	94	106	99	126	136	110	104	82	120	101	100	100	98
April.....	99	100	100	99	100	94	98	94	96	100	75	94	105	99	126	137	109	104	86	122	101	100	100	99
May.....	101	103	101	101	101	99	98	95	96	101	76	91	106	98	128	139	109	104	89	124	101	100	100	100
June.....	103	105	103	103	101	98	99	97	95	98	78	90	106	98	128	130	109	104	99	126	101	100	100	100
July.....	105	107	104	103	101	100	98	93	97	81	90	105	98	98	126	125	108	104	85	127	101	100	100	100
August.....	104	107	104	103	101	103	100	98	89	97	88	88	103	99	126	124	108	104	82	123	101	100	100	100
September.....	104	106	103	102	101	107	100	97	88	97	101	88	103	99	124	117	108	104	79	118	100	100	100	101
October.....	103	104	102	101	99	110	101	99	91	97	117	92	104	100	124	113	108	104	94	111	100	100	100	103
November.....	101	102	101	99	98	99	101	100	92	95	133	95	105	100	122	113	107	104	97	119	100	100	100	104
December.....	99	101	100	99	98	87	101	100	92	95	135	101	107	100	122	114	107	104	106	124	100	100	100	105

[1483]

RELATIVE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN THE UNITED STATES, JANUARY, 1913, TO SEPTEMBER, 1919—Concl'd.

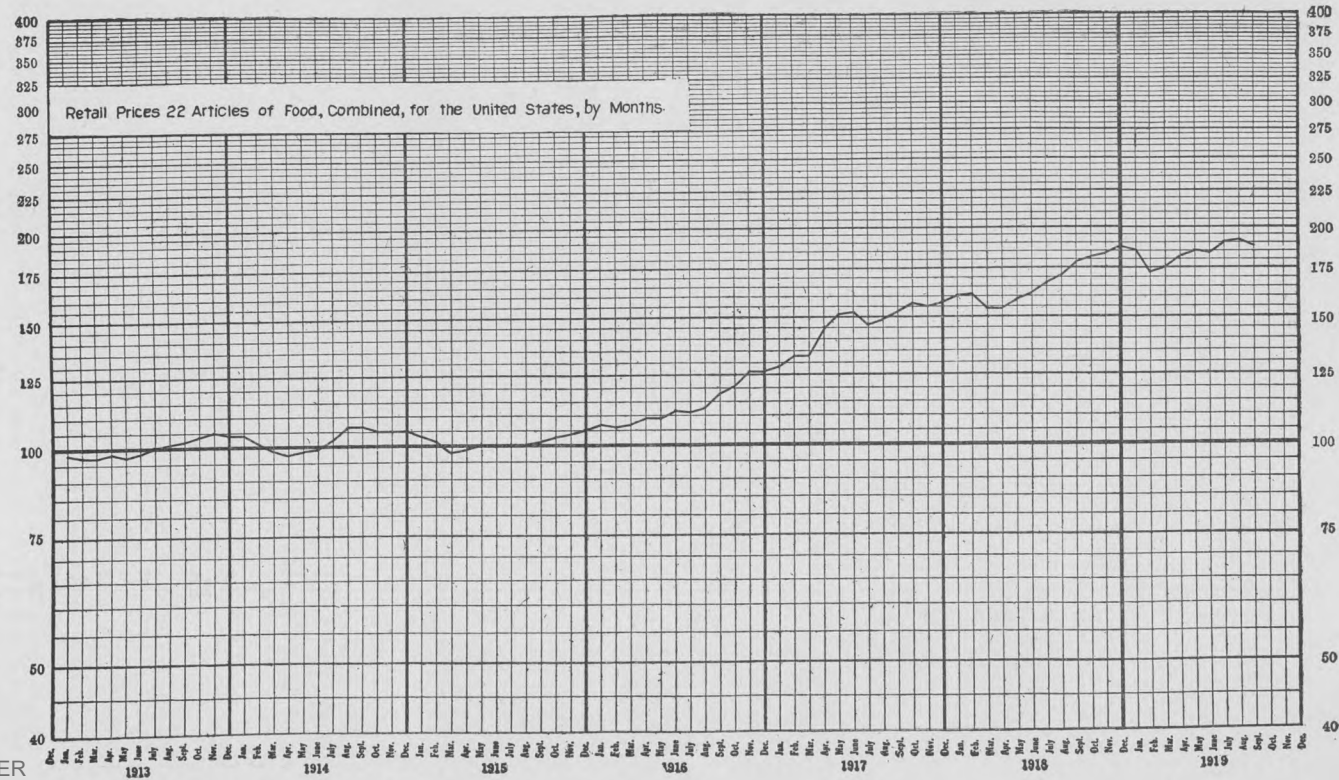
Year and month.	Sirloin steak.	Round steak.	Rib roast.	Chuck roast.	Plate beef.	Pork chops.	Bacon.	Ham.	Lard.	Hens.	Eggs.	Butter.	Cheese.	Milk.	Bread.	Flour.	Corn meal.	Rice.	Potatoes.	Sugar.	Coffee.	Tea.	All articles combined.
1916: Av. for year...	108	110	107	107	106	108	106	109	111	111	109	103	117	102	130	135	113	105	155	146	100	100	114
January.....	101	102	101	99	99	89	101	101	93	101	123	100	110	100	122	120	107	105	136	123	100	100	107
February.....	101	102	102	99	100	92	101	102	94	104	101	99	112	100	124	125	108	104	141	125	100	100	106
March.....	104	104	104	103	102	104	103	104	96	107	82	105	113	100	124	120	107	104	140	137	100	100	107
April.....	106	108	106	106	105	107	104	107	100	111	79	108	113	99	124	119	108	104	138	145	100	100	109
May.....	109	112	110	109	107	109	105	109	106	113	82	97	112	99	124	119	108	104	140	156	100	100	109
June.....	113	117	113	113	111	110	107	110	108	114	87	95	111	99	124	117	108	105	167	158	100	100	112
July.....	113	116	112	112	109	111	107	111	110	113	93	93	110	100	124	116	108	105	134	160	100	100	111
August.....	112	115	111	110	107	116	108	111	111	112	105	95	111	101	126	134	110	105	141	155	100	100	113
September.....	111	115	110	110	107	125	110	114	118	113	120	102	116	102	136	148	113	105	161	141	100	100	118
October.....	108	111	108	108	106	118	110	114	123	114	132	109	122	105	144	155	117	105	165	149	100	100	121
November.....	106	108	106	107	106	111	111	114	135	112	149	114	132	109	150	174	126	105	198	157	100	100	126
December.....	106	107	106	106	106	106	110	114	137	112	154	118	140	112	138	167	131	105	198	151	100	100	126
1917: Av. for year...	124	130	126	131	130	152	152	142	175	134	139	127	150	125	164	211	192	119	253	169	101	107	146
January.....	109	111	109	109	108	113	110	114	136	119	158	118	141	112	140	171	132	105	225	146	100	100	128
February.....	113	117	114	116	116	125	114	118	138	126	147	122	142	112	142	171	136	104	290	148	100	100	133
March.....	116	119	118	128	121	133	123	125	151	129	101	121	146	112	144	174	137	104	297	160	101	101	133
April.....	125	130	127	131	132	146	141	136	167	136	112	133	150	114	150	206	154	108	339	175	101	101	145
May.....	127	133	130	134	135	146	155	144	176	138	116	122	153	117	168	266	178	121	352	183	101	103	151
June.....	129	135	132	137	137	148	158	145	177	136	119	123	153	119	170	246	182	125	366	170	101	104	152
July.....	129	137	130	137	136	151	159	147	174	131	122	120	149	125	176	220	195	123	246	166	103	110	146
August.....	130	138	129	136	134	164	160	147	176	131	134	124	148	128	182	229	219	122	206	181	102	111	149
September.....	131	133	131	137	135	185	164	152	188	142	152	129	152	132	176	223	272	124	172	179	102	112	153
October.....	130	138	130	136	136	185	178	159	198	146	160	133	158	143	176	214	232	128	178	177	102	113	157
November.....	124	133	127	132	134	165	179	159	207	138	168	138	156	144	176	208	235	131	183	174	102	114	155
December.....	126	134	128	134	134	161	181	161	211	143	184	142	156	147	166	205	235	133	178	172	102	114	157
1918: Av. for year...	153	165	155	166	170	186	196	178	211	177	165	151	162	156	172	203	227	148	188	176	102	119	168
January.....	129	137	130	138	142	163	180	162	208	154	195	148	156	151	165	200	233	134	188	173	102	115	160
February.....	131	141	133	142	146	160	179	163	209	170	182	151	158	151	167	200	233	136	188	193	102	112	161
March.....	133	143	135	145	150	161	181	164	210	.....	128	144	159	151	168	200	240	138	147	167	102	113	154
April.....	144	155	148	159	164	170	183	166	209	.....	123	132	154	148	172	200	237	139	129	165	101	117	154
May.....	157	170	161	174	181	175	187	170	208	178	123	133	151	148	174	200	233	141	129	165	101	117	158
June.....	168	182	169	184	188	177	191	173	206	177	123	133	150	146	175	203	223	144	171	165	101	119	162
July.....	166	181	168	182	185	180	194	181	206	178	142	137	152	148	174	203	223	148	229	167	101	120	167
August.....	163	178	165	177	199	201	200	180	209	181	155	141	157	153	174	206	227	154	229	169	101	121	171
September.....	164	178	165	178	181	220	208	198	213	185	170	155	163	161	174	206	230	157	229	175	102	122	178
October.....	161	175	163	174	178	216	214	193	216	183	186	170	174	166	172	203	227	161	206	193	102	124	181
November.....	159	173	162	172	175	206	216	195	216	185	215	174	184	173	172	203	217	161	194	196	103	125	183
December.....	159	171	116	171	174	197	217	198	216	180	235	190	193	176	172	203	213	160	188	196	109	124	187

[1434]

1919:																									
January.....	162	175	165	175	181	193	217	199	211	188	218	184	201	175	172	200	207	159	188	196	117	127	185		
February.....	162	174	165	174	181	180	205	193	203	186	147	149	185	174	172	203	200	164	182	195	123	126	172		
March.....	165	177	169	178	183	184	203	191	211	193	140	174	183	166	172	206	197	154	171	193	126	129	175		
April.....	172	182	175	184	187	197	212	197	223	202	143	186	190	169	172	218	200	154	182	193	129	128	182		
May.....	175	187	178	186	181	205	210	203	246	204	154	177	191	167	172	227	207	154	194	193	136	128	185		
June.....	170	181	171	176	174	202	212	205	254	200	155	165	192	169	174	227	210	159	224	193	143	129	184		
July.....	171	183	169	173	168	220	215	211	266	197	164	164	195	169	175	227	217	108	282	198	155	130	190		
August.....	166	177	164	166	160	223	214	212	266	196	174	167	197	174	177	224	220	178	294	202	160	130	192		
September.....	161	170	158	158	150	219	206	205	242	194	183	172	195	176	177	221	223	190	253	200	163	130	188		

[14351]

TREND IN RETAIL PRICES OF 22 FOOD ARTICLES, COMBINED, FOR THE UNITED STATES, BY MONTHS, JANUARY, 1913, TO SEPTEMBER, 1919.
 [Average for 1913=100.]



[1436]

Trend in Retail Prices of 22 Food Articles,¹ Combined, by Months.

The chart on page 134 shows the curve in the retail cost of 22 of the most essential foods,¹ for the United States, for each month from January, 1913, to and including September, 1919. The logarithmic chart is used because the percentages of increase or decrease are more clearly seen than on an arithmetic chart.² The chart is the result of a weighted aggregate of actual prices in order that each commodity may have an influence equal only to its relative importance. The price of each commodity to be included in the aggregate for each month has been multiplied by a number representing the importance of that commodity in the average family consumption. These weighted products of the several commodities to be combined are added, and computed as percentages of the aggregate, similarly computed, for the year 1913. The resulting index numbers show the trend in the retail cost of the several articles combined.

From September, 1915, there has been a steady increase in the cost of these 22 articles of food. In December, 1918, the cost of these foods was 87 per cent above the 1913 average. In January, 1919, there was a slight decline. February prices declined 7 per cent, but from that date until June the prices advanced. In June, there was a decline of less than five-tenths of 1 per cent. July prices increased 3 per cent. August prices showed a further increase of 1 per cent, which month became the high-water mark. In September there was a decrease of 2 per cent. Using the average cost in the year 1913 as the base, or 100, the relative figure representing the September cost was 188, or an increase of 88 per cent over the year 1913.

Retail Prices of Food in 50 Cities on Specified Dates.

Effort is made by the Bureau to secure quotations on similar grades of commodities in all cities. There are, however, some local customs which must be taken into consideration when any comparison is made of the prices in the different cities. The method of cutting sirloin steak in Boston, Mass.; Manchester, N. H.; Philadelphia, Pa.; Providence, R. I.; and Portland, Me., differs from that in other cities. The cut known as "sirloin" in these five cities would be in other cities known as "porterhouse." There is in these cities, owing to the methods of dividing the round from the loin, no cut that corresponds to that of "sirloin" in other cities. There is also a greater amount of trimming demanded by the retail trade in these cities than in others. This is particularly true of Providence, R. I. These, together with the fact that almost all the beef sold in these cities is of better grade, are the main reasons why the retail prices of beef in these cities are higher than in others.

¹ See note on page 128.

² For 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" chart by Prof. Irving Fisher, Reprinted from Quarterly Publications of the American Statistical Association, June, 1917, 24 pages.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD

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

Article.	Unit.	Atlanta, Ga.						Baltimore, Md.					
		Sept. 15—				Aug. 15, 1919.	Sept. 15, 1919.	Sept. 15—				Aug. 15, 1919.	Sept. 15, 1919.
		1913	1914	1917	1918			1913	1914	1917	1918		
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak.....	Lb.	24.0	28.3	31.2	40.6	39.5	38.7	25.0	24.8	33.4	46.1	42.7	41.8
Round steak.....	Lb.	21.5	24.1	28.1	37.1	37.5	35.6	23.0	23.8	31.9	45.6	41.1	40.5
Rib roast.....	Lb.	19.6	19.9	23.7	31.4	29.9	28.8	19.0	19.8	25.9	36.4	33.7	33.1
Chuck roast.....	Lb.	16.0	16.8	20.3	27.3	23.8	22.5	16.0	16.2	22.5	31.2	28.1	26.9
Plate beef.....	Lb.	9.5	10.5	15.4	21.2	19.4	17.2	12.6	13.9	17.1	24.2	21.6	20.9
Pork chops.....	Lb.	24.0	24.8	37.3	45.6	44.3	42.2	22.0	21.7	39.5	50.4	47.8	47.3
Bacon.....	Lb.	33.1	32.5	43.9	58.9	61.0	60.2	26.5	26.0	45.4	55.9	53.6	52.3
Ham.....	Lb.	31.0	32.6	41.3	52.5	57.9	55.4	32.0	32.0	44.5	57.2	60.6	60.4
Lamb.....	Lb.	20.0	21.0	32.4	38.9	38.8	38.0	19.3	18.8	32.6	40.9	37.1	35.8
Hens.....	Lb.	20.5	21.1	28.8	37.7	37.3	38.6	21.8	21.1	31.5	42.7	46.0	45.4
Salmon, canned.....	Lb.	.....	22.9	24.7	26.8	27.0	27.0	.....	.....	25.4	27.5	28.7	29.9
Milk, fresh.....	Qt.	10.0	10.6	15.0	20.0	20.0	22.5	8.7	8.7	11.7	16.0	15.0	15.5
Milk, evaporated (unsweetened).....	Qt.	.....	.....	.....	.....	17.0	17.2	.....	.....	.....	.....	16.1	16.1
Butter.....	Lb.	39.7	38.7	53.1	60.5	69.1	68.2	38.6	38.6	52.8	61.7	67.8	68.4
Oleomargarine.....	Lb.	.....	.....	.....	.....	43.1	42.8	.....	.....	.....	.....	39.0	40.4
Nut margarine.....	Lb.	.....	.....	.....	.....	38.9	37.8	.....	.....	.....	.....	35.0	35.7
Cheese.....	Lb.	25.0	25.0	34.1	36.1	43.2	41.3	22.5	23.3	35.0	36.9	44.4	43.3
Lard.....	Lb.	15.8	16.1	29.4	34.7	43.7	37.3	15.3	14.8	29.9	33.7	41.9	37.7
Crisco.....	Lb.	.....	.....	.....	.....	38.7	39.2	.....	.....	.....	.....	40.2	37.8
Eggs, strictly fresh.....	Doz.	33.7	33.3	47.5	53.8	56.5	58.1	34.7	32.3	49.1	57.4	55.7	59.4
Bread.....	Lb.	.....	.....	.....	.....	10.0	10.0	.....	.....	.....	.....	9.6	9.6
Flour.....	Lb.	3.4	3.6	7.2	7.0	7.4	7.3	3.2	3.7	7.5	7.1	7.7	7.5
Corn meal.....	Lb.	2.7	2.8	6.1	5.7	6.2	6.1	2.5	2.7	6.3	6.5	5.8	6.0
Rolled oats.....	Lb.	.....	.....	.....	.....	10.3	11.1	.....	.....	.....	.....	7.6	8.1
Corn flakes.....	(¹)	.....	.....	.....	.....	14.1	14.2	.....	.....	.....	.....	13.0	13.2
Cream of Wheat.....	(¹)	.....	.....	.....	.....	25.4	25.0	.....	.....	.....	.....	23.2	23.4
Macaroni.....	Lb.	.....	.....	.....	.....	20.7	20.3	.....	.....	.....	.....	17.6	17.9
Rice.....	Lb.	8.6	8.6	10.4	14.2	16.1	16.7	9.0	9.0	11.0	13.5	15.4	17.0
Beans, navy.....	Lb.	.....	.....	18.6	18.7	14.1	14.3	.....	.....	18.0	17.7	12.5	12.7
Potatoes.....	Lb.	2.3	2.2	3.3	5.0	6.4	5.7	1.8	1.8	2.8	4.3	4.6	4.0
Onions.....	Lb.	.....	.....	5.9	6.3	9.7	8.6	.....	.....	5.2	6.0	7.3	6.5
Cabbage.....	Lb.	.....	.....	.....	.....	7.3	6.6	.....	.....	.....	.....	4.6	4.4
Beans, baked.....	(¹)	.....	.....	.....	.....	16.3	16.1	.....	.....	.....	.....	15.5	15.7
Corn, canned.....	(¹)	.....	.....	.....	.....	20.1	20.5	.....	.....	.....	.....	18.5	19.3
Peas, canned.....	(¹)	.....	.....	.....	.....	20.4	20.1	.....	.....	.....	.....	17.8	18.8
Tomatoes, canned.....	(¹)	.....	.....	.....	.....	14.1	14.4	.....	.....	.....	.....	14.5	14.7
Sugar, granulated.....	Lb.	5.9	8.0	10.4	9.4	12.1	11.6	5.2	7.3	9.2	9.1	10.8	10.8
Tea.....	Lb.	60.0	60.0	75.3	89.7	87.3	88.9	56.0	56.0	63.8	70.2	73.9	72.4
Coffee.....	Lb.	32.0	33.0	28.5	31.1	48.1	49.3	24.8	24.4	27.9	28.5	44.9	45.1
Prunes.....	Lb.	.....	.....	17.6	18.6	21.8	22.2	.....	.....	16.4	17.8	28.3	29.1
Raisins.....	Lb.	.....	.....	15.0	17.2	17.9	19.4	.....	.....	14.5	15.5	18.0	19.3
Bananas.....	Doz.	.....	.....	.....	.....	30.6	29.7	.....	.....	.....	.....	32.3	31.5
Oranges.....	Doz.	.....	.....	.....	.....	59.1	58.9	.....	.....	.....	.....	56.2	59.2

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

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD

Article.	Unit.	Chicago, Ill.						Cleveland, Ohio.					
		Sept. 15—				Aug. 15, 1919.	Sept. 15, 1919.	Sept. 15—				Aug. 15, 1919.	Sept. 15, 1919.
		1913	1914	1917	1918			1913	1914	1917	1918		
Sirloin steak.....	Lb.	Cts. 24.3	Cts. 26.7	Cts. 31.5	Cts. 38.6	Cts. 41.1	Cts. 38.4	Cts. 25.4	Cts. 26.7	Cts. 31.2	Cts. 38.5	Cts. 40.2	Cts. 38.7
Round steak.....	Lb.	21.4	23.6	28.1	35.9	36.1	34.1	22.9	23.7	29.1	36.1	36.7	35.6
Rib roast.....	Lb.	20.3	21.7	25.8	32.6	32.5	30.7	18.9	19.9	23.8	29.5	30.3	28.8
Chuck roast.....	Lb.	15.9	18.1	22.0	28.7	27.2	26.1	16.9	17.7	21.4	27.5	25.9	24.9
Plate beef.....	Lb.	11.9	12.9	16.5	21.6	19.5	19.2	11.7	12.4	15.8	20.5	17.9	17.6
Pork chops.....	Lb.	21.8	22.0	37.4	42.6	44.7	43.9	24.4	24.3	41.5	49.3	47.5	47.2
Bacon.....	Lb.	32.6	33.1	47.6	57.7	61.7	58.6	29.6	30.5	45.2	54.2	54.6	52.6
Ham.....	Lb.	32.2	34.1	43.9	51.7	59.8	57.9	37.3	35.0	42.1	53.8	60.1	59.6
Lamb.....	Lb.	19.9	20.3	32.0	36.2	35.8	34.1	18.7	21.1	30.8	35.2	37.2	35.2
Hens.....	Lb.	19.2	20.7	29.4	36.8	38.3	37.9	21.9	22.6	32.7	40.3	42.6	41.4
Salmon, canned.....	Lb.	.....	.....	28.3	31.3	33.7	34.7	.....	.....	26.2	29.5	31.3	33.0
Milk, fresh.....	Qt.	8.0	8.0	10.0	12.9	15.0	15.0	8.0	8.0	12.0	14.0	15.0	15.0
Milk, evaporated (unsweetened). (1)	Lb.	.....	.....	.....	.....	15.2	15.3	.....	.....	.....	.....	16.7	16.8
Butter.....	Lb.	35.3	34.0	48.4	57.5	58.4	60.3	38.3	38.5	51.6	61.2	63.2	64.8
Oleomargarine.....	Lb.	.....	.....	.....	.....	41.3	41.1	.....	.....	.....	.....	44.3	43.3
Nut margarine.....	Lb.	.....	.....	.....	.....	33.8	33.7	.....	.....	.....	.....	35.7	35.6
Cheese.....	Lb.	25.7	25.0	34.4	37.6	44.6	44.8	24.0	25.0	33.2	34.8	43.6	43.2
Lard.....	Lb.	15.0	15.2	28.3	32.6	39.9	36.3	16.4	16.3	30.2	33.7	41.4	37.7
Crisco.....	Lb.	.....	.....	.....	.....	38.3	37.7	.....	.....	.....	.....	39.9	39.5
Eggs, strictly fresh.....	Doz.	30.4	29.8	46.5	52.1	64.9	56.1	36.8	36.1	54.2	59.9	62.4	64.0
Bread.....	Lb. ²	.....	.....	.....	.....	10.0	10.0	.....	.....	.....	.....	10.1	10.0
Flour.....	Lb.	2.9	3.4	6.9	6.5	7.2	7.1	3.2	3.9	7.3	6.8	7.6	7.2
Corn meal.....	Lb.	2.8	2.8	6.5	6.8	6.1	6.8	2.9	3.4	6.9	6.7	6.1	6.3
Rolled oats.....	Lb.	.....	.....	.....	.....	6.7	6.9	.....	.....	.....	.....	8.7	9.2
Corn flakes.....	Lb. ⁽³⁾	12.8	12.9	.....	.....	.....	.....	14.3	14.2
Cream of Wheat.....	Lb. ⁽⁴⁾	23.9	23.9	.....	.....	.....	.....	24.5	24.4
Macaroni.....	Lb.	.....	.....	.....	.....	18.2	18.3	.....	.....	.....	.....	18.6	18.6
Rice.....	Lb.	9.0	9.0	10.3	13.3	14.8	15.4	9.0	9.5	10.6	14.1	15.8	16.9
Beans, navy.....	Lb.	.....	.....	18.3	16.6	11.9	12.1	.....	.....	18.6	14.8	12.4	12.6
Potatoes.....	Lb.	1.8	1.7	2.7	3.2	5.2	4.4	2.0	1.9	2.9	4.1	5.5	5.0
Onions.....	Lb.	.....	.....	3.9	4.2	6.9	6.3	.....	.....	4.9	4.6	6.6	5.5
Cabbage.....	Lb.	.....	.....	.....	.....	5.2	5.3	.....	.....	.....	.....	6.1	6.2
Beans, baked.....	Lb. ⁽⁶⁾	16.8	16.6	.....	.....	.....	.....	16.3	16.3
Corn, canned.....	Lb. ⁽⁶⁾	17.8	17.5	.....	.....	.....	.....	19.6	19.7
Peas, canned.....	Lb. ⁽⁵⁾	17.9	17.3	.....	.....	.....	.....	19.2	18.9
Tomatoes, canned.....	Lb. ⁽⁶⁾	15.4	15.8	.....	.....	.....	.....	16.7	16.6
Sugar, granulated.....	Lb.	5.2	7.5	9.1	9.0	11.9	11.3	5.6	8.2	9.8	9.4	11.0	10.9
Tea.....	Lb.	55.0	55.0	56.4	59.8	63.0	63.7	50.0	50.0	56.5	63.6	70.6	72.8
Coffee.....	Lb.	30.7	30.0	28.4	28.3	43.1	44.5	26.5	26.5	29.4	29.7	48.4	49.4
Prunes.....	Lb.	.....	.....	15.9	17.2	28.5	29.9	.....	.....	16.5	17.2	26.8	24.9
Raisins.....	Lb.	.....	.....	14.7	15.2	18.3	19.6	.....	.....	14.3	14.4	19.3	20.7
Bananas.....	Doz.	.....	.....	.....	.....	36.8	35.6	.....	.....	.....	.....	46.8	45.0
Oranges.....	Doz.	49.7	49.8	54.1	53.4

¹ 15-16 ounce can.² Baked weight.³ 8-ounce package.

MONTHLY LABOR REVIEW.

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ON SEPT. 15, 1913, 1914, 1917, 1918, 1919, AND AUG. 15, 1919, FOR 19 CITIES—Continued.

Denver, Colo.						Detroit, Mich.						Los Angeles, Calif.					
Sept. 15—				Aug. 15, 1919.	Sept. 15, 1919.	Sept. 15—				Aug. 15, 1919.	Sept. 15, 1919.	Sept. 15—				Aug. 15, 1919.	Sept. 15, 1919.
1913	1914	1917	1918			1913	1914	1917	1918			1913	1914	1917	1918		
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	
24.3	24.3	31.7	38.1	38.0	34.0	26.3	24.9	31.3	39.3	42.0	38.6	24.0	24.3	27.2	32.8	32.0	
21.4	23.1	23.3	35.4	35.1	31.7	21.0	21.8	28.3	36.1	37.5	34.3	21.0	21.3	24.6	31.5	28.6	
17.8	18.1	23.9	29.3	29.8	27.7	20.0	19.5	25.2	30.5	32.1	29.2	19.6	19.9	22.9	29.4	27.3	
15.8	16.8	20.6	26.2	23.5	22.2	15.0	16.4	20.5	26.4	25.5	23.2	15.8	15.8	18.1	24.0	20.3	
9.7	10.7	14.0	18.1	16.0	14.5	11.0	12.2	16.1	21.3	18.4	17.1	12.1	12.7	14.9	19.7	16.0	
20.4	22.9	39.9	44.0	44.9	44.5	22.3	22.6	40.3	46.9	48.4	46.5	25.4	26.9	36.3	44.5	50.6	
29.0	30.5	48.0	58.8	60.0	57.0	24.7	25.7	44.8	54.5	57.7	52.8	33.1	35.7	49.0	63.5	66.0	
33.3	33.3	46.4	54.0	62.1	60.9	27.0	30.0	42.5	53.6	61.9	58.6	35.8	37.8	47.1	59.6	64.0	
16.0	17.9	30.2	34.8	33.9	30.2	16.0	18.5	31.6	36.7	37.9	35.1	18.8	18.7	28.5	33.3	30.7	
19.7	21.2	28.5	35.4	38.7	37.7	20.5	21.6	33.1	40.4	43.7	41.6	26.2	27.0	27.7	40.0	45.4	
.....	.....	27.5	29.4	32.5	33.9	.....	.....	28.9	30.0	31.5	33.3	.....	.....	25.7	38.7	38.3
8.4	8.4	11.5	11.8	12.8	12.8	8.0	8.0	12.0	14.8	16.0	16.0	10.0	10.0	12.0	14.0	14.0	
.....	.....	.....	.....	16.1	16.3	.....	.....	.....	.....	15.7	15.9	.....	.....	.....	14.6	14.6
38.6	34.6	49.4	58.0	61.2	63.9	35.9	36.5	49.7	58.8	62.6	64.2	43.5	36.9	49.9	59.9	64.7	
.....	.....	.....	.....	40.2	40.7	.....	.....	.....	.....	43.4	42.3	.....	.....	.....	44.9	46.8
.....	.....	.....	.....	35.3	35.3	.....	.....	.....	.....	34.5	34.7	.....	.....	.....	36.4	36.4
26.1	26.1	35.2	37.2	44.7	44.7	20.7	22.0	32.9	35.6	43.6	42.1	19.5	20.0	33.2	37.2	44.5	
16.5	15.8	31.0	33.9	41.5	39.0	16.9	15.7	30.3	33.5	42.4	37.8	17.9	17.1	28.9	33.7	39.7	
.....	.....	.....	.....	39.2	38.4	.....	.....	.....	.....	40.4	38.4	.....	.....	.....	41.0	37.1
32.1	34.3	49.3	54.2	57.3	58.6	32.0	31.7	51.1	58.2	61.5	62.3	46.3	42.8	53.3	65.9	60.9	
.....	.....	.....	.....	11.7	11.2	.....	.....	.....	.....	10.4	10.2	.....	.....	.....	9.4	9.4
2.6	3.1	5.8	6.0	6.1	6.1	3.1	3.7	7.1	6.9	7.3	7.1	3.5	4.0	6.8	7.1	7.4	
2.6	2.7	5.9	6.9	6.1	5.9	2.8	3.4	7.2	7.0	6.7	7.2	3.3	3.9	6.9	7.6	7.4	
.....	.....	.....	.....	8.6	8.6	.....	.....	.....	.....	8.1	8.3	.....	.....	.....	8.8	8.7
.....	.....	.....	.....	14.6	14.7	.....	.....	.....	.....	13.8	13.8	.....	.....	.....	13.4	12.8
.....	.....	.....	.....	25.2	25.1	.....	.....	.....	.....	24.9	24.9	.....	.....	.....	24.3	24.2
.....	.....	.....	.....	19.4	19.0	.....	.....	.....	.....	19.8	19.2	.....	.....	.....	15.7	17.0
8.6	8.6	11.3	14.5	14.9	15.9	8.4	8.4	11.3	13.6	15.6	17.2	7.7	8.0	10.3	13.8	14.7	
.....	.....	19.1	16.2	12.8	13.4	.....	.....	19.0	15.0	11.6	12.2	.....	.....	17.2	16.5	10.8
1.8	1.6	2.5	3.4	4.8	3.6	1.9	1.7	2.8	3.7	5.5	4.3	1.7	1.9	3.1	3.8	3.9	
.....	.....	3.9	4.6	7.1	5.0	.....	.....	4.8	5.1	8.3	6.5	.....	.....	2.8	4.3	5.2
.....	.....	.....	.....	3.2	2.7	.....	.....	.....	.....	4.9	4.5	.....	.....	.....	3.4	3.3
.....	.....	.....	.....	17.9	17.6	.....	.....	.....	.....	16.2	16.0	.....	.....	.....	17.7	17.8
.....	.....	.....	.....	18.2	18.3	.....	.....	.....	.....	20.1	20.4	.....	.....	.....	18.9	18.5
.....	.....	.....	.....	19.7	19.5	.....	.....	.....	.....	19.2	19.3	.....	.....	.....	19.4	18.6
.....	.....	.....	.....	15.9	15.5	.....	.....	.....	.....	17.4	17.7	.....	.....	.....	15.1	15.0
5.9	7.9	9.5	10.4	11.1	11.2	5.7	8.1	9.9	9.5	11.3	11.1	5.7	7.8	9.0	9.5	10.2	
52.8	52.8	57.2	62.1	70.8	69.5	43.3	43.3	55.9	58.7	63.1	62.1	54.5	54.5	58.9	65.0	67.9	
29.4	29.4	30.4	30.4	48.4	48.9	29.3	30.0	31.0	30.1	47.7	48.6	36.3	36.3	32.3	30.4	44.9	
.....	.....	18.3	17.8	24.9	25.4	.....	.....	17.0	18.0	29.3	29.4	.....	.....	16.1	17.8	29.5
.....	.....	14.5	14.7	18.4	19.7	.....	.....	14.0	15.0	17.9	19.8	.....	.....	14.1	14.1	16.9
.....	.....	.....	.....	42.5	43.3	.....	.....	.....	.....	31.8	30.5	.....	.....	.....	41.0	40.0
.....	.....	.....	.....	50.2	49.9	.....	.....	.....	.....	53.8	52.7	.....	.....	.....	38.3	40.9

* 28-ounce package.

* No. 2 can.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD ON

Article.	Unit.	Milwaukee, Wis.					New Orleans, La.						
		Sept. 15—				Aug. 15, 1919.	Sept. 15—				Aug. 15, 1919.	Sept. 15, 1919.	
		1913	1914	1917	1918		1913	1914	1917	1918			
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	
Sirloin steak.....	Lb.	23.6	25.0	30.0	37.3	40.1	38.7	22.5	23.0	27.7	32.5	33.9	32.3
Round steak.....	Lb.	21.6	22.7	28.1	35.8	37.8	33.6	18.5	20.4	24.2	30.2	31.1	29.3
Rib roast.....	Lb.	19.2	19.5	24.0	29.8	31.3	30.6	17.5	19.3	23.2	29.3	29.9	28.6
Chuck roast.....	Lb.	16.4	17.5	21.9	27.5	28.4	27.4	14.3	14.9	18.1	22.6	22.6	21.7
Plate beef.....	Lb.	12.0	12.9	16.1	20.8	20.0	19.3	11.2	12.8	15.3	19.2	18.9	18.5
Pork chops.....	Lb.	21.6	22.3	38.3	42.8	44.7	45.2	25.0	26.2	36.8	47.4	48.9	46.4
Bacon.....	Lb.	28.6	29.7	45.2	54.4	58.1	56.8	32.1	33.1	48.8	58.9	60.0	59.1
Ham.....	Lb.	29.0	30.2	41.8	50.2	55.9	55.4	28.8	30.0	39.7	48.0	57.1	52.7
Lamb.....	Lb.	20.5	20.4	32.1	35.2	38.2	36.7	20.0	22.2	31.6	37.6	39.1	36.7
Hens.....	Lb.	19.8	20.2	29.7	36.6	39.3	38.6	22.5	21.9	30.0	39.1	40.7	42.1
Salmon, canned.....	Lb.	.....	.....	26.6	29.5	34.6	35.1	.....	.....	28.5	32.8	36.9	35.8
Milk, fresh.....	Qt.	7.0	7.0	9.0	12.0	13.0	13.0	9.5	9.7	11.6	14.8	16.5	16.0
Milk, evaporated (unsweetened). (2)	Lb.	.....	.....	.....	.....	16.7	17.0	.....	.....	.....	.....	16.1	16.3
Butter.....	Lb.	34.8	35.5	48.5	58.4	61.7	63.9	36.8	37.9	50.5	56.8	64.0	65.7
Oleomargarine.....	Lb.	.....	.....	.....	.....	42.9	.....	.....	.....	.....	.....	43.5	44.5
Nut margarine.....	Lb.	.....	.....	.....	.....	34.7	34.7	.....	.....	.....	.....	36.7	36.3
Cheese.....	Lb.	21.3	21.3	33.1	35.7	43.5	42.8	21.4	22.8	33.0	35.5	44.1	43.0
Lard.....	Lb.	15.8	16.3	29.4	33.5	42.2	38.4	15.1	14.7	28.1	33.3	42.7	38.5
Crisco.....	Lb.	.....	.....	.....	.....	38.1	39.3	.....	.....	.....	.....	39.2	38.9
Eggs, strictly fresh.....	Doz.	30.0	31.7	45.4	49.7	51.9	52.8	32.0	33.5	44.3	52.7	55.6	58.1
Bread.....	Lb. ³	.....	.....	.....	.....	10.0	10.0	.....	.....	.....	.....	9.1	9.1
Flour.....	Lb.	3.1	3.7	7.3	6.6	7.5	7.4	3.8	4.0	7.9	7.3	7.5	7.4
Corn meal.....	Lb.	3.3	3.6	8.0	6.9	6.1	6.3	2.9	3.1	7.2	6.6	6.0	6.1
Rolled oats.....	Lb.	.....	.....	.....	.....	8.5	8.5	.....	.....	.....	.....	8.9	8.6
Corn flakes.....	Lb. ⁽⁴⁾	14.2	14.2	.....	.....	.....	.....	14.1	14.2
Cream of Wheat.....	(⁵)	.....	.....	.....	.....	25.2	25.3	.....	.....	.....	.....	25.0	24.9
Macaroni.....	Lb.	.....	.....	.....	.....	19.3	19.4	.....	.....	.....	.....	11.1	11.1
Rice.....	Lb.	9.0	9.5	11.3	14.4	15.3	16.7	7.4	7.5	10.1	12.4	15.1	15.2
Beans, navy.....	Lb.	.....	.....	18.8	15.1	11.7	11.7	.....	.....	17.1	16.2	11.0	11.3
Potatoes.....	Lb.	1.6	1.8	2.9	3.4	5.5	4.3	2.3	2.4	3.9	4.5	4.8	5.5
Onions.....	Lb.	.....	.....	4.6	4.7	7.3	6.2	.....	.....	3.5	4.8	7.6	5.7
Cabbage.....	Lb.	.....	.....	.....	.....	3.8	3.3	.....	.....	.....	.....	4.8	4.7
Beans, baked.....	(⁶)	.....	.....	.....	.....	16.4	16.5	.....	.....	.....	.....	17.5	17.4
Corn, canned.....	(⁶)	.....	.....	.....	.....	18.0	17.9	.....	.....	.....	.....	17.4	17.4
Peas, canned.....	(⁶)	.....	.....	.....	.....	17.4	17.8	.....	.....	.....	.....	18.2	18.7
Tomatoes, canned.....	(⁶)	.....	.....	.....	.....	17.5	17.5	.....	.....	.....	.....	14.7	14.9
Sugar, granulated.....	Lb.	5.5	5.5	9.4	9.6	11.1	11.1	5.4	8.1	9.7	9.3	10.8	10.9
Tea.....	Lb.	50.0	50.5	59.9	62.3	67.5	69.1	62.1	62.1	61.5	62.5	68.4	68.2
Coffee.....	Lb.	27.5	27.5	27.3	26.6	45.9	47.5	26.1	25.7	26.6	24.9	43.8	43.3
Prunes.....	Lb.	.....	.....	15.9	15.7	26.6	26.0	.....	.....	17.4	17.9	31.5	34.0
Raisins.....	Lb.	.....	.....	15.0	14.8	18.5	18.8	.....	.....	15.5	16.6	19.0	18.6
Bananas.....	Doz.	.....	.....	.....	.....	36.3	35.7	.....	.....	.....	.....	21.3	20.0
Oranges.....	Doz.	.....	.....	.....	.....	54.7	56.5	.....	.....	.....	.....	61.0	66.8

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

SEPT. 15, 1913, 1914, 1917, 1918, 1919, AND AUG. 15, 1919, FOR 19 CITIES—Continued.

New York, N. Y.						Philadelphia, Pa.						Pittsburgh, Pa.					
Sept. 15—				Aug. 15, 1919.	Sept. 15, 1919.	Sept. 15—				Aug. 15, 1919.	Sept. 15, 1919.	Sept. 15—				Aug. 15, 1919.	Sept. 15, 1919.
1913	1914	1917	1918			1913	1914	1917	1918			1913	1914	1917	1918		
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	
26.4	28.0	36.8	46.3	44.0	42.5	31.7	32.4	40.2	53.4	52.6	51.3	27.7	29.3	36.5	48.0	44.8	
25.7	27.8	36.8	48.0	45.6	44.4	27.1	29.7	37.4	49.7	48.4	47.3	24.7	26.3	33.7	44.3	40.9	
21.5	23.2	29.8	38.7	38.3	37.5	22.3	23.5	29.5	39.3	39.6	39.4	22.2	23.0	27.9	36.2	34.7	
16.1	17.6	23.5	32.3	28.9	27.8	18.2	19.3	25.8	34.8	32.1	31.1	17.5	18.7	24.2	32.0	28.9	
14.6	16.1	21.1	29.0	26.0	24.0	12.5	12.4	17.1	23.7	20.6	19.6	12.8	13.3	17.0	23.1	19.0	
23.0	24.9	39.4	47.7	47.8	47.4	23.2	23.5	40.3	51.0	51.1	49.8	25.2	24.8	40.3	49.0	49.0	
26.2	26.8	44.0	54.8	53.6	51.3	28.2	29.1	44.7	56.8	56.5	55.5	30.4	31.1	46.2	59.1	59.7	
30.0	31.3	45.4	38.1	61.3	59.3	32.6	32.8	47.0	57.2	63.0	63.0	31.6	32.5	45.3	57.9	63.0	
15.3	17.0	29.5	33.3	31.4	29.6	19.7	20.3	33.6	40.4	41.9	39.9	20.0	21.3	35.3	39.2	39.2	
21.8	22.6	31.6	41.3	41.8	40.3	22.9	24.1	32.7	44.3	46.0	44.9	25.8	25.0	37.1	45.3	48.8	
.....	.....	33.2	34.5	37.5	39.6	.....	.....	25.1	28.3	.....	30.7	.....	.....	29.7	31.6	32.4
9.0	9.0	12.4	14.0	16.0	16.0	8.0	8.0	11.0	13.0	14.0	14.0	8.6	9.0	12.5	14.0	15.3	
.....	.....	.....	.....	15.4	15.5	.....	.....	.....	.....	15.6	15.7	.....	.....	.....	.....	15.8
37.4	38.1	50.7	59.9	63.0	65.3	42.5	42.9	55.9	63.7	68.8	70.3	39.3	38.8	51.7	61.0	65.1	
.....	.....	.....	.....	42.8	42.7	.....	.....	.....	.....	44.8	45.4	.....	.....	.....	.....	41.9
.....	.....	.....	.....	34.2	34.7	.....	.....	.....	.....	37.4	38.0	.....	.....	.....	.....	35.6
19.6	19.8	33.8	34.3	42.8	42.5	25.0	28.0	35.5	37.0	46.1	45.7	24.5	25.0	33.8	37.1	43.3	
16.3	16.2	29.4	33.5	41.6	38.3	15.9	15.0	30.3	33.6	41.0	38.4	15.7	15.5	30.8	33.6	41.9	
.....	.....	.....	.....	39.1	37.8	.....	.....	.....	.....	39.0	38.1	.....	.....	.....	.....	41.4
44.2	41.6	59.2	65.7	68.5	70.9	39.7	37.6	53.1	60.3	62.9	65.3	34.8	32.6	50.9	57.5	57.7	
.....	.....	.....	.....	10.0	10.0	.....	.....	.....	.....	9.4	9.4	.....	.....	.....	.....	10.3
3.2	3.8	7.9	7.3	7.8	7.7	3.2	3.9	7.6	7.0	7.4	7.5	3.2	3.9	7.5	6.8	7.6	
3.4	3.6	7.6	7.8	7.3	7.3	2.7	2.9	6.6	6.9	5.7	6.0	2.8	3.2	7.9	7.5	7.0	
.....	.....	.....	.....	7.8	7.8	.....	.....	.....	.....	7.8	8.3	.....	.....	.....	.....	8.8
.....	.....	.....	.....	12.1	12.0	.....	.....	.....	.....	12.3	12.4	.....	.....	.....	.....	13.6
.....	.....	.....	.....	24.2	24.1	.....	.....	.....	.....	24.3	24.4	.....	.....	.....	.....	25.1
.....	.....	.....	.....	20.0	19.5	.....	.....	.....	.....	20.2	20.4	.....	.....	.....	.....	18.1
8.0	8.3	10.7	13.6	16.1	16.5	9.8	10.0	11.2	14.7	16.6	17.1	9.2	9.2	10.6	14.1	15.5	
.....	.....	18.5	17.4	12.5	12.6	.....	.....	18.2	16.8	12.2	12.3	.....	.....	18.4	17.2	12.3
2.5	2.2	3.3	3.8	4.9	4.5	2.2	2.0	3.5	4.3	5.2	4.9	2.1	1.7	3.0	4.0	5.2	
.....	.....	5.0	5.3	8.6	6.8	.....	.....	5.4	5.4	8.9	7.1	.....	.....	5.0	5.5	9.1
.....	.....	.....	.....	4.0	4.1	.....	.....	.....	.....	5.2	6.8	.....	.....	.....	.....	5.2
.....	.....	.....	.....	15.5	15.8	.....	.....	.....	.....	14.3	14.3	.....	.....	.....	.....	16.3
.....	.....	.....	.....	19.4	19.2	.....	.....	.....	.....	18.6	18.7	.....	.....	.....	.....	19.1
.....	.....	.....	.....	18.2	18.0	.....	.....	.....	.....	18.2	18.2	.....	.....	.....	.....	19.0
.....	.....	.....	.....	15.3	16.1	.....	.....	.....	.....	14.3	15.3	.....	.....	.....	.....	15.2
5.1	7.1	9.2	9.8	10.6	10.6	5.0	7.6	9.1	9.7	10.3	10.5	5.8	8.3	9.9	9.8	11.3	
43.3	43.3	53.6	53.6	55.6	55.6	54.0	54.0	58.3	58.6	61.0	61.1	58.0	60.0	69.3	75.8	82.7	
27.2	26.3	25.6	27.7	45.4	45.5	24.5	24.5	27.7	26.7	43.1	44.9	30.0	29.3	30.3	29.8	47.6	
.....	.....	16.4	18.9	31.9	32.7	.....	.....	15.7	18.2	30.7	30.1	.....	.....	16.2	18.9	27.2
.....	.....	14.5	15.1	17.3	18.5	.....	.....	13.8	14.7	16.7	18.8	.....	.....	14.7	14.8	18.7
.....	.....	.....	.....	35.5	36.1	.....	.....	.....	.....	37.0	36.5	.....	.....	.....	.....	42.5
.....	.....	.....	.....	58.1	60.3	.....	.....	.....	.....	52.7	54.1	.....	.....	.....	.....	52.7

² 15-16 ounce can. ³ Baked weight. ⁴ 8-ounce package. ⁵ 28-ounce package. ⁶ No. 2 can.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD ON

Article.	Unit.	St. Louis, Mo.						San Francisco, Calif.					
		Sept. 15—				Aug. 15, 1919.	Sept. 15, 1919.	Sept. 15—				Aug. 15, 1919.	Sept. 15, 1919.
		1913	1914	1917	1918			1913	1914	1917	1918		
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak.....	Lb.	26.0	27.5	30.8	38.1	37.0	36.6	21.3	20.7	23.0	32.6	29.4	30.0
Round steak.....	Lb.	24.3	25.3	30.7	37.7	37.0	36.1	19.7	20.0	22.5	32.0	28.2	28.7
Rib roast.....	Lb.	19.5	20.0	25.3	30.3	30.3	29.2	21.1	21.7	22.6	30.1	28.3	29.2
Chuck roast.....	Lb.	15.6	16.1	21.4	26.0	22.6	21.9	15.0	15.5	15.9	23.4	19.8	20.7
Plate beef.....	Lb.	12.4	12.6	16.3	20.9	18.8	18.1	13.8	15.0	15.4	21.7	17.5	17.7
Pork chops.....	Lb.	21.0	21.4	38.2	43.7	44.6	42.0	23.7	26.2	33.5	44.2	49.2	48.6
Bacon.....	Lb.	27.5	27.0	46.3	53.7	54.8	52.0	34.4	35.0	47.0	58.7	64.2	63.5
Ham.....	Lb.	27.3	27.5	43.9	52.9	58.7	58.2	33.0	35.0	45.6	54.3	59.7	58.7
Lamb.....	Lb.	18.3	19.3	29.6	33.7	34.5	33.7	16.5	18.3	27.4	33.9	32.1	33.2
Hens.....	Lb.	17.1	18.3	27.1	33.6	36.9	33.6	24.2	24.5	29.1	43.1	46.4	46.3
Salmon, canned.....	Lb.	.....	.....	27.7	31.4	31.5	33.0	.....	.....	24.5	27.8	28.4	30.0
Milk, fresh.....	Qt.	9.0	8.8	11.0	14.0	15.0	16.0	10.0	10.0	12.1	14.0	14.0	14.0
Milk, evaporated (unsweetened). (1)	Lb.	.....	.....	.....	.....	15.9	15.7	.....	.....	.....	.....	15.0	15.0
Butter.....	Lb.	36.8	36.5	50.9	60.9	63.2	64.4	42.9	37.9	53.0	63.2	63.9	70.2
Oleomargarine.....	Lb.	.....	.....	.....	.....	39.6	39.2	.....	.....	.....	.....	36.7	37.3
Nut margarine.....	Lb.	.....	.....	.....	.....	34.9	35.4	.....	.....	.....	.....	36.2	37.3
Cheese.....	Lb.	19.3	20.5	34.0	36.5	42.5	42.3	19.5	18.5	31.6	36.6	44.2	43.3
Corn meal.....	Lb.	14.3	13.2	29.1	31.4	38.6	31.7	18.7	17.7	29.0	32.9	41.2	39.7
Crisco.....	Lb.	.....	.....	.....	.....	39.1	37.1	.....	.....	.....	.....	42.3	42.0
Eggs, strictly fresh.....	Doz.	27.3	28.1	45.9	51.1	51.3	52.9	46.4	45.8	53.8	67.1	62.4	71.6
Bread.....	Lb. ²	.....	.....	.....	.....	10.0	10.0	.....	.....	.....	.....	10.0	10.0
Flour.....	Lb.	2.9	3.6	6.6	6.5	6.9	6.8	3.4	3.9	6.8	6.9	7.3	7.1
Corn meal.....	Lb.	2.5	2.6	6.5	6.1	6.0	6.1	3.5	3.6	7.1	7.3	6.9	7.0
Rolled oats.....	Lb.	.....	.....	.....	.....	6.5	6.6	.....	.....	.....	.....	8.5	8.2
Corn flakes.....	Lb. ⁽²⁾	13.6	13.5	.....	.....	.....	.....	14.1	14.1
Cream of Wheat.....	(4)	.....	.....	.....	.....	24.2	24.4	.....	.....	.....	.....	24.8	24.6
Macaroni.....	Lb.	.....	.....	.....	.....	18.1	18.3	.....	.....	.....	.....	16.3	15.2
Rice.....	Lb.	8.4	8.7	10.0	13.9	15.1	16.5	8.5	8.5	10.2	13.6	14.9	15.1
Beans, navy.....	Lb.	.....	.....	19.1	16.0	11.6	12.5	.....	.....	18.0	15.1	10.4	10.1
Potatoes.....	Lb.	2.0	1.9	2.8	3.6	4.3	4.2	1.7	1.9	3.2	3.5	3.4	3.2
Onions.....	Lb.	.....	.....	4.3	4.8	6.5	5.8	.....	.....	2.6	3.0	4.5	4.1
Cabbage.....	Lb.	.....	.....	.....	.....	5.3	5.1	.....	.....	.....	.....	.....	.....
Beans, baked.....	(5)	.....	.....	.....	.....	15.4	15.5	.....	.....	.....	.....	19.1	18.9
Corn, canned.....	(5)	.....	.....	.....	.....	16.6	16.9	.....	.....	.....	.....	19.6	18.8
Peas, canned.....	(5)	.....	.....	.....	.....	16.4	16.6	.....	.....	.....	.....	17.8	18.3
Tomatoes, canned.....	(6)	.....	.....	.....	.....	14.1	14.1	.....	.....	.....	.....	13.9	14.5
Sugar, granulated.....	Lb.	5.5	7.7	9.3	9.6	11.9	11.2	5.6	7.2	8.9	9.2	10.1	10.5
Tea.....	Lb.	55.0	55.8	61.7	68.0	73.2	73.8	50.0	50.0	54.0	54.8	57.4	58.1
Coffee.....	Lb.	24.4	24.8	28.0	27.4	46.3	46.5	32.0	32.0	30.4	30.8	44.8	45.1
Prunes.....	Lb.	.....	.....	16.9	17.7	27.5	27.9	.....	.....	14.6	14.9	24.0	23.1
Raisins.....	Lb.	.....	.....	17.0	16.3	18.7	19.5	.....	.....	14.3	13.6	16.6	17.8
Bananas.....	Doz.	.....	.....	.....	.....	32.7	31.0	.....	.....	.....	.....	38.8	42.0
Oranges.....	Doz.	.....	.....	.....	.....	45.2	44.3	.....	.....	.....	.....	54.4	55.5

1 15-16 ounce can.

2 Baked weight.

3 8-ounce package.

SEPT. 15, 1913, 1914, 1917, 1918, 1919, AND AUG. 15, 1919, FOR 19 CITIES—Concluded.

Seattle, Wash.						Washington, D. C.					
Sept. 15—				Aug. 15, 1919.	Sept. 15, 1919.	Sept. 15—				Aug. 15, 1919.	Sept. 15, 1919.
1913	1914	1917	1918			1913	1914	1917	1918		
<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>
24.0	23.0	26.4	36.6	37.4	36.3	27.4	29.3	36.4	51.4	51.3	49.6
20.7	20.6	25.0	35.1	35.4	33.7	24.1	26.0	34.8	49.8	48.3	45.6
19.3	18.8	21.8	30.5	29.4	28.3	21.3	21.7	28.1	40.3	38.2	37.2
16.0	14.6	17.8	25.4	23.6	22.7	17.3	18.4	23.8	35.3	31.3	30.6
13.0	12.0	15.0	21.1	18.8	18.3	12.4	14.0	18.2	26.8	19.3	18.3
24.3	24.6	40.1	48.2	51.2	50.0	24.1	24.9	43.1	53.7	53.8	52.4
32.5	35.0	49.4	59.5	64.6	63.2	28.5	28.8	46.2	56.1	57.9	55.7
30.0	32.0	41.0	53.8	61.2	59.0	30.0	31.0	43.3	54.2	61.1	59.8
19.3	18.1	26.9	36.0	34.0	33.2	19.4	21.3	34.7	44.0	43.3	38.6
23.3	22.0	26.2	38.2	41.9	42.6	22.5	21.9	31.0	43.5	46.8	46.0
-----	-----	26.9	30.7	32.4	34.0	-----	-----	24.8	30.8	32.1	32.3
8.6	8.7	12.0	14.5	15.0	15.0	8.2	8.0	11.0	14.7	15.0	15.0
-----	-----	-----	-----	15.1	15.5	-----	-----	-----	-----	16.1	16.2
40.0	40.1	53.0	62.7	66.2	71.0	38.7	39.9	52.3	60.3	67.6	68.4
-----	-----	-----	-----	40.4	39.0	-----	-----	-----	-----	40.6	42.4
-----	-----	-----	-----	36.8	36.7	-----	-----	-----	-----	36.7	36.2
21.7	22.4	30.8	34.8	43.6	43.7	23.5	23.5	34.6	36.9	43.8	43.5
17.6	16.0	28.5	33.9	42.1	40.7	15.3	14.8	30.3	34.5	42.6	38.5
-----	-----	-----	-----	43.3	42.6	-----	-----	-----	-----	40.5	39.5
43.3	43.8	52.8	69.8	67.2	74.7	34.5	36.1	54.5	59.0	60.1	65.9
-----	-----	-----	-----	11.7	11.5	-----	-----	-----	-----	10.0	10.0
2.9	3.3	6.5	6.6	6.5	6.4	3.8	4.2	7.7	6.9	7.9	7.8
3.2	3.4	7.5	7.6	7.3	7.4	2.6	2.9	6.4	5.9	5.8	5.8
-----	-----	-----	-----	8.4	8.7	-----	-----	-----	-----	9.5	10.0
-----	-----	-----	-----	14.9	14.9	-----	-----	-----	-----	13.8	13.8
-----	-----	-----	-----	27.2	27.1	-----	-----	-----	-----	24.6	24.7
-----	-----	-----	-----	16.5	16.3	-----	-----	-----	-----	20.7	21.1
7.7	8.6	10.4	14.4	16.3	17.5	9.4	9.4	11.2	12.8	16.0	17.3
-----	-----	19.1	17.1	11.3	12.0	-----	-----	19.3	16.8	13.2	13.0
1.4	1.6	2.4	3.7	3.7	3.3	2.0	1.8	2.8	3.9	5.0	4.2
-----	-----	3.1	4.3	6.6	5.6	-----	-----	6.6	5.6	8.7	6.8
-----	-----	-----	-----	5.8	5.2	-----	-----	-----	-----	6.2	6.1
-----	-----	-----	-----	21.9	21.7	-----	-----	-----	-----	14.9	14.8
-----	-----	-----	-----	20.4	20.1	-----	-----	-----	-----	19.9	19.8
-----	-----	-----	-----	20.8	20.7	-----	-----	-----	-----	19.4	19.1
-----	-----	-----	-----	17.4	16.9	-----	-----	-----	-----	16.4	16.7
6.6	8.1	9.5	9.8	10.7	10.8	5.3	7.5	9.2	9.2	10.9	10.9
50.0	50.0	53.3	59.0	62.8	63.6	57.5	57.5	59.2	73.0	78.1	76.4
28.0	30.0	31.3	31.9	46.2	47.9	28.8	28.8	28.4	28.7	48.1	49.5
-----	-----	14.7	16.1	26.8	27.3	-----	-----	16.7	17.8	26.4	28.4
-----	-----	14.5	14.9	19.1	20.9	-----	-----	14.8	16.0	16.7	17.5
-----	-----	-----	-----	48.8	50.0	-----	-----	-----	-----	43.3	43.0
-----	-----	-----	-----	54.1	54.7	-----	-----	-----	-----	54.4	55.0

⁴ 28-ounce package.

⁵ No. 2 can.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES

Article.	Unit.	Bridgeport, Conn.		Butte, Mont.		Charleston, S. C.		Cincinnati, Ohio.		Columbus, Ohio.	
		Aug. 15, 1919.	Sept. 15, 1919.	Aug. 15, 1919.	Sept. 15, 1919.	Aug. 15, 1919.	Sept. 15, 1919.	Aug. 15, 1919.	Sept. 15, 1919.	Aug. 15, 1919.	Sept. 15, 1919.
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak.....	Lb...	51.6	50.3	34.2	32.6	38.8	36.9	34.7	31.5	39.3	39.4
Round steak.....	Lb...	49.1	47.8	30.3	27.3	37.9	36.8	34.6	30.6	37.9	37.2
Rib roast.....	Lb...	37.5	36.4	26.2	25.8	32.5	30.0	28.3	26.5	32.2	31.2
Chuck roast.....	Lb...	31.5	28.7	19.0	16.9	26.4	24.8	22.1	20.6	27.6	26.3
Plate beef.....	Lb...	19.3	15.6	12.4	11.6	20.2	18.8	19.7	17.5	20.8	20.5
Pork chops.....	Lb...	45.4	47.2	48.0	46.3	45.6	45.3	43.3	40.4	43.7	41.4
Bacon.....	Lb...	59.9	58.3	64.7	62.3	62.2	60.0	51.5	48.3	56.1	53.8
Ham.....	Lb...	64.6	63.2	61.9	60.0	56.8	54.2	58.5	56.0	58.8	57.7
Lamb.....	Lb...	38.7	36.1	29.0	28.1	40.0	41.1	30.8	29.4	30.0	27.5
Hens.....	Lb...	44.5	45.2	36.7	35.9	48.3	49.1	41.0	39.9	37.5	37.5
Salmon, canned.....	Lb...	34.3	37.3	42.5	43.1	30.2	31.0	29.3	31.4	30.0	32.7
Milk, fresh.....	Qt...	16.0	16.0	15.6	15.6	20.5	20.7	14.0	14.0	14.0	14.0
Milk, evaporated (unsweetened). (²)	Lb...	16.2	16.3	17.4	17.7	16.3	16.6	15.4	15.4	15.2	16.2
Butter.....	Lb...	62.4	63.7	66.7	66.2	63.8	65.1	61.8	64.4	61.6	64.2
Oleomargarine.....	Lb...	41.1	41.6	.....	.....	44.8	44.8	42.3	42.1	42.6	42.5
Nut margarine.....	Lb...	35.0	35.2	.....	.....	45.7	45.7	35.0	34.7	35.0	35.0
Cheese.....	Lb...	42.7	42.6	44.8	45.0	42.8	42.1	45.1	43.8	43.0	42.7
Lard.....	Lb...	41.4	36.7	43.9	43.2	42.9	40.2	38.8	33.3	39.8	36.3
Crisco.....	Lb...	40.7	39.1	44.9	44.5	39.7	39.3	37.8	35.7	40.7	36.5
Eggs, strictly fresh.....	Doz...	76.3	78.8	67.9	69.1	55.4	56.8	49.6	55.3	48.3	52.7
Bread.....	Lb ³	10.7	10.7	12.2	12.5	10.0	10.0	9.9	9.9	10.2	10.3
Flour.....	Lb...	7.5	7.3	7.9	7.9	7.7	7.6	7.5	7.2	7.0	7.0
Corn meal.....	Lb...	8.0	7.7	7.6	7.7	6.2	6.1	5.8	6.1	6.4	6.5
Rollod oats.....	Lb...	9.3	9.1	9.2	9.3	9.7	10.1	8.3	7.7	8.5	9.1
Corn flakes.....	(⁴)	13.7	13.6	14.6	14.4	14.9	14.9	13.8	13.3	14.2	14.0
Cream of Wheat.....	(⁵)	24.1	23.9	30.0	30.3	25.0	25.0	25.1	25.1	25.0	25.0
Macaroni.....	Lb...	22.4	22.1	19.2	19.8	20.9	21.1	15.4	15.5	18.6	18.3
Rice.....	Lb...	16.1	16.5	14.6	14.8	14.4	14.1	15.1	16.6	16.3	16.5
Beans, navy.....	Lb...	11.9	11.8	12.1	12.6	13.6	14.3	11.0	11.1	11.3	11.8
Potatoes.....	Lb...	4.6	3.9	4.6	3.2	5.7	4.9	4.6	4.5	5.4	4.8
Onions.....	Lb...	9.0	7.1	7.0	6.5	9.4	7.8	5.9	5.1	8.1	7.0
Cabbage.....	Lb...	4.0	4.0	6.6	5.2	7.4	6.5	6.1	5.7	6.4	6.4
Beans, baked.....	(⁶)	16.4	16.6	22.4	23.1	15.3	15.3	14.6	15.3	16.4	16.3
Corn, canned.....	(⁶)	22.1	21.8	18.7	18.6	21.6	21.8	17.1	16.9	15.6	16.5
Peas, canned.....	(⁶)	20.6	20.8	18.6	18.6	22.3	22.4	17.2	17.1	15.4	16.0
Tomatoes, canned.....	(⁶)	16.1	16.6	17.6	17.7	15.7	16.1	14.3	14.6	14.2	14.9
Sugar, granulated.....	Lb...	10.9	11.0	12.1	12.1	11.0	11.0	11.6	11.1	10.9	11.0
Tea.....	Lb...	63.1	63.3	75.3	75.3	76.4	80.0	77.1	75.8	82.2	82.5
Coffee.....	Lb...	45.3	46.7	56.9	57.5	46.6	48.0	43.1	43.3	47.7	49.3
Prunes.....	Lb...	29.2	28.2	27.5	27.9	26.1	28.8	24.0	25.0	23.2	24.8
Raisins.....	Lb...	19.4	20.6	18.6	18.9	17.9	19.6	20.1	20.2	18.6	19.3
Bananas.....	Doz...	39.0	37.2	51.3	51.3	45.0	43.3	37.5	35.9	38.1	38.3
Oranges.....	Doz...	58.9	60.4	52.4	53.2	65.0	56.7	43.0	43.3	55.0	51.1

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

OF FOOD FOR 31 CITIES ON AUG. 15 AND SEPT. 15, 1919.

Dallas, Tex.		Fall River, Mass.		Houston, Tex.		Indianapolis, Ind.		Jacksonville, Fla.		Kansas City, Mo.	
Aug. 15, 1919.	Sept. 15, 1919	Aug. 15, 1919.	Sept. 15, 1919.	Aug. 15, 1919.	Sept. 15, 1919.	Aug. 15, 1919.	Sept. 15, 1919.	Aug. 15, 1919.	Sept. 15, 1919.	Aug. 15, 1919.	Sept. 15, 1919.
<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>	<i>Cts.</i>
38.1	35.4	60.2	60.4	34.4	34.3	38.4	36.2	40.6	38.9	36.8	36.1
37.3	34.5	50.4	50.0	35.0	33.8	38.4	36.4	38.1	36.6	34.7	33.3
33.3	30.0	36.1	34.9	27.6	27.1	27.6	26.5	30.6	30.0	27.7	26.6
28.5	25.3	29.9	27.8	25.6	23.5	25.7	24.5	26.2	23.8	22.9	21.1
23.3	21.9	-----	-----	20.3	19.3	18.7	17.8	19.6	17.4	18.6	16.5
43.8	40.7	47.2	47.4	43.7	42.7	44.8	44.4	45.0	44.0	42.4	41.8
62.1	59.6	54.1	54.8	64.4	63.3	56.7	55.0	59.6	58.1	58.3	56.3
58.8	56.4	58.1	57.5	53.8	50.8	59.9	59.4	57.9	56.7	56.8	55.0
38.8	37.0	37.5	35.0	40.0	37.5	42.0	39.0	38.3	33.7	30.6	28.4
38.3	35.3	46.5	46.2	36.0	38.3	35.6	36.7	38.8	41.8	36.7	35.5
31.9	32.5	30.4	32.3	30.9	32.0	26.6	27.9	31.5	30.5	31.9	33.1
18.0	18.0	15.3	15.0	18.2	19.4	13.0	13.0	18.0	18.0	15.0	16.0
16.8	17.2	16.1	16.1	16.3	16.5	16.7	16.8	16.9	16.8	16.8	17.2
61.8	64.5	62.4	63.5	61.0	64.7	62.3	64.4	66.2	66.2	63.2	64.5
36.7	38.3	40.3	40.4	42.6	43.5	44.9	45.1	44.0	43.4	40.7	41.8
37.4	36.9	36.5	36.5	36.7	37.5	35.8	35.8	38.2	38.7	35.8	35.6
44.5	43.7	42.7	42.9	40.5	39.4	45.0	43.4	43.2	42.7	45.3	45.1
38.6	38.7	42.1	36.8	39.1	39.0	41.2	36.0	40.3	37.4	43.5	39.4
42.0	39.6	41.7	39.6	37.5	35.6	41.3	39.1	41.0	39.8	43.7	41.6
50.3	55.4	79.4	86.0	52.0	53.2	51.9	52.8	58.4	60.0	52.9	52.1
10.0	10.0	10.9	10.9	8.8	8.9	9.7	9.7	10.0	10.0	10.0	10.0
7.3	7.2	7.9	7.8	7.6	7.0	7.2	7.2	7.7	7.9	6.9	6.7
7.0	6.7	8.2	8.7	6.4	6.3	6.2	6.3	6.2	6.2	7.5	7.3
10.3	10.9	9.5	9.7	9.4	9.7	9.5	10.1	10.9	10.7	10.6	11.1
14.2	14.0	14.5	14.3	14.4	14.3	14.6	14.8	14.7	14.9	15.0	15.0
25.4	26.0	24.8	25.1	24.7	24.8	26.2	25.7	25.4	25.5	25.0	25.4
19.9	19.8	22.2	22.1	18.7	19.4	20.9	21.2	21.0	21.0	18.5	19.1
15.9	18.9	15.1	16.0	14.7	16.4	16.7	18.1	15.1	16.1	15.2	18.3
13.6	13.8	11.9	12.0	12.4	12.6	12.7	12.6	14.1	13.7	12.7	13.0
6.6	4.9	4.6	4.1	5.4	4.7	6.4	4.9	6.7	5.2	4.7	4.0
5.7	5.9	9.4	7.6	6.5	5.9	8.2	6.8	9.9	8.4	8.6	7.4
6.0	5.8	4.4	4.4	6.0	5.6	6.9	6.7	7.6	6.5	5.6	4.7
19.0	18.5	16.4	16.5	18.3	18.0	17.9	18.1	17.4	16.9	17.0	17.0
19.4	19.7	20.4	20.4	17.7	18.4	18.1	18.5	20.6	20.1	16.8	16.5
21.2	20.0	21.3	20.9	18.5	19.3	17.4	17.7	22.6	21.8	17.5	17.6
15.1	14.8	15.5	16.1	13.7	14.0	16.2	16.1	15.4	15.2	16.0	15.6
11.3	11.3	10.9	10.9	10.9	11.0	11.2	11.0	11.3	11.1	11.9	11.6
80.0	84.8	56.6	56.3	63.2	66.1	83.7	84.6	86.8	86.3	80.7	81.1
53.7	54.2	47.4	48.1	45.5	46.0	51.3	51.4	53.8	53.8	49.0	47.6
27.5	30.0	25.2	24.9	25.5	27.8	30.1	32.1	30.5	32.5	23.6	27.1
18.0	18.6	19.8	21.9	17.4	17.4	19.8	21.0	19.5	22.6	18.6	22.1
37.5	38.3	42.7	41.6	36.9	36.7	31.4	28.8	41.7	35.0	45.0	42.5
51.8	51.8	50.1	48.1	50.0	47.5	47.2	43.8	-----	-----	55.3	55.4

² 15-16 ounce can.
³ Baked weight.

⁴ 8-ounce package.
⁵ 28-ounce package.

⁶ No. 2 can.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES

Article.	Unit.	Little Rock, Ark.		Louisville, Ky.		Manchester, N. H.		Memphis, Tenn.	
		Aug. 15, 1919.	Sept. 15, 1919.	Aug. 15, 1919.	Sept. 15, 1919.	Aug. 15, 1919.	Sept. 15, 1919.	Aug. 15, 1919.	Sept. 15, 1919.
		Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
Sirloin steak.....	Lb...	37.2	35.4	36.7	34.8	¹ 57.2	¹ 55.1	40.8	36.4
Round steak.....	Lb...	34.8	33.5	35.6	33.1	50.8	48.6	38.1	33.8
Rib roast.....	Lb...	30.8	28.7	29.1	27.3	33.6	31.5	32.8	31.4
Chuck roast.....	Lb...	24.5	24.0	25.1	23.4	30.0	28.5	27.1	24.7
Plate beef.....	Lb...	19.5	18.0	20.7	19.6	-----	-----	21.6	19.3
Pork chops.....	Lb...	43.4	41.6	43.3	43.4	48.7	49.3	45.0	43.3
Bacon.....	Lb...	59.4	57.1	59.8	58.1	53.2	53.2	61.1	58.5
Ham.....	Lb...	57.5	55.3	59.5	57.9	53.7	54.1	59.4	55.7
Lamb.....	Lb...	36.9	33.9	32.1	30.0	40.5	37.4	38.9	37.3
Hens.....	Lb...	34.7	35.0	38.9	39.4	48.1	47.9	36.6	35.4
Salmon, canned.....	Lb...	34.4	34.8	30.2	29.5	31.3	33.5	35.1	35.2
Milk, fresh.....	Qt.....	18.0	18.0	15.0	15.0	15.0	15.0	18.0	18.0
Milk, evaporated (unsweetened).	(²)	16.9	17.5	16.1	16.9	17.4	17.6	17.4	17.5
Butter.....	Lb...	62.7	62.6	63.4	66.3	68.3	68.7	64.1	64.1
Oleomargarine.....	Lb...	43.7	44.5	44.6	44.4	42.1	42.9	44.7	45.4
Nut margarine.....	Lb...	37.3	38.6	35.0	35.8	35.3	35.0	42.3	42.3
Cheese.....	Lb...	43.4	42.5	42.1	42.0	42.6	42.9	43.5	41.7
Lard.....	Lb...	44.5	40.1	41.0	35.1	43.3	39.5	42.6	38.0
Crisco.....	Lb...	40.4	40.5	38.6	35.3	40.8	39.3	38.9	38.7
Eggs, strictly fresh.....	Doz..	53.3	56.5	48.2	52.9	73.3	76.2	52.4	54.2
Bread.....	Lb. ³ ...	10.0	10.0	10.0	10.0	9.5	9.5	10.0	10.0
Flour.....	Lb...	7.5	7.4	7.4	7.4	7.7	7.6	7.4	7.4
Corn meal.....	Lb...	6.5	6.0	6.2	6.2	7.0	7.3	6.0	5.7
Rolled oats.....	Lb...	11.0	10.9	9.0	9.2	9.4	9.6	10.6	10.3
Corn flakes.....	(⁴)	14.8	14.8	14.4	14.6	14.8	14.9	14.1	14.0
Cream of Wheat.....	(⁵)	25.4	25.0	25.6	25.0	25.3	25.3	24.1	24.2
Macaroni.....	Lb...	18.6	18.6	18.2	18.8	23.5	23.3	18.5	18.3
Rice.....	Lb...	15.2	17.3	14.9	17.3	15.5	15.7	15.4	16.6
Beans, navy.....	Lb...	14.2	13.9	12.4	12.8	12.1	12.2	13.3	13.7
Potatoes.....	Lb...	5.6	4.4	4.2	4.9	5.9	3.7	5.7	5.2
Onions.....	Lb...	9.2	7.6	5.9	5.5	9.1	6.8	8.0	6.7
Cabbage.....	Lb...	7.8	6.1	6.8	5.9	4.4	3.8	6.5	5.7
Beans, baked.....	(⁶)	16.9	16.8	16.5	16.5	17.6	18.0	18.3	17.4
Corn, canned.....	(⁶)	17.9	17.9	18.2	18.3	21.7	22.0	18.5	18.2
Peas, canned.....	(⁶)	18.5	18.0	18.7	18.3	20.6	21.0	18.8	18.1
Tomatoes, canned.....	(⁶)	14.9	14.7	15.3	15.4	17.8	16.7	16.8	15.6
Sugar, granulated.....	Lb...	11.6	11.1	11.4	11.1	11.0	11.0	11.4	11.2
Tea.....	Lb...	89.5	88.3	81.7	80.6	61.9	60.8	88.5	89.8
Coffee.....	Lb...	52.8	54.1	49.8	49.6	49.3	50.5	52.3	53.5
Prunes.....	Lb...	23.8	25.0	27.0	25.0	26.8	28.9	28.4	32.5
Raisins.....	Lb...	20.3	20.7	17.6	18.8	18.9	20.9	17.0	20.3
Bananas.....	Doz..	36.8	32.1	37.4	38.3	40.0	38.0	40.0	37.5
Oranges.....	Doz..	57.7	56.9	45.5	46.3	50.8	52.3	51.8	56.1

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

OF FOOD FOR 31 CITIES ON AUG. 15 AND SEPT. 15, 1919—Continued.

Minneapolis, Minn.		Mobile, Ala.		Newark, N. J.		New Haven, Conn.		Norfolk, Va.		Omaha, Nebr.	
Aug. 15, 1919.	Sept. 15, 1919.	Aug. 15, 1919.	Sept. 15, 1919.	Aug. 15, 1919.	Sept. 15, 1919.	Aug. 15, 1919.	Sept. 15, 1919.	Aug. 15, 1919.	Sept. 15, 1919.	Aug. 15, 1919.	Sept. 15, 1919.
<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>
35.5	34.9	34.6	33.2	47.7	45.1	55.4	54.1	47.5	46.8	40.5	37.6
34.1	32.5	34.6	32.3	48.2	45.5	50.1	48.6	43.2	41.5	37.9	34.9
29.7	27.6	30.4	30.0	38.3	36.3	40.3	38.7	38.0	36.1	29.4	27.1
23.7	21.9	25.4	24.1	29.9	26.8	34.3	32.5	30.8	27.4	25.3	23.5
15.7	15.0	21.4	20.0	21.6	19.6	-----	-----	21.7	18.3	18.5	16.8
43.1	41.9	49.6	47.3	49.2	49.2	49.0	49.6	45.3	44.5	42.6	43.0
61.1	58.5	62.5	61.0	50.9	49.7	59.9	58.8	58.8	54.5	60.3	58.8
60.8	57.9	55.5	54.5	55.0	55.0	63.1	62.8	50.0	53.0	60.3	59.4
30.9	27.5	37.1	32.9	38.8	37.4	41.9	39.3	42.1	35.8	35.8	31.8
34.9	34.1	42.0	40.0	44.5	42.8	47.1	47.7	45.3	45.7	37.2	35.3
40.0	39.8	32.1	32.2	34.6	34.2	33.6	34.0	30.5	32.2	33.1	35.7
13.0	13.0	18.3	18.3	16.7	16.7	16.0	16.0	21.0	21.0	14.4	15.2
16.8	17.1	17.9	18.1	15.2	15.1	16.3	16.5	11.1	16.0	17.3	17.3
58.0	59.6	66.5	65.8	64.8	67.2	63.4	64.4	68.9	69.1	61.8	63.4
41.1	39.5	44.9	43.8	42.0	42.8	42.9	43.5	48.0	47.3	43.8	44.6
32.3	32.8	43.0	41.6	35.1	35.4	36.4	35.9	39.0	39.5	35.5	36.2
41.7	41.6	42.5	43.0	44.9	44.5	43.5	42.3	43.5	42.9	44.2	44.1
40.9	36.4	43.3	40.1	43.8	40.0	42.1	37.7	43.3	41.1	44.3	39.8
40.5	39.9	39.3	39.3	40.0	39.5	40.3	38.6	39.6	38.6	41.3	41.2
50.1	50.9	57.4	60.5	68.3	71.1	76.8	82.0	55.6	59.6	50.1	50.2
9.6	9.6	9.6	9.6	9.8	9.8	10.5	10.6	9.9	9.9	10.0	10.0
7.2	7.1	7.4	7.3	7.6	7.4	7.5	7.4	7.7	7.6	7.0	6.8
6.5	6.5	6.5	6.6	7.0	7.5	7.8	7.4	6.2	6.0	6.4	6.1
7.0	7.5	11.2	11.1	8.6	8.6	9.1	9.6	10.3	10.5	8.3	9.3
14.4	14.6	14.7	14.6	12.5	12.4	13.9	13.8	14.4	14.8	14.7	15.0
25.4	25.4	25.4	25.9	23.6	23.6	24.3	24.3	25.2	25.4	25.3	25.3
18.8	17.5	19.1	18.9	19.8	19.9	20.7	20.8	20.2	19.3	18.8	20.5
15.6	16.9	15.4	17.1	16.5	16.7	15.7	16.1	16.6	16.6	15.0	15.9
10.8	11.1	13.9	14.3	12.6	12.7	12.5	12.6	13.3	13.3	12.5	13.0
3.7	3.7	6.2	5.7	5.2	4.9	4.5	4.0	5.4	4.7	4.9	4.4
7.8	5.9	9.1	7.8	8.4	7.1	8.5	7.2	8.8	8.3	7.6	6.6
3.6	2.6	5.5	5.6	4.4	4.2	4.2	4.2	5.4	5.5	5.1	4.9
19.1	18.7	17.6	17.3	15.3	15.0	18.2	18.1	14.6	15.0	19.5	20.5
17.1	17.1	20.0	19.9	20.6	20.7	22.1	21.7	21.9	21.8	17.5	17.7
17.3	17.2	19.7	19.2	19.7	19.6	21.5	21.6	22.5	22.4	18.2	18.0
16.5	16.6	14.9	15.0	14.7	14.8	16.7	16.0	17.7	17.8	16.8	17.1
11.2	11.2	11.3	11.3	10.7	10.8	11.1	11.0	11.2	11.1	11.1	11.3
62.8	63.2	79.1	77.4	56.1	56.4	61.4	61.2	85.3	85.1	75.3	76.9
52.9	53.1	43.6	45.9	45.2	45.9	48.5	49.5	51.1	53.3	49.7	53.4
27.2	27.1	26.9	27.0	30.4	29.7	26.8	27.7	26.2	27.5	27.0	28.8
16.9	17.6	19.5	19.0	16.8	17.5	17.7	18.4	16.9	17.0	18.7	19.9
41.4	41.4	30.0	31.1	40.0	38.2	36.4	36.1	39.2	39.2	40.0	46.7
54.7	57.8	60.0	51.9	60.3	61.5	56.2	54.3	52.3	54.8	53.5	56.3

² 15-16-ounce can.³ Baked weight.⁴ 8-ounce package.⁵ 28-ounce package.⁶ No. 2 can.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES

Article.	Unit.	Peoria, Ill.		Portland, Me.		Portland, Oreg.		Providence, R. I.	
		Aug. 15, 1919.	Sept. 15, 1919.	Aug. 15, 1919.	Sept. 15, 1919.	Aug. 15, 1919.	Sept. 15, 1919.	Aug. 15, 1919.	Sept. 15, 1919.
		Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
Sirloin steak.....	Lb...	36.6	33.6	¹ 58.2	¹ 55.1	33.4	32.1	¹ 66.5	¹ 65.6
Round steak.....	Lb...	36.1	31.6	52.8	50.2	31.8	30.7	53.9	52.4
Rib roast.....	Lb...	27.4	25.1	33.1	31.9	29.4	28.6	42.3	41.5
Chuck roast.....	Lb...	25.4	21.2	26.2	25.6	22.8	21.5	36.1	35.2
Plate beef.....	Lb...	18.7	16.2	.....	.....	16.7	16.5	.....	.....
Pork chops.....	Lb...	42.0	40.8	48.9	48.3	48.2	46.2	52.6	53.8
Bacon.....	Lb...	57.6	55.0	54.2	52.3	61.4	60.6	54.5	53.9
Ham.....	Lb...	57.0	55.8	57.0	55.6	59.8	57.9	66.8	66.8
Lamb.....	Lb...	37.1	33.6	37.6	35.7	33.2	31.8	41.9	40.2
Hens.....	Lb...	36.2	35.0	47.8	48.3	38.6	38.6	48.3	48.4
Salmon, canned.....	Lb...	31.1	32.0	29.9	31.6	36.5	39.6	35.7	38.0
Milk, fresh.....	Qt.	14.3	14.3	14.3	14.3	15.2	15.6	15.5	16.0
Milk, evaporated (unsweetened).	(²)	17.6	18.0	17.2	17.1	16.7	16.7	16.8	16.9
Butter.....	Lb...	61.0	62.7	69.1	69.3	66.5	71.8	64.6	65.3
Oleomargarine.....	Lb...	43.8	44.4	43.2	43.9	40.8	42.2	40.3	40.2
Nut margarine.....	Lb...	36.8	36.1	35.8	35.6	36.6	38.5	34.4	34.5
Cheese.....	Lb...	44.1	43.6	43.8	44.4	45.7	44.8	42.7	42.3
Lard.....	Lb...	41.9	37.8	44.0	39.2	41.2	41.2	42.6	37.9
Crisco.....	Lb...	41.5	39.6	42.5	41.4	44.0	44.6	40.6	40.8
Eggs, strictly fresh.....	Doz.	50.5	52.6	74.9	77.2	59.8	66.0	76.3	79.7
Bread.....	Lb. ³	10.0	10.0	11.0	11.0	9.9	9.9	10.7	10.6
Flour.....	Lb...	7.8	7.8	7.5	7.5	6.4	6.5	8.0	7.9
Corn meal.....	Lb...	6.7	6.5	6.7	6.9	7.3	7.4	6.3	6.7
Rolled oats.....	Lb...	9.5	9.7	7.9	8.2	8.5	8.8	8.4	8.3
Corn flakes.....	(⁴)	14.9	14.8	14.0	14.2	14.8	14.3	13.8	13.9
Cream of Wheat.....	(⁵)	26.8	26.7	25.1	25.0	29.0	27.9	24.5	24.5
Macaroni.....	Lb...	19.3	19.0	22.6	22.7	17.6	18.7	21.1	21.1
Rice.....	Lb...	14.9	15.4	14.9	15.6	15.2	15.2	14.6	16.8
Beans, navy.....	Lb...	12.3	12.7	12.1	11.9	10.7	11.8	11.9	12.0
Potatoes.....	Lb...	5.0	4.2	5.6	3.3	3.3	3.6	5.1	4.3
Onions.....	Lb...	9.1	8.0	8.0	5.9	5.9	5.2	8.0	6.8
Cabbage.....	Lb...	4.8	5.2	3.9	2.5	4.7	4.6	3.9	4.1
Beans, baked.....	(⁶)	18.8	18.3	19.1	19.3	23.3	21.8	16.7	16.4
Corn, canned.....	(⁶)	17.6	17.3	21.5	20.9	22.3	22.1	20.2	20.4
Peas, canned.....	(⁶)	18.3	18.8	21.3	20.5	21.9	22.1	20.1	20.2
Tomatoes, canned.....	(⁶)	15.2	15.5	20.3	18.8	19.7	19.9	16.9	17.4
Sugar, granulated.....	Lb...	11.8	11.0	10.5	10.7	10.7	10.9	10.8	10.9
Tea.....	Lb...	73.3	73.4	64.0	63.9	64.2	65.4	60.7	59.9
Coffee.....	Lb...	47.6	49.4	49.6	49.9	50.0	48.9	52.7	52.7
Prunes.....	Lb...	28.5	29.4	27.3	27.0	21.9	22.6	31.1	30.9
Raisins.....	Lb...	18.4	19.6	16.6	17.9	17.7	18.1	19.1	20.2
Bananas.....	Doz.	⁷ 10.2	⁷ 10.2	42.0	38.0	44.0	43.1	41.3	40.0
Oranges.....	Doz.	51.0	49.4	59.6	60.9	58.3	60.4	60.8	62.6

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

OF FOOD FOR 31 CITIES ON AUG. 15 AND SEPT. 15, 1919—Concluded.

Richmond, Va.		Rochester, N. Y.		St. Paul, Minn.		Salt Lake City, Utah.		Scranton, Pa.		Springfield, Ill.	
Aug. 15, 1919.	Sept. 15, 1919.	Aug. 15, 1919.	Sept. 15, 1919.	Aug. 15, 1919.	Sept. 15, 1919.	Aug. 15, 1919.	Sept. 15, 1919.	Aug. 15, 1919.	Sept. 15, 1919.	Aug. 15, 1919.	Sept. 15, 1919.
<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>
44.0	43.1	41.7	40.4	38.7	35.5	33.9	34.1	45.9	45.4	36.6	33.8
40.9	39.6	38.8	37.5	34.6	31.4	30.7	30.5	42.0	41.1	35.9	32.9
35.4	34.0	32.1	31.4	31.5	28.2	26.7	26.4	37.1	36.5	27.4	24.8
30.2	28.5	29.3	28.2	25.0	23.4	22.6	21.4	31.1	29.9	24.6	21.8
24.1	23.7	20.3	19.5	16.5	15.9	16.3	15.9	19.6	18.9	19.6	16.9
45.9	44.9	47.7	46.6	41.6	40.8	47.5	47.5	48.8	48.3	42.5	40.7
53.9	53.1	49.7	48.4	57.8	53.6	60.0	58.6	60.6	59.4	56.2	53.0
54.8	52.6	56.4	54.9	58.8	56.9	57.9	57.0	60.0	60.0	55.6	53.9
40.9	39.2	35.6	32.6	31.2	29.3	28.5	28.8	43.4	40.9	36.5	32.8
43.7	42.1	45.2	44.8	35.9	33.7	36.4	37.5	47.1	47.0	36.3	37.0
26.4	26.1	31.0	33.3	32.4	35.3	31.8	32.1	36.4	37.9	32.7	35.0
15.7	15.7	14.0	14.0	13.0	13.0	12.5	12.5	14.0	14.0	14.3	14.3
17.3	17.2	16.3	16.6	16.8	17.2	16.5	17.1	15.8	15.8	17.8	18.4
69.4	69.5	63.2	64.8	57.3	59.4	66.7	70.1	63.9	64.6	62.0	64.3
42.3	42.8	43.8	43.9	40.5	40.4	42.0	43.0	43.8	43.6	45.2	45.3
36.9	36.2	34.4	34.4	24.9	24.7	40.4	40.5	36.3	37.3	35.7	37.3
43.9	43.8	41.5	41.7	41.0	41.9	43.4	43.2	42.8	41.3	44.2	44.2
42.2	38.6	41.6	39.0	42.0	37.3	44.7	41.8	44.0	39.7	42.6	38.7
39.8	40.6	39.3	38.8	39.4	42.4	46.3	45.5	40.6	39.8	42.8	43.0
57.1	60.1	61.1	64.5	51.4	51.8	56.7	63.6	65.2	67.4	50.2	51.9
10.9	10.9	10.0	10.0	9.3	9.5	10.0	10.0	10.0	10.0	10.0	10.0
7.6	7.6	7.4	7.4	7.3	7.3	6.1	6.0	7.8	7.8	7.5	7.3
6.3	6.4	6.7	6.6	6.5	6.5	7.3	7.6	9.0	8.9	6.7	7.1
10.5	10.5	7.0	7.2	7.5	7.8	9.3	9.2	10.3	9.9	9.6	10.4
14.8	14.7	13.7	13.6	14.5	14.5	14.8	15.0	14.2	14.1	14.9	15.0
25.4	25.4	24.6	24.5	25.8	25.8	25.9	26.1	25.1	25.1	27.3	27.2
19.1	18.1	19.0	19.7	19.2	19.2	19.5	19.8	22.0	21.7	17.4	18.4
15.9	17.0	15.7	16.4	15.6	17.5	16.0	16.9	15.9	16.8	15.6	17.7
14.0	14.1	12.0	12.1	10.8	11.3	12.4	12.3	14.2	14.8	12.8	13.2
4.9	5.1	5.5	4.1	3.3	3.5	4.2	3.9	5.3	4.1	5.1	4.2
6.5	6.8	8.8	6.4	6.6	4.8	7.2	5.2	8.8	6.9	8.0	6.6
5.8	6.2	5.0	4.7	2.2	2.2	5.8	5.1	3.9	2.7	5.7	5.3
15.1	14.9	15.1	15.0	19.1	19.4	19.8	20.2	16.4	16.6	18.8	19.0
18.9	18.9	19.2	19.6	17.2	18.1	18.4	18.1	20.4	20.1	17.0	17.7
22.2	22.1	19.1	19.5	16.6	17.1	18.3	18.4	18.8	18.5	18.4	18.9
17.0	16.6	16.8	17.2	16.0	16.2	17.2	17.4	17.6	17.3	16.9	17.4
11.1	11.0	10.8	10.9	11.1	11.2	11.0	11.1	10.9	11.0	12.3	12.0
81.4	79.1	61.0	61.0	62.7	64.3	73.1	77.6	66.2	65.3	86.0	86.5
45.7	47.3	44.9	45.9	48.4	50.4	54.4	53.6	48.8	48.9	48.9	51.3
27.5	27.5	27.9	25.4	25.7	26.1	23.8	20.0	24.5	25.0	23.4	20.0
16.4	17.1	16.9	18.2	17.2	17.8	17.0	19.3	18.3	19.6	20.9	20.9
44.2	43.9	42.1	40.8	40.0	50.0	49.0	45.0	37.7	34.6	37.5	42.5
51.1	53.1	55.4	55.6	55.1	56.8	55.8	57.5	56.6	58.1	48.3	41.7

² 15-16 ounce can.
³ Baked weight.

⁴ 8-ounce package.
⁵ 28-ounce package.

⁶ No. 2 can.
⁷ Per pound.

Comparison of Retail Food Costs in 50 Cities in the United States.

THE table following shows for 39 cities the percentage of increase or decrease in the retail cost of 22 food articles¹ combined, in September, 1919, compared with the average cost in the year 1913, in September, 1918, and in August, 1919. For 11 other cities, comparisons are given for the one-year and one-month periods. These cities have been scheduled by the Bureau at different dates since 1913.

The average family expenditure is based on the prices sent to the Bureau each month by retail dealers, and on the average family consumption of these articles in each city.

The amounts given as the expenditures in September, 1918, and in August and September, 1919, represent the amounts necessary to buy a year's supply of these 22 food articles when purchased at the average retail prices charged in the months specified. This method makes it easier to compare the increase with the year 1913. This year has been selected for the comparison because it was the last year before the war when prices were normal.

No attempt should be made in this table to compare one city with another, as the average number of persons in the family varies according to the city, and these 22 food articles represent a varying proportion of the entire food budgets according to locality. This table is intended to show merely comparisons in the retail cost of these 22 food articles for each city. Effort is made to secure prices on similar grades of commodities in all cities. Local customs, however, must be taken into consideration. For example:

1. In Boston, Mass.; Fall River, Mass.; Manchester, N. H.; New Haven, Conn.; Portland, Me.; and Providence, R. I., very little fresh plate beef is sold, and prices are not secured from these cities for this article.

2. The cut of beef known as "sirloin" in Boston, Mass.; Manchester, N. H.; Philadelphia, Pa.; and Providence, R. I., would be known as "porterhouse" in other cities. In these four cities, owing to the method of dividing the round from the loin, there is no cut that corresponds to "sirloin" in other cities. There is also a greater amount of trimming demanded by the trade in these cities.

3. The most of the sales in Newark, N. J., are on whole ham instead of the sliced, as in other cities.

While it is advised that comparisons should not be made as between cities, without taking these and other facts relative to local customs and transportation into consideration, the figures do represent a trend in the retail cost of these articles to the average family in each city.

¹ 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, and tea.

RETAIL COST OF 22 FOOD ARTICLES,¹ COMBINED, IN SEPTEMBER, 1919, COMPARED WITH THE COST IN AUGUST, 1919, SEPTEMBER, 1918, AND WITH THE AVERAGE COST IN THE YEAR 1913, BY CITIES.

City.	Average family expenditure for 22 food articles, combined.				Percentage increase, September, 1919, compared with—		Percentage decrease, September, 1919, compared with August, 1919.
	1913	September, 1918. ²	1919		1913	September, 1918.	
			August. ²	September. ²			
Atlanta.....	\$361.00	\$645.00	\$701.04	\$683.89	89	6	2
Baltimore.....	335.15	659.65	683.45	674.41	101	2	1
Birmingham.....	377.53	688.89	758.46	734.14	94	7	3
Boston.....	388.16	675.48	730.70	719.21	85	6	2
Bridgeport.....		649.38	685.07	672.70		4	2
Buffalo.....	318.15	590.64	638.05	626.93	97	6	2
Butte.....		463.21	484.44	468.33		1	3
Charleston.....	348.60	634.80	699.19	683.46	96	8	3
Chicago.....	336.48	596.92	664.25	646.90	92	8	2
Cincinnati.....	338.26	598.06	636.28	619.66	83	4	3
Cleveland.....	354.01	634.07	685.42	672.77	90	6	2
Columbus.....		618.02	659.03	650.67		5	1
Dallas.....	395.41	676.04	747.02	720.48	82	7	4
Denver.....	247.36	435.78	464.05	447.63	81	3	4
Detroit.....	335.02	625.87	695.93	663.74	98	6	5
Fall River.....	375.51	660.78	708.27	704.04	87	7	1
Houston.....		647.64	712.44	702.71		9	1
Indianapolis.....	345.23	604.11	669.46	645.48	87	7	4
Jacksonville.....	377.10	632.34	699.82	682.08	81	8	3
Kansas City, Mo.....	340.12	602.80	654.34	636.46	87	6	3
Little Rock.....	390.14	688.48	734.55	707.18	81	3	4
Los Angeles.....	284.84	447.49	459.38	464.12	63	4	1
Louisville.....	363.85	661.07	708.28	702.81	93	6	1
Manchester.....	366.01	653.37	710.78	687.05	88	5	3
Memphis.....	368.46	670.20	746.09	716.76	95	7	4
Milwaukee.....	327.25	589.23	663.72	647.78	98	10	2
Minneapolis.....	319.98	546.25	623.31	612.18	91	12	2
Mobile.....		679.90	748.83	732.98		8	2
Newark.....	364.92	643.63	672.20	662.07	81	3	2
New Haven.....	376.96	680.16	717.94	710.13	88	4	1
New Orleans.....	369.29	652.46	716.72	705.40	91	8	2
New York.....	355.36	634.02	669.50	660.10	86	4	1
Norfolk.....		665.82	710.67	698.47		5	2
Omaha.....	334.52	600.35	657.52	643.85	92	7	2
Peoria.....		589.06	650.90	624.40		6	4
Philadelphia.....	352.19	641.48	674.42	669.25	90	4	1
Pittsburgh.....	350.35	629.86	667.87	653.18	86	4	2
Portland, Me.....		654.96	711.02	683.48		4	4
Portland, Oreg.....	266.03	444.72	461.53	468.80	76	5	2
Providence.....	380.85	689.15	742.13	736.09	93	7	1
Richmond.....	346.40	646.62	690.23	682.61	97	6	1
Rochester.....		596.37	641.81	627.40		5	2
St. Louis.....	326.36	602.10	644.30	631.34	93	5	2
St. Paul.....		561.35	618.84	608.10		8	2
Salt Lake City.....	261.87	425.42	455.42	457.58	75	8	(³)
San Francisco.....	271.48	448.15	453.30	463.90	71	4	2
Scranton.....	335.98	616.01	674.30	659.97	91	7	2
Seattle.....	265.35	460.15	481.55	481.83	82	5	(³)
Springfield, Ill.....		603.89	654.82	632.38		5	3
Washington, D. C.....	354.82	666.47	719.22	705.85	99	6	2

¹ See footnote on page 150.

² Cost of year's supply at prices charged in specified month.

³ Increase.

⁴ Increase of less than five-tenths of 1 per cent.

As may be seen in the table, the average family expenditure for these 22 foods was less in September than it was in August in all but

five of the fifty cities from which prices were secured. In these five cities the expenditures increased 2 per cent in Portland, Oreg., and San Francisco, 1 per cent in Los Angeles, and less than five-tenths of 1 per cent in Salt Lake City and Seattle. In the 45 other cities the average expenditure decreased 1 per cent in 10 cities, 2 per cent in 19 cities, 3 per cent in 8 cities, 4 per cent in 7 cities, and 5 per cent in 1 city. The five western cities which showed an increase in September have, with the exception of Seattle, increased less since 1913 than any of the other cities. Twenty-nine cities show an increase in this six-year period greater than that of Seattle. Dallas showed the same percentage increase since 1913, while eight cities showed a less percentage increase in the six-year period than did Seattle.

Index Numbers of Wholesale Prices in the United States, 1913 to September, 1919.

FOR the first time since February of the present year wholesale prices in the United States, as measured by the Bureau's weighted index number, have declined in comparison with the preceding month. The index number for September, built on 328 articles or individual price series, stood at 221 as compared with 226 for August, a decrease of slightly more than 2 per cent. Noticeable decreases from August to September occurred in the groups of farm products, food, etc., and miscellaneous articles, the index numbers for these groups dropping from 243 to 226, from 228 to 212, and from 225 to 217, respectively. A slight decrease also took place in the metals and metal products group. On the other hand, the index number for fuel and lighting increased from 175 to 181, while that for lumber and building materials increased from 209 to 229, or nearly 10 per cent. Slight increases also occurred in the cloths and clothing, chemicals and drugs, and the house-furnishing goods groups.

Among the important commodities whose wholesale prices averaged lower in September than in August were cotton, flaxseed, barley, corn, oats, rye, timothy hay, hides, cattle, hogs, sheep, poultry, beans, cheese, coffee, rye flour, glucose, lard, corn meal, bacon, beef, hams, lamb, mutton, veal, olive oil, rice, potatoes, ingot copper, pig tin, steel plates, linseed oil, turpentine, bran, and cottonseed oil. Wheat, alfalfa hay, hops, peanuts, tobacco, butter, canned goods, eggs, milk, molasses, oleomargarine, hosiery, underwear, leather, silk, worsted yarns, anthracite and bituminous coal, coke, refined petroleum, bar silver, window glass, lumber, shingles, and muriatic and sulphuric acid were higher in September than in August, while wheat flour, salt, sugar, tea, vinegar, shoes, carpets, cotton and

woolen goods, gasoline, matches, crude petroleum, iron and iron products, steel, wire products, brick, cement, plate glass, ammonia, borax, glycerine, earthen and glass tableware, cutlery, paper, rope, soap, and wood pulp were practically unchanged in price.

INDEX NUMBERS OF WHOLESALE PRICES IN SPECIFIED MONTHS, 1913 TO SEPTEMBER, 1919, BY GROUPS OF COMMODITIES.

[1913=100.]

Year and month.	Farm products.	Food, etc.	Cloths and clothing.	Fuel and lighting.	Metals and metal products.	Lumber and building materials.	Chemicals and drugs.	House furnishing goods.	Miscellaneous.	All commodities.
1913.										
Average for year.....	100	100	100	100	100	100	100	100	100	100
January.....	97	99	100	103	107	100	101	100	100	100
April.....	97	96	100	98	102	101	101	100	98	98
July.....	101	102	100	99	98	101	99	100	101	100
October.....	103	102	100	100	99	98	100	100	100	101
1914.										
January.....	101	102	98	99	92	98	100	99	99	100
April.....	103	95	99	98	91	99	100	99	101	98
July.....	104	104	99	95	85	97	99	99	97	100
October.....	103	107	97	93	83	96	105	99	96	99
1915.										
January.....	102	106	96	93	83	94	103	99	100	99
April.....	107	105	99	89	91	94	102	99	99	100
July.....	108	105	99	90	102	93	108	99	98	101
October.....	105	104	103	96	100	93	124	99	99	102
1916.										
January.....	108	114	110	105	126	99	150	105	107	111
April.....	114	118	119	108	147	102	172	108	110	117
July.....	118	122	126	108	145	99	156	121	120	120
October.....	136	141	138	133	151	101	150	124	132	134
1917.										
January.....	148	151	161	176	183	106	159	132	138	151
February.....	151	160	162	185	190	108	160	132	141	156
March.....	163	161	164	188	199	110	165	132	143	161
April.....	181	183	169	184	208	114	170	139	149	173
May.....	197	192	173	194	217	117	179	139	150	182
June.....	197	188	179	201	239	127	180	144	152	185
July.....	199	182	187	192	257	132	198	152	153	187
August.....	205	181	193	165	249	133	209	152	156	186
September.....	204	180	193	160	226	134	223	152	155	183
October.....	208	184	193	146	182	134	252	152	163	181
November.....	212	185	198	155	174	134	240	155	166	183
December.....	205	186	202	158	174	135	238	155	170	183
1918.										
January.....	207	188	211	157	174	136	232	161	178	185
February.....	208	187	216	157	176	138	232	161	181	187
March.....	212	179	223	158	176	144	232	165	184	187
April.....	217	180	232	157	177	146	229	172	191	190
May.....	214	179	237	160	178	148	223	173	194	191
June.....	217	180	245	159	178	150	219	198	196	193
July.....	224	186	249	166	184	154	216	199	190	198
August.....	230	193	252	166	185	157	222	221	191	203
September.....	237	200	254	167	184	159	220	226	194	207
October.....	224	202	256	167	187	158	218	226	196	205
November.....	221	208	255	171	188	164	215	226	203	206
December.....	222	212	250	171	184	164	195	227	204	207
1919.										
January.....	222	209	234	170	172	161	191	218	212	203
February.....	218	197	223	169	168	163	185	218	208	197
March.....	228	205	216	168	162	165	183	218	217	201
April.....	235	212	217	167	152	162	178	217	216	203
May.....	240	216	227	167	152	164	179	217	213	207
June.....	231	206	258	170	154	175	174	233	212	207
July.....	246	218	282	171	158	186	171	245	221	219
August.....	243	228	303	175	161	209	172	259	225	226
September ¹	226	212	306	181	160	229	173	262	217	221

¹ Preliminary.

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Comparing prices in September, 1919, with those of a year ago, it is seen that the index number for food articles increased from 200 to 212, that for cloths and clothing from 254 to 306, and that for fuel and lighting from 167 to 181. During the same time the index number for lumber and building materials increased from 159 to 229, that for house-furnishing goods from 226 to 262, and that for miscellaneous commodities, including such important articles as cottonseed meal and oil, jute, malt, lubricating oil, newsprint paper, rubber, starch, soap, plug tobacco, and wood pulp, from 194 to 217. On the other hand, the index number for farm products dropped from 237 to 226, that for metals and metal products from 184 to 160, and that for chemicals and drugs from 220 to 173.

Changes in Wholesale Prices in the United States.

INFORMATION collected by the Bureau of Labor Statistics in representative markets shows that during the third quarter of 1919 the wholesale price of many important commodities decreased. Among the articles showing a decrease are beef, hogs, bacon, hams, lard, salt pork, mutton, wheat flour, corn meal, oats, rye, cotton, and pig tin. On the other hand, butter, eggs, milk, leather, worsted yarns, shoes, anthracite and bituminous coal, coke, pig lead, and petroleum increased in price during the quarter. A number of articles, as cattle, sheep, wheat, corn, rye flour, barley, sugar, cotton goods, wool, steel billets, spelter, copper, and gasoline showed practically no change in price.

Comparing prices in September with those in January of the present year, it is seen that cattle, beef, hogs, bacon, sheep, mutton, butter, eggs, milk, rye and rye flour, coke, pig iron, steel billets, tin plate, and pig tin averaged lower in price. Lard, wheat and wheat flour, corn and corn meal, oats, barley, rice, potatoes, cotton and cotton goods, wool, hides, leather, shoes, anthracite and bituminous coal, copper and copper wire, pig lead, and crude and refined petroleum were higher, while hams, salt pork, sugar, worsted yarns, gasoline, and spelter showed practically no difference in price for these two months.

WHOLESALE PRICES IN JULY, 1914, 1915, 1916, AND 1917, AND IN CERTAIN MONTHS OF 1918 AND 1919, AS COMPARED WITH AVERAGE PRICES IN 1913.

Average Money Prices.

Article.	Unit.	1913	July—				1918				1919				
			1914	1915	1916	1917	Jan.	Apr.	July.	Oct.	Jan.	Apr.	July.	Aug.	Sept.
FOODSTUFFS.															
<i>(a) Animal.</i>															
Cattle, good to choice steers.....	100 lbs...	\$8. 507	\$9. 219	\$9. 213	\$9. 985	\$12. 560	\$13. 113	\$15. 175	\$17. 625	\$17. 856	\$18. 413	\$18. 325	\$16. 869	\$17. 638	\$16. 805
Beef, fresh, good native steers.....	Lb. ....	. 130	. 135	. 132	. 141	. 164	. 175	. 205	. 240	. 245	. 245	. 245	. 208	. 235	. 228
Beef, salt, extra mess.....	Bbl.....	18. 923	17. 250	17. 500	18. 250	30. 500	31. 500	31. 900	34. 875	35. 500	35. 500	35. 500	34. 300	31. 250	26. 700
Hogs, heavy.....	100 lbs...	8. 365	8. 769	7. 281	9. 825	15. 460	16. 300	17. 150	17. 720	17. 850	17. 538	20. 500	22. 225	21. 325	16. 995
Bacon, short, clear sides.....	Lb. ....	. 127	. 141	. 111	. 157	. 248	. 293	. 271	. 276	. 286	. 289	. 326	. 337	. 333	. 274
Hams, smoked, loose.....	Lb. ....	. 166	. 177	. 161	. 190	. 240	. 295	. 308	. 303	. 336	. 349	. 360	. 384	. 384	. 348
Lard, prime, contract.....	Lb. ....	. 110	. 102	. 081	. 131	. 201	. 250	. 258	. 264	. 266	. 238	. 313	. 351	. 306	. 271
Pork, salt, mess.....	Bbl.....	22. 471	23. 625	18. 500	27. 167	42. 250	50. 400	53. 200	48. 500	42. 500	50. 375	55. 000	58. 900	57. 063	50. 150
Sheep, ewes.....	100 lbs...	4. 687	4. 538	5. 469	6. 545	8. 600	11. 144	14. 950	10. 975	9. 469	9. 556	13. 500	8. 125	8. 375	7. 075
Mutton, dressed.....	Lb. ....	. 103	. 095	. 109	. 131	. 145	. 192	. 243	. 205	. 151	. 176	. 229	. 159	. 155	. 118
Butter, creamery, extra.....	Lb. ....	. 310	. 270	. 261	. 276	. 376	. 487	. 415	. 432	. 554	. 618	. 615	. 512	. 533	. 569
Eggs, fresh, firsts.....	Doz.....	. 226	. 187	. 169	. 223	. 318	. 557	. 330	. 374	. 497	. 579	. 403	. 406	. 419	. 457
Milk.....	Qt.....	. 035	. 030	. 030	. 031	. 050	. 081	. 059	. 054	. 082	. 091	. 066	. 071	. 073	. 075
<i>(b) Vegetable.</i>															
Wheat, No. 1, northern.....	Bu.....	. 874	. 897	1. 390	1. 170	2. 582	2. 170	2. 170	2. 170	2. 216	2. 223	2. 589	2. 680	2. 525	2. 535
Wheat flour, standard patent.....	Bbl.....	4. 584	4. 594	7. 031	6. 100	12. 750	10. 085	9. 985	10. 702	10. 210	10. 275	12. 215	12. 155	12. 006	11. 620
Corn, No. 2, mixed.....	Bu.....	. 625	. 710	. 783	. 808	2. 044	1. 775	1. 665	1. 665	1. 385	1. 401	1. 609	1. 920	1. 938	1. 553
Corn meal.....	100 lbs..	1. 599	1. 780	1. 750	1. 982	4. 880	4. 835	5. 360	4. 825	3. 370	3. 150	3. 525	4. 488	4. 280	3. 250
Oats, standard, in store.....	Bu.....	. 376	. 369	. 529	. 405	. 799	. 872	. 765	. 693	. 681	. 653	. 681	. 764	. 728	. 693
Rye, No. 2.....	Bu.....	. 636	. 618	1. 036	. 966	2. 226	1. 915	2. 648	1. 705	1. 625	1. 613	1. 741	1. 555	1. 538	1. 433
Rye flour.....	Bbl.....	3. 468	3. 075	5. 533	5. 035	11. 417	10. 356	13. 687	10. 500	9. 169	8. 738	10. 060	8. 050	8. 300	7. 390
Barley, fair to good malting.....	Bu.....	. 625	. 533	. 743	. 746	1. 391	1. 534	1. 722	1. 125	. 957	. 956	1. 133	1. 268	1. 373	1. 281
Rice, Honduras, head.....	Lb. ....	. 051	. 054	. 049	. 045	. 070	. 079	. 087	. 094	. 091	. 091	. 087	. 133	. 144	. 127
Potatoes, white.....	Bu.....	. 614	1. 206	. 444	. 863	2. 375	1. 272	. 687	1. 035	. 993	1. 084	1. 152	1. 683	2. 415	1. 506
Sugar, granulated.....	Lb. ....	. 043	. 042	. 058	. 075	. 075	. 074	. 073	. 074	. 088	. 088	. 088	. 088	. 088	. 088

1 Standard war flour.

WHOLESALE PRICES IN JULY, 1914, 1915, 1916, AND 1917, AND IN CERTAIN MONTHS OF 1918 AND 1919, AS COMPARED WITH AVERAGE PRICES
IN 1913—Continued.

Average Money Prices—Concluded.

Article.	Unit.	1913	July—				1918				1919				
			1914	1915	1916	1917	Jan.	Apr.	July.	Oct.	Jan.	Apr.	July.	Aug.	Sept.
TEXTILES AND LEATHER GOODS.															
Cotton, upland, middling.....	Lb.....	\$0.128	\$0.131	\$0.092	\$0.130	\$0.261	\$0.324	\$0.317	\$0.312	\$0.325	\$0.296	\$0.290	\$0.351	\$0.320	\$0.311
Cotton yarn, carded, 10/1.....	Lb.....	.221	.215	.160	.253	.450	.536	.616	.641	.610	.445	.417	.591	.613	.590
Sheeting, brown, Pepperell.....	Yd.....	.073	.070	.060	.078	.140	.171	.240	(1)	(1)	.191	.150	.219	.230	.224
Bleached muslin, Lonsdale.....	Yd.....	.082	.085	.075	.088	.160	.180	.230	.250	.250	.209	.176	.274	.294	.294
Wool, 1/4 and 3/8 grades, scoured.....	Lb.....	.471	.444	.557	.686	1.200	1.455	1.455	1.437	1.437	1.200	1.091	1.236	1.236	1.218
Worsted yarn, 2/32's.....	Lb.....	.777	.650	.850	1.100	1.600	2.000	2.150	2.150	2.150	1.750	1.500	1.600	1.624	1.750
Clay worsted suitings, 16-oz.....	Yd.....	1.382	1.328	1.508	2.000	3.250	4.065	4.275	4.450	(1)	(1)	(1)	(1)	(1)	(1)
Storm serge, all-wool, 50-in.....	Yd.....	.563	.505	.539	.760	1.176	1.308	1.308	1.470	1.642	1.642	1.054	1.223	1.372	1.372
Hides, packers' heavy native steers.....	Lb.....	.184	.194	.258	.270	.330	.328	.272	.324	.300	.280	.295	.486	.520	.464
Leather, chrome calf.....	Sq. ft.....	.270	.275	.280	.460	.540	.530	.550	.640	.630	.660	.680	1.100	1.250	1.250
Leather, sole, oak.....	Lb.....	.449	.475	.495	.635	.815	.830	.800	.830	.770	.785	.825	.950	1.030	1.025
Shoes, men's, Goodyear welt, vici calf, blucher.	Pair.....	3.113	3.150	3.250	3.750	4.750	4.750	5.000	5.445	6.500	6.500	6.500	7.476	7.750	7.750
Shoes, women's, Goodyear welt, gun metal, button.	Pair.....	2.175	2.260	2.350	2.750	3.500	3.500	3.500	4.500	4.850	4.850	4.850	6.250	6.750	6.750
MINERAL AND METAL PRODUCTS.															
Coal, anthracite, chestnut.....	2,240 lbs.	5.313	5.241	5.200	5.507	5.933	6.600	6.370	6.693	7.000	8.050	8.017	8.304	8.414	8.501
Coal, bituminous, run of mine.....	2,000 lbs.	2.200	2.200	2.200	2.200	5.000	3.600	3.600	4.100	4.100	4.100	4.000	4.000	4.000	4.500
Coke, furnace, prompt shipment.....	2,000 lbs.	2.538	2.000	2.750	2.750	15.000	6.000	6.000	6.000	6.000	5.781	3.900	4.095	4.219	4.592
Copper, electrolytic.....	Lb.....	.157	.134	.199	.265	.318	.235	.235	.255	.260	.204	.153	.215	.228	.222
Copper wire, bare, No. 8.....	Lb.....	.167	.148	.210	.325	.338	.263	.263	.285	.290	.228	.175	.244	.268	.268
Pig iron, Bessemer.....	2,240 lbs.	17.133	14.900	14.950	21.950	57.450	37.250	36.150	36.600	36.600	33.600	29.350	29.350	29.350	29.350
Steel billets.....	2,240 lbs.	25.789	19.000	21.380	41.000	100.000	47.500	47.500	47.500	47.500	43.500	38.500	38.500	38.500	38.500
Tin plate, domestic, coke.....	100 lbs.	3.558	3.350	3.175	5.875	12.000	7.750	7.750	7.750	7.750	7.350	7.000	7.000	7.000	7.000
Pig tin.....	Lb.....	.449	.311	.391	.389	.620	.842	.880	.932	.796	.715	.725	.702	.633	.558
Pig lead.....	Lb.....	.044	.039	.058	.069	.114	.068	.070	.080	.081	.056	.051	.056	.058	.061
Spelter.....	Lb.....	.058	.051	.220	.113	.093	.079	.079	.087	.091	.074	.065	.079	.079	.076
Petroleum, crude.....	Bbl.....	2.450	1.750	1.350	2.600	3.100	3.750	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.250
Petroleum, refined, water-white.....	Gal.....	.123	.120	.120	.120	.120	.160	.160	.171	.175	.175	.185	.205	.218	.225
Gasoline, motor.....	Gal.....	.168	.140	.120	.240	.240	.240	.240	.241	.245	.245	.245	.245	.245	.245

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Relative Prices.

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[1450]

Article.	1913	July—				1918				1919				
		1914	1915	1916	1917	Jan.	Apr.	July.	Oct.	Jan.	Apr.	July.	Aug.	Sept.
FOODSTUFFS.														
<i>(a) Animal.</i>														
Cattle, good to choice steers.....	100	108.4	108.3	117.4	147.6	154.1	178.4	207.2	209.9	216.4	215.4	198.3	207.3	197.5
Beef, fresh, good native steers.....	100	103.8	101.5	108.5	126.2	134.6	157.7	184.6	188.5	188.5	188.5	160.0	180.8	175.4
Beef, salt, extra mess.....	100	91.2	92.5	96.4	161.2	166.5	168.6	184.3	187.6	187.6	187.6	181.3	165.1	141.1
Hogs, heavy.....	100	104.8	87.0	117.5	184.8	194.9	205.0	211.8	213.4	209.7	245.1	265.7	254.9	203.2
Bacon, short, clear sides.....	100	111.0	87.4	123.6	195.3	230.7	213.4	217.3	225.2	227.6	256.7	265.4	262.2	215.7
Hams, smoked, loose.....	100	106.6	97.0	114.5	144.0	177.7	185.5	182.5	202.4	210.2	216.9	231.3	231.3	209.6
Lard, prime, contract.....	100	92.7	73.6	119.1	182.7	227.3	234.5	240.0	241.8	216.4	284.5	319.1	278.2	246.4
Pork, salt, mess.....	100	105.1	82.3	120.9	188.0	224.3	236.7	215.8	189.1	224.2	244.8	262.1	253.9	223.2
Sheep, ewes.....	100	96.8	116.7	139.6	183.5	237.8	319.0	234.2	202.0	203.9	288.0	173.4	178.7	151.0
Mutton, dressed.....	100	92.2	105.8	127.2	140.8	186.4	235.9	199.0	146.6	170.9	222.3	154.4	150.5	114.6
Butter, creamery, extra.....	100	87.1	84.2	89.0	121.3	157.1	133.9	139.4	178.7	199.4	198.4	165.2	171.9	183.5
Eggs, fresh, firsts.....	100	82.7	74.8	98.7	140.7	246.5	146.0	165.5	219.9	256.2	178.3	184.1	185.4	202.2
Milk.....	100	85.7	85.7	88.6	142.9	231.4	168.6	154.3	234.3	260.0	188.6	202.9	208.6	214.3
<i>(b) Vegetable.</i>														
Wheat, No. 1, northern.....	100	102.6	159.0	133.9	295.4	248.3	248.3	248.3	253.5	254.3	296.2	306.6	288.9	290.1
Wheat flour, standard patent.....	100	100.2	153.4	133.1	278.1	² 220.0	² 217.8	² 233.5	² 222.7	224.1	266.5	265.2	261.9	253.5
Corn, No. 2, mixed.....	100	113.6	125.3	120.3	327.0	284.0	266.4	266.4	221.6	224.2	257.4	307.2	310.1	248.5
Corn meal.....	100	111.3	109.4	124.0	305.2	302.4	334.6	301.8	210.8	197.0	220.4	280.7	267.7	203.3
Oats, standard, in store.....	100	98.1	140.7	107.7	203.2	212.5	231.9	203.5	184.3	173.7	181.1	203.2	193.6	184.3
Rye, No. 2.....	100	97.2	162.9	151.9	350.0	301.1	416.4	268.1	255.5	253.6	273.7	244.5	241.8	225.3
Rye flour.....	100	88.7	159.5	145.2	329.2	298.6	394.7	302.8	264.4	252.0	290.1	232.1	239.3	213.1
Barley, fair to good malting.....	100	85.3	118.9	119.4	222.6	245.4	275.5	180.0	153.1	153.0	181.3	202.9	219.7	205.0
Rice, Honduras, head.....	100	105.9	96.1	88.2	137.3	154.9	170.6	154.3	178.4	178.4	170.6	260.8	282.4	249.0
Potatoes, white.....	100	196.4	72.3	140.6	386.6	207.2	111.9	168.6	161.7	176.5	187.6	274.1	393.3	255.1
Sugar, granulated.....	100	97.7	134.9	174.4	174.4	172.1	169.8	172.1	204.7	204.7	204.7	204.7	204.7	204.7

¹ No quotation.

² Standard war flour.

WHOLESALE PRICES IN JULY, 1914, 1915, 1916, AND 1917, AND IN CERTAIN MONTHS OF 1918 AND 1919, AS COMPARED WITH AVERAGE PRICES IN 1913—
Concluded.

Relative Prices—Concluded.

Article.	1913	July—				1918				1919				
		1914	1915	1916	1917	Jan.	Apr.	July.	Oct.	Jan.	Apr.	July.	Aug.	Sept.
TEXTILES AND LEATHER GOODS.														
Cotton, upland, middling.....	100	102.3	71.9	101.6	203.9	253.1	247.7	243.8	253.9	231.3	226.6	274.2	250.0	243.0
Cotton yarn, carded, 10/1.....	100	97.3	72.4	114.5	203.6	242.5	278.7	289.6	276.0	201.4	188.7	267.4	277.4	267.0
Sheeting, brown, Pepperell.....	100	95.9	82.2	106.8	191.8	234.2	323.8	(1)	(1)	261.6	205.5	300.0	315.1	306.9
Bleached muslin, Lonsdale.....	100	103.7	91.5	107.3	195.1	219.5	230.5	304.9	304.9	254.9	214.6	334.1	358.5	358.5
Wool, 1/4 to 3/8 grades, scoured.....	100	94.3	118.3	145.6	254.8	308.9	308.9	305.1	305.1	254.8	231.6	262.4	262.4	258.6
Worsted yarn, 2/32s.....	100	83.7	109.4	141.6	205.9	257.4	276.7	276.7	276.7	225.2	193.1	205.9	209.0	225.2
Clay worsted suitings, 16-ounce.....	100	96.1	109.1	144.7	235.2	294.1	309.3	322.0	(1)	(1)	(1)	(1)	(1)	(1)
Storm serge, all wool, 50-inch.....	100	89.7	95.7	135.0	208.9	232.3	232.3	261.1	291.7	291.7	187.2	217.2	243.7	243.7
Hides, packers' heavy native steers.....	100	105.4	140.2	146.7	179.3	178.3	147.8	176.1	163.0	152.2	160.3	264.1	282.6	252.2
Leather, chrome calf.....	100	101.9	103.7	170.4	200.0	196.3	203.7	237.0	233.3	244.4	251.9	407.4	463.0	463.0
Leather, sole, oak.....	100	105.8	110.2	141.4	181.5	184.9	178.2	184.9	171.5	174.8	183.7	211.6	229.4	228.3
Shoes, men's, Goodyear welt, vici calf, blucher.....	100	101.2	104.4	120.5	152.6	152.6	160.6	181.3	205.8	205.8	208.8	240.2	249.0	249.0
Shoes, women's, Goodyear welt, gun metal, button.....	100	103.9	108.1	126.4	160.9	160.9	160.9	206.9	223.0	223.0	223.0	287.3	310.3	310.3
MINERAL AND METAL PRODUCTS.														
Coal, anthracite, chestnut.....	100	98.6	97.9	103.7	111.7	124.2	119.9	126.0	131.8	151.5	150.9	156.3	158.4	160.0
Coal, bituminous, run of mine.....	100	100.0	100.0	100.0	227.3	162.7	162.7	186.4	186.4	186.4	181.8	181.8	181.8	204.5
Coke, furnace, prompt shipment.....	100	78.8	69.0	108.4	591.0	236.4	236.4	236.4	236.4	227.8	153.7	161.3	166.2	180.9
Copper, electrolytic.....	100	85.4	126.8	168.8	202.5	149.7	149.7	162.4	165.6	129.9	97.5	136.9	145.2	141.4
Copper wire, bare, No. 8.....	100	88.6	125.7	195.6	202.4	157.5	157.5	170.7	173.7	136.5	104.8	146.1	160.5	160.5
Pig iron, Bessemer.....	100	87.0	87.3	128.1	335.3	317.4	311.0	213.6	213.6	196.1	171.3	171.3	171.3	171.3
Steel billets.....	100	73.7	82.9	159.0	287.8	184.2	184.2	184.2	184.2	168.7	149.3	149.3	149.3	149.3
Tin plate, domestic, coke.....	100	94.2	89.2	165.1	337.3	217.8	217.8	217.8	217.8	206.6	196.7	196.7	196.7	196.7
Pig tin.....	100	69.3	87.1	86.6	138.1	187.5	196.0	207.6	177.3	159.2	161.5	156.3	141.0	124.3
Pig lead.....	100	88.6	131.8	156.8	259.1	154.5	159.1	181.8	184.1	127.3	115.9	124.7	129.2	135.9
Spelter.....	100	87.9	379.3	194.8	160.3	136.2	120.7	151.7	156.9	127.6	112.1	136.2	136.2	131.0
Petroleum, crude.....	100	71.4	55.1	106.1	126.5	153.1	163.3	163.3	163.3	163.3	163.3	163.3	163.3	173.5
Petroleum, refined, water-white.....	100	97.6	97.6	97.6	97.6	130.1	136.6	139.0	142.3	142.3	150.4	166.7	177.2	178.9
Gasoline, motor.....	100	83.3	71.4	142.9	142.9	142.9	142.9	143.5	145.8	145.8	145.8	145.8	145.8	145.8

¹No quotation.

Creation of Commission to Control Rents in the District of Columbia.

IN AN effort to reduce the high cost of living and to prevent rent profiteering in the District of Columbia, Congress on October 10, 1919, finally passed House bill 8624, which amends the Food Control Act approved August 10, 1917, and it received the approval of the President on October 22. The first part of the amending act extends the provisions of the food control law to include clothing, and the second part deals with District of Columbia rents and is designed to prevent profiteering and excessively high rentals for real property. This part is in the nature of an entirely new law and expressly repeals the so-called Saulsbury resolution (ch. 90, vol. 40, p. 593, Statutes at Large). The act is declared to be emergency legislation and is temporary in nature, being operative for a period of two years. A rent commission is created consisting of three members to be appointed by the President by and with the advice and consent of the Senate. Each is to hold office for a period of two years, and to receive an annual salary of \$5,000. A secretary is to be appointed by the commission at a salary of \$3,000 per annum and all other necessary employees are to be appointed through the civil service. The sum of \$50,000 is appropriated for the purpose of carrying out the provisions of the act. The assessor of the District of Columbia is made an *ex officio* advisory assistant to the commission and is given a salary of \$1,000 in addition to his salary as assessor.

The commission is given full power to compel the production of evidence and the attendance of witnesses, and is charged with the determination of what rents are reasonable and is authorized to hold hearings after notice and fix what may be regarded as a fair and reasonable rental. Appeals within 10 days are allowed to the Court of Appeals of the District of Columbia.

All leases which expire shall continue at the option of the tenant, subject, however, to the regulations of the commission. Pending an appeal from the rulings of the commission the regulations and conditions fixed by the commissions shall be in force. If any landlord charges or collects any rental in excess of an amount fixed by the commission he shall be liable, through an action in the municipal court of the District of Columbia, to pay double the amount of the excess, together with the cost of the proceeding which shall include an attorney's fee of \$50. Violations of the act by the acceptance of bonuses or through fictitious sales are punishable by a fine of not more than \$1,000 or imprisonment for not more than one year or both. Rules of procedure before the commission may be fixed by

it as well as standard forms of leases and other contracts. Subleases of rental property at rates higher than those contained in the original lease are forbidden without the consent of the commission.

The text of that portion of the new law relating to District of Columbia rents is as follows:

Title II. District of Columbia rents.

SECTION 101. When used in this title, unless the context indicates otherwise—

The term "rental property" means any building or part thereof or land appurtenant thereto in the District of Columbia rented or hired and the service agreed or required by law or by determination of the commission to be furnished in connection therewith; but does not include an hotel or apartment.

The term "person" includes an individual, partnership, association, or corporation.

The term "hotel" or "apartment" means any hotel or apartment or part thereof, in the District of Columbia, rented or hired and the land and outbuildings appurtenant thereto, and the service agreed or required by law or by determination of the commission to be furnished in connection therewith.

The term "owner" includes a lessor or sublessor, or other person entitled to receive rent or charges for the use or occupancy of any rental property, hotel or apartment, or any interest therein, or his agent.

The term "tenant" includes a subtenant, lessee, sublessee or other person, not the owner, entitled to the use or occupancy of any rental property, hotel or apartment.

The term "service" includes the furnishing of light, heat, water, telephone or elevator service, furniture, furnishings, window shades, screens, awnings, storage, kitchen, bath and laundry facilities and privileges, maid service, janitor service, removal of refuse, making all repairs suited to the type of building or necessitated by ordinary wear and tear, and any other privilege or service connected with the use or occupancy of any rental property, apartment or hotel.

The term "commission" means the Rent Commission of the District of Columbia.

Sec. 102. A commission is hereby created and established, to be known as the Rent Commission of the District of Columbia, which shall be composed of three commissioners, none of whom shall be directly or indirectly engaged in, or in any manner interested in or connected with, the real estate or renting business in the District of Columbia. The commissioners shall be appointed by the President by and with the advice and consent of the Senate. The term of each commissioner shall be two years, except that any person chosen to fill a vacancy shall be appointed only for the unexpired term of the commissioner whom he succeeds. The commission shall at the time of its organization and annually thereafter elect a chairman from its own membership. The commission may make such regulations as may be necessary to carry this title into effect.

All powers and duties of the commission may be exercised by a majority of its members. A vacancy in the commission shall not impair the right of the remaining commissioners to exercise all the powers of the commission. The commission shall have an official seal, which shall be judicially noticed.

Sec. 103. Each commissioner shall receive a salary of \$5,000 a year, payable monthly. The commission shall appoint a secretary, who shall receive a salary of \$3,000 a year, payable in like manner; and, subject to the provisions of the civil-service laws, it may appoint and remove such officers, employees, and agents and make such expenditures for rent, printing, telegrams, telephone, law books, books of reference, periodicals, furniture, stationery, office equipment, and other supplies and expenses as may be necessary to the administration of this title. All of the expenditures of the commission shall, upon the presentation of itemized vouchers therefor approved

by the chairman of the commission, be audited and paid in the same manner as other expenditures for the District of Columbia.

With the exception of the secretary, all employees of the commission shall be appointed from lists of eligibles supplied by the Civil Service Commission and in accordance with the civil-service law.

SEC. 104. The assessor of the District of Columbia shall serve *ex officio* as an advisory assistant to the commission, but he shall have none of the powers or duties of a commissioner. He shall attend the meetings and hearings of the commission. Every officer or employee of the United States or of the District of Columbia, whenever requested by the commission, shall supply to the commission any data or information pertaining to the administration of this title which may be contained in the records of his office. The assessor shall receive for the performance of the duties required by this section a salary of \$1,000 per annum, payable monthly, in addition to such other salary as may be prescribed for his office by law.

SEC. 105. For the purpose of this title the commission or any officer, employee, or agent duly authorized in writing by it, shall at all reasonable times have access to, for the purpose of examination and the right to copy, any books, accounts, records, papers, or correspondence relating to any matter which the commission is authorized to consider or investigate; and the commission shall have power to require by subpoena the attendance and testimony of witnesses and the production of all such books, accounts, records, papers, and correspondence relating to any such matter. Any member of the commission may sign subpoenas, administer oaths and affirmations, examine witnesses, and receive evidence.

Such attendance of witnesses and the production of such books, accounts, records, papers, and correspondence may be required from any place in the United States at any designated place of hearing. In case of disobedience to a subpoena or of the contumacy of any witness appearing before the commission, the commission may invoke the aid of the Supreme Court of the District of Columbia or of any district court in the United States. Such court may thereupon issue an order requiring the person subpoenaed to obey the subpoena, or to give evidence touching the matter in question. Any failure to obey such order of the court may be punished by such court as a contempt thereof. No officer or employee of the commission shall, unless authorized by the commission or by a court of competent jurisdiction, make public any information obtained by the commission.

SEC. 106. For the purposes of this title it is declared that all (a) rental property and (b) apartments and hotels are affected with a public interest, and that all rents and charges therefor, all service in connection therewith, and all other terms and conditions of the use or occupancy thereof, shall be fair and reasonable; and any unreasonable or unfair provision of a lease or other contract for the use or occupancy of such rental property, apartment, or hotel with respect to such rents, charges, service, terms, or conditions is hereby declared to be contrary to public policy. The commission upon its own initiative may, or upon complaint shall, determine whether the rent, charges, service, and other terms or conditions of a lease or other contract for the use or occupancy of any such rental property, hotel, or apartment are fair and reasonable. Such complaints may be made (a) by or on behalf of any tenant, and (b) by any owner except where the tenant is in possession under a lease or other contract, the term specified in which has not expired, and the fairness and reasonableness of which has not been determined by the commission.

In all such cases the commission shall give notice personally or by registered mail and afford an opportunity to be heard to all parties in interest. The commission shall promptly hear and determine the issues involved in all complaints submitted to it. All hearings before the commission shall be open to the public. If the commission determines that such rents, charges, service, or other terms or conditions are unfair or unreasonable, it shall determine and fix such fair and reasonable rent or charges

therefor, and / or fair and reasonable service, terms, and conditions of use or occupancy. In any suit in any court of the United States or the District of Columbia involving any question arising out of the relation of landlord and tenant with respect to any rental property, apartment, or hotel, except an appeal from the commission's determination as provided in this title, such court shall determine the rights and duties of the parties in accordance with the determination and regulations of the commission relevant thereto.

SEC. 107. A determination of the commission fixing a fair and reasonable rent or charge made in a proceeding begun by complaint shall be effective from the date of the filing of the complaint. The difference between the amount of rent and charges paid for the period from the filing of the complaint to the date of the commission's determination and the amount that would have been payable for such period at the fair and reasonable rate fixed by the commission may be added to or subtracted from, as the case demands, future rent payments, or after the final decision of an appeal from the commission's determination may be sued for and recovered in an action in the Municipal Court of the District of Columbia.

SEC. 108. Unless within ten days after the filing of the commission's determination any party to the complaint appeals therefrom to the Court of Appeals of the District of Columbia, the determination of the commission shall be final and conclusive. If such an appeal is taken from the determination of the commission, the record before the commission or such part thereof as the court may order shall be certified by it to the court and shall constitute the record before the court, and the commission's determination shall not be modified or set aside by the court except for error of law. If any party applies to the court for leave to adduce additional evidence and shows to the satisfaction of the court that such additional evidence is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the commission, the court may order such additional evidence to be taken before the commission and to be adduced upon the hearing in such manner and upon such terms and conditions as the court may deem proper. The commission may modify its findings as to the facts, or make new findings, by reason of the additional evidence so taken, and it shall file such modified or new findings, which shall be conclusive, and its recommendations, if any, for the modification or setting aside of its original determination, with the return of such additional evidence. In the proceedings before such court on appeal from a determination of the commission, the commission shall appear by its counsel or other representative and submit oral or written arguments to support the findings and the determination of the commission.

SEC. 109. The right of a tenant to the use or occupancy of any rental property, hotel, or apartment, existing at the time this act takes effect, or thereafter acquired, under any lease or other contract for such use or occupancy or under any extension thereof by operation of law, shall, notwithstanding the expiration of the term fixed by such lease or contract, continue at the option of the tenant subject, however, to any determination or regulation of the commission relevant thereto; and such tenant shall not be evicted or dispossessed so long as he pays the rent and performs the other terms and conditions of the tenancy as fixed by such lease or contract, or in case such lease or contract is modified by any determination or regulation of the commission, then as fixed by such modified lease or contract. All remedies of the owner at law or equity, based on any provision of any such lease or contract to the effect that such lease or contract shall be determined or forfeited if the premises are sold, are hereby suspended so long as this title is in force. Every purchaser shall take conveyance of any rental property, hotel, or apartment subject to the rights of tenants as provided in this title. The rights of the tenant under this title shall be subject to the limitation that the bona fide owner of any rental property, apartment, or hotel shall have the right to possession thereof for actual and bona fide occupancy by himself, or his wife, children, or dependents, or for the purpose of tearing down or razing the same

in order immediately to construct new rental property, hotel, or apartment if approved by the commission, upon giving 30 days' notice in writing, served in the manner provided by section 1223 of the act entitled "An act to establish a code of laws for the District of Columbia," approved May 3, 1901, as amended, which notice shall contain a full and correct statement of the facts and circumstances upon which the same is based; but in no case shall possession be demanded or obtained by such owner in contravention of the terms of any such lease or contract. If there is a dispute between the owner and the tenant as to the accuracy or sufficiency of the statement set forth in such notice, as to the good faith of such demand, or as to the service of notice, the matters in dispute shall be determined by the commission upon complaint as provided in section 106 of this title.

SEC. 110. Pending the final decision on appeal from a determination of the commission, the commission's determination shall be in full force and effect and the appeal shall not operate as a supersedeas or in any manner stay or postpone the enforcement of the determination appealed from. Immediately upon the entry of a final decision on the appeal the commission shall, if necessary, modify its determination in order to make it conform to such decision. The difference, if any, between the amount of rent and charges paid for the period from the date of the filing by the commission of the determination appealed from and the amount that would have been payable for such period under the determination as modified in accordance with the final decision on appeal may be added to or allowed on account of, as the case demands, future rent payments or may be sued for and recovered in an action in the Municipal Court in the District of Columbia.

SEC. 111. The determination of the commission in a proceeding begun by complaint or upon its own initiative fixing fair and reasonable rents, charges, service, and other terms and conditions of use or occupancy of any rental property, hotel, or apartment shall constitute the commission's determination of the fairness and reasonableness of such rents, charges, service, terms, or conditions for the rental property, hotel, or apartment affected, and shall remain in full force and effect notwithstanding any change in ownership or tenancy thereof, unless and until the commission modifies or sets aside such determination upon complaint either of the owner or of the tenant.

SEC. 112. If the owner of any rental property, apartment, or hotel collects any rent or charge therefor in excess of the amount fixed in a determination of the commission made and in full force and effect in accordance with the provisions of this title, he shall be liable for, and the commission is hereby authorized and directed to commence an action in the Municipal Court in the District of Columbia to recover double the amount of such excess, together with the costs of the proceeding, which shall include an attorney's fee of \$50, to be taxed as part of the costs. Out of any sums received on account of such recovery the commission shall pay over to the tenant the amount of the excess so paid by him and the balance shall be paid into the Treasury of the District of Columbia: *Provided*, That if the commission finds that such excess was paid by the tenant voluntarily and with knowledge of the commission's determination, the whole amount of such recovery shall be paid into the Treasury of the District of Columbia.

SEC. 113. If in any proceeding before the commission, begun by complaint or on the commission's own initiative, and involving any lease or other contract for the use or occupancy of any rental property, hotel, or apartment the commission finds that at any time after the passage of this act but during the tenancy the owner has, directly or indirectly, willfully withdrawn from the tenant any service agreed or required by a determination of the commission to be furnished, or has by act, neglect, or omission contrary to such lease or contract or to the law or any ordinance or regulation made in pursuance of law, or of a determination of the commission, exposed the tenant, directly or indirectly, to any unsafe or insanitary condition or imposed upon him

any burden, loss, or unusual inconvenience in connection with his use or occupancy of such rental property, hotel, or apartment, the commission shall determine the sum which in its judgment will fairly and reasonably compensate or reimburse the tenant therefor. In any such proceeding involving a lease or other contract, the term specified in which had not expired at the time the proceeding was begun, the commission shall likewise determine the amount or value of any bonus or other consideration in excess of the rental named in such lease or contract received at any time directly or indirectly by the owner in connection with such lease or contract. The tenant may recover any amount so determined by the commission in an action in the Municipal Court of the District of Columbia.

SEC. 114. Whenever under this title a tenant is entitled to bring suit to recover any sum due him under any determination of the commission, the commission shall, upon application by the tenant and without expense to him, commence and prosecute in the Municipal Court of the District of Columbia an action on behalf of the tenant for the recovery of the amount due, and in such case the court shall include in any judgment rendered in favor of the tenant the costs of the action, including a reasonable attorney's fee, to be fixed by the court. Such costs and attorney's fee when recovered shall be paid into the treasury of the District of Columbia.

SEC. 115. The commission shall, by general order, from time to time prescribe the procedure to be followed in all proceedings under its jurisdiction. Such procedure shall be as simple and summary as may be practicable, and the commission and parties appearing before it shall not be bound by technical rules of evidence or of pleading.

SEC. 116. Any person who with intent to avoid the provisions of this title enters into any agreement or arrangement for the payment of any bonus or other consideration in connection with any lease or other contract for the use or occupancy of any rental property, hotel, or apartment, or who participates in any fictitious sale or other device or arrangement the purpose of which is to grant or obtain the use or occupancy of any rental property, hotel, or apartment without subjecting such use or occupancy to the provisions of this title or to the jurisdiction of the commission shall upon conviction be punished by a fine of not exceeding \$1,000 or by imprisonment for not exceeding one year or by both.

SEC. 117. The commission shall prescribe standard forms of leases and other contracts for the use or occupancy of any rental property, hotel, or apartment and shall require their use by the owner thereof. Every such lease or contract entered into after the commission has prescribed and promulgated a form for the tenancy provided by such lease or contract shall be deemed to accord with such standard form; and any such lease or contract in any proceeding before the commission or in any court of the United States or of the District of Columbia shall be interpreted, applied, and enforced in the same manner as if it were in the form and contained the stipulations of such standard form.

The owner of an hotel or apartment shall file with the commission plans and other data in such detail as the commission requires, descriptive of the rooms, accommodations and service in connection with such hotel or apartment, and a schedule of rates and charges therefor. The commission shall, after consideration of such plans, schedules, data, or other information, determine and fix a schedule of fair and reasonable rates and charges for such hotels and apartments; and the rates and charges stated in such schedule shall thereafter constitute the fair and reasonable rates and charges for such hotel or apartment. The commission's determination in such case shall be made after such notice and hearing and shall have the same force and effect and be subject to appeal in the same manner as a determination of the commission under section 106 of this title.

SEC. 118. No tenant shall assign his lease of or sublet any rental property or apartment at a rate in excess of the rate paid by him under his lease without the consent of

the commission upon application in a particular case, and in such case the commission shall determine a fair and reasonable rate of rent or charge for such assignment or sublease.

SEC. 119. The public resolution entitled "Joint resolution to prevent profiteering in the District of Columbia," approved May 31, 1918, as amended, is hereby repealed, to take effect sixty days after the date of the confirmation by the Senate of the commissioners first nominated by the President under the provisions of this title; but a determination by the commission made within such period of sixty days shall be enforced in accordance with the provisions of this title, notwithstanding the provisions of such public resolution. All laws or parts of laws in conflict with any provision of this title are hereby suspended so long as this title is in force to the extent that they are in such conflict.

SEC. 120. The sum of \$50,000, or so much thereof as may be necessary, is hereby appropriated and made immediately available to carry out the provisions of this title, one-half thereof to be paid out of money in the Treasury of the United States not otherwise appropriated and the other one-half out of the revenues of the District of Columbia.

SEC. 121. If any clause, sentence, paragraph, or part of this title shall be adjudged by any court of competent jurisdiction to be invalid, such judgment shall not affect, impair, or invalidate the remainder thereof, but shall be confined in its operations to the clause, sentence, paragraph, or part directly involved in the controversy in which such judgment shall have been rendered.

SEC. 122. It is hereby declared that the provisions of this title are made necessary by emergencies growing out of the war with the Imperial German Government, resulting in rental conditions in the District of Columbia dangerous to the public health and burdensome to public officers and employees whose duties require them to reside within the District and other persons whose activities are essential to the maintenance and comfort of such officers and employees, and thereby embarrassing the Federal Government in the transaction of the public business. It is also declared that this title shall be considered temporary legislation, and that it shall terminate on the expiration of two years from the date of passage of this act, unless sooner repealed.

Increased Cost of Living in Australia During and Since the War.

ACCORDING to a published statement on the cost of living in Australia by the Commonwealth statistician, reference to which is made in the United States Commerce Reports for September 9, 1919, the increase in the cost of meat and groceries since the outbreak of the war has been greatest in Queensland (61.6 per cent). New South Wales comes second with 51.8 per cent; Victoria next, with 42.6 per cent, then Tasmania, with 41.1 per cent, and Western Australia, with 24 per cent. In April of this year the cost was greatest in New South Wales, and in that month it rose 2 per cent compared with March.

The monthly statement issued by the Government statistician shows the price levels of food and groceries in Sydney between July, 1914, the month before the outbreak of war, and May, 1919. The

prices in July, 1914, are taken as a basis and called 100, and the commodities for which the price levels are computed are those in everyday consumption. In the statement, meat is distinguished from other food and groceries, and in the last column the two groups are combined:

INCREASE IN COST OF FOOD IN AUSTRALIA, JULY, 1914, TO MAY, 1919.

Month.	Meat.	Other food and groceries.	Meat, other food and groceries.	Month.	Meat.	Other food and groceries.	Meat, other food and groceries.
July, 1914.....	100.0	100.0	100.0	January, 1919.....	166.6	140.2	147.0
May, 1915.....	128.6	106.1	111.9	February, 1919.....	166.6	143.4	149.4
May, 1916.....	166.4	118.6	131.0	March, 1919.....	169.9	144.7	151.2
May, 1917.....	162.4	122.0	132.4	April, 1919.....	173.0	142.9	150.7
May, 1918.....	163.2	126.8	136.2	May, 1919.....	173.1	144.5	151.9
December, 1918.....	166.5	134.3	142.6				

Retail Prices in Great Britain During the War.¹

THE statistics relating to the increase in the retail prices of food, which have been published in the Labor Gazette since September, 1914, are summarized in the following table, which shows, for the whole period, the average percentage increase since July, 1914, in retail prices of the principal articles of food² in the United Kingdom. In order to obtain a continuously comparable record of price movements it has necessarily been assumed that the relative importance of the various articles included has been the same throughout the period, and the figures thus afford a measure of the increased cost of a prewar dietary, so far as the articles included in the statistics are concerned.

AVERAGE PER CENT OF INCREASE IN PRICE OF FOOD IN GREAT BRITAIN SINCE JULY, 1914.

Month (beginning of).	1914	1915	1916	1917	1918	1919
January.....		18	45	87	106	130
February.....		22	47	89	108	130
March.....		24	48	92	107	120
April.....		24	49	94	106	113
May.....		26	55	98	107	107
June.....		32	59	102	108	104
July.....		32	61	104	110	109
August.....		³ 15	34	60	102	118
September.....		10	35	65	106	116
October.....		12	40	68	97	129
November.....		13	41	78	106	133
December.....		16	44	84	105	129

¹ From the Labor Gazette (London), August, 1919.

² The articles included are beef, mutton, bacon, fish, flour, bread, tea, sugar, milk, butter, cheese, margarine, eggs, and potatoes.

³ On Aug. 8.

An almost continuous rise in prices is shown from September, 1914, to the summer of 1917. The period of most marked increase was in the latter part of 1916, the percentage rising from 60 at the beginning of August of that year to 84 at the beginning of December. The increase continued with less rapidity up to June, 1917, but in the following twelve months there was only a relatively small advance, the percentage increase at the beginning of July, 1917, being 104 and a year later 110. In part this was due to the subsidy on flour and bread the effect of which is evident in the percentage for October 1, 1917 (the date following its introduction), though it was soon neutralized during October by increases in the prices of other food-stuffs. The measures taken by the Food Controller also served to check the further advance in prices, but conditions in the latter part of 1918 were such that large increases in prices were again recorded, and at the beginning of November, 1918, prices of food averaged 133 per cent above the prewar level.

Between November, 1918, and June, 1919, there was a fall in the prices of food, which at the latter date averaged 104 per cent above those of July, 1914. The decrease resulted from reductions of 4d. (8 cents) per pound in the prices of imported beef and mutton and of about 2d. (4 cents) per pound in those of British beef and mutton, cheese, margarine, and tea. Milk was 2d. (4 cents) per quart dearer and eggs were over 2½d. (5 cents) each dearer at the beginning of November than at the beginning of June, while fish also was dearer at the earlier date. Potatoes, on the other hand, were cheaper in November than in June. Increases in prices between the beginning of June and the beginning of August have raised the average percentage increase over July, 1914, from 104 to 117, which is about the same as a year ago.

If it is desired to exclude from consideration the amount of increase due to additional taxation, the necessary deductions from the percentages given would be 1 for the months December, 1914, to September, 1915; 5 for October, 1915, to April, 1916; 6 for May, 1916, to April, 1918; 10 for May, 1918, to May, 1919; and 9 for June to August, 1919.

Average Increase on All Items.

The foregoing figures relate to the prices of food only. The movement of prices of all the items ordinarily entering into the working class family budget (including, in addition to food, rent, clothing, fuel, and light) is shown in the following table, which like the previous one, shows the increased cost of maintaining a prewar standard of living, no allowance being made for such varying economies as have been effected.

AVERAGE PER CENT OF INCREASE IN COST OF LIVING IN GREAT BRITAIN SINCE JULY, 1914.

Month (beginning of).	1914	1915	1916	1917	1918	1919
January.....		10-15	35	65	85-90	120
February.....		15	35	65-70	90	120
March.....		15-20	35-40	70	90	115
April.....		15-20	35-40	70-75	90-95	110
May.....		20	40-45	75	95-100	105
June.....		25	45	75-80	100	105
July.....		25	45-50	80	100-105	105-110
August.....		25	45-50	80	100	115
September.....		25	50	80-85	110	.....
October.....		30	50-55	75-80	115-120	.....
November.....		30-35	60	85	120-125	.....
December.....	10	35	65	85	120	.....

The above percentages are unaffected by war increases in the taxation on commodities up to September, 1915. From October, 1915, to April, 1916, about 3 per cent was added to the prewar level on account of such increases; from May, 1916, to April, 1918, the corresponding figure was between 4 and 5 per cent; from May, 1918, to May, 1919, nearly 7 per cent; and from June to August, 1919, about 6 per cent.

Up to the middle of 1917 the increase in respect of all the items included in the statistics averaged about three-quarters of that for food. During the following 12 months, however, the prices of food advanced very little while those of other items continued to increase considerably, and in July, 1918, the average percentage advance in the prices of "all items" was within 10 of that recorded for food. At the present time the average increases for food and for all the items included are approximately the same, and prices, whether for food only or for all the items (including rent), are substantially more than double the prewar level.

Food Prices in Germany in July, 1919.¹

FROM numerous articles in the German press it becomes evident that an appreciable reduction in food prices has taken place in Germany during the summer of 1919. The lowering of maximum retail prices by the Government, the importation of food which has now become possible, and the approaching increase of rations are the chief causes contributing toward the reduction, which seems likely to continue.

¹ In view of the unsettled condition of German exchange and the great depreciation of the mark, food prices quoted in this article are not converted to their equivalents in American money.

New Price Regulations.

The food minister has issued the following instructions to the States, communal unions, and communes:¹

The willing cooperation of communes and communal unions is necessary in order that the cheapening of imported foodstuffs may prove effective. The reduction of prices by the Government has been so arranged that the communal unions will be able to obtain foodstuffs at cheap rates. Care must be taken to prevent the levying of additional charges by middlemen, which would render the reduction in part ineffective. The following regulations are therefore to be followed:

Communes and communal unions must fix local maximum retail prices for imported foodstuffs wherever the prices do not correspond with the existing maximum prices of home-grown foodstuffs. The observance of the following price schedule is urgently recommended:

Article.	Price per kilogram ¹ charged by State Control Department to communal unions.	Additional charge to communes and wholesale dealers, including cost of delivery to retail dealers.	Maximum charge to retailer.	Maximum retail selling price per $\frac{1}{2}$ kilogram. ¹
	<i>Marks.</i>	<i>Pfennigs.</i>	<i>Pfennigs.</i>	<i>Marks.</i>
Rice.....	3.50	20	30	2.00
Leguminous produce.....	2.00	20	30	1.25
Flour.....	1.30	22	14 to 16	0.82 to .84
Condensed milk, per tin.....	1.50	-----	-----	1.80
Potatoes, old, per $\frac{1}{2}$ kilogram.....	.20	(²)	(²)	(²)
Potatoes, new, per $\frac{1}{2}$ kilogram.....	.30	(²)	(²)	(²)

¹ One kilogram is equivalent to 2.2046 pounds.

² Charges to be based on rates for home-grown potatoes on July 1.

Prices for meat and bacon are to be calculated according to the standards fixed by the State Department for the control of meat. Meat can thus be sold as follows:

Article.	Price delivered to communal unions per kilogram.	Retail selling price per kilogram.
	<i>Marks.</i>	<i>Marks.</i>
Meat, in small and medium-sized towns.....	7.60	9.00
Meat, in large towns (salt meat is included).....	7.60	9.50
Bacon.....	6.80	8.00
Edible fats.....	9.00	(¹)

¹ Charges to be fixed according to regulations of Fat Control Department.

Communal unions and communes must arrange that there shall be no surplus after imported foodstuffs have been distributed.

¹ Vorwärts, Berlin, July 5, 1919.

Cheaper Food in Berlin from July 7.

On July 2, 1919, the Berlin Municipal Council made the following announcement:¹

On Monday, July 7, the reduction of food prices announced a short time ago will come into force. Retail prices will be as follows:

Article.	Former price per $\frac{1}{2}$ kilogram.	New price per $\frac{1}{2}$ kilogram.
	Marks.	Marks.
Flour.....	2.20	0.88
Meat.....	9.60 to 11.00	4.50 to 5.00
Bacon.....	7.40	4.00 to 4.20
Fats.....	6.00	5.00
Potatoes, old.....	.25	.15
Potatoes, new.....		.20

Fall in "Profiteering" Prices.

According to Vorwärts² illicit trading (*Schleichhandel*) in foodstuffs is still being carried in Germany in spite of vigorous efforts of the Government to prevent it, but in view of the lower prices for rationed foods illicit dealers now content themselves with smaller profits. In an article on this subject Vorwärts says:

There has been a specially rapid fall in the price of butter. A fortnight ago butter could not be obtained under 32 to 34 marks per one-half kilogram; now it is offered at 18 or 20 marks. The railway strike of the last few weeks, which had almost stopped the people in towns from scouring the country in search of food, brought about such a reduction of prices in rural districts that farmers are now offering smoked bacon at 15 marks per one-half kilogram. Good white flour, from home-grown grain, has gone down from 5 to 3 marks per one-half kilogram, and even lower. Lard now costs from 14 to 18 marks per one-half kilogram. Cheaper prices for meat, procured by illicit slaughtering, are noticeable. Fresh pork has gone down from 19 and 20 marks to 14 and 15 marks per one-half kilogram; veal from 12 marks to 6.50 and 7 marks. * * * Berlin rolls, which were sold as a rarity at 1 mark a short time ago, are now supplied at 40 or 50 pfennigs in hotels. Buttered rolls, with ham and sausage, are 75 pfennigs everywhere. Chocolate is sold in shops, and still more in the streets, at 26 marks per one-half kilogram, as against 60 marks a few weeks ago. Even 26 marks is an iniquitous price, as the chocolate has been smuggled out of the occupied districts, where it is sold at 6 or 7 marks per one-half kilogram.

The Frankfurter Zeitung³ writes that hardly a day passes but it receives advertisements for insertion from firms in the occupied territories offering foodstuffs for sale, regardless of all German laws against import.

For instance, a firm in territory under French occupation recently sent to this paper an advertisement in which it offered American lard, salt bacon, ham, margarine, pure olive oil, etc., the goods to be taken over in territory on the left bank of the Rhine. These advertisements, needless to say, are not accepted, but

¹ Vorwärts, Berlin, July 2, 1919.

² Idem, July 10, 1919.

³ Frankfurter Zeitung, Frankfurt on the Main, June 1, 1919. Second edition.

the goods evidently find their way into unoccupied Germany by some means or other, and much as the country wants these foods, this channel of trade means shameful overcharging of the German merchants, and an enormous waste of German money.

The following list of prices paid in various German cities in illicit trading has been taken from the *Vossische Zeitung*:¹

FOOD PRICES CHARGED BY ILLICIT TRADERS IN VARIOUS GERMAN CITIES, JULY, 1919.

Article.	Price per $\frac{1}{2}$ kilo-gram. ²	Article.	Price per $\frac{1}{2}$ kilo-gram. ²
Berlin:	<i>Marks.</i>	Hamburg—Concluded.	<i>Marks.</i>
Coffee.....	13.50	Chocolate.....	15.00
Bacon.....	18.00	Rice.....	4.00 to 5.00
Honey.....	7.00	Butter.....	15.00
Chocolate.....	17.00	Bacon and lard.....	9.00
Altmark:		Cheese.....	9.50
Chocolate.....	24.00	Tilsit:	
Soap.....	24.00	Butter.....	23.00
Coburg:		Pork.....	8.00 to 10.00
Butter.....	8.00 to 12.00	Bacon.....	10.00 to 15.00
Fat.....	11.00	Beef.....	6.00
Veal.....	6.00	Fulda:	
Weimar:		Farm butter.....	10.00
Butter.....	16.00	Flour.....	1.00 to 1.50
Bacon.....	8.80	Beef and veal.....	7.00 to 9.00
Cocoa.....	10.00	Pork.....	10.00
Stuttgart:		Ham.....	18.00
Tea.....	25.00	Coffee.....	12.00 to 15.00
Cocoa.....	20.00	Cocoa.....	15.00
Coffee, roasted.....	14.00	Sultanas.....	10.00
American lard.....	14.50	Dried fruit.....	5.50
Hamburg:		Island of Usedom: ³	
Coffee.....	8.00 to 10.00	Butter.....	25.00
Coffee, roasted.....	10.00 to 12.00	Beef.....	8.00
Cocoa.....	12.00 to 15.00	Pork.....	14.00
Tea.....	11.00 to 14.00	Pork sausage.....	25.00

¹ *Vossische Zeitung*, Berlin, July 24, 26, and 28, 1919.

² One kilogram is equivalent to 2.2046 pounds.

³ Health resort.

WAGES AND HOURS OF LABOR.

Changes in Union Scale of Wages and Hours of Labor, 1913 to 1919.¹

THE Bureau of Labor Statistics during the past summer has collected information concerning the union scale of wages and hours of labor in the principal time-work trades in the leading industrial centers of the United States, and a full compilation of the material is now in progress.

An abridged compilation has been made for certain trades and cities, and the rates and hours of labor as of May 15, 1919, are brought into comparison in the following table with like figures for preceding years back to 1913.

The union wage scale figures here published represent the minimum wage of union members employed in the trades stated, but these figures do not always represent the maximum wage that is paid, as in some instances part or even all of the organized workers in the trades receive more than the scale. Notes state the instances of such higher wages paid and wage increases since May 15, 1919, when the facts are known.

UNION SCALE OF WAGES AND HOURS OF LABOR, 1913 TO 1919, BY OCCUPATIONS.

Blacksmiths, manufacturing shops.

[Double quotations represent low and high of a city.]

City.	Rate per hour (cents).							Hours per week.						
	1913	1914	1915	1916	1917	1918	1919	1913	1914	1915	1916	1917	1918	1919
Atlanta, Ga.....	37.5	37.5	37.5	37.5	39.0	55.0	68.0	54	54	54	60	60	54	54
Buffalo, N. Y.....	40.0	50.0	50.0	55.0	55.0	65.0	72.5	54	54	54	50	50	44	44
Charleston, S. C.....	36.0	36.0	36.0	41.7	41.7	72.5	80.0	54	54	54	54	54	48	48
Chicago, Ill.....	43.2	43.2	43.2	46.2	56.0	75.0	90.0	49½	49½	49½	49½	48	48	44
New Orleans, La.....	36.1	36.1	36.1	36.1	36.1	68.8	80.0	54	54	54	54	54	48	48
New York, N. Y.....	44.4	44.4	44.4	53.1	53.1	72.5	81.3	2 53	2 53	2 53	48	48	48	48
Philadelphia, Pa.....					(44.4)	72.5	80.0						{ 54 }	44
					(50.0)								{ 48 }	44
Pittsburgh, Pa.....	37.5	37.5	37.5	37.5	46.9	57.5	70.0	48	48	48	48	48	48	48
Portland, Oreg.....	45.0	45.0	45.0	45.0	50.0	72.2	80.0	54	54	54	54	48	48	44
Richmond, Va.....	32.5	32.5	32.5	35.0	(40.0)	52.0	68.0	55	55	55	55	{ 48 }		48
					(52.0)							{ 50 }		48
St. Louis, Mo.....	33.3	33.3	33.3	33.3	40.0	50.0	80.0	54	54	54	54	54	54	48
Salt Lake City, Utah.....	44.7	44.7	44.7	45.7	56.3	62.5	75.0	48	48	48	48	48	48	48
San Francisco, Calif.....	50.0	50.0	50.0		50.0	72.5	80.0	48	48	48			48	44
Seattle, Wash.....						75.0	80.0						48	44

¹ A brief summary of the changes from 1907 to 1918 is given in the MONTHLY LABOR REVIEW for March, 1919.

² 44 hours per week, June to August, inclusive.

³ Worked 53 hours, paid for 54.

UNION SCALE OF WAGES AND HOURS OF LABOR, 1913 TO 1919, BY OCCUPATIONS—Contd.

Boiler makers, manufacturing and jobbing shops.

City.	Rate per hour (cents).							Hours per week.						
	1913	1914	1915	1916	1917	1918	1919	1913	1914	1915	1916	1917	1918	1919
Atlanta, Ga.....	40.0	35.0	35.0	35.0	44.0	55.0	68.0	54	54	54	54	50	50	50
Baltimore, Md.....	30.6	30.6	30.6	30.6	48.0	50.0	80.0	54	54	54	54	49½	44	44
Birmingham, Ala.....	40.0	40.0	40.0	42.5	47.5	67.5	80.0	60	60	60	60	60	48	48
Buffalo, N. Y.....	36.0	36.0	36.0	40.0	46.0	70.0	80.0	54	54	54	54	54	54	48
Charleston, S. C.....	36.1	36.1	36.1	.....	42.8	72.5	80.0	54	54	.....	.....	54	48	48
Chicago, Ill.....	40.0	40.0	40.0	40.0	42.0	52.0	60.0	54	54	54	54	54	54	54
Cincinnati, Ohio.....	40.0	35.0	35.0	35.0	38.0	40.0	55.0	54	49½	49½	49½	49½	49½	49½
Cleveland, Ohio.....	35.0	35.0	35.0	40.0	50.0	60.0	70.0	54	2 49½	2 49½	2 49½	2 49½	49½	49½
Dallas, Tex.....	.....	43.5	43.5	43.5	50.0	68.0	3 68.0	.....	54	54	54	54	54	54
Denver, Colo.....	41.0	41.0	41.0	41.0	42.5	52.0	68.0	54	54	54	54	51	48	48
Detroit, Mich.....	40.0	40.0	40.0	40.0	40.0	62.5	85.0	55	55	55	55	55	54	54
Indianapolis, Ind.....	35.0	35.0	35.0	37.5	42.0	50.0	55.0	50	50	50	50	50	48	48
Jacksonville, Fla.....	40.0	40.0	40.0	40.0	40.0	50.0	70.0	54	54	54	54	54	54	48
Kansas City, Mo.....	38.0	40.0	40.0	40.0	45.0	45.0	4 68.8	54	54	54	54	54	54	44
Little Rock, Ark.....	41.0	42.5	42.5	42.5	45.0	58.0	68.0	60	60	60	60	60	60	45
Louisville, Ky.....	32.0	32.0	32.0	32.0	35.0	45.0	65.0	54	54	54	54	50	50	50
Memphis, Tenn.....	41.0	41.0	41.0	41.0	45.0	55.0	70.0	54	54	54	54	54	54	54
New Orleans, La.....	38.9	38.9	38.9	38.9	43.8	62.5	80.0	54	54	54	54	48	48	48
New York, N. Y.....	41.7	41.7	41.7	46.9	49.4	70.0	70.0	54	54	54	48	48	48	48
Philadelphia, Pa.....	33.3	33.3	33.3	33.3	50.0	65.0	65.0	49	49	49	49	48	48	48
Pittsburgh, Pa.....	40.0	40.0	40.0	44.0	46.0	60.0	66.0	54	54	54	50	50	50	50
Portland, Oreg.....	44.4	44.4	44.4	44.4	53.0	72.5	80.0	54	54	54	54	48	48	44
St. Louis, Mo.....	40.0	40.0	40.0	40.0	40.0	50.0	70.0	6 49½	6 49½	6 49½	6 49½	48	48	44
Salt Lake City, Utah.....	43.0	43.0	43.0	44.0	56.3	62.5	75.0	54	54	54	54	48	48	44
San Francisco, Calif.....	50.0	50.0	50.0	53.1	53.1	72.5	80.0	48	48	48	48	48	48	44
Seattle, Wash.....	50.0	50.0	50.0	50.0	56.3	75.0	80.0	48	48	48	48	48	48	44
Washington, D. C.....	.....	.....	.....	.....	53.7	68.8	75.6	.....	.....	.....	.....	48	48	44

Bricklayers.

Atlanta, Ga.....	45.0	45.0	45.0	50.0	60.0	60.0	6 70.0	53	50	50	50	50	50	44
Baltimore, Md.....	62.5	62.5	70.0	70.0	75.0	75.0	100.0	7 45	7 45	7 45	7 45	44	44	44
Birmingham, Ala.....	70.0	70.0	70.0	70.0	70.0	87.5	8 44	8 44	44	44	44	44	44	44
Boston, Mass.....	65.0	65.0	65.0	65.0	70.0	80.0	9 80.0	44	44	44	44	44	44	44
Buffalo, N. Y.....	65.0	65.0	65.0	65.0	70.0	75.0	10 85.0	48	48	1 48	1 48	11 44	11 44	11 44
Charleston, S. C.....	40.0	40.0	40.0	40.0	40.0	50.6	75.0	12 53	12 53	12 53	12 53	48	48	48
Chicago, Ill.....	75.0	75.0	75.0	75.0	75.0	75.0	13 87.5	44	44	44	44	44	44	44
Cincinnati, Ohio.....	65.0	65.0	70.0	70.0	75.0	90.0	90.0	45	45	45	45	45	45	45
Cleveland, Ohio.....	65.0	70.0	70.0	70.0	75.0	90.0	14 90.0	48	15 44	44	44	44	44	44
Dallas, Tex.....	87.5	87.5	87.5	87.5	87.5	100.0	100.0	44	44	44	44	44	44	44
Denver, Colo.....	75.0	75.0	75.0	87.5	87.5	100.0	100.0	44	44	44	44	44	44	44
Detroit, Mich.....	65.0	65.0	65.0	70.0	75.0	80.0	90.0	16 48	16 48	17 44	18 44	18 44	18 44	18 44
Fall River, Mass.....	55.0	60.0	60.0	60.0	65.0	75.0	85.0	48	48	48	44	44	44	44
Indianapolis, Ind.....	75.0	75.0	75.0	75.0	75.0	85.0	6 85.0	44	44	44	44	44	44	44
Jacksonville, Fla.....	62.5	62.5	62.5	62.5	62.5	62.5	75.0	48	48	48	48	48	48	44

1 44 hours per week, June to August, inclusive.

2 54 hours per week, October to April, inclusive.

3 Scale became 70 cents, on May 26, 1919.

4 Scale became 71.9 cents on July 1, 1919.

5 54 hours per week, September to April, inclusive.

6 Scale became 90 cents on June 1, 1919.

7 44 hours per week, November to March, inclusive.

8 48 hours per week, October to December, inclusive.

9 Scale became 90 cents on June 30, 1919.

10 Scale became 95 cents on Sept. 1, 1919.

11 48 hours per week, Nov. 16 to Mar. 15, inclusive.

12 Work 53 hours, paid for 54.

13 Scale became \$1 on July 1, 1919.

14 Scale became \$1 on May 29, 1919.

15 48 hours per week, September to April, inclusive.

16 44 hours per week, October to April, inclusive.

17 48 hours per week, November to April, inclusive.

18 48 hours per week, December to February, inclusive.

UNION SCALE OF WAGES AND HOURS OF LABOR, 1913 TO 1919, BY OCCUPATIONS—Contd.

Bricklayers—Concluded.

City.	Rate per hour (cents).							Hours per week.						
	1913	1914	1915	1916	1917	1918	1919	1913	1914	1915	1916	1917	1918	1919
Kansas City, Mo.	75.0	75.0	75.0	75.0	75.0	87.5	100.0	44	44	44	44	44	44	44
Little Rock, Ark.	75.0	75.0	75.0	75.0	87.5	87.5	100.0	1 44	1 44	1 44	1 44	44	44	44
Los Angeles, Calif.	75.0	75.0	75.0	62.5	62.5	75.0	87.5	44	44	44	44	44	44	44
Louisville, Ky.	65.0	65.0	65.0	65.0	70.0	75.0	85.0	48	48	44	44	44	44	44
Manchester, N. H.	55.0	60.0	60.0	60.0	65.0	75.0	90.0	48	44	44	44	44	44	44
Memphis, Tenn.	75.0	75.0	75.0	75.0	82.5	87.5	2 87.5	44	44	44	44	44	44	44
Milwaukee, Wis.	67.5	67.5	67.5	67.5	72.5	72.5	90.0	44	44	44	44	44	44	44
Minneapolis, Minn.	65.0	70.0	70.0	70.0	75.0	75.0	87.5	48	48	48	1 44	1 44	1 44	44
Newark, N. J.	65.0	65.0	65.0	70.0	75.0	75.0	87.5	44	44	44	44	44	44	44
New Haven, Conn.	60.0	60.0	60.0	60.0	65.0	70.0	82.5	44	44	44	44	44	44	44
New Orleans, La.	62.5	62.5	62.5	62.5	62.5	62.5	75.0	44	44	44	44	44	44	44
New York, N. Y.	70.0	75.0	75.0	75.0	75.0	75.0	87.5	44	44	44	44	44	44	44
Omaha, Nebr.	70.0	70.0	70.0	75.0	75.0	75.0	87.5	44	44	44	44	44	44	44
Philadelphia, Pa.	62.5	65.0	65.0	65.0	70.0	80.0	80.0	44	44	44	44	44	44	44
Pittsburgh, Pa.	70.0	70.0	70.0	70.0	75.0	75.0	4 90.0	44	44	44	44	44	44	44
Portland, Oreg.	75.0	75.0	75.0	75.0	75.0	87.5	6 100.0	44	44	44	44	44	44	44
Providence, R. I.	65.0	65.0	65.0	65.0	70.0	70.0	80.0	44	44	44	44	44	44	44
Richmond, Va.	65.0	65.0	65.0	65.0	75.0	75.0	87.5	45	45	6 45	6 45	6 45	6 45	44
St. Louis, Mo.	70.0	70.0	75.0	75.0	75.0	85.0	100.0	44	44	44	44	44	44	44
St. Paul, Minn.	65.0	70.0	70.0	70.0	75.0	75.0	87.5	48	48	48	44	44	1 44	44
Salt Lake City, Utah	75.0	80.0	80.0	80.0	87.5	87.5	100.0	44	44	44	44	44	44	44
San Francisco, Calif.	87.5	87.5	87.5	87.5	87.5	100.0	112.5	44	44	44	44	44	44	44
Scranton, Pa.	60.0	60.0	60.0	65.0	70.0	75.0	7 75.0	8 44	8 44	1 44	1 44	44	44	44
Seattle, Wash.	75.0	75.0	75.0	75.0	81.3	100.0	112.5	44	44	44	44	44	44	44
Washington, D. C.	62.5	66.7	66.7	70.0	70.0	75.0	87.5	9 45	9 45	9 45	9 45	9 45	9 45	44

Building laborers.

Baltimore, Md.					48 3	56.3	75.0						44	44	44
Boston, Mass.	35.0	35.0	35.0	35.0	37.5	40.0	10 40.0	48	48	48	48	48	48	48	48
Chicago, Ill.	40.0	40.0	40.0	42.5	45.0	50.0	11 57.5	44	44	44	44	44	44	44	44
Cincinnati, Ohio.		25.0	25.0	25.0	30.0	35.0	40.0		50	50	50	50	50	50	
Cleveland, Ohio.			31.3	31.3	40.0	55.0	57.5			48	48	44	44	44	
Denver, Colo.				37.5	43.8	50.0	12 50.0				44	44	48	48	
Detroit, Mich.			30.0	30.0			65.0			54	54		44	44	
Kansas City, Mo.	27.5	30.0	35.0	35.0	37.5	37.5	57.5	48	48	48	48	48	48	48	
Los Angeles, Calif.	34.4	34.4	34.4	34.4	34.4	43.8	50.0	44	44	44	44	44	44	44	
Louisville, Ky.	27.9	27.9	22.2	22.2	22.2	30.0	35.0	48	48	54	54	54	50	50	
New York, N. Y.	22.5	22.5	25.0	25.0	30.0	40.5	40.5	48	48	44	44	44	44	44	
Omaha, Nebr.				30.0	30.0	45.0	50.0				44	44	54	48	
Pittsburgh, Pa.	25.0	25.0	25.0	30.0	30.0	45.0	50.0	54	54	54	48	48	48	48	
Portland, Oreg.	37.5	37.5	37.5	37.5	37.5	50.0	62.5	48	48	48	48	48	48	44	
Providence, R. I.	25.0	25.0	25.0	25.0	30.0	35.0	47.5	50	50	50	50	50	50	50	
St. Louis, Mo.	25.0	25.0	25.0	25.0	30.0	33.3 (40.0)	13 40.0 18 45.0	44	44	44	44	44	44	44	
Salt Lake City, Utah							50.0							48	
San Francisco, Calif.	27.8	31.3	31.3	31.3	37.5	43.8	62.5	54	48	48	48	48	48	48	
Scranton, Pa.	25.0	25.0	22.5	30.0	30.0	30.0	14 50.0	54	54	54	48	48	48	48	
Seattle, Wash.	37.5	37.5	37.5	37.5	43.8	56.3	68.8	44	44	44	44	44	44	44	
Washington, D. C.	25.0	25.0	25.0	25.0	31.3	40.0	50.0	48	48	48	48	44	44	44	

1 48 hours per week October to April, inclusive.

2 Scale became \$1.25 on Oct. 1, 1919.

3 Scale became \$7.5 cents on June 1, 1919.

4 Scale became \$1.125 on Aug. 15, 1919.

5 Scale became \$1.125 on June 10, 1919.

6 44 1/2 hours per week, December to February, inclusive.

7 Scale became \$1 on Nov. 1, 1919.

8 48 hours per week, September to April, inclusive.

9 44 1/2 hours per week, October to April, inclusive.

10 Scale became 60 cents on June 30, 1919.

11 Scale became 70 cents on Sept. 22, 1919.

12 Scale became 62.5 cents on Aug. 1, 1919.

13 Scale became 45-50 cents on June 1, 1919.

14 Scale became 56 cents on Aug. 2, 1919.

UNION SCALE OF WAGES AND HOURS OF LABOR, 1913 TO 1919, BY OCCUPATIONS—Contd.

Carpenters.

City.	Rate per hour (cents).							Hours per week.						
	1913	1914	1915	1916	1917	1918	1919	1913	1914	1915	1916	1917	1918	1919
Atlanta, Ga.	40.0	40.0	40.0	40.0	50.0	50.0	1 60.0	50	50	50	50	50	50	44
Baltimore, Md.	43.8	43.8	43.8	43.8	50.0	62.5	80.0	48	2 44	2 44	2 44	44	44	44
Birmingham, Ala.	52.5	45.0	45.0	45.0	45.0	55.0	65.0	48	48	48	48	48	48	44
Boston, Mass.	50.0	55.0	55.0	57.0	60.0	65.0	75.0	44	44	44	44	44	44	40
Buffalo, N. Y.	50.0	50.0	50.0	50.0	62.5	70.0	70.0	48	48	6 48	6 48	44	44	44
Charleston, S. C.	33.3	33.3	33.3	33.3	33.3	37.5	70.0	6 53	6 53	6 53	6 53	6 53	48	48
Chicago, Ill.	65.0	65.0	65.0	70.0	70.0	70.0	7 80.0	44	44	44	44	44	44	44
Cincinnati, Ohio.	50.0	50.0	55.0	60.0	62.5	65.0	70.0	44½	44½	44½	44½	44½	44½	44½
Cleveland, Ohio.	50.0	55.0	55.0	60.0	70.0	80.0	8 85.0	48	44	44	44	44	44	44
Dallas, Tex.	55.0	55.0	60.0	60.0	62.5	62.5	87.5	44	44	44	44	44	44	44
Denver, Colo.	60.0	60.0	60.0	60.0	70.0	75.0	87.5	44	44	44	44	44	44	44
Detroit, Mich.	50.0	50.0	50.0	50.0	60.0	60.0	80.0	48	48	44	44	44	44	44
Fall River, Mass.	42.0	44.0	44.0	48.0	50.0	62.5	75.0	48	48	44	44	44	44	44
Indianapolis, Ind.	50.0	50.0	55.0	55.0	57.5	60.0	75.0	44½	44½	44	44	44½	44½	44½
Jacksonville, Fla.	31.3	37.5	37.5	37.5	37.5	40.0	65.0	48	48	48	48	48	48	48
Kansas City, Mo.	55.0	60.0	65.0	65.0	65.0	65.0	85.0	44	44	44	44	44	44	44
Little Rock, Ark.	50.0	50.0	50.0	50.0	60.0	60.0	80.0	48	48	48	44	44	44	44
Los Angeles, Calif.	50.0	50.0	50.0	50.0	50.0	62.5	75.0	48	48	48	44	48	48	44
Louisville, Ky.	45.0	45.0	45.0	45.0	50.0	60.0	60.0	44	44	44	44	44	44	44
Manchester, N. H.	40.0	40.0	40.0	40.0	50.0	60.0	60.0	48	48	48	48	44	44	44
Memphis, Tenn.	50.0	50.0	50.0	50.0	55.0	65.0	75.0	44	44	44	44	44	44	44
Milwaukee, Wis.	50.0	50.0	50.0	50.0	56.3	56.3	70.0	44	44	44	44	44	44	44
Minneapolis, Minn.	50.0	50.0	50.0	50.0	55.0	60.0	75.0	48	48	48	48	48	44	44
Newark, N. J.	50.0	50.0	50.0	56.3	65.0	70.0	80.0	44	44	44	44	44	44	44
New Haven, Conn.	47.5	50.0	50.0	50.0	55.0	55.0	65.0	44	44	44	44	44	44	44
New Orleans, La.	40.0	40.0	40.0	40.0	40.0	50.0	9 60.0	48	48	48	48	48	48	48
New York, N. Y.	62.5	62.5	62.5	62.5	68.8	68.8	10 75.0	44	44	44	44	44	44	44
Omaha, Neb.	50.0	50.0	50.0	50.0	57.5	60.0	75.0	44	44	44	44	44	44	44
Philadelphia, Pa.	50.0	55.0	55.0	55.0	60.0	70.0	80.0	44	44	44	44	44	44	44
Pittsburgh, Pa.	55.0	56.3	62.5	62.5	71.0	71.0	11 80.0	44	44	44	44	44	44	44
Portland, Oreg.	50.0	50.0	50.0	50.0	56.3	75.0	86.0	44	44	44	44	44	44	44
Providence, R. I.	50.0	50.0	50.0	50.0	50.0	60.0	4 70.0	44	44	44	44	44	44	44
Richmond, Va.	37.5	37.5	37.5	37.5	43.8	62.5	62.5	48	48	48	48	48	48	48
St. Louis, Mo.	62.5	62.5	62.5	62.5	65.0	70.0	12 82.5	44	44	44	44	44	44	44
St. Paul, Minn.	50.0	50.0	50.0	50.0	55.0	60.0	75.0	48	48	48	48	48	44	44
Salt Lake City, Utah	62.5	62.5	62.5	62.5	75.0	75.0	100.0	44	44	44	44	44	44	44
San Francisco, Calif.	62.5	62.5	62.5	62.5	68.8	75.0	13 87.5	44	44	44	44	44	44	44
Seranton, Pa.	42.5	47.5	47.5	50.0	50.0	60.0	70.0	48	48	44	44	44	44	44
Seattle, Wash.	56.3	56.3	56.3	56.3	65.0	82.5	93.8	44	44	44	44	44	44	40
Washington, D. C.	50.0	50.0	55.0	55.0	62.5	62.5	87.5	44½	44½	44½	44½	44½	44½	44

Cement finishers.

Baltimore, Md.	50.0	50.0	50.0	50.0	50.0	62.5	75.0	48	48	48	48	48	44	44
Birmingham, Ala.	50.0	50.0	50.0	62.5	62.5	62.5	62.5	48	48	48	48	48	45	48
Boston, Mass.	62.5	62.5	62.5	62.5	62.5	70.0	75.0	48	44	44	44	44	44	44
Buffalo, N. Y.	50.0	50.0	50.0	50.0	50.0	65.0	75.0	48	48	48	48	48	45	48
Chicago, Ill.	65.0	65.0	65.0	65.0	67.5	75.0	10 80.0	44	44	44	44	44	44	44

¹ Scale became 75 cents on Aug. 1, 1919.² 48 hours per week, November to March, inclusive.³ Scale became 90 cents on June 30, 1919.⁴ Scale became 80 cents on July 1, 1919.⁵ 44 hours per week, June to August, inclusive.⁶ Work 53 hours, paid for 54.⁷ Scale became \$1 on Sept. 22, 1919.⁸ Scale became 90 cents on Oct. 1, 1919.⁹ Scale became 75 cents on July 1, 1919.¹⁰ Scale became 81.3 cents on July 19, 1919.¹¹ Scale became 90 cents on June 1, 1919.¹² Scale became 87.5 cents on Sept. 1, 1919.¹³ Scale became \$1 on July 1, 1919.¹⁴ Scale became 70 cents per hour and 44 hours per week on June 1, 1919.¹⁵ Scale became \$1 on Sept. 22, 1919.

UNION SCALE OF WAGES AND HOURS OF LABOR, 1913 TO 1919, BY OCCUPATIONS—Contd.

Cement finishers—Concluded.

City.	Rate per hour (cents).							Hours per week.						
	1913	1914	1915	1916	1917	1918	1919	1913	1914	1915	1916	1917	1918	1919
Cincinnati, Ohio.....	50.0	50.0	50.0	50.0	55.0	57.5	60.0	50	50	50	50	50	50	50
Cleveland, Ohio.....	50.0	55.0	55.0	60.0	65.0	77.5	1 80.0	48	2 48	2 48	44	44	44	44
Dallas, Tex.....	50.0	62.5	62.5	62.5	62.5	62.5	87.5	48	48	48	48	48	48	48
Denver, Colo.....	68.8	68.8	.....	.....	75.0	75.0	87.5	44	44	.....	.....	44	44	44
Detroit, Mich.....	50.0	50.0	50.0	50.0	55.0	60.0	80.0	54	54	54	54	48	44	44
Fall River, Mass.....	.....	.....	.....	60.0	65.0	75.0	85.0	.....	.....	.....	44	44	44	44
Indianapolis, Ind.....	50.0	55.0	57.5	57.5	60.0	62.5	70.0	50	50	50	50	50	50	50
Kansas City, Mo.....	62.5	65.0	65.0	65.0	65.0	65.0	87.5	44	44	44	44	44	44	44
Little Rock, Ark.....	55.6	55.6	55.6	55.6	75.0	75.0	87.5	54	54	54	54	54	3 44	3 44
Louisville, Ky.....	45.0	45.0	45.0	.....	.....	60.0	70.0	60	60	60	60	.....	44	44
Manchester, N. H.....	.....	.....	.....	60.0	60.0	75.0	90.0	.....	.....	.....	44	44	44	44
Milwaukee, Wis.....	45.0	45.0	45.0	45.0	50.0	60.0	70.0	48	48	48	48	48	48	44
Minneapolis, Minn.....	.....	50.0	50.0	50.0	55.0	65.0	75.0	.....	48	48	48	48	48	44
Newark, N. J.....	62.5	62.5	65.0	70.0	75.0	75.0	87.5	44	44	44	44	44	44	44
New Haven, Conn.....	.....	.....	.....	60.0	65.0	70.0	82.5	.....	.....	.....	44	44	44	44
New York, N. Y.....	62.5	62.5	62.5	62.5	70.0	70.0	75.0	44	44	44	44	44	44	44
Omaha, Nebr.....	.....	55.0	62.5	62.5	62.5	62.5	4 75.0	.....	44	44	44	44	44	44
Philadelphia, Pa.....	45.0	47.5	50.0	50.0	55.0	65.0	6 75.0	49½	48	44	44	44	44	44
Pittsburgh, Pa.....	.....	50.0	50.0	50.0	56.3	75.0	6 75.0	.....	48	48	44	44	44	44
Portland, Oreg.....	62.5	62.5	62.5	62.5	62.5	87.5	7 87.5	48	48	48	48	44	44	44
Providence, P. I.....	.....	50.0	50.0	62.5	62.5	62.5	80.0	.....	44	44	44	44	44	44
St. Louis, Mo.....	60.0	60.0	60.0	65.0	65.0	75.0	82.5	44	44	44	44	44	44	44
St. Paul, Minn.....	50.0	50.0	55.0	60.0	60.0	60.0	75.0	48	48	48	48	48	48	44
Salt Lake City, Utah.....	62.5	62.5	62.5	62.5	75.0	75.0	87.5	48	48	48	48	48	48	48
San Francisco, Calif.....	75.0	75.0	75.0	75.0	75.0	87.5	100.0	44	44	44	44	44	44	44
Seattle, Wash.....	62.5	62.5	62.5	62.5	68.8	81.3	100.0	48	48	48	48	48	48	40
Washington, D. C.....	.....	.....	.....	62.5	70.0	70.0	8 87.5	.....	.....	.....	44	44	44	44

Compositors: Book and job.

Atlanta, Ga.....	34.4	37.5	37.5	37.5	37.5	37.5	9 43.8	48	48	48	48	48	48	48
Baltimore, Md.....	37.5	37.5	37.5	37.5	43.8	43.8	54.2	48	48	48	48	48	48	48
Birmingham, Ala.....	40.6	40.6	40.6	40.6	44.8	44.8	44.8	48	48	48	48	48	48	48
Boston, Mass.....	41.7	43.8	43.8	43.8	45.8	50.0	55.2	48	48	48	48	48	48	48
Buffalo, N. Y.....	39.6	39.6	41.7	41.7	43.8	45.8	59.4	48	48	48	48	48	48	48
Charleston, S. C.....	33.3	33.3	33.3	33.3	37.5	37.5	37.5	48	48	48	48	48	48	48
Chicago, Ill.....	46.9	50.0	50.0	50.0	50.0	57.3	75.0	48	48	48	48	48	48	48
Cincinnati, Ohio.....	40.6	43.8	43.8	43.8	46.9	46.9	51.0	48	48	48	48	48	48	48
Cleveland, Ohio.....	39.6	41.7	41.7	41.7	43.8	50.0	62.5	48	48	48	48	48	48	48
Dallas, Tex.....	52.1	52.1	52.1	52.1	52.1	57.3	70.8	48	48	48	48	48	48	48
Denver, Colo.....	54.2	54.2	54.2	54.2	54.2	59.4	65.6	48	48	48	48	48	48	48
Detroit, Mich.....	38.5	39.6	43.8	45.8	50.0	54.7	72.9	48	48	48	48	48	48	48
Fall River, Mass.....	33.3	33.3	33.3	35.4	37.5	39.6	41.7	48	48	48	48	48	48	48
Indianapolis, Ind.....	43.8	43.8	45.8	45.8	45.8	52.1	10 54.2	48	48	48	48	48	48	48
Jacksonville, Fla.....	37.5	43.8	43.8	43.8	43.8	43.8	52.1	48	48	48	48	48	48	48
Kansas City, Mo.....	41.7	41.7	43.8	43.8	45.8	50.0	54.2	48	48	48	48	48	48	48
Little Rock, Ark.....	37.5	37.5	41.7	41.7	43.8	43.8	43.8	48	48	48	48	48	48	48
Los Angeles, Calif.....	46.9	50.0	50.0	50.0	50.0	52.1	58.3	48	48	48	48	48	48	48
Louisville, Ky.....	37.5	39.6	39.6	39.6	39.6	43.8	45.8	48	48	48	48	48	48	48
Manchester, N. H.....	35.4	35.4	35.4	35.4	37.5	39.6	41.7	48	48	48	48	48	48	48

1 Scale became 90 cents on Nov. 1, 1919.

2 44 hours per week, June to September, inclusive.

3 43 hours per week, October to March, inclusive.

4 Scale became 87.5 cents on June 1, 1919.

5 Scale became 75 cents on Oct. 1, 1919.

6 Scale became 82.5 cents on Nov. 1, 1919.

7 Scale became \$1 on July 1, 1919.

8 Scale became 90 cents on Sept. 1, 1919.

9 Scale became 50 cents on May 28, 1919.

10 Scale became 62.5 cents on July 21, 1919.

UNION SCALE OF WAGES AND HOURS OF LABOR, 1913 TO 1919, BY OCCUPATIONS—Contd.

Compositors: Book and job—Concluded.

City.	Rate per hour (cents).							Hours per week.						
	1913	1914	1915	1916	1917	1918	1919	1913	1914	1915	1916	1917	1918	1919
Memphis, Tenn.	40.0	40.0	45.0	45.0	47.1	48.1	1 55.4	48	48	48	48	48	48	48
Milwaukee, Wis.	41.7	43.8	45.8	45.8	47.9	47.9	54.2	48	48	48	48	48	48	48
Minneapolis, Minn.	43.8	43.8	43.8	43.8	45.8	45.8	2 54.0	48	48	48	48	48	48	48
Newark, N. J.	47.9	47.9	47.9	50.0	50.0	56.3	72.9	48	48	48	48	48	48	48
New Haven, Conn.	40.6	40.6	40.6	40.6	40.6	44.8	8 45.8	48	48	48	48	48	48	48
New Orleans, La.	43.8	43.8	43.8	43.8	43.8	43.8	50.0	48	48	48	48	48	48	48
New York, N. Y.	50.0	50.0	50.0	52.1	52.1	58.3	75.0	48	48	48	48	48	48	48
Omaha, Neb.	37.5	37.5	43.8	45.8	46.9	53.1	68.8	48	48	48	48	48	48	48
Philadelphia, Pa.	39.6	41.7	41.7	41.7	43.8	50.0	4 60.4	48	48	48	48	48	48	48
Pittsburgh, Pa.	39.6	41.7	41.7	43.8	43.8	47.9	60.4	48	48	48	48	48	48	48
Portland, Oreg.	53.1	53.1	53.1	53.1	53.5	59.4	75.0	48	48	48	48	48	48	48
Providence, R. I.	37.5	37.5	37.5	37.5	37.5	45.8	50.0	48	48	48	48	48	48	48
Richmond, Va.	33.3	33.3	37.5	37.5	37.5	37.5	48.5	48	48	48	48	48	48	48
St. Louis, Mo.	43.8	43.8	43.8	45.8	47.9	52.7	5 52.7	48	48	48	48	48	48	48
St. Paul, Minn.	43.8	43.8	43.8	43.8	45.8	45.8	6 54.0	48	48	48	48	48	48	48
Salt Lake City, Utah	50.0	50.0	52.1	54.2	54.2	54.2	62.5	48	48	48	48	48	48	48
San Francisco, Calif.	50.0	50.0	50.0	52.6	54.2	58.3	7 62.5	48	48	48	48	48	48	48
Scranton, Pa.	43.8	43.8	43.8	43.8	47.9	47.9	6 52.1	48	48	48	48	48	48	48
Seattle, Wash.	53.1	53.1	53.1	53.1	56.3	59.4	75.0	48	48	48	48	48	48	48
Washington, D. C.	40.0	40.0	40.0	43.8	47.9	50.0	62.5	48	48	48	48	8 48	8 48	8 48

Compositors, day work: Newspaper.

Atlanta, Ga.	43.8	43.8	43.8	43.8	43.8	50.0	60.6	48	48	48	48	48	48	48
Baltimore, Md.	50.0	57.1	59.5	59.5	61.9	61.9	65.5	42	42	42	42	42	42	42
Birmingham, Ala.	52.5	53.0	54.5	55.5	56.5	57.5	67.5	9 42	9 42	9 42	9 42	9 42	9 42	9 42
Boston, Mass.	63.0	63.0	63.0	63.0	68.0	68.0	83.3	10 42	10 42	10 42	10 42	10 42	10 42	10 42
Buffalo, N. Y.	50.0	50.0	50.0	50.0	53.1	59.4	65.6	48	48	48	48	48	48	48
Charleston, S. C.	33.3	33.3	33.3	33.3	42.9	42.9	42.9	48	48	48	48	42	11 42	11 42
Chicago, Ill.	62.0	62.0	62.0	62.0	62.0	66.0	79.0	12 45	12 45	12 45	12 45	12 45	9 45	9 45
Cincinnati, Ohio.	52.1	54.2	56.3	56.3	56.3	56.3	87.5	13 47 1/2	48	48	48	48	48	48
Cleveland, Ohio.	53.8	53.8	53.8	53.8	62.5	62.5	14 68.8	48	48	48	48	48	48	48
Dallas, Tex.	55.0	55.0	55.0	59.4	59.4	62.5	76.0	48	48	48	48	48	48	48
Denver, Colo.	63.3	63.3	63.3	63.3	63.3	72.7	72.7	45	45	45	45	45	45	45
Detroit, Mich.	55.0	55.0	55.0	55.0	60.5	60.5	74.5	48	15 48	15 48	15 48	15 48	15 48	15 48
Fall River, Mass.	37.5	40.6	43.8	43.8	44.8	45.8	49.0	48	48	48	48	48	48	48
Indianapolis, Ind.	50.0	50.0	50.0	50.0	56.3	56.3	16 60.4	48	48	48	48	48	48	48
Jacksonville, Fla.	37.5	46.9	46.9	46.9	46.9	52.1	65.6	48	48	48	48	48	48	48
Kansas City, Mo.	59.4	59.4	59.4	59.4	59.4	59.4	68.8	48	48	48	48	48	48	48
Little Rock, Ark.	47.9	50.0	50.0	50.0	52.1	52.1	62.5	48	48	48	48	48	48	48
Los Angeles, Calif.	62.2	64.4	64.4	64.4	66.7	66.7	75.6	45	45	45	45	45	45	45
Louisville, Ky.	49.0	50.0	50.0	50.0	54.2	54.2	62.5	48	48	48	48	48	48	48
Manchester, N. H.	35.4	35.4	35.4	35.4	37.5	39.6	41.7	48	48	48	48	48	48	48
Memphis, Tenn.	57.8	57.8	57.8	57.8	57.8	60.0	66.7	45	45	45	45	45	9 45	9 45
Milwaukee, Wis.	45.8	47.9	50.0	50.0	54.2	56.3	56.3	48	48	48	48	48	48	48
Minneapolis, Minn.	54.0	54.0	54.0	54.0	54.0	54.0	62.5	48	48	48	48	48	48	48
Newark, N. J.	60.9	60.9	60.9	60.9	63.0	69.6	76.1	46	46	46	46	46	46	46
New Haven, Conn.	46.9	46.9	47.9	47.9	50.0	50.0	50.0	48	48	48	48	48	48	48

¹ Scale became 56.3 cents on July 1, 1919.² Scale became 70 cents on June 1, 1919.³ Scale became 46.9 cents on July 1, 1919.⁴ Scale became 81.3 cents on Sept. 1, 1919.⁵ Scale became 61.1 cents on June 1, 1919.⁶ Scale became 58.3 cents on July 1, 1919.⁷ Scale became 81.3 cents on July 26, 1919.⁸ 44 hours per week, June to September, inclusive.⁹ Minimum; maximum, 8 hours per day, 48 per week.¹⁰ Hours actually worked; minimum, 6 hours per day, 36 per week; maximum, 8 hours per day, 48 per week.¹¹ Hours actually worked; maximum, 48 hours per week.¹² Hours actually worked; minimum, 7 hours per day, 42 per week; maximum, 8 hours per day, 48 per week.¹³ Worked 47 1/2 hours, paid for 48.¹⁴ Scale became 79.4 cents on June 11, 1919.¹⁵ Maximum; minimum, 7 hours per day, 42 per week.¹⁶ Scale became 68.8 cents on July 21, 1919.

UNION SCALE OF WAGES AND HOURS OF LABOR, 1913 TO 1919, BY OCCUPATIONS—Contd.

Compositors, day work: Newspapers—Concluded.

City.	Rate per hour (cents).							Hours per week.						
	1913	1914	1915	1916	1917	1918	1919	1913	1914	1915	1916	1917	1918	1919
New York, N. Y.	66.7	66.7	66.7	66.7	66.7	71.1	96.7	45	45	45	45	45	45	45
Omaha, Nebr.	50.0	50.0	53.1	53.1	53.1	53.1	68.8	48	48	48	48	48	48	48
Philadelphia, Pa.	41.7	41.7	41.7	41.7	41.7	50.0	66.7	48	48	48	48	48	48	48
Pittsburgh, Pa.	55.0	60.0	60.0	60.0	61.0	65.0	77.0	48	45	45	45	45	45	45
Portland, Oreg.	68.3	68.3	68.3	68.3	68.3	72.7	100.0	45	45	45	45	45	45	45
Providence, R. I.	47.9	47.9	50.0	50.0	50.0	52.1	66.7	48	48	48	48	48	48	48
Richmond, Va.	33.3	33.3	37.5	37.5	37.5	45.8	58.3	48	48	48	48	48	48	48
St. Louis, Mo.	58.7	58.7	58.7	58.7	63.4	63.4	83.4	46	46	46	46	46	46	46
St. Paul, Minn.	54.5	54.5	54.5	54.5	61.0	64.0	63.0	48	48	48	48	48	48	48
Salt Lake City, Utah.	62.5	62.5	62.5	62.5	62.5	62.5	71.9	48	48	48	48	48	48	48
San Francisco, Calif.	64.4	64.4	69.0	69.0	69.0	68.9	75.6	45	45	42	42	42	45	45
Scranton, Pa.	47.9	47.9	47.9	47.9	52.1	52.1	60.4	48	48	48	48	48	48	48
Seattle, Wash.	75.0	75.0	75.0	75.0	78.6	78.6	100.0	42	42	42	42	42	42	42
Washington, D. C.	60.7	60.7	60.7	60.7	60.7	69.8	92.9	42	42	42	42	42	42	42

Electrotypers: Finishers.

Atlanta, Ga.	45.8	50.0	50.0	50.0	50.0	50.0	57.3	48	48	48	48	48	48	48
Baltimore, Md.	41.7	43.8	45.8	45.8	47.9	47.9	50.0	48	48	48	48	48	48	48
Birmingham, Ala.	50.0	50.0	50.0	50.0	50.0	50.0	60.0	48	48	48	48	48	48	48
Boston, Mass.	50.0	50.0	50.0	50.0	50.0	50.0	52.5	48	48	48	48	48	48	48
Buffalo, N. Y.	43.8	43.8	43.8	43.8	43.8	50.0	56.3	48	48	48	48	48	48	48
Chicago, Ill.	49.0	52.1	52.1	52.1	56.3	58.3	77.1	48	48	48	48	48	48	48
Cincinnati, Ohio.	43.8	45.8	45.8	45.8	45.8	47.9	52.1	48	48	48	48	48	48	48
Cleveland, Ohio.	41.7	44.8	47.9	47.9	47.9	52.1	58.3	48	48	48	48	48	48	48
Dallas, Tex.	37.5	37.5	37.5	37.5	37.5	43.8	65.6	48	48	48	48	48	48	48
Denver, Colo.	43.8	43.8	43.8	43.8	47.9	47.9	54.2	48	48	48	48	48	48	48
Detroit, Mich.	37.5	47.9	47.9	52.1	52.1	56.3	66.3	48	48	48	48	48	48	48
Indianapolis, Ind.	43.8	45.8	45.8	47.9	50.0	50.0	63.6	48	48	48	48	44	44	44
Kansas City, Mo.	43.8	43.8	46.9	46.9	50.0	50.0	62.5	48	48	48	48	48	48	48
Los Angeles, Calif.	50.0	50.0	50.0	56.3	56.3	56.3	70.8	48	48	48	48	48	48	48
Memphis, Tenn.	45.8	45.8	45.8	45.8	45.8	45.8	62.5	48	48	48	48	48	48	48
Milwaukee, Wis.	43.8	43.8	43.8	43.8	50.0	50.0	56.3	48	48	48	48	48	48	48
Minneapolis, Minn.	36.1	43.8	43.8	45.8	50.0	50.0	59.4	54	48	48	48	48	48	48
New Haven, Conn.	37.4	39.6	40.7	40.7	44.9	44.9	46.7	54	53	54	54	53	53	53
New Orleans, La.	.....	.....	.....	40.0	40.0	40.0	55.6	.....	.....	.....	.....	45	45	45
New York, N. Y.	62.5	62.5	65.6	68.8	68.8	68.8	75.0	44	44	44	44	44	44	48
Omaha, Nebr.	43.8	43.8	43.8	43.8	52.1	52.1	66.7	48	48	48	48	48	48	48
Philadelphia, Pa.	41.7	47.9	47.9	50.0	52.1	64.2	70.0	48	48	48	48	48	48	48
Pittsburgh, Pa.	43.8	43.8	43.8	43.8	45.8	45.8	45.8	48	48	48	48	48	48	48
Portland, Oreg.	50.0	50.0	50.0	50.0	56.3	56.3	90.0	48	48	48	48	48	48	44
Richmond, Va.	.....	.....	46.3	46.3	52.1	57.3	60.4	.....	.....	54	54	48	48	48
St. Louis, Mo.	45.8	45.8	45.8	45.8	47.9	55.0	55.0	48	48	48	48	48	48	48
St. Paul, Minn.	43.8	43.8	43.8	45.8	50.0	50.0	59.4	48	48	48	48	48	48	48
San Francisco, Calif.	56.3	56.3	56.3	56.3	56.3	62.5	62.5	48	48	48	48	48	48	48
Scranton, Pa.	41.7	41.7	41.7	41.7	43.8	43.8	50.0	48	48	48	48	48	48	48
Seattle, Wash.	52.1	52.1	52.1	52.1	52.1	66.7	77.8	48	48	48	48	48	45	45
Washington, D. C.	50.0	50.0	52.1	54.2	56.3	58.3	58.3	44	44	48	48	48	48	48

¹ Minimum; maximum, 8 hours per day, 48 per week.² Scale became 75.3 cents on June 1, 1919.³ Maximum; minimum, 7 hours per day, 42 per week.⁴ Scale became 70.8 cents on July 1, 1919.⁵ Scale became 62.5 cents on July 15, 1919.⁶ Scale became 72.9 cents on July 5, 1919.⁷ Scale became 68.8 cents on June 5, 1919.⁸ Scale became 77.1 cents on Sept. 1, 1919.⁹ Hours actually worked; maximum 48 hours per week.¹⁰ Scale became 75 cents on July 7, 1919.¹¹ Scale became 83.3 cents on Sept. 13, 1919.¹² Scale became 68.8 cents on July 1, 1919.¹³ Scale became 60.4 cents on July 1, 1919.¹⁴ Scale became 75 cents on Aug. 4, 1919.

UNION SCALE OF WAGES AND HOURS OF LABOR, 1913 TO 1919, BY OCCUPATIONS—Contd.

Electrotypers: Molders.

City.	Rate per hour (cents).							Hours per week.						
	1913	1914	1915	1916	1917	1918	1919	1913	1914	1915	1916	1917	1918	1919
Atlanta, Ga.	45.8	50.0	50.0	50.0	50.0	50.0	¹ 57.3	48	48	48	48	48	48	48
Baltimore, Md.	43.8	45.8	50.0	50.0	52.1	52.1	54.2	48	48	48	48	48	48	48
Birmingham, Ala.	50.0	50.0	50.0	56.3	50.0	50.0	² 50.0	48	48	48	48	48	48	48
Boston, Mass.	50.0	50.0	50.0	50.0	50.0	52.5	³ 52.5	48	48	48	48	48	48	48
Buffalo, N. Y.	43.8	43.8	43.8	50.0	50.0	50.0	56.3	48	48	48	48	48	48	48
Chicago, Ill.	54.2	56.3	56.3	56.3	60.4	60.4	77.1	48	48	48	48	48	48	48
Cincinnati, Ohio	47.9	50.0	50.0	50.0	50.0	52.1	52.1	48	48	48	48	48	48	48
Cleveland, Ohio	43.8	52.1	52.1	52.1	52.1	56.3	60.4	48	48	48	48	48	48	48
Dallas, Tex.	43.8	43.8	41.7	41.7	41.7	43.8	65.6	48	48	48	48	48	48	48
Denver, Colo.	52.1	52.1	52.1	52.1	54.2	54.2	60.4	48	48	48	48	48	48	48
Detroit, Mich.	37.5	47.9	47.9	52.1	52.1	56.3	⁴ 56.3	48	48	48	48	48	48	48
Indianapolis, Ind.	45.8	47.9	47.9	50.1	52.3	52.3	65.9	48	48	48	44	44	44	44
Kansas City, Mo.	43.8	43.8	46.9	46.9	50.0	50.0	62.5	48	48	48	48	48	48	48
Los Angeles, Calif.	50.0	50.0	50.0	50.0	56.3	56.3	70.8	48	48	48	48	48	48	48
Memphis, Tenn.	45.8	45.8	45.8	45.8	45.8	45.8	62.5	48	48	48	48	48	48	48
Milwaukee, Wis.	43.8	43.8	43.8	43.8	50.0	50.0	56.3	48	48	48	48	48	48	48
Minneapolis, Minn.	36.1	50.0	50.0	52.1	56.3	56.3	59.4	54	54	54	54	54	54	54
New Haven, Conn.	37.4	39.6	40.7	40.7	44.9	44.9	46.7	54	53	54	54	53 ¹	53 ¹	53 ¹
New Orleans, La.	.....	.....	.....	.....	40.0	40.0	55.6	.....	.....	.....	.....	6 45	6 45	6 45
New York, N. Y.	62.5	62.5	65.6	68.8	68.8	68.8	75.0	44	44	44	44	44	44	48
Omaha, Nebr.	43.8	43.8	43.8	43.8	52.1	52.1	⁶ 66.7	48	48	48	48	48	48	48
Philadelphia, Pa.	45.8	52.1	52.1	54.2	56.3	64.2	⁷ 70.0	48	48	48	48	48	48	48
Pittsburgh, Pa.	50.0	50.0	50.0	50.0	52.1	53.1	53.1	48	48	48	48	48	48	48
Portland, Oreg.	50.0	50.0	50.0	50.0	56.3	56.3	90.9	48	48	48	48	48	48	44
Richmond, Va.	.....	46.3	46.3	52.1	57.3	.....	60.4	.....	.....	54	54	48	48	48
St. Louis, Mo.	47.9	47.9	47.9	47.9	50.0	57.3	⁸ 57.3	48	48	48	48	48	48	48
St. Paul, Minn.	50.0	50.0	50.0	52.1	56.3	56.3	59.4	48	48	48	48	48	48	48
San Francisco, Calif.	56.3	56.3	56.3	56.3	56.3	62.5	62.5	48	48	48	48	48	48	48
Scranton, Pa.	47.9	47.9	47.9	47.9	50.0	50.0	⁹ 56.3	48	48	48	48	48	48	48
Seattle, Wash.	52.1	52.1	52.1	52.1	52.1	66.7	77.8	48	48	48	48	48	48	45
Washington, D. C.	50.0	50.0	52.1	54.2	56.3	58.3	⁴ 58.3	44	44	48	48	48	48	48

Granite cutters, inside.

Atlanta, Ga.	41.3	41.3	41.3	50.0	50.0	60.0	¹⁰ 70.0	45	45	45	44	44	44	44
Baltimore, Md.	50.0	50.0	50.0	50.0	50.0	62.5	75.0	44	44	44	44	44	44	44
Birmingham, Ala.	.....	.....	.....	.....	.....	62.5	62.5	.....	.....	.....	.....	.....	44	44
Boston, Mass.	45.6	45.6	45.6	50.0	50.0	60.0	75.0	44	44	44	44	44	44	44
Buffalo, N. Y.	43.8	43.8	50.0	53.1	53.1	63.1	¹¹ 75.0	44	44	44	44	44	44	44
Charleston, S. C.	45.0	45.0	45.0	45.0	45.0	50.0	¹² 69.0	44	44	44	44	44	44	44
Chicago, Ill.	50.0	50.0	50.0	53.1	56.3	66.3	¹³ 76.3	44	44	44	44	44	44	44
Cincinnati, Ohio	.....	50.0	50.0	50.0	50.0	62.5	75.0	.....	45	44	44	44	44	44
Cleveland, Ohio	50.0	50.0	50.0	50.0	50.0	62.5	81.3	44	44	44	44	44	44	44
Dallas, Tex.	.....	50.0	50.0	50.0	50.0	62.5	81.3	.....	44	44	44	44	44	44
Denver, Colo.	57.0	57.0	57.0	57.0	57.0	68.8	85.0	44	44	44	44	44	44	44
Detroit, Mich.	45.0	45.0	45.0	50.0	51.3	62.5	75.0	44 ¹	44 ¹	44 ¹	44	44	44	44
Fall River, Mass.	43.0	43.0	43.0	50.0	50.0	62.5	75.0	45	45	45	44	44	44	44
Los Angeles, Calif.	62.5	62.5	62.5	66.3	67.5	70.0	87.5	48	48	44	44	44	44	44
Louisville, Ky.	45.0	45.0	47.5	50.0	50.0	60.0	75.0	45	45	45	44	44	44	44

¹ Scale became 62.5 cents on July 15, 1919.² Scale became 72.9 cents on July 5, 1919.³ Scale became 68.8 cents on June 5, 1919.⁴ Scale became 77.1 cents on Sept. 1, 1919.⁵ Hours actually worked; maximum, 48 hours per week.⁶ Scale became 75 cents on July 7, 1919.⁷ Scale became 83.3 cents on Sept. 13, 1919.⁸ Scale became 68.8 cents on July 1, 1919.⁹ Scale became 62.5 cents on July 1, 1919.¹⁰ Scale became 75 cents on Aug. 1, 1919.¹¹ Scale became 78.1 cents on Aug. 1, 1919.¹² Scale became 75 cents on July 1, 1919.¹³ Scale became 81.3 cents on Aug. 1, 1919.

UNION SCALE OF WAGES AND HOURS OF LABOR, 1913 TO 1919, BY OCCUPATIONS—Contd.

Granite cutters, inside—Concluded.

City.	Rate per hour (cents).							Hours per week.						
	1913	1914	1915	1916	1917	1918	1919	1913	1914	1915	1916	1917	1918	1919
Manchester, N. H.	40.6	40.6	40.6	50.0	50.0	50.0	72.5	44	44	44	44	44	44	44
Philadelphia, Pa.	47.5	47.5	47.5	50.0	50.0	50.0	70.0	44	44	44	44	44	44	44
Newark, N. J.	50.0	50.0	50.0	50.0	50.0	62.5	1 79.0	44	44	44	44	44	44	44
New Haven, Conn.	41.0	41.0	45.5	50.0	50.0	60.0	2 72.5	44	44	44	44	44	44	44
New Orleans, La.	45.0	45.0	45.0	50.0	50.0	50.0	3 75.0	45	45	45	44	44	44	44
New York, N. Y.	50.0	50.0	50.0	50.0	50.0	68.8	4 79.0	44	44	44	44	44	44	44
Philadelphia, Pa.	50.0	50.0	56.3	56.3	56.3	65.0	80.0	44	44	44	44	44	44	44
Pittsburgh, Pa.	50.0	50.0	50.0	53.1	54.4	62.5	5 81.3	44	44	44	44	44	44	44
Providence, R. I.	40.6	40.6	40.6	50.0	50.0	60.0	70.0	44	44	44	44	44	44	44
Richmond, Va.	43.8	45.0	45.0	50.0	50.0	50.0	2 70.0	44	44	44	44	44	44	44
St. Louis, Mo.	50.0	50.0	50.0	50.0	50.0	60.0	75.0	44	44	44	44	44	44	44
St. Paul, Minn.	47.5	47.5	47.5	50.0	50.0	60.0	70.0	44	44	44	44	44	44	44
Salt Lake City, Utah	62.5	62.5	62.5	62.5	62.5	75.0	81.3	44	44	44	44	44	44	44
San Francisco, Calif.	62.5	61.0	62.5	66.3	67.5	70.0	87.5	44	44	44	44	44	44	44
Seattle, Wash.	62.5	62.5	62.5	62.5	62.5	75.0	87.5	44	44	44	44	44	44	44
Washington, D. C.	45.0	45.0	45.0	50.0	50.0	62.5	87.5	44	44	44	44	44	44	44

Hod carriers.

Baltimore, Md.	31.3	31.3	34.4	34.4	40.0	56.3	75.0	6 45	6 45	6 45	6 45	44	44	44
Boston, Mass.	35.0	35.0	35.0	35.0	40.0	42.5	7 50.0	44	44	44	44	44	44	44
Buffalo, N. Y.				30.0	40.0	45.0	55.0				51	51	51	8 44
Chicago, Ill.	40.0	40.0	40.0	42.5	45.0	50.0	9 57.5	44	44	44	44	44	44	44
Cincinnati, Ohio	42.5	42.5	42.5	42.5	42.5	50.0	65.0	45	45	45	45	45	45	45
Cleveland, Ohio	31.3	32.5	31.3	31.0	40.0	55.0	57.5	48	10 44	10 44	10 44	44	44	44
Dallas, Tex.	25.0	30.0	35.0			35.0	35.0	44	44	44			48	48
Denver, Colo.	37.5	37.5	37.5	37.5	43.8	53.1	65.6	44	44	44	44	44	44	44
Detroit, Mich.	35.0	35.0	35.0	40.0	40.0	43.8	50.0	11 65.0	48	12 48	49 1/2	49 1/2	44	13 44
Indianapolis, Ind.	40.0	40.0	40.0	40.0	42.5	47.5	55.0	44	44	44	44	44	44	44
Kansas City, Mo.	42.5	42.5	42.5	42.5	45.0	50.0	62.5	44	44	44	44	44	44	44
Little Rock, Ark.	37.5	37.5	45.0	45.0	47.5	50.0	50.0					54	54	49 1/2
Los Angeles, Calif.	34.4	34.4	34.4	34.4	40.6	50.0	53.1	44	44	44	44	44	44	44
Louisville, Ky.	40.6	40.6	40.6	40.6	45.0	45.0	50.0	48	48	44	44	44	50	50
Memphis, Tenn.	35.0	35.0	35.0	35.0	45.0	50.0	50.0	44	44	44	44	44	44	44
Milwaukee, Wis.	30.0	30.0	30.0	30.0	37.5	50.0	50.0	44	44	44	44	44	44	44
Newark, N. J.	32.5	35.0	35.0	35.0	40.0	50.0	55.0	48	48	48	48	48	48	16 44
New York, N. Y.	35.0	35.0	35.0	37.5	45.0	45.0	50.0	44	44	44	44	44	44	44
Omaha, Nebr.	37.5	37.5	37.5	37.5	42.5	47.0	50.0	44	44	44	44	44	44	44
Philadelphia, Pa.				40.0	40.0	50.0	55.0				44	44	44	44
Philadelphia, Pa.	35.0	35.0	35.0	25.0	45.0	60.0	70.0	44	44	44	44	44	44	44
Pittsburgh, Pa.	25.0	25.0	25.0	30.0	30.0	45.0	60.0	44	44	44	44	44	44	44
Portland, Oreg.	40.0	40.0	40.0	45.0	45.0	55.0	60.0	49	49 1/2	44	44	44	44	44
Portland, Oreg.	50.0	50.0	50.0	50.0	50.0	62.5	75.0	48	48	48	48	48	48	44

1 Scale became 85.9 cents on Aug. 7, 1919.

2 Scale became 75 cents on Aug. 1, 1919.

3 Scale became 80 cents on Aug. 1, 1919.

4 Scale became 85.9 cents on Aug. 1, 1919.

5 Scale became 84.4 cents on Aug. 1, 1919.

6 44 hours per week, November to March, inclusive.

7 Scale became 60 cents on June 1, 1919.

8 48 hours per week, Nov. 16 to Mar. 14, inclusive.

9 Scale became 70 cents on July 7, 1919.

10 48 hours per week, September to April, inclusive.

11 Scale became 75 cents on Sept. 1, 1919.

12 44 hours per week, October to April, inclusive.

13 48 hours per week, December to February, inclusive.

14 Scale became 62.5 cents on Aug. 5, 1919.

15 Scale became 68.8 cents on July 1, 1919.

16 48 hours per week, November to April, inclusive.

17 Scale became 57.5 cents on July 1, 1919.

18 Scale became 70 cents on June 1, 1919.

UNION SCALE OF WAGES AND HOURS OF LABOR, 1913 TO 1919, BY OCCUPATIONS—Contd.

Hod carriers—Concluded.

City.	Rate per hour (cents).							Hours per week.						
	1913	1914	1915	1916	1917	1918	1919	1913	1914	1915	1916	1917	1918	1919
Providence, R. I.	28.1	28.1	28.1	30.0	35.0	38.0	50.0	50	50	50	50	50	50	50
Richmond, Va.							50.0							45
St. Louis, Mo.	42.5	47.5	47.5	47.5	47.5	46.9	62.5	44	44	44	44	44	44	44
Boston, Mass.	45.0	50.0	50.0	50.0	50.0	55.0	65.0							44
St. Paul, Minn.					37.5	40.6	60.0					48	44	44
Salt Lake City, Utah.	37.5	37.5	37.5	37.5	43.8	56.3	68.8	44	44	44	44	44	44	44
San Francisco, Calif.	50.0	50.0	50.0	50.0	50.0	62.5	75.0	44	44	44	44	44	44	44
Scranton, Pa.	50.0	30.0	30.0	35.0	35.0	35.0	50.0	48	48	44	44	44	44	44
Seattle, Wash.	43.8	43.8	43.8	43.8	50.0	62.5	75.0	44	44	44	44	44	44	40
Washington, D. C.	23.1	23.1	28.1	28.1	31.3	50.0	62.5	45	45	45	45	45	45	45

Inside wiremen.

Atlanta, Ga.	44.5				38.9	55.0	75.0	54				54	48	44
Baltimore, Md.	43.8	43.8	43.8	43.8	50.0	70.0	70.0	48	48	48	48	48	48	44
Birmingham, Ala.	62.5	62.5	50.0	50.0	50.0	62.5	80.0	44	44	44	44	44	44	44
Boston, Mass.	55.0	55.0	60.0	62.5	65.0	70.0	77.5	44	44	44	44	44	44	44
Buffalo, N. Y.	45.0	46.9	50.0	56.3	62.5	70.0	80.0	48	48	48	48	48	44	44
Charleston, S. C.	33.3	33.3		33.3	33.3	57.0	80.0	54	54		54	54	48	48
Chicago, Ill.	75.0	75.0	75.0	75.0	75.0	81.3	87.5	44	44	44	44	44	44	44
Cincinnati, Ohio	50.0	50.0	53.1	56.3	62.5	68.8	71.9	44½	44½	44½	44½	44½	44½	44½
Cleveland, Ohio.	57.5	60.0	68.8	70.0	75.0	81.3	90.0	48	44	44	44	44	44	44
Dallas, Tex.	56.3	56.3	62.5	62.5	65.0	80.0	87.5	44	44	44	44	44	44	44
Denver, Colo.	56.3	56.3	56.3	60.0	62.5	60.0	82.5	44	44	44	44	44	44	44
Detroit, Mich.	46.9	50.0	53.1	59.4	66.9	75.0	95.8	48	48	48	48	48	44	44
Fall River, Mass.	37.5	37.5	37.5	41.0	50.0	60.0	70.0	48	48	48	48	44	44	44
Indianapolis, Ind.	47.5	47.5	47.5	53.0	57.0	67.5	72.0	48	48	48	48	44	44	44
Jacksonville, Fla.	45.0	45.0	45.0	45.0	45.0	65.0	85.0	48	45	45	48	48	48	44
Kansas City, Mo.	62.5	62.5	68.8	65.0	68.8	75.0	87.5	48	48	44	44	44	44	44
Little Rock, Ark.	50.0	50.0	50.0	50.0	50.0	55.0	75.0	48	48	48	48	48	48	48
Los Angeles, Calif.	50.0	50.0	50.0	50.0	50.0	62.5	80.0	48	48	48	48	48	48	44
Louisville, Ky.	40.0	40.0	40.0	40.0	45.0	50.0	75.0	48	48	48	48	48	48	44
Manchester, N. H.	31.3	34.4	34.4	37.5	42.5	60.0	75.0	48	48	48	48	44	44	44
Memphis, Tenn.	45.0	50.0	50.0	50.0	56.3	62.5	75.0	48	44	44	44	44	44	44
Milwaukee, Wis.	45.0	50.0	50.0	50.0	56.3	56.3	75.0	44	44	44	44	44	44	44
Minneapolis, Minn.	50.0	50.0	56.3	56.3	56.3	68.8	68.8	48	44	44	44	44	44	44
Newark, N. J.	56.3	62.5	62.5	62.5	62.5	68.8	75.0	44	44	44	44	44	44	44
New Haven, Conn.				44.5	50.0	60.0	75.0					44	44	44
New Orleans, La.	45.0	50.0	50.0	50.0	50.0	56.3	70.0	48	48	48	48	48	48	48
New York, N. Y.	56.3	60.0	60.0	60.0	65.0	65.0	75.0	44	44	44	44	44	44	44
Omaha, Nebr.	50.0	50.0	50.0	57.5	57.5	70.0	87.5	44	44	44	44	44	44	44
Philadelphia, Pa.	45.0	45.0	45.0	50.0	56.3	65.0	75.0	44	44	44	44	44	44	44
Pittsburgh, Pa.	57.5	57.5	57.5	62.5	62.5	68.8	75.0	48	48	44	44	44	44	44

1 Scale became 70 cents on July 1, 1919.
 2 Scale became 87.5 cents on June 10, 1919.
 3 Scale became 56 cents on Aug. 2, 1919.
 4 48 hours per week, October to April, inclusive.
 5 44½ hours per week, October to April, inclusive.
 6 44 hours per week, August to December, inclusive.
 7 Scale became 90 cents on June 30, 1919.
 8 Scale became 80 cents on June 1, 1919.
 9 44 hours per week, June to August, inclusive.
 10 49½ hours per week, June 15 to Sept. 15.
 11 44 hours per week, June 15 to Sept. 15.
 12 Scale became \$1 on Sept. 22, 1919.
 13 Scale became \$1 on July 1, 1919.
 14 Scale became 87.5 cents on July 15, 1919.
 15 Scale became \$1 on Oct. 1, 1919.
 16 44 hours per week, June to September, inclusive.
 17 Scale became 87.5 cents on June 1, 1919.
 18 44 hours per week, July to September, inclusive.
 19 Scale became 80 cents on June 28, 1919.
 20 Scale became 81.3 cents on June 1, 1919.
 21 Scale became 87.5 cents on July 1, 1919.
 22 Scale became 90 cents on June 1, 1919.

UNION SCALE OF WAGES AND HOURS OF LABOR, 1913 TO 1919, BY OCCUPATIONS—Contd.

Inside wiremen—Concluded.

City.	Rate per hour (cents).							Hours per week.						
	1913	1914	1915	1916	1917	1918	1919	1913	1914	1915	1916	1917	1918	1919
Portland, Oreg.....	56.3	56.3	56.3	56.3	56.3	72.2	80.0	44	44	44	44	44	44	44
Providence, R. I.....	43.8	50.0	50.0	50.0	55.0	60.0	170.0	44	44	44	44	44	44	44
Richmond, Va.....	43.8	43.8	43.8	43.8	50.0	60.0	75.0	48	48	48	48	48	48	44
St. Louis, Mo.....	65.0	70.0	75.0	75.0	75.0	75.0	2 87.5	44	44	44	44	44	44	44
St. Paul, Minn.....	46.9	50.0	53.1	56.3	62.5	68.8	3 68.8	44	44	44	44	44	44	44
Salt Lake City, Utah.....	56.3	56.3	62.5	62.5	62.5	75.0	4 87.5	44	44	44	44	44	44	44
San Francisco, Calif.....	62.5	62.5	62.5	62.5	62.5	75.0	5 87.5	44	44	44	44	44	44	44
Scranton, Pa.....	46.9	46.9	46.9	50.0	60.0	62.5	75.0	48	48	48	44	44	44	44
Seattle, Wash.....	62.5	62.5	62.5	62.5	75.0	87.5	100.0	44	44	44	44	44	44	40
Washington, D. C.....	55.0	60.0	60.0	60.0	60.0	75.0	100.0	44	44	44	44	44	44	44

Llotype operators: Book and job.

Atlanta, Ga.....	43.8	46.9	46.9	46.9	46.9	46.9	6 46.9	48	48	48	48	48	48	48
Baltimore, Md.....	46.9	46.9	46.9	46.9	50.0	50.0	60.4	48	48	48	48	48	48	48
Birmingham, Ala.....	52.5	52.5	54.5	54.5	57.3	57.3	57.3	48	48	48	48	48	48	48
Boston, Mass.....	45.8	47.9	47.9	47.9	50.0	54.2	59.4	48	48	48	48	48	48	48
Buñalo, N. Y.....	50.0	50.0	50.0	50.0	53.1	59.4	59.4	46	48	48	48	48	48	48
Charleston, S. C.....	.....	37.5	37.5	37.5	50.0	50.0	50.0	.....	48	48	48	48	48	48
Chicago, Ill.....	50.0	50.0	50.0	50.0	50.0	60.2	77.9	48	48	48	48	48	48	48
Cincinnati, Ohio.....	49.0	52.1	52.1	52.1	54.2	54.2	58.3	48	48	48	48	48	48	48
Cleveland, Ohio.....	53.8	53.8	53.8	53.8	62.5	62.5	68.8	48	48	48	48	48	48	48
Dallas, Tex.....	7 12.5	7 12.5	7 12.5	7 12.5	7 12.5	7 12.0	7 12.0	48	48	48	48	48	48	48
Denver, Colo.....	54.2	54.2	54.2	54.2	54.2	59.4	65.6	48	48	48	48	48	48	48
Detroit, Mich.....	55.0	55.0	55.0	55.0	60.5	60.5	85.0	48	48	48	48	48	48	48
Fall River, Mass.....	.....	.....	.....	.....	45.8	46.9	46.9	.....	.....	.....	.....	.....	.....	.....
Indianapolis, Ind.....	50.0	50.0	50.0	50.0	56.3	56.3	8 60.4	48	48	48	48	48	48	48
Jacksonville, Fla.....	43.8	52.1	52.1	52.1	53.1	53.1	58.3	48	48	48	48	48	48	48
Kansas City, Mo.....	55.2	55.2	57.3	57.3	57.3	62.5	69.8	48	48	48	48	48	48	48
Little Rock, Ark.....	50.0	50.0	50.0	50.0	50.0	50.0	50.0	48	48	48	48	48	48	48
Los Angeles, Calif.....	58.3	60.4	60.4	60.4	60.4	62.5	70.8	48	48	48	48	48	48	48
Louisville, Ky.....	49.0	50.0	50.0	50.0	50.0	52.1	54.2	48	48	48	48	48	48	48
Manchester, N. H.....	35.4	35.4	35.4	35.4	37.5	39.6	41.7	48	48	48	48	48	48	48
Memphis, Tenn.....	62.5	62.5	56.3	56.3	56.3	56.3	68.8	48	48	48	48	48	48	48
Milwaukee, Wis.....	47.9	50.0	52.1	52.1	54.2	54.2	60.4	48	48	48	48	48	48	48
Minneapolis, Minn.....	50.0	50.0	50.0	50.0	52.1	52.1	9 61.5	48	48	48	48	48	48	48
Newark, N. J.....	47.9	47.9	47.9	50.0	50.0	56.3	72.9	48	48	48	48	48	48	48
New Haven, Conn.....	45.8	45.8	45.8	45.8	45.8	45.8	10 45.8	48	48	48	48	48	48	48
New Orleans, La.....	.....	.....	53.3	53.3	53.3	53.3	53.3	.....	.....	45	45	45	45	45
New York, N. Y.....	54.2	54.2	54.2	54.2	54.2	58.3	75.0	48	48	48	48	48	48	48
Omaha, Nebr.....	50.0	50.0	53.1	53.1	53.1	53.1	68.8	48	48	48	48	48	48	48
Philadelphia, Pa.....	43.8	45.8	45.8	45.8	47.9	54.2	11 64.6	48	48	48	48	48	48	48
Pittsburgh, Pa.....	47.9	50.0	50.0	52.1	52.1	56.3	68.8	48	48	48	48	48	48	48
Portland, Oreg.....	65.6	65.6	65.6	65.6	65.6	68.8	100.0	48	48	48	48	48	48	48
Providence, R. I.....	47.9	47.9	47.9	47.9	47.9	52.1	54.2	48	48	48	48	48	48	48
Richmond, Va.....	41.7	41.7	45.8	45.8	45.8	45.8	54.2	48	48	48	48	48	48	48
St. Louis, Mo.....	50.0	50.0	50.0	52.1	54.2	59.6	12 63.8	48	48	48	48	48	48	48
St. Paul, Minn.....	50.0	50.0	50.0	50.0	52.1	52.1	9 61.5	48	48	48	48	48	48	48
Salt Lake, Utah.....	56.3	56.3	56.3	56.3	56.3	56.3	64.6	48	48	13 48	13 48	13 48	13 48	13 48
San Francisco, Calif.....	64.4	64.4	64.4	65.0	65.0	68.8	14 68.8	45	45	45	48	48	48	48
Scranton, Pa.....	45.8	45.8	45.8	45.8	50.0	50.0	15 54.2	48	48	48	48	48	48	48
Seattle, Wash.....	.....	75.0	75.0	75.0	78.6	16 85.7	16 107.1	.....	.....	42	42	42	42	42
Washington, D. C.....	50.0	50.0	50.0	50.0	56.3	56.3	75.0	48	48	48	48	48	48	17 42

¹ Scale became 85 cents on Sept. 1, 1919.² Scale became \$1 on July 15, 1919.³ Scale became \$1.3 cents on June 1, 1919.⁴ Scale became \$1 on Aug. 1, 1919.⁵ Scale became \$1 on July 19, 1919.⁶ Scale became 50 cents on May 28, 1919.⁷ Per 1,000 ems nonpareil.⁸ Scale became 68.8 cents on July 21, 1919.⁹ Scale became 70 cents on June 1, 1919.¹⁰ Scale became 46.9 cents on July 1, 1919.¹¹ Scale became 85.4 cents on Sept. 1, 1919.¹² Scale became 67.9 cents on June 1, 1919.¹³ 45 hours per week, June to August, inclusive.¹⁴ Scale became 81.3 cents on July 26, 1919.¹⁵ Scale became 60.4 cents on July 1, 1919.¹⁶ For machinist operators.¹⁷ 44 hours per week, June to September, inclusive.

UNION SCALE OF WAGES AND HOURS OF LABOR, 1913 TO 1919, BY OCCUPATIONS—Contd.

Linotype operators, daywork: Newspaper.

City.	Rate per hour (cents).							Hours per week.						
	1913	1914	1915	1916	1917	1918	1919	1913	1914	1915	1916	1917	1918	1919
Atlanta, Ga.	1 8.5	1 8.5	1 8.5	1 8.5	1 8.5	1 8.5	2 8.5	48	48	48	48	48	48	48
Baltimore, Md.	53.6	57.1	59.5	59.5	61.9	61.9	65.5	42	42	42	42	42	42	42
Birmingham, Ala.	52.5	53.0	54.5	55.5	56.5	57.5	67.5	42	42	42	42	42	42	42
Boston, Mass.	63.0	63.0	63.0	63.0	68.0	68.0	83.0	42	42	42	42	42	42	42
Buffalo, N. Y.	50.0	50.0	50.0	50.0	53.1	59.4	65.6	48	48	48	48	48	48	48
Charleston, S. C.	1 9.0	1 9.0	1 9.0	1 9.0	1 9.0	1 9.0	1 9.0	3 39	3 39	3 39	3 39	3 39	3 39	3 39
Chicago, Ill.	6 50.0	6 50.0	6 50.0	6 50.0	6 50.0	7 53.0	8 64.0	48	48	45	45	45	45	45
Cincinnati, Ohio	52.1	54.2	56.3	56.3	56.3	56.3	87.5	42	42	42	42	42	42	42
Cleveland, Ohio.	53.8	53.8	53.8	53.8	62.5	62.5	10 68.8	48	48	48	48	48	48	48
Dallas, Tex.	1 12.5	1 12.5	1 12.5	1 12.0	1 12.0	1 12.0	1 12.0	39	39	11 39	11 39	11 39	11 39	11 39
Denver, Colo.	63.3	63.3	63.3	63.3	63.3	72.7	72.7	45	45	45	45	45	45	45
Detroit, Mich.	55.0	55.0	55.0	55.0	60.5	60.5	74.5	48	48	12 48	12 48	12 48	48	48
Fall River, Mass.	45.8	45.8	45.8	45.8	45.8	46.9	50.0	48	48	48	48	48	48	48
Indianapolis, Ind.	50.0	50.0	50.0	50.0	56.3	56.3	10 60.4	48	48	48	48	48	48	48
Jacksonville, Fla.	1 9.0	1 9.0	1 9.0	1 9.0	1 9.0	1 9.0	1 9.0	48	48	12 48	12 48	48	48	48
Kansas City, Mo.	59.4	59.4	59.4	59.4	59.4	59.4	68.8	48	48	48	48	48	48	48
Little Rock, Ark.	1 9.5	1 9.5	1 9.5	1 9.5	1 9.5	1 9.5	1 9.5	48	48	42	42	42	42	42
Los Angeles, Calif.	62.2	64.4	64.4	64.4	66.7	66.7	75.6	45	45	45	45	45	45	45
Louisville, Ky.	49.0	50.0	50.0	50.0	54.2	54.5	62.5	48	48	48	48	48	48	48
Manchester, N. H.	35.4	35.4	35.4	35.4	37.5	39.6	41.7	48	48	48	48	48	48	48
Memphis, Tenn.	1 9.5	1 9.5	1 9.5	1 9.5	1 9.5	1 9.5	1 9.5	3 45	3 45	3 45	3 45	3 45	3 45	3 45
Milwaukee, Wis.	45.8	47.9	50.0	50.0	54.2	56.3	56.3	48	48	48	48	48	48	48
Minneapolis, Minn.	1 10.0	1 10.0	1 10.0	1 10.0	1 10.0	1 10.0	1 10.0	48	48	48	48	48	48	48
Newark, N. J.	60.9	60.9	60.9	60.9	63.0	69.6	76.1	46	46	46	46	46	46	46
New Haven, Conn.	46.9	46.9	47.9	47.9	50.0	50.0	50.0	48	48	48	48	48	48	48
New York, N. Y.	66.7	66.7	66.7	66.7	66.7	71.1	96.7	45	45	45	45	45	45	45
Omaha, Neb.	50.0	50.0	53.1	53.1	53.1	53.1	68.8	48	48	48	48	48	48	48
Philadelphia, Pa.	45.8	45.8	45.8	45.8	45.8	52.1	66.7	48	48	48	48	48	48	48
Pittsburgh, Pa.	55.0	60.0	60.0	60.0	61.0	65.0	14 77.0	48	45	45	45	45	45	45
Portland, Ore.	68.3	68.3	68.3	68.3	68.3	72.7	100.0	45	45	45	45	45	45	45
Providence, R. I.	47.9	47.9	50.0	50.0	50.0	52.1	66.7	48	48	48	48	48	48	48
Richmond, Va.	41.7	41.7	45.8	45.8	45.8	56.3	66.7	48	48	48	48	48	48	48
St. Louis, Mo.	1 11.0	1 11.0	1 11.0	1 11.0	1 11.5	1 11.5	1 11.5	16 39	16 39	16 39	16 39	16 42	16 42	16 42
St. Paul, Minn.	54.5	54.5	54.5	54.5	54.5	63.0	63.0	48	48	48	48	48	48	48
Salt Lake City, Utah.	1 10.0	1 10.0	1 10.0	1 10.0	1 10.0	1 10.0	1 11.0	48	16 48	16 48	16 48	16 48	16 48	16 48
San Francisco, Calif.	64.4	64.4	69.0	69.0	69.0	68.9	75.6	45	45	42	42	42	42	45
Scranton, Pa.	47.9	47.9	47.9	47.9	52.1	52.1	17 60.4	48	48	48	48	48	48	48
Seattle, Wash.	75.0	75.0	75.0	75.0	78.6	80.1	100.0	42	42	42	42	42	42	42
Washington, D. C.	60.7	60.7	60.7	60.7	60.7	69.8	92.9	42	42	42	42	42	42	42

¹ Per 1,000 ems nonpareil.

² Per 1,000 ems nonpareil. Scale became 9 cents per 1,000 ems, on July 1, 1919.

³ Minimum; maximum, 8 hours per day, 48 per week.

⁴ Hours actually worked; minimum, 6 hours per day, 36 per week; maximum, 8 hours per day, 48 per week.

⁵ Minimum 6, maximum, 8 hours per day.

⁶ For 3,500 ems per hour; 55 cents for 4,500 ems, and 1 cent for each 100 ems over 4,500 per hour.

⁷ For 3,500 ems per hour; 58 cents for 4,500 ems, and 1 cent for each 100 ems over 4,500 per hour.

⁸ For 3,500 ems per hour; 70 cents for 4,500 ems, and 1 cent for each 100 ems over 4,500 per hour.

⁹ Work 47½ hours, paid for 48.

¹⁰ Scale became 79.4 cents on June 11, 1919.

¹¹ Maximum; minimum, 5½ hours per day, 33 per week.

¹² Maximum; minimum, 7 hours per day, 42 per week.

¹³ Scale became 68.8 cents on July 21, 1919.

¹⁴ Scale became 87.5 cents per hour, and 8 hours per day on Sept. 1, 1919.

¹⁵ Minimum; maximum, 7½ hours per day, 46 per week.

¹⁶ Maximum; minimum, 6½ hours per day, 39 per week.

¹⁷ Scale became 70.8 cents on July 1, 1919.

UNION SCALE OF WAGES AND HOURS OF LABOR, 1913 TO 1919, BY OCCUPATIONS—Contd.

Machinists, manufacturing shops.

City.	Rate per hour (cents).							Hours per week.						
	1913	1914	1915	1916	1917	1918	1919	1913	1914	1915	1916	1917	1918	1919
Atlanta, Ga.....	35.0	35.0	35.0	35.0	40.0	55.0	70.0	60	{ 54 60 }	60	60	54	54	54
Baltimore, Md.....	33.3	37.5	37.5	37.5	{ 47.0 65.0 }	{ 62.0 68.8 }	75.0	54	48	48	48	48	48	48
Birmingham, Ala.....	35.0	{ 35.0 40.0 }	40.0	45.0	47.5	60.0	68.0	60	{ 54 60 }	60	54	54	54	48
Boston, Mass.....	{ 38.9 43.8 }	{ 38.9 43.8 }	28.0	35.0	{ 42.0 50.0 }	55.0	65.0	{ 48 54 }	{ 48 54 }	50	50	{ 45 50 }	45	45
Buffalo, N. Y.....	37.5	37.5	37.5	40.0	40.0	55.0	73.0	54	54	54	54	{ 48 54 }	54	54
Charleston, S. C.....	.....	.....	36.1	38.9	42.8	59.0	73.0	.....	.....	54	54	54	54	48
Chicago, Ill.....	39.0	{ 41.7 43.5 }	41.7	46.9	55.0	65.0	80.0	54	{ 48 54 }	54	48	48	48	44
Cincinnati, Ohio.....	{ 25.0 35.0 }	{ 25.0 35.0 }	32.5	35.0	42.0	42.0	50.0	55	52 ²	52 ²	48	48	48	48
Cleveland, Ohio.....	33.3	33.3	35.0	45.0	45.0	60.0	60.0	54	54	54	50	50	50	50
Dallas, Tex.....	40.0	40.0	42.0	42.0	.....	.....	70.0	54	54	48	48	.....	.....	44
Denver, Colo.....	40.0	40.0	40.0	40.0	42.5	52.0	68.0	54	54	54	54	51	48	48
Detroit, Mich.....	39.0	39.0	39.0	40.0	{ 42.0 47.0 }	{ 72.5 75.0 }	85.0	50	50	{ 55 55 }	55	55	55	55
Indianapolis, Ind.....	.....	.....	.....	.....	47.5	62.5	70.0	.....	.....	.....	.....	50	48	48
Jacksonville, Fla.....	36.5	36.5	36.6	38.0	40.0	65.0	80.0	54	54	54	54	54	54	48
Kansas City, Mo.....	37.0	40.0	40.0	50.0	50.0	75.0	75.0	54	54	54	48	48	48	48
Little Rock, Ark.....	42.5	42.5	42.5	42.5	45.0	60.0	68.0	54	54	54	54	54	54	48
Memphis, Tenn.....	40.0	42.0	42.0	42.0	50.0	55.0	71.5	54	54	54	54	48	48	48
Minneapolis, Minn.....	33.5	33.5	33.5	.....	40.0	40.0	72.5	59	59	59	.....	54	54	48
Newark, N. J.....	36.1	36.1	36.1	{ 40.0 45.0 }	40.0	45.0	65.0	54	54	54	{ 48 54 }	48	48	48
New Haven, Conn.....	{ 33.3 35.0 }	{ 33.3 35.0 }	.....	42.5	50.0	60.0	60.0	{ 54 59 }	{ 54 59 }	.....	48	48	48	48
New Orleans, La.....	38.9	38.9	38.9	43.8	50.0	68.8	80.0	54	54	54	48	48	48	48
New York, N. Y.....	{ 38.2 40.6 }	{ 38.2 40.6 }	38.2	46.9	56.3	{ 73.0 82.0 }	{ 73.0 90.0 }	48	48	48	48	48	48	{ 44 48 }
Omaha, Nebr.....	40.0	40.0	40.0	40.0	{ 45.0 50.0 }	60.0	70.0	54	54	54	54	54	48	48
Philadelphia, Pa.....	33.3	33.3	35.0	45.0	48.0	{ 65.0 72.5 }	72.0	54	54	54	54	{ 48 54 }	48	48
Portland, Oreg.....	45.0	45.0	45.0	45.0	50.0	75.0	80.0	48	48	48	48	48	48	44
Richmond, Va.....	35.5	35.5	35.5	35.5	{ 37.5 51.0 }	57.0	75.0	55	55	55	55	{ 48 55 }	50	48
St. Louis, Mo.....	33.0	37.0	37.0	37.0	44.0	60.0	70.0	54	54	54	54	54	48	48
St. Paul, Minn.....	33.5	{ 33.5 35.0 }	35.0	40.0	40.0	40.0	72.5	{ 54 59 }	{ 54 59 }	54	54	54	54	48
Salt Lake City, Utah.....	44.0	44.0	43.0	43.0	56.3	62.5	75.0	48	48	54	54	48	48	44
San Francisco, Calif.....	43.8	43.8	43.8	50.0	50.0	72.5	80.0	48	48	48	48	48	48	44
Seattle, Wash.....	45.0	45.0	45.0	45.0	50.0	75.0	80.0	48	48	48	48	48	48	44
Washington, D. C.....	40.6	40.6	{ 10.6 50.0 }	40.6	50.0	57.5	68.8	48	48	48	48	48	48	48

Molders, iron.

Atlanta, Ga.....	35.0	35.0	35.0	35.0	41.7	50.0	70.0	60	60	60	60	54	54	54
Baltimore, Md.....	36.1	36.1	36.1	36.1	46.9	68.8	68.8	54	54	54	54	{ 48 54 }	48	48
Birmingham, Ala.....	36.1	36.1	36.1	36.1	{ 36.1 37.5 }	{ 44.4 72.0 }	70.0	54	54	54	54	{ 60 54 }	48	48
Boston, Mass.....	38.9	38.9	38.9	44.4	50.0	58.3	58.3	54	54	54	54	54	54	54
Buffalo, N. Y.....	36.1	36.1	36.1	41.7	47.2	58.3	58.3	54	54	54	54	54	54	75.4

¹ Scale became 80 cents on June 1, 1919.

² 44 hours per week, June to September, inclusive.

³ 44 hours per week, June to August, inclusive.

⁴ Scale became 80 cents on Sept. 1, 1919.

⁵ Scale became 75 cents on July 1, 1919.

⁶ Scale became 64.4 cents on July 1, 1919.

⁷ Scale became 75 cents per hour and 44 hours per week on Sept. 1, 1919.

UNION SCALE OF WAGES AND HOURS OF LABOR, 1913 TO 1919, BY OCCUPATIONS—Contd.

Molders, iron—Concluded.

City.	Rate per hour (cents).							Hours per week.						
	1913	1914	1915	1916	1917	1918	1919	1913	1914	1915	1916	1917	1918	1919
Chicago, Ill.	44.4	44.4	44.4	50.0	56.3	68.8	80.0	54	54	54	48	48	48	48
Cincinnati, Ohio	36.1	38.9	38.9	44.4	44.4	55.5	58.3	54	54	54	54	54	54	54
Cleveland, Ohio	38.9	38.9	38.9	38.9	44.4	61.1	61.1	54	54	54	54	54	50	50
Denver, Colo.	44.4	44.4	44.4	44.4	50.0	59.4	75.0	54	54	54	54	48	48	48
Detroit, Mich.	38.9	38.9	38.9	44.4	50.0	61.1	80.0	54	54	54	54	54	54	54
Fall River, Mass.	33.3	33.3	33.3	36.1	41.7	50.0	65.6	54	54	54	54	54	54	48
Indianapolis, Ind.	36.1	36.1	36.1	38.9	44.4	55.6	55.6	54	54	54	54	54	54	54
Kansas City, Mo.	40.0	40.0	40.0	45.0	50.0	60.0	67.5	54	54	54	54	54	54	54
Little Rock, Ark.	38.9	38.9	38.9	38.9	41.7	44.4	68.0	54	54	54	54	54	54	54
Louisville, Ky.						45.0	45.0					60	54	54
Memphis, Tenn.	38.9	40.0	40.0	40.0	40.0	56.0	68.0	54	54	54	54	54	54	54
Minneapolis, Minn.	36.7	38.9	38.9	38.9	44.4	55.6	72.5	54	54	54	54	54	54	48
Newark, N. J.	38.9	38.9	38.9	41.7	47.2	55.6	75.0	54	54	54	54	54	54	54
New Orleans, La.	36.1	36.1	36.1	38.9	50.0	62.5	80.0	54	54	54	54	48	48	48
New York, N. Y.	38.9	41.7	41.7	41.7	47.2	52.8	75.0	54	54	54	54	54	54	48
Omaha, Nebr.	36.7	40.0	40.0	40.0	45.0	55.6	68.0	54	54	54	54	54	54	48
Philadelphia, Pa.	36.1	38.9	38.9	44.4	50.0	68.8	68.8	54	54	54	54	54	48	48
Pittsburgh, Pa.	44.4	44.4	44.4	44.4	50.0	65.6	75.0	54	54	54	54	48	48	48
Portland, Oreg.	41.7	37.5 (41.7)	41.7	41.7	56.3	72.5	87.5	54	54	54	54	48	48	44
Providence, R. I.	30.6	30.6		30.0	40.0	40.0	71.9	54	54		55	55	55	44
Richmond, Va.	33.3	33.3	33.3	33.3	47.2	58.3	70.0	54	54	54	54	54	54	54
St. Louis, Mo.	38.9	38.9	38.9	41.7	50.0	61.1	75.0	54	54	54	54	54	54	48
St. Paul, Minn.	38.9	38.9	38.9	42.8	47.2	55.6	72.5	54	54	54	54	54	54	48
Salt Lake City, Utah.	41.7	41.7	41.7	44.4	56.3	62.5	75.0	54	54	54	54	48	48	48
San Francisco, Calif.	50.0	50.0	50.0	50.0	53.1	72.5	80.0	48	48	48	48	48	48	44
Scranton, Pa.	25.0	27.5	27.5	27.5	38.9	55.6 (58.3)	65.0 (71.9)	60	60	60	60	54	54	48
Seattle, Wash.	44.4	44.4	44.4	44.4	56.3	82.5	87.5	54	54	54	54	48	48	44
Washington, D. C.		30.6	30.6	34.4	43.8	68.8	68.8		54	54	48	48	48	44

Painters.

Atlanta, Ga.	33.3	33.3	33.3	33.3	36.1	50.0	60.0	53	53	53	53	53	48	44
Baltimore, Md.	37.5	37.5	37.5	37.5	43.8	56.3	68.8	48	48	48	48	48	44	44
Birmingham, Ala.	45.0	45.0	45.0	45.0	50.0	62.5	75.0	48	48	48	48	44	44	44
Boston, Mass.	50.0	50.0	55.0	60.5	62.5	75.0	82.5	44	44	44	40	40	40	40
Buffalo, N. Y.	43.8	46.9	46.9	46.9	50.0	56.3	62.5	48	48	48	48	48	48	48
Charleston, S. C.	25.0	25.0	25.0	25.0	25.0	31.3 (50.0)	50.0 (65.0)	48	48	48	48	48	48	48
Chicago, Ill.	65.0	70.0	70.0	70.0	72.5	75.0	87.5	44	44	44	44	44	44	44
Cincinnati, Ohio	50.0	50.0	50.0	55.0	55.0	60.0	62.5	44	44	44	44	44	44	44
Cleveland, Ohio	50.0	50.0	50.0	55.0	55.0	67.5	75.0	44	44	44	44	44	44	44
Dallas, Tex.	50.0	50.0	50.0	50.0	60.0	70.0	87.5	44	44	44	44	44	44	44
Denver, Colo.	50.0	50.0	50.0	55.0	62.5	68.8	85.0	44	44	44	44	44	44	44
Detroit, Mich.	45.0	45.0	45.0	50.0	60.0	70.0	80.0	48	48	48	44	44	44	44
Fall River, Mass.	37.5	37.5	37.5	41.0	41.0	55.0	62.5	44	44	44	44	44	44	44
Indianapolis, Ind.	47.5	50.0	50.0	50.0	55.0	55.0	70.0	44	44	44	44	44	44	44
Jacksonville, Fla.	37.5	37.5	37.5	37.5	45.0	50.0	75.0	48	48	48	48	48	48	44
Kansas City, Mo.	60.0	60.0	60.0	60.0	60.0	70.0	82.5	44	44	44	44	44	44	44
Little Rock, Ark.	50.0	50.0	50.0	55.0	55.0	60.0	80.0	48	48	48	44	44	44	44
Los Angeles, Calif.	43.8	43.8	43.8	43.8	50.0	56.3	75.0	48	48	48	48	48	44	44
Louisville, Ky.	45.0	50.0	50.0	50.0	50.0	50.0	62.5	48	48	48	48	48	48	44
Manchester, N. H.		31.3	31.3	37.5	37.5	50.0	62.5	48	48	48	48	48	48	44

¹ Scale became 75 cents on June 1, 1919.

² 49½ hours per week, June to August, inclusive.

³ 54 hours per week, November to April, inclusive.

⁴ Scale became 80 cents on June 15, 1919.

⁵ Scale became 75 cents on Sept. 1, 1919.

⁶ Scale became 72.5 cents on June 15, 1919.

⁷ 49½ hours per week, May 19 to September 15.

⁸ 44 hours per week, June to August, inclusive.

⁹ Work 53 hours, paid for 54.

¹⁰ Scale became 90 cents on June 30, 1919.

¹¹ 44 hours per week, June to August, inclusive.

¹² 44 hours per week, July to March, inclusive.

¹³ Scale became 80 cents on Oct. 1, 1919.

¹⁴ Scale became 87.5 cents on Sept. 1, 1919.

UNION SCALE OF WAGES AND HOURS OF LABOR, 1913 TO 1919, BY OCCUPATIONS—Contd.

Painters—Concluded.

City.	Rate per hour (cents).							Hours per week.						
	1913	1914	1915	1916	1917	1918	1919	1913	1914	1915	1916	1917	1918	1919
Memphis, Tenn.	50.0	52.5	52.5	52.5	60.0	62.5	75.0	44	44	44	44	44	44	44
Milwaukee, Wis.	50.0	50.0	50.0	50.0	55.0	60.0	70.0	44	44	44	44	44	44	44
Minneapolis, Minn.	50.0	50.0	50.0	55.0	55.0	62.5	70.0	44	44	44	44	44	44	44
Newark, N. J.	44.0	44.0	44.0	46.9	50.0	62.5	75.0	44	44	44	44	44	44	44
New Haven, Conn.	40.9	40.9	40.9	40.9	45.5	53.1	62.5	44	44	44	44	44	44	44
New Orleans, La.	40.0	40.0	40.0	40.0	40.0	50.0	65.0	48	48	48	48	48	48	44
New York, N. Y.	50.0	50.0	50.0	62.5	62.5	62.5	1 75.0	44	44	44	44	44	44	44
Omaha, Nebr.	50.0	50.0	50.0	55.0	62.5	62.5	2 75.0	44	44	44	44	44	44	44
Philadelphia, Pa.	42.5	42.5	42.5	42.5	45.0	60.0	75.0	44	44	44	44	44	44	44
Pittsburgh, Pa.	55.0	56.3	58.1	58.1	65.0	67.5	87.5	44	44	44	44	44	44	44
Portland, Oreg.	50.0	50.0	50.0	50.0	50.0	70.0	90.0	48	44	44	44	44	44	44
Providence, R. I.	45.5	45.5	45.5	45.5	45.5	62.5	62.5	44	44	44	44	44	44	44
Richmond, Va.	37.5	30.6	30.6	30.6	37.5	50.0	60.0	48	54	54	54	48	48	48
St. Louis, Mo.	57.5	60.0	62.5	62.5	62.5	75.0	75.0	44	44	44	44	44	44	44
St. Paul, Minn.	50.0	50.0	50.0	55.0	55.0	62.5	70.0	44	44	44	44	44	44	44
Salt Lake City, Utah	56.3	56.3	56.3	62.5	75.0	75.0	90.0	44	44	44	44	44	44	44
San Francisco, Calif.	56.3	59.4	62.5	62.5	62.5	75.0	3 87.5	44	44	44	44	44	44	44
Scranton, Pa.	40.0	40.0	42.5	45.0	50.0	50.0	4 65.0	48	48	44	44	44	44	44
Seattle, Wash.	56.3	56.3	56.3	56.3	65.0	75.0	5 90.0	44	44	44	44	44	44	40
Washington, D. C.	50.0	50.0	50.0	50.0	56.3	75.0	6 75.0	44	44	44	44	44	44	44

Plasterers.

Atlanta, Ga.	45.0	45.0	45.0	45.0	45.0	50.0	7 60.0	53	53	53	53	53	49½	49½
Baltimore, Md.	62.5	62.5	62.5	62.5	68.8	72.0	87.5	44	44	44	44	44	44	44
Birmingham, Ala.	62.5	62.5	62.5	62.5	62.5	62.5	75.0	44	44	44	44	44	44	44
Boston, Mass.	65.0	65.0	65.0	70.0	70.0	70.0	8 80.0	44	41	44	40	40	40	40
Buffalo, N. Y.	60.0	60.0	60.0	60.0	65.0	70.0	9 85.0	48	10 44	10 44	10 44	44	44	44
Charleston, S. C.	40.0	40.0	40.0	40.0	40.0	50.6	75.0	11 53	11 53	11 53	11 53	48	48	48
Chicago, Ill.	75.0	75.0	75.0	75.0	75.0	81.3	12 87.5	44	44	44	44	44	44	44
Cincinnati, Ohio	68.8	75.0	75.0	75.0	75.0	75.0	87.5	44½	44½	44½	44½	44½	44½	44½
Cleveland, Ohio.	62.5	62.5	68.8	68.8	75.0	85.0	90.0	44	44	44	44	44	44	44
Dallas, Tex.	75.0	87.5	87.5	87.5	87.5	100.0	112.5	44	44	44	44	44	44	44
Denver, Colo.	75.0	75.0	75.0	75.0	87.5	87.5	13 87.5	44	44	44	44	44	44	44
Detroit, Mich.	68.8	68.8	68.8	68.8	75.0	75.0	14 87.5	44	44	44	44	44	44	44
Fall River, Mass.	55.0	60.0	60.0	60.0	65.0	70.0	85.0	48	48	48	44	44	44	44
Indianapolis, Ind.	62.5	65.0	68.8	68.8	72.0	75.0	87.5	44½	44½	44½	44½	44½	44½	44½
Jacksonville, Fla.	56.3	62.5	62.5	56.3	56.3	68.8	10 75.0	48	48	48	48	48	44	44
Kansas City, Mo.	75.0	75.0	75.0	75.0	75.0	87.5	100.0	44	44	44	44	44	44	44
Little Rock, Ark.	62.5	62.5	62.5	62.5	75.0	75.0	87.5	48	48	48	16 44	16 44	16 44	16 44
Los Angeles, Calif.	75.0	75.0	75.0	75.0	62.5	75.0	87.5	44	44	44	44	44	44	44
Louisville, Ky.	65.0	65.0	65.0	65.0	65.0	70.0	17 75.0	44	44	44	44	44	44	44
Manchester, N. H.	50.0	50.0	50.0	60.0	60.0	75.0	90.0	48	44	44	44	44	44	44
Memphis, Tenn.	75.0	75.0	75.0	75.0	75.0	87.5	87.5	44	44	44	44	44	44	44
Milwaukee, Wis.	65.0	65.0	65.0	65.0	65.0	70.0	87.5	44	44	44	44	44	44	44
Minneapolis, Minn.	70.0	70.0	70.0	70.0	75.0	75.0	90.0	44	44	44	44	44	44	44
Newark, N. J.	65.0	65.0	65.0	70.0	75.0	75.0	87.5	44	44	44	44	44	44	44
New Haven, Conn.	60.0	60.0	60.0	60.0	65.0	70.0	82.5	44	44	44	44	44	44	44

1 Scale became \$1 per hour and 40 hours per week on Aug. 15, 1919.

2 Scale became 87.5 cents on June 15, 1919.

3 Scale became \$1 on July 28, 1919.

4 Scale became 70 cents on Sept. 1, 1919.

5 Scale became \$1 on June 15, 1919.

6 Scale became 90 cents on Sept. 2, 1919.

7 Scale became 70 cents on Oct. 1, 1919.

8 Scale became 90 cents on June 30, 1919.

9 Scale became 95 cents on Sept. 1, 1919.

10 48 hours per week, Nov. 16 to Mar. 15.

11 Work 53 hours, paid for 54.

12 Scale became \$1 on July 1, 1919.

13 Scale became \$1 on Aug. 1, 1919.

14 Scale became \$1 on June 1, 1919.

15 Scale became 87.5 cents on Sept. 3, 1919.

16 48 hours per week, October to March, inclusive.

17 Scale became 87.5 cents on June 21, 1919.

UNION SCALE OF WAGES AND HOURS OF LABOR, 1913 TO 1919, BY OCCUPATIONS—Contd.

Plasterers—Concluded.

City.	Rate per hour (cents).							Hours per week.						
	1913	1914	1915	1916	1917	1918	1919	1913	1914	1915	1916	1917	1918	1919
New Orleans, La.....	62.5	62.5	50.0	50.0	62.5	62.5	75.0	48	48	48	48	45	45	45
New York, N. Y.....	68.8	68.8	68.8	75.0	75.0	75.0	93.8	44	44	44	44	44	44	44
Omaha, Nebr.....	75.0	75.0	75.0	75.0	75.0	80.0	87.5	44	44	44	44	44	44	44
Philadelphia, Pa.....	62.5	62.5	62.5	65.0	70.0	75.0	¹ 80.0	44	44	40	40	40	40	40
Pittsburgh, Pa.....	62.5	68.8	71.9	75.0	75.0	75.0	² 85.0	44	44	44	44	44	44	44
Portland, Oreg.....	75.0	75.0	75.0	75.0	75.0	87.5	³ 100.0	44	44	44	44	44	44	44
Providence, R. I.....	62.5	62.5	62.5	62.5	68.8	68.8	80.0	44	44	44	44	40	40	40
Richmond, Va.....	37.5	.....	.....	.....	.....	.....	⁴ 62.5	48	.....	.....	.....	.....	.....	44
St. Louis, Mo.....	75.0	75.0	75.0	75.0	75.0	87.5	100.0	44	44	44	44	44	44	44
St. Paul, Minn.....	62.5	62.5	62.5	70.0	70.0	75.0	90.0	44	44	44	44	44	44	44
Salt Lake City, Utah.....	75.0	75.0	75.0	75.0	87.5	87.5	⁶ 100.0	44	44	44	44	44	44	44
San Francisco, Calif.....	87.5	87.5	87.5	87.5	87.5	100.0	112.5	44	44	44	44	40	40	40
Scranton, Pa.....	55.0	55.0	60.0	65.0	65.0	70.0	⁶ 80.0	44	44	44	44	44	44	44
Seattle, Wash.....	75.0	75.0	75.0	75.0	87.5	100.0	112.5	44	44	44	44	40	40	40
Washington, D. C.....	62.5	62.5	62.5	62.5	70.0	70.0	⁷ 87.5	44	44	44	44	44	44	44

Plasterers' laborers.

Boston, Mass.....	(40.0 41.5)	40.0 41.5	41.5	45.0	45.0	50.0	⁸ 60.0	44	44	44	40	40	40	40
Chicago, Ill.....	48.0	50.0	50.0	50.0	50.0	50.0	⁹ 62.5	44	44	44	44	44	44	44
Cincinnati, Ohio.....	45.0	45.0	45.0	45.0	45.0	50.0	65.0	45	45	45	45	45	45	45
Cleveland, Ohio.....	35.0	35.0	35.0	35.0	45.0	55.0	57.5	48	48	44	44	44	44	44
Dallas, Tex.....	30.0	35.0	.....	.....	.....	35.0	35.0	44	44	.....	.....	.....	48	48
Denver, Colo.....	43.8	43.8	43.8	43.8	50.0	59.4	68.8	44	44	44	44	44	44	44
Detroit, Mich.....	37.5	43.0	43.8	43.8	50.0	50.0	75.0	44	44	44	44	44	44	44
Indianapolis, Ind.....	.....	.....	.....	42.5	45.0	50.0	¹⁰ 55.0	.....	.....	.....	44	44	44	44
Jacksonville, Fla.....	.....	.....	.....	.....	.....	.....	38.0	.....	.....	.....	.....	.....	.....	44
Kansas City, Mo.....	37.5	45.0	45.0	45.0	50.0	55.0	68.8	44	44	44	44	44	44	44
Los Angeles, Calif.....	61.4	56.3	56.3	56.3	50.0	62.5	75.0	44	44	44	44	44	44	44
Louisville, Ky.....	38.0	38.0	38.0	38.0	45.0	45.0	55.0	44	44	44	44	44	44	44
Memphis, Tenn.....	32.5	37.5	.....	.....	.....	50.0	50.0	44	44	.....	.....	.....	44	44
Milwaukee, Wis.....	32.5	35.0	37.5	37.5	42.9	50.0	55.0	48	48	48	48	48	48	¹¹ 44
Minneapolis, Minn.....	40.6	40.6	¹² 45.0	¹² 45.0	50.0	55.0	60.0	48	44	44	44	44	44	44
Newark, N. J.....	.....	.....	35.0	37.5	45.0	45.0	50.0	.....	.....	44	44	44	44	44
New Orleans, La.....	22.5	22.5	22.5	22.5	28.3	28.3	35.0	48	48	48	48	45	45	45
New York, N. Y.....	40.6	40.6	40.6	43.8	46.9	56.3	¹³ 62.5	44	44	44	44	44	44	44
Philadelphia, Pa.....	43.8	43.8	44.0	44.0	46.9	50.0	¹⁴ 62.5	44	44	44	44	40	40	44
Pittsburgh, Pa.....	40.0	40.0	40.0	45.0	45.0	55.0	¹⁵ 60.0	44	44	44	44	44	44	44
Portland, Oreg.....	¹⁶ 50.0	¹⁶ 50.0	¹⁶ 50.0	¹⁶ 50.0	50.0	62.5	75.0	48	48	48	48	48	48	44
Providence, R. I.....	.....	.....	.....	.....	45.0	50.0	55.0	.....	.....	.....	.....	44	44	44
Richmond, Va.....	.....	.....	.....	.....	.....	.....	50.0	.....	.....	.....	.....	.....	.....	45
St. Louis, Mo.....	¹⁶ 56.3	¹⁶ 56.3	56.3	56.3	56.3	62.5	75.0	44	44	44	44	44	44	44
Salt Lake City, Utah.....	56.3	56.3	56.3	56.3	62.5	68.8	75.0	44	44	44	44	44	44	44
San Francisco, Calif.....	62.5	62.5	62.5	62.5	62.5	68.8	87.5	44	44	44	44	44	44	44
Scranton, Pa.....	.....	.....	.....	35.0	35.0	35.0	¹⁷ 50.0	.....	.....	.....	44	44	44	44
Seattle, Wash.....	50.0	50.0	50.0	50.0	62.5	75.0	87.5	44	44	44	44	44	44	40
Washington, D. C.....	31.3	31.3	31.3	31.3	37.5	50.0	¹⁸ 50.0	44	44	44	44	44	44	44

¹ Scale became 90 cents on July 1, 1919.² Scale became 97.5 cents on Aug. 15, 1919.³ Scale became \$1.125 on July 1, 1919.⁴ Scale became 75 cents on July 15, 1919.⁵ Scale became \$1.25 on Aug. 8, 1919.⁶ Scale became 85 cents on Oct. 1, 1919.⁷ Scale became 90 cents on Sept. 1, 1919.⁸ Scale became 70 cents on June 30, 1919.⁹ Scale became 76.3 cents on Sept. 22, 1919.¹⁰ Scale became 62.5 cents on Aug. 5, 1919.¹¹ 43 hours per week, November to April, inclusive.¹² For tenders.¹³ Scale became 68.8 cents on July 1, 1919, and 75 cents on Aug. 15, 1919.¹⁴ Scale became 70 cents on June 10, 1919.¹⁵ Scale became 70 cents on June 1, 1919.¹⁶ For helpers.¹⁷ Scale became 56 cents on Aug. 2, 1919.¹⁸ Scale became 62.5 cents on June 15, 1919.

UNION SCALE OF WAGES AND HOURS OF LABOR, 1913 TO 1919, BY OCCUPATIONS—Contd.

Plumbers.

City.	Rate per hour (cents).							Hours per week.						
	1913	1914	1915	1916	1917	1918	1919	1913	1914	1915	1916	1917	1918	1919
Atlanta, Ga.	44.4	44.4	44.4	44.4	44.4	68.8	75.0	1 53	1 53	1 53	1 53	1 53	44	44
Baltimore, Md.	50.0	50.0	50.0	50.0	50.0	56.3	68.8	2 75.0	48	48	48	48	44	44
Birmingham, Ala.	68.8	75.0	75.0	75.0	75.0	87.5	112.5	44	44	44	44	44	44	44
Boston, Mass.	60.0	65.0	65.0	65.0	65.0	68.8	75.0	80.0	44	44	44	44	44	44
Buffalo, N. Y.	56.3	56.3	56.3	56.3	62.5	68.8	75.0	48	48	48	48	48	44	44
Charleston, S. C.		43.8	43.8	43.8	50.0	59.0	75.0		48	48	48	48	48	48
Chicago, Ill.	75.0	75.0	75.0	75.0	75.0	75.0	75.0	84.4	44	44	44	44	44	44
Cincinnati, Ohio	61.8	61.8	61.8	61.8	65.6	65.6	75.0	44½	44½	44½	44	44	44	44
Cleveland, Ohio	62.5	62.5	62.5	62.5	68.8	75.0	81.3	90.0	44	44	44	44	44	44
Dallas, Tex.	68.8	75.0	75.0	75.0	81.3	87.5	100.0	44	44	44	44	44	44	44
Denver, Colo.	62.5	62.5	62.5	62.5	75.0	87.5	87.5	44	44	44	44	44	44	44
Detroit, Mich.	56.3	56.3	60.0	62.5	68.8	75.0	75.0	79.0	48	48	48	44	44	44
Fall River, Mass.	43.8	43.8	43.8	50.0	50.0	56.3	67.5	48	48	48	44	44	44	44
Indianapolis, Ind.	62.5	62.5	62.5	62.5	67.5	75.0	87.5	44	44	44	44	44	44	44
Jacksonville, Fla.	62.5	62.5	62.5	62.5	62.5	75.0	80.0	48	48	48	48	48	44	44
Kansas City, Mo.	62.5	68.8	68.8	75.0	75.0	87.5	100.0	48	48	44	44	44	44	44
Little Rock, Ark.	56.3	62.5	62.5	62.5	68.8	75.0	75.0	104.8	44	44	44	44	44	44
Los Angeles, Calif.	56.3	56.3	56.3	56.3	62.5	68.8	81.3	48	48	48	48	48	48	44
Louisville, Ky.	60.0	60.0	60.0	60.0	60.0	70.0	70.0	187.0	44	44	44	44	44	44
Manchester, N. H.	31.3	31.3	31.3	47.7	47.7	50.0	70.0	48	48	48	44	44	44	44
Memphis, Tenn.	62.5	62.5	62.5	62.5	62.5	81.3	93.8	48	48	48	48	48	48	44
Milwaukee, Wis.	62.5	62.5	62.5	62.5	62.5	68.8	75.0	44	44	44	44	44	44	44
Minneapolis, Minn.	56.3	62.5	62.5	62.5	62.5	68.8	75.0	48	44	44	44	44	44	44
Newark, N. J.	62.5	62.5	62.5	62.5	62.5	75.0	87.5	44	44	44	44	44	44	44
New Haven, Conn.	50.0	50.0	54.5	54.5	54.5	62.5	75.0	44	44	44	44	44	44	44
New Orleans, La.	56.3	56.3	56.3	56.3	56.3	68.8	80.0	48	48	48	48	48	48	48
New York, N. Y.	68.8	68.8	68.8	68.8	68.8	75.0	75.0	147.5	44	44	44	44	44	44
Omaha, Nebr.	68.3	68.3	68.3	68.3	68.3	75.0	75.0	87.5	44	44	44	44	44	44
Philadelphia, Pa.	43.8	43.8	43.8	43.8	56.3	62.5	62.5	180.0	44	44	44	44	44	44
Pittsburgh, Pa.	62.5	62.5	68.8	68.8	75.0	75.0	93.8	44	44	44	44	44	44	44
Portland, Oreg.	75.0	75.0	75.0	75.0	75.0	81.3	100.0	44	44	44	44	44	44	44
Providence, R. I.	56.3	56.3	56.3	56.3	62.5	75.0	75.0	44	44	44	44	44	44	44
Richmond, Va.	50.0	50.0	50.0	50.0	50.0	62.5	75.0	48	48	48	48	48	48	44
St. Louis, Mo.	66.3	75.0	75.0	75.0	75.0	81.3	100.0	44	44	44	44	44	44	44
St. Paul, Minn.	62.5	62.5	62.5	62.5	62.5	68.8	75.0	44	44	44	44	44	44	44
Salt Lake City, Utah.	75.0	75.0	75.0	75.0	75.0	87.5	100.0	44	44	44	44	44	44	44
San Francisco, Calif.	75.0	75.0	75.0	75.0	81.3	87.5	100.0	44	44	44	44	44	44	44
Scranton, Pa.	50.0	53.1	53.1	53.8	53.8	62.5	75.0	48	48	18 44	44	44	44	44
Seattle, Wash.	81.3	75.0	75.0	75.0	81.3	90.0	100.0	44	44	44	44	44	44	44
Washington, D. C.	50.0	56.3	56.3	56.3	56.3	75.0	87.5	48	48	48	44	44	44	40

Sheet-metal workers.

Atlanta, Ga.	33.3	33.3	33.3	33.3	33.3	60.0	60.0	53	53	50	50	19 50	48	48
Baltimore, Md.	40.0	40.0	40.0	40.0	40.0	45.0	62.5	80.0	48	48	48	48	44	44
Birmingham, Ala.	50.0	55.0	55.0	50.0	50.0	65.0	75.0	44	44	44	44	44	44	44
Boston, Mass.	55.0	55.0	55.0	60.0	60.0	70.0	80.0	44	44	44	44	44	44	44
Buffalo, N. Y.	45.0	50.0	50.0	50.0	50.0	56.3	62.5	48	48	48	48	48	48	48

¹ Work 53 hours, paid for 54.

² Scale became 87.5 cents on July 19, 1919.

³ Scale became 87.5 cents on Oct. 1, 1919.

⁴ 44 hours per week, June to August, inclusive.

⁵ Scale became \$1 on July 1, 1919.

⁶ Scale became \$1 on July 7, 1919.

⁷ Scale became \$1 on Aug. 28, 1919.

⁸ Scale became 87.5 cents on July 1, 1919.

⁹ Scale became \$1 on June 1, 1919.

¹⁰ 44 hours per week, June to September, inclusive.

¹¹ 48 hours per week, November to April, inclusive.

¹² Scale became 80 cents on July 1, 1919.

¹³ Scale became 75 cents on July 1, 1919.

¹⁴ Scale became 81.3 cents on June 1, 1919, and 87.5 cents on July 1, 1919.

¹⁵ Scale became 90 cents on Aug. 1, 1919.

¹⁶ Scale became 98.4 cents on July 1, 1919.

¹⁷ Scale became \$1.125 on July 15, 1919.

¹⁸ 48 hours per week, October to April, inclusive.

¹⁹ 54 hours per week, July to August, inclusive.

²⁰ Scale became 90 cents on June 30, 1919.

²¹ Scale became 70 cents on June 1, 1919.

UNION SCALE OF WAGES AND HOURS OF LABOR, 1913 TO 1919, BY OCCUPATIONS—Contd.

Sheet-metal workers—Concluded.

City.	Rate per hour (cents).								Hours per week.							
	1913	1914	1915	1916	1917	1918	1919	1913	1914	1915	1916	1917	1918	1919		
Chicago, Ill.	65.0	68.8	68.8	70.0	70.0	70.0	1 75.0	44	44	44	44	44	44	44		
Cincinnati, Ohio.	45.0	45.0	50.0	50.0	50.0	52.5	56.0	44	44	44	44	48	48	84		
Cleveland, Ohio.	45.0	45.0	50.0	50.0	60.0	80.0	2 85.0	48	48	48	44	44	44	44		
Dallas, Tex.	50.0	50.0	62.5	62.5	68.8	75.0	87.5	48	44	44	44	44	44	44		
Denver, Colo.	56.3	56.3	56.3	56.3	62.5	75.0	87.5	44	44	44	44	44	44	44		
Detroit, Mich.	40.0	50.0	50.0	50.0	60.0	70.0	3 80.0	48	48	48	44	44	44	44		
Fall River, Mass.				37.5	43.8	50.0	62.5				44	44	44	44		
Indianapolis, Ind.	47.5	50.0	55.0	55.0	57.5	60.0	4 60.0	48	44	44	44	44	44	44		
Kansas City, Mo.	57.5	60.0	62.5	62.5	62.5	67.5	70.0	44	44	44	44	44	44	44		
Little Rock, Ark.	50.0	52.5	52.5	52.5	60.0	65.0	80.0	48	48	48	48	48	48	48		
Los Angeles, Calif.	56.3	56.3	56.3	56.3	56.3	68.5	68.5	44	44	44	44	44	44	44		
Louisville, Ky.	40.0	42.5	45.0	45.0	47.5	50.0	65.0	48	48	44	44	44	44	44		
Manchester, N. H.	34.4	34.4	34.4	34.4	34.4	37.5	44.3	38	48	48	48	48	44	44		
Memphis, Tenn.	45.0	50.0	50.0	50.0	53.1	62.5	67.5	48	48	48	48	48	48	44		
Milwaukee, Wis.	42.5	45.0	47.5	50.0	52.5	60.0	70.0	48	48	48	48	48	48	48		
Minneapolis, Minn.	50.0	50.0	50.0	50.0	50.0	56.3	60.0	48	48	48	48	48	44	44		
Newark, N. J.	60.0	60.0	60.0	60.0	62.5	75.0	87.5	44	44	44	44	44	44	44		
New Haven, Conn.	47.7	47.7	47.7	50.0	54.5	59.1	75.0	44	44	44	44	44	44	44		
New Orleans, La.		40.0	40.0	40.0	45.0	68.8	80.0		48	48	48	44	44	44		
New York, N. Y.	59.4	62.5	62.5	62.5	62.5	70.0	75.0	44	44	44	44	44	44	44		
Omaha, Nebr.	42.5	42.5	42.5	42.5	50.0	68.0	75.0	44	44	44	44	44	44	44		
Philadelphia, Pa.	50.0	50.0	50.0	50.0	56.3	70.0	9 75.0	44	44	44	44	44	44	44		
Pittsburgh, Pa.	55.0	55.0	57.5	60.0	60.0	70.0	10 80.0	44	44	44	44	44	44	44		
Portland, Oreg.	56.3	56.3	56.3	56.3	65.6	82.5	86.0	44	44	44	44	44	44	44		
Providence, R. I.	46.0	48.0	48.0	50.0	52.0	57.0	65.0	44	44	44	44	44	44	44		
Richmond, Va.					41.9	50.0	70.0					48	48	48		
St. Louis, Mo.	60.0	60.0	60.0	60.0	62.5	65.0	11 75.0	44	44	44	44	44	44	44		
St. Paul, Minn.	50.0	50.0	50.0	50.0	50.0	56.3	70.0	48	48	48	48	44	44	44		
Salt Lake City, Utah.	57.5	57.5	62.5	62.5	62.5	62.5	87.5	44	44	44	44	44	44	44		
San Francisco, Calif.	68.8	68.8	68.8	68.8	75.0	82.5	100.0	44	44	44	44	44	44	44		
Scranton, Pa.	43.8	46.9	46.9	46.9	50.0	56.3	75.0	48	48	44	44	44	44	44		
Seattle, Wash.	56.3	62.5	62.5	62.5	68.8	82.5	90.0	44	44	44	44	44	44	44		
Washington, D. C.	50.0	50.0	50.0	50.0	56.3	70.0	13 75.0	44	44	44½	44½	44½	44	44		

Stonecutters.

Atlanta, Ga.	50.0	50.0	50.0	50.0	50.0	62.5	75.0	48	48	48	48	44	44	44
Baltimore, Md.	50.0	50.0	50.0	56.3	56.3	56.3	75.0	44½	44½	44½	44	44	44	44
Birmingham, Ala.	50.0	50.0	50.0	50.0	50.0	62.5	62.5	44	44	44	44	44	44	44
Boston, Mass.	56.3	56.3	56.3	56.3	62.5	70.0	14 70.0	44	44	44	44	44	44	44
Buffalo, N. Y.	56.3	56.3	56.3	56.3	62.5	62.5	75.0	48	48	48	44	44	44	44
Chicago, Ill.	62.5	62.5	62.5	62.5	70.0	70.0	81.3	44	44	44	44	44	44	44
Cincinnati, Ohio.	56.3	56.3	60.0	62.5	65.0	70.0	15 77.5	44½	44½	44½	44½	44	44	44
Cleveland, Ohio.	60.0	62.5	62.5	62.5	70.0	77.5	16 80.0	44	44	44	44	44	44	44
Dallas, Tex.	62.5	62.5	62.5	62.5	75.0	75.0	87.5	44	44	44	44	44	44	44
Denver, Colo.	62.5	62.5	62.5	62.5	62.5	75.0	87.5	44	44	44	44	44	44	44
Detroit, Mich.	62.5	62.5	62.5	65.0	70.0	70.0	80.0	44	44	44	44	44	44	44
Indianapolis, Ind.	56.3	56.3	56.3	56.3	62.5	62.5	75.0	44	44	44	44	44	44	44
Jacksonville, Fla.	50.0	50.0	50.0	50.0	50.0	50.0	75.0	45	45	45	45	45	45	45
Kansas City, Mo.	56.3	62.5	62.5	62.5	62.5	62.5	75.0	44	44	44	44	44	44	44
Little Rock, Ark.	55.0	55.0	55.0	55.0	55.0	60.0	17 65.0	44	44	44	44	44	44	44
Louisville, Ky.	56.3	56.3	56.3	56.3	60.0	60.0	75.0	48	48	48	44	44	44	44
Memphis, Tenn.	65.0	65.0	65.0	65.0	65.0	75.0	18 75.0	44	44	44	44	44	44	44
Minneapolis, Minn.	56.3	62.5	62.5	62.5	62.5	62.5	75.0	44	44	44	44	44	44	44
Newark, N. J.	68.8	68.8	68.8	68.8	68.8	68.8	19 84.4	44	44	44	44	44	44	44
New Haven, Conn.	56.3	56.3	56.3	56.3	56.3	60.0	60.0	44	44	44	44	44	44	44

1 Scale became \$1 on Sept. 22, 1919.

2 Scale became 90 cents on Nov. 1, 1919.

3 Scale became \$1 on Sept. 2, 1919.

4 Scale became 70 cents on June 1, 1919.

5 44 hours per week, July to September, inclusive.

6 Scale became 81.5 cents on Sept. 1, 1919.

7 44 hours per week, June 15 to Sept. 15.

8 44 hours per week, June to August, inclusive.

9 Scale became 90 cents on Sept. 1, 1919.

10 Scale became 90 cents on June 1, 1919.

11 Scale became 80 cents on July 1, 1919.

12 44 hours per week, June to September, inclusive.

13 Scale became \$1 on Sept. 1, 1919.

14 Scale became 90 cents on June 30, 1919.

15 Scale became 85 cents on Aug. 1, 1919.

16 Scale became 90 cents on July 1, 1919.

17 Scale became 75 cents on July 1, 1919.

18 Scale became 87.5 cents on June 23, 1919.

19 Scale became 87.5 cents on Sept. 1, 1919.

UNION SCALE OF WAGES AND HOURS OF LABOR, 1913 TO 1919, BY OCCUPATIONS—Concl'd.

Stonemasons—Concluded.

City.	Rate per hour (cents).							Hours per week.						
	1913	1914	1915	1916	1917	1918	1919	1913	1914	1915	1916	1917	1918	1919
New York, N. Y.	68.8	68.8	68.8	68.8	68.8	68.8	1 84.4	44	44	44	44	44	44	44
Omaha, Nebr.	58.8	58.8	58.8	58.8	62.5	67.5	75.0	44	44	44	44	44	44	44
Philadelphia, Pa.	50.0	53.0	56.3	56.3	65.0	65.0	82.5	44	44	44	44	44	44	44
Pittsburgh, Pa.	50.0	55.0	56.3	62.5	62.5	66.0	75.0	44	44	44	44	44	44	44
Richmond, Va.	54.5	54.5	54.5	54.5	54.5	62.5	75.0	44	44	44	44	44	44	44
St. Louis, Mo.	56.3	62.5	62.5	62.5	62.5	70.0	85.0	44	44	44	44	44	44	44
St. Paul, Minn.	56.3	60.0	60.0	60.0	62.5	62.5	75.0	44	44	44	44	44	44	44
Salt Lake City, Utah	62.5	62.5	62.5	62.5	62.5	62.5	75.0	44	44	44	44	44	44	44
San Francisco, Calif.	70.0	70.0	70.0	70.0	70.0	70.0	100.0	44	44	44	44	44	44	44
Scranton, Pa.	50.0	50.0	50.0	50.0	50.0	56.2	60.0	48	48	48	48	44	44	44
Washington, D. C.	54.0	54.0	54.0	56.3	56.3	65.0	87.5	44	44	44	44	44	44	44

Structural-iron workers.

Atlanta, Ga.	62.5	62.5	62.5	62.5	62.5	75.0	80.0	44	44	44	44	44	44	44
Baltimore, Md.	57.3	56.3	56.3	62.5	62.5	75.0	100.0	44	44	44	44	44	44	44
Birmingham, Ala.	62.5	62.5	62.5	62.5	62.5	75.0	80.0	44	44	44	44	44	44	44
Boston, Mass.	62.5	62.5	62.5	62.5	68.8	80.0	80.0	44	44	44	44	44	44	44
Buffalo, N. Y.	60.0	62.5	62.5	62.5	62.5	70.0	85.0	48	5 48	5 48	5 48	5 48	44	44
Charleston, S. C.	.....	.....	.....	.....	.....	87.5	87.5	.....	.....	.....	.....	.....	44	44
Chicago, Ill.	68.0	68.0	68.0	68.0	69.0	70.0	77.5	44	5 44	8 44	8 44	8 44	8 44	44
Cincinnati, Ohio	62.5	62.5	62.5	62.5	65.0	75.0	75.0	44	44	44	44	44	44	44
Cleveland, Ohio	65.0	70.0	70.0	70.0	80.0	90.0	100.0	44	44	10 44	10 44	44	44	44
Dallas, Tex.	62.5	62.5	67.5	67.5	67.5	75.0	75.0	44	44	44	44	44	44	44
Denver, Colo.	56.3	56.3	62.5	62.5	70.0	75.0	87.5	44	44	44	44	44	44	44
Detroit, Mich.	60.0	65.0	65.0	65.0	65.0	80.0	120.0	48	5 48	5 48	48	44	44	44
Indianapolis, Ind.	65.0	68.0	70.0	70.0	75.0	75.0	85.0	44	44	44	44	44	44	44
Kansas City, Mo.	62.5	65.0	68.8	68.8	68.8	75.0	90.0	44	44	44	44	44	44	44
Little Rock, Ark.	.....	.....	.....	.....	.....	.....	87.5	.....	.....	.....	.....	.....	.....	44
Los Angeles, Calif.	50.0	50.0	50.0	50.0	50.0	62.5	75.0	48	48	48	48	48	48	48
Louisville, Ky.	50.0	50.0	50.0	50.0	60.0	70.0	80.0	48	44	44	44	44	44	44
Memphis, Tenn.	62.5	62.5	65.0	65.0	65.0	75.0	87.5	44	44	44	44	44	44	44
Milwaukee, Wis.	56.3	62.5	62.5	62.5	62.5	70.0	80.0	13 44	13 44	13 44	13 44	13 44	13 44	44
Minneapolis, Minn.	56.3	62.5	62.5	62.5	62.5	68.8	87.5	48	14 44	14 44	14 44	44	44	44
Newark, N. J.	62.5	62.5	62.5	68.8	72.5	75.0	12 87.5	44	44	44	44	44	44	44
New Haven, Conn.	62.5	62.5	62.5	62.5	62.5	80.0	92.5	44	44	44	44	44	44	44
New Orleans, La.	62.5	62.5	62.5	62.5	62.5	75.0	16 75.0	44	44	44	44	44	44	44
New York, N. Y.	62.5	62.5	62.5	66.3	68.8	80.0	87.5	44	44	44	44	44	44	44
Omaha, Nebr.	58.8	60.0	62.5	65.0	68.8	75.0	90.0	48	48	13 44	13 44	13 44	44	44
Philadelphia, Pa.	60.0	60.0	60.0	60.0	70.0	92.5	92.5	44	44	44	44	44	44	44
Pittsburgh, Pa.	62.5	62.5	62.5	62.5	70.0	87.5	100.0	44	44	44	44	44	44	44
Portland, Ore.	62.5	62.5	62.5	62.5	70.0	87.5	100.0	44	44	44	44	44	44	44
Providence, R. I.	56.3	62.5	62.5	62.5	68.8	80.0	92.5	44	44	44	44	44	44	44
Richmond, Va.	56.3	56.3	62.5	62.5	62.5	80.0	92.5	44	44	44	44	44	44	44
St. Louis, Mo.	65.0	65.0	65.0	67.5	70.0	80.0	92.5	44	44	44	44	44	44	44
St. Paul, Minn.	56.3	62.5	62.5	62.5	62.5	68.8	16 80.0	48	5 48	5 48	48	48	44	44
Salt Lake City, Utah	62.5	62.5	62.5	62.5	68.8	81.3	100.0	44	44	44	44	44	44	44
San Francisco, Calif.	75.0	75.0	75.0	75.0	75.0	87.5	100.0	44	44	44	44	44	44	44
Scranton, Pa.	56.3	56.3	56.3	62.5	62.5	68.8	87.5	48	48	48	5 48	5 48	5 48	44
Seattle, Wash.	62.5	62.5	62.5	62.5	75.0	87.5	100.0	44	44	44	44	44	44	44
Washington, D. C.	56.3	62.5	62.5	62.5	70.0	80.0	17 92.5	44	44	44	44	44	44	40

1 Scale became 87.5 cents on Sept. 1, 1918.
 2 48 hours per week, January to March, inclusive.
 3 Scale became 85 cents on Aug. 15, 1919.
 4 Scale became 90 cents on June 30, 1919.
 5 44 hours per week, June to September, inclusive.
 6 Scale became 92.5 cents on June 1, 1919.
 7 Scale became \$1 on Sept. 22, 1919.
 8 48 hours per week, December to March, inclusive.
 9 48 hours per week, October to April, inclusive.
 10 48 hours per week, October to March, inclusive.
 11 Scale became 87.5 cents on July 1, 1919.
 12 Scale became \$1 on Sept. 1, 1919.
 13 48 hours per week, November to April, inclusive.
 14 48 hours per week, September to April, inclusive.
 15 Scale became 87.5 cents on June 23, 1919.
 16 Scale became 85 cents on July 1, 1919.
 17 Scale became \$1 on Aug. 1, 1919.

Index Numbers of Changes in Wages and Cost of Living.

TWO tables are here given showing, by index numbers (percentages), the changes in recent years in earnings per hour in the following 11 industries. The number of wage earners reported by the Census Office as employed in each of these industries in 1914 is as follows:

Iron and steel.....	278, 072
Cotton goods.....	393, 404
Hosiery and underwear.....	150, 520
Silk goods.....	108, 170
Woolens and worsted goods.....	163, 976
Clothing, men's.....	225, 719
Boots and shoes.....	206, 088
Lumber }	
Millwork[.....	¹ 618, 163
Furniture.....	133, 498
Cigars.....	² 178, 872

For the first-named industry figures are given for each of the 10 departments, as well as for the industry as a whole.

The prewar year 1913 is taken as the basis of the comparison, or 100.

The increase in hourly earnings was greater in the iron and steel industry than in any other of the 11 here reported. Referring to the first table, it is seen that in all departments collectively the hourly wage in 1919 was 221 per cent of the hourly wage in 1913. In other words, the wage per hour was $2\frac{1}{2}$ times as great in 1919 as in 1913. The extent of the increase varies in the several departments. In blast furnaces, for example, the earnings per hour in 1919 were practically $2\frac{1}{2}$ times as much as in 1913.

The tables show that the earnings per hour increased least in the millwork industry, where between 1913 and 1919 the increase was 51 per cent.

The figures here presented for the years prior to 1919 are based on reports that have been published by the bureau. The figures for 1919 are based on a very comprehensive industrial survey that has been made within the last year. This survey covered representative establishments in 28 industries, including those named above, for which 1919 figures are given. The tabulation of the material collected in this survey is yet in progress for other industries.

It will be observed that figures are not available for several of the years in the period covered, as the bureau has not been able to cover even the most important industries each year.

¹ Includes all lumber manufactures.

² Includes all tobacco manufactures.

RELATIVE EARNINGS PER HOUR IN THE IRON AND STEEL INDUSTRY, 1913 TO 1919.
[1913=100.]

Year.	Blast furnaces.	Bessemer converters.	Open-hearth furnaces.	Puddling mills.	Bloom- ing mills.	Plate mills.	Stand- ard rail mills.	Bar mills.	Sheet mills.	Tin- plate mills.	All departments.
1913.....	100	100	100	(1)	100	100	100	100	100	100	^s 100
1914.....	101	90	100	² 100	102	101	99	96	101	102	^s 103
1915.....	101	94	104	² 96	104	107	97	98	92	102	^s 101
1916.....	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
1917.....	152	139	142	(1)	128	151	(1)	(1)	133	(1)	(4)
1918.....	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
1919.....	249	209	235	² 267	214	233	221	231	198	220	^s 221

¹ Not reported.² Based on 1914, data for 1913 not being reported.³ Based on 9 departments in 1913 and 10 departments in other years.⁴ Not computed, as 4 departments were not reported.

The index number for 1914 for "all departments" in iron and steel is higher than that for any one department because of a variation in the proportion of employees in departments having different wage averages.

RELATIVE EARNINGS PER HOUR IN SPECIFIED INDUSTRIES, 1910 TO 1919.
[1913=100.]

Year.	Cotton goods manufac- tures.	Hos- iery and under- wear.	Silk goods.	Wool- ens and wor- sted goods.	Cloth- ing, men's.	Boots and shoes.	Lum- ber (saw- mills only).	Mill- work (sash, doors, etc.).	Furni- ture.	Cigars.
1910.....	88	82	82	90	(1)	92	97	90	99	(1)
1911.....	90	84	86	91	87	94	95	93	98	91
1912.....	99	89	92	102	88	93	96	97	97	96
1913.....	100	100	100	100	100	100	100	100	100	100
1914.....	103	103	100	103	(1)	101	(1)	(1)	(1)	(1)
1915.....	(1)	(1)	(1)	(1)	(1)	(1)	91	99	108	(1)
1916.....	120	(1)	(1)	127	(1)	107	(1)	(1)	(1)	(1)
1917.....	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
1918.....	179	(1)	(1)	193	(1)	147	(1)	(1)	(1)	(1)
1919.....	(1)	184	191	(1)	171	(1)	194	151	154	152

¹ Not reported.

A carefully prepared estimate of the change in cost of living in the United States from July, 1914, to June, 1919, appeared in the October MONTHLY LABOR REVIEW. An estimate has since been made extending the comparison back to the year 1913.

July, 1914, retail prices of food were 2 per cent higher than the average for the year 1913.

Wholesale prices of commodities, as a whole, in July, 1914, were at the same level as in the year 1913. In the same period the whole- sale price of cloths and clothing decreased 1 per cent, fuel and light- ing 6 per cent, and house-furnishing goods 1 per cent. It is safe to assume, therefore, that there was no increase in the retail price of articles of family consumption other than food, and that the increase in cost of living, as a whole, was about 1 per cent.

Taking the increase in the cost of living between the year 1913 and the month of July, 1914, as 1 per cent and applying this figure to the series of index numbers in the October REVIEW, the following index numbers result:

	Index number.
Average for 1913.....	100
July, 1914.....	101
December, 1914.....	103
June, 1915.....	103
December, 1915.....	104
June, 1916.....	110
December, 1916.....	118
June, 1917.....	129
December, 1917.....	142
June, 1918.....	158
December, 1918.....	174
June, 1919.....	177
Spring, 1919.....	175

The industrial survey figures speak mainly for the early part of 1919. The index numbers for change in cost of living for neither December, 1918, nor June, 1919, quite apply to the index number for wages in 1919. Probably a fairer figure would be a mean between the December and June index numbers, namely, 175, and this index number, 175, has been added to the cost of living index table as the figure most nearly comparable with the wage index for 1919 in the preceding tables.

Wages of Male Farm Labor, 1866 to 1918.

THE average rates of wages of male farm laborers in the United States each year from 1866 to 1918, published in the Yearbook of the Department of Agriculture, are here reproduced because of the general interest in wage changes in all lines of industry. The average embraces all sections of the country. Figures for 1919 are not yet available but large increases are reported in many localities.

Wages are given for three conditions of hiring: By the month for a period of several months, by the day during harvest time, and by the day outside of harvest season. Further subdivision is made as to whether the man hired receives board in addition to the money wage or boards himself.

For purposes of ready comparison with wage changes in other industries and with changes in cost of living¹ index numbers (percentages) have been computed for the years 1913 to 1918. To illustrate, wages by the month with board are shown by the index numbers to have been 63 per cent higher in 1918 than in 1913.

¹ See pages 191 to 193.

WAGES OF MALE FARM LABOR, 1866 to 1918.

[From the Yearbook of the Department of Agriculture, 1918.]

Year.	By the month.		Day labor, at harvest.		Day labor, not at harvest.	
	With board.	Without board.	With board.	Without board.	With board.	Without board.
1866.....	\$17.45	\$26.87	\$1.74	\$2.20	\$1.08	\$1.49
1869.....	16.55	25.92	1.74	2.20	1.02	1.41
1875.....	12.72	19.87	1.35	1.70	.78	1.08
1879.....	10.43	16.42	1.06	1.30	.59	.81
1882.....	12.41	18.94	1.15	1.48	.67	.93
1885.....	12.34	17.97	1.10	1.40	.67	.91
1888.....	12.36	18.24	1.02	1.31	.67	.92
1890.....	12.45	18.33	1.02	1.30	.68	.92
1892.....	12.54	18.60	1.02	1.30	.67	.92
1893.....	13.29	19.10	1.03	1.24	.69	.92
1894.....	12.16	17.74	.93	1.13	.63	.81
1895.....	12.02	17.69	.92	1.14	.62	.81
1898.....	13.43	19.38	1.05	1.30	.72	.96
1898.....	14.07	20.23	1.12	1.38	.77	1.01
1899.....	16.40	22.14	1.34	1.53	.89	1.13
1902.....	19.21	27.50	1.45	1.82	1.06	1.38
1910.....	20.13	28.77	1.49	1.85	1.09	1.42
1911.....	20.81	29.58	1.54	1.87	1.14	1.47
1912.....	21.33	30.31	1.57	1.94	1.16	1.50
1913.....	21.05	29.88	1.55	1.91	1.13	1.45
1914.....	21.26	30.15	1.56	1.92	1.13	1.47
1915.....	23.25	32.83	1.69	2.07	1.26	1.62
1916.....	28.87	40.43	2.08	2.54	1.56	2.02
1917.....	34.92	47.07	2.65	3.22	2.07	2.63
1918.....						

Index numbers (1913=100).

1913.....	100	100	100	100	100	100
1914.....	98	99	99	98	97	97
1915.....	99	99	99	99	97	98
1916.....	109	108	108	107	109	108
1917.....	135	133	132	131	135	135
1918.....	163	155	169	166	178	175

Recent Application of the 8-hour Day and 44-hour Week.

THE eight-hour movement has made rapid gains during the past four years. Outside of the building trades, comparatively few employees in the United States enjoyed the benefits of the eight-hour day previous to the beginning of the European war. Workers in the metal trades in 1915 and 1916, when called upon to furnish ammunition and arms for the warring nations abroad, demanded the establishment of the basic eight-hour day or that all work done in excess of eight hours be considered as overtime work and paid for accordingly. The same concession was soon granted railroad workers and miners, and after the entrance of the United States into the war the position taken by the National War Labor Board caused the movement to gain very considerable headway.

The eight-hour day has been in force in the Government navy yards and arsenals for many years, and it was therefore natural

that all Government work connected with the building of the Army camps and cantonments and in shipyards should be placed on an eight-hour basis. Meat packers, garment workers, and lumbermen obtained the eight-hour day before the end of the war. The movement has continued since the signing of the armistice, until to-day there is scarcely a trade or industry that does not contain many eight-hour workers. It is impossible to say in how many cases the employees work only eight hours a day, for in nearly every case provision is made for overtime work, and in many cases the eight-hour day is simply basic and not actual. In the last three years the general observance of the Saturday half-holiday has reduced the 48-hour week to 44 hours.

The following table shows the number of reports examined, and the number of such reports which showed the number of establishments involved and the number of employees affected. The total number of such reports was 1,955, of which 1,640 were for the 48-hour and 315 for the 44-hour period.

SUMMARY OF REPORTS SHOWING REDUCTION OF THE WORKING DAY TO 8 HOURS,
1915 TO 1919.

Item.	48-hour week.						44-hour week.			
	1915	1916	1917	1918, Janu- ary to June.	1918, July to Decem- ber.	1919, Janu- ary to June.	1915- 1917	1918, Janu- ary to July.	1918, July to Decem- ber.	1919, Janu- ary to June.
Total number of reports ex- amined.....	121	210	439	396	316	158	34	88	49	144
Reports showing number of establishments involved.....	99	134	160	137	68	164	7	1	.....	27
Reports showing number of employees affected.....	75	84	145	181	64	72	7	83	35	76
Reports showing both estab- lishments involved and employees affected.....	73	67	28	26	22	37	6	1	4	14

The figures in the following tables relate to the reduction in hours which have come to the attention of the Bureau as reported by leading trade-union periodicals, labor papers, trade journals, daily papers published in various parts of the country, from replies to inquiries made by the Bureau, and from information secured by agents of the Bureau in connection with other work. While the information is necessarily incomplete, it is believed that the reports from which data were obtained include no duplication. As indicated in the preceding summary table, the sources of the data do not in all cases give both number of establishments and number of employees, hence the total number of employees shown can not be related to the total number of establishments given.

NUMBER OF ESTABLISHMENTS REPORTED AS ADOPTING THE 8-HOUR DAY IN 1915, 1916, 1917, 1918, AND THE FIRST SIX MONTHS OF 1919, BY INDUSTRIES.

[Based on 672 reports showing number of establishments involved.]

Industry.	48-hour week.					44-hour week.				
	1915	1916	1917	1918, January to June.	1918, July to December.	1919, January to June.	1915-1917	1918, January to June.	1918, July to December.	1919, January to June.
Aluminum manufacturing.....		1			2					
Bakeries.....		3	5	1		219				
Boots and shoes.....		2		1		91				93
Bottlers and brewers.....	7	2	3	2						
Brass workers.....	1	2	1			1				
Broom manufacturers.....		31			1					
Building trades.....	1	60	16	7	17	3	23	53	23	28
Carriages and automobiles.....		13	3		1	1				
Chemicals.....	4	2				1				
Clerks, store.....			4			1				
Cooperage.....		3								
Electrical supplies.....	8	4	2	5		2				
Electric and gas lighting.....		2	1	1	6	7			1	
Food and tobacco.....	4	2	1		3	1				
Foundry and machine shops.....	154	256	127	11	55	76	2	10	8	19
Furniture.....		5	8		1	50			1	
Garment workers.....	5	1,971	140	2	7	1		1	3	48
Glass manufacturing.....		1	2		1	16	1			
Hardware and stove manufacturing.....	1	2	1	2	4					
Hotel and restaurant workers.....		20	3		1					
Iron and steel.....		1	1	1	7	13				
Jewelry.....		200				1			1	
Laundry.....	1	1								2
Leather workers.....			3	1	1					2
Longshoremen.....										
Lumber.....		5	159	200	1					
Metal polishers.....		39	6	2	5	78		3		69
Mining.....		38	18	60	2	1				
Municipal and State employees.....	2	4	3		1	3			1	
Munitions.....	6	8	2	1	77					
Musical instruments.....	1	2	1		1					
Oil workers.....	4	4	3		1					
Packers.....				18	7	2				
Paint manufacturing.....				2		1				
Paper manufacturing.....		28	22	19		1				
Pattern makers.....			19		14			7	1	
Plated ware.....	2	1	2							
Policemen and firemen.....	1	1	4	2	1					
Printing and publishing.....	3	1	1	1	1	6			1	2
Railroads and steamships.....		3	45	7	14	10			3	2
Rubber goods.....	1	11	2			2				
Ship and boat building.....	2	4	5	4	9			4	1	1
Street railways.....			2	3						
Teaming.....					4			1		
Telephone and telegraph.....	1	1	7	1		1				
Textile workers.....	1	1	2	100		599				44
Theatrical employees.....		1			2					
Miscellaneous.....	1	1	7	1	4		2	2	5	2
Total.....	211	2,737	631	455	251	1,187	28	81	49	312

NUMBER OF EMPLOYEES REPORTED AS HAVING WORKDAY REDUCED TO 8 HOURS IN 1915, 1916, 1917, 1918, AND THE FIRST SIX MONTHS OF 1919, BY INDUSTRIES.

[Based on 621 reports showing number of employees affected.]

Industry.	48-hour week.					44-hour week.			
	1915	1916	1917	1918, January to June.	1918, July to December.	1919, January to June.	1915- 1917	1918, January to June.	1918, July to December.
Aluminum manufacturing.....		275							
Bakeries.....		1,471	520	1,540	89	84			
Boots and shoes.....		24,000				1,200			
Bottlers and brewers.....	40	560	100						
Brass workers.....	2,060					1,100			
Building trades.....	45	28,676	3,950	28,003	32	15,000	4,093	13,277	3,170
Carriages and automobiles.....	31,085		1,000			10,000			
Chemicals.....	46	82							
Clerks, store.....			2,000	1,500		15,000			
Cooperage.....		13							
Electrical supplies.....	3,941	852		12,000		34,000			
Electric and gas lighting.....					254				
Food and tobacco.....	300				5,402	10,016			
Foundry and machine shops.....	88,300	19,336	11,714	2,289	17,780	34,000	7,535	17,763	1,146
Furniture.....		314	40			10,700			
Garment workers.....	11,750	67,625	96,600		2,984			30	25,041
Glass workers.....				100					
Hardware and stove man- ufacturing.....					4	300			
Hotel and restaurant workers.....		125		865					
Iron and steel.....			300		298,261	275,500			
Jewelry.....		3,000							3,000
Laundry.....	35								
Longshoremen.....				706					
Lumber.....		66	1,875	50,000					
Metal polishers.....			500		323	14		58	
Mining.....		184,000	2,000	4,000	2				
Municipal and State employ- ees.....		4							
Munitions.....	18,000	6,000			53,002				
Musical instruments.....	7,500	54			160				
Oil workers.....	7,180	350	300	10,000					
Packers.....				106,000	202	1,500			
Paper manufacturing.....		485	2,500						
Pattern makers.....					455		1,025	20	
Plated ware.....	1,134								
Policemen and firemen.....			102	31		200			
Printing and publishing.....				6,723	6				
Railroads and steamships.....		1,300	400,400	2,000	1,047,966				50,060
Rubber goods.....	192	1,500				7,000			
Ship and boat building.....	120	1,250		133,072	808		4,400		
Teaming.....				450	822		675		
Telephone and telegraph.....				2,300					
Textile workers.....	250			324		215,950			
Theatrical employees.....					23				
Miscellaneous.....		800	2,313	150	4		175	72	1,394
Total.....	171,978	342,138	526,214	362,058	1,428,579	631,564	11,803	37,300	83,831

Of the 1,955 individual cases examined, 1,594 were agreements between unions and the employers, and in but few instances do they give the number of employers affected. Hence the above table by no means shows the number of establishments which have adopted the shorter day. The following table gives the number of unions in the various international organizations which have secured the 8-hour day for their members by agreement.

NUMBER OF UNIONS REPORTED AS HAVING SECURED THE 8-HOUR DAY IN 1915, 1916, 1917, 1918, AND THE FIRST SIX MONTHS OF 1919.

Unions.	48-hour week.					44-hour week.				
	1915	1916	1917	1918, January to June.	1918, July to December.	1919, January to June.	1915- 1917	1918, January to June.	1918, July to December.	1919, January to June.
Asbestos workers.....	1						1	1	1	1
Bakers.....	3	7	6	13	2	8				
Brewery workers.....	3	2	4	2						
Building trades:										
Bricklayers.....		1		4				2	2	
Carpenters.....	1	11	45	23	6	14	2	13	7	11
Cement workers.....			1	1	1		3		2	2
Electrical workers.....		4	14	9	2	2		2	1	3
Laborers and hod car- riers.....		5	10	1	1			3		4
Lathers.....	1						1			
Painters.....		4	16	15		11		10	3	19
Plasterers.....		1		2		4		1		
Plumbers.....	2	4	5	56	2		5	10	3	4
Sheet-metal workers.....	1	3	13	10	1		2	3	3	2
Structural-iron workers.....		2	2	1	2		6	1	1	1
Tile layers.....			2				2			
Miscellaneous.....		1	1	3				2	1	2
Carriage workers.....		1	2		1					
Clerks.....				2						
Clothing:										
Boot and shoe workers.....		2		1		4				3
Fur workers.....			4							7
Ladies' clothing workers.....		1	3		1			1	1	6
Men's clothing workers.....		1	10	1				2	2	28
Tailors.....		5			3	2				1
Miscellaneous.....	5	2		7	2					1
Coopers.....		1	1			3				1
Electrical and gas supply workers.....	1	3		2		3		1	2	3
Elevator constructors.....			1							
Furniture workers.....		3			1	3			1	
Glass workers.....			3							
Iron and steel workers.....		2	1	2	3					
Jewelry workers.....			4			3			1	
Laundry workers.....	1	3								1
Light and power workers.....		2	2	2	3	4			1	
Leather workers.....			1	1	1					
Longshoremen and freight handlers.....			2	5	4	1			3	2
Lumber workers.....			1	3	1					
Meat cutters.....			1	3	5	3				
Metal trades:										
Blacksmiths.....			16	18	1			1	1	1
Boiler makers.....	2	4	30	23	4	3		5	4	3
Machinists.....	57	41	51	91	16	13	2	2	2	8
Metal polishers.....	3	5	10	4	4	38		3		5
Molders.....		3	2	14	11	31		1	1	3
Pattern makers.....	2	2	14	4	4			7	1	1
Stove mounters.....		1		2	2	16				
Miscellaneous.....					3					1
Miners.....		5	8	1		2				
Musicians and theatrical em- ployees.....		2			2					
Paper makers.....		5	2	1		1				
Printing and publishing.....	2	1	5	14	1	3	2	4	1	3
Railroad employees:										
Clerks.....			1	2		4				2
Shopmen.....			9	3	1	4				
Yardmen.....		1	5							
Miscellaneous.....			3	2	2	2				
Rubber workers.....	1									
Shipbuilders.....				8	2			5	1	2
Stationary engineers and firemen.....		4	13	5			1	4	1	1
Steamboatmen.....			2							
Stone workers.....			2	1				2		
Street railway employees.....			1	3	2	1				
Teamsters and chauffeurs.....	1		8	10	4	2		1	1	
Telephone and telegraph employees.....	1	3	3	1	4	2				
Textile industry.....	1	2				20				5
Waiters, cooks and bartend- ers.....	2	4	4	8	1					
Miscellaneous.....	4	7	5	15	5	7				
Total.....	95	162	349	399	112	219	27	85	48	137

Several State legislatures and cities have adopted the 8-hour day for their employees, the number affected by such action not appearing in the above tables.

While most establishments which have adopted a week of 48 hours or less are operating on an 8-hour day basis, except Saturday, an examination of trade agreements and of factory schedules discloses other workday periods: 8 metal unions, with a membership of 298, located in Boston, New York, Detroit, and Minnesota, work 47 hours a week; 5 unions connected with the building, clothing, and metal trades, having a membership of 2,157 in Denver, Toledo, Nashville, and New York, work 46 hours a week; moving-picture operators in Denver work 45½ hours a week; 14 unions connected with the building, metal, baking, and printing trades, with a membership of 1,342, work 45 hours a week in Salt Lake City, Little Rock, Shreveport, Boston, Portland, Oreg., New York, Cleveland, and Pittsburgh; 2 unions with 160 members in Washington and Grand Rapids work 44½ hours a week; 1 union with 20 members in Boston, 43½ hours; 1 with 22 members in Baltimore, 43 hours; 9 unions, one of theatrical employees in Omaha and the remainder connected with the printing trades in Boston, Baltimore, Worcester, and Tacoma, enjoy a 7-hour day or night; carpenters in Erie have a 41-hour week; 27 unions, mainly in the railroad shops and building trades in Boston and Seattle, with a membership of 15,350, work but 40 hours a week, one-third of them doing no work on Saturday; 264 moving-picture operators in various parts of the country work from 30 to 39 hours a week.

Of the 79 cases mentioned above, 12 agreements were made in 1917, 25 in 1918, and 42 in 1919.

In San Francisco, in 1917, 212 union men connected with the printing trades increased their working hours from 42 to 45 a week; in 1918, 47 metal polishers in Seattle increased their hours from 44 to 48; and in 1919, 200 pressmen in Boston increased their hours from 42 to 48.

An 8-Hour Day and a 6-Day Week in a Continuous Operation Industry.

SOME industries from their very nature require continuous operation, 24 hours per day and 7 days per week. The most conspicuous instance of this class of work is the blast furnace.

While it may be necessary or expedient to keep a plant in continuous operation, it is impossible for the men in the plant to keep in continuous service. The old system has been to have two shifts of men, 12 hours on and 12 hours off, 7 days per week. In alternating

at intervals from day to night shift or from night to day shift, it has been customary to require a man to be at work 24 consecutive hours. The burden of working 12 hours a day, and for 24 hours on days of changing turn has been greater than a man could bear and maintain his physical and mental strength, and no time has been afforded for mental and social development.

In comparatively recent years, there has been a tendency in continuous operation industries so to adjust the working force that each man could have a regular day of rest, and as nearly as possible, one day in seven. The general demand of the worker for an 8-hour day has been manifested in the continuous operation industries.

The adjustment of a working force in such an industry to a 6-day working basis and to an 8-hour basis as well, is far from easy, even with competent substitutes available; it is necessary to devise a carefully prepared schedule of work for each position, each turn, and each man. The following sample working schedule shows how such an arrangement may be made:

SAMPLE SCHEDULE FOR EIGHT-HOUR TURNS AND SIX DAYS OF WORK PER WEEK IN A CONTINUOUS OPERATION INDUSTRY.

[Under the several days of the week the numbers from 1 to 18 and the letters A, B, and C represent 21 individuals. The schedule shows the day and the turn each man is to work.]

Position.	Turn.	First week.	Second week.	Third week.	Fourth week.
		S. M. T. W. T. F. S.	S. M. T. W. T. F. S.	S. M. T. W. T. F. S.	S.
1	1st—12 p. m. to 8 a. m.	1 A 2 2 2 2 2	2 B 3 3 3 3 3	3 C 1 1 1 1 1	1 1 1 1 1
	2d—8 a. m. to 4 p. m.	2 B 3 3 3 3 3	3 C 1 1 1 1 1	1 A 2 2 2 2 2	2 2 2 2 2
	3d—4 p. m. to 12 p. m.	3 C 1 1 1 1 1	1 A 2 2 2 2 2	2 B 3 3 3 3 3	3 3 3 3 3
2	1st—12 p. m. to 8 a. m.	4 4 A 5 5 5 5	5 5 B 6 6 6 6	6 6 C 4 4 4 4	4 4 4 4 4
	2d—8 a. m. to 4 p. m.	5 5 B 6 6 6 6	6 6 C 4 4 4 4	4 4 A 5 5 5 5	5 5 5 5 5
	3d—4 p. m. to 12 p. m.	6 6 C 4 4 4 4	4 4 A 5 5 5 5	5 5 B 6 6 6 6	6 6 6 6 6
3	1st—12 p. m. to 8 a. m.	7 7 7 A 8 8 8	8 8 8 B 9 9 9	9 9 9 C 7 7 7	7 7 7 7 7
	2d—8 a. m. to 4 p. m.	8 8 8 B 9 9 9	9 9 9 C 7 7 7	7 7 7 A 8 8 8	8 8 8 8 8
	3d—4 p. m. to 12 p. m.	9 9 9 C 7 7 7	7 7 7 A 8 8 8	8 8 8 B 9 9 9	9 9 9 9 9
4	1st—12 p. m. to 8 a. m.	10 10 10 A 11 11	11 11 11 B 12 12	12 12 12 C 10 10	10 10 10 10
	2d—8 a. m. to 4 p. m.	11 11 11 B 12 12	12 12 12 C 10 10	10 10 10 A 11 11	11 11 11 11
	3d—4 p. m. to 12 p. m.	12 12 12 C 10 10	10 10 10 A 11 11	11 11 11 B 12 12	12 12 12 12
5	1st—12 p. m. to 8 a. m.	13 13 13 13 13 A 14	14 14 14 14 14 B 15	15 15 15 15 15 C 13	13 13 13 13 13
	2d—8 a. m. to 4 p. m.	14 14 14 14 14 B 15	15 15 15 15 15 C 13	13 13 13 13 13 A 14	14 14 14 14 14
	3d—4 p. m. to 12 p. m.	15 15 15 15 15 C 13	13 13 13 13 13 A 14	14 14 14 14 14 B 15	15 15 15 15 15
6	1st—12 p. m. to 8 a. m.	16 16 16 16 16 A	17 17 17 17 17 B	18 18 18 18 18 C	16 16 16 16 16
	2d—8 a. m. to 4 p. m.	17 17 17 17 17 B	18 18 18 18 18 C	16 16 16 16 16 A	17 17 17 17 17
	3d—4 p. m. to 12 p. m.	18 18 18 18 18 C	16 16 16 16 16 A	17 17 17 17 17 B	18 18 18 18 18

(Same as first week.)

The sample schedule covers six positions, in each of which positions three turns are worked in the 24 hours. Each number appearing in the schedule under the several days per week represents a man who regularly fills the same position except for one day off duty per week. Each letter A, B, and C represents a regular substitute who moves each day for six consecutive days to another position and repeats each succeeding week in the same positions but on different turns. A different position does not necessarily mean a different occupation, as

in a plant there may be many positions to be filled within a single occupation.

Each man, including the relief man, works six consecutive turns per week and each turn consists of eight consecutive hours. In changing turns each week, the working force as a whole does not change, but the three men of each group change turn on the day following their day off. Each man rotates once in three weeks on the first, second, and third turn. If desirable the schedule for one week may be made to apply to two or more consecutive weeks before a change of turn is made.

Each week the two men moving up get an interval of 32 consecutive hours of rest and the man falling back gets 56 consecutive hours of rest, for example, man No. 1 works from 12 midnight Saturday to 8 a. m. Sunday; he then is off duty until 4 p. m. Tuesday, 56 hours. Man No. 2 works from 8 a. m. to 4 p. m. Sunday and then is off duty until Monday midnight when he takes the first turn on Tuesday, thus getting 32 hours' rest.

Each man's rest day remains the same indefinitely. For example, Nos. 1, 2, and 3 always rest on Monday, and substitutes A, B, and C always rest on Sunday. All men are treated exactly alike as to time off, hours worked, and change of turn.

By proper arrangement, a plant of any considerable size generally can keep the substitutes employed in the same or a kindred occupation. Three substitutes are needed for each 18 regular men. The substitutes' work for a residual group of less than 18 men can be taken care of by "extra" men. The extra man will substitute in a group of less than 18 regular men and fill any position made temporarily vacant on any day for any reason. Such extra men or handy men are found in nearly every plant.

There is also presented a secondary schedule made from the above schedule, showing on a line for each man the day of the week on which he is to work and also the turn on which he is to work.

It will be noted that this schedule gives every worker one complete day of rest in seven, although Sunday is the rest day for only 3 out of 21 workers. It should also be noted that with a 3-shift day the worker has 16 hours every Sunday for rest, for attendance on religious services, or for other social meetings.

SAMPLE CHART FOR EIGHT-HOUR TURNS AND SIX DAYS OF WORK PER WEEK IN A CONTINUOUS OPERATION INDUSTRY.

[E=Early day turn; L=Late day turn; N=Night turn.]

Man number.	1st week.						2d week.						3d week.						4th week.					
	S.	M.	T.	W.	T.	F.	S.	S.	M.	T.	W.	T.	F.	S.	S.	M.	T.	W.	T.	F.	S.	S.		
1	E		N	N	N	N	N	N	L	L	L	L	L	L	L	L	E	E	E	E	E	E	E	E
2	L		E	E	E	E	E	E	N	N	N	N	N	N	N	N	L	L	L	L	L	L	L	L
3	N		L	L	L	L	L	L	E	E	E	E	E	E	E	E	N	N	N	N	N	N	N	N
4	E	E							L	L	L	L	L	L	L	L	E	E	E	E	E	E	E	E
5	L	L	L						N	N	N	N	N	N	N	N	L	L	L	L	L	L	L	L
6	N	N	N	E					E	E	E	E	E	E	E	E	N	N	N	N	N	N	N	N
7	E	E	E	L					L	L	L	L	L	L	L	L	E	E	E	E	E	E	E	E
8	L	L	L	E	E				N	N	N	N	N	N	N	N	L	L	L	L	L	L	L	L
9	N	N	N	L	L	L			E	E	E	E	E	E	E	E	N	N	N	N	N	N	N	N
10	E	E	E	L					L	L	L	L	L	L	L	L	E	E	E	E	E	E	E	E
11	L	L	L	E	E				N	N	N	N	N	N	N	N	L	L	L	L	L	L	L	L
12	N	N	N	L	L	L			E	E	E	E	E	E	E	E	N	N	N	N	N	N	N	N
13	E	E	E	L					L	L	L	L	L	L	L	L	E	E	E	E	E	E	E	E
14	L	L	L	E	E				N	N	N	N	N	N	N	N	L	L	L	L	L	L	L	L
15	N	N	N	L	L	L			E	E	E	E	E	E	E	E	N	N	N	N	N	N	N	N
16	E	E	E	L					L	L	L	L	L	L	L	L	E	E	E	E	E	E	E	E
17	L	L	L	E	E				N	N	N	N	N	N	N	N	L	L	L	L	L	L	L	L
18	N	N	N	L	L	L			E	E	E	E	E	E	E	E	N	N	N	N	N	N	N	N
A	E								L	L	L	L	L	L	L	L	E	E	E	E	E	E	E	E
B	L								N	N	N	N	N	N	N	N	L	L	L	L	L	L	L	L
C	N								E	E	E	E	E	E	E	E	N	N	N	N	N	N	N	N

(Same as first week.)

Wages of Women in the Millinery Industry in Massachusetts.

THE report on wages of women in the millinery industry in Massachusetts,¹ recently issued by the Minimum Wage Commission, is based on data secured during an investigation, the field work of which was begun in December, 1916, and completed in March, 1917. Agents of the commission visited 192 establishments, located in 13 cities and towns throughout the State. Pay-roll data, covering the 52 weeks preceding January 1, 1917, were secured from 48 establishments, of which 8 were hat factories, 2 were workshops for the manufacture of artificial flowers and feather supplies, 10 were wholesale houses, and 28 were retail millinery shops. The distinction between the last two is not so much in the size of the business done as in the nature of the work, the wholesale shops being those where hats of silk or velvet are made on frames of wire or buckram, numbers being made from the same design, while in retail millinery shops, hats, perhaps of precisely similar kind, are made and trimmed for individual customers.

The report shows that the average weekly earnings in these establishments, based on the time each employee was at work, were as follows:

¹ Massachusetts: Minimum Wage Commission. Report on the wages of women in the millinery industry in Massachusetts. Boston, May, 1919. 68 pp. Bulletin No. 20.

AVERAGE WEEKLY EARNINGS IN DIFFERENT BRANCHES OF THE MILLINERY INDUSTRY IN MASSACHUSETTS.

Branch of the industry.	Number of employees whose weekly earnings were—						Total number of employees.
	Under \$6.	\$6 and under \$8.	\$8 and under \$10.	\$10 and under \$12.	\$12 and under \$15.	\$15 and over.	
Straw hat factories.....	111	160	160	175	207	125	938
Flower and feather factories.....	113	40	20	8	1	.....	182
Wholesale millinery.....	92	92	99	49	48	13	393
Retail millinery.....	87	50	101	57	19	37	351
Total.....	403	342	380	289	275	175	1,864

It will be seen that the distribution of the wage groups varies considerably in the different branches of the trade. Over one-eighth (13.3 per cent) of the workers in straw hat factories earned \$15 or over per week, against none at all in the flower and feather shops, 3.3 per cent in the wholesale millinery trade, and 10.5 per cent in the retail millinery shops. The difference is greater when earnings by occupation are considered. The trade includes two groups of skilled workers, the operators of power machines stitching straw braids, and trimmers, who vary widely in skill. Of the 938 women studied in straw hat factories, two-thirds were machine operators, and of this group four-fifths were earning \$9 a week or more, and one-fifth, \$15 a week or more. The workers in the flower and feather factories are largely unskilled, and often young, and their wages are noticeably low. Three-fifths of this group (62 per cent) earned less than \$6 a week. Of the total number of employees studied, three-fifths (60.3 per cent) were earning less than \$10 a week.

The above figures show the average earnings of the workers while employed, but as the millinery trade is seasonal, their annual earnings were materially smaller than the weekly earnings would indicate. The following table shows the earnings of the above group of workers during the year 1916 from the millinery industry:

AVERAGE ANNUAL EARNINGS IN DIFFERENT BRANCHES OF THE MILLINERY INDUSTRY IN MASSACHUSETTS.

Branch of the industry.	Number of employees whose annual earnings were—					Total number of employees.
	Under \$100.	\$100 and under \$250.	\$250 and under \$400.	\$400 and under \$500.	\$500 and over.	
Straw hat factories.....	268	293	219	74	84	938
Flower and feather factories.....	90	36	39	11	6	182
Wholesale millinery.....	181	95	71	23	23	393
Retail millinery.....	116	89	64	28	54	351
Total.....	655	513	393	136	167	1,864

Over one-third (35 per cent) earned less than \$100 during the year from their work in millinery, over three-fifths (63 per cent)

earned less than \$250, and only 9 per cent earned as much or more than \$500. Taking the industry as a whole, the investigators found that the hand workers, including all the women employed in the flower and feather shops, the finishers in the hat factories, and the makers in the wholesale and retail establishments, were poorly paid. "The majority of these workers were scheduled to receive less than \$9 a week. For a still larger proportion, actual earnings fell below this amount."

In summing up, the report points out the difficulties occasioned by the seasonal nature of the industry, and the lack of any standard of wages among the hand workers. Other outstanding circumstances are the age of many of the workers in connection with the wages received, and the apprentice system.

Results of the investigation indicate that a considerable proportion of the workers in the hat factories and in the custom shops are mature women with several years' experience in the occupation. This is particularly the case with machine operators and trimmers. In the flower and feather shops, on the other hand, the workers are mainly young girls. One of the serious conditions in the retail millinery trade was found to be the low payment, or nonpayment, of apprentices. The existence of this class of underpaid workers from whose ranks the makers are recruited tends to defer the period when the experienced workers can earn a living wage. Another problem in both wholesale and retail millinery is the existence of two sharply defined classes of workers, a small group of highly paid creative workers, and a large group of technically skilled workers who receive a low wage, and for the majority of whom there is little prospect for advancement.

Hours of Labor in Canada.

AS A result of an investigation by the Canadian Department of Labor, it is shown that on June 1, 1919, 299,503 workers out of a total of 612,398, or 48.9 per cent, were working eight or eight and one-half hours per day. This statement is true of the principal industries of Canada, but it may be observed that it includes approximately 100,000 steam railway employees, who are working on a basic eight-hour day. It was not possible to distinguish between employees working the actual eight-hour day and the basic eight-hour day, and as a consequence the statement of the number classified as working eight hours per day constitutes somewhat of an exaggeration.

The Canadian investigation was undertaken in the summer of 1919, because of possible legislation on this subject in Canada and in view of its necessity in connection with the future League of Nations. Questionnaires were sent to approximately 8,500 firms, of which number about 6,250 returned replies. The returns represent some 612,000 employees, or about 50 per cent of the workers in the industries covered.

Some occupations, because of their seasonal or intermittent character, as for instance that of longshoremens, logging, fishing, and canning, have been omitted. Wherever it was impossible to report pay rolls as of June 1, pay rolls at the nearest date upon which conditions were normal were accepted. The firms representing less than five employees were not tabulated. The following tables represent the result of the inquiry:

NUMBER AND PER CENT OF EMPLOYEES IN CANADA WORKING SPECIFIED HOURS PER DAY AND WORKING LESS THAN SPECIFIED HOURS.¹

Hours worked.	Men.	Women.	Total.	Percentage.
Under 6.....	145	148	293	.....
6 and under 7.....	253	650	903	.....
7 and under 8.....	8,214	7,692	15,906	2.6
8 and under 9.....	245,437	54,066	299,503	48.9
9 and under 10.....	131,536	31,100	162,636	26.6
10 and under 11.....	107,924	14,461	122,385	20.0
11 and under 12.....	3,710	71	3,781	.6
12.....	5,393	37	5,430	.9
Over 12.....	1,532	29	1,561	.3
Total.....	504,144	108,254	612,398	100.0
Under 7.....	398	798	1,196	0.1
Under 8.....	8,612	8,490	17,102	2.9
Under 9.....	254,049	62,556	316,605	51.7
Under 10.....	385,585	93,656	479,241	78.2
Under 12.....	497,219	108,188	605,407	98.8

¹ Including approximately 100,000 steam railway employees who are on the basic eight-hour day.

NUMBER OF EMPLOYEES IN CANADA WORKING SPECIFIED HOURS PER DAY, BY INDUSTRIES, JUNE, 1919.

Industry group.	Under 8 hours.	8 hours.	8½ hours.	9 hours.	9½ hours.	10 hours.	Over 10 hours.	Total.
Building and construction.....	118	2,705	79	2,968	1,083	4,567	239	11,759
Commercial, mercantile, clerical.....	4,111	29,241	4,502	5,380	672	2,076	29	46,011
Lumbering and forestry.....	84	1,705	151	10,060	234	26,352	724	39,310
Brick, cement, glass.....	48	1,951	122	2,158	106	3,267	417	8,069
Chemicals, oils, rubbers.....	639	6,126	941	9,767	279	3,145	441	21,338
Food and drink.....	1,747	11,724	6,675	12,026	1,214	13,041	1,313	47,740
Leather.....	430	1,465	891	7,438	312	4,251	1,080	15,867
Metal working.....	2,265	9,924	5,539	29,773	1,444	20,213	4,043	73,201
Wood pulp, paper, printing.....	1,668	15,792	3,932	9,553	512	4,419	1,894	37,770
Textiles.....	1,121	21,214	4,897	22,786	1,530	15,012	695	67,255
Vehicles.....	573	14,025	516	20,628	491	4,171	358	40,762
Woodworking.....	279	1,542	433	11,353	380	7,889	377	22,253
Mining and quarrying.....	428	33,263	2,754	3,592	248	6,159	603	47,047
Railway operation.....	444	102,424	1,311	1,712	1,036	4,186	114	111,227
Not specified.....	3,147	13,135	524	3,535	366	1,979	103	22,789
Total.....	17,102	266,236	33,267	152,729	9,907	120,727	12,430	612,398
<i>Provinces.</i>								
Prince Edward Island.....	55	39	12	263	.....	231	20	620
Nova Scotia.....	828	15,386	2,914	4,445	288	9,262	1,095	34,218
New Brunswick.....	478	1,170	609	5,973	219	6,351	324	15,124
Quebec.....	5,324	28,240	6,415	40,291	3,691	50,533	4,552	139,046
Ontario.....	6,068	74,923	17,336	85,368	4,143	44,235	6,106	238,779
Manitoba.....	1,616	11,823	1,529	3,272	1,274	2,336	124	21,974
Saskatchewan.....	375	1,415	506	1,073	19	1,543	27	4,963
Alberta.....	678	7,840	1,221	2,428	57	7,123	24	12,461
British Columbia.....	1,080	25,900	2,725	9,611	216	5,523	158	45,213
Total.....	17,102	266,236	33,267	152,729	9,907	120,727	12,430	612,398

¹ Does not include the 100,000 railroad employees who can not be assigned to any particular Province.

Recent Wage Increases in Europe.

Compiled by C. F. STODDARD.

THE following excerpts from consular reports transmitted to this Bureau by the State Department and from reports of foreign representatives of the Department of Commerce, give recent changes in wage rates and hours of labor in certain cities or districts in Great Britain and on the continent. They represent the most recent data on the subject received by this Bureau.

Great Britain and Ireland.

Wages of Certain Railroad Employees.

THE latest Government wages offered, affecting about 65,000 men employed in various capacities on British railroads, amount practically to double the average standard prewar rates and are given in the following table as reported by a London representative of the Department of Commerce, under date of August 23, 1919.

WAGES DEMANDED AND WAGES AGREED UPON BETWEEN GOVERNMENT AND CERTAIN EMPLOYEES OF BRITISH RAILROADS.

Classification.	Wages per day.	
	De-manded.	Agreed upon.
Drivers:		
First and second year	\$2.88	\$2.88
Third and fourth year	3.36	3.12
Fifth, sixth, and seventh year.....	3.84	3.36
Eighth year and upward		3.60
Firemen and assistant motormen:		
First and second year	2.28	2.28
Third and fourth year	2.52	2.52
Fifth year	2.76	2.64
Cleaners:		
16 and under .....		.96
17 and under		1.20
18 and 19	1.92	1.44
20 and over	2.04	1.68

In addition, the cleaners receive a war wage of \$4 a week for males of 18 years and under, and of \$7.92 per week for those over 18.

Wages in Laundry and Clothing Trades.

The British Ministry of Labor has announced awards made by the various arbitration boards increasing wages in the laundry, wholesale clothing, and shirt and collar trades in Great Britain on the following basis:

Laundry workers.—Awarded a minimum rate for a 48-hour week of 28s. (\$6.81) weekly for workers over 18 years, 24s. (\$5.84) weekly for 17 years, 19s. (\$4.62) for 16 years, and 16s. (\$3.89) for 15 years

and under. New hands over 18 may be paid 4s. (97.3 cents) a week less for the first three months; overtime, including work after 1 p. m., Saturday, to be paid at a fixed rate of time and a quarter.

Wholesale clothing.—In this trade the court of arbitration has issued an award giving increased wages of 18s. 9d. (\$4.56) per week to men and 12s. 6d. (\$3.04) per week to women over prewar rates.

Shirt and collar trade.—Male cutters over 22 years to be paid not less than 1s. 6d. (36.5 cents) per hour, woman workers not less than 7d. (14.2 cents) an hour.

Nottingham Building Trades.

Effective May 12, 1919, the following hourly rates of pay apply to building-trade employees in the Nottingham district:

Occupation.	Cents.
Bricklayers, carpenters, plasterers, masons, woodworking machinists, and slaters.....	40
Painters.....	38
Plasterers' laborers.....	36
Builders' laborers.....	35
Plumbers' laborers.....	35

The week consists of 44 hours, work extending from 8 a. m. to 5 p. m. on the first five days of the week and from 8 a. m. to 12 o'clock on Saturdays. In the winter the hours are to be reduced to 41½ a week.

Work of British Trade Boards.

It is interesting to note the activities of trade boards set up in various industries under the British Trade Boards Act. Orders have been issued recently applying the Trade Boards Act to the jute spinning and weaving trade and to the rope, twine, and net trade. A summary of minimum wage rate determinations by several of the trade boards already functioning has been furnished this Bureau by the Department of Commerce, having been transmitted by its trade commissioner at London, and is as follows:

Tobacco Trade Board.—The Tobacco Trade Board has fixed the minimum rate of wages for male workers over 21 years at \$13.38 per week of 48 hours and for women over 21 years at \$8.52 per week of 48 hours. The rates become effective as from August 5.

Timber trade.—A new agreement has been drawn up on the hours and wages of timber trade workers at Liverpool docks. The working week will be 44 hours, the minimum rate of pay \$3.20 per day, and overtime \$0.79 per hour; work from 6 to 10 in the evening to be paid for at the rate of \$2.40, and double time for Sunday work.

Corset Trade Board.—The Corset Trade Board has resolved to issue a notice of proposal to fix general minimum time rates of wages for women 18 years and over of \$0.17 an hour, and for men of 22 and over \$0.28 an hour, with lower rates for younger workers. The board also proposes to fix piecework basis time rates of \$0.19 an hour for women and \$0.31 an hour for men as well as overtime rates for men and women.

Tin Box Trade Board.—The Tin Box Trade Board proposes to raise the minimum time rate for female workers of 18 and upward from \$0.11 to \$0.15 an hour and for male workers (other than knife or press hands) aged 21 and upward from \$8.33 per week of 52 hours to \$0.24 an hour and for knife and press hands to \$0.28 an hour. Overtime rates for all workers will be fixed and the rate paid to pieceworkers shall not be less than 25 per cent above the proposed general minimum time rate applicable.

Paper Bag Trade Board.—The new Paper Bag Trade Board has been constituted. It consists of 32 appointed members, 16 representing employers, and 16 representing workers. The following time rates are about to be issued by the board: Female workers other than learners to be raised from \$0.11½ to \$0.16 an hour; male workers, from \$0.18 to \$0.28 with corresponding increases in the minimum rates for learners. The board also proposes to fix piecework basis time rates of \$0.17 and \$0.31 an hour for female and male workers, respectively.

Iron and Steel Trade.—An exceptionally big advance in wages by the Midland Iron and Steel Wages Board came into operation August 4. This advance is 27½ per cent and applies to puddling and other forage and mill wages regulated by the sliding scale. The increase is based on the average net selling price of iron made by 17 selected firms during May and June, and no provision is made in the figures to meet the higher cost due to the adoption of the 8-hour shifts. The average net price was \$107 per ton, which represents an advance of \$13.20 compared with the two preceding months, while the extraordinary value that levels have now reached will be realized when it is recalled that the return for May and June, 1914, showed the average net selling price to be \$33.

Tailors' Trade Board.—According to the Times of July 23, the Tailors' Trade Board will shortly issue proposals to raise the general minimum time rate for women workers other than cutters, trimmers, and fitters from \$0.10 to \$0.17 an hour with variations for learners; to raise the minimum rate for women cutters, trimmers over 20 years old, from \$0.12 to \$0.19 per hour and to provide that an ordinary woman worker on piecework shall be paid not less than \$0.19 an hour. The board will also issue proposals to raise the general minimum time rate for men, other than learners, as follows: Cutters, knifemen, tailors, fitters, passers, pressers, and machinists from \$0.16 to \$0.34½ per hour; underpressers and plain machinists from \$0.16 to \$0.26 per hour. It will also provide that an ordinary male worker on piecework shall not be paid less than \$0.03 per hour above the time rates set out for male workers.

Agricultural Wages in Perth and Forfar Districts, Scotland.

The United States consul at Dundee, Scotland, reports that the central wages committee has decided that in Forfar and Perth districts the minimum rates of wages are to be reckoned as applying to an average for the year of 54 hours per week, exclusive of meal times and time required for stable work, allowance being made for 21 full-day or 42 half-day holidays in each year, besides (1) the usual New Year's Day holiday, and (2), in the case of yearly engagements, one hiring-fair day; and in the case of half-yearly engagements, two hiring-fair days. The minimum rates fixed may be summarized as follows:

The lowest minimum rate for a man over 21 is that fixed for an agricultural laborer (other than a plowman, cattleman, or shepherd, and being what is known as an orraman) with less than two years' experience in agriculture—viz, \$7.80 per week, or 16 cents per hour.

For an agricultural laborer over 21 (other than a plowman, cattleman, or shepherd, and being what is known as an erraman) with at least two years' experience in agriculture, the minimum rate fixed is \$8.64 per week, or 18 cents per hour.

For a plowman, cattleman, or shepherd, over 21, with less than two years' experience in agriculture, the minimum rate fixed is 38s. 6d. (\$9.25) per week, or 19 cents per hour.

For a plowman, cattleman, or shepherd, over 21, with at least two years' experience in agriculture, the minimum rate fixed is \$10.08, or 21 cents per hour.

The above-mentioned rates are to be increased by 60 cents a week for each dog which the workman is required, by the conditions of his employment, to keep and feed.

Wages of Mechanics in the Linen Industry, Ireland.

According to a recent report from the United States consul at Belfast, Ireland, the Flax Spinners' Association (Ltd.) agreed to have the wages of the mechanics in mills and factories fixed at 1s. 6d. (36.5 cents) per hour plus the 12½ per cent bonus, bringing the wages of the men concerned up to the Belfast rate for engineers in shipyards and foundries.

The new rate increases the wages for mechanics in mills and factories from 1s. 6d. (36.5 cents) to 1s. 8¼d. (41.1 cents) per hour—an increase of 2¼d. (4.6 cents) per hour; this is authorized for work done on and after March 31, 1919. It is a consequential outcome of spreading the old wage over the shorter working week.

It was an old complaint of the mechanics in mills and factories, explains the consul, that they were working an hour more per week than the men in the shipyards and the foundries for the same wages. The leveling up of the hourly rate puts an end to this grievance.

Important British Wage Decision.

The Daily Telegraph (London) reports a decision of considerable importance issued by the court of arbitration at Westminster (London) in an award on the recent claims concerning the shipbuilding and engineering trades, which constituted a test case. The finding of the court has a direct bearing on the relationship between wages and the food problem in Great Britain, and affects thousands of workers in the country. On the ground that the cost of living was on the decline, as stated in the Board of Trade Labor Gazette, the Shipbuilding Employers' Federation applied for a reduction of the war bonus to the men by 5 shillings (\$1.22) a week. This was met by a counter claim by the workers in these trades and by the National Federation of General Workers for 15 shillings (\$3.65) a week increase for time and piece workers, and the consolidation of the war bonus into standard wages.

The court found that the claim for consolidation of the war bonus was not established, and that in view of the figures published by the board of trade the men's claim for an advance in wages also failed. On the other hand, in regard to the employers' claim to reduced wages, the judgment states that "the outlook appears to the court to be one of much uncertainty; and though there may be a difference of opinion, the court knows that some official authorities have publicly expressed the opinion that the prospect is one of dearer food and more difficult conditions," and therefore the court decided on these grounds that the claim of the Shipbuilding Employers' Federation that wages should be reduced by 5 shillings (\$1.22) was also not established. This award, it was added, would have general application in the United Kingdom.

Belgium.¹

THE resumption of industrial activity is proceeding in Belgium. It was estimated at the beginning of March that 750,000 workmen were idle, but this number was reduced by one-half July 1. Considerable difficulty is experienced throughout Belgium in resuming work because of strikes. There were 119 recorded strikes in the country from January 1, 1919, to May 1, 1919. These were principally for increase in wages or decrease in hours of labor, or both. Before the war the average working day in Belgium was between 9 and 10 hours; the present working day is seldom over 9, and strenuous efforts are being made, especially by the labor unions, to establish a uniform 8-hour day. The Fabrique Nationale d'Armes de Guerre at Herstal (Liège), the most important establishment of its kind in Belgium, which had a working day of 10 hours before the war, has shortened the working hours to 9 per day, and will soon work only 8½ hours. It is planned to establish a working day in the plant of 8 hours commencing April, 1920.

In general, the present wage scale in Belgium as compared with June, 1914, shows an increase of from 150 to 200 per cent. The table following shows the increases in wages by industries in the industrial center of Ghent.

The details here presented may be regarded as representative of general wage conditions in Belgium.

1. Mechanics, etc.....In general, 85 per cent increase over wages of 1914, plus bonus of 6 cents per hour for high cost of living; 9-hour day.

Blacksmiths, machinists, etc.,
employed by the commu-
nity in reconstruction work. 19 to 24 cents per hour. Increase over 1914 wages,
225 to 285 per cent; 8-hour day.

¹ From United States Commerce Reports, Sept. 23, 1919.

1. Mechanics, etc.—Concluded.

Mechanics employed in tex-

tile factories.....18 to 22 cents per hour. Increase over 1914 wages,
261 to 294 per cent; 8-hour day.

Machinists:

Chief machinists.....\$12.55 per week of 54 hours.

Expert machinists.....\$11.77 per week of 54 hours.

Assistant machinists....\$11.19 per week of 54 hours.

2. Rubber factory:

Skilled workmen.....24 cents per hour; 52-hour week.

Laborers.....19 cents per hour; 52-hour week.

3. Flour mills:

Skilled workmen.....20 cents per hour, plus bonus of 20 per cent.

Semiskilled workmen.....17 cents per hour, plus bonus of 20 per cent.

Laborers.....15 cents per hour, bonus of 20 per cent.

Overtime paid at the rate of 150 per cent.

4. Breweries.....19 cents per hour; 8-hour day.

5. Textile industries:.....In general; 54-hour week.

A. Linen industries:

Hacklers.....14 to 19 cents per hour.

Driers.....17 to 19 cents per hour.

Packers.....19 to 21 cents per hour.

Children.....7 cents per hour.

B. Cotton spinning:

Laborers.....14 cents per hour.

Grinders, sharpeners.....18 to 19 cents per hour.

Stretchers.....14 to 17 cents per hour.

Spinners (men).....23 to 28 cents per hour.

Spinners (women).....12 to 16 cents per hour.

Grands Rattacheurs.....16 to 20 cents per hour.

Petits Rattacheurs.....10 to 12 cents per hour.

Twisting spinners.....20 to 24 cents per hour.

Dressers, bleachers, and

dyers.....18 cents per hour.

Adjusters, etc.....18 to 22 cents per hour.

Carpenters, masons, paint-

ers.....17 to 21 cents per hour.

C. Cotton weaving.....12 to 28 cents per hour.

6. Clothing industries:

Firemen.....22 cents per hour; 9-hour day.

Shop workers.....16 to 29 cents per hour; 9-hour day.

Garment workers.....19 cents per hour; 9-hour day.

Tailors.....General increase of 100 per cent over 1914 wages.

7. Building and construction:

Carpenters.....23 cents per hour for 54-hour week; increase of 153
per cent over 1914 wages.

Joiners.....18 cents per hour for 54-hour week, plus bonus of 4
cents per hour for high cost of living.

Upholsterers.....19 to 20 cents per hour for 54-hour week, plus bonus
of 4 cents per hour for high cost of living.

Masons.....17 cents per hour for 54-hour week, plus bonus of 4
cents per hour for high cost of living.

7. Building and construction—Concluded.

Plasterers.....18 cents per hour for 54-hour week, plus bonus of 4 cents per hour.

Masons' laborers.....15 cents per hour for 54-hour week, plus bonus of 4 cents per hour—total increase of 177 per cent over 1914.

Stonecutters.....18 cents per hour for 54-hour week, plus bonus of 4 cents per hour.

Painters.....16 to 17 cents per hour, plus bonus of 4 cents per hour.
In all these trades, overtime is paid at rate of 150 per cent.

8. Wood and furniture.....Increase of 100 per cent over wages of 1914, plus bonus of 5 cents per hour.

9. Leather and hides.....Minimum of 24 cents per hour.

10. Tobacco industries.....Complete idleness.

11. Paper industries.....General increase of 100 to 125 per cent over wages of 1914.

12. Printing and binding.....Increase of 155 per cent over 1914 wages, and minimum of 24 cents per hour; disputes about salaries, and very little employment.

13. Transportation:

Ghent-Terneuzen railway....50 per cent increase over 1914; 8-hour day.

Ghent Tramways.....50 per cent increase over 1914; 8-hour day, plus bonus of 3 cents per hour for high cost of living.

Carters.....About \$6.75 per week; very irregular employment.

14. Horticulture:

Skilled workmen.....14 cents per hour.

Laborers.....13 cents per hour.

15. Miscellaneous:

Barbers.....Strike in progress. Demand for 20 cents per hour, 8-hour day.

Photography establishment..Increase of 100 per cent over 1914 wages.

Communal employees:

Skilled.....20 cents per hour, bonus of 4 cents per hour.

Unskilled.....15 cents per hour, bonus of 4 cents per hour.

Soft drink plant.....19 cents per hour.

Store employees.....19 cents per hour; 48-hour week; overtime paid at rate of 150 per cent.

Italy.

FIGURES showing wages of certain classes of labor in Italy in June, 1919, as compared with the average for 1914, have been furnished this Bureau by the Department of Commerce in the form of a communication from its commercial attaché at Rome. The list is partial and rather unsatisfactory, but possesses some value as indicating in a general way the relative trend of wage advances among various classes of labor.

HOURLY RATE OF WAGES OF SPECIFIED CLASSES OF LABOR IN ITALY IN JUNE, 1919,
AS COMPARED WITH AVERAGE FOR 1914.

[Conversions made on the basis of 1 lira (par value) = 19.3 cents.]

Occupation.	Average for 1914.	Wages in June, 1919.	Per cent of increase.
	<i>Cents.</i>	<i>Cents.</i>	
Pick and shovel labor.....	6.6	24.3	268.2
Common labor.....	4.2	14.5	245.2
Bricklayers.....	9.3	30.9	232.3
Painters.....	9.3	29.0	211.8
Turners.....	6.0	14.3	138.3
Pressmen.....	7.3	18.3	150.7
Stokers.....	6.6	15.4	133.3
Joiners.....	10.6	27.0	154.7

There have been wide variations of increases in the wages of certain other classes of labor, as indicated by the following statement giving the range of the rates of increase in June, 1919, over the average for the year 1914:

RATE OF INCREASE OF WAGES OF CERTAIN CLASSES OF LABOR IN ITALY IN JUNE,
1919, OVER AVERAGE FOR 1914.

Occupation.	Percent of increase in wages, June, 1919, over average for year 1914.
Painters and whitewashers.....	74 to 217
Highway labor.....	132 to 209
Goldsmiths.....	7 to 15
Purse and portfolio makers.....	87 to 133
Boot and shoe labor.....	25 to 187
Net weavers.....	10 to 100
Lace makers.....	33 to 175
Millers.....	18 to 40

It is stated that farm labor received before the war an average of \$57.90 per year with perquisites in the way of subsistence. The average is now \$123.52, with the same perquisites and an eight-hour day, which represents a two-hour reduction of hours and an increase of 113.7 per cent in wages.

Proposed Prussian Wages Department.

SOZIALE Praxis¹ publishes the following paragraph with respect to the functions of the contemplated Prussian Wages Department:

In order to insure the possibility of competition by German manufacturers in foreign markets after the conclusion of peace it is necessary to scrutinize carefully and without delay the efforts made to obtain progressive increments of wages and to deal with such efforts in a rational manner. Consequently the functions of the Prussian Wages Department will be as follows: Intervention in wage disputes; inves-

¹ Soziale Praxis und Archiv für Volkswohlfahrt. Berlin, April 24, 1919.

tigation of the necessity of the demands put forward and of the explanations of employers; elucidation of the interdependence of economic life and of preliminary arrangements for a general and proportionate decrease of wages. On the other hand, consideration will be given to the control of the prices of the most important foodstuffs and of other articles necessary for existence as soon as circumstances make such a control feasible, in order to check extortion.

The journal adds the following comment:

Of course a wages department for Prussia must be regarded as subordinate to a German Wages Department. The latter will have need of a similar subdepartment in each of the federated States of the Republic. Prussia can not pursue for herself alone a policy for the reduction of prices and wages, for these are interlaced in the fabric of German industry. Furthermore the regulation of wage movements can not be controlled by a Prussian Wages Department except when they relate to Prussia exclusively. Since now, more than ever before, a movement has set in in favor of collective agreements covering the whole of Germany, a Prussian Wages Department can not achieve success except by working in accord with the National Department of Labor—really as its deputy so far as such an arrangement is constitutional—in regard to movements whose pivot lies in Prussian territory. A Prussian Wages Department may be of utility in equitably settling the rates of wages payable in the industrial establishments of the Prussian State and of the various municipalities; for the irregularities which have prevailed in such establishments during the war period can not stand the test of criticism. Furthermore should the Prussian Wages Department be disposed to act as a pioneer in the compilation of adequate statistics of wages and cost of living and thus to stimulate the National Department of Labor to activity in this sadly neglected field, it would thereby justify its existence. But in matters of general policy relating to wages and collective agreements the National Department of Labor must have precedence. That was the conclusion reached, as long ago as 1913, at the Düsseldorf conference of the Society for Social Reform, after a discussion of the advantages of a national department as compared with those of a department for each federated State.

MINIMUM WAGE.

Minimum Wage and Maximum Hours for Women in the United States and Canada.

Arkansas.

THE Arkansas Minimum Wage and Maximum Hour Commission issued an order¹ dealing with the hours of women employed in hotels and restaurants, the regulations being as follows:

First.—On and after May 20, 1919, no female shall be employed or be permitted to work in any hotel or restaurant in the State more than nine hours in any one day, nor more than six days in any one week.

Second.—That each owner, lessee, or manager shall post and keep posted in a convenient place in each hotel or restaurant in which females are employed or permitted to work, a notice printed in English, stating the number of hours such females are permitted or required to work on each day of the week; the hours of beginning and ending work each day; the recess allowed for meals or otherwise. That every employer shall keep a time book or record of every female employed, stating the number of hours worked and the wages paid.

California.

THE MONTHLY LABOR REVIEW for February, 1919, contains a decree of the California Industrial Welfare Commission fixing wages for women employed in any manufacturing industry at not less than \$10 for a week of 48 hours, or, if the full 48 hours per week of work are not provided, at not less than 25 cents an hour. Later, on April 22, 1919, the commission fixed a minimum wage of \$13.50 per week for the mercantile industries, and on May 12, 1919, fixed 28 cents per hour as the minimum rate in the fruit and vegetable canning industry, "with a piece-rate scale that will yield not less than 28 cents per hour, or \$13.50 per week." These orders have been followed by one fixing the minimum for women employed in hotels, restaurants, etc., at the same figure, \$13.50 per week. This order, dated July 19, 1919, and effective September 17, 1919, so far as it relates to wages, is as follows:

The Industrial Welfare Commission of the State of California does hereby order that:

1. No person, firm, or corporation shall employ, or suffer or permit any woman or female minor to be employed in any hotel, lodging house or apartment house, or in

¹ Minimum Wage and Maximum Hour Commission of Arkansas. Regulations governing employment of females applying to hotels and restaurants. May 13, 1919.

any restaurant, cafeteria, or other place where food or drink is sold to be consumed on the premises, or in any food-catering department of any mercantile establishment, or in any hospital, with the exception of graduate nurses, nurses in training, or other professional women, at a rate of wages less than \$13.50 per week (\$58.50 per month), except as otherwise provided in section 9 of this order.

If an employer requires waitresses to wear a uniform or apron which is not laundered by the establishment, an allowance of 50 cents per week shall be paid in addition to the minimum wage.

2. (a) No person, firm, or corporation employing women or female minors in the establishments named in section 1 of this order, shall make a charge for board in excess of the following scale:

Breakfast.....	\$0. 20
Lunch.....	. 25
Dinner.....	. 30

Provided, however, that these shall be bona fide meals.

(b) No person, firm, or corporation employing women or female minors in the establishments named in section 1 of this order, shall make a charge for a room in excess of \$3 per week.

Part-time Workers.

3. No person, firm, or corporation employing women or female minors in the establishments named in section 1 of this order shall employ, or suffer or permit any woman or female minor to be employed, as a part-time worker at less than the following rates:

SCHEDULE OF WAGES FOR ADULT AND MINOR FEMALE PART-TIME WORKERS.

Employed 3 hours per day or less.	Employed more than 3 hours and not more than 6 hours.	Employed more than 6 hours.
\$0. 35 per hour....	\$0. 32½ per hour.....	\$0. 32½ per hour or the minimum wage.

4. Where payment of wages is made upon a commission, bonus, or piece-rate basis the earnings shall be not less than the minimum time rate for the wage group in which the worker belongs.

5. Tips and gratuities shall not be construed as part of the legal minimum wage.

The order is probably intended to apply only to waitresses, but the language is curiously sweeping. Very careful provision is made as to hours of work. Women and female minors to whom the order applies may not be employed more than 8 hours within a period of 13 hours in any one day, nor more than 48 hours a week, nor more than six days a week, nor before 6 a. m. or after 10 p. m. The six-day rule is not to become effective until November 17, 1919, and after that time some modification of its strictness is permitted, it being provided that women employed as full-time workers, working by the week, may be employed on their day of rest in case of emergency, provided that when so employed "They shall be paid not less than rate and a quarter of the legal minimum daily rate of \$2.24, or

\$2.80," and that the total number of hours in any one week is not over 48.

In the case of a woman disabled by age or otherwise, the commission may issue a permit allowing her employment at a figure less than the minimum established by this order. In such cases the commission will fix a special minimum rate adjusted to the degree of the employee's incapacity.

Employers of women and female minors must keep full records of the names and addresses of such employees, the hours worked by each, and the amounts earned. "Such records shall be kept in a form and manner approved by the Industrial Welfare Commission." A further and important provision is as follows:

Every person, firm, or corporation employing women or female minors in the establishments named in section 1 of this order shall provide a room where the women may change their clothing in privacy and comfort. Sufficient and adequate provision shall be made for the proper and safe keeping of the outer clothing of the women workers during working hours, and of their working clothes during the nonworking hours. Clean and decent toilet accommodations shall be provided.

District of Columbia.

THE award by the Minimum Wage Board of the District of Columbia of a minimum wage of \$16.50 for women in the mercantile industry was published in the *MONTHLY LABOR REVIEW* for October, 1919, (pp. 163 and 164).

Following an appeal by the Merchants and Manufacturers' Association against the rates fixed for minors in the original award these rates have been modified by action of the board. The modified order makes the rate for minors under 18 years of 18 months' experience 50 cents less than the original award. A minority report was filed by the representative of the workers on the wage board in which the lowering of the rate was objected to on the grounds that it would tend to make the minors the cheap competitors of women 18 years of age and over. This amendment to the order (M. W. B. Order No. 3) is to become effective 60 days from date or about the middle of December, 1919.

Learners, male or female, under 18 years of age, entering employment in the mercantile industry, shall be paid a weekly wage of not less than \$10 for the first four months of employment, of not less than \$11.50 for the next four months of employment, of not less than \$13 for the next four months of employment, of not less than \$14.50 for the following six months of employment, and thereafter shall be paid not less than \$16 until the age of 18 years is reached: Provided, that for any minor now employed time served in the industry prior to his or her sixteenth birthday and prior to October 28, 1919, shall not be

considered as experience in determining the minimum wage to which he or she is entitled.

A minor girl, who, upon reaching the age of 18 years, has had seven months' experience, shall be paid a weekly wage of not less than \$16.50. A minor girl, who, upon reaching the age of 18 years, has had less than seven months' experience, shall be paid not less than the rates specified for adult learners.

Kansas.

THE Kansas Industrial Welfare Commission has within the year issued an order¹ dealing with hours, wages, and conditions of work for female employees in manufacturing establishments. The minimum wage is lower than that of California—\$11 per week, instead of \$13.50—and while the order establishes the basic eight-hour day and the six-day week for women, it permits the employment of women for 55 hours a week, provided the overtime is paid for at the rate of time and one-half. Like the California order, it forbids the employment of women at night, the prohibited hours being from 9 p. m. to 6 a. m. The text of the order is as follows:

Take notice, that pursuant to the authority in it vested by the laws of the State of Kansas (Chapter 275, Session Laws 1915), and in accordance with the determination by it to-day duly made and rendered, the Industrial Welfare Commission of the State of Kansas does hereby order that

No person, firm, or corporation shall employ or suffer or permit any woman or minor to work in any factory in which the conditions of employment are below the standards hereinafter set forth.

Working conditions.—Washing facilities, with water, soap, and towels, shall be provided in accessible location to make washing convenient at all times.

Workroom floors and walls shall be kept clean and dry.

Dressing rooms shall be provided, making possible the changing of clothing and the care of the clothing outside the workroom.

Ample lighting shall be provided and so arranged that direct rays do not shine into the workers' eyes.

Heat and ventilation shall be ample at all times to keep the workers comfortable and well supplied with fresh air.

Drinking water shall be safe and fresh, cool and accessible, and individual cups or bubble fountains shall be provided.

Provisions shall be made for workers to eat their meals outside the workroom in a clean, comfortable place.

A suitable seat shall be provided for each woman employed and its use encouraged, so that the worker may perform her labor with convenience, comfort, and efficiency. All seats shall have backs and foot rests broad and firm enough to be convenient while working.

Risks from machinery and danger from fire and exposure to dust, fumes, and other occupational hazards shall be eliminated.

Hours.—Eight hours shall constitute a basic day. The basic day shall be divided into two periods. Not more than five hours shall be worked in any one period without relief for meals, the meal relief to be not less than forty-five minutes.

¹ Kansas State Industrial Welfare Commission. Manufacturing establishments. February 21, 1919. Order No. 10.

Women and minors shall not be employed between 9 o'clock p. m. and 6 o'clock a. m. Employment for women and minors shall be limited to six days in a week, with one day of rest in every seven days.

Overtime shall not be permitted except in case of emergency, and the total work time, inclusive of overtime, of any female or minor shall not exceed fifty-five hours in any one week. Time in excess of the basic day shall be paid for at the rate of time and one-half of the hourly rate of the basic day.

Wages.—No person, firm, or corporation shall employ any experienced female worker in any factory in the State of Kansas at a weekly wage of less than \$11.

An experienced worker shall be considered here to be one who has served the apprenticeship period. The length of apprenticeship term for female workers shall be six months, and such apprenticeship term shall be divided into two periods of three months each.

No person shall employ any female worker in any factory in the State of Kansas for the first period at a weekly wage rate of less than \$7, or for the second period at a weekly wage rate of less than \$9.

British Columbia.¹

ORDERS recently issued by the British Columbia (Canada) Minimum Wage Board fix minimum wages for experienced female workers and for apprentices in public housekeeping occupations and in office occupations. These orders were effective on August 16, 1919. Under the first order mentioned the minimum wage for females over 18 years of age is \$14 per week; for those under 18 years of age and for apprentices the minimum is \$12 per week. Provision, however, is made that, where lodging is furnished by the employer as part payment of wages, not more than \$3 per week may be deducted from the minimum wage and where board or meals are furnished not more than \$5.25 may be deducted. The hours of labor are fixed at 48 per week except that in cases of emergency 52 hours may be worked. A rate of time and a half is provided for all overtime work. The public housekeeping occupation is defined as including the work of waitresses, attendants, housekeepers, janitresses, cooks, and kitchen help in restaurants, hotels, tea rooms, ice-cream parlors, light-lunch stands, and other places where food is cooked, prepared, and served for which a charge is made; and the work of chambermaids in hotels, lodging houses, and apartments where lodging is furnished, whether or not such establishments are operated independently or in connection with any other business; and the work of all female elevator operators.

Where females are employed as stenographers, bookkeepers, typists, billing clerks, filing clerks, cashiers, cash girls (not included in other orders), checkers, invoicers, comptometer operators, auditors, attendants in physicians' and dentists' offices, and in other lines of clerical work all of which are defined as office occupations, they shall receive, if over 18 years of age, a minimum weekly wage of \$15, or

¹ The first six orders issued by the British Columbia Minimum Wage Board were noted in the MONTHLY LABOR REVIEW for June, 1919, pp. 207, 208.

\$65 a month when engaged by the month; and if under 18 years of age they shall receive a minimum weekly wage of \$11 during the first six months of employment, \$12 during the second six months, \$13 during the third six months, and \$14 during the fourth six months. Apprentices shall receive \$11 a week during the first three months of employment, \$12 during the second three months, \$13 during the third three months, and \$14 during the fourth three months. In these occupations 48 hours per week is fixed as a minimum, and there is nothing said about overtime.

Manitoba.¹

SUPPLEMENTING a tabulation of wages issued by the Minimum Wage Board of Manitoba which appeared in the September issue of the MONTHLY LABOR REVIEW (pp. 257 and 258), two new orders are here noted affecting workers in places of amusement and in offices. The maximum hours are fixed at 9 per day or 48 per week in the first instance, and at 8 per day or 44 per week in the case of office workers. Experienced adults in places of amusement are to receive \$12 per week if ticket sellers or ushers and 35 cents per hour if cleaners. The rate is fixed at 30 cents per hour for the first two occupations when employees work less than 40 hours per week. It is stipulated that females under the age of 18 years shall not be employed in places of amusement. For those working in offices a minimum of \$12.50 is fixed for experienced adults and a minimum of \$10.50 for the first three months and \$11.50 for the second three months in the case of adult learners. After six months they shall receive the experienced employee's wage. Minors are to receive \$8 per week if 15 years of age, \$9 if 16 years, \$10 if 17 years, and \$10.50 if 17 years and 6 months. No minor shall be employed on piecework. It is provided that any female who has taken a commercial course in any high school or accredited business college for six months' full time or two years' night school, if an adult, be exempted from serving a learning period, and, if a minor, shall be paid according to the rate for employees one year older. Casual workers, or those whose term of employment is for less than two months, shall be paid at not less than the adult minimum rate calculated by hours.

The minimum wage board recently issued an amending order providing for an increase in the previously fixed minimum wage for experienced adult workers in confectionery and biscuit, cigar, grocery, macaroni and vermicelli, pickle, paper-box, soap, and yeast factories, and in abattoirs, creameries, and laundries. The new minimum wage is \$11 per week, with a flat increase of \$1 per week for all minors and learners.

¹Data taken from the Labor Gazette, Ottawa, September, 1919, pp. 1093, 1094.

COOPERATION.

New Zealand Farmers' Cooperative Associations.¹

THE cooperative movement in New Zealand began some 40 years ago. The New Zealand Farmers' Cooperative Association at Canterbury is the leading cooperative society of the country, and undertakes to supply its 8,416 shareholders and others with everything they require for their household and domestic needs as well as for farming purposes. In order to do this the association has established large stores which are divided into the following general departments: Grocery and general household provisions; hardware; household furnishings; agricultural implements; dry goods, including clothing and household dry goods; furniture of all descriptions; and an agricultural department.

In addition to this storekeeping aspect of the movement, a very important section of the cooperative store is given over to the handling and classification of seeds. This feature was established by men of long and expert experience, and has grown to be the most useful of the many departments in the association. In the grain section wheat, oats, barley, peas, beans, chaff, etc., are dealt with practically at cost, and the working results of the department show that very little more than actual expenses are made from the operations. In the sundry-goods department, wool packs, corn sacks, sheep dips, medicines for all classes of stock, and preparations for the pickling of wheat and other grain before sowing, to guard against smut and other blights, are handled.

A few miles out of Christchurch the association maintains a large store where all mixing and crushing operations of artificial fertilizers are carried on. These fertilizers are made up under expert guidance to suit the various districts in which they are used, both with respect to the different classes of soil and to climatic conditions. This department is also worked at a trifle over actual expenses.

The association operates its own stockyards in many parts of the district. The cooperative stores hold periodical sales of wool consigned to them by the farmer shareholders.

A complete land and estate department is maintained, through which farmers may dispose of their property, by intrusting it to the association, which finds buyers and takes care that full value is secured by the sellers. Clearance sales are often held for those who

¹ Extracted from Commerce Reports, Oct. 3, 1919, pp. 55-59.

are retiring from farming or moving to another district. In this case the shareholder may deposit his deeds with the cooperative association and borrow substantial amounts without giving a mortgage. He simply states before the local registrar that he has borrowed a certain sum from the cooperative association on deeds which it holds, and this fact is noted on the local records as a protection to the cooperative association.

The following table shows the operations of the 11 cooperative associations which form the Farmers' Cooperative Wholesale Federation of New Zealand (Ltd.):

OPERATIONS OF NEW ZEALAND COOPERATIVE ASSOCIATIONS.

Association.	Number of shareholders.	Authorized capital.	Paid-up capital.	Volume of business done.	Merchandise sales.	Earnings.	Net profits.
New Zealand Farmers' Cooperative Association of Canterbury (Ltd.), Christchurch.....	8,416	\$6,083,125	\$2,612,873	\$19,605,226	\$3,574,829	\$903,076	\$369,299
Canterbury Farmers' Cooperative Association (Ltd.).....	3,800	1,581,613	1,087,064	7,685,537	3,146,470	516,744	133,843
Farmers' Cooperative Auctioneering Co. (Ltd.), Hamilton.....	3,307	1,459,950	1,233,794	11,181,903	1,137,578	454,560	150,239
Southland Farmers' Cooperative Association (Ltd.), Gove.....	1,750	364,988	196,363	2,014,731	767,189	107,988	36,416
Atago Farmers' Cooperative Association of New Zealand (Ltd.), Dunedin.....	765	486,650	274,422	4,856,767	697,457	147,528	33,272
Farmers' Cooperative Organization Society of New Zealand (Ltd.), Hawera.....	2,096	2,433,250	217,489	4,013,719	554,348	139,211	32,883
North Auckland Farmers' Cooperative (Ltd.), Whangarei.....	2,188	778,640	585,810	4,908,289	231,806	194,076	42,460
New Zealand Farmers' Cooperative Distributing Co. (Ltd.), Wellington.....	2,200	1,216,625	322,771	2,658,248	438,048	158,069	48,091
Tokomaru Farmers' Cooperative Co. (Ltd.), Tokomaru Bay.....	168	145,995	76,939	1,820,071	145,995	57,021	15,943
Gisborne Farmers' Cooperative Co. (Ltd.), Gisborne.....	295	121,663	33,798	784,431	33,579	27,943	6,779
Hawkes Bay Farmers' Cooperative Association (Ltd.), Napier.....	1,546	973,300	612,984	7,911,673	1,383,142	407,341	105,034
Total.....	26,531	15,645,798	7,254,307	67,440,595	12,110,441	3,113,558	974,259

It is stated that the Australian cooperative societies are anxious to follow along the same general lines of the New Zealand societies. With this in view a representative gathering of producers took place in Melbourne in 1918, which was attended by delegates of New Zealand cooperative associations. The result of this conference was to increase the conviction that closer cooperation between Australian and New Zealand cooperative endeavor was necessary and steps were taken to bring about an Australian federation similar to that inaugurated in New Zealand. Indeed the feeling is expressed on all sides in New Zealand that an eventual organization of cooperatives for the whole British Empire will be necessary to distribute the products with the least waste and purchase the needs of the various parts of the Empire with the smallest loss.

VOCATIONAL EDUCATION.

Vocational Training in Railroad Shops.

AN ORDER issued by the Director General of Railroads instructs the different railroads under Federal control to cooperate with the Federal Board for Vocational Education in the establishment of part-time schools in order to offer vocational training for mechanics and apprentices in railroad shops. This opens up a large field of service to the State boards for vocational education, since there are railroad shops in every State, and the act creating the Federal Board provides that at least one-third of the trade and industrial fund furnished to the State shall, if expended, be applied to part-time schools or classes for persons who have entered upon employment. The order of the Director General of Railroads is as follows:

The Federal Government has created, under the provisions of an act of Congress, as approved February 23, 1917, a Federal Board for Vocational Education.

The purpose of this act is to provide for the promotion of vocational education in the trades and industries and in agriculture in cooperation with the various States, and an appropriation by the Federal Government is available for such work.

The value of vocational training for mechanics and apprentices in railroad shops has been recognized by many railroads who have established schools for the training of such men. It is the desire of the Railroad Administration not only to assist and encourage such training where established, but also to extend the system to roads which have not established such schools, and it is believed that this can be best accomplished by cooperation between the United States Railroad Administration and the Federal Board for Vocational Education in extending this work.

It is therefore desired that the different railroads under control of the United States Railroad Administration cooperate with the Federal Board for Vocational Education in the establishment of part-time schools for railroad-shop apprentices and others who come within the scope of the act. Where it is found necessary in order to facilitate this work, railroads will be authorized on request to fit up suitable study or class rooms at the different shops where such schools may be held. Where such schools are established, railroads will be authorized to pay apprentices at their usual rate for the time spent in attending such schools.

Apprentices on roads where such schools are established will be required to attend not less than 208 hours per year.

Complete information concerning the establishment of these schools in cooperation with the Federal Board for Vocational Education may be obtained either from the board direct or from the assistant director, division of operation, in charge of the mechanical department.

In the preparation of a course of study due attention must be given to meet the needs of railway shop employees, and such subjects as shop practice involving the manipulation of machines used in general repair and construction work and to related science, mathematics, and drawings should be fully provided for.

To provide uniformly as far as practicable in these courses of study, the subjects embraced therein should be submitted to the assistant director, division of operation, in charge of the mechanical department, for approval.

Agreement for Apprenticeship Training in Little Rock (Ark.) Public Schools.¹

IN Little Rock, Ark., the typographical union is cooperating with the city schools through an agreement to employ boys as apprentices for part-time work in its shops.

Six half days the boy is engaged in practical work and five half days he attends school; and combining this learning and earning he gets an education and training he would be unable otherwise to have.

The agreement follows:

SECTION 1. The following sections of this contract are entered into with the intent and purpose of cooperating with the Little Rock Public School Board for the purpose of securing high-grade apprenticeship training and shall in no way interfere with the rules and regulations at present governing apprentices, as provided by local and International Typographical Union laws, and in conformity with State and Federal laws.

SEC. 2. Both parties hereto agree that the employment of a student apprentice shall consist, for the first two years of their apprenticeship period, of at least one-half of each working day (six half days per week) in the composing room and at least one-half of each school day (five half days per week) in instruction at the department of printing of the Little Rock public schools. During this period the apprentice shall be known as a student apprentice.

SEC. 3. For the purpose of carrying out the educational program in section 2, a boy employed as a student apprentice shall be considered as equivalent to one-half of a regular apprentice in determining the ratio of apprentices to journeymen.

SEC. 4. Apprentices may be employed in the ratio of one to every five journeymen, or fraction thereof, with the following provisions: No office shall be entitled to employ an apprentice unless at least one member of the typographical union, aside from the proprietor, is regularly employed in the composing room.

SEC. 5. An advisory committee, consisting of two representatives from Typographical Union No. 92 and two employing printers and the superintendent of the Little Rock public schools, shall be appointed for the purpose of cooperating with the school authorities and assisting them in coordinating the work of the schools with the plant and apportion the ratio of apprentices among the employing printers in accordance with the provisions and policies herein set forth. The decision of the advisory board must be unanimous.

SEC. 6. The advisory committee in apportioning the ratio of apprentices among employing printers and in changing the ratio of apprentices to journeymen, in accordance with section 4, shall limit the number of student apprentices so that at the expiration of this contract the total number of apprentices in any plant shall not exceed the total apprentice allowance.

¹Data taken from Vocational Summary for September, 1919, Federal Board for Vocational Education, Washington.

EMPLOYEES' REPRESENTATION.

Development of Shop Committee Systems.

By ANICE L. WHITNEY.

THE subject of industrial relations is an engrossing one at the present time for men and women in nearly every walk of life. In the past a large proportion of the community has usually felt that the question of good or ill relations between capital and labor was a matter to be settled between individual employers, firms, or corporations and their workmen, but with the enormous increase in the cost of living and the many industrial changes following the war it is probably true that there is a wider realization than ever before on the part of the public of the fact that the community is entitled to consideration and a voice in these questions, which after all affect the general public as vitally as they do the employers and workers who have been accustomed to think that their rights were the only ones affected. This interest on the part of the general public was recognized by the appointment of a number of persons to represent the public in the Industrial Conference held in Washington in October. It is evident, also, from the greatly increasing industrial unrest and the consequent decrease in production at a time when every energy should be bent toward maintaining our industries at an efficient point in the constantly increasing keen commercial competition with other countries, that the well-being not only of certain classes but of the country as a whole depends upon a wise solution of the problem.

In this connection much attention has been directed in the press and current periodicals to methods which developed during the war to secure production and allay dissatisfaction on the part of the workers.

English Plans for Industrial Councils.

While a number of firms in this country had been working toward a scheme of industrial democracy before the war, the greatest impetus to the movement came from Great Britain in the reports of the Commission of Inquiry into Industrial Unrest and of the Reconstruction Committee Subcommittee on Relations between Employers and Employed,¹ commonly known as the Whitley committee, as well as the

¹ See Bulletins Nos. 237 and 255 of the Bureau of Labor Statistics.

memorandum of the Garton Foundation on the industrial situation after the war. The first report of the Whitley committee was published while the Commission of Inquiry into Industrial Unrest was still sitting. The summary of the reports of the eight subcommittees of this commission which investigated conditions in different sections of the Empire indicated that much of the unrest was caused by conditions growing out of the war and also by a psychological condition in which uncertainty as to the industrial future had a large part. This commission indorsed the principle of the Whitley report as one of the means for securing permanent improvement in the relations between employers and workmen.

The Whitley committee in its recommendations pointed out the vital need of continuing the cooperation of all classes which had been established during the war and stated that it was essential to offer workpeople improved conditions of employment and living and to enlist their assistance in the promotion of industry. With this aim in view the establishment in each industry of industrial councils which should represent both employers and employees was advocated. In the first report of this committee the establishment of joint industrial councils, joint district councils, and works committees in each of the well-organized industries was recommended. In the second report, dealing with the subject of joint industrial councils, Government assistance was advocated for those trades which had a considerable degree of organization but in which organization was not general, while in those trades in which organization was very weak or altogether lacking the use of and expansion of the existing system of trade boards was advised. In other words, it was the opinion of the committee that a successful solution of the problem lay in the utilization of the power and the machinery of the trades unions. The plan, as set forth by the committee, was sufficiently elastic to be adapted to the varying needs and circumstances of different industries although an outline of matters which should either be dealt with by the national councils or by the district councils was suggested. It was felt, however, that since the functions of the works committees and the district and national councils must be determined according to the varying conditions in different industries no recommendations as to profit sharing, copartnership, etc., should be included, although the committee did go on record as believing permanent improvement must be founded on other than a cash basis.

Following the approval by the War Cabinet of the first report of the committee, a special department, the Industrial Councils Division, was established under the Ministry of Labor for the purpose of giving assistance and information in forming councils and collecting information as to the results achieved by the councils. According

to the most recent reports ¹ available joint industrial councils have been established in 41 industries in Great Britain affecting approximately two and one-half million workpeople and as would be expected where the Government has approved of the plan for industries generally the councils have been introduced not only in the departments of the Government having industrial branches but also in the administrative departments of the civil service.²

In an address ³ on the progress of the Whitley councils before the National Industrial Conference held in Canada recently Col. Carnegie, of England, said:

The general impression I have formed in regard to Whitley councils from personal observations at different council meetings and many interviews on the subject with leading employers of labor and leaders of labor unions is that in spite of their limitations and the objections raised to them by sections of labor and capital, they have proved the best means yet devised for bringing together masters and men of the same industry for serious discussion and mutual help. The facts of their progress are indisputable. There is something, call it what one may, that has broken down suspicion and inspired mutual confidence and conference between employers and employed where these councils have been established.

Shop Committees in the United States.

The shop committee movement in this country has not received anything like as widespread recognition or acceptance as it has in England. The development, too, has been along somewhat different lines than has that of England, where, because of the much greater degree of organization, the movement is coordinated with that of the trade-unions. In this country, although in the majority of cases it is expressly stated that the plans shall in no way abridge, or conflict with, the right of employees to belong to labor unions, in other respects, except in a few cases, the carrying out of the plan does not necessarily depend upon the cooperation of the unions.

Efforts on the part of employers to secure better industrial relations have extended over many years and include various profit-sharing plans and welfare activities, including the establishment of benefit associations, pension plans, and, more recently, group insurance. Following the passage of workmen's compensation laws in many of the States, safety committees, which have charge of the adequate safeguarding of machinery and educating the workers

¹ Great Britain. Ministry of Labor. Industrial Councils Division. Monthly Bulletin. Joint standing industrial councils. London, July, 1919. 10 pp. Cf. also article on pages 236 and 237 of this issue of the REVIEW.

Great Britain. Ministry of Labor. The Month's Work. London, July, 1919.

See Application of industrial council plan to administrative departments of British Government, in MONTHLY LABOR REVIEW, July, 1919, pp. 123-126. Also, Activities of industrial councils in Great Britain, in MONTHLY LABOR REVIEW, August, 1919, pp. 131-138.

² See Application of industrial council plan to administrative departments of British Government, in MONTHLY LABOR REVIEW, July, 1919, pp. 123-126.

³ National Industrial Conference. Official report of proceedings and discussions. Ottawa, 1919.

not to take unnecessary risks, together with provisions for the care of health of workers, have been inaugurated, while the realization of the loss of money and the workers' good will because of poor employment methods has resulted in the installation of employment departments and modern methods of hiring and placement of workers in all well-organized establishments. Such efforts have, no doubt, in a measure, paved the way for a wider acceptance of the principle of the right of employees to participate in the control of conditions directly affecting them in industry.

There is a great diversity in the scope of the plans promulgated under the head of industrial democracy. These plans range all the way from provision for committees dealing only with welfare features or safety measures, in which the position of the committees is only that of advisory bodies, to committees which have a direct voice in determining hours, wages, piece rates, shop discipline, employment conditions, etc.

In an address¹ delivered before the National Association of Employment Managers at Cleveland in May, 1919, Dr. Leiserson, then chief of the Division of Labor Administration, Working Conditions Service, Department of Labor, emphasized the fact that there is not always a clear understanding on the part of employers who establish so-called employees' representation plans that such plans necessarily involve the principle of collective bargaining, while such plans are usually accepted by employees as involving this principle. He held, therefore, that any such misunderstanding "is likely to cause trouble between employer and employee, making the employees feel that they have been deluded, while the employers are likely to think that the workers are ungrateful for all the things the management has been trying to do for them." It must be stated, however, that in some cases where employers have introduced employees' representation plans in which only personal relations subjects are handled by the committees it has been with the understanding that the plan should be extended in accordance with the interest in, and capabilities for, self-government shown by the employees. It may be, also, that in cases where such plans are introduced deliberately by the employer and not under the compulsion of a strike, actual or threatened, this method of gradually extending the scope of the plan may prove more successful in the long run than one in which the workers do not grow into their responsibilities by degrees. The most important thing, therefore, in putting into effect any scheme of industrial democracy seems to be a clear understanding on the part of both employers and workmen of the amount of control which the employees are to assume.

¹ Employment management, employee representation, and industrial democracy, by William M. Leiserson. Department of Labor, Washington, 1919. 15 pp.

In a study of this subject by H. W. Forster¹ the procedure to be followed in putting into effect any scheme of industrial representation, whether it is to be a simple or a comprehensive one, is outlined as follows:

(a) That an analysis be made of the existing cooperative activities in the plant in question.

(b) That a determination be made of what the men in the plant have desired in the past and what they now desire along industrial relations lines.

(c) That, in connection with the preparation of a plan for the particular plant in question, careful consideration be given to the various plans now in effect, to their strong and weak points, and to the practical results obtained with them.

(d) That a plan be developed for the plant under consideration which will be comprehensive and act as a guide possibly for years to come.

(e) That a determination be made as to the order in which procedure shall be undertaken.

(f) That after the whole matter has had the careful consideration of the executives, the plan be put into effect in such a manner as to arouse the friendly interest of the employees and to insure the maximum success.

(g) That thereafter the management keep in continual touch with its own working force through the plan, and in touch with what is being done in this field generally.

The earliest well-known example of employees' representation plans in the United States is that of the Colorado Fuel & Iron Co., established in 1915. Recently the Bureau of Labor Statistics through correspondence and by other means has received information of about 160 companies throughout the country which have shop committees of some sort operating in their plants. Fifty-eight of these companies have furnished the Bureau with copies of their plans and in some cases have expressed opinions as to the merits of the plans or as to the way in which they are working out. In almost all cases where an opinion was expressed the plan was working satisfactorily although a number qualified this opinion with the statement that it had not yet been in effect long enough to permit of a determination as to whether it would result in better relations permanently. Several companies stated, also, that while it was feared at the outset that there might be a tendency to elect the more radical members of the force as representatives, the general tendency had been toward selection of workmen who were fair-minded and unprejudiced.

One company reported that hours and wages had been discussed at one-fourth of the meetings held during the time the committees had been in operation, and that in no case had the conclusion reached been other than unanimous and entirely satisfactory to both employees and management. This company holds an evening meeting of the committees, starting with a dinner in the company cafeteria, every three or four months at which general conditions of the business are

¹ Cooperation with employees, by H. W. Forster. Independence Bureau, Philadelphia, 1919. 15 pp.

explained to the men—a proceeding which is said to have helped cement the feeling of confidence already established.

A rather surprising result of the good spirit engendered in another plant through the shop committees was the taking of an inventory of the unfinished stock on hand by the workers. This inventory was made during the industrial depression in the early part of this year and resulted in the recommendation that the plant be put on short time until conditions became normal. Not only was this action approved by the employees, although it meant a reduction in wages, but the spirit of the organization remained good and the turnover decreased.

Another company, writing of results accomplished by the employees' conference committee, says that while the company during the war committed itself to the principle of the eight-hour day, the ten-hour day was maintained in the interest of maximum war production until the pressure was removed. When the different factories of the company changed to the eight-hour day with a new wage scale, the conference committee at the main factory was given entire charge of working out the new scale of wages and the method of putting the change into effect. The rate of pay for the eight-hour day, which showed in every way a generous increase over the rate for the ten-hour day, was adopted as it was presented and immediately put into effect by the company. The employees in the different factories of this company are now represented on the board of directors and this new relationship, which will bring about direct and real representation in the conduct of the business, is considered another step forward in the progressive movement for the betterment of industrial relations.

Types of Plans in Operation.

These plans may be divided into three classes—welfare committees, dealing only with personnel questions; the so-called “company unions”; and those plans which involve agreements with trade-unions. As explained before, those dealing only with questions relating to conditions of work are not commonly considered as properly having a place in a discussion of industrial democracy and will therefore be excluded from consideration.

The plans included under the head of employers' unions may be divided into two classes, those in which the shop committee system is based upon the theory of joint control by management and workers and the so-called Leitch plan which is modeled upon the United States Government. An analysis of the principal features of the plans based on the principle of joint control shows that in general the fol-

lowing points are fairly common to the different examples of this type of plan.¹

In most cases, while the plans have been drawn up by the companies, they have been presented to the employees for a vote of acceptance or rejection and usually enough interest has been manifested so that a majority of those voting has been, also, a majority of the workers. Also in many instances this first draft by the company has been only a tentative one presented by the company in order to have a working basis to start on and frequently it has been materially changed before final acceptance at joint meetings of the employees' representatives and the management. Nearly all the plans provide for alternation in office of the delegates so that half of the number always have sufficient experience to insure smooth working of committees. The term of office is usually either six months or one year and eligibility for office as representative usually depends upon the person being either an American citizen or one having taken out first papers; a certain age, usually 21 years; and a stated length of service with the company, which varies greatly in different plans. The qualifications for voters usually ignore the question of nationality but frequently require a certain period of service which, however, is considerably less than that required of representatives. Representatives are usually eligible for reelection and are nearly always subject to recall on a two-thirds vote of the employees in their section or division. Nominations and elections are by secret ballot with adequate provision for securing an impartial count. Meetings are arranged for at regular intervals—at least once a month—and provisions are made for calling special meetings. The meetings are generally held during working hours and the representatives in most cases receive their usual rate of pay. The management ordinarily appoints a representative whose business it is to keep the management in touch with the representatives and represent the management in their negotiations with representatives or committees but who is not entitled to a vote. In general the plans guarantee that there shall be no discrimination because of race, sex, political or religious affiliation, nor because of any action taken by the employees in their capacity as representatives.

Most of the plans provide for a general joint committee, or, as it is sometimes called, a conference committee, and for subcommittees,

¹ The Bridgeport plan which was put in effect in a large number of factories in Bridgeport, Conn., at a time when labor troubles threatened seriously to imperil the production of munitions was discussed and the text of the plan given in the MONTHLY LABOR REVIEW for May, 1919 (pp. 192-200). The collective bargaining agreement between the Bethlehem Shipbuilding Corporation and the Metal Trades Department of the American Federation of Labor was also given in full in the REVIEW for February, 1919 (pp. 143, 144), and in an article, "Growth of employees representation and collective bargaining," in the REVIEW for March, 1919 (pp. 153-162) the principal features of the National War Labor Board plan, those plans in effect in many of the iron and steel plants, and those in miscellaneous industries were given.

either joint or of employees' representatives alone. The general committee may deal with questions not taken up by the subcommittees and may serve also as a committee on appeals.

The basis of division for representation may be either geographical or on the basis of craft or a combination of the two. Grievances and individual wage disagreements are usually taken up with the foreman or the immediate superior of those concerned and go to the committees only after failure to reach a satisfactory adjustment. Committees deal usually with half a dozen or more subjects of those which are generally conceded to come within the scope of the plans, such as wages, rate setting, premiums or bonuses, hours, overtime rules, general working conditions, safety, sanitation, transfers, promotions, suggestions, and education and welfare.

The plan of employees' representation commonly called the Leitch plan is in force in a number of different industries.¹ It is a system modeled upon our National Government and consists of a cabinet, senate, and house of representatives, the first two of which are not elective bodies. The cabinet is made up of the executives of the company, the senate of the foremen and heads of departments, and the house of representatives of the workers, who are elected as in the other plans by secret ballot. The senate and house meet separately and elect their own officers and standing committees, to which are referred all prospective legislation. Bills must pass both houses and be approved by the executives. Both the cabinet and the senate can initiate legislation by a message to the house. The employees' representatives act as councillors in their departments, receive and transmit all suggestions and complaints, and keep the other employees informed of the progress of legislation.

A modification of this plan is found in one instance in an industrial assembly which is composed of 40 representatives and 20 senators, all elected by the workers. Representatives must be 21 years of age with one year's continuous service with the company, and senators 25 with a record of five years' employment. Power for final decision is placed with the board of directors. Bills which have passed both houses must receive the approval of the factory manager, but in case of his disapproval, which must be stated in writing to the house in which the bill originated, a two-thirds vote of both houses is sufficient to enact the bill into a law. Provision is made for joint conferences of an equal number of the management and workers in questions of joint interest such as wage adjustments, working conditions, and adjustment of grievances, each house appointing the same number of representatives. An essential part of the Leitch

¹ See Nonunion collective bargaining plan, by Boris Emmet, in MONTHLY LABOR REVIEW, August, 1918, pp. 180-184.

system is the profit-sharing plan by which all savings in cost of production are divided equally between the company and the employees. The employees receive their dividends at frequent intervals and in a separate envelope marked "employee's dividend," so that the dividend will not be confused with the regular wages.

In addition to these two fairly uniform types of plans, a number of companies have instituted plans which are difficult to classify as they have apparently been formed to meet peculiar local conditions. In some instances, because the plant is comparatively small and it has been possible to maintain closer relations between management and employees, a less complete and formal organization has seemed to meet the requirements.

In several of the well-organized trades, such as the garment workers¹ and printing trades, agreements have been reached between the international union and individual firms or between the union and associations of employers which provide for control of purely local conditions by the agency of shop representatives, leaving matters of policy and general interest to the joint council or trade board.

In an article² on this subject by Mr. William Leavitt Stoddard in *Industrial Management* there are four principles suggested for adoption by both employer and employee. The first three recognize the right of employees to organize into trade-unions and of employers into associations; the right of employees to seek recognition and of employers to accord or refuse it; and of both employers and employees to organize shop committees without interference or discrimination on the part of local trade-unions or other organizations. To these principles the author adds a fourth, which is:

Modern industrial management involves democratic management; democratic management involves participation in management by employee as well as employer; joint participation in management involves a new and intensive form of shop organization, local to the plant; such organization can not be perfected without mutual confidence and cooperation, a basic principle of which is that each of the two parties to the partnership shall be guaranteed independence of thought and action to the end that the joint effort shall be truly representative of the best endeavors of each.

¹ See New trade agreement in the dress and waist industry of New York City, by Boris Emmet, in *MONTHLY LABOR REVIEW*, June, 1919, pp. 1-17.

² Labor and the shop committee, by William Leavitt Stoddard, in *Industrial Management*, September, 1919, p. 220.

Discussion of Employees' Representation at Eighth Annual Safety Congress.¹

THE National Safety Council considered the subject of employees' representation of such importance to the safety man that the first general session of the Eighth Annual Safety Congress, held in Cleveland, Ohio, October 1 to 4, 1919, was entirely devoted to a discussion of this subject. Papers on various aspects of the subject were read by Cyrus McCormick, jr., works manager, International Harvester Co., Chicago; E. B. Tolsted, Independence Bureau, Philadelphia; and W. M. Leiserson, impartial chairman of the Permanent Board of Arbitration for the Clothing Industry of Rochester. Matthew Woll, vice president, American Federation of Labor, was scheduled to read a paper on "Employees' representation from the standpoint of organized labor." In Mr. Woll's absence his paper was read by a representative of the Cleveland Federation of Labor.

Mr. McCormick, in addressing the Council on "Cooperation and industrial progress," outlined the fundamental principles underlying employees' representation as conceived in the establishment of the Harvester Employees' Councils set up by the International Harvester Co., and described its operation in that company's plants during the short period that has elapsed since the inception of the plan. Representation plans, to be successful, must, he said, be based upon full and complete representation of employees, with a sufficiently small group unit of representation; must involve "joint conference between men and management"; must provide for an easy secret method of election and "give the men absolute freedom in choosing their representatives"; must provide for an easy method of appeal to the highest authority in the company; must have adequate executive supervision; and, finally, they must entirely avoid discrimination against any employee because of union affiliation, or for any other reason.

The Independence Bureau of Philadelphia investigated 50 of the 150 firms which are reported to have instituted some form of employees' representation. Some of the results of this investigation were presented by Mr. E. B. Tolsted, of that bureau. In summarizing these results Mr. Tolsted emphasized the fact that there was not found in any of the plans investigated the measure of control implied by the term "industrial democracy." Reports indicated that in most of the concerns studied the representation plans brought about a great increase in cooperation between employer and employee, and increased appreciation by employees of the problems of management. Several companies reported increased efficiency and a reduction of absenteeism

¹ A general report of the proceedings of the Eighth Annual Safety Congress appears on pp. 258 to 260 of this issue of the REVIEW.

and labor mobility. As to the best methods of launching employees' representation plans the Independence Bureau's inquiry showed that plans, which should be simple in form, should never be instituted in time of strike, and should, when once started, be developed step by step by gradual extension of the scope of the committee's authority and jurisdiction. Meetings should be held during working hours and adequate records kept of all proceedings and decisions. It should be made plain that the plan in no way interferes with existing relations of the management with labor unions. The success of any plan, in this speaker's opinion, must depend "upon the understanding, by both the management and the men, of what the plan means at its inception; by the management, of where it is likely to lead; and upon the degree of mutual confidence existing between employer and employee."

In his paper on "Labor management and collective bargaining," Mr. Leiserson emphasized the fundamental distinction between the essentially personal and administrative character of labor management, including matters of hiring, selection, training, promotion, health, safety, etc., and what may be called the legislative and governmental matters—matters of control—which may be grouped under the phrase "collective bargaining." Labor management problems do not involve conflicting interests and are to be settled by good management and scientific experts rather than by democratic decisions of majorities. On the other hand, collective bargaining, of which employees' representation constitutes one phase, has to do with division of the product, control of industry, wages, hours, unionism, shop discipline, etc. The employees' representation phase of collective bargaining is likely to grow into the trade-union phase of collective bargaining. Employees' representation, in other words, is and should be an asset and a training and recruiting agency for organized labor and will be a failure if the representation plans are to be used as a substitute for organized labor or as a means of destroying it. Mr. Leiserson concluded that employees' representation plans would not only not be handicapped but would be made more successful, perhaps even saved from possible disaster, by explicit provision for union recognition in the very constitution of the plan. He cited in support of his argument the experience of the clothing industry of Rochester, N. Y., where organized clothing manufacturers have recognized and collectively dealt with the organized clothing workers, with conspicuously successful results.

The subject was presented from the standpoint of organized labor by Matthew Woll, vice president of the American Federation of Labor. Mr. Woll's paper voiced the opposition of the trade-unionist to employees' representation plans as being "company unions" and likely to

be an obstacle to progress toward real industrial democracy, and urged the necessity for union recognition, trade agreements, and complete organization of all employees in the trade-unions.

Joint Industrial Councils in Great Britain.

THE Bureau of Labor Statistics has issued a bulletin (No. 255) on joint industrial councils in Great Britain, in which are reprinted the five reports of the Whitley committee on relations between employers and employed and other official documents issued by the Ministry of Labor bearing upon the organization of these councils. A feature of the bulletin is a chart showing the progress of the establishment of joint industrial councils down to May 13, 1919, the data being furnished by the British Ministry of Labor. Seventy-one industries are listed on this chart as having made a start toward the formation of a council and 35 are shown as having completed their organization and held their first meeting. Five other industries have each adopted a constitution.

In view of the widespread interest in the Whitley council scheme in England and its applicability, perhaps in a modified form, to industrial conditions in this country, the bulletin will doubtless prove of considerable value in giving authoritative information to those among employers and workers who are really interested in working out some plan by which they may be drawn into closer relationship for their mutual benefit.

In the July bulletin of the Industrial Councils Division of the British Ministry of Labor there is a statement showing the industries that had set up national councils down to July 9, 1919, the date on which organized, and the estimated number of workpeople affected. This statement, covering a period approximately two months longer than that covered by the chart in Bulletin 255, includes 41 industries, or six more than are shown on that chart as having completed organization. It should be stated that so far as the Bureau is advised, only three industries—pottery, rubber, and matches—have effected a complete organization under the Whitley plan, that is, have organized national councils, district councils and works committees.

ORGANIZATION OF JOINT INDUSTRIAL COUNCILS IN GREAT BRITAIN DOWN TO
JULY 9, 1919.

Date.	Industry.	Estimated number of workpeople employed in the industry.
1918.		
Jan. 11.....	Pottery.....	64,000
May 29.....	Building.....	553,000
July 16.....	Rubber manufacturing.....	58,000
July 20.....	Gold and silver, etc.....	30,000
July 23.....	Match manufacturing.....	5,500
July 25.....	Silk.....	33,000
July 31.....	Furniture.....	85,000
Aug. 16.....	Heavy chemicals.....	30,000
Sept. 18.....	Bread baking, etc.....	99,000
Sept. 18.....	Paint, color, and varnish.....	19,000
Sept. 23.....	Vehicle building.....	28,000
Oct. 1.....	China clay.....	9,000
Oct. 10.....	Hosiery (English).....	86,000
Oct. 21.....	Metallic bedsteads.....	8,000
Oct. 22.....	Bobbin and shuttle.....	4,500
Oct. 23.....	Made-up leather goods.....	42,000
Nov. 5.....	Woolen and worsted (Scottish).....	(1)
Nov. 6.....	Hosiery (Scottish).....	(2)
Nov. 21.....	Sawmilling.....	74,000
1919.		
Jan. 8.....	Wall-paper making.....	3,000
Jan. 15.....	Wool (and allied) textile.....	298,000
Jan. 17.....	Tin mining.....	6,000
Jan. 22.....	Electrical contracting.....	6,000
Jan. 24.....	Packing-case making.....	24,000
Mar. 5.....	Elastic webbing, etc.....	4,000
Mar. 7.....	Welsh plate and sheet.....	25,000
Mar. 11.....	Road transport.....	152,000
Mar. 12.....	Asbestos manufacturing.....	3,000
Mar. 20.....	Coir mat and matting.....	3,000
Apr. 3.....	Waterworks undertakings.....	17,000
Apr. 11.....	Local authorities' nontrading services (manual workers).....	60,000
Apr. 30.....	Gas undertakings.....	94,000
May 1.....	Electricity supply.....	29,000
May 8.....	Heating and domestic engineering.....	62,500
May 13.....	Spelter.....	3,000
May 22.....	Flour milling.....	25,000
May 27.....	Boot and shoe manufacture.....	160,000
June 24.....	Iron and steel wire manufacture.....	34,000
June 25.....	Music trades.....	5,500
July 1.....	Printing.....	191,500
July 9.....	Needles, fishhooks, and fishing tackle.....	5,000

¹ Included in wool (and allied) textile.² Included in hosiery (English).

EMPLOYMENT AND UNEMPLOYMENT.

Employment in Selected Industries in September, 1919.

THE Bureau of Labor Statistics received and tabulated reports concerning the volume of employment in September, 1919, from representative establishments in 13 industries. The figures for September, 1919, when compared with those from identical establishments for September, 1918, show increases in the number of people employed in 6 industries and decreases in 7. The largest increase, 27.3 per cent, appears in automobile manufacturing, while the greatest respective decreases—27.7 and 22 per cent—are shown in car building and repairing and in cigar manufacturing.

Eleven of the industries show an increase in the total amount of the pay roll for September, 1919, as compared with September, 1918. The largest increases—40.8, 31.8, and 27.7 per cent—appear in automobile manufacturing, men's ready-made clothing, and leather manufacturing, while boots and shoes shows an increase of 24.8 per cent. A decrease of 33.6 per cent is shown in car building and repairing, and one of 11.2 per cent in iron and steel.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN SEPTEMBER, 1918, AND SEPTEMBER, 1919.

Industry.	Estab-lish-ments reporting for Sep-tember, both years.	Period of pay roll.	Number on pay roll in September—		Per cent of increase (+) or decrease (-).	Amount of pay roll in September—		Per cent of increase (+) or decrease (-).
			1918	1919		1918	1919	
Automobile manufacturing...	44	1 week..	93,623	119,186	+27.3	\$2,489,868	\$3,505,294	+40.8
Boots and shoes.....	65	..do.....	46,463	49,762	+ 7.1	897,841	1,120,714	+24.8
Car building and repairing...	42	$\frac{1}{2}$ month.	58,192	42,100	-27.7	3,655,934	2,428,417	-33.6
Cigar manufacturing.....	50	1 week..	18,606	14,508	-22.0	276,016	283,785	+ 2.8
Men's ready-made clothing...	34	..do.....	18,226	16,371	-10.2	332,573	438,423	+31.8
Cotton finishing.....	17	..do.....	13,887	14,362	+ 3.4	272,280	317,311	+16.5
Cotton manufacturing.....	52	..do.....	47,559	51,441	+ 8.2	783,558	921,092	+17.6
Hosiery and underwear.....	63	..do.....	32,532	31,136	- 4.3	488,542	535,716	+ 9.7
Iron and steel.....	104	$\frac{1}{2}$ month.	199,136	174,117	-12.6	12,824,070	11,389,023	-11.2
Leather manufacturing.....	32	1 week..	14,256	15,780	+10.7	295,339	381,065	+27.7
Paper making.....	50	..do.....	22,173	22,011	- .7	487,221	541,586	+11.2
Silk.....	36	2 weeks.	9,672	9,485	- 1.9	305,775	346,092	+13.2
Woolen.....	50	1 week..	43,852	44,971	+ 2.6	864,982	977,271	+13.0

The next table shows the number of persons actually working on the last full day of the reported pay period in September, 1918, and

September, 1919. The number of establishments reporting on this question is small, and this fact should be taken into consideration when studying these figures.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS ON THE LAST FULL DAY'S OPERATION IN SEPTEMBER, 1918, AND SEPTEMBER, 1919.

Industry.	Establishments reporting for September, both years.	Period of pay roll.	Number actually working on last full day of reported pay period in September—		Per cent of increase (+) or decrease (-).
			1918	1919	
Automobile manufacturing.....	26	1 week....	51,535	82,739	+60.5
Boots and shoes.....	18	..do.....	9,867	9,788	-.8
Car building and repairing.....	40	½ month....	50,660	37,169	-26.6
Cigar manufacturing.....	15	1 week....	4,595	4,393	-4.4
Men's ready-made clothing.....	6	..do.....	3,745	3,636	-2.9
Cotton finishing.....	14	..do.....	9,962	10,484	+5.2
Cotton manufacturing.....	31	..do.....	20,679	22,509	+8.8
Hosiery and underwear.....	23	..do.....	13,614	13,661	+.3
Iron and steel.....	95	½ month....	165,168	148,749	-9.9
Leather manufacturing.....	18	1 week....	10,593	11,334	+7.0
Paper making.....	21	..do.....	8,373	8,082	-3.5
Silk.....	23	2 weeks....	6,639	5,658	-14.8
Woolen.....	42	1 week....	33,392	34,544	+3.4

In comparing the reports of the same industries for September, 1919, with those for August, 1919, 11 industries show an increase in the number of persons on the pay roll and 2 a decrease. The largest increase, 14.5 per cent, is shown in cigar manufacturing, while increases of 5.8 and 5.6 per cent appear in automobile manufacturing and men's ready-made clothing, respectively. The greatest decrease, 13.1 per cent, is shown in silk.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN AUGUST AND SEPTEMBER, 1919.

Industry.	Establishments reporting for August and September.	Period of pay roll.	Number on pay roll in—		Per cent of increase (+) or decrease (-).	Amount of pay roll in—		Per cent of increase (+) or decrease (-).
			August, 1919.	September, 1919.		August, 1919.	September, 1919.	
Automobile manufacturing.....	42	1 week....	109,841	116,183	+5.8	\$3,031,287	\$3,404,286	+12.3
Boots and shoes.....	65	..do....	48,568	49,414	+1.7	1,087,799	1,112,608	+2.3
Car building and repairing.....	39	½ month....	37,540	38,244	+1.9	1,858,280	2,201,838	+18.5
Cigar manufacturing.....	45	1 week....	11,508	13,172	+14.5	199,408	250,647	+25.7
Men's ready-made clothing.....	43	..do....	16,238	17,141	+5.6	405,562	460,705	+13.6
Cotton finishing.....	16	..do....	13,892	14,254	+2.6	313,287	314,771	+.5
Cotton manufacturing.....	51	..do....	49,841	50,581	+1.5	877,002	906,862	+3.4
Hosiery and underwear.....	63	..do....	30,783	30,579	-.7	515,975	515,973	(1)
Iron and steel.....	102	½ month....	174,606	175,237	+.4	11,775,147	11,545,096	-2.0
Leather manufacturing.....	33	1 week....	17,146	17,510	+2.1	426,367	416,451	-2.3
Paper making.....	47	..do....	20,286	21,076	+3.9	503,629	521,105	+3.5
Silk.....	36	2 weeks....	10,914	9,485	-13.1	394,230	346,092	-12.2
Woolen.....	48	1 week....	44,195	44,570	+.8	957,022	967,417	+1.1

¹ Decrease of less than one-tenth of 1 per cent.

When compared with August, 1919, the pay rolls in September, 1919, show increases in 9 of the 13 industries reporting and decreases in 4. The greatest increases are 25.7 per cent in cigar manufacturing; 18.5 per cent in car building and repairing; 13.6 per cent in men's ready-made clothing; and 12.3 per cent in automobile manufacturing. Silk shows a decrease of 12.2 per cent.

The increases in cigar manufacturing and car building and repairing are largely due to a settlement of labor disputes in some of the plants.

A comparatively small number of establishments reported as to the number of persons working on the last full day of the reported pay periods. The following table gives in comparable form the figures for August, 1919, and September, 1919. The small number of establishments represented should be noted when using these figures.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS ON THE LAST FULL DAY'S OPERATION IN AUGUST AND SEPTEMBER, 1919.

Industry.	Establishments reporting for August and September.	Period of pay roll.	Number actually working on last full day of reported pay period in—		Per cent of increase (+) or decrease (—).
			August, 1919.	September, 1919.	
Automobile manufacturing.....	25	1 week....	70,541	73,879	+ 4.7
Boots and shoes.....	29	..do.....	13,683	14,634	+ 7.0
Car building and repairing.....	38	½ month....	30,743	34,067	+10.8
Cigar manufacturing.....	13	1 week....	1,792	2,338	+64.0
Men's ready-made clothing.....	5	..do.....	3,513	3,613	+ 2.8
Cotton finishing.....	13	..do.....	9,878	10,381	+ 5.1
Cotton manufacturing.....	29	..do.....	20,174	21,074	+ 4.5
Hosiery and underwear.....	22	..do.....	12,449	12,836	+ 3.1
Iron and steel.....	92	½ month....	141,664	146,298	+ 3.3
Leather manufacturing.....	19	1 week....	12,954	13,031	+ .6
Paper making.....	19	..do.....	8,646	8,722	+ .9
Silk.....	24	2 weeks....	7,717	5,804	-24.8
Woolen.....	45	1 week....	35,252	35,281	+ .1

Changes in Wage Rates.

In each of the 13 industries there were establishments reporting increases in wage rates during the period August 15 to September 15, 1919. A number of firms did not answer the inquiry relating to wage-rate changes, but in such cases it is probably safe to assume that no changes were made.

Automobile manufacturing: An increase of 20 per cent was given to 50 per cent of the force in one plant. Approximately 43 per cent of the employees in one establishment received an increase of 14 per cent. One plant granted an increase of 10 cents per hour to about 2 per cent of the men, 5 cents per hour to about 6 per cent of the employees, 2½ cents per hour to about 2 per cent of the force, \$3 per week to one man, and \$1 per week to another man. One-third of the

employees in one plant received an increase of $1\frac{1}{2}$ per cent, and approximately 19 per cent of the force in another plant were given an increase of 0.0444 per cent. In one factory an average increase of 0.025 cents per hour was granted to about 6 per cent of the men.

Boots and shoes: Fifty per cent of the employees in one plant received an increase of 25 per cent, $33\frac{1}{3}$ per cent of the force in another plant were given a 20 per cent increase, and $66\frac{2}{3}$ per cent of the force 14 per cent, and all of the employees in a third establishment were increased 16 per cent. An increase of 15 per cent to $66\frac{2}{3}$ per cent of the force was reported by one establishment, an increase of about 14 per cent to all of the employees by another establishment, and an increase of 13 per cent to 6 per cent of the force was given by two plants. One establishment granted an increase of 11 per cent to 10 per cent of the day help and 15 per cent to 14 per cent of the pieceworkers. Three concerns reported a 10 per cent increase, affecting the entire force in one plant, and one-third of the force in two plants.

Car building and repairing: A few slight increases were granted by some of the car shops.

Cigar manufacturing: An increase of 20 per cent to 85 per cent of the employees was reported by one establishment, and an increase of approximately 20 per cent to 80 per cent of the employees by another establishment. Seven concerns granted a 15 per cent increase, affecting the entire force in one factory, 95 per cent of the employees in two factories, 82 per cent in one factory, 80 per cent in another, 70 per cent in the sixth factory, while the seventh concern failed to state the number of employees affected. An increase of about 15 per cent to approximately 90 per cent of the force was given in one shop. An 11 per cent increase was granted to $3\frac{1}{2}$ per cent of the employees in one establishment. Two plants reported a 10 per cent increase, affecting 30 per cent of the employees in one establishment, while the other establishment failed to give the number of persons receiving the increase. The wages in one plant were increased about 8 per cent. The entire force in one factory received an increase of 7 per cent. All of the employees in one establishment received an increase, the rate of which was not given.

Men's ready-made clothing: One establishment granted an increase of 20 per cent to 25 per cent of the employees and another establishment gave the entire force an increase of 15 per cent. An increase of 10 to 15 per cent, affecting 10 per cent of the employees, was reported by one firm. All of the employees in one establishment received an increase of \$3 per week.

Cotton finishing: All of the employees in one plant were advanced approximately 15 per cent. An increase of 10 per cent, affecting 10 per cent of the employees, was reported by one establishment.

Cotton manufacturing: An increase of 10 per cent to all of the employees was granted by one establishment. Two other plants reported increases of about 10 per cent, affecting all of the employees in one plant, while the second plant failed to give the number of persons receiving the increase. The entire force in two plants were advanced 7 per cent in one mill and 5 per cent in the second mill. An increase was granted in one department of another mill, but no further data were given.

Hosiery and underwear: The entire force in one establishment received an increase of 12 per cent. One plant reported an increase of 10 to 15 per cent, which affected the entire force, and two establishments granted a 10 per cent increase to all of the employees. An increase of $6\frac{1}{4}$ per cent was given to the entire force in one mill, and a 5 per cent increase was granted 75 per cent of the employees in another mill.

Iron and steel: Two plants reported an increase of 10 per cent, affecting the entire force in one plant and 95 per cent of the employees in the second plant. Increases of $2\frac{1}{2}$ per cent in the finishing mill and 5 per cent in the puddling mill were given by one establishment, affecting 50 per cent of the employees. Four per cent of the employees in one plant received a 0.26 per cent increase.

Leather manufacturing: A 10 per cent increase was given by two plants, the entire force being affected in one plant and 20 per cent of the employees in the other.

Paper making: All of the employees in one establishment received an increase of 12 to 14 per cent, in a second plant 10 per cent, and in a third plant 5 per cent. Two establishments granted increases of slightly more than 8 per cent to about 7 per cent of the employees in one plant and about 5 per cent of the force in the other plant. In one mill 90 per cent of the employees received an increase of 5 per cent.

Silk: An increase of 11 per cent was given to 60 per cent of the force in one establishment. One concern reported an increase of 10 per cent for all departments, and another concern granted the entire force an increase of approximately 10 per cent. Increases of $9\frac{1}{2}$, $8\frac{1}{3}$, 8, and 7 per cent were given by four plants, affecting the entire force in each mill except the third mill which gave the increase to 95 per cent of the employees.

Woolen: A 15 per cent increase to 50 per cent of the force was reported by one establishment. Twenty-two per cent of the employees in one mill were granted an increase of 4 to 10 per cent.

How the War Department Handled Its Labor Problem.

A RECENT report¹ of the War Department shows how that department became a dominant factor in the industrial and labor situation in the country by the time the war ended, though at the beginning of the conflict it had no labor problem recognized as such. On November 11, 1918, "its employees, direct and indirect, included the majority of all industrial workmen of the country. Its functions and activities in the field of labor included not only the adjustment of disputes, the fixing of wages and hours in many industries, but an intimate contact with such relevant subjects as housing, employment management, community organizations, etc. There was no aspect of the labor problem into which it did not enter." A definite labor policy and the machinery for administering it necessarily developed slowly; new declarations and rulings were made and new boards established as the need arose. The early policy was expressed through the Council of National Defense, in addresses by the President and the Secretary of War, and in general orders of the Chief of Ordnance and the Quartermaster General. It was chiefly to the effect that the standards of working conditions then prevailing should at least be maintained, that "nobody has a right to stop the processes of labor until all the methods of conciliation and settlement have been exhausted," and "that we must not only take common counsel but that we must yield to and obey common counsel."

The building of cantonments gave rise to the first labor problem to confront the department. To meet this situation the Secretary of War entered into an informal agreement with Mr. Samuel Gompers, president of the American Federation of Labor, "which formed the basis of the department's entire labor policy in its subsequent building program." Pursuant to this agreement of June 19, 1917, the first of the many boards and commissions created during the war to deal with the labor situation, was established. It was known as the Cantonment Adjustment Commission and had a directing power in the labor problems arising in the course of this great building enterprise. It was further agreed that the union scales of wages, hours, and conditions in force on June 1, 1917, in the locality where such cantonment was situated should be the basic standards. Adjustments were to be made by the board when necessary and should be treated as binding by all parties. The result of the work of this commission was that the great building operation was completed at the appointed time and without serious labor controversy. In June, 1918, the

¹ A report of the activities of the War Department in the field of industrial relations during the war. Washington, 1919. 90 pp.

name of this commission was changed to the Emergency Wage Adjustment Commission, and at the same time an informal arrangement was entered into with the Navy Department under which a representative of that department sat with the commission on all matters the decision of which would affect the Navy building operations.

Likewise the need of speed and quantity in the production of Army clothing, harness, and saddlery, and munitions and ships called into being the Board of Control for Labor Standards in Army Clothing, the National Harness and Saddlery Adjustment Commission, and the Arsenal and Navy Yard Commission, respectively.

All the labor activities of the War Department were coordinated in the office of the Secretary of War, which became also the connecting link between the labor activities of that department and outside departments. On June 14, 1918, the Secretary of War placed the final responsibility for the control of wages, hours, and conditions of work for all War Department projects in the hands of his special assistant on industrial relations,¹ a practice which had really existed from the outset. The administrative work was carried on largely by the industrial service sections of the various bureaus. The broad scope of the work done by this section of the Office of the Chief of Ordnance is shown by its division into branches dealing with the adjustment of labor disputes, women's working conditions, information regarding labor activities, procurement of labor, housing, community organization, safety and sanitation, and employment and training methods.

The remainder of the report deals principally with the relations of the War Department, so far as its labor problems were concerned, with other Government agencies, primarily the Department of Labor. The most important organizations established under the latter for dealing with the new labor problems were the National War Labor Board, the final court of appeal of the Federal Government on labor controversies during the war, the National Adjustment Commission to adjust longshore and harbor craft labor difficulties, the War Labor Policies Board to coordinate the labor activities of the various departments and agencies of the Federal Government, and the Conference Committee of National Labor Adjustment Agencies on which were represented all arbitration boards and adjustment agencies established by the various departments of the Government to deal with labor controversies. With all these the War Department worked in close cooperation.

With the signing of the armistice the War Department, so far as labor was concerned, reverted as rapidly as possible to a peace-time

¹ This office was held in turn by Felix Frankfurter, Walter Lippmann, Stanley King, Ernest M. Hopkins, and again by Stanley King.

basis, demobilizing its industrial service sections and commissions, and retaining only the Industrial Service Section of the Ordnance Office, which should have control over labor matters in the Government arsenals.

In closing, the report states that "the War Department carried through its industrial program for the equipment and maintenance of its armies in the field and of its troops in training in the camps and cantonments of this country without serious interruption or delay at any point due to labor controversy." Furthermore, its war labor functions "rendered an important contribution in a vital field in the industrial mobilization of the nation."

A Permanent Program for Stabilizing Employment in New York State.

THE New York State Reconstruction Commission, under the chairmanship of Abram I. Elkus, submitted on June 17, 1919, a report¹ to the Governor, suggesting the desirability of framing a permanent program for dealing with the problem of unemployment in the State, and making certain well-defined recommendations for developing and putting into effect such program. The commission found that "the chronic unemployment which exists in the State" independent of business conditions is attributable in the main to two factors (1) the physical impossibility, in the present industrial organization, of connecting workers with jobs without loss of time in the interim, and (2) the seasonal fluctuations in the demand for labor in the several industries. It was also found that in addition to these continuous and normal causes of unemployment there are variations in the demand for labor in one or another industry due to the incessant play of business conditions and to cyclical depressions of the whole industrial system, caused by fluctuations in gold and silver, misdirection of productive energy, underconsumption, excessive competition, etc.

While not condemning the private employment exchanges, which the commission admits have a mission to perform, as for instance in the case of schools, colleges, and business colleges which conduct employment bureaus for the benefit of their graduates, it is felt that for the great majority of employments the ideal condition will be attained only when the State system of exchanges becomes in effect the

¹ Report of Gov. Smith's reconstruction commission on a permanent unemployment program, June 17, 1919. Albany. 17 pp.

exclusive source of supply of labor. To this end it is believed the permanent legislative policy of the State should be carefully directed. The great problem to be worked out is to reduce to a minimum the loss of time which now results in connecting the worker and the job and this may be accomplished by establishing a system of labor exchanges which would record in a single unified register every vacancy and every seeker for work. The commission feels that it is impossible to secure "even an approach to this condition under the system of competitive privately operated, fee-charging employment agencies" and that it must be done by a system of public employment offices established on an adequate basis. More vigorous supervision of private agencies is suggested; they should be licensed regardless of locality "and should be required to sign a penal bond, the license to be for a short period of time and to embody provision for the revocation or nonrenewal of the license in the event of improper conduct on the part of the licensee."

In connection with the development of a State employment system and the control and gradual supplanting of most of the private employment agencies, a condition which the commission believes would be brought about by the competition of the free public agencies, there are a number of problems suggested as needing careful study by the State industrial commission, with a view to working out a definite program. These are—

1. The organization of the labor market to bring about extensive dovetailing of winter and summer trades and to stimulate the use of subsidiary trades.
2. Directing labor to new occupations when changes of industrial structure result in displacement from chosen occupations.
3. Reserving certain places in industry for older men and women and leaving the younger generation the task of finding and forcing fresh openings for themselves.
4. Concentrating attention upon the need for industrial training, including "vestibule" or preliminary training, training in plants to increase efficiency while gainfully employed, and training in trade and business schools. This should be done with the State and local departments of education and with private educational institutions. An annual bulletin should be published, similar to that published by the Clearing House for War Time Training for Women, describing the courses of training in schools, trade schools, colleges, etc., for those seeking a vocational education.
5. Directing boys and girls away from "blind alley" employment, and issuing monthly bulletins based on the most complete figures which can be obtained.
6. Testing periodically and comprehensively the amount of unemployment.
7. In cases of seasonal employment or depression, urging employers to shorten hours rather than discharge employees.

The commission points out in some detail the difficult and somewhat unsatisfactory result which would appear to follow the adoption of a definite plan for State control of public works construction by which projects contemplated by the State or by municipalities might be so handled as to furnish employment to the largest possible

number in times of industrial depression. It is at best a new and untried method of public works administration and finance, and the commission states that it has not felt justified in recommending its adoption as a means of ameliorating the severity of unemployment conditions.

For the present it would seem that the most that can practically be done is to impress upon the various State departments and the local authorities the desirability of planning public improvements upon a long-term basis, and to designate some authority in the State to keep currently in touch with the execution of the several local and State programs, with a view to urging upon the city, county, and State authorities, and where necessary, upon the State legislature, prompt action in pushing forward the work outlined with especial vigor whenever industrial depression threatens.

Along this line the commission recommends that—

(1) In the absence of a single recognized State public works director the legislature authorize and require the State industrial commission through the bureau of employment to obtain during the first three months of each year from the several State departments and localities information regarding all public works projected and under construction, and to publish this information annually in April, in a summary form similar to that adopted this year by the reconstruction commission in its report to you on public improvements. (2) An informal body be set up consisting of representatives of the State departments principally concerned with public works including the State engineer, superintendent of public works, commissioner of highways, State architect and conservation commissioner, and of representatives of the State industrial commission, which shall study the data thus obtained in conjunction with the data regarding employment and business conditions currently gathered by the State industrial commission and shall call in April or May an annual conference of all public works authorities throughout the State to discuss engineering, financial, employment, and other common problems and to endeavor by counsel and suggestion to effect the vigorous prosecution of all works already planned for and financed, and the prompt financing of works projected whenever severe business depression and unemployment threaten. At this conference arrangements should be made by the representatives of the bureau of employment with the various public works authorities, whereby the bureau could be instrumental in supplying men to officials and contractors when work actually commences. Were such a board instituted, its operations over a period of a few years would disclose, more effectively than any speculation which may now be advanced by your commission, precisely what if anything may be accomplished by more positive and compulsory action of the State in securing an actual deferment of public works construction against periods of depression.

Even if such a plan were adopted and put into effect a certain amount of unemployment would still persist. Unemployment insurance has been suggested to remedy this situation, but the commission hesitates to recommend such a plan for New York State, at least until the State employment service is greatly extended to a point where it becomes practically a monopoly and is so efficient as to be capable of administering a law which involves complete supervision of all employment throughout the State.

Summary of Recommendations.

The definite recommendations submitted to the governor by the commission on reconstruction are thus summarized in the report:

1. Continue to develop the State employment service looking toward an ultimate State monopoly in this field, excepting possibly a small number of union agencies and private agencies supplying service of a personal and professional character.

2. Revise and introduce the bill drawn up by the industrial commission providing for licensing at a fee of \$250 of all private employment agencies. The State industrial commission should license all agencies excepting those in first class cities. In such cities the licensing should be done locally, but the State should divide all fees equally with the cities. The State's fees should go into a fund for the support of the bureau of employment.

3. Enforce the present State law providing for the maintenance of standard registers and the submission of figures by private employment agencies, extend the supervision of private employment agencies, and draw up legislation opening the books of private exchanges to audit by the State bureau of employment.

4. Direct the industrial commissioner, through the bureau of employment, to develop a program which should cover the following subjects:

(a) The organization of the labor market to bring about extensive dovetailing of winter and summer trades and to stimulate the use of subsidiary trades.

(b) Directing labor to new occupations when changes of industrial structure result in displacement from chosen occupations.

(c) Reserving certain places in industry for the older men and women, and leaving the younger generation the task of finding and forcing fresh openings for themselves.

(d) Concentrating attention upon the need for industrial training, including "vestibule" training where such training does not lead to blind-alley employment, training in plants to increase efficiency while gainfully employed, and training in trade and business schools. Issue in cooperation with the State and city departments of education annual bulletins outlining the courses of training in schools for all schools, colleges, etc., open to persons seeking vocational education.

(e) Directing boys and girls away from "blind-alley" employment.

(f) Testing periodically and comprehensively the amount of unemployment and publishing bulletins based on the most complete figures which can be obtained.

(g) In cases of seasonal employment or depression, urging employers to shorten hours rather than discharge employees.

5. Authorize and require the State industrial commission through the bureau of employment to obtain during the first three months of each year from the several State departments and localities current information regarding all public works projected and under construction and to publish this information annually in April in summary form.

6. Appoint an informal committee composed of representatives of the State departments principally concerned with public improvements and of the State industrial commission to study data thus obtained in conjunction with data regarding employment and business conditions currently gathered by the State industrial commission, and to call in April or May an annual conference of all public works authorities throughout the State to discuss engineering, financial employment, and other common problems. This committee should vigorously prosecute all public improvements whenever business depression and unemployment threaten, and report upon the need, if any, of compulsory action to secure the deferment of public works and the establishment of public works reserves.

CHILD LABOR.

Child Welfare Standards.

THE needs of the American child as regards its growth and development are set forth in a bulletin "Standards for Child Welfare" recently published by the Children's Bureau of the United States Department of Labor. An account of the conference on this subject, held under the auspices of the Federal Children's Bureau in Washington in May, 1919, together with the standards tentatively adopted at that time for children entering employment were published in the MONTHLY LABOR REVIEW for June, 1919 (pp. 216-220).

The standards, as finally determined upon, are the outgrowth of a series of conferences held last spring under the auspices of the Children's Bureau in nine of the principal cities of the country, with men and women of national and international reputation in matters affecting childhood taking part. The tentative standards adopted by the first conference, held in Washington, D. C., were submitted to each of the other conferences. The criticisms and suggestions made at the regional conferences have been thoroughly considered by an advisory committee named by the Washington conference to put the standards into final shape. The standards as they now stand may accordingly be taken as an embodiment of the best expert opinion on the needs and rights of childhood.

While they are presented "only as minimum standards and not as in any way limiting the degree of protection which an advanced state might desire to give its children," they offer an ideal that is considerably in advance of present-day provisions for child welfare. Among other things, they recognize that the protection of the child must begin with the protection of the mother and demand that care during pregnancy and confinement and instruction in the hygiene of maternity, infancy, and childhood be made available for all mothers through such agencies as prenatal clinics, maternity hospitals, maternity care in the home, children's health centers, and the provision of systems of public health nursing adequate to reach every mother and child. They emphasize especially the need for a family income adequate to enable mothers of young children to stay in the home, instead of going out to work with consequent neglect of home and family.

For school children, they set an ideal of more and better schools, vocational guidance and training, school lunches, and medical supervision.

The standards applicable to working children, if universally in force, would effectually put an end to child labor in country and city. They include a minimum working age of 16 years, part-time compulsory continuation schools for working children between 16 and 18 years of age, and public responsibility for the health and general welfare of the working child.

The provision of more abundant recreational facilities, with proper supervision, is also named as an essential; and a more general acceptance by the State of responsibility for the care and training of "special" children—defectives, dependents, and delinquents—is urged.

The introduction to the standards recognizes that child welfare in the last analysis is largely dependent upon certain social and economic factors and urges an adequate wage for the father, wholesome living conditions, and the abolition of racial discrimination as "fundamental to the realization of any child welfare program."

A German Program of Protective Legislation for Juvenile Workers.¹

THE German Central Office for Juvenile Workers (*Centralsteelle für die arbeitende Jugend*) has sent to the Government and the National Assembly a memorandum demanding protective legislation for juvenile workers. The chief points of the program outlined in the memorandum are as follows:

The extension of the compulsory school age to the end of the fifteenth year is a prerequisite of reform. The following are special demands on behalf of young persons who have left school:

(a) *Education*.—The continuation school should be transformed into a genuine trade school. Attendance must be compulsory up to the end of the eighteenth year. Instruction should be given during the day, preferably in the morning, young persons to have the required time at the employer's expense.

(b) *Protection for young persons*.—For children of school age every kind of paid work is to be abolished. For young persons who have left school, adequate protection must be granted up to the eighteenth year. Special demands will be made for—

1. Legal regulations for the protection of all young persons up to their eighteenth year, without any exception.
2. Establishment of a daily maximum of six working hours.
3. Prohibition of piecework.
4. Prohibition of the employment of young persons under 20 years in trades especially dangerous to the health.
5. Prohibition of night work up to the twentieth year.
6. The securing of 36 consecutive hours of Sunday rest.
7. Prohibition of compulsory "living in."
8. More severe penalties to be imposed on employers who repeatedly show themselves to be hardened offenders against regulations for the protection of juvenile workers.

¹ *Correspondenzblatt der Generalkommission der Gewerkschaften Deutschlands*. Berlin, June 14, 1919.

9. More severe penalties for employers who offend against the provisions for the prevention of accidents.

10. The appointment, under the factory inspection service, of inspectors of juvenile workers, their functions to be the regular supervision of establishments. These inspectors must be in constant touch with the labor commissions for the protection of young persons.

(c) *Reform of apprenticeship.*—The following reforms are needed:

1. The application to apprentices of the general regulations for the protection of young persons.

2. The establishment of an apprenticeship period of two years; and, for occupations which are very difficult to learn, of three years, but not more.

3. Prohibition of the employment of an apprentice at domestic work or work outside his own trade.

4. Abolition of the right of corporal punishment by the master or his representative.

5. The obligation of the master to train the apprentice thoroughly; the fixing of the maximum number of apprentices permitted, which must be in due proportion to the number of journeymen.

6. The fitting up of training shops.

7. The supervision of the training of apprentices by expert commissions, which must partly consist of representatives of the workers.

8. The granting to apprentices of an adequate sum for subsistence, which is to be fixed by a trade-union collective agreement. No apprenticeship premium is to be exacted by the master. In special cases the State should grant aid toward the expense of training apprentices.

9. Decisions in apprenticeship disputes to be made by the Industrial Court, not by the guilds.

10. The framing of special legislation, covering the whole of Germany, concerning apprenticeship in mining, navigation, the floating of timber down rivers, agriculture and similar occupations which are particularly dangerous and liable to cause overstrain to young persons.

11. The legal reconstitution of apprenticeship to be carried into effect at once in apprenticeship contracts already existing.

There is also need for an extensive organization for the placing of apprentices and for their vocational guidance. These should not be connected with schools but with independent institutions created for the purpose by the State and the communes.

In establishments employing 20 or more apprentices and juvenile workers (male and female) there should be special committees for apprentices and juvenile workers. These committees would represent the interests of the juvenile workers in the establishment and occupation in connection with the works councils.

(d) *Measures to protect young persons in cases of special need.*—These deal with the mentally defective, etc.

Child Labor Legislation in Hongkong.¹

FOR the first time in the history of Hongkong, China, and that part of the Far East generally, some attempt to regulate the employment of women and children and to prevent overcrowding in factories is being made. The sanitary board of Hongkong, corresponding in a general way to a board of health of considerable jurisdiction and ample powers in an American city, has taken up both

¹ From Commerce Reports, Aug. 15, 1919, U. S. Department of Commerce.

questions, and after thorough consideration by committees appointed to investigate the whole subject has adopted regulations which, it is believed, will prevent the more obvious abuses existing or likely to exist in the immediate future and will form at least a beginning of further regulation in the future.

In a general way the regulations as to child labor presented for enactment as an ordinance by the legislative council of the colony—which unquestionably will enact them—are far behind those obtaining in Great Britain or the United States. The proposed law merely provides that no child under 14 years of age shall be employed more than 10 hours, excluding meal times, in any one day except by special permit of the sanitary board; and prohibits the employment of children under 13 years of age in any factories or workshops likely to be injurious to life, limb, or health—regard being had to the individual physical condition of each child so employed. Since only two holidays per lunar month are allowed, and no half-holidays are observed in Hongkong, the weekly hours thus fixed are nearer to 70 than to the 55 which such a regulation would secure in Great Britain.

In the matter of overcrowding, section 3 (1) of the Factory and Workshops Act of the United Kingdom (1901) was adopted by the board. This provides that there shall be not less than 250 cubic feet of space in each room or subdivision of any factory or workshop for each person employed therein, and not less than 400 cubic feet for each person employed after 6 p. m. Under the regulation adopted the board will post a notice in English and Chinese in every factory or workshop, indicating the number of persons who may be employed in each room or subdivision. Other matters as to factory sanitation can be handled under present powers of the sanitary board.

Practically all shops employing women and children in Hongkong are already within the provisions of the new regulations, whose purpose is preventive rather than corrective. The sanitary provisions in force are generally much better than those existing in the homes of the employees.

INDUSTRIAL ACCIDENTS.

Prewar and War-Time Accident Rates in the Iron and Steel Industry.

By LUCIAN W. CHANEY.

THE following tables are presented as a record of progress in carrying out the plan of the Bureau of Labor Statistics to supplement the study of the iron and steel industry for the years 1910 to 1914, contained in Bulletin 234, by a study of a second five-year period, 1915 to 1919.

A special interest attaches to the grouping herein shown from the fact that it divides, as accurately as can be done, into a prewar (1910-1914) and a war-time (1915-1918) interval. It is not the purpose to make extended comment at this time. During 1920 a new bulletin will be issued in which it is proposed to resurvey the entire field. At the present time only the more striking features of the tables will receive attention.

In the industry, considered as a unit, both the frequency and severity of accidents were less in the war-time than in the prewar interval. This means that the exceedingly unfavorable conditions of the war period were not sufficient to overcome the net results of improved physical conditions and the other influences set in operation by the safety movement. Frequency declines from 177.7 cases per 1,000 300-day workers to 129.6 cases. Severity declines from 12.3 days per worker to 10.9 days. In blast furnaces the condition is the same as in the whole industry, with even greater emphasis. Frequency drops from 186.7 to 118.3, while severity drops from 21.4 days to 15.7 days.

It would be gratifying if the same condition prevailed in all the departments. Unfortunately it does not. In three large and important departments, namely, Bessemer, open hearths, and heavy rolling mills, frequency declines while severity increases. It is not desirable in this summary presentation to offer suggestions regarding the causes of this course of events beyond saying that the unfavorable conditions of war time were evidently too difficult to be perfectly controlled by the opposing efforts.

In all the other departments shown in these tables, with the exception of foundries and electrical, the favorable condition of decline in both frequency and severity appears. The degree to which this change occurs may be noted by reference to the tables.

A study of the electrical department discloses a very high death hazard in connection with the adjustment of high-tension wires. Since some plants where such hazard exists have succeeded in holding

down the rates for a series of years, it would seem possible to improve conditions materially.

A condition of the most serious hazard is disclosed by the figures for the erection of structural steel. The death rate is markedly in excess of that of coal mines. If this condition is capable of remedy it demands the most exacting study.

On the whole the tables disclose a favorable condition, which should be an encouragement to further effort, while at the same time showing weak points requiring continued attention.

ACCIDENT RATES IN THE IRON AND STEEL INDUSTRY AND IN ITS VARIOUS DEPARTMENTS, 1907 AND 1910 TO 1918.

[Figures for 1918 are preliminary, subject to modification.]

Year.	Number of 300-day workers.	Number of cases.			Accident frequency rates (per 1,000 300-day workers).				Accident severity rates (days lost per 300-day worker).				
		Death.	Perma- nent disabil- ity.	Tempo- rary disabil- ity.	Total.	Death.	Perma- nent disabil- ity.	Tempo- rary disabil- ity.	Total.	Death.	Perma- nent disabil- ity.	Tempo- rary disabil- ity.	Total.
<i>Iron and steel industry.</i>													
1907.....	27,632	61	106	6,530	6,697	2.2	3.8	236.3	242.4	13.3	5.1	3.2	21.6
1910.....	202,157	327	848	44,108	45,283	1.6	4.2	218.2	224.0	9.7	3.7	2.5	15.9
1911.....	231,544	204	931	34,676	35,811	.9	4.0	149.8	154.7	5.3	3.2	1.9	10.4
1912.....	300,992	348	1,241	54,575	56,164	1.2	4.1	181.3	186.6	6.9	3.3	2.3	12.5
1913.....	319,919	426	1,200	55,556	57,182	1.3	3.8	173.7	178.7	8.0	2.8	2.2	13.0
1914.....	256,299	219	800	37,300	38,469	.9	3.4	145.9	150.1	5.1	2.8	1.8	9.7
1915.....	116,224	87	372	13,451	13,940	.7	3.2	116.0	119.9	4.5	2.1	1.5	8.1
1916.....	166,646	159	572	20,655	21,537	1.0	4.3	123.9	129.2	5.7	3.0	1.9	10.6
1917.....	410,852	523	1,268	57,094	58,855	1.3	3.1	139.0	143.4	7.6	2.7	1.9	12.2
1918.....	453,360	490	1,309	52,896	54,601	1.1	2.7	116.2	120.0	6.5	2.6	1.5	10.6
Total, 1910-1914	1,310,911	1,524	5,080	226,805	232,909	1.2	3.9	172.6	177.7	7.0	3.2	2.1	12.3
Total, 1915-1918	1,149,082	1,205	3,572	144,126	148,963	1.1	3.1	125.4	129.6	6.6	2.6	1.7	10.9
<i>Blast furnaces.</i>													
1907.....	1,566	9	11	450	476	5.8	7.0	291.2	304.0	34.5	8.1	5.5	48.1
1910.....	19,389	68	68	4,971	5,107	3.5	3.5	256.4	266.3	20.7	5.2	2.9	28.8
1911.....	21,479	59	54	3,303	3,409	2.4	2.5	153.8	158.8	14.5	2.8	2.3	19.6
1912.....	27,154	73	87	4,790	4,950	2.7	3.2	176.4	182.3	16.3	2.9	2.5	21.7
1913.....	31,988	86	80	4,779	4,945	2.7	2.5	174.4	179.5	15.9	3.1	2.6	21.6
1914.....	26,572	45	77	3,935	4,057	1.7	2.9	148.1	152.3	10.4	2.9	2.0	15.3
1915.....	10,721	19	23	981	1,023	1.8	2.1	91.5	95.4	16.6	1.8	1.3	13.7
1916.....	14,905	23	57	1,763	1,843	1.5	3.8	118.3	123.6	9.3	2.8	1.9	14.0
1917.....	36,202	79	93	4,440	4,612	2.2	2.6	122.6	127.4	13.1	2.8	1.6	17.5
1918.....	38,977	72	67	4,194	4,333	1.8	1.7	107.6	111.1	11.1	2.3	1.5	14.9
Total, 1910-1914	126,582	324	366	21,778	22,408	2.6	2.9	178.4	183.9	15.6	3.3	2.3	21.2
Total, 1915-1918	100,805	193	240	11,378	11,811	1.9	2.4	114.0	118.3	11.6	2.5	1.6	15.7
<i>Bessemer.</i>													
1907.....	967	1	5	383	389	1.0	5.0	396.1	402.1	6.2	2.7	7.3	16.2
1910.....	5,070	20	18	1,943	1,981	3.9	3.6	383.2	390.7	23.7	2.7	4.9	31.3
1911.....	5,155	6	24	1,237	1,267	1.2	4.7	239.8	245.6	7.0	3.2	3.3	13.5
1912.....	6,521	9	37	1,892	1,938	1.4	5.7	290.1	297.2	8.3	3.1	4.4	15.8
1913.....	6,885	16	42	1,610	1,668	2.3	6.1	233.8	242.3	13.9	3.5	3.7	21.1
1914.....	4,470	6	25	685	716	1.1	5.4	153.2	159.7	6.7	3.5	2.6	12.8
1915.....	3,160	2	21	494	517	.6	6.6	156.3	163.5	3.8	4.3	2.4	10.5
1916.....	4,070	13	34	848	895	3.2	8.4	208.4	220.0	19.1	6.2	3.5	28.8
1917.....	5,979	20	21	1,194	1,235	3.3	3.5	199.7	206.6	20.1	3.8	3.7	27.6
1918.....	4,489	10	11	807	828	2.2	2.5	179.8	184.5	13.4	3.6	2.8	19.7
Total, 1910-1914	28,101	57	146	7,367	7,570	2.0	5.2	262.1	269.3	11.9	3.3	3.8	19.0
Total, 1915-1918	17,698	45	87	3,343	3,475	2.5	4.9	188.9	196.3	15.3	4.4	3.2	22.8

ACCIDENT RATES IN THE IRON AND STEEL INDUSTRY AND IN ITS VARIOUS DEPARTMENTS, 1907 AND 1910 TO 1918—Continued.

Year.	Number of 300-day workers.	Number of cases.				Accident frequency rates (per 1,000 300-day workers).				Accident severity rates (days lost per 300-day worker).			
		Death.	Perma- nent disa- bility.	Tempo- rary disa- bility.	Total.	Death.	Perma- nent disa- bility.	Tempo- rary disa- bility.	Total.	Death.	Perma- nent disa- bility.	Tempo- rary disa- bility.	Total.
<i>Open hearths.</i>													
1907.....	2,987	14	14	908	936	4.7	4.7	304.0	313.4	28.1	12.0	3.2	43.3
1910.....	9,739	29	53	3,028	3,110	3.0	5.4	310.9	319.3	18.1	7.1	4.1	29.3
1911.....	10,718	18	45	1,890	1,953	1.7	4.2	176.3	182.1	10.1	3.4	2.6	16.1
1912.....	17,355	47	99	4,039	4,185	2.7	5.7	232.7	241.0	15.9	5.8	2.9	24.6
1913.....	20,604	35	95	4,368	4,498	1.7	4.6	212.0	218.3	10.2	4.1	2.9	17.2
1914.....	12,877	14	41	2,484	2,539	1.1	3.2	192.9	197.2	6.5	4.4	2.3	13.2
1915.....	5,969	8	20	832	860	1.3	3.4	139.4	144.1	8.0	2.8	1.9	12.7
1916.....	9,654	12	37	1,458	1,507	1.2	3.8	151.0	156.0	7.5	2.5	2.6	12.6
1917.....	21,457	47	86	3,187	3,320	2.2	4.0	148.5	154.7	13.1	3.6	2.5	19.2
1918.....	29,334	66	100	3,838	4,004	2.6	3.9	151.5	158.0	16.6	4.4	2.3	22.4
Total, 1910-1914	71,293	143	333	15,809	16,285	2.0	4.6	218.4	224.9	11.9	4.9	2.9	19.7
Total, 1915-1918	62,414	133	243	9,315	9,691	2.1	3.9	149.2	155.2	14.9	3.7	2.4	21.0
<i>Foundries.</i>													
1907.....	939	1	3	179	183	1.1	3.2	190.6	194.9	6.4	1.0	3.1	10.5
1910.....	16,885	7	78	2,615	2,700	.4	4.6	154.9	160.0	2.5	2.9	1.7	7.1
1911.....	13,499	18	57	1,970	2,045	1.3	4.2	145.9	151.4	8.0	2.9	1.9	12.8
1912.....	23,294	23	135	4,512	4,670	1.0	5.8	193.7	200.6	6.2	4.4	2.5	13.1
1913.....	24,605	22	118	5,236	5,376	.9	4.8	212.8	218.5	5.1	3.5	2.4	11.0
1914.....	17,634	14	61	3,432	3,507	.8	3.5	194.6	198.9	4.7	3.0	2.1	9.8
1915.....	1,309	.....	2	118	120	.....	1.5	90.1	91.6	.....	.5	1.2	1.7
1916.....	1,231	.....	6	145	152	.....	.8	4.9	117.8	.....	4.9	1.9	2.2
1917.....	31,805	45	101	6,810	6,956	1.4	3.2	214.1	218.7	8.5	3.0	2.6	14.1
1918.....	31,719	23	106	5,461	5,590	.7	3.3	172.2	176.3	4.5	3.1	2.0	9.7
Total, 1910-1914	95,917	84	449	17,765	18,298	.9	4.7	185.2	190.8	5.3	3.4	2.2	10.9
Total, 1915-1918	66,064	69	215	12,534	12,818	1.0	3.3	189.7	194.0	6.3	3.0	2.3	11.5
<i>Heavy rolling mills.</i>													
1907.....	4,556	8	10	874	892	1.8	2.2	191.8	195.8	10.5	.9	2.9	14.3
1910.....	9,442	19	57	2,167	2,243	2.0	6.0	229.5	237.5	12.1	4.5	2.8	19.4
1911.....	12,409	9	48	1,636	1,693	.7	3.9	131.8	136.4	4.3	2.7	2.0	9.0
1912.....	16,258	20	41	2,395	2,456	1.2	2.5	147.3	150.9	7.0	2.7	2.0	11.7
1913.....	17,569	16	60	1,910	1,986	.9	3.4	108.7	112.9	5.1	1.8	1.7	8.6
1914.....	11,985	10	55	899	964	.8	4.6	75.0	80.4	4.5	3.1	1.3	8.9
1915.....	7,148	10	24	596	630	1.4	3.4	83.3	88.1	8.4	3.0	1.0	12.4
1916.....	10,076	7	44	959	1,010	.7	4.4	95.2	100.3	4.2	3.8	1.6	9.6
1917.....	20,530	30	87	1,784	1,901	1.5	4.2	86.9	92.6	8.8	2.9	1.6	13.3
1918.....	18,646	23	66	1,874	1,963	1.2	3.5	100.5	105.2	7.4	3.0	1.5	11.9
Total, 1910-1914	67,663	74	261	9,007	9,342	1.1	3.9	133.1	138.0	6.3	2.8	1.9	11.0
Total, 1915-1918	56,400	70	221	5,213	5,504	1.2	3.9	92.4	97.5	7.4	3.1	1.5	12.0
<i>Plate mills.</i>													
1907.....	1,915	4	12	637	653	2.1	6.3	332.6	341.1	12.5	11.2	3.7	27.4
1910.....	3,287	7	27	602	636	2.1	8.2	183.2	193.5	12.8	4.9	2.0	19.7
1911.....	4,390	5	15	590	610	1.1	3.4	134.4	139.0	6.9	2.9	1.9	11.7
1912.....	5,128	2	25	893	920	.4	4.9	174.1	179.4	2.3	5.9	2.3	10.5
1913.....	5,430	3	25	725	753	.6	4.6	133.5	138.7	3.3	3.7	1.8	8.8
1914.....	3,476	2	13	319	334	.6	3.7	91.8	96.1	3.4	2.9	1.4	7.4
1915.....	2,086	1	9	121	131	.5	4.3	58.0	62.8	2.9	1.7	.8	5.4
1916.....	4,681	3	15	436	454	.6	3.2	93.1	96.9	3.8	2.2	1.5	7.5
1917.....	6,764	4	22	766	792	.6	3.3	113.2	117.1	3.5	2.6	1.6	7.7
1918.....	7,656	8	15	1,397	1,420	1.4	2.7	247.0	251.1	8.5	2.3	3.1	13.9
Total, 1910-1914	21,711	19	105	3,129	3,253	.9	4.8	144.1	149.1	5.3	4.1	2.0	11.4
Total, 1915-1918	21,187	16	61	2,720	2,797	.8	2.9	128.4	132.0	4.5	2.1	1.7	8.4

ACCIDENT RATES IN THE IRON AND STEEL INDUSTRY AND IN ITS VARIOUS DEPARTMENTS, 1907 AND 1910 TO 1918—Continued.

Year.	Number of 300-day workers.	Number of cases.				Accident frequency rates (per 1,000 300-day workers).				Accident severity rates (days lost per 300-day worker).				
		Death.	Perma-nent disa-bility.	Tempo-rary disa-bility.	Total.	Death.	Perma-nent disa-bility.	Tempo-rary disa-bility.	Total.	Death.	Perma-nent disa-bility.	Tempo-rary disa-bility.	Total.	
<i>Rod mills.</i>														
1915.....	2,062	.....	10	229	239	.....	4.8	111.1	115.9	.....	2.2	1.6	3.8
1916.....	2,493	.....	16	259	275	.....	6.4	103.9	110.3	.....	5.7	1.5	7.2
1917.....	4,951	7	23	699	729	1.4	4.6	141.2	147.2	8.5	4.2	1.6	14.3
1918.....	3,249	5	11	350	366	1.5	3.4	107.7	112.7	9.2	2.9	1.7	13.8
Total.....	12,755	12	60	1,537	1,609	.9	4.7	120.5	126.1	5.6	3.9	1.6	11.1	
<i>Sheet mills.</i>														
1907.....	2,211	2	8	274	284	.9	3.6	129.8	134.3	5.4	5.6	1.2	12.2	
1910.....	18,501	28	52	3,310	3,390	1.5	2.8	178.9	183.1	8.7	2.3	1.7	12.7	
1911.....	29,710	9	71	3,625	3,705	.3	2.4	122.0	124.7	2.0	2.1	1.3	5.4	
1912.....	32,687	19	67	5,497	5,583	.6	2.1	171.3	174.0	3.5	2.2	2.1	7.8	
1913.....	25,938	21	67	3,717	3,805	.8	2.6	143.3	146.7	4.9	1.6	1.7	8.2	
1914.....	22,187	11	51	3,113	3,175	.5	2.3	140.3	143.0	2.7	1.6	1.7	6.0	
1915.....	16,266	7	23	1,901	1,931	.4	1.4	116.9	118.7	2.6	1.0	1.5	5.1	
1916.....	24,722	13	62	2,655	2,730	.5	2.5	107.4	110.4	1.7	1.6	1.6	4.9	
1917.....	46,040	28	80	5,533	5,641	.6	1.7	120.2	122.5	3.6	1.9	1.6	7.1	
1918.....	17,245	3	17	912	930	.2	1.0	52.8	53.9	1.0	1.5	.6	3.1	
Total, 1910-1914	128,423	88	308	19,262	19,658	.7	2.6	150.0	153.3	4.1	1.9	1.7	7.7	
Total, 1915-1918	104,273	51	182	10,999	11,232	.5	1.7	105.5	107.7	2.9	1.6	1.4	6.0	
<i>Tube mills.</i>														
1907.....	2,007	1	4	575	580	0.5	2.1	286.4	289.0	3.0	1.9	4.6	9.5	
1910.....	9,767	3	25	1,608	1,636	.3	2.6	164.6	167.5	1.9	1.2	2.1	5.2	
1911.....	13,676	1	53	2,080	2,134	.1	3.9	152.1	156.0	.5	2.3	1.6	4.4	
1912.....	17,080	10	60	2,154	2,224	1.6	3.5	126.1	130.1	3.9	2.3	1.5	7.7	
1913.....	18,909	15	72	1,586	1,673	.8	3.8	83.9	88.5	4.7	2.1	1.2	8.8	
1914.....	13,906	7	39	1,195	1,241	.5	2.8	85.9	89.2	3.0	1.7	1.2	5.9	
1915.....	7,109	2	21	182	205	.3	3.0	25.6	28.9	1.7	1.7	.6	4.0	
1916.....	11,355	2	26	425	453	.2	2.3	37.4	39.9	1.1	1.0	.8	2.9	
1917.....	19,819	17	51	1,967	2,035	.9	2.6	99.2	102.7	5.1	1.6	1.2	7.9	
1918.....	18,499	8	41	1,127	1,176	.4	2.2	60.9	63.6	2.6	1.3	.9	4.7	
Total, 1910-1914	73,338	36	249	8,623	8,908	.5	3.4	117.6	121.5	3.0	2.1	1.5	6.6	
Total, 1915-1918	56,782	29	139	3,701	3,869	.5	2.4	65.2	68.1	3.1	1.4	.9	5.4	
<i>Fabricating shops.</i>														
1907.....	2,081	6	12	571	589	2.9	5.8	274.4	283.1	17.3	8.8	2.5	28.6	
1910.....	8,713	11	33	3,901	3,945	1.3	3.8	447.7	452.8	7.6	3.1	5.6	16.3	
1911.....	19,530	8	92	3,244	3,344	.4	4.7	166.1	171.2	2.1	2.9	1.8	6.8	
1912.....	28,988	32	119	6,890	7,041	1.1	4.1	237.7	242.9	6.4	2.7	2.4	11.5	
1913.....	30,470	34	104	7,368	7,506	1.1	3.4	241.8	246.3	6.5	2.4	2.3	11.2	
1914.....	20,837	13	77	4,103	4,193	.6	3.7	196.9	201.2	3.5	3.1	2.0	8.6	
1915.....	3,818	3	15	471	489	.8	3.9	123.4	128.1	4.7	1.8	2.0	8.5	
1916.....	4,980	7	25	703	735	1.4	5.0	141.2	147.6	8.4	2.1	2.6	13.1	
1917.....	23,614	21	67	4,192	4,280	.9	2.8	177.5	181.2	5.3	1.8	2.0	9.1	
1918.....	29,166	22	29	5,077	5,128	.8	1.0	174.1	175.8	4.5	1.4	1.7	7.6	
Total, 1910-1914	108,538	98	425	25,506	26,029	.9	3.9	235.0	239.7	5.2	2.8	2.4	10.4	
Total, 1915-1918	61,578	53	136	10,443	10,632	.9	2.2	169.6	172.7	5.2	1.6	1.9	8.7	
<i>Unclassified rolling mills.</i>														
1910.....	14,434	15	49	4,861	4,925	1.0	3.4	336.8	341.2	6.3	4.8	4.0	15.1	
1911.....	21,231	16	76	3,388	3,480	.8	3.6	159.6	164.0	4.5	3.4	2.1	10.0	
1912.....	22,909	16	76	4,660	4,752	.7	3.3	203.4	207.4	4.5	2.9	2.7	10.1	
1913.....	23,832	24	84	5,051	5,159	1.0	3.6	216.0	220.7	6.1	3.4	2.9	12.4	
1914.....	22,873	11	75	3,541	3,627	.5	3.3	154.8	158.7	3.1	2.5	2.2	7.8	
1915.....	4,367	2	14	475	491	.5	3.2	108.7	112.4	2.7	1.6	1.2	5.5	
1916.....	8,082	5	25	922	952	.6	3.1	114.1	117.8	3.7	1.8	2.0	7.5	
1917.....	27,978	10	60	4,265	4,335	.4	2.1	152.4	154.9	2.1	2.1	2.2	6.4	
1918.....	33,631	20	68	3,654	3,742	.6	2.0	108.6	111.3	3.6	1.5	1.4	6.4	
Total, 1910-1914	104,829	82	360	21,501	21,943	.8	3.4	205.1	219.8	5.1	3.3	2.4	10.8	
Total, 1915-1918	74,058	37	167	9,316	9,520	.5	2.3	125.8	128.5	3.0	1.8	1.8	6.5	

ACCIDENT RATES IN THE IRON AND STEEL INDUSTRY AND IN ITS VARIOUS DEPARTMENTS, 1907 AND 1910 TO 1918—Concluded.

Year.	Number of 300-day workers.	Number of cases.				Accident frequency rates (per 1,000 300-day workers).				Accident severity rates (days lost per 300-day worker).			
		Death.	Perma- nent disa- bility.	Tempo- rary disa- bility.	Total.	Death.	Perma- nent disa- bility.	Tempo- rary disa- bility.	Total.	Death.	Perma- nent disa- bility.	Tempo- rary disa- bility.	Total.
<i>Wire drawing.</i>													
1910.....	10,370	5	84	2,323	2,412	0.5	8.1	224.0	232.6	2.9	7.7	2.1	12.7
1911.....	11,819	4	89	2,270	2,363	.3	6.9	177.1	184.3	1.9	6.1	1.7	9.7
1912.....	13,059	4	104	2,627	2,735	.3	8.0	201.2	209.5	1.8	7.4	2.1	11.3
1913.....	12,769	6	59	2,542	2,607	.5	4.6	199.1	204.2	2.8	3.4	2.1	8.3
1914.....	11,468	2	47	1,742	1,791	.2	4.1	151.9	156.1	1.1	4.0	1.6	6.7
1915.....	7,859	1	62	1,831	1,894	.1	7.9	233.0	241.0	.8	7.1	2.3	10.2
1916.....	9,551	4	104	1,764	1,872	.4	10.9	184.7	196.0	2.5	8.8	1.9	13.2
1917.....	13,727	3	63	1,700	1,766	.2	4.6	123.8	128.7	1.3	3.0	1.7	6.1
1918.....	12,790	4	60	991	1,055	.3	4.7	77.5	82.5	1.9	3.5	1.1	6.5
Total, 1910-1914	59,485	21	383	11,504	11,908	.3	6.3	190.4	197.1	2.0	5.6	1.9	9.5
Total, 1915-1918	43,927	12	289	6,286	6,587	.3	6.6	143.1	150.0	1.6	5.2	1.7	8.5
<i>Electrical.</i>													
1910.....	1,526	2	3	282	287	1.3	2.0	184.8	188.1	7.9	2.8	2.0	12.7
1911.....	2,760	3	9	358	368	1.1	3.3	129.0	133.4	6.5	2.8	1.6	10.9
1912.....	3,796	6	15	523	544	1.6	4.0	137.8	143.4	9.4	5.0	1.6	16.0
1913.....	4,012	14	15	495	524	3.5	3.7	123.4	130.6	20.9	3.7	1.5	28.1
1914.....	2,327	8	6	301	315	3.4	2.6	129.4	135.4	20.6	3.0	1.6	25.2
1915.....	612	1	1	23	25	1.6	1.6	37.6	40.8	9.8	.5	4.4	10.7
1916.....	1,635	6	6	289	301	3.7	3.7	176.8	184.2	22.0	1.1	2.4	25.5
1917.....	4,385	16	16	571	603	3.6	3.6	130.2	137.4	21.9	4.0	2.0	27.9
1918.....	4,380	10	10	476	496	2.3	2.3	108.7	113.2	13.7	3.5	1.3	18.5
Total, 1910-1914	14,421	33	48	1,957	2,038	2.3	3.3	135.7	141.3	13.8	3.6	1.6	19.0
Total, 1915-1918	11,012	33	33	1,359	1,425	3.0	3.0	123.4	129.4	18.9	3.2	1.7	23.8
<i>Mechanical.</i>													
1908.....	1,619	4	7	430	441	2.5	4.3	267.3	274.1	14.8	1.9	3.2	19.9
1910.....	15,927	18	58	2,618	2,692	1.1	3.5	164.4	169.1	6.8	2.7	1.6	11.1
1911.....	17,863	13	80	3,015	3,108	.7	4.5	168.8	174.0	4.4	3.3	2.2	9.9
1912.....	21,501	19	95	4,040	4,154	.9	4.4	187.1	192.4	5.3	3.5	2.5	11.3
1913.....	24,039	36	103	4,972	5,111	1.5	4.3	237.1	242.9	8.7	3.1	2.8	14.6
1914.....	17,772	3	60	3,149	3,227	1.0	3.4	177.2	181.5	6.0	3.1	2.2	11.3
1915.....	6,987	3	27	573	603	.5	4.5	95.7	100.7	3.0	2.0	1.2	6.2
1916.....	16,920	9	86	2,245	2,340	.5	5.1	132.7	138.3	3.2	4.4	1.9	9.5
1917.....	33,328	43	134	5,201	5,378	1.3	4.0	156.1	161.4	7.7	3.1	2.3	13.1
1918.....	57,439	54	159	6,026	6,239	.9	2.8	104.9	108.6	5.6	2.9	1.3	9.8
Total, 1910-1914	97,162	104	394	17,794	18,292	1.1	4.0	183.1	188.2	6.3	3.2	2.3	11.8
Total, 1915-1918	113,674	109	406	14,045	14,560	1.0	3.6	123.6	128.1	5.8	3.1	1.7	10.6
<i>Yards.</i>													
1907.....	2,618	5	10	509	524	1.9	3.8	194.4	200.1	11.5	7.8	3.2	22.5
1910.....	15,932	40	49	2,054	2,143	2.5	3.1	128.9	134.5	15.1	3.0	1.6	19.7
1911.....	9,085	11	43	1,336	1,390	1.2	4.7	147.1	153.0	7.3	5.6	2.0	14.9
1912.....	11,180	23	64	1,940	2,027	2.1	5.7	173.5	181.3	12.3	5.2	2.3	18.8
1913.....	11,859	28	50	1,807	1,885	2.4	4.3	155.9	162.6	14.1	3.0	2.1	19.2
1914.....	7,876	10	37	975	1,022	1.3	4.7	123.7	129.7	7.6	4.1	1.7	13.4
1915.....	3,843	15	15	417	432	3.9	3.9	108.5	112.4	3.1	1.3	1.3	4.4
1916.....	7,853	12	56	929	997	1.5	7.1	118.3	126.9	9.2	6.5	1.7	17.4
1917.....	15,732	36	77	1,792	1,905	2.3	4.9	113.9	121.1	13.7	5.1	1.7	20.5
1918.....	16,042	33	61	1,510	1,604	2.1	3.8	94.1	100.0	12.3	3.8	1.7	17.8
Total, 1910-1914	55,932	112	243	8,112	8,467	2.0	4.4	145.8	152.1	12.0	4.1	1.9	18.0
Total, 1915-1918	43,470	81	209	4,648	4,938	1.9	4.8	106.9	113.6	11.2	4.7	1.7	17.5
<i>Structural steel erection.</i>													
1912, 1913, 1914.	2,157	26	24	738	788	12.1	11.1	342.1	365.3	72.3	16.5	5.4	94.2
1915.....	803	8	7	251	266	10.0	8.7	312.6	331.3	59.8	12.8	3.7	76.3
1916.....	1,011	10	3	251	264	9.9	3.0	248.2	261.1	59.3	5.0	5.2	69.5
1917.....	1,156	12	15	442	469	10.4	13.0	382.4	405.8	62.3	11.9	6.7	80.9
1918.....	1,234	10	3	364	377	8.1	2.4	295.0	305.5	48.6	5.9	4.3	58.8

Eighth Annual Safety Congress of the National Safety Council.

THE outstanding feature of the Eighth Annual Safety Congress held at Cleveland, Ohio, during the first four days of October, 1919, was the strong tendency to extend the activities of the council into fields which have only a secondary bearing upon the main problems which are the foundation of the council's efforts. This tendency may be illustrated by noting the subjects which occupied attention at the general sessions each afternoon of the congress. They were "Employees' representation,"¹ "Americanization," "Health," and "Safety education in the public schools."

No one of these subjects falls within the scope of the original plans of the council. They represent the inevitable recognition of the fact that any honest effort to better industrial conditions leads ultimately to the consideration of the whole field. It would seem to be a fortunate circumstance to approach, from the entirely non-controversial ground of the prevention of accidents, matters about which there may be sharp differences of opinion.

It is necessarily impossible to comment in detail on the huge program which packed the four days full of interest. Such points will accordingly be emphasized as a single observer was able to come in contact with during the period.

It was an evidence of real interest that the largest auditorium used by the congress was filled for the general round table which it had been necessary to schedule at 8 a. m. The attention of this gathering was centered on the relations of what is coming to be known as "engineering revision" and close supervision of the working force to the control of serious accidents.

Another round table which excited much interest was called the A. B. C. Session. At this were presented such fundamental topics as "Essentials of a safety organization," "Fundamental principles of safeguarding," and "The foreman the determining factor."

Several other round tables such as those on "Employees' publications" and "Bulletins" were held at noon-day luncheons in default of other possible times of meeting.

As showing the great expansion of interest and activity along the original lines of council organization a simple list of the present sections is sufficiently impressive to deserve insertion. In alphabetical order they are:

Automotive.
Cement.
Chemical.

Construction.
Electric railway.
Health service.

¹The discussion of this subject is presented in an article on pp. 234-236.

Local council officers.
Marine and navigation.
Metals.
Mining.
Packers.
Paper and pulp.
Public safety.

Public utilities.
Rubber.
Steam railroad.
Textile.
Women in industry.
Woodworking.

Each of these sections held two sessions and some of them three. Judging from the attendance, interest in the peculiar problems of these sections is constantly increasing.

Among those recently created none attracted greater attention than the women in industry section. At its sessions were discussed such subjects as "Standard conditions for women in industry," "Responsibilities and opportunities of the industrial nurse," and "The future of woman as an industrial worker."

The metals section formerly operated as a foundry section and an iron and steel section. Since many of the hazards exist in common it was concluded that the sections could advantageously be combined. No item in the program for this year was received with greater interest than a "court of inquiry" which probed the conditions under which a particular accident occurred and determined what steps should be taken in regard to it. Another presentation which was received with much favor was a practical demonstration of the use of the oxyacetylene blowpipe. The demonstrator explained very clearly and illustrated with his apparatus the precautions necessary to insure safety.

In the public safety section the account of the methods used in St. Louis during the "safety week" when only one fatality occurred during the week was received with particular interest.

The steam railroad section evinced its interest by holding four meetings, all well attended and several crowded. Of special importance was a statement from the manager of the safety section of the United States Railroad Administration.

The above suggests in summary fashion how much of such a program as that offered can be touched by one person who devotes his time to the task. It is necessarily but a small portion of the interesting things included in the 50-page program.

The formation of two new sections is under consideration. The industrial dentists were holding a session at the same time in Cleveland and may ultimately become an affiliated section.

Of very great practical importance is the proposal to inaugurate a section composed of professional engineers. The significance of this can hardly be overstated. It has been true that the insistence of many safety men on the importance of the human factor in accident causation has given engineers a feeling that there is no real and large

problem for them in the accident prevention movement. When the study of accident severity discloses, as it now does, that the great savings in accident cost have been due to the application of engineering skill it becomes of highest importance that engineers should realize the indispensable nature of the contribution which they can make.

In connection with the congress the Safety Council in cooperation with the Safety Institute of America acted as sponsor for one of the most complete expositions of safety devices that has ever been brought together in this country. This was housed in the Grays' Armory and was open during the entire week.

It well illustrates the expansion of the safety business to note that, whereas when the Safety Council was organized in 1912 it was scarcely possible to buy in the market a usable protective goggle, there were no less than six concerns manufacturing goggles represented in this exhibit and there are at least as many more who now supply such articles.

Notable advances appear in several lines which had rather stood still during the war, as for example the development of sterilization by the use of violet rays.

Altogether the congress demonstrates that American industrialists have emerged from the stress of war conditions with an undimmed interest in the subjects which the council was organized to foster and in a position to push accident prevention strongly to new and notable successes.

Formal Opening of Bureau of Mines Experiment Station at Pittsburgh.

THE recent formal opening of the United States Bureau of Mines experiment station at Pittsburgh may be regarded as marking the complete return of the Bureau of Mines from the tasks of war to the activities of peace, which have done so much for the betterment of conditions in the great basic industry of mining.

The exercises occupied three days, September 29 and 30 and October 1. During the first of these the admirable building and its equipment were open to inspection. At 10.30 in the courtyard at the rear of the building, where a temporary amphitheater had been erected, dedicatory exercises were held with addresses from the mayor of Pittsburgh, the governor of the State, Assistant Secretary Vogelsang of the Interior Department, and others.

This ceremony was brought to a close by the transfer of the keys of the building by Secretary Vogelsang to Director Van H. Manning.

In the afternoon two trainloads of guests were transported to the experimental mine located at Bruceton. There they were entertained by various demonstrations of mine conditions and protective precautions. The most spectacular of these was a coal-dust explosion. Coal dust was placed along the mine passageways as it might accumulate under working conditions. A flame was then produced within the mine such as might occur in the firing of a blast. A huge flame at once burst from the mouth of the mine, followed by a cloud of black smoke.

The evening of Monday was devoted to an informal reception and an organ recital at the Carnegie Music Hall.

The next two days were chiefly occupied with the elimination and final contests of the mine rescue and first-aid teams from mines all over the country. Twenty-four mine-rescue teams and 88 first-aid teams participated. While similar meets have been held with an equal or possibly larger number of teams competing, this meet was by all odds the most representative and important yet held. The trained precision with which the teams went about their work was good to see.

No one at all familiar with the work thus far accomplished by the Bureau of Mines in the conservation of human and material resources can fail to rejoice in the development which the new building and appliances make possible. Few Federal agencies have so conspicuously justified themselves by their accomplishments as has the Bureau of Mines.

Accident Experience of the Portland Cement Association, 1918.

A RECENTLY published study of accidents for the year 1918, prepared by the Bureau of Accident Prevention and Insurance of the Portland Cement Association, is based on records submitted by 77 plants having a total production for the year of 47,479,000 barrels, which is stated to be 66 per cent of all member companies' production.¹ Only strictly tabulatable accidents are considered—that is, those resulting in loss of time other than the remainder of the day, shift, or turn on which the injury occurred. Attention is called to the fact that in previous years the basis on which accident frequency and severity have been compared was the production—that is, per million barrels; whereas in the report for 1918 the figures are presented on the basis of man-hours worked at the various plants.

¹ The study of accidents for the year 1918. Prepared by the Bureau of Accident Prevention and Insurance of the Portland Cement Association, Chicago, 1919. 23 pp.

The report tabulates a total of 2,355 accidents, 38 of which resulted in death. The total number of days lost, omitting the customary estimate of days lost on account of death, was 34,796. The number of days lost per 100,000 man-hours worked is given as 63. The chief cause of accidents was falling or sliding objects and material (540, or 22.9 per cent of all accidents), the ratio being largest in the quarries. The total time lost through this cause was the greatest of all (7,932 days, or 22.8 per cent), although the days lost per accident—14.7—was about the average. The cause of the next highest number of accidents was flying material—276 accidents, or 11.7 per cent. The average days lost per accident—9.0—was, however, comparatively low; this is stated to be due to the fact that the largest number of these accidents happened in the packing and shipping departments, where accidents are frequent but not severe. The two causes showing the highest number of days lost per accident are explosions (49 days) and keys and set screws (47.6 days). It is added, however, that the number of accidents due to these causes is small.

A table of accidents by nature of injury credits minor cuts and bruises with 42.7 per cent of the accidents, but only 11.2 per cent of the total days lost. Severe cuts, bruises, and burns are charged with the largest number of days lost, namely, 16,868, or 48.5 per cent. The permanent disabilities numbered 47, or 2 per cent of the accidents, causing a loss of 2,922 days, or 8.4 per cent of the total days lost. Between 10 and 11 per cent of the accidents were eye injuries. By far the largest number of accidents, 1,502, or 63.8 per cent, and the largest number of days lost, 22,456, or 64.5 per cent, occurred to men who had been in the service for one year or more. This, however, is not conclusive, and, in fact, means very little unless the number of exposures is known, and the report does not give this information.

The only comparative figures given in the report are based on the production, it being shown that in 1917 the number of accidents per million barrels was 50.3 and in 1918 it was 49.2, while the number of days lost per million barrels in 1917 was 805.4, and in 1918, 732.5, the latter figures showing a decrease of 72.9 from the number lost in 1917. It is stated, however, that the production in 1918 was 24 per cent less than in 1917 and that the decrease in labor was 17 per cent. Thus in 1918 considerably more men were employed for the same production and consequently the exposure to danger and liability to accident was greater.

INDUSTRIAL HYGIENE AND MEDICINE.

Carbon Monoxide Poisoning in Factories.¹

IT CAME as a great surprise to those of us who are interested in this work to find nearly every winter, when windows and doors were closed—these being practically the only means of ventilation in many establishments—that a relatively large number of employees would simultaneously become ill from time to time, presenting a clinical condition which became fairly familiar with repetition. A typical instance was one relating to a factory situated on the three topmost floors of a twelve-story factory building, given over to the manufacture of men's clothing. Of 125 employees, 73 became suddenly ill at about 2 o'clock one afternoon, and were seized with nausea and vomiting. Practically all of them complained of headache, dizziness, and general weakness, which was particularly marked in the legs. A number were overcome, and several ambulances were called from near-by hospitals. Three employees were removed to hospitals, and a number of others were sent home under escort. Practically all recovered within a few hours, but in two cases symptoms of marked general weakness persisted for several days.

As a result * * * of several similar experiences in previous winter seasons, we felt reasonably certain that the condition was due to the improper removal of various gases of combustion, particularly carbon monoxide, and to their escape into the workroom. On investigation, in this particular instance, we found that our theory was apparently correct, but that the gas entered the working establishment from an unusual source. The rear doors of the three upper floors which communicated with a hallway that led to the roof had been left open by an employee, and a shift in the direction of the wind caused the chimney gases to be driven in considerable concentration down through a stair, well into the corridors, and then into the workrooms. When later we analyzed the facts in the case, we found that the employees who were affected were those who were at work near the rear of the shops where the doors were open.

What is more important from the standpoint of industrial medicine is this: We have found on a number of occasions during the past winter seasons that in connection with gas flames used for pressing

¹ Extract from paper on Clinical types of occupational diseases, read by Dr. Louis I. Harris, New York City Department of Health, before the session on pathology and physiology, seventieth annual session of the American Medical Association, Atlantic City, June 1919, and printed in the journal of the association.

irons, or where furnaces were in operation, or, in fact, wherever incomplete combustion of gas or coke occurred, a clinical condition of a similar character frequently developed among a large group of employees. Altogether, about 220 cases of acute carbon monoxide poisoning, similar to the 73 cases referred to above, which were traced to the incomplete combustion of a variety of gases or fuel substance containing carbonaceous material, and in which acute symptoms followed exposure to these gases, came to our notice. Although, in several instances, careful examinations of the blood were made, we were not able to demonstrate the presence of carbon monoxide, but in the light of Prof. Yandell Henderson's investigations, showing that carbon monoxide in combination with the hemoglobin is readily given up in the presence of pure air, this can be readily understood.

Our examination of a number of men who were exposed to furnace gases, and, particularly, a number of investigations which were conducted with reference to complaints made by persons employed in garages, have led us to believe that in industrial communities there are many persons who are affected with headache, marked anemia, general weakness and gastric symptoms whose condition is due in large measure to continued exposure to small amounts of carbon monoxide gas resulting from incomplete combustion.

The therapeutic agent of greatest value in the elimination of this source of complaint, which we have reason to feel affects many thousand persons in an industrial community like New York, is the application of simple sanitary engineering principles. It is necessary to remove noxious gases by the installation of exhaust or suction fans and by devices which can be made an integral part of furnaces, of gas irons, or of engines which generate fumes.

The rapidly increasing use of electricity as a source of heat in connection with furnaces and various mechanical processes, will also in a large measure reduce the danger of poisoning from this source. In passing, it should be stated that the industrial physician must work in close association with the sanitary engineer, and particularly with those who have made a specialty of installing systems of artificial ventilation.

Advantages of Mutual Benefit Associations to Industrial Medicine.

THE qualifications for the most successful type of physician for group practice and the advantages that may be achieved through the cooperation of such physicians with both employers and mutual benefit associations of employees are discussed in an article by Dr. Charles H. Lemon, chief surgeon of the Milwaukee

Electric Railway & Light Co., on How industrial medicine is extended through mutual benefit associations, in *Modern Medicine*.¹ In order to obtain the maximum efficiency the author believes that "the mutual benefit association must be subsidized by the employing corporation, in the matter of furnishing without cost to the association a surgeon's services, the surgeon acting as medical director and performing the necessary ordinary surgical operations for the employees' mutual benefit association as a part of his usual duties as chief surgeon for the corporation."

The advantages of the group plan are stated both from the standpoint of economics and from that of health:

The individual physician can not possibly care for as large numbers in serving a miscellaneous population as in the care of a group. By reason of this the mutual benefit association is enabled also to pay the physician a larger fee in the aggregate.

From the standpoint of health, the group plan has many advantages. A service which can be had for the asking will be used effectively. Men are curious to know what ails them, and this curiosity can be satisfied if no extra expense is incurred in the investigation. And why should not this be so? If medicine is of any use whatsoever, its greatest usefulness should be the seeking out of blind disorders and remedying them before they have become dangerous factors in a man's life. Preventive medicine, therefore, finds its highest application in the group form of medical service. Experience has shown that a man with a cold, or a headache, or a beginning rheumatism in the joints, or with some other equally slight ailment, is not going three or four miles to consult a doctor. If at the place of his employment a doctor is available, at a given time during the day, experience here has shown that he will consult the doctor. Any intelligent physician knows the meaning of these early signs of sickness and he can and will administer appropriate remedies or give suitable advice, which will check the disease in its beginning.

In Milwaukee, in 1916, by this intensive medical service, the day's disability among our trainmen was reduced to four and a half days per man per year. During the recent epidemics of the Spanish influenza the situation could not have been handled by our medical force, if centralized medical service were not to be obtained.

There is a physician present in every car station and in our carshops for a period varying from thirty minutes to an hour and a half every day, except Sundays and holidays. In addition at the surgeon's office in the public service building, patients are seen from 11 to 12:30 o'clock in the morning and from 3 to 5 o'clock in the afternoon.

¹ How industrial medicine is extended through mutual benefit associations, by Charles H. Lemon, in *Modern Medicine*, September 1919, Pp. 406-409.

WORKMEN'S COMPENSATION.

Sixth Annual Meeting of International Association of Industrial Accident Boards and Commissions.

By CARL HOOKSTADT.

THE International Association of Industrial Accident Boards and Commissions held its sixth annual meeting September 23-26, 1919, at Toronto, Canada. The session was largely attended, 25 States, 6 Provinces of Canada, and 3 Federal departments being represented. The last named included the United States Bureau of Labor Statistics, the United States Employees' Compensation Commission, and the Bureau of Standards. An address of welcome was delivered by the Hon. Thomas L. Church, mayor of Toronto.

The discussion centered about five main subjects: Defects in compensation legislation; administrative questions, with special reference to direct settlements; the status of interstate commerce employees under compensation; medical service and methods of improvement; and accident and insurance statistics.

In his presidential address, Mr. George A. Kingston, member of the Ontario Workmen's Compensation Board, deprecated the lack of uniformity in and the inadequacy of, the compensation and medical benefits provided in different jurisdictions for like disabilities. Commissions may differ, he stated, as regards many comparatively unimportant details of administration, but it is difficult to justify a condition which provides \$1,000 for a certain disability in one State and only one-half that amount in a neighboring State where conditions of living among working classes are very similar. He also predicted that the day is not far distant when sickness insurance "will find as strong a place in the minds of all right thinking people as compensation for industrial accidents," and since "it is not unlikely that industrial accident boards in many jurisdictions will be charged with the administration of such laws once they are passed it possibly would be well for this association to give the subject some thought in anticipation of the move which undoubtedly has set in."

Legislation.

The first session of the convention was devoted to the subject of compensation legislation—minimum standards, uniformity, adequacy, and defects. Dr. Royal Meeker, United States Commissioner of Labor Statistics, opened the meeting with a comprehensive review of existing legislation, in which he emphasized the inadequacy of present laws, particularly as regards coverage and benefits.¹ Workmen's compensation laws should include all workers in specified wage or salary groups in all industries, using industries in the broadest sense, to include agriculture, mining, lumbering, transportation, distribution, merchandising, and domestic service, as well as manufacturing. No exemptions should be made as regards the so-called non-hazardous industries or for employers of small numbers of workers. Furthermore, the laws must be extended to include occupational diseases and injuries due to poisons used in the industry. Only seven American laws at present cover such occupational diseases. No private insurance companies should be permitted to write workmen's compensation insurance nor should individual employers be allowed to carry their own risk. The arguments for compulsory insurance in an all-inclusive State fund are overwhelming. Because of great economies due to the elimination of agents and unnecessary overhead expenses an exclusive State fund can be conducted at a fraction of the cost of private competing stock companies. Dr. Meeker also favored a three-day waiting period, unlimited medical service, and greatly increased compensation benefits. All industries should be required, as a minimum, to provide compensation sufficient to maintain injured workers and their families through the period of disability and to recompense the worker for any permanent loss of earning power which he may suffer by reason of injuries due to his employment. An allowance of 75 per cent of earnings, a minimum of \$12 per week and a maximum of \$30 per week, would be no more than sufficient in the way of money benefits under the present high scale of prices.

Mr. F. H. Bohlen, counsel for the Pennsylvania Workmen's Compensation Board, advocated the extension of compensation acts so as to include all industries. There is little or nothing, he stated, to be said in favor of the restriction of compensation to the so-called hazardous industries. Any business in which an accident occurs is to that extent hazardous and the unfortunate who loses an arm in a business in which such accidents are rare should not be penalized by being denied compensation. Mr. Bohlen also suggests that the term "arising out of the employment" should be eliminated from compensation acts. The omission of this requirement from the Pennsylvania

¹ Dr. Meeker's paper is printed on pp. 280 to 293 of this issue of the REVIEW.

act has eliminated the litigation of doubtful questions and narrow and technical distinctions which this ambiguous and ill-understood phrase has raised in other States. Denial of compensation because the injured employee fails to give notice or to file claim according to law was another matter taken up by Mr. Bohlen. When one remembers that the compensation acts are intended to be automatically workable and that they confer rights upon a class whose sole attention is generally directed to earning a living, who have not time to study even those laws which are passed for their special benefit, and who are often foreigners ignorant even of our language, it is obvious that such a requirement is one which a great number of the employees of their own motion can not be expected to fulfill. Provision should be made that knowledge of the accident by the employer or his representative should be equivalent to notice given by the injured employee. As regards filing of claims experience has shown that a rigid insistence upon action being brought within a year may work hardship and is even capable of being used by unscrupulous employers to defraud the workman of his rights.

Mr. Charles S. Andrus, chairman of the Illinois Industrial Commission, discussed the possibility or desirability of a uniform compensation act. He reviewed the efforts toward the establishment of uniform commercial legislation relating to negotiable instruments, warehouse receipts, bills of lading, and so on. While admitting that a uniform compensation law would be desirable for several reasons, there were, nevertheless, many important objections to such a law—objections which did not apply to uniform commercial legislation. In the first place, compensation laws are still in the formative period. Nearly every State that has such legislation amends its law at each session of the legislature. No State has a perfect act at the present time. Furthermore, the various and radically different types of laws have produced valuable experience which would have been impossible had the laws in all the States been uniform. Then, too, it would probably be impossible to have enacted into law in most of the States any uniform compensation law which might be agreed upon. For example, if the framers of the early compensation acts had included farm laborers, very few of them would have been passed, not because it was believed that such labor was nonhazardous, but because there would have been enough votes in the legislature to defeat a bill containing such a provision. Summing up, Mr. Andrus concludes that "the adoption of a uniform workmen's compensation act is neither possible nor desirable; it is impossible of attainment, and that if it were possible and adopted to-day, would be so amended in the next few years that it would be unrecognizable. I do believe, however, that we should agree on the essential policies of such a law and strive to have these features

enacted into laws as soon as public sentiment in our State will allow us to do so."

A comprehensive paper on defects in workmen's compensation laws was prepared by the late Mr. John Mitchell, chairman of the New York Industrial Commission. Because of Mr. Mitchell's death, which occurred on September 6, 1919, his address was read by his colleague, Commissioner James M. Lynch. The principal changes advocated by Mr. Mitchell were the following: Liberal increases in compensation and medical benefits; a waiting period of not more than 7 days; increase in the scope of the laws to include all industries, regardless of hazard, with the possible exception of agriculture and domestic service; compulsory acceptance of the compensation provisions by all employers under the act; provision for an administrative commission to enforce the compensation law; and the elimination of private profit-seeking insurance companies from the field of workmen's compensation. In this latter connection Mr. Mitchell wrote:

The fundamental proposition seems to me to be that the State has decided upon a system of protection for the employed workers within its boundaries which involves the necessity of insurance. What the State prescribes it should make possible in the most efficient and least expensive way without a toll of profit to any intermediary. The success of the State fund has, I believe, been demonstrated beyond dispute, and the elimination of the friction-producing third party zealous for financial gains can not be other than beneficial to the parties immediately involved.

Mr. Will J. French, member of the California Industrial Accident Commission, discussed what he termed "the larger idea in workmen's compensation."¹ Briefly stated this larger idea included the following: Restoring the injured worker physically so far as that is possible; providing him with a living wage for himself and family during such restoration; if necessary, reeducating him to take up a new occupation; providing for dependent widows and children on the basis of their needs for the future.

Mr. A. B. Funk, Industrial Commissioner of Iowa, advocated the extension of compensation benefits to occupational diseases, the reduction of the waiting period to not over 7 days, universal coverage regardless of the number of employees, and a revision of partial disability schedules to accord more nearly with the loss of earning capacity.

Administrative Problems.

The session devoted to administrative problems developed a spirited discussion, particularly regarding the desirability of direct settlements. Most of the State compensation laws provide that in case of injury the employer or insurance carrier and the injured

¹ Mr. French's paper is printed on pp. 317 to 322 of this issue of the REVIEW.

employee may enter into a compensation agreement. These voluntary agreements are later reviewed by the commission and if found to conform with the provisions of the act are approved. Approximately 75 to 95 per cent of industrial accidents involve no dispute and are settled through the medium of direct settlements or voluntary agreements. In other States, especially those having State funds, the injured workman files a claim with the commission. This claim is examined and if found legitimate is approved and payment ordered. The principal argument in favor of direct settlements is that it expedites procedure and insures more prompt payments. It is held that a majority of injuries involve no dispute and substantial justice is insured through the direct settlement plan. Disputed cases come before the commission for investigation and hearing. The argument against direct settlements is predicated upon the claim that injured employees are not always familiar with their compensation rights, that they can not cope successfully with a trained insurance adjuster, and that in demanding compensation from their employer they are laboring under constraint. The fear of antagonizing their employer, it is held, effectively inhibits injured workers from insisting upon their rights.

Mr. J. F. Connor, appointed by the Governor of New York to investigate the State Industrial Commission, in a paper read at the meeting, said:

I am firmly convinced that the settlement of compensation claims directly between employer and employee should be abolished in every jurisdiction. I believe that an investigation in any State will show that the claimants are underpaid. The workman can not cope with a trained insurance adjuster.

The most serious defect in our present compensation scheme is the fact that in a great majority of cases the person for whose benefit the law was enacted never has his day in court.

I have considered all of the arguments in favor of direct settlements. To my mind, none of these arguments weigh in the slightest against what Prof. Downey says in relation to full payment of the benefits provided by the compensation law.

Arguments in favor of direct settlements were presented by Commissioner George E. Beers, of Connecticut, and Mr. F. H. Bohlen, counsel of the Workmen's Compensation Board of Pennsylvania. It was stated that a thorough investigation of every compensation claim not only would require an enormous increase in the administrative force but would materially delay compensation payments.

Mr. W. W. Kennard, chairman of the Massachusetts Industrial Accident Board, spoke upon the Massachusetts plan of rehabilitating cripples. The State legislature in 1918 created a rehabilitation bureau within the board and appropriated \$10,000 with which to start the work. The program adopted "was not one of general education to broaden the mental vision of the handicapped man, but was rather designed along lines of finding the particular niche in industry

where the injured employee could regain quickly his earning power and become an industrial asset, rather than an economic loss to the community. It was very soon learned that no monograph system of numbers or card index of jobs open for persons with various classifications of injuries could be resorted to with success because of the complex problems which must face any attempt to work with a man who, perhaps, has already been many years in the industry." The mental attitude of the cripple produces as great a problem as his physical disability.

An exposition of the Ontario compensation law and its administration was given by Mr. Samuel Price, chairman of the Ontario Board. The Ontario act, in relation to most of the industries to which it applies, is a compulsory and exclusive collective liability or mutual insurance system, administered by a Government-appointed board without any resort to the courts. The three commissioners composing the board hold office during good behavior.

Our procedure is very informal and summary. Reports from the workman, from the employer, and from the doctor, upon forms carefully designed for the purpose, usually suffice for the settlement of cases. These are examined and checked and the amount of compensation computed by our claims and medical staffs. Recommendations from the medical and claims officers and approval of a member of the board, without which no claim is allowed or rejected, pass the claim, and order is issued and payment made without further formality. If the information in the reports is not complete or satisfactory further information is requested, and when it seems desirable investigation is made on the ground by an officer of the board or examination and report made by a medical referee. Doubtful cases are considered by the board in session, but it is very rarely that the board has anything in the nature of a formal hearing.

In ordinary cases the first check is forwarded within a few days after the reports are all received; our average for all cases is about five calendar days. Subsequently biweekly payments go out on the day they fall due if the information on file warrants it.

Special reports are obtained from the doctor, the workman, and the employer in all permanent disability cases, examination also being made by a medical referee or the medical officers of the board and by other officers and by members of the board wherever deemed best; and after a specially qualified officer, with the help of a disability-rating schedule, makes a recommendation as to the allowance the board in session considers the case and makes the award.

Reconsideration of any case is freely given, the more so because of there being no appeal.

The workman has absolutely no need of a solicitor or agent or of paying solicitor or agency fees. The rule is that all communications as far as possible shall be with the workman himself and that all checks shall be made payable to him and delivered to his own address. * * *

We have found we can settle and pay compensation more promptly and with less trouble under the collective system than under the individual liability system, though in the latter much depends upon the attitude of the employer or the insurance company.

Workmen prefer the collective plan, because they know that under it the employer is less likely to oppose compensation or seek reduction of the amount and because

the workman is less likely to be under constraint in seeking what he is entitled to. The avoidance of friction between employer and employee is also a very important feature, especially in the present time of industrial unrest.

The question of direct settlements between the parties, or with the insurance company, which, even from our limited experience of it in Ontario, I feel is highly objectionable and liable to gross abuse, does not arise in the collective liability system. Under the latter there is no motive to pay the workman less than he should receive and no motive to charge the employer more than he should pay.

The collective system largely solves the difficulties of aggravation of injuries and increased compensation by prior injury or impairment, the burden being upon the class and not upon the individual employer.

It also simplifies the question of choice of doctor, taking away the direct motive of the employer to seek a doctor who is prejudiced in his favor, and leaving it to the workman and the employer jointly or to the administering board that is paying the doctor to choose only from the point of view of efficiency and reliability.

Interstate Commerce Employees.

The status of interstate commerce employees in relation to workmen's compensation laws was made a special subject for consideration at the conference. The discussion was opened by Mr. L. D. Clark, legal expert of the United States Bureau of Labor Statistics. Mr. Clark reviewed the history of the Federal Employers' Liability Act and the several attempts to enact a Federal compensation act covering interstate railroad employees. He also outlined the various plans which have been proposed, analyzed the arguments advanced in support of each plan, discussed the constitutional questions involved, and compared the relative merits of employers' liability and workmen's compensation systems.¹

The attitude of the railroad brotherhoods toward Federal compensation legislation was presented by Mr. D. L. Cease, editor of the *Railroad Trainman*.² Said Mr. Cease:

The position of the transportation organizations toward such compensation legislation ranges from that of open and determined opposition to any form of Federal compensation by the Brotherhood of Railroad Trainmen, which is led by a comparatively small number of men who unquestionably get their inspiration from liability lawyers, to that of the apparent indifference of the conductors and firemen to such legislation and the general support of the Brotherhood of Locomotive Engineers to the Sutherland-Brantley bill. Aside from the engineers' organization none of the others, so far as I have knowledge, has any specific plan or is agreed on any particular measure, although in a general way they have declared in favor of compensation. Of the other organizations I do not presume to speak.

Medical Session.

The medical session was divided into two parts. Part one was confined to the presentation and discussion of special medical problems; a general discussion on "How medical service can be improved" was reserved for part two.

¹ Mr. Clark's paper is printed on pp. 294 to 310 of this issue of the REVIEW.

² Mr. Cease's paper is printed on pp. 311 to 316 of this issue of the REVIEW.

Dr. J. W. Mowell, chairman of the State Medical Aid Board of Washington, read a paper on disabilities as aggravated by preexisting conditions. These were divided into three classes, (1) congenital defects, (2) previous injury leaving a handicap, and (3) disease or condition existing in the individual prior to accident. Dr. P. A. Bendixen of Davenport, Iowa, discussed methods of treating infections of upper extremities.¹ Dr. Raphael Lewy, Chief Medical Examiner of the New York Industrial Commission, read a paper on cancer, with special reference to sarcoma in its relationship to trauma. A paper on eye injuries was read by Dr. F. C. Trebilcock of Toronto, Ontario.

In the session devoted to improvement in the medical service, Dr. F. D. Donoghue, medical adviser of the Massachusetts Industrial Accident Board, pleaded the need of recognition and better treatment for mental and nervous diseases.

In the beginning of the workmen's compensation law abroad and in the early papers about workmen's compensation in this country, attention was frequently called to the dangers of valetudinarianism, not in the sense that the word is ordinarily used as applying to a person in infirm health or subject to frequent illnesses, but in the sense of a person who by prolonged introspection, acquires the habit of ill health or does not acquire a desire to return to work following injury. From our experience, I am convinced that where these conditions exist, they represent in great measure a lack of diagnosis or understanding of some real condition which, if properly diagnosed, might be remedied. * * *

The community is full of a large number of people who are hanging on by the skin of their mental teeth, who are potentially and oftentimes really cases of dementia praecox but who are able to sustain the ordinary burdens of life up to a certain point of stress and then become the pronounced psychotic.

The difficulty in handling those cases which proceed from a mental basis arises primarily from lack of proper classification, which is due to inexact diagnosis. It may seem trivial to say that it is frequently difficult to diagnose a functional nervous condition, call it what you will, but the fact is that the treatment of these nervous conditions which shade off into each other and resemble each other so closely is so radically different that the success of treating the group depends upon the proper treatment of each component part.

These nervous or mental diseases may be classified as follows: Hysteria after injury; psychasthenia after injury; depressed states and melancholia after injury; paranoiacs; and querulents. It is in the diagnosis of such cases that the services of a medical adviser to the board is especially needed.

Dr. F. W. Thompson, medical director of the Oregon Industrial Accident Commission, mentioned five ways in which medical service may be improved: (1) By a better fee for skilled service; (2) By giving the industrial board broader power to regulate services and to make certain rules and to enforce them; (3) By a clearer understanding between the medical profession and the industrial board

¹ Dr. Bendixen's paper is printed on pp. 327 to 335 of this issue of the REVIEW.

by way of industrial programs at medical meetings; (4) By encouraging reconstruction of the injured workman and placing the man in competent hands as early as possible; and (5) By eliminating the pernicious contract system.

Dr. J. W. Trask, medical director of the United States Employees' Compensation Commission, emphasized the need of competent surgical service, particularly surgeons with special training:

Sending an injured person to a "doctor" is not necessarily furnishing medical treatment; in fact, it may have the very opposite effect because, as long as the injured person is under the care of an untrained medical man, the chance of his getting under the care of a well-trained physician is diminished. But in the proper treatment of an injured person more is needed than merely a well-trained, experienced surgeon or physician. The medical man must have a proper point of view. He must have a conscience and a desire to do all that is possible for his patient. The question of satisfactory medical care for injury cases then would seem to resolve itself into ascertaining who the competent, well-trained surgeons, with the necessary temperamental qualifications, are and where located, and of placing the injury cases in so far as possible under their supervision and care.

Dr. M. R. Gibbons, medical director of the California Industrial Accident Board, pointed out certain defects in the present medical system and offered remedial suggestions:

Right psychology is probably lacking more often than right surgery. Insufficient medical guidance is present more often than right surgery. However, poor surgery is too common. An employer may be wholly in sympathy and have a laudable desire to care for the welfare of his injured employee, but the middleman [insurance carrier], by his methods, with which you are all familiar, may prevent and block that interest and solicitude, which might be of utmost value. Then there is delay in securing medical service. Another point is that the surgeon works for some other than the injured person; that is, he is paid by another, and this fact tends to create suspicion in the mind of the injured. Improper environment is another important factor. The solicitous friends, in misdirected kindness, give the idea that the injured is terribly hurt. The correction will come through education. It will probably be demonstrated to the employers and insurance companies by the industrial accident boards that to save function, although the cost is greater at the beginning, will be economy in the end. * * *

The psychological question is also very important and must be considered and met. There must not be antagonism. There must be a feeling of security in the mind of the injured. There should be some system established to provide for reassuring the injured—as soon as practicable after his injury—regarding what is to become of his case and what he may expect in the matter of treatment, length of compensation, and restoration of function. He must be assured that his family will be taken care of, and that he is expected to comport himself in a certain manner. He must understand early what lines of discipline will be expected of him. The offer of cooperation should be made to him so that he can not mistake it. All suspicion should be removed from his mind. The education here must extend to his friends, and his associates, and his union. He must not feel that his injury bears upon him as a penalty, but must feel that he is going to get well, that people want him to get well, and that a job awaits him in accordance with his capabilities when he does get well.

Dr. Otto P. Geier, director of the Employees' Service Department of the Cincinnati Milling Machine Co., advocated an extension of the

functions of industrial accident boards and the limitation of industrial surgery practice to competent surgeons.¹ According to Dr. Geier, "far too many cases of injury and occupational disease are occurring, and until industrial accident commissions take a far wider viewpoint of their public trust; until they seize upon the fundamental program of the prevention of occupational disease and accident as a part of their obligations to the State; until they appreciate the absolute necessity of thoroughly supervising all of the surgical and hospital attention received by the worker, enormous unnecessary economic loss and suffering will occur."

Accidents and Insurance Costs.

The closing session of the convention was devoted to a discussion of accidents and insurance costs. Mr. E. E. Watson, actuary of the Ohio Industrial Commission, read a paper on comparative insurance rates under different systems, with especial reference to Ohio and New York. Mr. Watson took as a basis of comparison 125 classifications—those which developed the largest pay roll under the Ohio State fund—and applied against the Ohio pay roll of these classifications the stock company manual rates as shown by the law differentials of some 30 States as of January 1, 1918, computed by the actuarial committee of the National Workmen's Compensation Service Bureau. According to Mr. Watson's computations the annual increased cost of private stock insurance over the Ohio State fund is 61 per cent.

Mr. Carl Hookstadt, of the United States Bureau of Labor Statistics, dealt with tests of efficiency in compensation and insurance administration. Although compensation laws have been in effect eight years little accurate data exists as to the relative merits of different compensation and insurance systems, as regards cost, security, and service.

The real test of efficiency is the quantity and quality of service furnished, service to the employer but particularly service to the employee. The principal tests of service are accident prevention, just compensation awards, promptness of payments, minimum of time and expense in adjudicating contested cases, aid given claimants in obtaining their compensation, medical aid and supervision, and care of the permanently disabled.

Accurate data on these questions have thus far been unavailable chiefly because most compensation commissions have never made an intelligent study of the operation of their own laws.

Every commission should make an analysis of its accidents, by industry, cause, nature and extent of disability; it should be able to compute accident frequency and severity rates; it should know whether accidents have been reduced, to what extent,

¹ Dr. Geier's paper is printed on pp. 323 to 326 of this issue of the REVIEW.

in what industries, and what kind; it should compute and analyze the cost of accidents—in fact it should furnish data which could be used for the determination of insurance rates; it should know the promptness with which compensation payments are made; it should investigate each lump-sum settlement and tabulate the results; it should know what becomes of the permanently disabled; it should ascertain the functional and occupational incapacity resulting from different kinds of permanent injuries; it should ascertain whether and why crippled men are discriminated against; it should know the number of second injuries; it should know what ultimately becomes of the widows and other dependents; it should know the length of time involved in the adjudication of cases; it should be able to compare and contrast the kind of service furnished by different types of insurance carriers. Unless these facts are known it is not only impossible to compare different types of laws but it is impossible to measure the success of any law.

A paper prepared by Mr. F. Spencer Baldwin, manager of the New York State Insurance Fund, dealt with handicaps of competitive State funds. Private casualty companies, said Mr. Baldwin, may accept or refuse any risk at will. They may get rid of an undesirable risk at any time by cancellation. The State fund, on the other hand, cannot reject business outright. It must accept any risk that offers itself, provided, of course, that the premium is paid. Nor can the State fund cancel business at will. This handicap is offset, to some extent, by granting to the State fund a measure of freedom in rate making. Control over rates enables a State fund to protect itself in a degree against adverse selection in the distribution of business as between the State fund and private companies. Another means of competing for a desirable class of business that has been successfully employed by the New York State fund is the group system.

Another handicap of competitive State funds is found in the activities of the army of brokers and agents who make up the great business-getting organizations of the private insurance companies. In New York State, for example, there are about 12,000 insurance brokers and agents. With rare exceptions these representatives of the casualty companies industriously circulate all sorts of misrepresentations concerning the State fund. Insurance brokers get no commissions from the State fund, and, consequently, are interested to keep business away from it and to discredit it in every possible way. * * *

The State fund is unable in most cases to correct these misrepresentations and to place before employers the facts regarding its terms of insurance, its service and its financial condition, as it has not the facilities for reaching them at first hand. * * *

A further handicap arises from the inability of a State fund to write other forms of insurance needed by employers, particularly employers' liability and public liability. In case of the New York State fund, the coverage under its policy is limited to liability arising under the workmen's compensation law. This limitation is a severe discrimination against the State fund in competition with the stock and mutual companies. * * *

Still another handicap is found in the restrictions imposed on a competitive State fund by conditions attendant upon the State administrations of a business enterprise. In general, the cumbersomeness of governmental machinery is proverbial. The operations of governmental bureaus naturally take on a rigid and routine-like character.

Checks and counterchecks are developed, with the object of preventing dishonesty, but with the result of hampering efficiency.

The civil service has been found to be a serious handicap in the administration of the New York State fund. The restrictions of the civil service place the State fund at a serious disadvantage in competition with private insurance companies not similarly restricted. The selection and the promotion of employees are governed by rigid rules. New employees must be selected from certified lists of eligible candidates, and the choice is thus narrowly limited. * * *

Again, the budgetary system in New York State, however well adapted it may be to State departments in general, is not suited to the requirements of a competitive business enterprise such as the State fund. The expenses of the State fund are paid by the policyholders, but must be met in the first instance out of the legislative appropriation made for this purpose and then refunded to the State treasury at the end of the fiscal year. In order to secure the necessary appropriation, the budget of the State fund must be submitted months in advance of the beginning of the fiscal year. This budget fixes the amounts that are to be expended in minute detail, even to the salary of each individual employee, and, when enacted as part of the legislative appropriation act, no departure from the narrow limits of the budget is permitted to meet any emergency, however urgent. This method of financing the State fund out of a legislative appropriation is cumbersome and unbusinesslike. No business can be conducted with the highest degree of economy and efficiency under such a fiscal regime. * * *

A handicap of a different character that militates against the success of a competitive State fund is the prejudice against State enterprise on the part of the average business man. This prejudice is deep rooted and widespread and unquestionably operates to deter many employers from placing their insurance in the State fund, even in the face of lower rates and other attractions. * * *

Finally, the menace of political interference must be enumerated in the list of handicaps of competitive State funds. This menace is always present, and, even if it never passes beyond the potential state of a threatening development to the actual state of political exploitation of the State fund, it nevertheless calls for constant vigilance on the part of the management. There is the danger of hostile legislation, which recurs with each session of the State legislature, the danger of unfriendly investigation, which may be projected under the guise of friendly solicitude for the interest of the State fund, and the danger of political dictation, which may assert itself with respect to the personnel of the organization. It requires constant vigilance to protect the State fund against political interference in its various forms. It is no easy matter to keep politics out of the State fund, or to keep the State fund out of politics. Under present political conditions there is no remedy for this particular difficulty which besets the pathway of the State fund.

Mr. L. W. Hatch, chief statistician of the New York State Industrial Commission, emphasized the great need for reliable accident statistics as follows:

There are four general considerations which support the view that any board or commission which neglects to insure adequate statistics of accidents within its jurisdiction will fall short of the best service which it can render, namely:

(1) There is a widespread demand for such information which springs not from academic interest only but chiefly from those interested solely from a practical point of view; that is, from employers, safety engineers, compensation insurance carriers, and wage earners.

(2) Statistics of accidents are indispensable for intelligent prosecution of the work of accident prevention, and payment of, or insuring the payment of, compensation for

those which can not be prevented, which are the two things we have to do about accidents. The problems involved in these tasks arise largely from the necessity of anticipating future experience by past experience, and the only means to such knowledge is full and accurate statistics.

(3) Accident boards and commissions are in a position to furnish such information better than any other agency because to them only, as compared with employers or insurance carriers, are available the necessary data for the entire field; that is, all plants in all industries, within a State.

(4) Such information is needed by the boards and commissions themselves for intelligent handling of their own administrative problems. Without accurate knowledge of the working of the different features of a compensation law, development of sound administrative policies and wise recommendation of amendments of law are impossible, and much of such knowledge can be acquired only through statistical studies of experience.

The fifth annual report of the committee on statistics and compensation insurance cost of the International Association of Industrial Accident Boards and Commissions was read and discussed by Mr. Charles H. Verrill, of the United States Employees' Compensation Commission. The committee recommended four additional standard tables as follows:

- (1) Cost of medical and hospital treatment by nature of injury.
- (2) Duration of total disability in permanent partial disability cases.
- (3) Outline of the essential information in an investigation of industrial cripples.
- (4) Outline of an American remarriage table for industrial accident widows.

They further urged a continuous study of compensation experience as the one safe guide to intelligent and efficient administration. As the first step in this study, everything possible should be done to secure the general adoption and use so far as possible of tables which have already been recommended by the committee, with such elaboration of detail as may be necessary to show most clearly the experience under the particular compensation act, and to exhibit the merits or defects peculiar to the law.

Business Meeting.

The next annual meeting will be held at San Francisco, Calif., the date being left to the executive committee. The following officers and members of committees were chosen for the ensuing year:

Officers.—President, Will J. French, commissioner, industrial accident commission, San Francisco, Calif.; vice president, Charles S. Andrus, chairman, industrial commission, Chicago, Ill.; secretary-treasurer, Royal Meeker, United States Commissioner of Labor Statistics, Washington, D. C.

Executive committee.—President, Will J. French, industrial accident commission, San Francisco, Calif.; vice president, Charles S. Andrus, industrial commission, Chicago, Ill.; secretary-treasurer, Royal Meeker, United States Bureau of Labor Statistics, Washington, D. C.; T. J. Duffy, Ohio Industrial Commission, Columbus, Ohio; William W. Kennard, industrial accident board, Boston, Mass.; George A. Kingston, workmen's compensation board, Toronto, Ontario; W. A. Marshall, State

industrial accident commission, Salem, Oreg.; Charles H. Verrill, United States Employees' Compensation Commission, Washington, D. C.

Committee on statistics and compensation insurance cost.—Chairman, E. H. Downey, insurance department, Harrisburg, Pa.; vice chairman, L. W. Hatch, bureau of statistics and information, New York State Industrial Commission, Albany, N. Y.; secretary, Charles H. Verrill, United States Employees' Compensation Commission, Washington, D. C.; Miss Inez F. Cooper, Wisconsin Industrial Commission, Madison, Wis.; T. N. Dean, workmen's compensation board, Toronto, Ontario; R. J. Hoage, United States Employees' Compensation Commission, Washington, D. C.; Carl Hookstadt, United States Bureau of Labor Statistics, Washington, D. C.; William Leslie, New York State Insurance Fund, New York, N. Y.; Royal Meeker, United States Bureau of Labor Statistics, Washington, D. C.; R. M. Pennock, bureau of workmen's compensation, Harrisburg, Pa.; W. P. Ratliff, industrial accident commission, San Francisco, Calif.; Oscar M. Sullivan, department of labor and industries, St. Paul, Minn.; E. E. Watson, industrial commission, Columbus, Ohio.

Committee on jurisdictional conflicts.—Chairman, Royal Meeker, United States Bureau of Labor Statistics, Washington, D. C.; vice chairman, Fred M. Wilcox, Wisconsin Industrial Commission, Madison, Wis.; T. J. Duffy, Ohio Industrial Commission, Columbus, Ohio; W. A. Marshall, State industrial accident commission, Salem, Oreg.; A. J. Pillsbury, industrial accident commission, San Francisco, Calif.; Charles H. Verrill, United States Employees' Compensation Commission, Washington, D. C.

Medical committee.—Chairman, F. D. Donoghue, M. D., industrial accident board, Boston, Mass.; vice chairman, Morton R. Gibbons, M. D., industrial accident commission, San Francisco, Calif.; G. H. B. Hall, M. D., workmen's compensation board, Vancouver, British Columbia; Raphael Lewy, M. D., bureau of workmen's compensation, New York, N. Y.; P. B. Magnuson, M. D., industrial commission, Chicago, Ill.; M. B. Morrison, M. D., workmen's compensation board, Halifax, Nova Scotia; J. W. Mowell, M. D., industrial insurance department, Olympia, Wash.; F. H. Thompson, M. D., State industrial accident commission, Salem, Oreg.; J. W. Trask, M. D., United States Employees' Compensation Commission, Washington, D. C.

Safety committee.—Chairman, H. M. Wolflin, industrial accident commission, San Francisco, Calif.; vice chairman, John Roach, bureau of hygiene and sanitation, Trenton, N. J.; James L. Gernon, bureau of inspection, New York, N. Y.; R. McA. Keown, safety and sanitation department, Madison, Wis.; John A. Walker, bureau of inspection, Harrisburg, Pa.

Minimum Requirements in Compensation Legislation.¹

By ROYAL MEEKER, UNITED STATES COMMISSIONER OF LABOR STATISTICS.

Is Uniformity Desirable and Feasible?

MANY persons interested in workmen's compensation believe it to be wholly impossible and even undesirable ever to achieve uniformity in workmen's compensation legislation. It is argued that wages and conditions of labor, kinds of industry, and classes of occupations vary so from State to State as to make it impossible and undesirable to have one uniform compensation law for all States from the Atlantic to the Pacific and from the Arctic Ocean to the Gulf of Mexico. It is worth while, however, to ponder upon the fact that in the great industrial States like Pennsylvania, New York, Ohio, and Illinois practically all the industries of the country are to be found, and no one has suggested enacting separate laws to cover different geographical and industrial sections in each of these States. The New York State law now covers longshoremen, the building trades, steel workers, lumbermen, sawmill operators, paper-box makers, machine-shop employees, miners and quarrymen, and the greater number of employees in all of the industries that are ambiguously termed hazardous in character. No difficulty is found in applying the same principles of compensation to the multitudinous occupations within these industries. Is there any reasonable reason why a seaman or a railroad employee should not be entitled to the same treatment in case of disabling accident or illness as the worker in a glue factory or a garage?

Some persons profess to see reasons why the compensation law which works fairly satisfactorily in a State of mixed industries like New York can not work equally well in the purely mining State of Nevada. The arguments advanced in support of this notion are funny enough to make one laugh if they did not imply such tragic consequences. A miner whose leg is broken in a gold mine in Colorado half a mile below the surface of the earth suffers no different sort of a disability from a lumberman whose leg is broken on a skidway in Louisiana or a motorman whose leg is broken by a street car in Brooklyn. The loss of an eye requires the same medical and surgical treatment whether caused by a chip of steel in a shipyard of Seattle or by a piece of granite in a quarry of Vermont.

¹ Paper read at the sixth annual meeting of the International Association of Industrial Accident Boards and Commissions, held at Toronto, Canada, Sept. 23-26, 1919.

Medically, it makes no difference in what locality, industry, or occupation a particular kind of injury occurs. Of course, the economic effects of the same type of injury vary with different occupations. All compensation laws, except in California, ignore this very important fact, so that under the accepted theory and practice of compensation the fingers of the violinist, the pianist, or the typist are of no more consequence than the fingers of an elevator boy or a bell hop; the loss of a leg by a slag shoveler is exactly equal to the loss of a leg by a bookkeeper. This theory and this practice are wrong, but no new question is presented by the proposal to enact a uniform compensation law.

An adequate compensation law could easily be drafted to cover the great diversity of industries and of conditions throughout the whole United States and its possessions and Canada very much better than any State or provincial law now covers the industries within its own borders. Under such a law it will make no difference to the worker whether his hand is crushed by a falling rock in a copper mine in Arizona or in an exposed gear in a machine-building plant in Connecticut or in the rolls of a laundry in Wisconsin. The differences in wages, hours, and conditions of work offer no obstacles whatsoever to the administration of an absolutely uniform compensation law providing uniform and adequate medical, surgical, and hospital treatment and money compensation according to a uniform scale, taking account of the economic effects of the injury and the employment and the wages or earnings of the injured worker.

The same injuries ought to receive the same surgical and medical treatment and the same degree of economic benefit, whether received in California, Maine, or Oklahoma; whether the injured worker was getting a dollar a day as an unskilled negro laborer in Florida or ten dollars a day as a skilled machinist in Massachusetts; whether he was working a mile under the surface as a miner or 500 feet in the air as a structural-iron worker; whether on a vessel a thousand miles from land or on an Iowa farm a thousand miles from the sea. There is no reason why the State of Nevada, with a population of 111,000, any more than the State of New York, with a population of 10,500,000, should conduct its industries as though they were bankrupt and must be subsidized by the lives, limbs, and sufferings of the workers. It makes no difference whether a State has a single industry or a hundred different industries; the same compensation law, providing adequate medical and money benefits, can apply to each and the same methods of administration must be provided for if the law is to accomplish what compensation laws are supposed to do.

“The laborer is worthy of his hire.” Employers and the public are reluctant to admit this Biblical axiom. Even to-day they are

trying to compromise with the worker on a 20 or 30 per cent basis. Certainly the worker's hire should provide adequate surgical and medical care for injuries he suffers as a result of his employment and money compensation sufficient during his period of disability to maintain his family in decency and health. To a just mind it seems that society should lift the *economic* burden from the shoulders of the worker who has the misfortune to be injured as a consequence of his employment. Workers can not be relieved of the physical and mental suffering and the inconvenience caused by disabilities, and these burdens are heavy enough without the additional worry and burden resulting from loss of earnings and increase of expense for medical treatment. Yet the employers and the general public for years worked together to put and keep all the economic burdens of industrial injuries upon the workers. Since 1912 a small but appreciable part of these economic burdens so cruelly shoved off upon the helpless victims of industry by our heartless courts and inhuman lawyers has been lifted. As a consequence we are in danger of assuming the holier-than-thou pose of the Pharisees, pointing with pride to our great generosity in dealing with the victims of industrial accidents. Let us refrain from patting ourselves on the back and piously thanking God that we are not as the Eskimos and the Hottentots until we have made provision for at least 50 per cent of the cost of industrial accidents to not less than one-half of our working population. Until the public has achieved this standard as a minimum, it can hardly pose as a philanthropist and get away with it. When all limitations applying to both medical and money benefits are taken into account not one compensation law in the United States and Canada measures up to a standard of 50 per cent of adequacy. May Heaven and public opinion hasten the day when we shall have a uniform and adequate compensation law throughout the two great English-speaking nations of North America.

However, I am not supposed to speak to you concerning the desirability and practicability of adopting a standard uniform compensation law. My task is much simpler and much more difficult. I have merely to suggest to the members of the International Association of Industrial Accident Boards and Commissions what I consider the minimum standard requirements which a compensation law must contain before it deserves the name of a compensation measure. If we accept the dictionary definition of compensation as that which is given as an equivalent, then our best efforts lack about 400 per cent of being compensation laws, while the more backward States like Wyoming and New Hampshire can not be said to have done any more than register a pious and much qualified approval of the compensation principle to a very limited degree in a few selected industries.

The Purposes of a Workmen's Compensation Law.

The title of an adequate workmen's compensation law should state clearly that its sole purpose is to prevent, so far as is humanly possible, the human wastage in industry. To accomplish this purpose effectively the law must provide somewhere for the exercise of the six functions enumerated below: (1) Preventable industrial accidents and illnesses must be prevented; (2) workers injured by either accident, disease, or poison must be restored as completely and as quickly as possible by the best obtainable doctors and surgeons; (3) money benefits must be provided to enable the worker and his dependents to live during the period of his total or partial disability without the assistance of public or private charity; (4) the injured worker when restored as fully as possible should be retrained, if necessary, to take up real work suited to his ability and his disability; (5) when ready to go back to a bona fide job in real industry the injured worker should be placed and kept in suitable employment through a public employment system; (6) the injured worker must be kept track of and physical reexaminations given him when necessary.

It is not absolutely necessary that all six of the functions stated above should be vested in the board to administer the compensation law, but if not the closest cooperation between the different administrative bodies must be made obligatory. No so-called compensation law can be called adequate which does not make provision for the exercise of the six functions enumerated.

The prevention of accidents through reconstruction of plants, installation of safety devices, and safety instruction among the workers should be provided for and encouraged in every legitimate way. The principal object of a workman's compensation law should be to avoid the awarding of compensation to injured workers, not by providing exceptions and loopholes to enable employers and insurers to get out of paying for injuries incurred, but by making preventable accidents impossible, by curing all curable injuries however incurred, as rapidly as can be, by placing injured workers in suitable jobs and by keeping track of them so as to prevent their taking up work which would aggravate their injuries. The authorities having charge of the administration of the compensation laws should be kept awake nights devising schemes by which compensation obligations can be reduced to the irreducible minimum. Nearly all compensation boards are obliged to devote almost their whole time and energy to hearing cases and handing out to cripples, widows, and orphans the niggardly doles provided in their laws for the victims of the industrial juggernaut. Our lawmakers have thus far failed to grasp the fundamental economic and ethical principles of workmen's compensation.

Coverage.

Workmen's compensation laws should include all workers in specified wage or salary groups in all industries, using industries in the broadest sense to include agriculture, mining, lumbering, transportation, distribution, merchandising, and domestic service as well as manufacturing. No exemptions should be made for employers of small numbers of workers. There is no sense in granting compensation benefits to one worker because his employer has eight workers and withholding them from another because his employer has only seven workers. Public employees should be included on the same basis as private employees. The attempt to divide industries into hazardous and nonhazardous groups has resulted in nothing but confusion trebly confounded. Some industries have been excluded from some compensation laws on the ground that these industries were nonhazardous. Others have been excluded because they are too hazardous. The arguments put forth in support of such laws are too absurd to merit serious refutation. If there be a nonhazardous industry in which accidents never occur there is no earthly reason why the industry should not be included under the compensation law. It ought to be clear that it would cost nothing to include under the compensation laws an industry or an occupation in which accidents never occur.

Coming back to earth again, and considering industries as they really are, it must be recognized that no industry or occupation within an industry is free from the accident hazard. Accidents whenever and wherever they happen should be provided for in the compensation law. The farm hand suffering from an injury due to his employment should have adequate medical, surgical, and hospital service as much as the factory employee. A worker injured in a so-called nonhazardous occupation has to pay for medical and surgical services and the necessaries of life just as does the worker injured in the most hazardous occupation. The judicial theory evolved by our courts holds that the workman is paid for the hazard inherent in the industry he enters. If this venerable theory were correct, there would be a stronger argument for enacting workmen's compensation laws for the less hazardous than for the more hazardous occupations and industries. For if the courts had reasoned from fact, the workers engaged in hazardous occupations would receive wages sufficient to enable them to provide themselves with insurance protection purchased from private insurance companies against the hazards of their work, whereas the workmen engaged in less hazardous occupations would have no such surplus of wages to invest in insurance, and therefore when injured would be without insurance protection. It has been pointed out over and over again that the reasoning

of the courts in this matter has been utterly fallacious. Wages have little or no relation to the hazard of work. Workers in the more hazardous occupations need insurance quite as much as those in the less hazardous occupations. Stated in a nutshell, justice requires that an industry should pay the cost of producing its products. Certainly the loss of life, limb, or health to the workers engaged in industry is just as much a part of the production costs as are the wear and tear on the machinery and tools used in the spoilage and wastage of the raw material worked up.

Unless an industry makes provision for all of the costs of production, that industry is trying to get something for nothing. It is not standing on its own feet. It is often urged that it is impossible to extend compensation laws to include agriculture and domestic service. The New Jersey law, the first compensation law enacted in the United States, included agricultural workers and domestic servants. This seems to be a sufficient answer to the contention that it can not be done. I do not mean to imply that the New Jersey law can not be improved, but New Jersey did extend compensation law to agricultural and domestic workers, and this can be done and should be done in other States. It is often urged that the relation of master and servant in the good old-fashioned industries of agriculture and domestic service are so ideal that it is wholly undesirable to have such a coldly commercial proposition as workmen's compensation come in to disturb these beatific reminders of Arcadian simplicity. I have worked under the idyllic Arcadian conditions prevailing on our farms in Pennsylvania, Iowa, and other States. I have also seen a great deal of the ideal relations existing between house mistresses and their servants, and my belief in the necessity of compensation legislation for these classes has been strengthened by what I have experienced and seen.

Public employees are frequently excluded from benefits under our State compensation laws. This is wholly unjustifiable, and must be corrected if the public service is to be maintained on a proper basis. Provision of proper compensation for injured policemen, firemen, and teachers need not prevent the continuation of special retirement funds to take care of these public officials in old age and invalidity. Special provisions must be made for casual workers. With compulsory community insurance of compensation risks casuals can be readily taken care of.

The dependents of aliens are, of course, entitled to the same treatment under compensation legislation as the dependents of citizens. It may be expedient or necessary to allow for a reduction in the amount of benefits to be paid to the dependents of an alien living in a foreign country so as to give due weight to the difference in the stand-

ard and the cost of living in the country of residence as compared with the United States.

The workmen's compensation law should not merely *permit* all employers in all industries to come under the law. The employer should be given no option in the matter. The "take it or leave it" principle has no place in a proper compensation law. Workmen's compensation partakes of the nature of taxation by special assessment for a particular purpose. In the Greek Republics when money was needed by the public to carry on war, to construct a road, or to build a theater every citizen was asked to contribute what he felt like giving. The results were far from satisfactory. Centuries ago we abandoned the practice of passing the hat for voluntary donations for public purposes. The expenses of government should not be put upon the conscientious and public-spirited citizens alone while the conscienceless and selfish citizens pay nothing. Compensating injured workmen for their injuries, so far as that is possible, has come to be recognized as a public function and every employer must be made to contribute his share toward paying the costs, whether he feels like it or not.

Occupational Diseases and Poisons.

Practically all of the compensation laws of the United States are accident compensation laws. This leads inevitably to considerable confusion and much injustice. Our compensation laws must be extended to include diseases and injuries due to poisons used in the industry. I am fully cognizant of the difficulties of administering laws compensating employees for injuries due to industrial diseases and poisons. The difficulties are admittedly great, but they are not insuperable, and justice demands that employees be compensated for the injuries incurred incident to employment whether due to accident or to industrial disease or poison. No list of compensable diseases should be provided, but the compensation commission should be given power to grant compensation awards for all injuries incident to employment. Happily there seems to be a growing recognition of the right of the employee to compensation on the basis of injury whether due to accident or to any other cause. Five States (Massachusetts, California, Connecticut, Wisconsin, and North Dakota), the Territory of Hawaii, and the United States Government now have compensation laws which cover occupational diseases. The laws differ considerably in the different jurisdictions, as do also the administrative practices, so that uniformity is yet far in the future.

Insurance.

All workmen's compensation risks should of course be insured. Four of our States still fail to measure up to this fundamental standard of adequacy in their compensation laws. No private competitive profit-seeking companies should be permitted to write workmen's compensation insurance. Insurance is the simplest of all business. Adam Smith more than a hundred years ago referred to banking as a business so simple that it could readily be conducted by the State, and he suggested that the State should take over banking. If banking is simple, insurance is simplicity simplified. Those engaged in insurance strive to make it look very formidable and complicated, with occult actuarial computations and intricate statistical tabulations. In last analysis, however, insurance is merely the distribution of inevitable individual losses among a number of individuals instead of permitting each loss to fall upon the particular individual or family suffering the misfortune. Of course, the larger the number included the more stable the risk of loss becomes. It does not require occult actuaries for the conduct of the insurance business. Insurance was carried on in a fashion even before statisticians were invented. Statisticians are, of course, necessary to calculate the probable cost of insurance. The first insurance business, however, was carried on with no exact knowledge of costs. It arose in this wise: A shipowner having a vessel at sea sought out a good sport and made a bet with him that his vessel and cargo would not reach port. If the vessel and cargo were lost, then the good sport paid the shipowner his bet; if the vessel did reach port, then the shipowner paid his bet, and tried to recoup himself from the sale of the cargo. Insurance originated as a gamble, and unfortunately some gambling features still persist, especially in our casualty insurance companies. The object of this brief discussion is to show that the insurance business is so simple that it can readily be carried on by the State. Insurance can be conducted by the State at less than half the cost to private competing companies. The heaviest items of cost under competitive insurance are the expenses of agents employed to write new insurance, to renew expired policies, and to collect premiums. All three of these items would be reduced practically to zero under a universal compulsory State insurance system.

The safe investment of surplus and reserve funds and their insurance against losses is another item of large expense to private competitive insurance companies, which would be largely done away with under monopoly State insurance. Great economies would also result from having one central office instead of many competing offices with their overhead expenses. A great deal of the statistical

and actuarial work now done by the competing companies, each seeking to get an advantage over the others, is utterly useless camouflage or misleading "bunk" and should be eliminated.

The arguments for compulsory insurance in an all-inclusive State fund are overwhelming. If all profit-seeking stock companies are eliminated, I see no reason why employers should not be permitted, or rather encouraged, to form mutual associations under the supervision and control of the State insurance fund. Of course all employers should be required to contribute proportionally to a catastrophe fund and possibly to a life-pension fund to take adequate care of invalidity and death. I am very clear that no individual employer should be permitted to carry his own risk. The State insurance fund should function so smoothly and swiftly that employers showing a favorable accident experience would at once profit by dividends or by a reduced rate below the normal, or both.

In the Middle Ages it was the usual practice for the king to farm out the taxes. Under this system the king gave authority to the tax farmer to collect, say, 200,000 livres in taxes on condition that the farmer pay to the king at once 100,000 livres. The Parliament in Great Britain and the Revolution in France are supposed to have put an end to the abuses and injustices of tax farming. Yet it still persists in the United States, at least in the field of workmen's compensation. The tax farmers of to-day are the insurance companies which assume for the employers the burden of compensation costs under the law in return for the payment of insurance premiums. This system is defended vigorously by employers generally, although it has been demonstrated to be at least twice as expensive as a system of public insurance. It is disconcerting to the economist trained in the theories of *laissez faire* and of the benevolence of enlightened self-interest unhampered by the shackles of legal restrictions to find employers fighting viciously for the privilege of paying \$2 for a thing which could be purchased for \$1. I believe in vigorous, intelligent, progressive paternalism. It is a paternal duty to deprive children of colicky green apples and dyspepsia-producing candy, and, if they set up a howl, it may become a paternal obligation to paddle them thoroughly. Employers are peculiarly childlike in many ways and frequently need the strong paternal hand of the State to guide them aright. It is only the paternalism which guides and checks which is objected to by business men. They are loudest in their clamor for paternal protective tariffs and subsidies for what they believe to be their particular interests—a brand of paternalism which is indeed ill-advised and dangerous.

Waiting Period.

Up until this legislative year 17 States had a waiting period of two weeks, during which time the injured employee received neither earnings for his work nor compensation for his disability. Only 15 States and 6 Canadian Provinces had a waiting period of one week or less. The excuse for requiring such a long waiting period is the bugaboo of malingering. Malingering flourishes nowhere so luxuriantly as in the imagination of employers and those who voice their opinions. The first Federal civil employees' compensation bill was ingeniously devised to cultivate and encourage any tendency to malingering that may be inherent in employees of the United States Government. The law provided a waiting period of 14 days. If the injured employee remained disabled 14 days or more he was given compensation for the full amount of his salary or earnings for the full time of his disability. The accident statistics under this law, when considered superficially, seemed to prove the assumption that the workingman is prone to malingering, since a seemingly disproportionate number of disabilities terminated on the fourteenth day. A more careful analysis of these figures, which I caused to be made, showed little or no evidence of malingering.

Workers as a rule are honest. The amount and cost of malingering is enormously exaggerated by employers and their representatives. Of course there are tricksters and shammers among workers, as there are among bankers, railroad magnates, judges, and legislators. Because a few shammers try to get more than they are entitled to under any compensation law is a poor, shabby excuse for enacting a law designed to short change and short weight all injured workers, the just as well as the unjust. Some legislators have apparently endeavored so earnestly to make their laws malingering proof that they have enacted laws so inadequate, so niggardly, so penurious, and so difficult as to discourage large numbers of injured workers from making any claims to benefits provided. Legislators must be made to comprehend that the main purpose of a workmen's compensation law is to give justice to injured workers, not to prevent malingering. Happily, the tendency in workmen's compensation legislation is toward shortening the period during which the injured worker must live on his fat, as it were. Twenty-one States and six Provinces now have a waiting period of one week, while the United States compensation law has only three days. It is necessary to have a waiting period to cut down the great labor of administration. This period should be made only long enough to exclude trivial injuries. The Federal Compensation Commission finds the three-day limit very satisfactory. Some favor granting compensation for the full period in case the disability persists for more than a prescribed period. I

think it is much better to cut the waiting period down to three days, which has been demonstrated to be a workable limit, and give no compensation for that period.

Medical Benefits.

As I have already indicated, medical benefits are much more important than money benefits. Of course there can be no waiting period for medical benefits. Compensation laws should provide needed medical and surgical treatment for all industrial injuries. There should be no legislative limitations as to the time allowed for treatment or the amount which the compensation board may pay in medical, surgical, and hospital fees. In no particular is the flagrant extravagance of our parsimonious compensation laws more striking than in those sections which limit medical costs to not more than \$25 to \$75, and to two or three weeks per case. The administrative authorities should be empowered to provide all reasonable medical and surgical skill, and they should be the sole judges of what is reasonable in each case.

If administrative commissions are to be vested with such plenary powers in medical and surgical matters, it goes without saying that a medical man should either be a member of the administrative commission or be assigned to the commission as medical adviser. No commission of laymen can judge what specialist, or even what kind of a specialist, should be consulted by the injured man in a difficult and complicated case. The best way to improve the medical service in my judgment is to give the medical men more power, more responsibility, trust them more, and then hold them to a strict accountability for the results.

Money Benefits.

The money benefits provided under most compensation laws are utterly inadequate to enable the workman to pay ordinary living expenses for himself and family, to say nothing of the extraordinary expenditures he is often subjected to because of his disability. The remissness displayed in compensation laws has been prompted by a false idea of economy. Legislators under the influence of employers have manifested great fear lest the compensation laws should burden industry to such an extent that plants and even whole industries would be driven out of the State or into bankruptcy. Under the liability régime industries refuse to bear the burdens caused by their own accidents. This does not mean that there were no accident burdens until the compensation laws were enacted. In the good old days of *laissez faire* industrial accident burdens fell with crushing force upon the individuals injured and their families. The

community was obliged to contribute very heavily toward the support of those crippled in industry, through poor relief, almshouses, and an enormous but unestimatable loss in the skill and productivity of the worker's children. The community, as a whole, was obliged to pay taxes for the support of the pauperized victims of industry, but what is of vastly more economic importance the community lost enormously in the efficiency of labor because the families of killed or crippled men were driven down below the poverty line. Children were deprived of necessary educational advantages, widows were obliged to seek work to support themselves and their children, and family life was frequently broken up. Unfortunately the compensation laws have not eliminated these evils. They have only made a feeble beginning.

It is or should be an economic axiom that an industry which must depend upon its workers or the community to pay part of its legitimate costs of production is a parasitic industry.

As I stated before, the expense for wear and tear and replacement of the labor force must be provided for, as well as the depreciation and replacement of machinery and tools. If an industry is unable to pay these costs it should not be permitted to exist. I know of no industry so poor that it would die unless its workers and the community carry its accident losses. Some individual plants there are which belong in the pauper class. These pauper plants and pauper industries also, if such there be, should not be permitted to die unassisted. We should give them every assistance to die just as suddenly as possible. Art for art's sake and business for the sake of being busy have no place in the modern state. The parasitical industries which thrive in our midst are parasitical by choice or custom, not by compulsion. All industries should be required, as a minimum, to provide compensation sufficient to maintain injured workers and their families through the period of disability and to recompense the worker for any permanent loss of earning power which he may suffer by reason of injuries due to his employment.

Happily there is a tendency in our States to increase the percentage of wages to be paid in money benefits for temporary disabilities. Up to this year over 60 per cent of our States allowed only 50 per cent of the loss of wages or earnings, during the period of disability. Now the majority of the States allow from 55 to 66 $\frac{2}{3}$ per cent. All States in addition provide a minimum and a maximum amount of money benefits. These minima and maxima are in all cases too low, in view of the enormous rise in the cost of living. I think it is too severe to take even one-third of a worker's earning power at just the time when he needs more expensive food and other necessities. Again, fear of the malingerer has dominated the legislative mind in fixing the parsimonious percentages and the amounts of

money compensation. There should be some deduction from full wages or earnings, no doubt, in order to stimulate the injured workers to return to work as soon as recovery is complete. An allowance of 75 per cent of earnings, a minimum of \$12 per week and a maximum of \$30 per week, would be no more than sufficient in the way of money benefits under the present high scale of prices. Payments should continue throughout the period of disability. In case of death a smaller percentage allowance will be sufficient, because, with the principal bread-winner gone, the cost of supporting the family is correspondingly reduced. Dead men do not mangle, so there is no ground for cutting the compensation benefit to induce the victim of the accident to return to work. Unless the State wants to punish the widow and orphans as malingerers, there would seem to be no valid excuse for reducing the money benefits for a widow below 30 to 33½ per cent of the deceased husband's earnings, with additions for every child below 16 years, the maximum never to exceed 66½ per cent of former earnings.

Administration.

The functions of factory inspection, accident prevention, industrial hygiene, medical and surgical treatment of injuries, retraining, replacement, the handling of compensation claims, reporting and compiling of accident statistics, the carrying on of compensation insurance and the compilation of statistical statements showing the costs of the same, should all be centered in one administrative organization. The form of this organization may vary considerably, but it is indispensable that these functions should all be closely tied together so that the cost of accidents may be accurately known and brought home directly to employers, to the end that the number and severity of accidents may be reduced and the treatment of injuries be made as efficient as possible. Probably, an industrial commission embracing all the functions enumerated is as good a plan of organization as can be devised. The commission can be made up of any number of commissioners according to the amount of business which must be handled. If these functions are scattered among independent departments or commissions, administrative efficiency is thereby reduced. No amount of cooperation, coordination, and correlation of independent agencies can supply the lack of a central organization with power to do things. Administration consists in doing things, not in debating and passing earnest resolutions.

Ten of our States have placed workmen's compensation laws on their statute books and have thoughtfully left them to be administered by the courts. This is like intrusting the carrying out of the prohibition amendment to the distillers' and brewers' associations. In the first place, a court is a very slow and ineffective administrator.

Time is everything in administration, especially in compensation legislation. The courts in the United States, at least, have not yet fully grasped the idea of compensation. Even the compensation commissions, I fear, do not always know the true meaning of the laws they are created to carry out.

Canada has at least two great advantages over her sister republic in carrying forward the compensation principle.

First, Canada has created her compensation commissions with full authority to pass finally on compensation matters. Only the Federal Civil Employees' Compensation Commission has such final jurisdiction in the United States. Our State commissions would be much strengthened, in my judgment, if they were fully responsible judicially and administratively, from first to last, for the carrying out of the compensation laws.

Second, the Canadian commissioners are appointed for long terms or for life. This gives strength and continuity to Canadian compensation administration, which are conspicuously lacking in the United States. The frequent changes in the personnel of our commissions do not make for good administration. Perhaps the new appointees may be as good or better men than those they succeed; still the commission loses the experience and knowledge acquired by the retiring member and the new appointee has to learn a new and a very difficult profession. All workmen's compensation administrators should have full and final jurisdiction over compensation matters, and they should be appointed for life or for a term of not less than 12 years.

Accident Reporting and Statistics.

Every compensation law should provide for the reporting of all accidents and should create a statistical bureau to tabulate the information necessary to the compensation commission in administering the law. Liberal appropriations should be given to the statistical bureau to enable it to gather and present full information as to the number, kind, and severity of accidents, their causes, the nature of injury, the medical and surgical treatment, with the results thereof, and the cost of compensation. Without full information on these matters compensation law administration is but a groping in the dark. The objects are obscure and the results unknown. Our compensation laws fall far short of a standard of adequacy in nearly all respects. Perhaps the most glaring defect of all is the almost total lack of any proper recognition of the place of statistics in the administration of compensation. The physician and the statisticians should be the right and left arms of the compensation administrator. With good medical and surgical service, and with full statistical information of accidents, medical results, and costs, the way of the compensation administrator will be made straight and smooth.

Employees Engaged in Interstate and Foreign Commerce.¹

By LINDLEY D. CLARK.

Interstate Employees.

Present Status.

THE relation of railroad employees to the question of accident relief presents this anomaly, that the industry that made the first successful attack on the old common-law doctrine of employers' liability is its last stronghold. The injustice and inadequacy of the common-law system as applied to railroad employments was specifically recognized in laws enacted as long as 30 to 40 years ago, and even longer; but to-day, when the doctrine of liability for negligence has been discredited and superseded in the great productive industries generally, it is still the sole means of redress in interstate transportation.

I believe that the reason for this anomaly is based on the fact that the question of negligence is a fighting proposition; and after the issue has been formulated and the lines drawn it is difficult for the parties to the conflict to surrender any of the supposed gains of victory. Until 1906, cases of injuries to interstate employees were sued upon under the common-law or State statutes, Congress having never taken any action in this field; but in that year the efforts of a decade culminated in the enactment of a Federal liability law abolishing the defense of fellow service and modifying the rules of contributory negligence. This legislation had been earnestly supported by the trainmen's organizations and as earnestly opposed by the railroads, and though it was held unconstitutional by the Supreme Court in 1908, on the ground that it failed to limit its application to matters within the power of Congress to regulate, a new law was enacted in the same year avoiding this difficulty, adding also a modification of the rule of assumed risks, and this law has been upheld as constitutional.

With the enactment of these laws over the opposition of the railroads, the employees felt that they had secured an end long striven for, and doubtless regarded the very resistance of the employers as the best proof of the advantages to be expected from the new enactment. In the midst of these endeavors came the news of a different method of meeting the problem. Instead of the whole burden of the

¹ Paper read at the sixth annual meeting of the International Association of Industrial Accident Boards and Commissions, held at Toronto, Canada, Sept. 23-26, 1919.

trade risk falling on the employee and the employer being liable for a speculative sum in damages where negligence could be proved, let the industry carry its own risks and the employee be compensated in an agreed amount in every case of injury arising out of and in course of the employment. But the idea was too novel, and the spoils of victory were not yet realized. "Our people are afraid of this compensation idea," said one of their legislative representatives to me when its superiority was being urged; "what we want is a good, stiff liability law." The very readiness of the railroads to accept the compensation system was suspicious, especially with the memory of their fight against the liability law still fresh. "Fear the Greeks bearing gifts." Then, too, there was the opposition of the damage-suit lawyer, active on the floor of the brotherhood convention where he retained his right to a seat by reason of a former craft relationship, and not unmindful of his personal interests, any more than were his fellow practitioners who held seats in the Federal Congress. Joined with this was the sense of the self-sufficiency of certain strong organizations with well-supplied treasuries which the members might avail themselves of to look after the ordinary accidents, while retaining the right to sue for ten, fifteen, or twenty thousand dollars in cases where negligence appeared; and this held good, even though the defenseless position of the far greater number of railroad workers outside of these organizations was freely recognized.

Whatever may have been the grounds for defeating a compensation law, as was done in 1912, or for failing to secure the enactment of such law during subsequent years, the fact is sufficiently obvious that the liability statute has not produced the anticipated results. It has, indeed, had the desired effect of superseding varying State laws and common-law rules by a uniform national standard; but it has also narrowed the rights of the injured worker and his survivors to the provisions of this statute as the sole and exclusive basis of recovery for injury. Suits may be brought in cases of negligence, of which the evidence is often destroyed by the accident causing the injury, but no redress is possible in the far greater number of cases (estimated to be 75 or 80 per cent of the total) where the injury is due mainly to the trade risk and no proof of negligence can be made.

Disappointment with the workings of the liability act is freely confessed and complaints are made against its interpretation by the courts. What foundation these may have, if any, is a question outside the scope of this discussion; but I think that no one of us reading the amendments that have been suggested can feel that they offer any real prospect of relief. At least four amendments were offered in the Sixty-fifth Congress, and the process has been renewed in the Sixty-sixth—sufficient evidence of dissatisfaction with

the existing law; but neither any one nor the sum of them goes to the root of the matter, which is that the question of fault is not the question of chief importance when relief from the consequences of an injury is at stake. But with 20 to 30 per cent of the cases securing any recovery at all, and but 35 to 50 per cent of the sums recovered as judgments finally reaching the pocket of the suitor, the question is one of a new system and not of patching up the old one. (I take these figures from the report of the Employers' Liability and Workmen's Compensation Commission, appointed under a resolution of Congress in 1910, of which Senator Sutherland was chairman.)

It is worthy of note that the chief labor opponent to the Sutherland bill of 1912 based his opposition, not on an objection to the principles of compensation as such, but because a compensation system had already been established by the brotherhood for which he spoke, and he desired to retain both it and the action for damages. First declaring that the most impressive feature of the entire discussion of the proposition was the almost undivided support given by both employers and employees, he referred to the work of the brotherhoods which had "expended years in building up magnificent systems of compensation for death and disability arising from any cause," and in securing greatly improved employers' liability legislation. Recognizing the necessity of some measure that will afford protection for the less thrifty and the unorganized, "who apparently must depend upon a paternal Government for compensation for injuries," he nevertheless opposed the one measure that would reach their need because that need did not seem to him to be shared by the "railway employee in train service who has found means of helping himself in matters of compensation for injuries arising out of his employment."

The gist of the statement, then, is that a vocal, organized group of workmen with a benefit fund to care for injuries due to trade risks desired to perpetuate in their own interests a system based on negligence and liability while "the millions who have proved themselves helpless" are to be left in that condition because unorganized and voiceless. Contrast with this the statement which the president of the Brotherhood of Railroad Trainmen made before the same commission: "I wish to go on record at this time as unqualifiedly favoring a workmen's compensation act, as a result of resolutions passed by the last two biennial conventions of our organizations"; and the pledge of the president of the Order of Railway Conductors to furnish every consistent aid possible to secure the enactment of a compensation law; and the similar pledge of the president of the Brotherhood of Locomotive Engineers. Some realignments have

taken place since the foregoing statements were made, and in 1917 it appeared that the trainmen were opposed to any sort of compensation legislation, that the firemen and enginemen had given their president discretionary powers on the subject, that the conductors favored an optional provision, giving the employee his choice between the Federal liability statute and the compensation law of his State; and that the engineers were in favor of a Federal compensation law. However, none of the brotherhoods would take action that would lead to arraying them one against another. The present status (1919) varies little if any from that of 1917, so far as convention action is concerned, the trainmen maintaining their attitude of opposition.

But it hardly seems possible that this one brotherhood, standing alone, shall continue to prevent legislation desired by the great majority of railway employees, and there is good reason to expect the cooperation of the brotherhoods favoring a compensation law with other agencies and organizations to secure the enactment of a Federal statute on the subject, though the united effort of all, rather than conflict, is most earnestly to be desired.

It may be worth while to note for a moment the incidence of the effects of the present situation. There are from one and one-half to one and three-quarters million of railroad employees in the United States, the majority of whom are excluded from the benefits of compensation laws because of the lack of a Federal statute, either directly or because of the influence of such lack on State legislation. Of these about 400,000 are train employees proper, eligible to membership in the four great and influential brotherhoods, a number that is exceeded by the number of workmen engaged in maintenance of way, most of whom are classifiable as in interstate commerce, as may also be the many thousands of station agents and masters, station service employees, freight handlers, etc., all of whom are outside these strong organizations and whose voice has been but little heard in regard to the desirability or otherwise of compensation legislation. There is also a larger number of shopmen than of trainmen, and while these will doubtless for the most part be considered as not engaged in interstate commerce, they are so regarded under certain circumstances. However, excluding them entirely, it appears that in 1916 trainmen sustained but 50 per cent of the fatal accidents and 42 per cent of the nonfatal accidents. The distribution of accidents among the brotherhoods can not, of course, be reported, but certainly it will be a welcome and just conclusion if the decision shall be reached to no longer postpone the enactment of a law of such wide import because of the unreadiness of a single brotherhood, constituting such a small minority in numbers and in actual interest.

Benefits Under Liability and Compensation.

The primary and fundamental test of any system is, of course, that of resultant benefits. The commission already named estimated that personal injuries cost the railroads of the country \$12,000,000 annually, of which less than \$5,000,000 actually reached the injured men. It was further computed that the measure drafted by the commission would add about 25 per cent, or \$3,000,000, to the injury costs, but that of the resulting total of \$15,000,000 at least \$14,000,000, or about three times as much as under the liability system, would actually reach the victims of the accidents or their dependents. An important railroad system reported its casualties for the three years 1908, 1909, and 1910, together with the costs. Computing awards as under the Sutherland bill, it appeared that for the death cases occurring during these years the aggregate would be approximately doubled; for permanent total disability it would be increased more than sixfold; for permanent partial disabilities, more than doubled; while for temporary disabilities recovery would be reduced by about two-fifths, the total effect being to increase the cost to the company about 86 per cent. Of course, the amounts actually reaching the injured men or their dependents would be much more largely increased.

One could well wish that after the years of experience under compensation laws comparative data for the two systems could be supplied. That this is not possible for railroads is obvious from the fact of their exclusion from the laws; while for other industries the facts are available in only a limited degree. Moreover, liability data have always been notoriously difficult to obtain. A brief but suggestive summary appearing in one of the bulletins of the United States Bureau of Labor Statistics shows the facts in a number of cases of fatal injuries with families surviving. In 53 such cases in Connecticut in 1915, compensation awards averaged \$2,055. In Ohio, another compensation State, the average was \$3,008 for 206 cases; while in Pennsylvania, then under the liability system, recoveries and settlements in 134 cases produced an average of but \$261. To the same effect, even if not showing such a wide divergence, are the estimates of the Massachusetts Industrial Accident Board in 135 fatal cases not coming under the compensation act, for which settlements were actually made of an average amount of \$1,433; while if they had come within the scope of the law the average would have been \$2,344. The diversity between the amounts in the last instance is the less because only those cases are noted in which some settlement was made; while it is well known that under the liability system, in many cases—in fact the large majority of the cases—no right of action accrues or can be sustained, by reason of the difficulty of prov-

ing negligence where it occurs, as well as of its absence in many cases.

A summary of statistics compiled by Mr. Carl Hookstadt, comparing experience under workmen's compensation and employers' liability systems, collating a variety of data, appears in the MONTHLY LABOR REVIEW of the United States Bureau of Labor Statistics for March, 1919. The study is based on a number of investigations and reports, and the conclusion is reached that the data in existence "prove quite conclusively the superior advantage of a workmen's compensation system as opposed to an employers' liability system."

Constitutionality.

The question of constitutionality that loomed so large in the hearings before the Sutherland commission referred to above can be disposed of in a word. The power of Congress to legislate on the subject of the relations of railroad companies to their employees was decided in 1908, the Supreme Court of the United States declaring that such power necessarily followed from the right to regulate the movement of a train in interstate service; "since to admit the authority to regulate such train and yet to say that all regulations which deal with the relation of master and servants engaged in its operation are invalid for want of power would be but to concede the power and then to deny it, or at all events to recognize the power and yet to render it incomplete." (*First Employers' Liability Cases*, 207 U. S. 463, 495, 28 Sup. Ct. 141.)

There is no vested right in any person to maintain action in any special form; and the substitution of compensation for the liability system is within the power of legislatures even though it establishes the principles of responsibility to make payments in the absence of fault (*New York Central R. R. Co. v. White*, 243 U. S. 188, 37 Sup. Ct. 247). The law may be of compulsory acceptance (*White case*, supra; *Mountain Timber Co. v. Washington*, 243 U. S. 219, 37 Sup. Ct. 260); or may be binding upon the employee after acceptance by the employer (*Middleton v. Texas Power & Light Co.*, 249 U. S. 152, 39 Sup. Ct. 227); or compulsory on the employer and optional for the employee (*Ariz. Copper Co. v. Hammer*, 39 Sup. Ct. 553); or again it may be optional with both parties to the contract (*Hawkins v. Bleakly*, 243 U. S. 210, 37 Sup. Ct. 255). The power of Congress to establish a compensation system for interstate employees is beyond question.

Form of Legislation.

Various suggestions have been made as to the form that a Federal act should take. Negatively, it has been argued that Congress should withdraw from the field and leave the subject of the redress

of personal injuries to employees to the States, as was the case prior to 1906. But one of the great ends in view in the enactment of the Federal liability law was to secure uniformity, fixing a common standard of liability and of recovery for injuries occurring under like conditions to the employees of interstate common carriers. Adjacent States present sharp contrasts in the amounts of benefits offered, and a Federal law could hardly fail to exert a beneficial influence in the way of promoting at least an approximate uniformity. This purpose of securing a common standard has been approved by both employers and employees, and has been favorably commented on by the courts. Furthermore, it is hardly to be expected that Congress having once entered the field should withdraw from it; and no such response has been made to the suggestion as would indicate any probability of its adoption.

In arguing thus for a Federal statute which shall eliminate State variations, I am not unaware that I am standing on territory in which the principle under discussion is in effect; that is, that injured Dominion employees, including those of the Canadian Government railways, shall be compensated in accordance with the provisions of the act of the Province within whose bounds the injury is received. This law is of recent enactment, and experience under it has not yet been reported to my knowledge; but however successfully it may work in Canada, it will hardly afford a definite proof of the applicability of such a rule to the United States, since the 11 Provinces of Canada cover a geographical area in excess of that of the 48 States of the Union, so that the problem of shifting jurisdictions is greatly minified.

Equally objectionable from the standpoint of one seeking uniformity is another proposal which is to the effect that Congress should enact a law to be effective only in those States in which no compensation law exists, or in which the laws fail to reach a certain fixed standard. This would indeed put a sort of premium on the enactment of legislation measuring up to the minimum requirements, but would not prevent a diversity in additional, local provisions in excess of this minimum. Such an act would not, therefore, fix the obligations of the carriers with any finality but would rather invite supplementary and adjunct enactments by the States. This would conflict with the whole spirit of existing Federal legislation on the subject of liability, which the Supreme Court has declared to be "paramount and exclusive," and not subject to be pieced out by local statutes (*Michigan Central R. R. Co. v. Vreeland*, 227 U. S. 59, 33 Sup. Ct. 192); and again it is said that where Congress speaks no power remains in the State legislature to determine the nature of the employers' liability, since that would be a division of

authority not contemplated by the Constitution (*Seaboard Air Line Ry. v. Horton*, 233 U. S. 492, 34 Sup. Ct. 635).

The proposition of divided authority was submitted to the Federal commission of 1911 already referred to, but met with no encouragement at that time. The argument offered against it by the chairman was that State legislation was based on its police power to control the relation of master and servant, while Federal legislation was valid only on the basis of its power to regulate interstate commerce—a power that Congress could not delegate to the States; that Congress must either occupy the fields under its constitutional authority or abandon it and leave the whole subject to the States to be disposed of under their police power.

To the same effect, but more cogent and authoritative, is the expression of opinion by the Supreme Court of the United States when this very question was before it in passing upon the claim of the Court of Appeals of the State of New York that a State law could supplement the Federal statute by taking over cases in which no negligence appears, since the Federal statute relates only to negligence cases. As to this, the court said: "It is settled that when Congress acts upon the subject all State laws covering the same field are necessarily superseded by reason of the supremacy of the national authority. Whether and in what circumstances railroad companies engaging in interstate commerce shall be required to compensate their employees for injuries sustained therein are matters in which the Nation as a whole is interested, and there are weighty considerations why the controlling law should be uniform and not change at every State line." (*New York Central R. R. Co. v. Winfield*, 244 U. S. 147, 37 Sup. Ct. 546.)

The same principle and the importance of its recognition are set forth by the same court in an earlier case, antedating the Federal statutes on the subject. Mr. Justice Brewer, in 1893, spoke of the great number of conflicting and irreconcilable decisions of the various courts of the land on the question of fellow service, and declared it to be one in which the Nation as a whole is interested. "It enters into the commerce of the country. Commerce between the States is a matter of national regulation * * *. The lines of this very plaintiff in error extend into a half dozen or more States, and its trains are largely employed in interstate commerce. As it passes from State to State, must the rights, duties, and obligations subsisting between it and its employees change at every State line? * * * The question is not local, but general." (*Baltimore & Ohio R. R. Co. v. Baugh*, 149 U. S. 368, 13 Sup. Ct. 914.)

Recent interviews with the claims agents of important railroads as to their methods of handling the complex situation induced by the variety of laws under which their roads operate in passing from

State to State developed the information that they seek to make adjustments in accordance with the compensation standards of the various States regardless of the interstate or intrastate nature of the service in which the employee is injured. The agent of one road expressed himself as indifferent as to whether a Federal compensation law for interstate employees should be enacted or not, inasmuch as the employees generally accept the present plan of adjusting all injuries on the basis of the State law. Litigation is reduced to a minimum by this method of adjustment, and it is their policy to make awards in all cases, securing releases from the claimants only where employers' liability exists. In another case the representative of the road was in favor of a uniform law, inasmuch as the State laws with which he was largely concerned were too diverse, that of New York being liberal in its benefits, especially for death, while the benefits of the New Jersey statute he regarded as too low. The compensation scale was followed in intrastate cases, but not so closely in cases that would develop under the Federal statute.

Other roads concerning which inquiry was made are reported to have followed the State compensation laws from the time of their enactment until the decision in the Winfield case, above noted, which declared the inapplicability of State laws to interstate employments. Even after this decision, one of the large companies continued to pay on a compensation basis until it appeared that the employees would accept compensation in cases where no negligence could be proved, but would sue in the hope of larger recoveries in negligence cases. The company therefore declined to make any payments except those necessitated by the terms of the liability statute. One company reported the benefits payable under the New York statute in cases of death as in excess of the average recovery under liability, being also without the loss due to lawyers' fees of as high as 50 per cent of the awards.

It may be of interest to note briefly some of the effects of the decision in the Winfield case on the experience of the New York Compensation Commission. A cross section of its records shows 50 claims of railroad employees on the blotter for the first three months of 1917, just before the decision in the Winfield case (May 21). Seventeen of these were classed as interstate employees, the claims of 8 being denied in the first instance as interstate cases over which the commission did not have jurisdiction, or because settlements under the employers' liability act were reported. In 8 others awards were made and subsequently reversed on account of the decision in the Winfield case, while 1 award seems not to have been disturbed.

The number of railroad cases considered during the first three months of 1918, subsequent to the Winfield decision, was identical, that is 50, of which 22 were classed as interstate. Compensation was

denied in all these cases in view of the decision already noted. Awards or settlements were made in all the remaining cases for both years, the question of interstate commerce not being involved, so far as appeared from the records. It may be of interest to note in passing that the largest group of claims each year was that of freight handlers, not employees of the classes most commonly thought of in connection with interstate commerce.

Although these observations and experiences do not cover a broad field, their effect, whatever it may be, is all in the same direction, and argues for a uniform law, and if possible one of general application.

Objectionable on the same legal and economic grounds as the proposition to permit diverse State laws to control, or to enact a Federal statute which may be set aside by State enactment, is the proposition to extend the option of election not to States as units, but to the individual employee, who will be permitted to make his choice between the Federal liability statute and the compensation law of his State. Such a course would not only violate every principle contended for in the Supreme Court opinions cited above, but would multiply the geographical confusion by a factor representing the number of workmen from each State. It would add to the uncertainties of the elective laws as they exist in the individual States by the manifold complications that would arise by reason of the differences between the laws of the different States through which any railroad might pass, and render impossible any advance estimate of the liability of the companies. It would retain all the vices of the liability system and sacrifice many of the benefits of compensation. It seems equally objectionable from the practical and the legal point of view.

The fact that compensation and liability laws have operated contemporaneously in Great Britain is without significance on account of the great diversity of conditions. Recovery under the British liability statute is limited to three years' earnings, as is the amount that may be awarded under the compensation act. The right to sue is restricted to cases of direct and personal negligence; and both laws are of uniform application over identical territory. No weight can be given to the example of that country, therefore, since none of the prime conditions are comparable; moreover, appeal to the liability law is of diminishing frequency, so that even there slight importance seems to attach to the privilege.

At the other extreme from these proposals that breed diversity and confusion is the suggestion that Congress enact a law covering all railroads and railroad employments. This would end the conflict between State and Federal jurisdiction by the total absorption of the former into the latter, establishing a single uniform rule. It is objected to this that an amendment to the Constitution would be nec-

essary before it could be done, and the decision in the First Employers' Liability Cases is cited in support of this contention. It will be remembered that this decision held the liability law of 1906 constitutional because it failed to discriminate as to its coverage, the court specifically declaring by the unanimous voice of the justices that purely intrastate matters were outside the purview of Congress, and that the mere fact that a company engages in interstate commerce does not thereby subject all its business to the regulating power of Congress. This decision was rendered in 1908, and it is evident that, if the generally accepted understanding of its effect is the opinion of the Supreme Court to-day, the amendment is essential. If such an amendment were broached it would no doubt propose also to take over the entire control of rate fixing and the work of State railroad commissions generally, as is practically the case already in regard to safety appliances, hours of work, etc.; and the benefits of uniformity and unity of policy would be alleged in support of such action. The opponents of centralized control would doubtless interpose all possible obstacles to the achievement of such a result and there would be delay at best, even if the movement should be finally successful.

Can a General Law be Enacted?

However, the opinion has been forcefully and intelligently advanced that no amendment is needed in order to the validation of such a law. The relation between interstate and intrastate commerce is not only intimate; it is inseparable. Not only is the movement of trains commerce, but so also is the repairing of ways and bridges (*Pedersen v. Del., etc., R. Co.*, 229 U. S. 146, 33 Sup. Ct. 648); the repair of engines or cars used in interstate work (*So. Pac. Co. v. Pillsbury*, 151 Pac. 277; *Balch v. R. Co.*, 155 Pac. 580); work in a roundhouse (*C. & O. R. Co. v. Kornhoff*, 180 S. W. 523); switchmen moving or preparing to move interstate goods or appliances (*Vandalia R. Co. v. Holland*, 108 N. E. 580); watchman guarding interstate goods (*Smith v. Industrial Acc. Com.*, 147 Pac. 600); carpenter engaged in building extension of repair shop, in use for interstate engines (*Thompson v. Cin., N. O. & T. P. R. Co.*, 176 S. W. 1006), etc.; and the fact that the injury is caused by an intrastate instrumentality does not affect this conclusion (*Pedersen case*, supra); nor the fact that the injury is due to the negligence of an intrastate employee (*Second Employers' Liability Cases*, 225 U. S. 1, 32 Sup. Ct. 169). Any other view would regard "the source of the injury rather than its effect on interstate commerce as the criterion of congressional power." The power of Congress "to regulate interstate commerce is plenary and competently may be exerted to secure the

safety of the persons and property transported therein and of those who are employed in such transportation, no matter what may be the source of the dangers which may threaten it. That is to say, it is no objection to the exertion of this power that the dangers intended to be avoided arise, in whole or in part, out of matters connected with intrastate commerce." (Southern Ry. Co. v. United States (1911), 222 U. S. 20, 32 Sup. Ct. 2.)

In the case just cited the court held constitutional a Federal act which applies to cars, locomotives, etc., "used on any railroad engaged in interstate commerce." A penalty was affirmed in the case of cars used in interstate commerce, though there is nothing to show that they were used in connection with cars engaged in interstate commerce. The language of the opinion seems to be broad enough to sustain a compensation act covering all employees connected with the movement of trains and necessary concomitant service. Thus it was said:

Speaking only of railroads which are highways of both interstate and intrastate commerce, these things are of common knowledge: Both classes of traffic are at times carried in the same car, and when this is not the case the cars in which they are carried are frequently commingled in the same train and in the switching and other movements at terminals. Cars are seldom set apart for exclusive use in moving either class of traffic, but are generally used interchangeably in moving both; and the situation is much the same with trainmen, switchmen, and like employees, for they usually, if not necessarily, have to do with both classes of traffic. Besides, the several trains on the same railroad are not independent, for whatever brings delay or disaster to one or results in disabling one of its operatives is calculated to impede the progress and imperil the safety of other trains. [Italics mine.]

The opinion from which the foregoing citation was taken was delivered in 1911, three years later than the rendering of the opinion of the Supreme Court holding unconstitutional the liability law of 1906 on the ground of its failure to distinguish between matters of interstate and intrastate concern. No reference to the earlier decision is made in this opinion, which apparently has the effect of eliminating the distinction between interstate and intrastate service, if only the railroad rendering the service is a "highway of both interstate and intrastate commerce." While the opinion, therefore, does not formally set aside the older opinion, it does present the anomaly, if the older opinion has the effect often attributed to it, of abolishing the distinction between interstate and intrastate service in so far as material instrumentalities are concerned, while retaining it as to the personnel. It at least suggests the possibility of a broader view of the subject in view of the fuller appreciation of the constant intermingling of the two forms of service and their consequent interdependence, so that "whatever brings delay or disaster to one or results in disabling one of its operatives" would interfere with the other, and would therefore be subject to Federal control.

Perhaps the popular impression as to the earlier decision goes beyond actual warrant. The Supreme Court in a later case (1916), in discussing the liability of railroad companies for injuries to its employees, in view of the provisions of the Federal statute, said:

"Unless persons injured in intrastate commerce are to be excluded from the benefit of a remedial action that is provided for persons similarly injured in interstate commerce—a discrimination certainly not required by anything in the Constitution—remedial action in behalf of intrastate employees and travelers must either be governed by the acts of Congress or else be left subject to regulation by the several States, with probable differences in the law material to its effect as regulatory of the conduct of the carrier. We are therefore brought to the conclusion that the right of private action by an employee while engaged in duties unconnected with interstate commerce, but injured through a defect in a safety appliance required by the act of Congress to be made secure, has so intimate a relation to the operation of the act as a regulation of commerce between the States that it is within the constitutional grant of authority over that subject." (*Texas & Pacific R. Co. v. Rigsby*, 241 U. S. 33, 36 Sup. Ct. 482.) This at least suggests the possibility of the enactment of of a broader law than the one now on the statute books—a suggestion that is borne out by the language used in a case not involving the safety appliance law, but simply the status of a member of a switching crew in the city of New Orleans. Here it was said:

"Considering the status of the railroad as a highway for both interstate and intrastate commerce, the interdependence of the two classes of traffic in point of movement and safety, the practical difficulty in separating or dividing the general work of the switching crew, and the nature and extent of the power confided to Congress by the commerce clause of the Constitution, we entertain no doubt that the liability of the carrier for injuries suffered by a member of the crew in the course of its general work was subject to regulation by Congress, whether the particular service being performed at the time of the injury, isolatedly considered, was in interstate or intrastate commerce. [Cases cited.] The decision in *Employers' Liability Cases*, 207 U. S. 463, 28 Sup. Ct. 141, is not to the contrary, for the act of June 11, 1906, 34 Stat. 232, there pronounced invalid, attempted to regulate the liability of every carrier in interstate commerce, whether by railroad or otherwise, for any injury to any employee, even though his employment had no connection whatever with interstate commerce." (*Illinois C. R. Co. v. Behrens*, 233 U. S. 473, 34 Sup. Ct. 646.)

The court points out in a later expression that the act of 1908 is specifically limited to interstate employments, and must be so construed; but the inference seems clearly warranted that a more inclu-

sive law might constitutionally have been enacted. But perhaps there is still too much at stake to venture the enactment of a statute of broad coverage in such a unified form that it would be held that each part was presumably an inducement for the enactment of the other parts. However, it does seem to me feasible to enact a law of complete inclusiveness as to both forms of commerce, but so worded and paragraphed as to permit the severance of any portion held repugnant to the constitutional limitations, leaving unaffected the portions that are of undoubted validity, taking the whole list of court decisions on the subject into consideration. The severability of statutes is a well-established principle in our jurisprudence, the Supreme Court saying: "It is a well settled rule 'that statutes that are constitutional in part only will be upheld so far as they are not in conflict with the Constitution, provided the allowed and prohibited parts are separable.'" (*Presser v. Ill.*, 116 U. S. 252, quoting from *Packet Co. v. Keokuk*, 95 U. S. 80. See also *Diamond Glue Co. v. U. S. Glue Co.*, 187 U. S. 611; *Covington v. Bank*, 198 U. S. 100.)

In view of this recognized principle, the question would be one of adequately providing for that which would certainly be "allowed," while also submitting to judicial decision the question of the inclusion of the intrastate interests as to which doubt may in some minds still exist. To one familiar with the constant and undiminishing volume of litigation concerning the question of the boundary line between interstate and intrastate activities, the elimination of that boundary line is a "consummation devoutly to be wished." The question of the correlation of State and Federal laws, and the differences of benefits arising under them would disappear, and the atmosphere of grave uncertainty as to the proper form of procedure, together with the hazard of the entire loss of rights by reason of the lapse of time, permitting statutes of limitations to take effect, would be dissipated. In any case such a law, properly drafted, would securely protect interstate employees and would in nowise affect injuriously the status of intrastate workers in their rights secured by State laws, if such laws are held to prevail. On the other hand, it would in such case clear the field for the inclusion of railroad workers in the State compensation laws, which has been felt to be so difficult that in some States, as Indiana, Minnesota, Texas, and Virginia, railroad workers are more or less completely excluded from the benefits of the local law.

An advantage that would be gained, even if only the interstate provisions are sustained, would be the coordinate existence of State and Federal laws of like spirit and method, each jurisdiction providing relief according to its terms, perhaps differing in degree, though the tendency would be, no doubt, to adjust State and Federal standards in the compensation field as has already been evidenced in

liability legislation. But even if differences in the amounts of awards existed, there would be an attempt to secure like ends by compatible methods, removing the sharpness of contrast between the liability and compensation doctrines operating in such close juxtaposition. As an administrative suggestion in such case I would propose also the handling of the Federal cases by referees, to whom should be given the privilege of exercising similar functions by State appointment under the compensation laws of the States within which they serve. Having to do with laws of similar methods of proof and similar spirit and purpose, it would require but the one proceeding to decide under which statute, State or Federal, the award should be made, a single hearing sufficing to dispose of both the jurisdictional question and the amount, if any, to which the claimant is entitled.

Summing up this phase of the subject, there can be but one answer to the question of the desirability and feasibility of a law for interstate employees. The desirability of a law of general coverage, if practicable (and it would almost seem that the Supreme Court had intentionally pointed the way to such a law), seems hardly less real and would appear to be a justifiable experiment, not involving hazard to the interstate portions of the law.

Maritime Employees.

The question of the maritime employee is, from the point of view of numbers, of less importance than that of the interstate employee. Furthermore, the great body of maritime workers reside in States which have compensation laws, and since the amendment to the Judicial Code in October, 1917, maritime employees are secured the right of making claims under the compensation laws of the State in which the injury occurs. This privilege is believed to be optional and to exist in conjunction with the right to proceed in admiralty as before the enactment of the amending statute. The situation, therefore, corresponds closely to that which would result from the adoption of one of the propositions considered above with regard to interstate employees, i. e., that the right to proceed under compensation should be an alternative one at the option of the claimant. A defect, of course, is that proceedings in admiralty do not in many cases give adequate relief, so that the failure to elect compensation in such cases leaves the injured person a redress quite as inadequate as that provided by the common law.

Prior to the decision of the Supreme Court prohibiting such action (*Southern Pacific Co. v. Jensen* (May 21, 1917), 244 U. S. 295, 37 Sup. Ct. 524), the industrial commissions of New York and California had awarded many claims in behalf of stevedores, long-

shoremen, etc., holding such employments to be constitutionally within the scope of their State laws. On the decision of the Supreme Court to the contrary, of course, this practice ceased, leaving such workers, as well as sailors on the high seas, to maritime rights only until the amendment in October.

Though the amendment was intended to give free choice to the workers in regard to their mode of procedure, it would appear that in New York at least the facts are not fully understood, since for the first three months of 1917, when the practice of awarding compensation had been in existence for a considerable period, 432 maritime cases were before the industrial commission; while for the first three months of 1918, after the payment of awards had ceased for some months, in consequence of the decision in the Jensen case, and the workers had been impressed with the idea that the State commission had exceeded its powers in granting them, but 266 maritime cases were before the commission, though the amending act of October 6, 1917, had become immediately effective. It would appear, therefore, that the announcement of the adverse decision of May 21 had been much more effectively circulated than the account of the permissive legislation of October 6.

But little has come to hand to indicate the judicial construction of the amended code permitting this alternative choice. An interesting decision was rendered on March 6, 1919, by Judge Learned Hand, of the Federal bench in New York, who held that a libel in rem in admiralty was not the proper mode of procedure for the recovery of damages for an injury to a maritime worker. It was his opinion that the amendment to the Judicial Code had the effect of incorporating into it existing or future compensation legislation; so that where a State had a compensation law, as the State of New York has, which purports to abolish all other liabilities in favor of the remedy provided by compensation, this provision took effect in view of the enabling and permissive provision of the amended Federal Judicial Code. No other right of action therefore remains than that provided by the State law, the restraint effected by the Supreme Court decision in the Jensen case having been removed by the act of Congress. (*The Howell*, 257 Fed. 578.) Appeal has been taken to the higher courts as to the validity of this construction; and it certainly was not the intention of those who drafted the amendment that it should receive this exclusive application.

The situation is not made any more encouraging by a decision of the Supreme Court in June, 1918, subsequent to the amendment of the Judicial Code, but relating to a case arising prior thereto. It was held (*Chelentis v. Luckenbach S. S. Co.*, 247 U. S. 372, 38 Sup. Ct. 501), that a fireman injured on board ship was limited to a maritime recovery, i. e., wages, maintenance, and cure, and could

not recover the full indemnity of the common law; and this in spite of the plea that the action was based on the provision of the Judicial Code "saving to suitors in all cases the right of a common law remedy when the common law is competent to give it." The provision was held only to make possible the enforcement by common law remedies of any right sanctioned by the maritime law; "but we find nothing therein which reveals an intention to give the complaining party an election to determine whether the defendant's liability shall be measured by common law standards rather than those of the maritime law." Clearly, if the amendment of 1917 as to compensation claims is to be similarly construed, it gets us no nearer a solution than before, this decision standing at the other extreme from that in the Howell case, if its apparent principle is held to apply. The New York Industrial Commission has proceeded tentatively on the assumption that there is a real option intended to be secured by the amended statute, and that the injured man is entitled to his choice, contemplating, moreover, that this choice shall be his own and a real one. Thus, where a claim agent or other representative of the employer or insurance carrier has moved for an adjustment under admiralty, the commission will assume that the claimant is not prevented from submitting a claim for compensation if he so desires, even though he has accepted relief under another agreement. In accordance with this idea, a claimant submitting a signed agreement and release was advised to accept the consideration named therein, but also to submit a claim, and if found to be entitled to additional benefits an award would be made and taken to the courts if necessary for a final determination.

The situation with regard to the maritime worker is not yet clarified, and illustrates the undesirability of the indefinite, alternative rights agitated by a certain group of interstate employees. It is a matter over which Congress has full authority to act, and the desirability of such action is indicated by the uncertainty as to extra-territorial powers of State laws and commissions, and the importance of enacting a uniform standard for employees whose occupation, in so far as it is actually that of transportation, may lead to frequent and considerable changes of jurisdictional rights. While the case is not so pressing from one point of view as for the interstate employee, since there may be at least an opportunity, if understood, to secure the benefit of the State laws, it does seem to be a proper field for action on the part of those interested and informed on the subject to close up, if possible, the circle of compensation measures and secure the final extinction of the ancient systems which grew up at a time when the social sense and appreciation of the rights of the worker were less developed than we believe them to be to-day.

Attitude of Railroad Transportation Organizations Toward Federal Compensation.¹

By D. L. CEASE, EDITOR, THE RAILROAD TRAINMAN.

TO COME before a meeting of this kind at this time and say that the employees of the train, yard, and engine service in the United States are either opposed to or indifferent to a Federal compensation law will appear absurd, and yet so far as I am able plainly to state the case, that is the fact. Our Canadian members have taken an entirely different position. They have encouraged compensation legislation, the plan has worked in a fairly successful way, and they are trying to make the law of each Province come closer to their ideas of what compensation should be.

The position of the transportation organizations toward such compensation legislation ranges from that of open and determined opposition to any form of Federal compensation by the Brotherhood of Railroad Trainmen, which is led by a comparatively small number of men who unquestionably get their inspiration from liability lawyers, to that of the apparent indifference of the conductors and firemen to such legislation, and the general support of the Brotherhood of Locomotive Engineers to the Sutherland-Brantley bill. Aside from the engineers' organization none of the others, so far as I have knowledge, has any specific plan or is agreed on any particular measure, although in a general way they have declared in favor of compensation. Of the other organizations I do not presume to speak.

Naturally there must be a reason for this state of mind. As nearly as I can express what I believe it to be will be to say that when the railroad transportation organizations asked for a Federal compensation law they did not really understand just what it meant. They were encouraged to ask for such legislation, and did so, even going to the extent of having the Congress authorize the creation of a Federal Compensation Commission by the President, which commission was appointed and gave its best study to the question for two years; it gave its very best legal thought to the drafting of what became known as the Sutherland-Brantley bill. This bill deserved a great deal more consideration than it ever received from railway employees, who accepted the statements of the opposition as true and did not consider the merits of the proposed measure. This bill quite properly was regarded as the best presentation of its kind in admin-

¹ Paper read at the sixth annual meeting of the International Association of Industrial Accident Boards and Commissions, held at Toronto, Canada, Sept. 23-26, 1919.

istration, time, and amounts that up to that time had been presented to any of the law-making bodies of this country. At the final hearings on the bill the representatives of the organizations agreed with it to that extent, although they did not agree that the benefits were sufficient. They did so in good faith, for they had every reason to believe their organizations really wanted a bill, and they were ready to accept the one proposed as the best for a beginning that at that time could be proposed. But when the measure was presented to the members of their organizations the opposition, inspired wholly by liability lawyers, prejudiced the minds of the men by calling attention to the constitutional injustice that was about to be perpetrated upon them, which was shown to be in the taking away of the right of the railroad employees to bring suit for injuries received when the employer was at fault, but the opposition did not call attention to the taking away from the railroads the same constitutional right to defend themselves against suit in any instance. This proposed taking away of a constitutional right, even though at that time comparatively few railroad employees had the opportunity to exercise it, was accepted as a most serious matter and went far to prejudice the minds of the men against the proposed legislation. They disregarded the disadvantages and the uncertainty of bringing suit, and gave no regard to the certainty of payments for disabilities and deaths arising out of the service, regardless of who was at fault. Then considerable opposition was brought to bear against the proposed measure because percentage payments were fixed on the normal daily wage, which at that time for the bulk of the men in the service was so low that the percentage of payment did not appeal to the men. The normal daily average wage in 1912 for a brakeman or fireman was about \$2.50 per day. The higher wage or "monthly wage" represented time and extra time, but did not enter into any calculation for compensation purposes. The normal day's pay was the basis for such payments which brought Federal compensation so low in amounts in the most of instances that it did not appeal to the men as worth the surrender of their constitutional right to bring suit when the employer was at fault. They admitted it was a gamble, but contended that the certainty was so low that they were justified in taking their chances.

Among other objections offered by the men was that the wage loss in permanent partial-disability cases was so impossible of fair determination that just consideration of the loss of wages for any fixed period was impossible. The inability or the injustice of permitting any authority to fix payment for loss of earnings based on a supposition of what the man might earn in other employment appealed to the men as possessing greater possibilities of uncertainty than even

the Federal employers' liability law. The possibility of men receiving compensation being forced to work during a strike under penalty of losing such compensation appealed very strongly to the men, and while it was not the purpose of the bill so to penalize the men, nor could any such purpose intelligently be read into the bill, the danger of the acceptance of compensation and losing it under these conditions had considerable to do with the opposition of very many of the men. Again, the small amounts fixed for the loss, or the loss of the use, of limbs, hands, feet, eyes, or other injuries resulting in permanent partial disability, did not appeal to the men when contrasted with amounts paid by court order. The possible effect on judgments by adjusters, who would be appointed presumably through their political influence, and the danger of such influence being unfairly directed, was another objection that was forcefully voiced against the bill. The greatest opposition, however, was that at the expiration of compensation payments the disabled employee or his dependents were really worse off than they were when compensation payments were first received. Railroad employees believed that they were entitled to something more than a comparatively low scale of payments for injuries arising out of employment. They believed that they at least deserved as much consideration as goods lost or damaged in transit. They felt that the plan for financially reimbursing a man for his loss of earning power did not relieve the company from its obligations to him as an employee. They held that a railroad company that reimbursed a shipper for loss or damage to his property did not bar that shipper from further business relations with the railroad company, and they believed that, as a similar business proposition, relieved from all assumed financial obligations due to settlement for injuries received, they were entitled to at least the same consideration on these comparative grounds. They also believed that compensation paid for injury or death should be continued during the lifetime of the beneficiary and not be limited to a few weeks, months, or, at the most, a very limited number of years.

What was expected to be one of the most promising features in the bill proved to be one of the most telling arguments of the opposition against it. I speak advisedly in this, for it was the proposition of the representative of the railroads and myself, and was intended to encourage the employer to reemploy a permanently partially disabled employee at something at which he might be assured his previous earnings and fit himself for continuous earning ability at least equal to his former earnings before the expiration of his compensation payments.

The purpose was to furnish employment to such disabled men, and between the going rate of pay and his compensation to bring his

wage from the beginning to not less than 90 per cent of his previous wage, which amount was to be guaranteed by a compensation difference between wages earned and the fixed 90 per cent minimum. For instance, an engineer—and this is based on the time the bill was written—was allowed the maximum wage of \$150 per month for compensation purposes, and if reemployed could not be deprived of compensation unless his wage fell below \$135 per month. Please bear in mind that the average monthly wage, based on the normal daily wage, six days a week, brought the brakeman and the fireman approximately \$62.50 a month, and 50 per cent of that for a limited period only, surely was not an enticing proposition to these classes, which represented the majority of the men.

The fact that employment practically took the greater part of his compensation from him, if he earned up to 90 per cent of his previous wage, was a source of justifiable opposition. The error of denying the disabled, and it was an error although committed with the best of purposes in mind, had much to do with the general objection to the measure. The real idea was to provide a way for the rehabilitation of the disabled man and by training him in some other class of service make of him a wage earner equal to or greater in capacity than he was before his injury. The shops, offices, and other occupations were in the minds of the representatives of the railroads and the men. Afterthought brought to my mind at least the injustice of trading what benefits properly were his, because of his disability, for a chance to earn a living. As a practical and equitable proposition the man should be paid, and as a faithful employee who lost his job through no intended fault of his own his future should have been secured by a job he could fill at a wage upon which he decently could live.

To state the actual opinion of even a majority of the men and give their reasons is something I can not pretend to do, and I know of no one who is able to do more. What we have is that which comes to us as the individual point of view almost always based on the failure to make settlement or bring suit of the disabled or his dependents, or the expression of a convention made without instruction from the membership. Those who can not collect compensation or bring suit always are in favor of a compensation law, but for the most part I think I state the case fairly for those who have not been disabled or the dependents of those who have not been killed, when I say they are indifferent, and if the truth were known I am afraid that the majority still prefer to gamble with the uncertainty of the larger amounts awarded to them through settlements for the certainty of payments carrying the smaller amounts.

To state the attitude of the four railroad transportation organizations, as expressed through their different conventions, is to say:

That the Brotherhood of Locomotive Engineers has declared in favor of the Sutherland-Brantley bill.

The Order of Railway Conductors has taken the position that—

The Order of Railway Conductors does not favor a workmen's compensation law as an exclusive remedy for damages sustained through injury or death of employees of railroads, but it believes that, inasmuch as compensation and liability laws are for the benefit of employees, it will lend its support to any bill that will strengthen the present liability laws, Federal and State, and to any compensation bill satisfactory to those who favor the principle of workman's compensation: *Provided, however*, That said compensation bill shall give the employee his option and election to either claim indemnity under the compensation law or maintain an action under the liability laws, such option and election to be exercised by the employee after his injury, or, in case of death, by his dependents after death; and that we will oppose any efforts to repeal, suspend, or amend the present liability laws, Federal and State, unfavorable to the employee

The position of the Brotherhood of Locomotive Firemen and Enginemen adopted by their national convention July 1, 1916, can be stated thus:

Our investigation of the foregoing matter develops the fact that the so-called Sutherland bill, which was before Congress at the time of our last convention, was defeated, and at the time few States had compensation laws of any kind. However, at the present time 31 States have enacted some form of compensation law; also Alaska, Hawaii, the Phillippine Islands, and the Canal Zone have compensation provisions for certain United States employees.

It appears that the tendency of the age is toward compensation; for at this time a number of compensation bills are before Congress, some of which are more liberal in their provisions than the compensation laws of any of the States.

In view of the many court proceedings arising out of the application of the present State compensation laws and the Federal employers' liability law, as it applies to employees engaged in interstate commerce; also, in view of the foregoing mention of the various State and other compensation laws we are constrained to be of the opinion that the time has now arrived when this brotherhood, in convention assembled, should recede from its firm position taken at the twenty-sixth convention, wherein it disapproved of any sort of a compensation law, and we, therefore, recommend that the matter of legislation having for its purpose the enactment of a compensation law be left in the hands of our chief executive, for him to handle as his best judgment dictates.

The position of the Brotherhood of Railroad Trainmen adopted in 1913, and reaffirmed by succeeding conventions, briefly may be stated as opposed to any form of Federal compensation law.

I have tried to place the position of the railroad organizations before you as briefly and as concisely as I am able. I know that it will be difficult for you, who have been engaged in compensation work, to understand fully either the indifference or the opposition of these railroad employees to a Federal compensation law. I believe that a great deal of it is due to the fact that when the question was presented to the organizations it was so vigorously attacked by liability lawyers, and opposed afterwards by the most actively interested of the members of the four organizations, that those of us who inclined toward

compensation found little encouragement in further bringing the question to the attention of the members of these organizations, and permitted them to use their own judgment, adopt their own theories, and fix their own policies, in the belief that whatever finally was accepted by them would be far more satisfactory in a general way.

The Larger Idea in Workmen's Compensation.¹

By WILL J. FRENCH, MEMBER, CALIFORNIA INDUSTRIAL ACCIDENT COMMISSION.

STOCK taking is a necessary part of business routine. The merchant needs to know his exact financial status and to carefully estimate his assets and liabilities.

Now that nearly a decade has passed since the enactment of the first workmen's compensation act in the United States, it behooves the International Association of Industrial Accident Boards and Commissions to review what has been accomplished and to see what is contained in the "larger idea" for the future.

If we are frank with ourselves; we must admit that some of our compensation States show a red-ink balance and not one is in sight of the goal that we have a right to set before us.

One of our Western States has a compensation maximum of \$8 a week, which sum, considering the rapid increase in the cost of living and the year of the enactment of the legislation (1915), gives a comparative maximum in 1919 of about \$6 a week. The same holds true of a number of other States. Approximately 14 States have a weekly maximum of \$10, 9 States set the maximum at \$12, and another 9 States average \$14 a week. All living standards of the American family in this day are set at naught by such payments. They constitute an indictment of the compensation standards that should prevail.

The same reasoning applies to the medical, surgical, and hospital treatment furnished, or more frequently not furnished, the crippled workers. Time prevents a detailed look into the situation as it exists. Four States fail to provide any medical or surgical care, a large number of States limit the medical cost to \$100 for each hurt worker, and a still larger group have legislation shutting out the injured after 30 days have expired. Imagine the semblance of a man coming out of a machine, with months of hospital care and expert surgery in front of him, receiving a dole of \$100, or word on the thirty-first day after his injury that he must pay for his own treatment! It is consoling, in a measure, to be able to report that four States have no limit on either time or cost for medical, surgical, and hospital treatment.

On the wrong side of the ledger also can be entered the long waiting period, the exclusion of workers, the elective system, and the confusion as to railroad and maritime employees. Other drawbacks will come to mind.

¹ Paper read at the sixth annual meeting of the International Association of Industrial Accident Boards and Commissions, held at Toronto, Canada, Sept. 23-26, 1919.

A Short Definition.

Thus having taken stock in a cursory way, and remembering that there are a few compensation laws which point well along toward the goal, I come to my conception of "the larger idea in workmen's compensation." If I were asked to define briefly the thought in mind, I would state that I advocate restoring the injured worker physically, so far as that is possible, providing him with a living wage for himself and family during such restoration, and, if needs be, reeducating him to take up a new occupation, if he is forced by his permanent injury to change his vocation. In addition, I would provide for the dependent widows and children on a basis of their needs for the future.

Cobwebs in Need of the Broom.

Before proceeding to discuss proposed ways and means, we need to brush away some of the cobwebs that have fastened themselves on workmen's compensation.

The word "compensation" is a misnomer. No amount of money can "compensate" a mechanic for his lost hand, and it is quite sure there isn't any sum paid by any of the States that will prove the least inducement for any loss to the human machine. We need to either change the word compensation or make it reasonably worth while.

Another cobweb is that the so-called workingman will thrust his arm into gears or malingering to get compensation benefits. The average man, whether he be young or old, or tall or short, shrinks from pain and suffering. He doesn't want a rendezvous with death. This applies to the ditch digger as well as to the bank president. And the same average man will likely receive in compensation, when injured, far less than he can earn at his trade. The sums hereinbefore named do not offer the least attraction for delay in returning to employment. It is undoubtedly true that there are cases when men want to draw compensation longer than they should, but I have yet to find the doctor of the employer or the representative of the insurance carrier who fails to frown at such attempts. Furthermore, the cases of malingering, very much fewer in number than is the popular impression, are more than offset by the workers ordered back to employment before their wounds are properly healed, who do not receive the best surgical care, or who fail to receive all the benefits provided by law.

And still another cobweb is the statement that the worker pays nothing to the cost of compensation. This is a fallacy of fallacies. The worker takes all the risk of modern industry. He faces death and injury each hour. He, in case of accident, pays directly a sub-

stantial percentage of his wages when he receives half or three-quarters of his stipend in the form of compensation. Inasmuch as the cost of compensation is a proper charge in business operations, the ultimate consumer pays the bill, and there are more consumers who work for a living among the wage earners, simply because there are more of them. It is also an error to think that compensation is a form of charity. Nothing could be further from the truth. Each injured man who contributes part of his body in order that industry may proceed places both a moral and a legal obligation on the community he has so served to see that proper recompense is given him.

The Larger Idea.

I. The Best Surgical Care.

First, last, and all the time the workers of the Nation should be surrounded by every safeguard and protective device possible, and the important factor of education in the "safety-first" movement needs an emphasis heretofore unknown. The needless industrial deaths and injuries are a grave charge against the Federal and State Governments. The best thought of the International Association should be directed toward larger plans than any yet proposed, so that the gospel of accident prevention may be a living, vital force in our American life.

The injured man who is carelessly or inefficiently treated, either by doctor or hospital management, receives that which is not his due. Not only is he entitled to the very best, but lamentable ignorance is shown by the employer or the insurance carrier who fails to furnish that best. Nothing is more expensive than poor medical and surgical care. It has cost some men their lives, and more men are suffering from permanent injuries than should so suffer. An extra fifty or one hundred dollars paid for expert service may not only save life or limb, but will likely reduce compensation payments many times over.

There should be unlimited medical, surgical, and hospital treatment. Specialists should be engaged for special work. Industrial surgery is now a recognized art of the profession not to be practiced by incompetent men, and should be confined to those whose skill is proved.

A mistake will be made if the surgical lessons of the Great War are not applied to the treatment of the victims of peace. There is no doubt these lessons eventually will be so applied, but each State industrial accident commission can hasten the inauguration of the newer and more scientific methods.

Every United States Army general hospital which treats overseas wounded maintains operatives in occupational therapy, which in-

cludes, bedside handicraft work, physiotherapy, which means massage, passive movements, active movements, medical gymnastics, baking, electricity, and kindred treatments. The skilled surgeon realizes the necessity of putting heart into his work and gaining the confidence of his patient. As in all other human activities, teamwork produces the best results.

II. Compensable Compensation.

A protest already has been entered against some of the amounts paid injured men and women. The protest is justified by the doles and the needs. It must be admitted that a minimum and a maximum compensation should be established, because insurance rates would otherwise have no stability. But if the argument of a "living wage" holds good when a man is strong and working, why doesn't it hold good when industry places him on his back, makes him weak and prevents him working? The average American citizen has a wife and three children to support, and their necessities are unaffected, if any reasonable standard is to prevail, by the incapacity of the breadwinner. If the latter is unable to follow any occupation because of his injury, he should be compensated for life.

Each State industrial accident commission can call on the United States Bureau of Labor Statistics for assistance in determining the amount necessary to maintain the average American family in the American way. This information should be analyzed and utilized for compensation legislation. A minimum and a maximum compensation, graded according to the mouths to feed, could range from 65 to 100 per cent of the salary earned at time of injury. It is not right to lower the bare living standard at the time it needs to be maintained. One or two of the States have successfully introduced this graded plan in paying death benefits. A single man in a hospital, provided his expenses are paid, can get along on less money than can a man with four members of his household to support.

III. Rehabilitation of the Maimed.

A given number of weeks' compensation soon expires. Can a more unfortunate situation be imagined than that of a maimed worker approaching the end of his compensation period without preparation for the future and with a knowledge that his old employment is gone forever? The outlook of such a man is indeed dark. The principle of compensation is violated when such a situation is permitted to exist.

The period of probation between jobs needs to be capitalized for both the hurt man and the community in which he lives. He needs to be retrained. It is idle to say he should attend to his own retraining.

He is despondent. He broods over his physical loss. The inertia that affects us all is his, and the weekly compensation lulls him to continued inactivity. He needs careful and expert and sympathetic guidance, so that his eye may catch the gleam of the brighter day ahead. The state must furnish this guidance, because it is interested in preventing an addition to those who are its wards.

It is my purpose to refer to what California has accomplished to date and to outline the plans for the future.

Special investigations of serious permanent injuries in California from January 1, 1914, to June 30, 1918, laid the foundation for legislation. Long before the enactment of the new law the broad powers of the California workmen's compensation, insurance, and safety act were invoked to do special work for the reeducation of the crippled. There were 700 cases included in the survey as typical of their kind. The classifications of the injuries, the numbers employed and unemployed, the occupations selected, the wages earned, the ownership of homes, the family relations, the means of support, the attitude toward each injury, the general outlook on life, the age at time of injury, and the general averages make up an exceedingly interesting report, copies of which will be gladly furnished by the California commission. Each year several hundred men are added to the list of those who have to seek new ways of earning their livelihoods and the problem is ever pressing.

On July 22, 1919, there came into effect an act passed by the last California Legislature entitled "An act to provide for the support of vocational reeducation and rehabilitation of workmen disabled in industry in this State." Each time a man is killed who leaves no dependents, the employer or the insurance carrier is required to pay into the State treasury the sum of \$350. This and all similar amounts can be drawn upon by the Industrial Accident Commission for the purposes set forth in the title. The commission is vested with full jurisdiction and authority to determine all controversies arising under the act and to make all orders and awards necessary to carry out its purposes.

It is intended to amplify the work done during past months and years. Injuries that appear to be permanent will be given that attention which may prevent them becoming permanent. The day of ankylosed parts, as a usual outcome, is past.

If the permanency is established, and the resources of surgical skill exhausted, the hurt man will be visited in hospital or home and plans laid for his future. His desire for a new occupation will be ascertained. Undoubtedly the desire will govern, unless all are satisfied of its impracticability. Besides handicrafts or other useful occupations will be supplied during the hospital period, with an eye

single to the end sought to be attained. Workshops will do their part in the reeducation. The latest contrivances and inventions to replace lost physical members will be secured. In this connection we can all learn from our Canadian friends, whose bitter experience in the war was longer than ours, and whose magnificent efforts in retraining disabled soldiers of war will serve as a guide in the rehabilitation of disabled soldiers of peace.

The time during which compensation is paid will be expended to the best advantage. Technical schools, business colleges, workshops, universities, and schools, and all other sources of training and learning will be called upon to do their share. If there is need of more money for tuition, or to keep the family while the hurt man goes away for his reeducation, it will be forthcoming. If a man should go to the country a way will be found. Experts will be employed. Already we have ascertained the value of using the services of men themselves permanently injured. The one object is to rehabilitate "workmen disabled in industry." We propose to do that very thing in each instance. Industry will furnish the money, as it supplies the men to be retrained, and the cost may be saved by shorter periods of readjustment. The state will extend the guiding hand, and men anxious to give a good account of this important stewardship will try to sympathetically and efficiently direct this new and all-important part of a well rounded compensation system.

And this is not all. Each reeducated man needs a position. The purpose is to see he gets it. His old employer may be asked to place him. If that is impossible, other ways and means will be found to crown the period of preparation. A new day is here for the maimed man. He will be well taught when he needs the tuition, and he will realize the economic advantages of having each step planned so that his income will be assured and he can step forward unafraid.

A Final Word.

With the three main factors heretofore discussed, and insistence that all wage earners participate in compensation, provided for them under legislative safeguards that will amply secure the payments, my conclusion is that our united aim should be a type of compensation that compensates.

How can Medical Service be Improved?¹

By OTTO P. GEIER, M. D., DIRECTOR, EMPLOYEES' SERVICE DEPARTMENT, THE CINCINNATI MILLING MACHINE CO.

A LARGE step in social justice was made when workmen's compensation acts were established in the several States, whereby injured workmen were cared for at the employers' expense, wherein the employee was partially compensated for his lost time, wherein definite sums were paid for permanent disabilities, and where loss of life at least brought some financial assistance to the family of the workman killed in industry.

The operation of workmen's compensation acts focused public attention upon the fearful economic loss from preventable accidents. Coincident therewith came that most beneficent of constructive effort—the safety-first movement.

Praiseworthy as have been the results of workmen's compensation acts, the field of constructive social effort in the broad direction of adequate surgical and medical service to those incapacitated by injury and occupational disease, is relatively still untouched. The worker is entitled to more prompt attention, to better surgical and hospital care and to more scientific rehabilitation than he is to-day receiving on the average. By this it is not meant to suggest that he is not entitled to more liberal compensation, but to insist that the other factors mentioned are more important to the man himself and to society at large.

Far too many cases of injury and occupational disease are occurring, and until industrial accident commissions take a far wider viewpoint of their public trust; until they seize upon the fundamental program of the prevention of occupational disease and accident as a part of their obligations to the State; until they appreciate the absolute necessity of thoroughly supervising all of the surgical and hospital attention received by the worker, enormous unnecessary economic loss and suffering will occur. The annual meetings of the International Association of Industrial Accident Boards and Commissions have been most valuable as a clearing house for ideas and suggestions. The problems involved are of such immense scope and so varied in their legal and social status that the day may never come when the actual standardization of practices may be brought about; it might, in fact, be wasted effort to make such an attempt. The time might be more successfully used in placing before these conferences certain

¹ Paper prepared for the sixth annual meeting of the International Association of Industrial Accident Boards and Commissions, held at Toronto, Canada, Sept. 23-26, 1919.

ideals and general methods of procedure which can be made applicable under any system of workmen's compensation acts.

Much criticism, and justly so, has been directed at the contract physician and the inadequate service that he is rendering; much discussion has been held as to the right of the employer to choose the physician, rather than to have the employee given the right to choose his own physician. Either horn of the dilemma is necessarily incorrect because no standards of surgical and medical skill have been set up which must be met by the physician, whether chosen by the employee or the employer. The medical department of each industrial commission must be given adequate funds, sufficient power and personnel, so that all of the work done for the commission may be carefully analyzed, to the end that incompetence will no longer be permitted to attend the industrially injured. Thus far the commissions have been too much concerned in the quantity of service rendered by the physician, rather than the quality. It stands to reason that until they know more about the quality, an unnecessary quantity of service will be rendered followed by unnecessary charges.

It is a fair statement of facts that a very considerable portion of the energy and time of the officials of workmen's compensation acts is consumed in the nonproductive attempt to adjust the fees for physicians and hospitals. Too little critical attention is given to the type and quality of service rendered. Few, if any, of the commissions have an adequate medical and surgical staff that can cope with the many and diverse problems that are placed before them for adjudication. Rarely, if ever, is the medical director or his assistants known to visit industrial plants, wherein thousands of accidents are occurring annually. Only in disputable cases does this staff occasionally come in contact with the surgeon or physician who is rendering bills for his service. Because of this long-distance, utterly inadequate appraisal of the surgical field work, because of this entirely impersonal relation that exists between the surgical staff of the commission and the surgeon or physician who attends the worker, there has grown up a more or less cold-blooded comptometer method of arriving at a decision as to whether this bill or that bill for services rendered shall be allowed or shall be reduced.

Workmen's compensation acts are greater in their possibilities than they are in their present performance. The commissions, as well as the public, have failed to appreciate the great necessity of incorporating in the organization of industrial commissions an adequate executive medical staff of high scientific attainment. They have been "penny wise and pound foolish." They have failed to see that several hundred thousand dollars so expended would be returned to the State and to the employer five and ten fold each year

by eliminating the length of disability, lessening the permanent disabilities, lessening the length of hospital care, reducing the lost time from work, and increasing thereby the production in factories, to to say nothing of the unnecessary suffering that now prevails.

By some such organization only can we hope to eliminate the physician who is unfit to attend the injured, who should never be cared for except by the properly trained surgeon; and the properly trained surgeon can only be made always available if the proper surgical organization is set up by the commission. As things are to-day, a premium is almost set upon the securing of low-grade, cheap service by the employer or the insurance company. Rarely, if ever, does the employee, when he has his choice, seek a surgeon, but usually he turns to his family physician. For the average type of service that the average worker gets, the present compensation fees are adequate. By this same act, however, it has come about that the best surgical men are not seeking industrial work, and to that extent the worker is being denied the most complete restoration and rehabilitation after injury.

We have reached a period in our industrial era when the industrial commission, along with the medical profession, must realize that the practice of medicine, and particularly the practice of surgery, must be altered to meet the conditions of this industrial situation. The procedures of the commissions should be such as would encourage more men to train themselves for industrial surgical practice. Medical colleges must take into account that industrial surgery is a distinct specialty. For economic and social reasons, industrial surgical service must be concentrated in fewer hands. The voluntary movement on the part of the wide-awake employers for the installation of medical and surgical departments in industry, should receive unbounded encouragement from the industrial commissions. Here again the industrial commission must know that the type of service rendered and the quality of men in charge of such departments is such as to assure the injured workers the most favorable opportunity for quick recovery. Physicians not trained for surgical work must be discouraged from caring for the injured.

Along with the establishment of a strong, highly intelligent medical directorship, there will be developed district medical supervisors who may come closely and quickly in contact with the surgeons in the field attending the injured, and who may assist the employer as well as the employee in seeking only the best service of that kind.

Out of this close contact with the injured and the source of accident, and directly as a part of a really constructive program, a safety and health-first movement will be instituted that will do wonders in reducing accidents and occupational diseases. Only by some system

of this sort can we prevent the unnecessary expenditure of millions of dollars in every industrial State for compensation and disability.

The industrial commission is the framework upon which this broad program for social improvement can be built. It is to them that we must look for leadership. In cooperation with the medical profession they must seek legislative power where necessary, to take this higher ground which will prove not only more advantageous to the employee, but of great economic value to the employer and the State.

Infections of the Upper Extremities.¹

By P. A. BENDIXEN, S. B., M. D., F. A. C. S., DAVENPORT, IOWA.

IN PRESENTING this subject it is not the intention of the writer to burden you with statistics, or give you any set of definite rules for treatment, but his aim will be to give you a general survey as to the causes and treatment, and to appeal to you as physicians, and representatives of the industrial accident boards and commissions to give a more detailed attention to the management of the infected upper extremity.

How many of us ever stop and consider the wonderful mechanism of the human arm, wrist and hand with its powerful muscles, its slender tendons, the multitudes of delicate movements possible, its flexibility, its adaptability, and its acute sensibility. And yet how quickly, how easily, how rapidly is this beautiful piece of human machinery ruined and put out of commission by the carelessness and recklessness of the individual himself and by the introduction of a few germs into its mechanism.

Realizing as we do the wonderful mechanism involved, it then becomes necessary for all of us to try and preserve this wonderful machine, which is so indispensable to all productive labor, to all economic welfare, to all progress in science, and to the enjoyment as well as to the maintenance of life itself. Yet with a full knowledge and appreciation of this wonderful machine we allow it to go to destruction on account of neglect either on the part of the individual himself, his employer, or by an unskilled and untrained surgeon.

Does the infected upper extremity get the painstaking, intelligent treatment that its economic value demands? I believe that it does not. There is probably no surgical condition that is of more importance, that requires such careful and intelligent treatment as that of infections of the upper extremity. To the workman the complete or incomplete loss of function or amputation of an arm, a hand, or a finger, often means the loss of his occupation, a change of occupation, or final pauperism.

Etiology.—An external trauma breaking the continuity of the skin, permitting the entrance of bacteria and making a fertile media for the growth of the germ. There is no question but what the

¹ Paper read at sixth annual meeting of the International Association of Industrial Accident Boards and Commissions, held at Toronto, Canada, Sept. 23-26, 1919.

staphylococci and streptococci are the most common infective agents, yet other bacteria may gain entrance, namely, the gas bacillus, the tetanus, the anthrax, etc.

Besides the direct causes of these infections we must consider the outside influences which favor these infections. The individual himself may at first consider his injury trivial and give it no attention at all, or he may apply a contaminated handkerchief or a chew of tobacco which is thoroughly saturated with infected saliva.

The oils in which he works may be the infecting agents. A number of instances have been recorded in which the oil was highly contaminated by the common practice of the employees spitting in the oils.

The employer may be responsible for these infections, by employing incompetent first aiders or an inexperienced surgeon. An inexperienced industrial surgeon came under the writer's observation during the recent war. A physician, who came from a small country town, was placed in charge of a civilian hospital which was taking care of about 10,000 to 12,000 men. As the injured men would come from the shops, dirty and greasy, he immediately became alarmed and gave the wound and the surrounding area a thorough cleansing with a solution of kerosene and benzine to remove the dirt. What did this physician do? A wound which was practically sterile and washed out by free bleeding was contaminated by the freeing of the infecting agents about the wound and drained directly into it. From this same institution, I am sorry to say, the percentage of infections were extremely high and in a number of instances I was compelled to amputate the extremity.

I am of the firm belief that the indiscriminate use of hydrogen peroxide which is so commonly used amongst the laymen, is one of the frequent adjunct causes of infections. Why does hydrogen peroxide do harm? For this reason: That when it is introduced into a fresh wound gaseous oxygen is liberated, which in turn forces the bacteria under pressure into the healthy as well as into the traumatized tissues and thus produces infections which otherwise would not have occurred.

As time will not permit me to go into a detailed description of infections of the upper extremity, I will briefly divide them into various groups.

First. The infections of the distal phalanges, namely: Felons, paronychia, subepithelial abscesses.

Second. Collar-button abscess (shirt-stud abscess) (frog felon), or, as the French describe it, *en bouton de chemise*.

Third. Carbuncular infections on the hand, wrist, and arm.

Fourth. The grave infections of the hand and arm.

- (a) Lymphangitis, which may be either superficial or deep.
- (b) Tenosynovitis.
- (c) Fascial-space infection. The pus in these fascial-space infections may be localized in the following five well-defined spaces:
 - (1) Middle palmar space.
 - (2) Thenar space.
 - (3) Hypothenar space.
 - (4) Dorsal subcutaneous space.
 - (5) Subaponeurotic space.

Fifth. Infections of the arm may be divided into those involving—

- (a) The forearm.
- (b) The upper arm with the epitrochlear and axillary region.
- (c) Subclavicular and shoulder involvement.

Symptoms.—All of the types of acute septic infections produce pain in the affected part, with more or less swelling. The location of the greatest amount of swelling does not indicate the location of the pus; quite to the contrary. The excessive swelling comes in those areas where there is the largest amount of cellular tissue, i. e., upon the dorsum of the hand, while in 9 cases out of 10 the pus is on the flexor side.

The site of the greatest tenderness is of marked importance in the location of the pus.

In the subcutaneous type, which is the most frequent, we find the involved area markedly swollen, red, tender, and fluctuating when pus is present; lymphangitis and neighboring lymphadenitis are frequently present, especially in the streptococci infections and in those in which there is no free drainage.

In tendo-synovitis there is severe deep tenderness over the sheath of the tendon involved and the patient does not move the affected extremity on account of the great amount of pain on the slightest movement of the tendon.

In osteomyelitis and septic arthritis of the joints there is a very hard and large swelling, much greater than in any of the other types of infection. The tenderness and swelling is deep seated, in other words, it does not involve the subcutaneous tissue alone, but involves the deep structures. When osteomyelitis begins, there is a great deal of pain, which subsides in the course of four to seven days, but the swelling persists and pus continues to drain from the wound. An X-ray picture will show the necrotic bone.

The general systemic symptoms vary considerably, depending largely upon the location and virulence of the bacteria, giving no distinct aid in the diagnosis. Personally I have seen ulnar and radial bursæ involvement with practically no systemic symptoms.

Diagnosis.—The diagnosis in most of our infective cases can be made—

First. By the localized area of tenderness.

Second. The pain elicited by passive movements of the extremity.

Third. The location of pus by fluctuation.

Fourth. The history or presence of a wound, which is probably the initial source of the infection.

Prognosis.—The prognosis of these infected cases depends upon so many outside conditions, but it is the writer's firm belief that 90 per cent of the arms, hands, and fingers could be saved if care and judgment were used in the proper handling and management of these cases.

The writer has based his statistics on his own personal observation during the years 1917 and 1918. During this period 1,696 injuries to the upper extremity were treated, 825 involving the right side and 871 the left side. Out of this number 232 came to him infected—138 to the right side and 94 to the left side. From these figures you will note the large number of infected cases referred. In the history of every case of infection I found that the individual had either treated himself or had been treated by an overanxious or incompetent first aider. The infections that were referred had existed from three days to four weeks.

The average time lost by the employee was $11\frac{1}{2}$ days, say nothing about his pain, suffering, and partial disability.

What does the employment of incompetent medical services and the individual self-neglect mean to the employer in the above statistics? The loss of 2,668 working days, say nothing as to what is meant to the employee financially or to his family.

The number of cases that became infected that were treated within the first 24 hours were four. Three to the right side and one to the left. The average time lost was $10\frac{1}{2}$ days, or the loss of 41 days.

In order to impress upon your minds the results of self-treatment and incompetent medical aid, the writer will cite two well-illustrated cases.

CASE No. I.—J. B., a locomotive fire builder, came to my service on May 27, 1919, with a severe infected right index finger involving the thenar space of the right hand. The patient claimed that five or six days prior to May 27 he was handling some wood to start a fire and while doing same he accidentally ran a splinter of wood into right index finger, palmar side distal end. He removed the splinter himself, continued work, and did not report the accident. The following day he claims he had pain in his finger and that he had continuous pain for five or six days until it became so severe that he requested medical treatment.

The photograph will give you an idea as to the condition of the hand at the time of the first examination.

The patient was sent to the hospital, free incisions were made, drainage instituted, but in spite of all radical treatment gangrene



CASE No. 1. J. B.

developed and it was necessary to remove the index finger six days after he reported for treatment.

There is no question in my mind but what this finger could have been saved had he reported the accident; the patient could have avoided the suffering, and the employer could have had his services.

CASE NO. II.—H. B., a football player, received a slight bruise to his right forearm, lower third. The arm pained him from the time of the accident and a physician was consulted immediately. On account of improper management by the attending physician at the beginning of the case, the arm gradually became worse until an osteomyelitis of the radial bone developed. Free incisions were made, pus drained. You will note from the X-ray plate that the radius is almost twice its normal size, still showing some signs of the osteomyelitis with ankylosis of the carpal bones at the wrist; supination and pronation limited, fingers and hands are stiff. The patient has lost about 75 per cent function of his arm.

There is no question that the function of this arm could have been saved had proper surgical attention been rendered in the beginning of the case.

Prophylactic treatment.—Great care should be exercised in the first-aid treatment; scrubbing of the wound or surrounding areas should not only be avoided but condemned. The first-aid treatment should consist of the application of tincture of iodine in and about the wound. Where there is a considerable amount of dirt and grease in the wound it may be removed by a sharp curette or by trimming the edges with a scalpel or scissors. In punctured wound, especially those produced by nails, the use of a sharp-pointed scissors will prove to be the most satisfactory. A complete debridement operation is done from the top of the wound to the dependent area. All foreign material must be removed.

The foremen in the shops should be instructed to insist that every injured employee, regardless as to how trivial the injury may be, report to the first-aid station *at once*.

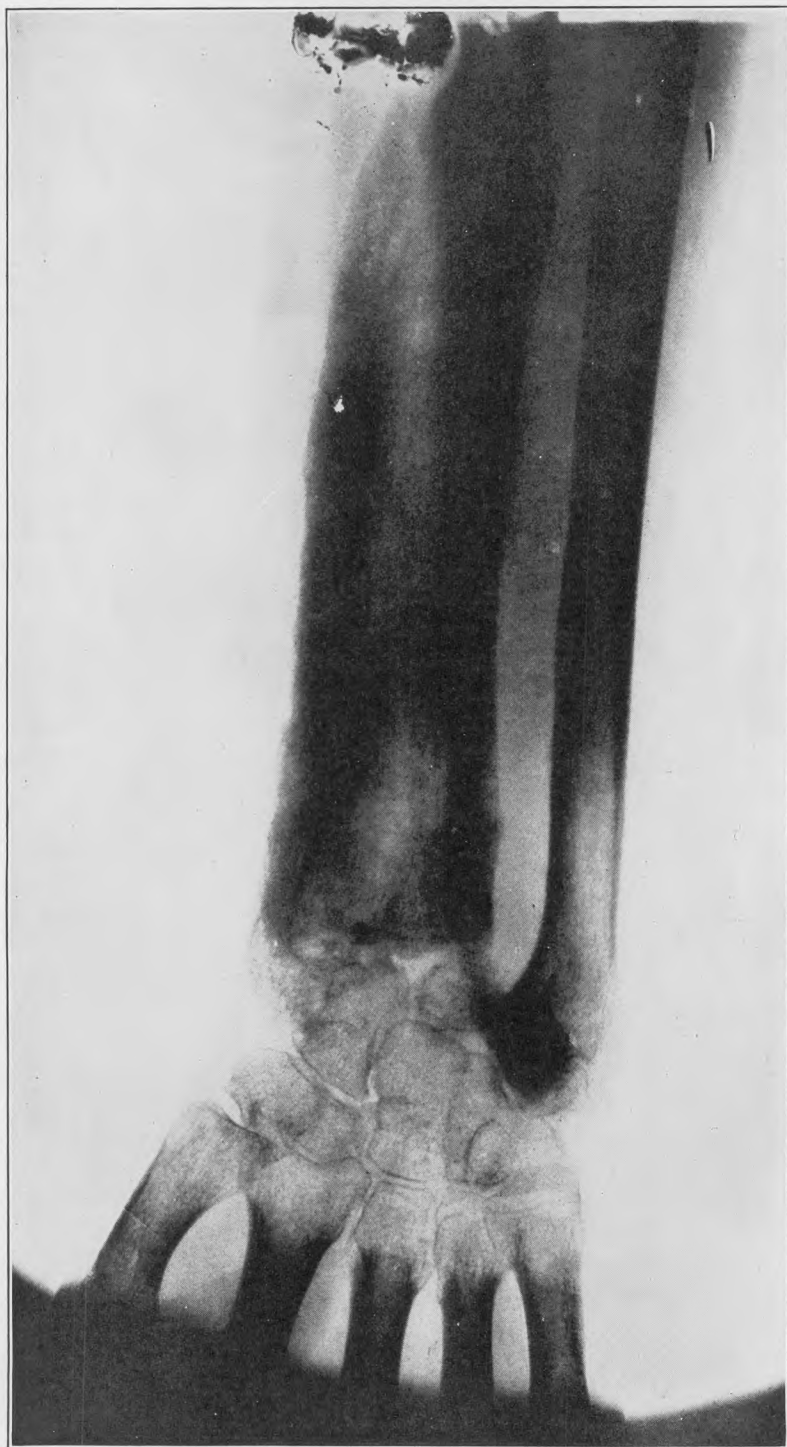
The employer should call attention of the employee either by posters, literature, lantern slides, moving pictures, or lectures to the grave dangers and results following the neglect of minor injuries. Self-treatment should be condemned.

After an infection has once been established the affected extremity should be placed at rest by proper fixation splints, as it is a well-recognized fact that the lymphatic streams are aided materially in their return flow by muscular action. In severe cases rest in bed should be insisted upon.

The systemic use of drugs such as neucleic acid, etc., to increase leukocytosis have never proved to be of a great benefit.

Passive hyperemia as suggested by Bier has not produced the desired results claimed for it. Suction cups may be used in cases of localized abscesses which do not drain freely.

Hot moist dressings, such as saturated boric acid solution, potassium permanganate, alcohol, bichloride, etc., have been very beneficial, and are indicated for reasons which will be mentioned later.



CASE NO. 2. H. B.

[1635]

Prophylactic incisions and the common habit of pressing and squeezing the wounds should not only be practiced to a minimum, but condemned.

Radical Treatment.—The attending surgeon must have a thorough knowledge of the anatomical structures involved, the location of the trouble, and referring to the well-applied saying of the late Dr. J. B. Murphy:

The blade of the knife is not sensed with vision, and to thrust a blind knife blindly into a human extremity is nothing if not criminal, and, therefore, every acute deep-seated infection of the extremity should be treated by exploratory dissection under anesthesia and anemia.

There is no question but what the permanent loss of function is due more to the surgeon's knife than it is to the infection itself.

The underlying principle is to make an incision at the proper place, large enough to allow proper drainage and the introduction of drains, preferably gutta-percha. A general anesthesia should be given, because complete relaxation is required to do skillful work. Complete anemia is obtained by the use of the constrictor. All operative procedures should be carried out carefully, methodically, and along certain lines.

After the drain has been inserted, hot moist dressings are applied. What happens when no drain is inserted and dry dressings applied? The edges of the wound become edematous and exude serum, which coagulates and seals up the opening.

That is why hot moist dressings should be applied, as it prevents the coagulum. An important point to which I wish to call your attention is the flow of serum from the wound. Wright maintains that as long as serum is permitted to exude from an infected wound the condition is favorable. The serum bathes the wound and brings the lymph to the surface.

In the more severe cases of infections the Carrel-Dakin, Dichloramine-T, or modifications thereof, may prove to be of great service in clearing up the infection.

In many cases that are referred to the surgeon the destruction has already advanced to a state where it is a question of trying to save as much of the limb as possible providing it can be made useful and functioning. When we meet with destruction of this kind the utmost care should be instituted. All necrotic tissues should be removed and should not be allowed to slough out. Proper massage and passive motion should be given in all cases where it is indicated. In the treatment of reconstructive disabilities, especially where the joints are involved, accurate and suitable records should be made as to the progress of the case. The chart used by the writer has been patterned after the free hand drawing used at the Clinic for Functional Reeducation. The charts that are used at the Hart

House, Toronto, can also be highly recommended if they are used in conjunction with Prof. E. A. Botts's series of mechanotherapy apparatus. In cases in which there has been a tendon destruction, tendon transplantation may be resorted to. Various operative procedures have been recommended and the method used will depend largely upon existing conditions present, the skill and experience of the operator.

General systemic treatment has its important place. This is mainly by early and thorough evacuation of the bowels, the forcing of large amounts of fluid, particularly water, the avoidance of alcohol, the eating of nourishing foods, and avoidance of any kind of fatigue. The whole point in treating these cases is not to omit any little detail which might help in any small way in these most vitally important cases.

Conclusions.—In conclusion the author wants to emphasize the following:

(1) The wonderful mechanism of the human arm and hand and what little consideration and thought is given to it.

(2) The importance of considering septic hand from an economic point of view, from the very start of the infection until the man has resumed work.

(3) The great importance of immobilization and rest treatment.

(4) The surgeon must have a thorough knowledge of the anatomical relationship of the extremity.

(5) The early establishment of passive motion and massage with accurate record showing improvement.

(6) That tendon involvement can in many instances be prevented by early and proper treatment.

(7) That early plastic operation and amputation are desirable after all other conservative methods have failed.

(8) Last, but not not least, the old slogan, "No Matter How Slight The Accident Report It."

Compensation Periods of Widows and Children.

THE compensation laws of the various States differ radically in their provisions as to the term during which benefits shall be paid to widows and children of employees dying as the result of their injuries. In the great majority of the States, benefits are payable for but a limited period, ranging from five to ten years unless terminated by prior death or remarriage; while but six¹ of the 42 States having compensation laws make the adequate provision of life pay-

¹ Nevada, New York, North Dakota, Oregon, Washington, and West Virginia.

ments unless remarriage intervenes. In several cases an allowance of benefits for a fixed period is granted as a sort of dowry to a widow remarrying, perhaps as an inducement to get off the fund. Payments to children cease on their reaching a fixed age, usually of 16 or 18 years.

These facts at once present the problem of the probable cost of insurance covering the liabilities, or the necessary reserves to carry the payments to the beneficiaries indicated. In the case of children it is practically a question of life expectancy.

The situation as to widows is more complex, the probability of remarriage being an essential factor, but of decreasing importance with the passing years; while the probability of death increases steadily from year to year. This necessitates the computation of a table combining the two expectancies, i. e., of death and of remarriage, in order to arrive at any intelligent handling of the situation. Such a table—or tables rather—first came into being, at least in a form adapted to American conditions, following the enactment of the New York statute, which provides for payment to widows during the term of widowhood, with a two years' allowance upon remarriage.¹ However, these tables, being submitted to a society of actuaries, are not as available for a general understanding of their effect as a later calculation made by a Canadian actuary, for use in connection with laws of identical provision in this respect.² The first table shows the probable term of payment of benefits or pensions to widows at various ages, without regard to the two years' allowance in the event of remarriage. A second table incorporates this allowance, but as the provisions of law in different jurisdictions differ in this regard, this table, while being the one that is in actual use in British Columbia and Ontario, and perhaps other Provinces, is not reproduced. Following is the table based on the combined probabilities of death and remarriage. A comparison of this table with the American experience table of mortality shows, at least for the advanced ages, a considerably longer expectancy according to the former than the latter indicates. This is explained by the fact that the British experience on which the table is based is that of widows only, while the American table is derived from an ordinary population experience.

¹ Mortality and remarriage tables for valuation of compensation to widows and other dependents, by M. M. Dawson. Transactions, Actuarial Society of America, Vol. XV, Part 2, pp. 306-314. New York, 1914.

² Expectancies of widows to death and remarriage, and present values at 5 per cent compound interest of pensions of \$20 per month payable until death or remarriage, by F. W. Hinsdale, secretary, Workmen's Compensation Board, Vancouver, B. C., 1919.

EXPECTANCIES OF WIDOWS AT AGE OF WIDOWHOOD TO DEATH OR REMARRIAGE, AND PRESENT VALUE, AT 5 PER CENT COMPOUND INTEREST OF PENSION OF \$20 PER MONTH, PAYABLE UNTIL DEATH OR REMARRIAGE.¹

Age when widowed.	Expectancy to death or remarriage (years).	Present value of \$20 per month during expectancy.	Age when widowed.	Expectancy to death or remarriage (years).	Present value of \$20 per month during expectancy.
20.....	13.44	\$2,364.10	60.....	14.90	\$2,540.07
21.....	14.14	2,450.20	61.....	14.30	2,469.12
22.....	14.88	2,537.71	62.....	13.71	2,397.63
23.....	15.65	2,625.11	63.....	13.12	2,324.36
24.....	16.45	2,712.80	64.....	12.54	2,249.49
25.....	17.28	2,800.40	65.....	11.96	2,173.60
26.....	18.16	2,889.53	66.....	11.40	2,096.94
27.....	19.01	2,972.18	67.....	10.84	2,019.18
28.....	19.83	3,048.16	68.....	10.31	1,943.00
29.....	20.64	3,120.39	69.....	9.79	1,866.74
30.....	21.41	3,186.62	70.....	9.30	1,792.78
31.....	22.12	3,245.81	71.....	8.83	1,720.56
32.....	22.80	3,300.24	72.....	8.39	1,650.83
33.....	23.41	3,347.50	73.....	7.96	1,582.36
34.....	23.96	3,389.43	74.....	7.55	1,514.14
35.....	24.44	3,424.42	75.....	7.15	1,447.58
36.....	24.82	3,452.01	76.....	6.77	1,382.43
37.....	25.10	3,471.99	77.....	6.40	1,317.78
38.....	25.28	3,484.44	78.....	6.05	1,256.63
39.....	25.33	3,487.90	79.....	5.73	1,198.36
40.....	25.32	3,487.20	80.....	5.43	1,143.32
41.....	25.23	3,480.98	81.....	5.14	1,090.11
42.....	25.06	3,469.23	82.....	4.88	1,041.31
43.....	24.81	3,451.28	83.....	4.63	993.16
44.....	24.47	3,426.60	84.....	4.39	946.93
45.....	24.08	3,398.29	85.....	4.16	902.62
46.....	23.62	3,363.51	86.....	3.93	857.64
47.....	23.13	3,326.16	87.....	3.71	813.14
48.....	22.60	3,284.23	88.....	3.51	772.69
49.....	22.03	3,238.61	89.....	3.31	732.23
50.....	21.42	3,187.46	90.....	3.13	695.83
51.....	20.77	3,131.86	91.....	2.96	661.03
52.....	20.11	3,073.62	92.....	2.80	627.05
53.....	19.44	3,012.02	93.....	2.65	595.20
54.....	18.76	2,947.90	94.....	2.51	565.46
55.....	18.07	2,880.77	95.....	2.36	538.61
56.....	17.41	2,813.69	96.....	2.21	501.75
57.....	16.78	2,748.20	97.....	2.06	469.89
58.....	16.13	2,678.48	98.....	1.91	437.08
59.....	15.52	2,610.47	99.....	1.74	399.17
			100.....	1.58	363.49

¹ Life expectancies after age 55 are as shown in table for widows prepared by registrar-general of births, deaths, and marriages in England and Wales, supplement to 75th annual report.

The interaction of the two expectancies combined in the foregoing table leads to an increase in the length of the pension term until the maximum is reached at age 39, the diminishing prospect of remarriage more than counterbalancing the increased likelihood of death. A comparison of Mr. Hinsdale's tables shows that he disregarded the likelihood of remarriage after the age of 54, while Mr. Dawson did not disregard it until the age of 65. The pension period according to Mr. Hinsdale's table would therefore be the life expectancy after the age of 54. This is 18.07 years at age 55, according to his table, while according to the American table it is but 17.40. The expected pension period at age 20 is just a fraction less than that of a widow at age 62.

The next table is simply a showing of the expected pension period of children to whom payments will cease on their reaching the age of 16 years. This table clearly reflects the hazards of the first years of life.

EXPECTANCIES OF CHILDREN AS TO ATTAINING THE AGE OF 16 YEARS, AND PRESENT VALUE, AT 5 PER CENT COMPOUND INTEREST OF MONTHLY PENSION OF \$5, PAYABLE UNTIL DEATH OR AGE 16.

Age.	Expectancy years.	Present value of \$5 per month.	Difference.	One-twelfth of difference.
0.....	12.85	\$572.48	19.79	1.65
1.....	13.48	592.27	.....	.....
2.....	12.97	576.39	15.88	1.32
3.....	12.26	553.25	23.14	1.93
4.....	11.45	525.95	27.30	2.275
5.....	10.60	496.17	29.78	2.48
6.....	9.70	463.29	32.88	2.74
7.....	8.79	428.56	34.73	2.89
8.....	7.85	391.02	37.54	3.13
9.....	6.89	350.84	40.18	3.35
10.....	5.92	308.30	42.54	3.545
11.....	4.95	263.70	44.60	3.72
12.....	3.97	216.43	47.27	3.94
13.....	2.98	166.32	50.11	4.18
14.....	1.99	113.73	52.59	4.38
15.....	.99	57.96	55.77	4.65
				4.83

The following table supplements the table on page 337. It shows not only the expectancy at age of widowhood to death or remarriage, but includes the percentage of those widowed at a specified age who remarry before the age of 55 and the proportion of the two years' time allowance for the percentage remarrying.

EXPECTANCIES OF WIDOWS AT AGE OF WIDOWHOOD TO DEATH OR REMARRIAGE, AND EXPECTANCIES ALLOWING FOR TWO YEARS EXTRA FOR THE PERCENTAGE REMARRYING.

Age when widowed.	Percentage remarried before age 55.	Percentage remaining widows at age 55 and having expectancy of 18.07 years.	Percentage died as widows before age 55.	Expectancy at date of widowhood to death or remarriage (years).	Allowance for two years extra for the percentage remarrying (years).	Expectancy to death or remarriage, allowing for two years' bonus to those remarrying (years).
20.....	78.079	14.368	7.553	13.44	1.50	15.00
21.....	75.904	16.190	7.906	14.14	1.52	15.66
22.....	73.559	18.167	8.274	14.88	1.47	16.35
23.....	71.014	20.329	8.657	15.65	1.42	17.07
24.....	68.263	22.685	9.052	16.45	1.37	17.82
25.....	65.355	25.194	9.451	17.28	1.31	18.59
26.....	62.279	27.872	9.849	18.16	1.24	19.40
27.....	59.042	30.715	10.243	19.01	1.18	20.19
28.....	56.503	32.720	10.777	19.83	1.12	20.95
29.....	52.235	36.779	10.986	20.64	1.05	21.69
30.....	48.731	39.952	11.317	21.41	.97	22.38
31.....	45.185	43.192	11.623	22.12	.91	23.03
32.....	41.642	46.473	11.885	22.80	.83	23.63
33.....	38.137	49.763	12.100	23.41	.76	24.17
34.....	34.714	53.085	12.261	23.96	.69	24.65
35.....	31.398	56.234	12.368	24.44	.62	25.06
36.....	28.177	59.408	12.415	24.82	.56	25.38
37.....	25.194	62.407	12.399	25.10	.50	25.60
38.....	22.340	65.337	12.323	25.28	.44	25.72
39.....	19.682	68.140	12.178	25.33	.39	25.72
40.....	17.126	70.903	11.971	25.32	.34	25.66
41.....	14.978	73.338	11.684	25.23	.30	25.63
42.....	12.921	75.715	11.364	25.06	.26	25.32
43.....	11.067	77.971	10.962	24.81	.22	25.03
44.....	9.401	80.099	10.500	24.47	.19	24.66
45.....	7.917	82.106	9.977	24.08	.15	24.23
46.....	6.596	84.001	9.403	23.62	.13	23.75
47.....	5.435	85.797	8.768	23.13	.11	23.24
48.....	4.414	87.515	8.071	22.60	.09	22.69
49.....	3.526	89.160	7.314	22.03	.07	22.10
50.....	2.754	90.749	6.497	21.42	.05	21.47
51.....	2.092	92.300	5.608	20.77	.04	20.81
52.....	1.523	93.822	4.655	20.11	.03	20.14
53.....	1.039	95.339	3.622	19.44	.02	19.46
54.....	.630	96.861	2.509	18.76	.01	18.77
55.....	.285	98.410	1.305	18.07	.00	18.07

LABOR LAWS.

Summary of Labor Provisions of Massachusetts Consolidation Act, 1919.

THE Massachusetts Legislature of 1919 enacted a law known as the consolidation act of 1919, under which more than 100 State boards and departments are to be consolidated into not more than 20, thus saving the State an annual expenditure estimated at about \$100,000. Sections 69 to 78 of this act relate to labor departments which are to be reorganized into a State department of labor and industries along the lines given in the following summary which has been furnished this bureau by the office of the State supervisor of administration:

Provisions.—Creates department of labor and industries which takes over the functions of the following departments, boards, and commissions

1. State board of labor and industries.
2. Minimum wage commission.
3. State board of conciliation and arbitration.
4. Bureau of statistics: Manufacturing division; public employment offices.
5. Commissioner of standards.
6. Surveyor general of lumber.

Administration.—Supervision and control of the work of the new department are vested in—

A commissioner of labor and industries (the administrative and executive head of the department).

Three associate commissioners (who assume the powers of the minimum wage commission and State board of conciliation and arbitration and are to be known as the board of conciliation and arbitration).

An assistant commissioner (who may be a woman, and whose authority is nominal, her powers being those prescribed by the commissioner and associate commissioners).

Appointment.—The appointments of the commissioner, three associate commissioners, and assistant commissioner are to be made by the governor with the approval of the council.

Term of office.—Commissioner and assistant commissioner, three years; associate commissioners, one, two and three years, respectively, thereafter for three years.

Salaries.—Commissioner—not more than \$7,500 a year; assistant commissioner and associate commissioners—not more than \$4,000 each.

Qualifications.—Commissioner and assistant commissioner—not specified. Associate commissioners—One shall be representative of labor; one shall be a representative of employers of labor.

Authority.—Commissioner of labor and industries:

1. Has charge of the administration and enforcement of all laws, rules, and regulations which come within the province of the department;
2. Directs inspections and investigations;
3. Appoints and removes staff workers; experts, inspectors, investigators, clerks, etc., and fixes their salaries;
4. Designates one of the commissioners his deputy.

Commissioner and associate commissioners:

1. Organize the department in such divisions as they deem necessary, and assign the officers and employees of the department thereto;
2. Appoint and fix the salaries of not more than five directors to take charge of the divisions they establish;
3. Determine how many of the inspectors employed shall be women;
4. Prescribe the duties and authority of the assistant commissioner.

Health provisions: There is no provision anywhere for the physician or sanitary engineer required under the present board of labor and industries as one of the commissioners, or for a deputy commissioner.

Associate commissioners (board of conciliation and arbitration):

1. Exercise the authority and functions hitherto invested in the board of conciliation and arbitration and the minimum wage commission;
2. Investigate industrial disputes;
3. Establish wage boards.
4. Issue special licenses.

Joint powers with commissioner as outlined above.

Assistant commissioner: In matters relating specifically to women and minors, such duties and authority as may be prescribed by the commissioner with the approval of the associate commissioners.

Divisions to be established.—Not more than five in all to be established. Act provides for one—the division of standards. The others are to be determined by the commissioner with the approval of the board of conciliation and arbitration.

Date effective.—(1) So far as the appointments of administrative officials are concerned, November 15, 1919. (2) So far as departments included are concerned, December 1, 1919.

LABOR BUREAUS.

Functions of German Ministry of Economics and Ministry of Labor.

IN MANY quarters in Germany and abroad uncertainty still prevails regarding the line of demarcation between the functions of the German National Ministry of Economics and of the National Ministry of Labor in questions relating to workers. The following official statement was issued to prevent further uncertainty:¹

All questions of a socio-political character relating to the labor contract will be dealt with by the Ministry of Labor; in particular unemployment relief, compulsory engagement of workers, share of workers in business management and Works Councils. All inquiries and proposals relating to such matters are to be forwarded to the National Ministry of Labor. The Ministry of Economics on the other hand deals with labor questions only insofar as they relate to the continuation and reconstruction of the processes of production and its technique. In this connection the cooperative societies, the trade-unions, joint industrial leagues, and similar organizations will be dealt with in the National Ministry of Economics, to which should be directed inquiries and proposals relating to such associations.

¹ Vossische Zeitung, Berlin, June 20, 1919.

STRIKES AND LOCKOUTS.

Appointment of New York State Board of Arbitration.

A BOARD "to stop strikes and keep the wheels of industry moving" has been appointed by the governor of New York as the result of a conference of employers, employees, and representatives of the public called by the governor to meet at Albany on September 16. The conference was the suggestion of the State commission on reconstruction. This board of arbitration is composed of nine members, three representing employers of labor, three representing the workers and three representing the people of the State, all of whom will serve without pay and will maintain headquarters at Albany. While it has no statutory status, the board will receive the support of the State administration according to a declaration by the governor, who is quoted as saying—

I propose, if possible, to make certain that when a majority of the board has spoken the decision will be observed. To a large degree the present high cost of living can be attributed to the fact that there is a serious shortage of the commodities that people need in their everyday life, and this is due in no small part to lack of production. Strikes hinder production just in proportion to the time lost by the workers who strike, and there is not a single one of these disputes which can not be settled before they mean a decrease in production.

The members of the board of arbitration are as follows:

Representing the public: Lieut. Gov. Harry C. Walker, Adj. Gen. Charles W. Berry, and Edw. S. Walsh, State superintendent of public instruction.

Representing employers: William D. Baldwin, Yonkers; Saml. Singer, New York City; Edw. J. Barcalo, Buffalo.

Representing labor: Jas. P. Holland, president of the State federation of labor; T. M. Guerin, vice president of the State federation of labor; Hugh Frayne, national organizer, American Federation of Labor.

IMMIGRATION.

Immigration in August, 1919.

THE following tables, prepared by the Bureau of Immigration of the Department of Labor, show the total number of immigrant aliens admitted into the United States in each month from January, 1913, to August, 1919, and the numbers admitted in each fiscal year, 1915 to 1918, and in August, 1919, by nationality. The total departures of emigrant aliens in August, 1919, numbered 28,934.

IMMIGRANT ALIENS ADMITTED INTO THE UNITED STATES IN SPECIFIED MONTHS, JANUARY, 1913, TO AUGUST, 1919.

Month.	1913	1914	1915	1916	1917	1918	1919	
							Number.	Per cent increase over preceding month.
January.....	46,441	44,708	15,481	17,293	24,745	6,356	9,852	18.3
February.....	59,156	46,873	13,873	24,710	19,238	7,388	10,586	7.5
March.....	96,958	92,621	19,263	27,586	15,512	6,510	14,105	33.2
April.....	136,371	119,885	24,532	30,560	20,523	9,541	16,860	19.5
May.....	137,262	107,796	26,069	31,021	10,487	15,217	15,083	110.5
June.....	176,261	71,728	22,598	30,764	11,095	14,247	17,987	19.2
July.....	138,244	60,377	21,504	25,035	9,367	7,780	18,152	.9
August.....	126,180	37,706	21,949	29,975	10,047	7,862	20,597	13.5
September.....	136,247	29,143	24,513	36,398	9,228	9,997	.....	.....
October.....	134,440	30,416	25,450	37,056	6,284	11,771	.....	.....
November.....	104,671	26,298	24,545	34,437	6,446	8,499	.....	.....
December.....	95,387	20,944	18,901	30,902	6,987	10,748	.....	.....

¹ Decrease.

Classified by nationality, the number of immigrant aliens admitted into the United States during specified periods and in August, 1919, was as follows:

IMMIGRANT ALIENS ADMITTED INTO THE UNITED STATES DURING SPECIFIED PERIODS AND IN AUGUST, 1919, BY NATIONALITY.

Nationality.	Year ending June 30—					August, 1919
	1915	1916	1917	1918	1919	
African (black).....	5,660	4,576	7,971	5,706	5,823	663
Armenian.....	932	964	1,221	321	282	49
Bohemian and Moravian.....	1,651	642	327	74	105	19
Bulgarian, Serbian, Montenegrin.....	3,506	3,146	1,134	150	205	40
Chinese.....	2,469	2,239	1,843	1,576	1,697	97
Croatian and Slovenian.....	1,912	791	305	33	23	5
Cuban.....	3,402	3,442	3,428	1,179	1,169	195
Dalmatian, Bosnian, Herzegovinian.....	305	114	94	15	4	.....

IMMIGRANT ALIENS ADMITTED INTO THE UNITED STATES DURING SPECIFIED PERIODS AND IN AUGUST, 1919, BY NATIONALITY—Concluded.

Nationality.	Year ending June 30—					August, 1919
	1915	1916	1917	1918	1919	
Dutch and Flemish.....	6,675	6,433	5,393	2,200	2,735	468
East Indian.....	82	80	69	61	68	5
English.....	38,062	36,168	32,246	12,980	26,889	3,801
Finnish.....	3,472	5,649	5,900	1,867	1,968	82
French.....	12,636	19,518	24,405	6,840	12,598	2,240
German.....	20,729	11,555	9,682	1,992	1,837	259
Greek.....	15,187	26,792	25,919	2,002	813	148
Hebrew.....	26,497	15,108	17,342	3,672	3,055	444
Irish.....	23,503	20,636	17,462	4,657	7,910	1,055
Italian (north).....	10,660	4,905	3,796	1,074	1,236	424
Italian (south).....	46,557	33,909	35,154	5,234	2,137	1,766
Japanese.....	8,609	8,711	8,925	10,168	10,056	616
Korean.....	146	154	194	149	77	1
Lithuanian.....	2,638	599	479	135	100	57
Magyar.....	3,604	981	434	32	52	8
Mexican.....	10,993	17,198	16,438	17,602	28,844	4,621
Pacific Islander.....	6	5	10	17	6	2
Polish.....	9,065	4,502	3,109	668	732	100
Portuguese.....	4,376	12,208	10,194	2,319	1,574	184
Roumanian.....	1,200	953	522	155	89	23
Russian.....	4,459	4,858	3,711	1,513	1,532	172
Ruthenian (Russniak).....	2,933	1,365	1,211	49	103	23
Scandinavian.....	24,263	19,172	19,596	8,741	8,261	685
Scotch.....	14,310	13,515	13,350	5,204	10,364	1,210
Slovak.....	2,069	577	244	35	85	15
Spanish.....	5,705	9,259	15,019	7,909	4,224	474
Spanish-American.....	1,667	1,881	2,587	2,231	3,092	399
Syrian.....	1,767	676	976	210	231	53
Turkish.....	273	216	454	24	18	6
Welsh.....	1,390	983	793	278	608	86
West Indian (except Cuban).....	823	948	1,369	732	1,223	69
Other peoples.....	1,877	3,388	2,097	314	247	33
Total.....	326,700	298,826	295,403	110,618	141,132	20,597

PUBLICATIONS RELATING TO LABOR.

Official—United States.

ALABAMA.—*State Prison Inspector. Report for the period of two years ending September 30, 1918. Montgomery, 1919. 128 pp.*

Includes reports on jails, almshouses, and on child labor.

CALIFORNIA.—*Industrial Welfare Commission. Seating of women and minors in the fruit and vegetable canning industry of California, by Harold Mestre. Sacramento, April, 1919. 14 pp. Illustrated.*

— — — *A study of the cost of living, by Katherine Philips Edson. [San Francisco] 1919. 4 pp.*

Based upon studies made principally through cafeterias and lunch rooms of San Francisco, Oakland, and Berkeley, which showed that while properly balanced meals might be purchased in cafeterias of these cities for 70 cents a day by a woman doing light work, if she had a knowledge of food values, for a woman doing active work the average cost would be 89 cents. On April 22, 1919, the Industrial Welfare Commission, after accepting the study, fixed a minimum wage of \$13.50 per week for the mercantile industries, and on May 12, 1919, a wage of 28 cents per hour in the fruit and vegetable canning industry, with a piece rate scale that will yield not less than this sum per hour, or \$13.50 per week.

CONNECTICUT.—*Factory Inspection Department. Sixth biennial report, for the two years ending September 30, 1918. Hartford, 1918. 113 pp. Public document No. 33.*

HAWAII.—*Governor. Report to the Secretary of the Interior for the fiscal year ended June 30, 1918. Washington, Government Printing Office, 1918. 92 pp., map, illustrated.*

Contains sections on Population, immigration, and labor; Public lands; Industrial accident boards; Public health; and other matters of interest to labor. According to the report on industrial accident boards, the Honolulu board received during the fiscal year a total of 2,690 first reports of accidents, 128 of which were fatal and 19 of which resulted in permanent partial disabilities. In a little less than one-half of these no compensation was paid beyond the medical bills, these averaging \$10.30 and aggregating \$14,000. During the twelve months \$44,233.44 was awarded in compensation for death claims alone, and 18 permanent partial disabilities were compensated in a sum total of \$9,115.26, exclusive of a large number of claims for various accidents causing long or short periods of total disability.

ILLINOIS.—*Department of Labor. First annual report, July 1, 1917, to June 30, 1918. Springfield, 1918. 84 pp.*

Includes a discussion of law enforcement, education, custody, purchase and supply, division of labor statistics, employment offices, employment advisory board, factory inspection, industrial commission, cooperation with employees, centralization of authority, need of a system of industrial reporting, methods of reporting accidents by employers, occupational diseases, proposed changes in the occupational disease law, reorganization of industry after the war, women in industry, intensive training, wage readjustment, replacement of male workers by female, publicity work, and other subjects.

KANSAS.—*Industrial Welfare Commission. Second biennial report, from June 30, 1917, to April 15, 1919. Topeka, 1919. 29 pp.*

Besides the text of the law establishing the commission and a list of orders issued by it, the report contains sections devoted to the powers of the commission and to the

future of women in industry. In connection with the latter it is stated that the commission must continue its educational work through its rulings until "night work for women is reduced to a minimum, until the earlier closing of our stores is a rule and not an exception, until the sanitary conditions surrounding all women workers, as well as the hour and wage regulations, are in harmony with better service rendered, healthier and happier workers."

KENTUCKY.—*Workmen's Compensation Board. Annual report, June 30, 1917, to June 30, 1918. Frankfort, 1918. 84 pp.*

During the period from August 1, 1916, the date on which the law became effective, to June 30, 1918, the act had been accepted by 4,867 employers and there had been 38 withdrawals. The number of accidents reported was 26,317, with agreements reached in 5,780 cases and 266 contested claims.

— — *Second report of leading decisions Nov. 1, 1917, to Jan. 22, 1919. Frankfort, 1919. 157, vi pp.*

LOUISIANA (PARISH OF ORLEANS).—*Factories Inspection Department. Eleventh report for the year ending December 31, 1918. New Orleans, 1918. 11 pp.*

MASSACHUSETTS.—*Bureau of Statistics. The decennial census, 1915. Part IV: Occupations. Boston, 1918. Pp. 487-631.*

States that out of a total population of 3,693,310, 1,640,890, or 44.4 per cent, were engaged in gainful occupations. Of this number 15,502, or almost 1 per cent, were under 16 years of age.

— *Minimum Wage Commission. Report on the wages of women in the millinery industry in Massachusetts. Boston, May, 1919. 68 pp. Bulletin No. 20.*

A digest of this report appears on pp. 202 to 204 of this issue of the MONTHLY LABOR REVIEW.

— — *Wage boards and their work. A handbook of information for wage board members. Boston, 1919. 11 pp.*

MINNESOTA.—*Board of Control. Proceedings of the first State conference of Child Welfare Boards with the Board of Control, held at St. Paul, May 9 and 10, 1919. St. Paul, 1919. 122 pp.*

A symposium on Health, labor, and education, which formed a feature of the conference, included papers on Minnesota child labor laws and their enforcement, by John P. Gardiner, commissioner of labor, and Compulsory school laws, by S. A. Challman, department of public instruction, St. Paul.

MONTANA.—*Laws, statutes, etc. An act making the Board of Railroad Commissioners ex-officio the Montana Trade Commission for regulating of prices and charges of commodities, foodstuffs and products, etc., approved August 11, 1919. [Helena, 1919.] 12 pp. Chapter 21, session laws sixteenth legislative assembly. Extraordinary session, 1919.*

This act creates the Montana Trade Commission and defines its duties. Montana is the first State to place on its statute books an act of this kind.

NEVADA.—*Commissioner of Labor. The compiled labor laws of the State of Nevada, 1919. Carson City, 1919. 182 pp.*

NEW JERSEY.—*Department of Labor. Report, November 1, 1917-July 1, 1918. Trenton, 1919. 54 pp.*

Includes the report of the Industrial Accident Bureau. In addition to the compensable accidents, which the law requires employers to report, the bureau requested employers "to report, in the interest of accident prevention, all accidents that involve a loss of time greater than the remainder of the day, turn, or shift on which the accident occurred." Consequently there was an increase of at least 400 per cent over the number reported heretofore, 37,188 accidents being reported for the period from November 1, 1917, to June 30, 1918. Of these 185 were fatal.

— — *Bureau of Electrical Equipment. Code of lighting for factories, mills, and other work places. Trenton, 1918. 42 pp.*

NEW JERSEY.—*Department of Labor. Bureau of Electrical Equipment. General rules for the construction and installation of fire-alarm signal systems for factories, mills, and other work places. Trenton, July 1, 1919. 83 pp. Illustrated.*

— — — *Safety standards for transmission machinery and all mechanically driven equipment. Trenton, 1918. 13 pp. Illustrated.*

— — — *Safety standards relating to the use and care of abrasive wheels. Trenton, January 1, 1919. 23 pp.*

— — — *Bureau of Explosives. Laws and safety standards for the manufacture and storage of explosives. Trenton, 1918. 44 pp.*

NEW YORK.—*Industrial Commission. Bureau of Statistics and Information. Court decisions on workmen's compensation law, August, 1916–June, 1919. Subjects other than constitutionality and coverage. Albany, 1919. 402 pp. Special Bulletin No. 95, September, 1919 (constituting Part II of No. 87).*

Part I of Bulletin 87 related to constitutionality and coverage and presented decisions upon these subjects in the period from August, 1916, to May, 1918. The present bulletin extends the period covered to July, 1919, and notes in their appropriate connections the changes in the workmen's compensation law made by the three acts of 1919. This bulletin is in sequence to Special Bulletin No. 81 issued in March, 1917.

— — — *Labor laws with amendments, additions, and annotations to August 1, 1919. Albany, 1919. 191 pp.*

Contains the general labor law and the penal provisions relating thereto. The industrial code is not included, but is published separately in a pamphlet.

— *Reconstruction Commission. Report on a permanent unemployment program, June 17, 1919. Albany, 1919. 17 pp.*

This report is noted on pages 245 to 248 of this issue of the MONTHLY LABOR REVIEW.

OHIO (AKRON).—*Bureau of Municipal Research. Report on standardization of salaries and grades for the city of Akron, with recommendations. Akron, November, 1918. 69 mimeographed pages.*

OREGON.—*Industrial Welfare Commission. Third biennial report, from January 1, 1917, to December 30, 1918. Salem, 1919. 30 pp.*

Includes a list of orders issued by the commission, effective from and after June 12, 1918.

TEXAS.—*Bureau of Labor Statistics. Fifth biennial report, 1917–1918. Austin, 1918. 32 pp.*

Among the recommendations of the commissioner were those calling for the establishment of a "Woman's Bureau," revision of the child-labor law, the compulsory school-attendance law, and the eight-hour law, and the enactment of an eight-hour law for women, a mothers' pension law, and laws that will reduce industrial accidents to a minimum.

— *Industrial Accident Board. Annual report for the year ending August 31, 1918. Austin, 1919. 7 pp.*

According to this report there were, on August 31, 1918, approximately 6,500 employers who were subscribers to the Workmen's Compensation Act, and about 275,000 employees covered by and embraced within its provisions. Of the 52,725 accidents reported by the subscribing employers during the fiscal year, 12,510 became claims for compensation, and 223 were fatal. The total payment by insurance carriers under this law was \$901,931.97.

WASHINGTON.—*Bureau of Labor. United States law relating to tax on employment of child labor together with Washington State child labor laws and Industrial Welfare Commission minor orders. Edition 1919. Olympia, 1919. 16 pp.*

WISCONSIN.—*Board of Vocational Education. Wisconsin laws relating to vocational education. Madison, 1919. 20 pp. Bulletin No. 3.*

— *Industrial Commission. General orders on safety. Provisions of chapter 485, laws of 1911. [Madison.] Reprinted April, 1919. 18 pp.*

- WISCONSIN.—*Industrial Commission. Safety Review. Published monthly. Vol. 1, Nos. 1, 2, 3, 4, 5. Madison, June, July, October, 1918; February, June, 1919. 24, 20, 28, 24, 16 pp. Illustrated.*
- UNITED STATES.—*Congress. House. Committee on the District of Columbia. Retirement of public-school teachers in the District of Columbia. Hearings on H. R. 2076, June 5 and 6, 1919. Washington, 1919. 68 pp. 66th Congress, 1st session.*
- — — *Committee on Immigration and Naturalization. Prohibition of immigration. Hearings on H. R. 13325, 13669, 14577, and 15904. Parts 1, 3, 4, 5. Washington, 1919. 29, 127-189, 191-272, 273-298 pp. 65th Congress, 3d session.*
- — — *Committee on Labor. Minimum wage bill for Federal employees. Hearings on H. R. 1235, a bill to fix compensation of certain employees of the United States. June 6, 1919. Washington, 1919. 37 pp. 66th Congress, 1st session.*
- — — *Committee on the Public Lands. Homes for soldiers. Hearings on H. R. 487, May 27 to June 28, 1919. Washington, 1919. 798, 40, 17 pp. 66th Congress, 1st session.*
- — — *Joint Committee on Education and Labor. Vocational rehabilitation of disabled soldiers and sailors. Hearings on S. 4284 and H. R. 11367, bills to provide for vocational rehabilitation and return to civil employment of disabled persons discharged from the military or naval forces of the United States, and for other purposes, April 30, May 1, and May 2, 1918. Washington, 1918. 168 pp. 65th Congress, 2d session.*
- — — *Senate. Committee on the District of Columbia. High cost of living in the District of Columbia. Hearing before a subcommittee pursuant to S. Res. 150. Directing the Committee to make investigation of prices, rents, and related subjects in the District of Columbia. Washington, 1919. Parts 1-6. 949 pp. 65th Congress, 3d session.*
- — — *Committee on Education and Labor. Department of Education. Hearing on S. 4987, a bill to create a department of education, to appropriate money for the conduct of said department, to appropriate money for federal cooperation with the States in the encouragement and support of education, and for other purposes. December 5, 1918. Washington, 1919. 144 pp. 65th Congress, 3d session.*
- — — *Vocational rehabilitation. Hearing on S. 1213, a bill to amend an act entitled "An act to provide for vocational rehabilitation and return to civil employment of disabled persons discharged from the military or naval forces of the United States, and for other purposes," approved June 27, 1918. Washington, 1919. 28 pp. 66th Congress, 1st session.*
- — — *Vocational rehabilitation of persons disabled in industry. Hearing on S. 18, a bill to provide for the promotion of vocational rehabilitation of persons disabled in industry or otherwise and their return to civil employment. Washington, 1919. 18 pp. 66th Congress, 1st session.*
- *Council of National Defense. Advisory Commission. Committee on Labor. Help our soldiers and sailors. Establish employment committees for the benefit of our returning soldiers and sailors. Washington, April 18, 1919. 3 pp.*

Through the committee on labor Col. Arthur Woods, who is chairman of the council's emergency committee for the employment of soldiers and sailors and who was appointed by the Secretary of War as assistant to the Secretary to act for him upon all matters relating to the reemployment of soldiers and sailors, requests "every local trade union, every city central body, each State federation of labor, and every international trade-union, to take immediate steps, if they have not already done so, to support and assist in every way, the bureaus for returning soldiers, which are working under the United States Employment Service of the Department of Labor, if necessary, establishing at once an employment committee, raising adequate funds therefor, and definitely lending their cooperation, and, if necessary, their assistance in securing financial support for the bureaus of the United States Employment Service and such existing agencies as seem best able to serve the community, and coordinating the effort of all agencies interested in securing employment for the returning soldiers

and sailors." "When a soldier or sailor returns to your community," he adds, "the employment committee of your organization should immediately get in touch with him and make sure that he is registered with the United States Employment Service or its bureau for returning soldiers and sailors. Then visit his former employer. In the vast majority of cases, his former employer will take him back. Should the effort to place the returned soldier or sailor with his former employer fail, an endeavor should be made to secure him employment elsewhere. While finding employment, provision should be made for his immediate needs." The council's emergency committee, as is explained in the pamphlet, has been formed to cooperate with the United States Employment Service of the Department of Labor and the War Department and all other agencies which have come to the support of the work, owing to the curtailment of the resources of the United States Employment Service due to lack of funds.

UNITED STATES.—*Department of Commerce. Bureau of the Census. Census of shipbuilding (including boat building), 1916 and 1914. Washington, 1919. 35 pp.*

A table presenting the total number of wage earners employed in the shipbuilding industry on the 15th of each month, or the nearest representative day, for 1916, 1914, and 1909, and the average number employed during each month in 1904, shows that in 1916 the maximum number employed in the entire industry was 85,928, in December; in 1914, 49,567, in May; and in 1909 and 1904, 42,256 and 53,975, respectively, in April. The month of minimum employment was January in both 1916 and 1904; November, in 1914; and February, in 1909. For the steel shipbuilding branch the maximum number was employed in March in 1914, in December in 1909, and in April in 1904, while for the wooden ship and boat building branch of the industry for these years, May and June were the months of maximum employment. A table in which the wage earners in the industry as a whole, in 1914 and 1909, are classified according to the number of hours of labor per week prevailing in the establishments in which they were employed emphasizes the tendency toward the shortening of the working day of wage earners. During 1909 only 40.5 per cent of the total number of wage earners worked in establishments where the prevailing hours were 54 or less per week, while during 1914 78 per cent worked in establishments where these hours prevailed. The largest number of wage earners employed by any one group of establishments in 1909 was 14,038, or 34.7 per cent of the entire number employed in those establishments which operated 60 hours per week. In 1914 the largest number, practically the same proportion (33.1 per cent), were employed in establishments operating 48 hours or fewer per week.

— *Department of the Interior. Bureau of Education. The rural teacher of Nebraska, by a committee from the graduate school of education, University of Nebraska. Washington, 1919. 67 pp. Bulletin No. 20.*

The report of a survey of the status of the rural teachers of Nebraska in regard to their academic and professional preparation, experience, sex, age, nationality, salary, living conditions and other matters, based upon the replies to a questionnaire sent by the committee to all the rural teachers of the State, with a small exception, during the school year 1914-15.

— *Department of Labor. Children's Bureau. Save the youngest. Seven charts on maternal and infant mortality, with explanatory comment. Washington, 1919. 15 pp. Children's year follow-up series No. 2. Bureau publication No. 61.*

— *Training Service. The foreman. A treatise upon the qualifications, powers, duties, and relations of a foreman in manufacturing. Washington, 1919. 79 pp. Training bulletin No. 26.*

— *Industrial training for foundry workers. Washington, 1919. 68 pp. Training bulletin No. 24.*

— *Outline courses for instruction in lithography and photolithography. Washington, 1919. 23 pp. Training bulletin No. 23.*

UNITED STATES.—*Department of Labor. Training Service. Training in the rubber industry. Rubber shoes—boots—arctics—tennis and fabric shoes—tires and inner tubes. Washington, 1919. 75 pp. Training bulletin No. 20.*

— *Working Conditions Service. Safeguarding workers in the tanning industry. Washington, 1919. 121 pp. Illustrated.*

The tanning industry was chosen as the subject of this study because, though among the larger industries of our country, it has been surprisingly slow in adopting accident prevention measures. The bulletin is divided into six parts: 1. Hazards of the industry; 2. Mechanical safeguards; 3. Safeguarding general plant conditions; 4. Personal considerations; 5. Safety organizations; 6. Educational activities.

— *Federal Board for Vocational Education. Baking. Washington, August, 1919. 11 pp. Opportunity monograph. Vocational rehabilitation series No. 43.*

— *Dental mechanics as a vocation. Washington, August, 1919. 8 pp. Opportunity monograph. Vocational rehabilitation series No. 41.*

— *Flour milling. Washington, August, 1919. 15 pp. Opportunity monograph. Vocational rehabilitation series No. 42.*

— *Podiatry as a vocation. Prepared by Dr. M. J. Lewi. Washington, August, 1919. 8 pp.*

Gives practical information regarding the study and practice of podiatry, or the care of the human foot in health and in disease. It contains a list of States in which podiatry is regulated by law and of persons in each State who should be addressed in regard to information concerning such laws; also a list of podiatry teaching institutions.

— *Productive vocational workshops for the rehabilitation of tuberculous and otherwise disabled soldiers, sailors, and marines. Washington, June, 1919. 16 pp. Bulletin No. 33. Reeducation series No. 7.*

— *Interdepartmental Social Hygiene Board. Constitution. [Washington, 1919.] 4 mimeographed pages.*

— *Shipping Board Emergency Fleet Corporation. Shipbuilding Labor Adjustment Board. Piece rates for riveting, chipping and calking, drilling, reaming, and counter-sinking fixed for steel shipyards of Atlantic Coast and Gulf Districts, February 25, 1918, corrected to February 1, 1919. Washington, 1919. 24 pp.*

— *Treasury Department. Commissioner of Internal Revenue. Rulings relating to tax on child labor under the revenue act of 1918. Washington, 1919. 17 pp.*

— *Tax on employment of child labor. Washington, 1919. 7 pp. (T. D. 2823.)*

— *Public Health Service. Anthrax and the sterilization of shaving brushes. Washington, 1919. 4 pp. Reprint No. 523 from the Public Health Reports, May 9, 1919.*

— *Trinitrotoluene poisoning, by Carl Voegtlin, C. W. Hooper, and J. M. Johnson. Washington, 1919. 7 pp. Reprint No. 534 from the Public Health Reports, June 13, 1919.*

— *War Department. A report of the activities of the War Department in the field of industrial relations during the war. Washington, September 15, 1919. 90 pp.*

A brief digest of this report appears on pages 243 to 245 of this issue of the REVIEW.

Official—Foreign Countries.

AUSTRALIA (TASMANIA).—*Government Statistician. Statistics for the year 1917-18. [Hobart] 1918. 488 pp.*

Contains statistics on the operations of friendly societies.

BELGIUM.—*Ministère de l'Industrie, du Travail et du Ravitaillement. Administration des Mines et Inspection du Travail. La situation des industries Belges au 1er Juin, 1919. Brussels, 1919. 113 pp.*

This report on the situation of Belgian industries to June 1, 1919, is divided into two parts, the first dealing with the mining and metallurgical industries, and the second

with other industries. It shows the progress made in the months which have elapsed since the issuance of a brochure entitled "The situation of industries in Belgium in February, 1919, after the German devastations," and also compares the present situation in different branches of industry with that existing immediately before the war. The report calls attention to the fact that coal-mining suffered less than any other industry, it being in the interest of the enemy to protect this industry for their own use, while the systematic destruction of manufactories was such that it has been impossible since the conclusion of hostilities to secure the machinery and materials necessary for these to resume normal functioning. The total average numbers of workmen employed in coal mines before and after the war were: January, 1914, 152,398; January, 1919, 121,603; February, 1914; 151,384, February, 1919, 128,049; March, 1914, 151,117; March, 1919, 133,679; April, 1914, 148,496; April, 1919, 139,160; May, 1914, 147,451; May, 1919, 143,683; June, 1914, 147,226; June, 1919, 146,248.

CANADA.—*Board of Pension Commissioners. Information on pensions intended specially for the use of members and ex-members of the Canadian Military and Naval Forces. Ottawa, [1919]. 4 pp.*

FRANCE.—*Ministère du Travail et de la Prévoyance Sociale. Bureau de la Statistique générale. Statistique des familles et des habitations en 1911. Paris, 1918. 167 pp.*
Statistics of families and of dwellings in 1911.

GERMANY.—*Statistisches Reichsamt. Abteilung für Arbeiterstatistik. Die Verbände der Arbeitgeber, Angestellten und Arbeiter im Jahre 1916 und im Jahre 1917. Berlin, 1919. 42*, 65 pp. (19 Sonderheft zum Reichs-Arbeitsblatte.)*

A bulletin of the German Statistical Office containing statistical data on the development of German employers', salaried employees', and workers' organizations during 1916 and 1917. Owing to the war the publication of these statistics has been somewhat delayed. In the following table is shown the membership of the various German trade-union federations during the 5-year period 1913 to 1917.

MEMBERSHIP OF GERMAN TRADE-UNIONS, 1913 TO 1917.

Year.	Free (social-democratic) trade-unions.	Christian trade-unions.	Hirsch-Dunker societies.	Nonmilitant trade societies.	Independent trade societies.	Federation of Catholic workmen's societies.	Federation of Catholic societies of female workers.	Total.
1913.....	2,525,042	342,735	106,618	280,002	318,508	124,253	30,000	3,726,158
1914.....	1,502,811	218,197	77,749	167,074	205,360	115,680	30,000	2,316,871
1915.....	994,853	162,425	61,086	133,353	172,391	100,526	28,000	1,652,634
1916.....	944,575	178,970	57,766	145,403	178,501	87,985	.....	1,593,200
1917.....	1,277,709	293,187	79,113	141,862	144,658	82,298	.....	2,018,827

GREAT BRITAIN.—*Department of Scientific and Industrial Research. Medical Research Committee. Reports of the industrial fatigue research board. No. 1.—The influence of hours of work and of ventilation on output in tinplate manufacture. No. 4.—The incidence of industrial accidents upon individuals with special reference to multiple accidents. London, 1919. 23, 28 pp. Price, 6d. net, each.*

—*Home Department. Committee on licensing of partially disabled men as drivers of public motor vehicles. Committee appointed to review the decisions arrived at by the previous committee which reported in July, 1916. Minutes of evidence. Report. London, 1919. 25, 4 pp. Cmd. 312, 333. Price, 3d., 1d. net.*

—*Home Office. Welfare and welfare experience in factories and workshops. London, 1919. 15 pp. Price, 2d. net.*

—*Interdepartmental Committee on Tuberculosis (sanatoria for soldiers). Report upon the immediate practical steps which should be taken for the provision of residential treatment for discharged soldiers and sailors suffering from pulmonary tuberculosis and for their reintroduction into employment, especially on the land. London, 1919. 45 pp. Cmd. 317. Price, 6d. net.*

GREAT BRITAIN.—*Local Government Board. Committee on the superannuation of persons employed by local authorities in England and Wales. Report. London, 1919. 39 pp. Cmd. 329. Price, 4d. net.*

— *Ministry of Health. Housing. Schemes submitted to the Ministry of Health by local authorities and public utility societies. London, 1919. 110 pp. Cmd. 337.*

A statement of housing schemes being undertaken by the various agencies authorized to act under the new housing act in the provision of houses for the industrial population. Up to July 31, 1919, 3,879 projects had been proposed for approval by 995 local authorities and 54 public utility societies.

— *Welfare of the blind. (1) Circular issued by the Ministry, 7th August, 1919; (2) Regulations and rules made by the Ministry, 7th August, 1919. London, 1919. 11 pp. Price, 3d. net.*

— *Ministry of Labor. Directory of joint standing industrial councils, interim industrial reconstruction committees and trade boards, with index of members. [London] July, 1919. 79 pp. H. Q. 7N/3.*

— *A national scheme for the employment, on a percentage basis, of disabled ex-service men. London, September, 1919. 2 pp.*

— *Committee of inquiry into the scheme of out-of-work donation. Final report. London, 1919. 18 pp. Cmd. 305. Price, 3d. net.*

— *Department of Labor Statistics. Directory of industrial and other associations concerned with matters relating to conditions of employment, 1919. London, 1919. 285 pp. Cmd. 328. Price, 1s. 3d. net.*

— *Out-of-work donation. Decisions given by the umpire respecting claims to out-of-work donation. Vol. I. Nos. 1-500. (Given up to 5th March, 1919.) Together with index. London, 1919. 271 pp. U. I. 440 B, Price, 2s. 6d. net.*

— *Ministry of Reconstruction. Reconstruction problems 34. The future of aerial transport. London, 1919. 24 pp. Price, 2d.*

— *Reconstruction problems 35. The uses of costing. London, 1919. 24 pp. Price, 2d.*

— *National Health Insurance Joint Committee. Medical Research Committee. The influence of alcohol on manual work and neuro-muscular coordination. London, 1919. 65 pp. Special report series, No. 34. Price, 2s. net.*

— *Office of Trade Boards. Machine-made lace and net finishing trade. Minimum rates of wages (as varied and fixed). Effective as from 19th June, 1919. London, 1919. 4pp.*

— *Notes on the principal rates (excluding those for learners) fixed by the various trade boards. Corrected to 16th August, 1919. London, 1919. 4 pp.*

Gives principal rates of wages fixed by trade boards in the following industries: Boot and shoe (Great Britain); chain (Great Britain); corset; linen and cotton embroidery (Ireland); hollowware (Great Britain); laundry (Great Britain); lace finishing; paper bag (Great Britain); paper box (Great Britain and Ireland); shirt making (Great Britain and Ireland); sugar confectionery and food preserving (Great Britain and Ireland); tailoring (Great Britain and Ireland); tin box (Great Britain); and tobacco (Great Britain).

— *Tobacco Trade Board (Great Britain). Minimum rates of wages fixed for male and female workers, effective as from 5th August, 1919. London, 1919. 3 pp.*

— *Parliament. House of Commons. Select Committee on National Expenditure. Third report. London, 1919. 9 pp. 168. Price, 2d. net.*

— *Select Committee on Pensions. Special report. July 28, 1919. London, 1919. 10 pp. 149. Price, 2d. net.*

— *Privy Council. Committee for Scientific and Industrial Research. Report for the year 1918-19. London, 1919. 94 pp. Cmd. 320. Price, 6d. net.*

GREAT BRITAIN.—*War Cabinet. Report for the year 1918. London, 1919. 339 pp. Maps. Cmd. 325. Price, 3s. 6d.*

This report contains a chapter on Industrial Relations which includes information regarding Joint Industrial Councils, Trade Boards, Agricultural Wages Boards, and the Wages Act.

INDIA.—*Education Department. Progress of education in India, 1912-1917. Vol. I. Seventh quinquennial review. Vol. II. Appendixes and tables. London, 1919. 215, 200 pp. Cmd. 256, 257. Price, 1s. 9d. net.*

Includes statistics of technical and industrial education, training of teachers, and related matters.

MEXICO.—*Departamento de Industrias. Secretaria de Industria, Comercio y Trabajo. Directorio Industrial del Distrito Federal. Mexico, 1919. 105 pp.*

An alphabetical index of the industrial establishments of Mexico City inspected by the Federal factory inspectors during the period July, 1917, to May, 1918.

NEW ZEALAND.—*Census and Statistics Office. Official yearbook, 1918. Twenty-seventh year of issue. Wellington, 1918. 837 pp. Maps.*

The present issue is compiled along the lines followed in recent past numbers. The statistical information has been brought up to the end of the year 1917 or the financial year 1917-18. Among the subjects of special interest to labor are Forestry, Fisheries, Mining, Manufactories and works, Industrial, State aid to settlers and workers, Pensions, superannuation, etc., Insurance, and Prices and wages. Approximate percentage increases in wage rates, July, 1914, to July, 1918, were as follows for specified occupations: Aerated-water workers, 8.31; bakers, 20.50; bootmakers, female, 14.50; bootmakers, male, 12.50; bricklayers, 12.46; brewery employees, 19.05; butchers, general hands, 20.90; butchers, shopmen, 13.12; carpenters, 11.11; coach workers, 9.09; coal miners, 18.00; drivers, 20.00; electrical workers, 20.60; engineers, 20.45; fellmongers, 13.19; flour-mill employees, 14.83; freezing-workers, 16.92; furniture makers, 21.93; grocers' assistants, 27.75; laborers (general), 13.84; painters, 4.54; plasterers, 10.89; plumbers, 11.11; printing machinists, 7.69; seamen, 29.10; shearers, 37.50; slaughtermen, 9.09; storemen (retail soft goods), 10.00; tailoresses, 10.00; timber workers, 17.39; waterside workers, 27.89; woolen-mill employees, female, 27.22; woolen-mill employees, male, 19.96.

NORWAY.—*Statistiske Centralbyrå. Statistisk aarbok for Kongeriket Norge, 1918. (Annuaire statistique de la Norvege. 38^{1eme} Année, 1918.) Christiania, 1919. 210 pp.*

Statistical yearbook of Norway. Of interest in the labor field are statistics of social insurance operations, employment exchanges, trade-unions, wages, hours of labor, strikes and lockouts, prices, and the cost of living.

SWITZERLAND.—*Volkswirtschaftsdepartement. Berichte der Kantonsregierungen über die Ausführung des Bundesgesetzes betreffend die Arbeit in den Fabriken, 1917 und 1918. Aarau, 1919. 136 pp.*

A bulletin of the Swiss National Economic Department containing the reports of the individual cantonal Governments on the enforcement in 1917 and 1918 of the federal factory law.

UNION OF SOUTH AFRICA.—*Office of Census and Statistics. Statistics of population, 1918 and previous years, including vital and health statistics for the year 1917 and previous years. Pretoria, 1919. 90 pp. S. P. 7. Price, 5s.*

Part V is devoted to Public health and hospitals. During the period from August 1, 1911, to July 31, 1917, benefits were accorded in 7,493 cases of miners' phthisis. Statistical tables give data regarding periods of service, age, deaths, insurance, and other matters relating to the disease.

— — — *Official Yearbook of the Union. No. 2, 1918. Pretoria, 1919. 785 pp.*

Unofficial.

ADAMS, KATE J. *Humanizing a great industry.* Chicago, Armour & Co., 1919. 32 pp.

Description of the welfare work of Armour & Co.

AMERICAN FEDERATION OF LABOR. *Report to the thirty-ninth annual convention, Atlantic City, June 9, 1919.* Washington, 1919. 156 pp.

— *Wisconsin Branch. Proceedings of the twenty-seventh annual convention, held at Appleton, Wis., July 16, 17, 18, and 19, 1919.* Milwaukee, 1919. 116 pp.

AMERICAN JOURNAL OF CARE FOR CRIPPLES. Vol. 8, No. 6. Pp. 405-514. New York, June, 1919. Illustrated. Official organ of the Federation of Associations for Cripples and the Welfare Commission for Cripples. Edited by Douglas C. McMurtrie.

Contains articles on Aid for disabled soldiers in France before 1670, by Marcel Prévost; Experience in the reeducation of disabled soldiers in Great Britain, by Douglas C. McMurtrie; Reeducational work among the Serbs in France, by Aline S. Atherton-Smith; Practical experience in dealing with industrial cripples, by Dudley M. Holman; The reeducation of blinded soldiers, by Francesco Denti; Occupational therapy, by Bird T. Baldwin; U. S. A. General Hospital No. 28, by Fred P. Reagle; Lessons from reconstruction hospitals, by L. A. Pechstein; The employment office for the severely disabled of the Third Army Corps and the Province of Brandenburg, by W. Beckmann; and Vocational guidance and the provision of employment for the tuberculous, with special reference to the war disabled, by Dr. Freudenfeld.

AMERICAN RED CROSS IN ITALY. *Commission for Tuberculosis report; Supplementary reports: School hygiene, child labor in Italy, housing in Italy.* Roma, 1919. 147 pp.

These subjects were chosen by the commission because from such a study they could learn what had already been accomplished in the great social movements in Italy, and because these activities were so closely related to a study of tuberculosis.

It was found that in these fields "Italy has already made a progress which is comparable to that of other nations, a fact which did much to determine the policy of this commission."

AMSTERDAM. VEELIGHEIDSMUSEUM. *Jaarverslag, 1918.* Amsterdam. 50 pp. Illustrated.

Annual report of the Amsterdam safety museum interested in the study and displaying of safety devices.

ANDREWS, JOHN B. *Labor problems and labor legislation.* New York, American Association for Labor Legislation, 131 East Twenty-third Street, 1919. 136 pp.

Describes in concise and readily comprehensible form the labor legislation which "marks the progress of a century in the development, by governmental methods, of democratic standards for American industry." Chapters are devoted to Employment, Wages, Hours, Safety, Health, Self-government in industry, Social insurance, and Enforcement of laws.

BAKER, JOHN S. *Industrial relations, or twenty years of cooperation between capital and labor.* An address given before the second annual Industrial Service Conference at Milwaukee, Wis., April 28, 1919. Evansville, 1919. 12 pp.

An account by the president of the Baker Manufacturing Co., Evansville, Wis., of the profit-sharing method of the company.

BLAND, A. E., BROWN, P. A., AND TAWNEY, R. H., editors. *English economic history. Select documents. Third impression.* London, G. Bell & Sons (Ltd.), 1919. 730 pp.

This volume is a collection of documents, many of them published for the first time, designed to illustrate English economic history from the time of the Norman Conquest to the repeal of the Corn Laws in 1846.

BRADBURY, HARRY B. *Workmen's compensation law. Third edition. New York. The Banks Law Publishing Co., 1917. 1285 pp.*

BUREAU OF RAILWAY ECONOMICS. *Library. List of references to books and articles on the Adamson eight-hour law of September, 1916. Revised. [Washington, D. C.] September, 1919. 22 pp. mimeographed.*

— — — *Some comments on the Plumb plan, revised. By individuals and organizations. [Washington, D. C.] September, 1919. 20 pp. mimeographed.*

List of references on the Plumb plan.

BUSINESS TRAINING CORPORATION. *Making better foremen. A plan of group training in modern production methods adopted by a number of leading industrial concerns. New York, 185 Madison Avenue [1919]. 8 pp. mimeographed.*

CHARITY ORGANIZATION SOCIETY. *Committee on home economics. Budget planning in social case work. New York, 105 East Twenty-second Street, September, 1919. Bulletin No. 3. Price, 15 cents.*

It is stated to be the belief of the committee that the custom of budget planning can be made of marked service in helping case workers to solve such problems of living costs as the determination of the modifications in income and expenditure essential for the maintenance of the living standards desired for a family under a case-work plan. The report discusses first in considerable detail "the nature of the information which seems essential as the basis for the budget plan and the reasons why different families of similar composition need to spend different amounts for food, clothing, and other parts of the budget in order to maintain a desired living standard. The report then discusses methods of budget planning under three divisions: First, methods of securing necessary budget information; second, methods of preparing the budget in written form; third, methods of utilizing the budget plan to improve living conditions."

CHOLLET, MARCEL AND HAMON, GEORGES. *Le problème des assurances sociales en Alsace-Lorraine. Maladie; accidents du travail; invalidité; vieillesse. Paris, M. Giard & E. Brière, 1919. 107 pp.*

This study on the problem of social insurance in Alsace-Lorraine aims to set forth the financial mechanism of the institutions concerned with workmen's insurance and to compare the laws covering social insurance in these Provinces with those of France, noting their respective advantages and defects with a view to substitutions if such seem advisable, but always keeping in mind the necessity of not lessening any benefits or guarantees which the working population of Alsace-Lorraine enjoyed under the German insurance laws. The subject is treated under the headings: Sickness insurance, Accident insurance, Invalidity and old-age insurance, and Conclusion. There is a preface by Jean Cruppi.

COUNTY, A. J. *Cooperation and service. [Philadelphia] 1919. 23 pp.*

This address by the vice president of the Pennsylvania Railroad Company delivered before the Philadelphia Rotary Club contains a program for reconstruction and to offset discontent and the high cost of living. Among the conclusions reached are that economy in national, State, and city disbursements be required, that labor unions be nationally incorporated so as to increase their responsibility, that the ability and intelligence of management be executed "for peace between capital and labor, and to that end while insuring fair wages for good work and steady employment, reasonable hours and proper working conditions, it will also establish conference boards on which the voice of the worker will be heard," that capital "representing ownership must put men in charge of their property who understand labor, and will pay for an organization to study the wants and aspirations of labor in its employment, and be content to share the profits over a margin sufficient to pay a reasonable return on capital and protect the present and future credit of the enterprise," and that a sliding scale, whereby wages may fall as well as rise with the cost of living, be provided "to avoid lockouts, strikes, suffering and future wasteful interruptions of transportation and industry."

- DOUBLE DUTY FINGER GUILD. *Information about profitable occupations for the blind.* Ampere, N. J., June, 1919. 24 pp. Illustrated. *The finger industry news*, No. 3.
- DOUGLAS, PAUL H. *A definition of "Conditions of labor."* Cambridge, Mass., Harvard University Press, 1919. Reprinted from the *Quarterly Journal of Economics*, August, 1919. Pp. 725-729.

The author states that the present definition is largely based upon the interpretation which the Shipbuilding Labor Adjustment Board gave to it, and includes the following subjects, each with subdivisions, under working conditions: Sanitary conditions; safety conditions; apprenticeship and industrial education; questions relating to the paying of men; the classification of workmen; should men be discharged for legitimate trade-union activity and what is the meaning of the term "legitimate"; machinery for adjusting grievances; and definition of the term "grievances."

— *Plant administration of labor.* [Chicago, University of Chicago Press] 1919. Reprinted from the *Journal of Political Economy*, July, 1919. Pp. 544-560.

"Scientific employment work is in its infancy," says the author. "At present the field is one of great promise but of uncertain and uneven performance. There is great danger that hasty and unscientific propagandists may throw great discredit upon the movement by their exorbitant claims and by their neglect painfully to work out new and improved technique." Lines of development which he believes must take place if employment work is to realize its possibilities may be summarized as follows: Extensive application of approved employment practices; a broadening of the functions of the employment department to include the general problems of industrial relationship within a plant; the industrial relations division should be coordinate with the other functional divisions inside a plant, such as finance, sales, purchasing, works, etc., and not be subordinate to them in position or authority; the industrial relations division should not be an instrumentality whereby the will of the managements is imposed upon the men, but it should rather be an instrumentality whereby the desires of the workers may be interpreted to the management and a joint policy evoked which will command the loyal support and cooperation of both parties; the industrial relations work should not only be organized within plants but should be federated between plants industrially or geographically; to accomplish the functions previously outlined a much higher level of ability is needed than exists among present-day employment managers. In addition to the necessity of recruiting men of a superior natural ability it is vitally necessary that a system of training be developed which will adequately prepare men for the field.

FINCHLEY URBAN DISTRICT COUNCIL. *Education committee. Children's care and juvenile employment subcommittee. Seventh annual report for the 12 months ended July 31, 1919, on juvenile employment.* [Finchley, England, 1919.] 9 mimeographed pp.

FORSTER, H. W. *Cooperation with employees.* Philadelphia, Independence Bureau, 1919. 15 pp.

This pamphlet is a study of the results which may be expected of a cooperative plan by both employers and employees, of the responsibilities of the employer, of the desires of labor as expressed through organized labor's demands, and of the attitude of Government toward labor as shown in the principles and policies of the War Labor Board. The general principles to be followed in inaugurating plans for representation of employees are outlined.

GANTT, H. L. *Organizing for work.* New York, Harcourt, Brace and Howe, 1919. 113 pp. Charts.

The author has here attempted to make clear that "those who know what to do and how to do it can most profitably be employed in teaching and training others. In other words, that they can earn their greatest reward by rendering service to their fellows as well as to their employers. It has only been recently that we have been able to get owners and managers interested in this policy, for all the cost systems of

the past have recorded such teachers as nonproducers and hence an expense that should not be allowed. Now, however, with a proper cost-keeping system supplemented by a man-record chart system, we see that they are really our most effective producers." Some of the mechanism, such as the man-record charts referred to above, used by the United States Shipping Board Emergency Fleet Corporation is explained in illustration of the author's argument that "reward according to service rendered is the only foundation on which our industrial and business system can permanently stand."

GOWIN, ENOCH BURTON. *Developing executive ability*. New York, The Ronald Press Co., 1919. 486 pp.

Sets forth the opportunity with which men in business are faced and the reason why it remains in large measure unutilized. Concrete instances, definite methods, and opinions of leading executives are presented to show how the opportunity may be utilized and a higher degree of executive skill be developed.

GUARANTY TRUST COMPANY OF NEW YORK. *Labor problems in the post-war period*, by Francis H. Sisson. New York, 140 Broadway, 1919. 6 pp. Reprinted from the *New York Times*, June 8, 1919.

The author, who is vice president of the Guaranty Trust Company, believes that in the final analysis lasting progress in the solution of the present labor problems "must rest upon a spirit of cooperation, which finds expression in a genuinely democratic control of the conditions of employment. This does not mean that the direction of enterprise can be handed over bodily to a committee of workers lacking special ability and training for managerial tasks. It does mean that neither those who receive nor those who pay wages have an exclusive right to determine the whole range of conditions under which the work of the world shall be done. In present day corporate activity in business the actual managers represent other people who supply, in whole or, usually, in part, the capital employed. Since the managers direct the human as well as the material factors in production, it might, perhaps, be well to allow the workers some direct participation in the choice of the managers."

HARVARD UNIVERSITY. *Division of education. Bureau of vocational guidance. Part-time courses in employment management and industrial training, given under the direction of the bureau, approved by the Federal Board for Vocational Education*. Cambridge, Mass., Roy Willmarth Kelly, director, Harvard Bureau of Vocational Guidance, 1919. 4 pp.

INDUSTRIAL LEAGUE FOR THE IMPROVEMENT OF RELATIONS BETWEEN EMPLOYERS AND EMPLOYED. *Distribution of the national income*, by Herbert G. Williams. Advance copy of paper to be read on August 13, at the financial section of the summer convention in Birmingham, August 12, 13, and 14, 1919. London, 66 Victoria Street S.W. 1, 1919. 6 pp.

— *Education and its relation to labor and industry*, by J. M. Mactavish. Advance copy of paper to be read on August 14, at the education section of the summer convention in Birmingham, August 12, 13, and 14, 1919. London, 66 Victoria Street, S.W. 1, 1919. 10 pp.

The author believes that "the industrial problem is primarily psychological, and not, as generally assumed, economic," and he suggests the following as educational steps towards its solution:

(a) The cultivation of a common human culture, based on a recognition of the native basis of the human mind, a basis common to all races and nations. (b) That this culture can be best imbued by qualified teachers idealizing humanity for our children in our elementary schools and rationalizing the ideal in our higher schools and universities. (c) Developing human energy by careful attention to the physical needs of our children. (d) Awakening interest in work, by a more careful selection of work suited to the bent of young persons, by liberalizing technical education, and encouraging working-class control in the industry. (e) Developing a system of adult education, controlled by a working-class educational organization, recognized by existing educational authorities, including the board of education.

INDUSTRIAL LEAGUE FOR THE IMPROVEMENT OF RELATIONS BETWEEN EMPLOYERS AND EMPLOYED. *Labor in its relation to industry*, by J. R. Clynes. *Advance copy of paper to be read on August 13, at the labor section of the summer convention in Birmingham, August 12, 13, and 14, 1919. London, 66 Victoria Street, S.W. 1, 1919. 5 pp.*

After a plea to "improve things now and leave the future to the future," the author discusses present industrial problems under headings of Joint organizations and conciliatory methods, The rewards to workmen fixed by a wrong standard, The workman's rights to greater profit from his labor, Limiting output the sure way to impoverish workmen, Prewar methods and postwar needs, Speculation which inflates prices and handicaps industry, The disadvantage to workmen of avoidable strikes, and The need for workmen being brought into closer touch with the management of their trade-union.

INTERNATIONAL GENEVA ASSOCIATION. *Hotel employees and labor unions*, by August Stender. *New York, 143 West Forty-fourth Street, 1918. 7 pp.*

A discussion of the question "Should hotel employees join the labor unions?"

INTERNATIONAL TYPOGRAPHICAL UNION. *Reports of officers and proceedings of the sixty-fourth session, held in Scranton, Pa., August 12 to 16, 1918. Indianapolis, Ind., Typographical Journal, 1918. 308, 128 pp. Supplement to the Typographical Journal.*

JOHNSON, F. ERNEST. *The new spirit in industry. New York, Association Press, 1919. 95 pp.*

Chapters discuss The labor situation, Organized labor and the war, The political labor movement, Democratizing industry, Syndicalism, and The ethics of industry. There is a foreword by Herbert N. Shenton, division chief of the Council of National Defense.

LATTIMORE, ELEANOR L., AND TRENT, RAY S. *Legal recognition of industrial women. Issued by the Industrial Committee, War Work Council of the National Board, Young Women's Christian Association, 600 Lexington Ave., New York City, 1919. 91 pp.*

This pamphlet was issued as a response to the repeated calls which came to the Industrial Committee for information as to the problems involved in the employment of women, and the legal remedies by which the regulation of these problems has been attempted. Beginning with a brief review of the change in industrial processes which has taken much of women's work out of the home and into the factory, the authors discuss the extent to which women are industrially employed, the evidence that they are working not for pin money but from necessity, and the measures which have been taken in various States for their protection.

The purpose of the discussion is not to enumerate what laws have been passed by the States to improve working conditions for women, but to point out what protective regulations are desirable, and to this end measures which have been adopted or only proposed are dealt with from the standpoint of their probable efficacy. The purpose of all protective legislation is twofold: To guard the individual woman against exploitation, and to bring women as a whole to a state of industrial development in which they will "no longer stand as possible hindrances to the steady progress toward a genuine democracy in industry." The working woman, the authors consider, is an industrial asset, but she may become a social liability unless she is given suitable protection in the industrial world. Such protection includes the regulation of working hours, provision for sanitary and fairly comfortable working conditions, prohibition of employment in certain dangerous occupations and processes, a living wage, health insurance, the right of collective bargaining, and opportunity for some training and the exercise of some choice of a pursuit. As a matter of primary justice women doing the same work as men should be paid the same wages; where certain kinds of

work are reserved exclusively for women, their lesser bargaining power should be offset by the establishment of a legal minimum wage, based upon the cost of living.

The pamphlet concludes with a brief discussion of the new type of worker evolved by war conditions, and an appeal for justice and democracy in industry.

LINK, HENRY C. *Employment psychology. The application of scientific methods to the selection, training and grading of employees.* New York, The Macmillan Co., 1919. 440 pp.

Gives an account of the use of psychological tests under working conditions in a munitions factory. Part 1 describes the methods used and the results obtained; Part 2 is devoted to trade tests and other applications of employment psychology; Part 3 considers a method by which to determine retention as well as selection; and Part 4 is a summarization in the form of a concrete plan of procedure which can serve as a guide to the employment manager who wishes to apply the results of the study.

METROPOLITAN LIFE INSURANCE COMPANY. *Welfare work for its employees. Reports for 1918.* [New York, 1919]. 18 pp.

MILLS, FREDERICK. *Labor and economics. Read before the Newport Literary Society, February 18, 1913.* London, Elkin Mathews, 1918. 44 pp. Second edition.

The author places emphasis upon the overhauling and remodeling of the educational system, better housing, and a fight against the notion of antagonism between capitalism and labor.

MODERN MEDICINE. Vol. 1, No. 5. Chicago, The Modern Hospital Publishing Co. (Inc.), September, 1919. Pp. 369-458.

An article on Jewish health work by Dr. H. J. Moss, superintendent of the Hebrew Hospital, Baltimore, outlines the aims and methods of the Jewish Health Bureau of Baltimore, which, it is stated, embrace those proposed for adoption as a national Jewish health program by the committee on health of the National Conference of Jewish Charities. That the vital importance of health to industrial and social conditions is fully realized is shown by the statement, "A recent investigation into the causes of poverty in 8,500 cases undertaken on a scale not hitherto attempted in any city, by the Bureau of State and Municipal Research of Baltimore City, revealed the astounding fact that 50 per cent of the cases of poverty were directly traceable to ill health. Does this not suggest that our whole treatment of poverty has been erroneous? Have we not been treating symptoms rather than the disease itself? Is not the time mature for radical changes in the administration of our charitable and philanthropic agencies?" Disability by age and occupation, by Boris Emmet, is a study based on an actual measurement of the disability experience of 40,000 wage earners in 42 occupations. Medical benefits and the medical profession under workmen's compensation laws, by Carl Hookstadt, considers the medical fee question, the selection of physicians by employers or employees, the distribution of the cost of medical and hospital services in workmen's compensation laws, and the regulations of the various States concerning these and other questions. Other articles are The romance of sanitary science, by James A. Tobey; A study of traumatic hernia, so called, among railway employees, by Dr. C. W. Hopkins; Uses of motion pictures in industrial medicine, by Leslie Willis Sprague; Anilin poisoning—its diagnosis and treatment, by Dr. R. P. Albaugh; The surgeon in relation to public utilities—Part II, by Dr. Charles M. Harpster; The influence of season upon the prevalence of epidemic diseases, by Dr. C. V. Craster; The value of the public health nurse to the community, by Helena R. Stewart; The mentality of convalescence, by E. A. Bott; Social service for the chronic, by Dr. S. Wachsmann; Stammering and modern medicine, by Ernest Tompkins; Repeated blood pressure readings as a conservation measure, by Dr. L. M. Bowes; How industrial medicine is extended through mutual benefit associations, by Dr. Charles H. Lemon; and American Medical Association studies health insurance. A digest of Dr. Lemon's article appears on pages 264 and 265 of this issue of the MONTHLY LABOR REVIEW.

MODERN MEDICINE. *Vol. 1, No. 4. Chicago, The Modern Hospital Publishing Co., August, 1919. Pp. 277-368.*

Articles of special interest include those entitled Constitutional foundations of Federal public health functions, by Frank J. Goodnow; Proper relations of Federal and State governments in public health work, by Allan J. McLaughlin; Wood alcohol poisoning, by R. P. Albaugh; The surgeon in relation to public utilities, by Charles M. Harpster; Occupational diseases under workmen's compensation laws, by Carl Hookstadt; Medical service for employees and their families at Endicott Johnson Corporation, by L. D. Fosbury; Seven years of employees' medical service, by Miss Jeannette King; Simple health literature for employees, by Edwin A. Hunger; Employees' hospital of Fairbanks, Morse & Co., by C. F. N. Schram; The plans and purposes of the American Public Health Association, by Lee K. Frankel; Motion pictures in public health, by Leslie Willis Sprague; Public health education, by Benzion Liber; The needless waste of man-power, by James P. Munroe; Housing development as a post-war problem in Canada, by Thomas Adams; Training for medical social work, a description of the course offered in the training school of psychiatric social work of Smith College; Normalizing the industrial cripple, by Elizabeth G. Upham; and editorials on High grade surgical service, well organized, cheapest under workmen's compensation act, and on The health center movement.

NATIONAL COMMITTEE ON PRISONS AND PRISON LABOR. *Prisons in the reconstruction period. From the proceedings of the annual meeting, February 4, 1919. New York, Broadway and 116th Streets, 1919. 56 pp. Map. Prison leaflets No. 45.*

Includes papers on The State use system in Ohio, by H. S. Riddle; The rights of prisoners to vocational training, by Dr. Charles H. Winslow; The motion picture as an educational force in the prison, by William Horton Foster; and The United States public health program for control of infectious diseases in prison, by Dr. W. A. Wilson.

NATIONAL INDUSTRIAL CONFERENCE BOARD. *Changes in the cost of living, July, 1914-July, 1919. Boston, 15 Beacon Street, September, 1919. 31 pp. Research report No. 19.*

This is the fourth report issued by the National Industrial Conference Board on changes in the cost of living, the other three being Research reports Nos. 9, 14, and 17, which were noted, respectively, in the MONTHLY LABOR REVIEW for November, 1918 (pp. 328, 329), May, 1919 (pp. 318, 319), and July, 1919 (p. 300). This report brings the information down to July, 1919, and compares conditions then with those at the outbreak of the war in 1914. The table following gives for each budget item the increase in the cost of living during the period noted and the increase in cost as related to the total budget. For purposes of comparison similar figures from the three preceding reports are included.

PER CENT OF INCREASE IN THE COST OF LIVING, JULY, 1914, TO JULY, 1919, AS REPORTED BY NATIONAL INDUSTRIAL CONFERENCE BOARD.

Item.	Relative importance in family budget.	Per cent of increase in cost over 1914 at—				Per cent of increase over 1914, as related to total budget, at—			
		June, 1918.	November, 1918.	March, 1919.	July, 1919.	June, 1918.	November, 1918.	March, 1919.	July, 1919.
Food.....	43.1	62	83	75	90	26.7	35.8	32.3	38.8
Shelter.....	17.7	15	20	22	28	2.7	3.5	3.9	5.0
Clothing.....	13.2	77.	93	81	100	10.2	12.3	10.7	13.2
Fuel and light.....	5.6	45	55	57	57	2.5	3.1	3.2	3.2
Sundries.....	20.4	50	55	55	63	10.2	11.2	11.2	12.8
Total.....	100.0					52.3	65.9	61.3	73.0

NATIONAL LEAGUE FOR WOMAN'S SERVICE. *Annual report for the year 1918, including a summary for the year 1917.* New York, 257-261 Madison Avenue, 1919. 188 pp. Illustrated.

The league came into being on January 27, 1917, at a special session of the Congress for Constructive Patriotism held in Washington under the auspices of the National Security League, being the result of a study of the work of English women made by Miss Grace Parker in 1916. Its purpose is to provide for "the organization, training and service of women volunteers, developing this service along social and economic lines as a supplemental force to governmental departments, official and unofficial organizations."

NATIONAL SAFETY COUNCIL. *Safe practices. No. 27. Drinking water, wash and locker rooms, and toilet facilities.* Chicago, 168 N. Michigan Avenue, [1919.] 16 pp. Price, 25 cents.

NATIONAL TUBERCULOSIS ASSOCIATION. *Framingham Community Health and Tuberculosis Demonstration. Schools and factories.* Framingham, Mass., September, 1919. 62 pp. Illustrated. Monograph No. 6. Sanitary Series II.

One of the series of monographs being published by a special committee of the National Tuberculosis Association in an investigation carried on in Framingham. Monographs Nos. 2, 3, and 4 were noted in the January, 1919, issue of the MONTHLY LABOR REVIEW, p. 327, and monograph No. 5 in the May, 1919, issue, p. 319. The first part of the present monograph is devoted to sanitary conditions in Framingham schools and covers the subjects of heating, ventilation, illumination, seating, toilet facilities, washing facilities, drinking water, and janitorial service in the 16 public schools of Framingham which were available for a population of approximately 3,000 children. The survey was completed in 1917. The factory survey covers 29 of the 37 industrial establishments in Framingham, all of which employ about 5,000 industrial workers. It was developed in three phases: A special study of ventilation, in certain typical plants where the questions of dust, fumes, chemicals, and general ventilation were touched upon; a special study of safety in a number of the Framingham plants; and a general sanitary study of the great majority of the Framingham industries.

PERKINS, GEORGE W. *Profit sharing or The worker's fair share. Address before the National Civic Federation, September 11, 1919.* [New York] 1919. 39 pp.

Advocates profit sharing of a kind "that is real; the kind that promotes thorough and efficient cooperation between employer and employee; the kind that makes partners of employees; the sort of profit sharing that is practiced between partners in a business." It is stated that any successful profit-sharing plan must, from the viewpoint of capital, bring "added interest in the business on the part of employees, which in turn brings higher efficiency," and, from the standpoint of the employee, must result in "a fairer remuneration for services rendered." A profit-sharing plan which has been successfully operated by several companies with which the author is connected is outlined.

PLUMB PLAN LEAGUE TO SECURE PUBLIC OWNERSHIP AND DEMOCRACY IN THE OPERATION OF THE RAILROADS. "The A. B. C. of the Plumb Plan." Washington, 447-453 Munsey Building, 1919. 8 pp.

POMEROY, J. L. *The public health nurse. Her value to the community.* Los Angeles, 1919. 20 pp.

This pamphlet by a county health officer considers briefly corporation or industrial nursing, school work, cooperation with cities, social service, health centers, and other subjects connected with public nursing and gives an outline of the different classes of work which come within the field of the public health nurse.

PORTLAND CEMENT ASSOCIATION. *The study of accidents for the year 1918.* Chicago, 111 W. Washington St., 1919. 23 pp.

A brief review of this report appears on pages 261 and 262 of this issue of the MONTHLY LABOR REVIEW.

PRINS, AD. *La Démocratie après la guerre*. Brussels, *Veuve Ferd. Larcier*, 1918. 131 pp.

A discussion of what the author believes Democracy after the war should be. Chapters deal with Democracy in 1789, Selection in the industrial world, Selection in the political world, Universal suffrage, Proportional representation, and Suggestions and conclusions. The author believes that this future Democracy must be influenced in part by factors which represent more the social than the political point of view, and says such influence may be secured in two ways: By the introduction into public bodies of a certain proportion of representatives of social or vocational interests; or by the institution of special commissions which, in certain matters, would be consulted by the regular administrative bodies.

SMITH-GORDON, LIONEL. *Cooperation for farmers*. London, *Unwin Bros. (Ltd.)*, 1918. 247 pp.

A detailed discussion of the three types of cooperation among farmers—consumers cooperation, collective purchase of materials, agricultural machinery, etc., and producers' cooperation, the latter being divided in turn into two types, i. e., the collective sale of produce where the sale is preceded by manufacture (such societies as creameries, cheese factories, etc.) and where the product is sold in its original form. The obstacles encountered and the prerequisites for success under each form of society are pointed out. Considerable space is devoted to the subject of credit societies. With regard to the relations of the Government and the agricultural cooperative movement, the writer calls attention to the possible abuses arising from Government intervention and control. It is his opinion that the attitude of the State should be that of "evoking and supplementing, but not providing a substitute for, organized self-help." Separate chapters deal with farmers' cooperation in Denmark, Germany, Ireland, and the United States.

TRAVELERS INSURANCE COMPANY. *Foremen and accident prevention*. Third edition. Hartford, Conn., 1918. 93 pp.

This booklet, based upon the company's experience in accident prevention work, is intended to be studied in connection with the previously issued companion booklet, "The employee and accident prevention," and is arranged in the same alphabetic form, each entry being a suggestion for the avoidance of accidents from a specific cause.

WALKER, JOHN H. *Labor and the League of Nations, together with Part 13 of the peace treaty. A program for world labor*. New York, *League to Enforce Peace*, 130 West Forty-second Street, 1919. 14 pp.

WELSH HOUSING AND DEVELOPMENT ASSOCIATION. *Yearbook, 1919*. Edited by D. Llewellyn Thomas. Cardiff, 38 Charles Street, 1919. 115 pp. Price, 1s. 6d. net.

A considerable amount of space is devoted to the Government proposals as to post-war housing schemes, and to summaries of the reports of various Government inquiries as to housing and cognate problems. Other features of this number are articles dealing with the housewife's claim to have her needs and conveniences studied and catered for in all future housing, the desirability of furniture of the simply beautiful and not of the useless bric-a-brac style, the possibilities of women's institutes and village clubs as agencies in the revival of country life, and the need of a "regional" treatment of the problem of South Wales. Housing and adult education and The right policy as to small holdings are titles of other articles.

WHITNEY, ALBERT W. *Safety education in the public schools. An address before the National Education Association, Milwaukee, July 4, 1919*. [Chicago] 1919. 6 pp.

In this address the author, who is chairman of the committee on education of the National Safety Council, explains the need for safety education and shows how it can be introduced in the public schools without deranging the curriculum.

WOMEN'S TRADE-UNION LEAGUE OF CHICAGO. *Annual report, June, 1917, to June, 1918*. Chicago, 1919. 14 pp. mimeographed.

SERIES OF BULLETINS PUBLISHED BY THE BUREAU OF LABOR STATISTICS.

[The publication of the annual and special reports and of the bimonthly bulletin was discontinued in July, 1912, and since that time a bulletin has been published at irregular intervals. Each number contains matter devoted to one of a series of general subjects. These bulletins are numbered consecutively beginning with No. 101, and up to No. 236 they also carry consecutive numbers under each series. Beginning with No. 237 the serial numbering has been discontinued. A list of the series is given below. Under each is grouped all the bulletins which contain material relating to the subject matter of that series. A list of the reports and bulletins of the Bureau issued prior to July 1, 1912, will be furnished on application.]

Wholesale Prices.

- Bul. 114. Wholesale prices, 1890 to 1912.
- Bul. 149. Wholesale prices, 1890 to 1913.
- Bul. 173. Index numbers of wholesale prices in the United States and foreign countries.
- Bul. 181. Wholesale prices, 1890 to 1914.
- Bul. 200. Wholesale prices, 1890 to 1915.
- Bul. 226. Wholesale prices, 1890 to 1916.

Retail Prices and Cost of Living.

- Bul. 105. Retail prices, 1890 to 1911: Part I.
Retail prices, 1890 to 1911: Part II—General tables.
- Bul. 106. Retail prices, 1890 to June, 1912: Part I.
Retail prices, 1890 to June, 1912: Part II—General tables.
- Bul. 108. Retail prices, 1890 to August, 1912.
- Bul. 110. Retail prices, 1890 to October, 1912.
- Bul. 113. Retail prices, 1890 to December, 1912.
- Bul. 115. Retail prices, 1890 to February, 1913.
- Bul. 121. Sugar prices, from refiner to consumer.
- Bul. 125. Retail prices, 1890 to April, 1913.
- Bul. 130. Wheat and flour prices, from farmer to consumer.
- Bul. 132. Retail prices, 1890 to June, 1913.
- Bul. 136. Retail prices, 1890 to August, 1913.
- Bul. 138. Retail prices, 1890 to October, 1913.
- Bul. 140. Retail prices, 1890 to December, 1913.
- Bul. 156. Retail prices, 1907 to December, 1914.
- Bul. 164. Butter prices, from producer to consumer.
- Bul. 170. Foreign food prices as affected by the war.
- Bul. 184. Retail prices, 1907 to June, 1915.
- Bul. 197. Retail prices, 1907 to December, 1915.
- Bul. 228. Retail prices, 1907 to December, 1916.
- Bul. 266. A study of family expenditures in the District of Columbia. [In press.]

Wages and Hours of Labor.

- Bul. 116. Hours, earnings, and duration of employment of wage-earning women in selected industries in the District of Columbia.
- Bul. 118. Ten-hour maximum working-day for women and young persons.
- Bul. 119. Working hours of women in the pea canneries of Wisconsin.
- Bul. 128. Wages and hours of labor in the cotton, woolen, and silk industries, 1890 to 1912.
- Bul. 129. Wages and hours of labor in the lumber, millwork, and furniture industries, 1890 to 1912.
- Bul. 131. Union scale of wages and hours of labor, 1907 to 1912.
- Bul. 134. Wages and hours of labor in the boot and shoe and hosiery and knit goods industries, 1890 to 1912.
- Bul. 135. Wages and hours of labor in the cigar and clothing industries, 1911 and 1912.
- Bul. 137. Wages and hours of labor in the building and repairing of steam railroad cars, 1890 to 1912.
- Bul. 143. Union scale of wages and hours of labor, May 15, 1913.
- Bul. 146. Wages and regularity of employment in the dress and waist industry of New York City.
- Bul. 147. Wages and regularity of employment in the cloak, suit, and skirt industry.
- Bul. 150. Wages and hours of labor in the cotton, woolen, and silk industries, 1907 to 1913.

Wages and Hours of Labor—Concluded.

- Bul. 151. Wages and hours of labor in the iron and steel industry in the United States, 1907 to 1912.
- Bul. 153. Wages and hours of labor in the lumber, millwork, and furniture industries, 1907 to 1913.
- Bul. 154. Wages and hours of labor in the boot and shoe and hosiery and underwear industries, 1907 to 1913.
- Bul. 160. Hours, earnings, and conditions of labor of women in Indiana mercantile establishments and garment factories.
- Bul. 161. Wages and hours of labor in the clothing and cigar industries, 1911 to 1913.
- Bul. 163. Wages and hours of labor in the building and repairing of steam railroad cars, 1907 to 1913.
- Bul. 168. Wages and hours of labor in the iron and steel industry in the United States, 1907 to 1913.
- Bul. 171. Union scale of wages and hours of labor, May 1, 1914.
- Bul. 177. Wages and hours of labor in the hosiery and underwear industry, 1907 to 1914.
- Bul. 178. Wages and hours of labor in the boot and shoe industry, 1907 to 1914.
- Bul. 187. Wages and hours of labor in the men's clothing industry, 1911 to 1914.
- Bul. 190. Wages and hours of labor in the cotton, woolen, and silk industries, 1907 to 1914.
- Bul. 194. Union scale of wages and hours of labor, May 1, 1915.
- Bul. 204. Street railway employment in the United States.
- Bul. 214. Union scale of wages and hours of labor, May 15, 1916.
- Bul. 218. Wages and hours of labor in the iron and steel industry, 1907 to 1915.
- Bul. 225. Wages and hours of labor in the lumber, millwork, and furniture industries, 1915.
- Bul. 232. Wages and hours of labor in the boot and shoe industry, 1907 to 1916.
- Bul. 238. Wages and hours of labor in woolen and worsted goods manufacturing, 1916.
- Bul. 239. Wages and hours of labor in cotton goods manufacturing and finishing, 1916.
- Bul. 245. Union scale of wages and hours of labor, May 15, 1917.
- Bul. 252. Wages and hours of labor in the slaughtering and meat-packing industry. [In press.]
- Bul. 259. Union scale of wages and hours of labor, May 15, 1918. [In press.]
- Bul. 260. Wages and hours of labor in the boot and shoe industry, 1907 to 1918. [In press.]
- Bul. 261. Wages and hours of labor in woolen and worsted goods manufacturing, 1918. [In press.]
- Bul. 262. Wages and hours of labor in cotton goods manufacturing and finishing, 1918. [In press.]
- Bul. 265. Industrial survey in selected industries in the United States, 1919. Preliminary report. [In press.]

Employment and Unemployment.

- Bul. 109. Statistics of unemployment and the work of employment offices in the United States.
- Bul. 172. Unemployment in New York City, N. Y.
- Bul. 182. Unemployment among women in department and other retail stores of Boston, Mass.
- Bul. 183. Regularity of employment in the women's ready-to-wear garment industries.
- Bul. 192. Proceedings of the American Association of Public Employment Offices.
- Bul. 195. Unemployment in the United States.
- Bul. 196. Proceedings of the Employment Managers' Conference held at Minneapolis, January, 1916.
- Bul. 202. Proceedings of the conference of the Employment Managers' Association of Boston, Mass., held May 10, 1916.
- Bul. 206. The British system of labor exchanges.
- Bul. 220. Proceedings of the Fourth Annual Meeting of the American Association of Public Employment Offices, Buffalo, N. Y., July 20 and 21, 1916.
- Bul. 223. Employment of women and juveniles in Great Britain during the war.
- Bul. 227. Proceedings of the Employment Managers' Conference, Philadelphia, Pa., April 2 and 3, 1917.
- Bul. 235. Employment system of the Lake Carriers' Association.
- Bul. 241. Public employment offices in the United States.
- Bul. 247. Proceedings of Employment Managers' Conference, Rochester, N. Y., May 9-11, 1918.

Women in Industry.

- Bul. 116. Hours, earnings, and duration of employment of wage-earning women in selected industries in the District of Columbia.
- Bul. 117. Prohibition of night work of young persons.
- Bul. 118. Ten-hour maximum working-day for women and young persons.
- Bul. 119. Working hours of women in the pea canneries of Wisconsin.
- Bul. 122. Employment of women in power laundries in Milwaukee.
- Bul. 160. Hours, earnings, and conditions of labor of women in Indiana mercantile establishments and garment factories.
- Bul. 167. Minimum-wage legislation in the United States and foreign countries.
- Bul. 175. Summary of the report on condition of woman and child wage earners in the United States.
- Bul. 176. Effect of minimum-wage determinations in Oregon.
- Bul. 180. The boot and shoe industry in Massachusetts as a vocation for women.
- Bul. 182. Unemployment among women in department and other retail stores of Boston, Mass.
- Bul. 193. Dressmaking as a trade for women in Massachusetts.
- Bul. 215. Industrial experience of trade-school girls in Massachusetts.
- Bul. 223. Employment of women and juveniles in Great Britain during the war.
- Bul. 253. Women in the lead industry.

Workmen's Insurance and Compensation (including laws relating thereto).

- Bul. 101. Care of tuberculous wage earners in Germany.
- Bul. 102. British National Insurance Act, 1911.
- Bul. 103. Sickness and accident insurance law of Switzerland.
- Bul. 107. Law relating to insurance of salaried employees in Germany.
- Bul. 126. Workmen's compensation laws of the United States and foreign countries.
- Bul. 155. Compensation for accidents to employees of the United States.
- Bul. 185. Compensation legislation of 1914 and 1915.
- Bul. 203. Workmen's compensation laws of the United States and foreign countries.
- Bul. 210. Proceedings of the Third Annual Meeting of the International Association of Industrial Accident Boards and Commissions.
- Bul. 212. Proceedings of the conference on social insurance called by the International Association of Industrial Accident Boards and Commissions.
- Bul. 217. Effect of workmen's compensation laws in diminishing the necessity of industrial employment of women and children.
- Bul. 240. Comparison of workmen's compensation laws of the United States.
- Bul. 243. Workmen's compensation legislation in the United States and foreign countries.
- Bul. 248. Proceedings of the Fourth Annual Meeting of the International Association of Industrial Accident Boards and Commissions.
- Bul. 264. Proceedings of the Fifth Annual Meeting of the International Association of Industrial Accident Boards and Commissions. [In press.]

Industrial Accidents and Hygiene.

- Bul. 104. Lead poisoning in potteries, tile works, and porcelain enameled sanitary ware factories.
- Bul. 120. Hygiene of the painters' trade.
- Bul. 127. Dangers to workers from dusts and fumes, and methods of protection.
- Bul. 141. Lead poisoning in the smelting and refining of lead.
- Bul. 157. Industrial accident statistics.
- Bul. 165. Lead poisoning in the manufacture of storage batteries.
- Bul. 179. Industrial poisons used in the rubber industry.
- Bul. 188. Report of British Departmental committee on danger in the use of lead in the painting of buildings.
- Bul. 201. Report of committee on statistics and compensation insurance cost of the International Association of Industrial Accident Boards and Commissions. [Limited edition.]
- Bul. 205. Anthrax as an occupational disease.
- Bul. 207. Causes of death by occupation.
- Bul. 209. Hygiene of the printing trades.
- Bul. 216. Accidents and accident prevention in machine building.
- Bul. 219. Industrial poisons used or produced in the manufacture of explosives.
- Bul. 221. Hours, fatigue, and health in British munition factories.
- Bul. 230. Industrial efficiency and fatigue in British munition factories.
- Bul. 231. Mortality from respiratory diseases in dusty trades.
- Bul. 234. Safety movement in the iron and steel industry, 1907 to 1917.
- Bul. 236. Effect of the air hammer on the hands of stonecutters.
- Bul. 251. Preventable death in the cotton manufacturing industry. [In press.]
- Bul. 253. Women in the lead industry.
- Bul. 256. Accidents and accident prevention in machine building. (Revised.) [In press.]
- Bul. 267. Anthrax as an occupational disease. (Revised.) [In press.]

Conciliation and Arbitration (including strikes and lockouts).

- Bul. 124. Conciliation and arbitration in the building trades of Greater New York.
- Bul. 133. Report of the industrial council of the British Board of Trade on its inquiry into industrial agreements.
- Bul. 139. Michigan copper district strike.
- Bul. 144. Industrial court of the cloak, suit, and skirt industry of New York City.
- Bul. 145. Conciliation, arbitration, and sanitation in the dress and waist industry of New York City.
- Bul. 191. Collective bargaining in the anthracite coal industry.
- Bul. 198. Collective agreements in the men's clothing industry.
- Bul. 233. Operation of the Industrial Disputes Investigation Act of Canada.

Labor Laws of the United States (including decisions of courts relating to labor).

- Bul. 111. Labor legislation of 1912.
- Bul. 112. Decisions of courts and opinions affecting labor, 1912.
- Bul. 148. Labor laws of the United States, with decisions of courts relating thereto.
- Bul. 152. Decisions of courts and opinions affecting labor, 1913.
- Bul. 166. Labor legislation of 1914.
- Bul. 169. Decisions of courts affecting labor, 1914
- Bul. 186. Labor legislation of 1915.
- Bul. 189. Decisions of courts affecting labor, 1915.
- Bul. 211. Labor laws and their administration in the Pacific States.
- Bul. 213. Labor legislation of 1916
- Bul. 224. Decisions of courts affecting labor, 1916.
- Bul. 229. Wage-payment legislation in the United States.
- Bul. 244. Labor legislation of 1917.
- Bul. 246. Decisions of courts affecting labor, 1917.
- Bul. 257. Labor legislation of 1918.
- Bul. 258. Decisions of courts and opinions affecting labor, 1918. - [In press.]

Foreign Labor Laws.

- Bul. 142. Administration of labor laws and factory inspection in certain European countries.

Vocational Education.

- Bul. 145. Conciliation, arbitration, and sanitation in the dress and waist industry of New York City.
- Bul. 147. Wages and regularity of employment in the cloak, suit, and skirt industry.
- Bul. 159. Short-unit courses for wage earners, and a factory school experiment.
- Bul. 162. Vocational education survey of Richmond, Va.
- Bul. 199. Vocational education survey of Minneapolis.

Labor as Affected by the War.

- Bul. 170. Foreign food prices as affected by the war.
- Bul. 219. Industrial poisons used or produced in the manufacture of explosives.
- Bul. 221. Hours, fatigue, and health in British munition factories.
- Bul. 222. Welfare work in British munition factories.
- Bul. 223. Employment of women and juveniles in Great Britain during the war.
- Bul. 230. Industrial efficiency and fatigue in British munition factories.
- Bul. 237. Industrial unrest in Great Britain.
- Bul. 249. Industrial health and efficiency. Final report of British Health of Munition Workers Committee.
- Bul. 255. Joint industrial councils in Great Britain.

Miscellaneous Series.

- Bul. 117. Prohibition of night work of young persons.
- Bul. 118. Ten-hour maximum working day for women and young persons.
- Bul. 123. Employers' welfare work.
- Bul. 158. Government aid to home owning and housing of working people in foreign countries.
- Bul. 159. Short-unit courses for wage earners, and a factory school experiment.
- Bul. 167. Minimum-wage legislation in the United States and foreign countries.
- Bul. 170. Foreign food prices as affected by the war.
- Bul. 174. Subject index of the publications of the United States Bureau of Labor Statistics up to May 1, 1915.
- Bul. 208. Profit sharing in the United States.
- Bul. 222. Welfare work in British munition factories.
- Bul. 242. Food situation in Central Europe, 1917.
- Bul. 250. Welfare work for employees in industrial establishments in the United States.
- Bul. 254. International labor legislation and the society of nations.
- Bul. 263. Housing by employers in the United States. [In press.]
- Bul. 268. Historical-survey of international action affecting labor. [In press.]

SPECIAL PUBLICATIONS ISSUED BY THE BUREAU OF LABOR STATISTICS.

Descriptions of occupations, prepared for the United States Employment Service, 1918-19.

Boots and shoes, harness and saddlery, and tanning.

Cane-sugar refining and flour milling.

Coal and water gas, paint and varnish, paper, printing trades, and rubber goods.

Electrical manufacturing, distribution, and maintenance.

Logging camps and sawmills.

Medicinal manufacturing.

Metal working, building and general construction, railroad transportation, and ship-building.

Mines and mining.

Office employees.

Slaughtering and meat packing.

Street railways.

Textiles and clothing.

Water transportation.



