PAPER AND WOOD-PULP INDUSTRY.

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SUMMARY AND ANALYSIS.

Summary for the industry.—Table 1 presents a comparative summary of the principal statistics for the industry as a whole for 1914 and 1909. This table gives separate figures for three classes of mills: (1) Mills engaged in the manufacture of paper exclusively, (2) mills making wood pulp exclusively, and (3) mills that manufacture both pulp and paper. Mills of the first class purchase all, and a majority of those in the third class purchase a part, of the pulp they use. A portion of this material is imported, but the greater part is the product of the mills making pulp exclusively or of the combined paper and pulp mills. For this reason the combined value of products and combined cost of materials include considerable duplication, amounting in 1914 to about $32,000,000 and in 1909 to about $30,000,000, these sums representing approximately the value of wood pulp of domestic origin consumed in establishments other than where produced. Since a large portion of the industry is represented by the mills that manufacture both pulp and paper, separate figures for the three classes have no great significance, and, therefore, are not shown in the other tables of this report.

The statistics do not cover the cutting or transportation of timber or pulp wood, which is often done by the pulp or paper mills, except that the expense of this work is included in the cost of materials.

Table 1

	TOTAL.		MILLS MAKING—					
			Paper only.		Pulp only.		Both paper and pulp.	
	1914	1909	1914	1909	1914	1909	1914	1909
Number of establishments	718	777	495	538	63	81	160	158
Persons engaged	95,516	81,473	46,299	40,807	5,807	6,554	43,410	34,112
Proprietors and firm members	221	250	179	215	30	26	12	9
Salaried employees	6,838	5,245	3,639	2,943	403	390	2,796	1,912
Wage earners (average number)	88,457	75,978	42,481	37,649	5,374	6,138	40,602	32,191
Primary horsepower	1,621,154	1,304,265	479,846	(1)	161,107	(1)	980,201	(1)
Capital	$534,624,600	$409,348,505	$177,413,070	$148,021,260	$36,027,869	$38,336,179	$321,183,661	$222,991,066
Salaries and wages	66,163,815	50,314,643	31,444,202	24,532,636	4,004,939	4,027,939	30,714,674	21,754,068
Salaries	12,918,176	9,510,141	6,763,344	5,255,161	749,711	652,135	5,405,121	3,602,845
Wages	53,245,639	40,804,502	24,680,858	19,277,475	3,255,228	3,375,804	25,309,553	18,151,223
Paid for contract work	539,626	527,915	114,128	(1)	44,311	(1)	381,187	(1)
Rent and taxes (including internal revenue)	4,493,053	2,637,540	1,793,242	(1)	375,666	(1)	2,324,145	(1)
Cost of materials	213,181,286	165,442,341	103,678,513	79,692,160	13,733,080	13,657,150	95,769,693	72,093,031
Value of products	332,147,175	267,656,964	158,426,850	129,381,198	20,526,386	21,567,432	153,193,939	116,708,334
Value added by manufacture (value of products less cost of materials)	118,965,889	102,214,623	54,748,337	49,689,038	6,793,306	7,910,282	57,424,246	44,615,303

[1] Figures not available.

Reports were received from 718 establishments engaged in the industry in 1914, of which 495, or 68.9 per cent, made paper only; 63, or 8.8 per cent, pulp only; and 160, or 22.3 per cent, combined both branches of the industry. In 1914, 47.7 per cent of the total value of products was made in paper mills, 6.2 per cent in pulp mills, and 46.1 per cent in combined paper and pulp mills. The corresponding proportions in 1909 were 48.3 per cent for paper mills, 8.1 per cent for pulp mills, and 43.6 per cent for combined paper and pulp mills. The 160 establishments reported for 1914 and the 158 for 1909 as engaged in the manufacture of both paper and pulp include a number of pulp mills and paper mills operated as separate units but under the same ownership. In some of these cases the pulp mills sold a portion of their product, while in others the pulp was all used in the paper mills owned by the same companies.

The decrease of 59 in the number of establishments reported for the industry as a whole for the period from 1909 to 1914 is accounted for to a considerable extent by the fact that the practice of counting two or more mills operated under the same ownership as one establishment was more generally followed at the census of 1914 than at the census of 1909.

The cost of materials represented about two-thirds the total value of products in 1914, the proportion for the combined paper and pulp mills being somewhat smaller than for the other two groups.

The total value of products in 1914 includes $2,482,038, the value of bags manufactured; $1,205,118, the value of paper boxes; and $5,193,834, the value of other products, consisting principally of roofing materials, dyestuffs and extracts, and miscellaneous paper goods. On the other hand, in addition to the total value of products shown in Table 1, paper to the value of $2,767,407 was reported by establishments engaged primarily in other industries.

Comparison with earlier censuses.—A summary of the paper and wood-pulp industry as a whole is given in Table 2 for each census from 1869 to 1914, inclusive.

The financial figures for 1869 are given in currency, which at that time was worth only about 80 cents, gold, to the dollar. For strict comparison, therefore, these figures should be reduced about 20 per cent.

The industry has made a remarkable growth in the last forty-five years and shows substantial increases at each successive census in the most important items shown in Table 2. The decrease in the number of establishments between 1909 and 1914 has already been explained and the decrease in number of proprietors and firm members is accounted for in part by the change of some establishments from noncorporate to corporate ownership. The relative increase in cost of materials since the census of 1899 has been somewhat greater than the relative increase in value of products, and considerably greater than that in value added by manufacture. In 1914 the value added by manufacture was 35.8 per cent of the total value of products, as compared with 38.2 per cent in 1909, 41 per cent in 1904, and 44.6 per cent in 1899.

Table 2

	NUMBER OR AMOUNT.							PER CENT OF INCREASE.[1]					
	1914	1909	1904	1899	1889	1879	1869	1909–1914	1904–1914	1899–1909	1889–1899	1879–1889	1869–1879
Number of establishments	718	777	761	763	649	742	677	−7.6	−5.7	1.8	17.6	−12.5	9.6
Persons engaged	95,516	81,473	70,051	53,012	(2)	(2)	(2)	17.2	36.4	53.7	.....	.....	.....
Proprietors and firm members	221	250	309	431	(2)	(2)	(2)	−11.6	−28.5	−42.0	.....	.....	.....
Salaried employees	6,838	5,245	3,778	2,935	(2)	(2)	(2)	30.4	81.0	78.7	.....	.....	.....
Wage earners (average number)	88,457	75,978	65,964	49,646	31,050	25,631	18,021	16.4	34.1	53.0	(3)	(3)	(3)
Primary horsepower	1,621,154	1,304,265	1,093,708	762,118	297,724	(2)	54,287	24.3	48.2	71.1	156.0	.....	.....
Capital	$534,024,600	$409,348,505	$277,444,471	$167,507,713	$89,529,548	$48,139,652	$34,556,014	30.6	92.7	144.4	86.5	85.6	39.3
Salaries and wages	66,163,815	50,314,643	38,116,244	25,247,337	14,975,485	8,970,133	7,208,691	31.5	73.6	99.3	68.6	66.9	24.4
Salaries	12,918,176	9,510,141	6,097,032	4,500,911	(2)	(2)	(2)	35.8	111.9	111.3	.....	.....	.....
Wages	53,245,639	40,804,502	32,019,212	20,746,426	(2)	(2)	(2)	30.5	66.3	96.7	.....	.....	.....
Paid for contract work	539,626	527,915	118,403	320,846	(2)	(2)	(2)	2.2	355.8	64.5	.....	.....	.....
Rent and taxes (including internal revenue)	4,493,053	2,637,540	[4] 1,582,116	[4] 1,336,215	(2)	(2)	(2)	70.4	.....	.....	.....	.....	.....
Cost of materials	213,181,286	165,442,341	111,251,478	70,530,236	44,228,480	34,882,132	30,058,563	28.9	91.6	134.6	59.5	26.9	16.0
Value of products	332,147,175	267,656,964	188,715,189	127,326,162	78,937,184	57,366,860	48,849,285	24.1	76.0	110.2	61.3	37.6	17.4
Value added by manufacture (value of products less cost of materials)	118,965,889	102,214,623	77,463,711	56,795,926	34,708,704	22,504,728	18,790,722	16.4	53.6	80.0	63.6	54.2	19.8

[1] A minus sign (−) denotes decrease. [2] Figures not available. [3] Figures not strictly comparable. [4] Exclusive of internal revenue.

Summary, by states.—Table 3 presents, by states, the number of establishments, number of wage earners, value of products, and value added by manufacture, the states being arranged according to the value of products reported for 1914. The per cent distribution for 1914, the rank of the states in 1909 and 1914, and the per cent of increase for each of the 5-year periods 1909–1914, 1904–1909, and 1899–1904, are also shown.

Statistics for California, North Carolina, Oregon, and Washington, each of which reported products to the value of more than $1,000,000, could not be shown separately in the table without disclosing the operations of individual establishments.

Table 3

STATE.	PAPER AND WOOD PULP: 1914.												PER CENT OF INCREASE.[1]								
	Number of establishments.	Wage earners.				Value of products.				Value added by manufacture.				Wage earners (average number).			Value of products.			Value added by manufacture.		
		Average number.	Per cent distribution.	Rank.		Amount.	Per cent distribution.	Rank.		Amount.	Per cent distribution.	Rank.		1909–1914	1904–1909	1899–1904	1909–1914	1904–1909	1899–1904	1909–1914	1904–1909	1899–1904
				1914	1909			1914	1909			1914	1909									
United States	718	88,457	100.0	.....	.....	$332,147,175	100.0	.....	.....	$118,965,889	100.0	.....	.....	16.4	15.2	32.9	24.1	41.8	48.2	16.4	32.0	36.4
New York	150	13,570	15.4	1	2	56,335,681	17.0	1	1	20,405,222	17.2	1	2	12.4	−2.8	34.0	15.3	29.4	41.3	19.4	14.4	23.0
Massachusetts	86	13,401	15.2	2	1	43,352,545	13.1	2	2	16,741,797	14.1	2	1	4.3	9.8	29.2	8.1	25.3	44.6	−5.7	26.2	37.6
Maine	38	10,033	11.3	3	3	40,179,744	12.1	3	3	14,721,777	12.4	3	3	16.0	14.2	56.1	18.3	47.9	73.6	9.5	48.0	48.8
Wisconsin	58	8,968	10.1	4	4	31,205,395	9.4	4	4	10,637,307	8.9	4	4	20.1	17.8	49.5	20.2	45.5	63.8	14.8	29.6	71.0
Pennsylvania	53	7,447	8.4	5	5	25,439,346	7.7	5	5	9,392,789	7.9	5	5	11.9	12.7	22.0	28.0	29.0	25.6	10.8	22.8	17.1
Ohio	48	5,430	6.1	7	6	23,284,192	7.0	6	6	7,174,918	6.0	7	6	16.2	20.3	22.0	37.2	54.8	67.5	18.3	26.2	73.3
Michigan	37	6,051	6.9	6	7	22,049,990	6.6	7	8	7,505,045	6.3	6	7	39.8	41.8	51.5	58.4	89.6	74.0	53.2	77.4	82.8
New Hampshire	30	3,905	4.4	8	8	17,708,138	5.3	8	7	5,171,062	4.3	8	8	14.4	35.3	5.5	26.5	56.7	23.3	9.1	31.6	9.4
New Jersey	33	2,927	3.3	9	9	10,931,431	3.3	9	9	3,750,166	3.2	9	9	31.7	36.5	36.9	44.7	49.8	57.8	34.6	37.8	36.6
Illinois	21	1,704	1.9	11	12	6,951,794	2.1	10	12	2,686,784	2.3	10	11	22.0	45.7	53.9	39.5	104.0	70.6	42.6	83.4	62.0
Indiana	24	1,620	1.8	13	11	6,233,536	1.9	11	11	1,919,667	1.6	16	12	7.9	−7.3	−10.8	19.8	32.8	−6.1	12.6	21.8	−17.6
Maryland	13	1,586	1.8	14	13	6,149,505	1.9	12	13	2,023,778	1.7	13	13	27.0	23.9	7.6	25.6	48.5	27.3	25.2	91.7	−1.9
Connecticut	44	1,898	2.1	10	10	5,968,797	1.8	13	10	1,961,803	1.6	15	10	10.3	−1.7	22.8	8.0	9.7	41.3	−11.8	−3.3	45.4
Minnesota	8	1,345	1.5	15	19	5,572,537	1.7	14	19	2,327,583	2.0	11	19	121.6	53.3	.....	133.6	108.1	.....	145.7	101.9	.....
Virginia	8	1,260	1.4	17	17	5,501,084	1.7	15	15	2,077,553	1.7	12	14	38.2	8.2	228.8	50.4	20.5	256.9	37.7	21.2	183.6
Vermont	23	1,264	1.4	16	15	4,776,387	1.4	16	14	1,772,022	1.5	17	16	22.7	−19.5	5.3	22.4	1.9	13.2	22.5	12.1	−24.1
West Virginia	8	1,033	1.2	18	14	2,804,429	0.8	20	17	1,069,639	0.9	20	18	−11.1	113.2	94.0	5.7	104.3	145.8	10.4	80.1	111.8
Delaware	7	591	0.7	21	21	2,483,785	0.7	21	20	730,636	0.6	22	21	8.2	−0.2	21.3	8.4	20.3	19.1	3.7	11.0	11.0
Kansas	3	239	0.3	24	25	609,736	0.2	24	25	206,626	0.2	24	26	.....	.....	.....	179.7	7.9	.....	.....	−21.0	.....
Iowa	3	87	0.1	28	23	280,110	0.1	27	24	97,248	0.1	29	24	−57.6	34.9	−15.6	−36.0	72.7	3.7	−37.9	27.9	−10.9
All other states	23	4,098	4.6	.....	.....	14,329,013	4.3	.....	.....	6,592,467	5.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

[1] Percentages are based on figures in Table 26. A minus sign (−) denotes decrease. Percentages are omitted where base is less than 100 for wage earners or less than $100,000 for value of products or value added by manufacture, or where comparable figures can not be given.

The four leading states in the paper and wood-pulp industry in 1914—New York, Massachusetts, Maine, and Wisconsin—together reported more than one-half the total value of products. Thirty states reported establishments engaged in this industry in 1914 and 31 in 1909. Iowa is the only state for which separate figures are given that reported a decrease in value of products in 1914 as compared with 1909; 2 states—Iowa and West Virginia—reported fewer wage earners; and 3—Connecticut, Iowa, and Massachusetts—show decreases in value added by manufacture. Michigan made the greatest actual increase in value of products in 1914 as compared with 1909, amounting to $8,127,866, or 58.4 per cent. Both Minnesota and Kansas, however, show greater percentages of increase for that period.

Persons engaged in the industry.—Table 4 shows the number of persons engaged in the paper and wood-pulp industry in 1914 and 1909, classified according to occupational status and sex, and in the case of wage earners according to age, together with the percentages of males and females in each class. It should be borne in mind that the sex and age classification of the average number of wage earners in this and other tables is an estimate obtained by the method described in the "Explanation of terms."

Table 4

CLASS.	Census year.	PERSONS ENGAGED IN THE INDUSTRY. Total.	Male.	Female.	Per cent of total. Male.	Female.
All classes	1914	95,516	85,022	10,494	89.0	11.0
	1909	81,473	70,916	10,557	87.0	13.0
Proprietors and officials	1914	2,425	2,393	32	98.7	1.3
	1909	2,298	2,269	29	98.7	1.3
Proprietors and firm members	1914	221	205	16	92.8	7.2
	1909	250	232	18	92.8	7.2
Salaried officers of corporations	1914	887	877	10	98.9	1.1
	1909	773	766	7	99.1	0.9
Superintendents and managers	1914	1,317	1,311	6	99.5	0.5
	1909	1,275	1,271	4	99.7	0.3
Clerks and other subordinate salaried employees	1914	4,634	3,540	1,094	76.4	23.6
	1909	3,197	2,393	804	74.9	25.1
Wage earners (average number)	1914	88,457	79,089	9,368	89.4	10.6
	1909	75,978	66,254	9,724	87.2	12.8
16 years of age and over	1914	88,351	79,018	9,333	89.4	10.6
	1909	75,721	66,151	9,570	87.4	12.6
Under 16 years of age	1914	106	71	35	67.0	33.0
	1909	257	103	154	40.1	59.9

The average number of persons engaged in the industry in 1914 was 95,516, of whom 89 per cent were males and 11 per cent were females, the corresponding percentages in 1909 being 87 and 13, respectively. The number of females employed was insignificant in the several subgroups making up the group of proprietors and officials; but this sex represented 23.6 per cent of the total number of clerks and other subordinate salaried employees and 10.6 per cent of the total number of wage earners in 1914. It will be noted that the proportion of females shows a decrease between 1909 and 1914 in each of the two classes last mentioned, and that the actual number of female wage earners decreased. At the earlier census about three-fifths of the total wage earners under 16 years of age were females, but by 1914 the proportion of females in this class had fallen to one-third. The actual number of wage earners under 16, of both sexes, was very small at both censuses, and decreased greatly during the five-year period.

Table 5 shows the per cent of increase in the number of persons engaged in the industry, by occupational status and sex, for the period 1909–1914, together with the per cent distribution for the two years.

Table 5

CLASS.	PERSONS ENGAGED IN THE INDUSTRY. Per cent of increase,[1] 1909–1914. Total.	Male.	Female.	Per cent distribution. Total. 1914	Total. 1909	Male. 1914	Male. 1909	Female. 1914	Female. 1909
All classes	17.2	19.9	−0.4	100.0	100.0	100.0	100.0	100.0	100.0
Proprietors and officials	5.5	5.5	.....	2.5	2.8	2.8	3.2	0.3	0.3
Proprietors and firm members	−11.6	−11.6	.....	0.2	0.3	0.2	0.3	0.2	0.2
Salaried officers of corporations	14.7	14.5	.....	0.9	0.9	1.0	1.1	0.1	0.1
Superintendents and managers	3.3	3.2	.....	1.4	1.6	1.5	1.8	0.1	(2)
Clerks and other subordinate salaried employees	44.9	47.9	36.1	4.9	3.9	4.2	3.4	10.4	7.6
Wage earners (average number)	16.4	19.4	−3.7	92.6	93.3	93.0	93.4	89.3	92.1
16 years of age and over	16.7	19.4	−2.5	92.5	92.9	93.0	93.3	88.9	90.6
Under 16 years of age	−58.8	−31.1	−77.3	0.1	0.3	0.1	0.1	0.3	1.5

[1] A minus sign (−) denotes decrease; percentages are omitted where base is less than 100.

[2] Less than one-tenth of 1 per cent.

The total number of persons engaged in the industry increased by 14,043, or 17.2 per cent, during the period 1909–1914. The number of males increased by 19.9 per cent, while the number of females decreased by

four-tenths of 1 per cent. Of the several classes, clerks and other subordinate salaried employees showed the greatest proportionate increase, 44.9 per cent.

The proportion which wage earners represented of the total number of persons engaged decreased slightly between 1909 and 1914, the decrease being considerably greater in the case of females than in that of males.

In order to compare the distribution of persons engaged in the industry in 1914 with that shown at the census of 1904, it is necessary to use the classification employed at the earlier census. (See "Explanation of terms.") Table 6 makes this comparison according to occupational status.

Table 6

CLASS.	PERSONS ENGAGED IN THE INDUSTRY.							
	Number.			Per cent distribution.			Per cent of increase.[1]	
	1914	1909	1904	1914	1909	1904	1909–1914	1904–1909
Total	95,516	81,473	70,051	100.0	100.0	100.0	17.2	16.3
Proprietors and firm members	221	250	309	0.2	0.3	0.4	−11.6	−19.1
Salaried employees	6,838	5,245	3,778	7.2	6.4	5.4	30.4	38.8
Wage earners (average number)	88,457	75,978	65,964	92.6	93.3	94.2	16.4	15.2

[1] A minus sign (−) denotes decrease.

Salaried employees show the greatest per cent of increase during both five-year periods, while considerable decreases appear for proprietors and firm members. The percentages of increase in number of wage earners during the two periods did not differ greatly.

Wage earners employed, by months.—Table 7 presents, for 1914, 1909, and 1904, the number of wage earners engaged in the industry, by months, together with the per cent which the number employed in each month forms of the maximum for the year. The figures for 1914 and 1909 represent the number employed on the 15th of each month, or the nearest representative day, but those for 1904 are the average numbers employed during the respective months.

Table 7

MONTH.	WAGE EARNERS IN THE INDUSTRY.					
	Number.[1]			Per cent of maximum.		
	1914	1909	1904	1914	1909	1904
January	89,140	74,986	63,797	99.1	96.8	94.2
February	89,235	75,780	63,284	99.2	97.9	93.4
March	89,756	76,291	65,100	99.8	98.5	96.1
April	89,916	75,983	65,878	100.0	98.1	97.3
May	89,633	77,013	67,504	99.7	99.5	99.7
June	88,389	76,829	67,175	98.3	99.2	99.2
July	87,061	75,009	66,157	96.8	96.9	97.7
August	86,725	74,517	66,771	96.5	96.2	98.6
September	88,847	75,147	67,315	98.8	97.1	99.4
October	88,830	76,026	67,724	98.8	98.2	100.0
November	87,018	76,717	66,393	96.8	99.1	98.0
December	86,934	77,430	64,470	96.7	100.0	95.2

[1] The figures for 1914 and 1909 represent the number employed on the 15th of each month, or the nearest representative day; those for 1904, the average number employed during the month.

In 1914 the maximum number employed was 89,916 in April, but in 1909, December, with 77,430, was the month of maximum employment, and in 1904, October, with 67,724. The minimum month was August in 1914 and 1909, and February in 1904. The number of wage earners in this industry shows very little change from month to month, the minimum being only 3.5 per cent less than the maximum in 1914, 3.8 per cent less in 1909, and 6.6 per cent less in 1904.

Table 8 gives the number of wage earners employed in the industry on the 15th (or nearest representative day) of each month during the year 1914, for the United States as a whole and for each state in which the average number of wage earners employed during the year was 500 or more.

Table 8

WAGE EARNERS: 1914.
[Month of maximum employment for each state is indicated by **boldface** figures and that of minimum by *italic* figures.]

STATE.	Average number employed during year.	Number employed on 15th day of the month or nearest representative day.											Per cent minimum is of maximum.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
United States	88,457	89,140	89,235	89,756	**89,916**	89,633	88,389	87,061	*86,725*	88,847	88,830	87,018	86,934	96.5
Connecticut	1,898	1,944	1,926	1,930	**1,946**	1,939	1,909	1,891	*1,821*	1,842	1,867	1,869	1,892	93.6
Delaware	591	593	582	586	583	*578*	584	580	600	**618**	599	601	583	93.5
Illinois	1,704	1,707	*1,592*	1,662	1,731	1,651	1,707	1,723	1,775	**1,792**	1,713	1,696	1,699	88.8
Indiana	1,620	1,651	1,640	1,657	**1,670**	1,652	1,617	*1,528*	1,619	1,669	1,590	1,576	1,571	91.5
Maine	10,033	10,030	9,946	9,977	10,097	10,129	10,166	**10,342**	10,141	10,175	10,046	9,802	*9,545*	92.3
Maryland	1,586	1,574	*1,500*	1,576	1,642	1,623	1,549	1,548	1,569	1,624	**1,662**	1,564	1,601	90.3
Massachusetts	13,401	13,540	13,512	13,644	13,503	**13,658**	13,351	13,169	*13,055*	13,490	13,479	13,176	13,235	95.6
Michigan	6,051	5,910	*5,870*	6,028	5,955	6,074	6,083	6,095	6,089	6,060	6,215	6,111	6,122	94.4
Minnesota	1,345	1,389	**1,467**	1,437	1,413	1,366	1,306	1,303	*1,261*	1,284	1,336	1,317	*1,261*	86.0
New Hampshire	3,905	4,024	3,992	4,047	3,956	3,905	3,813	3,824	*3,762*	3,913	3,781	3,857	3,986	93.0
New Jersey	2,927	2,936	2,903	2,899	**2,994**	2,931	2,920	2,933	2,944	2,939	2,927	*2,898*	2,900	96.8
New York	13,570	13,675	13,971	13,780	14,104	14,061	13,584	12,992	*12,930*	13,615	13,394	13,239	13,495	91.7
North Carolina	991	1,039	1,024	1,019	1,006	989	984	967	985	991	958	974	*956*	92.0
Ohio	5,430	5,456	5,479	5,534	5,480	5,494	**5,534**	5,338	5,427	5,499	5,508	5,307	*5,104*	92.2
Oregon	1,163	1,390	1,272	1,318	1,224	1,201	1,033	*946*	1,025	1,031	1,159	1,167	1,140	68.1
Pennsylvania	7,447	7,533	7,567	7,521	**7,607**	7,417	7,390	7,369	7,366	7,488	7,513	7,331	*7,262*	95.5
Vermont	1,264	1,220	1,185	1,212	1,263	1,300	1,244	1,235	*950*	**1,429**	1,422	1,343	1,365	66.5
Virginia	1,260	1,351	1,327	1,224	1,227	*1,214*	1,228	1,233	1,272	1,297	1,261	1,245	1,241	89.9
Washington	877	971	886	863	862	862	880	*844*	929	872	857	849	849	86.9
West Virginia	1,033	1,035	1,092	1,071	1,125	1,128	1,071	1,029	*958*	971	965	974	977	84.9
Wisconsin	8,968	*8,761*	9,141	**9,349**	9,082	9,030	8,948	8,770	8,868	8,878	9,182	8,777	8,840	93.6

Although April was the month of maximum employment for the industry as a whole, only five states—Connecticut, Indiana, New Jersey, New York, and Pennsylvania—reported the maximum number of wage earners in that month. Four states employed the greatest number in January, three each in March and September, two each in May and October, and one each in February, June, and July. Ohio reported the maximum, 5,534, in two months, March and June. August was the month of minimum employment in seven states, December in five states, February and July in three states each, May in two states, and January and November in one each. Minnesota reported the minimum number, 1,261, in two months, August and December.

Prevailing hours of labor.—In Table 9 the wage earners in the industry as a whole, in 1914 and 1909, have been classified according to the number of hours of labor per week prevailing in the establishments in which they were employed. In making this classification the average number of wage earners employed during the year in each establishment was classified as a total according to the hours prevailing in that establishment, even though a few employees worked a greater or a smaller number of hours.

Table 9

STATE.	Census year.	AVERAGE NUMBER OF WAGE EARNERS.							
		Total.	In establishments where the prevailing hours of labor per week were—						
			48 and under.	Between 48 and 54.	54	Between 54 and 60.	60	Between 60 and 72.	72 and over.
United States	1914	88,457	10,624	5,581	12,702	10,427	18,993	13,692	16,438
	1909	75,978	5,595	6,063	3,448	6,592	22,941	14,882	16,457
Connecticut	1914	1,898	100	179	79	288	417	504	331
	1909	1,720	.....	.....	229	112	542	567	270
Delaware	1914	591	.....	.....	.....	3	474	18	96
	1909	546	.....	.....	.....	.....	.....	286	260
Illinois	1914	1,704	.....	.....	231	.....	227	593	653
	1909	1,397	.....	.....	.....	189	446	138	624
Indiana	1914	1,620	128	.....	.....	.....	658	249	585
	1909	1,501	.....	.....	.....	.....	263	141	1,097
Maine	1914	10,033	1,666	1,677	3,753	2,221	12	421	283
	1909	8,647	1,011	2,775	1,992	236	841	667	1,125
Maryland	1914	1,586	.....	.....	51	.....	356	.....	1,179
	1909	1,249	.....	.....	.....	.....	83	1,103	63
Massachusetts	1914	13,401	5,171	1,705	3,149	2,006	620	563	187
	1909	12,848	944	386	848	3,697	4,023	2,425	525
Michigan	1914	6,051	.....	278	1,016	623	1,482	1,514	1,138
	1909	4,327	.....	.....	.....	225	2,534	1,084	484
Minnesota	1914	1,345	.....	.....	.....	.....	900	.....	445
	1909	607	.....	.....	.....	.....	77	448	82
New Hampshire	1914	3,905	915	1,114	270	780	22	479	325
	1909	3,413	1,282	508	.....	446	651	244	282
New Jersey	1914	2,927	.....	.....	78	789	438	707	915
	1909	2,223	12	.....	.....	394	194	726	897
New York	1914	13,570	1,672	.....	2,671	680	3,380	2,578	2,589
	1909	12,073	1,295	1,979	279	502	2,656	2,563	2,799
North Carolina	1914	991	.....	.....	.....	.....	.....	120	.....
	1909	825	.....	.....	.....	.....	.....	.....	871
Ohio	1914	5,430	.....	.....	829	344	829	2,042	1,395
	1909	4,673	.....	.....	.....	468	1,498	1,233	1,474
Oregon	1914	1,163	.....	.....	423	343	.....	.....	397
	1909	988	.....	.....	.....	.....	347	641	.....
Pennsylvania	1914	7,447	.....	2	29	1,016	3,244	1,513	1,643
	1909	6,656	122	.....	100	168	3,643	91	2,532
Vermont	1914	1,264	211	626	123	136	40	99	29
	1909	1,030	268	415	.....	35	203	51	58
Virginia	1914	1,260	.....	.....	.....	.....	286	45	929
	1909	912	.....	.....	.....	63	655	.....	194
Washington	1914	877	.....	.....	.....	485	.....	.....	392
	1909	556	.....	.....	.....	.....	.....	556	.....
West Virginia	1914	1,033	.....	.....	.....	66	666	.....	301
	1909	1,162	.....	.....	.....	57	680	329	96
Wisconsin	1914	8,968	378	.....	.....	485	4,473	2,136	1,496
	1909	7,467	661	.....	.....	.....	3,195	1,442	2,169

The majority of the paper mills are in continuous operation during the entire 24 hours of each day, although some of them suspend work on Sunday. The usual practice in such establishments is to have two shifts of employees working 12 hours each, or a day shift working 11 hours and a night shift working 13. The same establishments, however, usually employ firemen, pickers, and unskilled laborers in shifts of 8 or 10 hours a day. Each mill thus operating shifts of different lengths was, as a rule, assigned to the group represented by the average time of operation per week, obtained by adding the number of hours per week worked by the several shifts and dividing the total by the number of shifts.

In 1914, 65.9 per cent of the wage earners were employed in establishments where the prevailing hours of labor were 60 or less per week, as compared with 58.8 per cent in 1909. New York, Massachusetts, and Maine, the only states which reported averages of more than 10,000 wage earners in 1914, all show substantial decreases in the numbers of wage earners working in establishments where the prevailing hours of labor were over 60 per week.

Character of ownership.—Table 10 presents, for 1914 and 1909, statistics in respect to the character of ownership—as individual, corporate, or other—of the paper and pulp mills in the United States.

The mills under corporate ownership represented 84.7 per cent of the total number of establishments in 1914, as against 81.5 per cent in 1909. These mills reported, for 1914, 94.5 per cent of the total average number of wage earners, 95 per cent of the total value of products, and 94.5 per cent of the total value added by manufacture; the corresponding percentages for

1909 being 92.1, 92.8 and 90.9, respectively. Establishments under individual ownership show decreases for the five-year period in all items shown in Table 10; and for establishments under other forms of ownership decreases appear in all items with the exception of value of products, which increased by 6.7 per cent.

Table 10
CHARACTER OF OWNERSHIP.

	Census year.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
Total	1914	718	88,457	$332,147,175	$118,965,889
	1909	777	75,978	267,656,964	102,214,623
Individual	1914	49	857	2,634,573	961,751
	1909	71	1,912	5,990,893	3,443,407
Corporation	1914	608	83,557	315,401,140	112,411,490
	1909	633	69,965	248,435,331	92,946,069
All other	1914	61	4,043	14,111,462	5,592,648
	1909	73	4,101	13,230,740	5,825,147
Per cent distribution:					
Individual	1914	6.8	1.0	0.8	0.8
	1909	9.1	2.5	2.2	3.4
Corporation	1914	84.7	94.5	95.0	94.5
	1909	81.5	92.1	92.8	90.9
All other	1914	8.5	4.6	4.2	4.7
	1909	9.4	5.4	4.9	5.7

Establishments under corporate ownership predominate in number, average number of wage earners, value of products, and value added by manufacture in all states which employed over 500 wage earners. Establishments under this form of ownership reported over 90 per cent of the wage earners and value of products in each of these states, with the exceptions of Maine and Massachusetts, for which the percentages were 86.5 and 88.9 for wage earners and 88.9 and 86.7 for value of products, respectively.

Classification according to size.—Table 11 gives, for 1914 and 1909, the number of establishments, average number of wage earners, value of products, and value added by manufacture, with per cent distributions, for establishments grouped according to the value of their products.

The great bulk of the products—97.1 per cent in 1914 and 95.5 per cent in 1909, as measured by value—came from establishments whose annual output was valued at $100,000 or more. The most important group in each year was that comprising establishments with products valued at $100,000 to $1,000,000, but the relative importance of this group decreased during the 5-year period, while that of the group of establishments with products valued at $1,000,000 and over increased.

The average value of products per establishment increased from $344,475 in 1909 to $462,601 in 1914; the average value added by manufacture, from $131,550 in 1909 to $165,691 in 1914; and the average number of wage earners per establishment, from 98 in 1909 to 123 in 1914.

Table 11
VALUE OF PRODUCT.

	Census year.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
Total	1914	718	88,457	$332,147,175	$118,965,889
	1909	777	75,978	267,656,964	102,214,623
Less than $5,000	1914	10	20	31,787	16,952
	1909	20	49	64,416	28,968
$5,000 to $20,000	1914	44	330	580,160	275,052
	1909	57	466	719,516	322,819
$20,000 to $100,000	1914	159	3,399	9,287,827	3,389,035
	1909	203	4,415	11,354,011	4,757,258
$100,000 to $1,000,000	1914	437	49,882	174,899,873	61,646,087
	1909	447	48,532	161,938,623	61,229,578
$1,000,000 and over	1914	68	34,826	147,347,528	53,638,783
	1909	50	22,516	93,580,398	35,876,000
Per cent distribution:					
Less than $5,000	1914	1.4	(1)	(1)	(1)
	1909	2.6	0.1	(1)	(1)
$5,000 to $20,000	1914	6.1	0.4	0.2	0.2
	1909	7.3	0.6	0.3	0.3
$20,000 to $100,000	1914	22.1	3.8	2.8	2.8
	1909	26.1	5.8	4.2	4.7
$100,000 to $1,000,000	1914	60.9	56.4	52.7	51.8
	1909	57.5	63.9	60.5	59.9
$1,000,000 and over	1914	9.5	39.4	44.4	45.1
	1909	6.4	29.6	35.0	35.1

[1] Less than one-tenth of 1 per cent.

Classification by number of wage earners.—Table 12 classifies the establishments and wage earners in the United States as a whole and in the 21 leading states in the industry according to the number of wage earners per establishment for the years 1914 and 1909.

Of the total number of wage earners, 71,306, or 80.6 per cent, were reported for 1914, and 55,898, or 73.6 per cent, for 1909, by establishments which employed more than 100 wage earners The most important group at each census was that comprising establishments which employed from 101 to 250 wage earners. This group reported more than one-third the total number of wage earners in both 1914 and 1909. Each of the four groups of establishments which employed not more than 100 wage earners shows a decrease both in number of establishments and in number of wage earners in 1914 as compared with 1909. On the other hand, each of the four groups of establishments employing more than 100 wage earners increased both in number of establishments and in number of wage earners.

It is noteworthy that two of the five establishments employing more than 1,000 wage earners in 1914 were located in Maine, which ranked third among the states in total number of wage earners, and that the remaining three of these establishments were located one each in Pennsylvania, Ohio, and Maryland, which ranked fifth, seventh, and thirteenth, respectively.

The average number of wage earners per establishment in 1914, for the United States as a whole, was 123. The greatest average for any one state was 330, for North Carolina. This state, however, reported but three establishments and ranked only nineteenth in

total number of wage earners. For New York, Massachusetts, and Maine—the leading three states in the industry—the averages per establishment in 1914 were 90, 156, and 264, respectively.

Table 12

STATE.	Census year.	TOTAL.		ESTABLISHMENTS EMPLOYING—															
				1 to 5 wage earners.		6 to 20 wage earners.		21 to 50 wage earners.		51 to 100 wage earners.		101 to 250 wage earners.		251 to 500 wage earners.		501 to 1,000 wage earners.		Over 1,000 wage earners.	
		Establishments.	Wage earners (average number).	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.
United States.	1914	718	88,457	29	95	114	1,540	172	5,856	134	9,660	183	29,991	60	20,630	21	14,615	5	6,070
	1909	777	75,978	36	112	157	2,119	196	6,567	156	11,282	166	27,473	49	16,457	16	10,906	1	1,062
Connecticut	1914	44	1,898	.....	.....	15	179	19	611	6	447	4	661	.....	.....	.....	.....	.....	.....
	1909	51	1,720	6	23	19	254	19	701	4	324	3	418	.....	.....	.....	.....	.....	.....
Delaware	1914	7	591	1	3	2	26	.....	.....	1	88	3	474	.....	.....	.....	.....	.....	.....
	1909	6	546	.....	.....	2	29	.....	.....	1	88	3	429	.....	.....	.....	.....	.....	.....
Illinois	1914	21	1,704	.....	.....	.....	.....	9	292	7	485	5	927	.....	.....	.....	.....	.....	.....
	1909	19	1,397	1	5	4	56	6	229	4	302	3	529	1	276	.....	.....	.....	.....
Indiana	1914	24	1,620	.....	.....	2	27	10	375	6	427	6	791	.....	.....	.....	.....	.....	.....
	1909	27	1,501	.....	.....	3	54	10	298	11	790	3	359	.....	.....	.....	.....	.....	.....
Maine	1914	38	10,033	1	5	3	40	5	178	8	599	13	2,446	.....	.....	6	4,230	2	2,535
	1909	45	8,647	1	2	5	56	11	382	7	576	10	1,794	6	2,058	4	2,717	1	1,062
Maryland	1914	13	1,586	2	6	4	39	3	107	1	51	2	330	.....	.....	.....	.....	1	1,053
	1909	13	1,249	3	8	3	34	4	134	.....	.....	2	340	.....	.....	1	733	.....	.....
Massachusetts	1914	86	13,401	5	20	7	95	12	388	10	758	41	7,279	9	3,456	2	1,405	.....	.....
	1909	88	12,848	2	9	12	158	12	390	11	867	37	6,379	12	3,662	2	1,383	.....	.....
Michigan	1914	37	6,051	1	3	3	26	8	276	2	146	13	2,012	9	2,680	1	908	.....	.....
	1909	32	4,327	.....	.....	5	58	7	240	4	264	14	2,654	1	347	1	764	.....	.....
Minnesota	1914	8	1,345	1	1	.....	.....	.....	.....	3	266	2	346	2	732	.....	.....	.....	.....
	1909	9	607	.....	.....	2	29	2	54	3	205	2	319	.....	.....	.....	.....	.....	.....
New Hampshire	1914	30	3,905	.....	.....	9	127	11	380	1	85	4	655	3	1,021	2	1,637	.....	.....
	1909	34	3,413	.....	.....	13	177	9	260	2	117	5	674	4	1,498	1	687	.....	.....
New Jersey	1914	33	2,927	.....	.....	6	79	11	420	6	372	8	1,127	1	364	1	565	.....	.....
	1909	37	2,223	1	5	7	92	11	382	11	690	6	748	1	306	.....	.....	.....	.....
New York	1914	150	13,570	11	33	30	428	38	1,259	30	2,134	27	3,939	11	3,870	3	1,907	.....	.....
	1909	178	12,073	11	28	44	587	52	1,709	38	2,808	24	3,884	8	2,556	1	501	.....	.....
North Carolina	1914	3	991	.....	.....	.....	.....	1	41	.....	.....	1	120	.....	.....	1	830	.....	.....
	1909	3	825	.....	.....	1	7	.....	.....	.....	.....	1	122	.....	.....	1	696	.....	.....
Ohio	1914	48	5,430	1	2	3	47	12	398	16	1,142	12	1,810	3	977	.....	.....	1	1,054
	1909	47	4,673	.....	.....	5	88	15	496	14	955	11	1,695	1	439	1	1,000	.....	.....
Oregon	1914	5	1,163	.....	.....	.....	.....	1	27	1	70	.....	.....	3	1,066	.....	.....	.....	.....
	1909	5	988	.....	.....	1	18	.....	.....	1	96	2	347	.....	.....	1	527	.....	.....
Pennsylvania	1914	53	7,447	6	22	12	161	8	299	9	646	9	1,572	6	1,941	2	1,378	1	1,428
	1909	62	6,656	9	25	15	201	10	359	8	580	13	2,374	5	1,802	2	1,315	.....	.....
Vermont	1914	23	1,264	.....	.....	9	128	5	122	7	473	1	173	1	368	.....	.....	.....	.....
	1909	25	1,030	1	5	9	122	9	294	5	292	.....	.....	1	317	.....	.....	.....	.....
Virginia	1914	8	1,260	.....	.....	1	19	2	93	1	78	3	433	.....	.....	1	637	.....	.....
	1909	9	912	1	2	1	12	.....	.....	4	275	2	242	1	381	.....	.....	.....	.....
Washington	1914	3	877	.....	.....	.....	.....	.....	.....	.....	.....	2	392	1	485	.....	.....	.....	.....
	1909	2	556	.....	.....	.....	.....	.....	.....	.....	.....	1	175	1	381	.....	.....	.....	.....
West Virginia	1914	8	1,033	.....	.....	.....	.....	3	116	2	141	2	316	1	460	.....	.....	.....	.....
	1909	9	1,162	.....	.....	.....	.....	4	139	2	111	2	329	.....	.....	1	583	.....	.....
Wisconsin	1914	58	8,963	.....	.....	4	63	9	312	14	995	19	3,270	10	3,210	2	1,118	.....	.....
	1909	57	7,467	.....	.....	3	39	9	316	18	1,298	20	3,380	7	2,434	.....	.....	.....	.....

Engines and power.—Table 13 shows, for 1914, 1909, and 1904, the number and total horsepower of each class of engines and motors used in the industry for the generation of primary power (including electric motors run by rented current), together with the per cent distribution of the horsepower. The total number and horsepower of electric motors, including those run by current generated in the same establishments, are also given.

The total primary horsepower used in the paper and wood-pulp industry increased 48.2 per cent between 1904 and 1914. Although water was the principal power used in each census year and the total horsepower generated by water wheels, turbines, and motors shows a steady increase from census to census, it represented a decreased proportion of the total primary power at each successive census. This proportional decrease is due partly to a relative increase in the use of steam power, but in greater measure to the rapidly increasing use of rented electric power, much of which represents water power transformed into electric energy. The use of internal-combustion engines also shows a pronounced increase, but the total horsepower of such engines is relatively very small.

Since the census of 1904 electricity has assumed an increasingly important place in the paper and wood-

pulp industry. The total horsepower of electric motors in use in 1914 amounted to 325,211, about three-fifths of which represented the power of motors run by current generated in the establishments reporting. The rate of increase from census to census in the horsepower of this class of motors, however, has not been so rapid as that in the power of motors run by rented current.

Table 13

POWER.	NUMBER OF ENGINES OR MOTORS.			HORSEPOWER. Amount.			Per cent distribution.		
	1914	1909	1904	1914	1909	1904	1914	1909	1904
Primary power, total	9,049	6,990	5,701	1,621,154	1,304,265	1,093,708	100.0	100.0	100.0
Owned	6,434	6,229	5,661	1,484,255	1,264,185	1,090,757	91.6	96.9	99.7
Steam engines and turbines [1]	2,980	2,705	2,487	597,840	469,364	370,852	36.9	36.0	33.9
Internal-combustion engines	62	46	24	9,674	6,675	1,916	0.6	0.5	0.2
Water wheels, turbines, and motors	3,392	3,478	3,150	876,741	788,146	717,989	54.1	60.4	65.6
Rented	2,615	761	40	136,899	40,080	2,951	8.4	3.1	0.3
Electric	2,615	761	40	127,699	38,610	2,748	7.9	3.0	0.3
Other	.....	.....	.....	9,200	1,470	203	0.6	0.1	(2)
Electric	8,210	2,963	574	325,211	130,120	31,604	100.0	100.0	100.0
Rented	2,615	761	40	127,699	38,610	2,748	39.3	29.7	8.7
Generated by establishments reporting	5,595	2,202	534	197,512	91,510	28,856	60.7	70.3	91.3

[1] Figures for horsepower include for 1909 the amounts reported under the head of "other" owned power.

[2] Less than one-tenth of 1 per cent.

Fuel.—Table 14 shows, for 1914, the kind and quantity of fuel used in the industry in 21 of the leading states.

Because of the extensive use of water power, the consumption of fuel in the paper and wood-pulp industry is comparatively small. Bituminous coal was the principal fuel used in 1914. The largest amount was reported by New York, the leading state in value of products; but Pennsylvania, which occupied fifth place in value of products, ranked second in the consumption of this class of fuel. New York also reported the greatest consumption of anthracite, and that state and New Jersey together used more than one-half of the total anthracite consumed in the industry. Practically all the oil used as fuel was reported by the Pacific Coast states, and 84.9 per cent of the gas was consumed in West Virginia and Pennsylvania.

Table 14

STATE.	COAL. Anthracite (tons, 2,240 lbs.).	COAL. Bituminous (tons, 2,000 lbs.).	Coke (tons, 2,000 lbs.).	Oil, including gasoline (barrels).	Gas (1,000 cubic feet).
United States	741,177	6,268,853	15,455	635,329	2,260,562
Connecticut	10,458	133,406	.....	.....	.....
Delaware	890	60,927	.....	69	.....
Illinois	.....	307,517	.....	.....	.....
Indiana	.....	287,582	.....	2,218	19,550
Maine	51,574	631,522	.....	334	.....
Maryland	.....	121,653	530	.....	1,588
Massachusetts	89,012	458,974	.....	273	146
Michigan	.....	513,410	.....	.....	.....
Minnesota	.....	97,829	.....	.....	.....
New Hampshire	82,154	222,727	.....	.....	.....
New Jersey	183,119	105,818	.....	1,206	.....
New York	273,764	928,160	.....	1,361	10
North Carolina	.....	143,859	.....	125	.....
Ohio	.....	625,807	12,051	179	210,388
Oregon	.....	.....	.....	237,333	.....
Pennsylvania	27,491	777,020	936	802	543,669
Vermont	21,920	44,303	.....	.....	.....
Virginia	.....	152,855	.....	600	.....
Washington	.....	8,047	.....	246,061	.....
West Virginia	.....	50,089	200	.....	1,375,190
Wisconsin	795	512,641	1,738	14,500	21,188
All other states	.....	84,707	.....	129,768	88,833

SPECIAL STATISTICS RELATING TO MATERIALS, PRODUCTS, EQUIPMENT, AND IMPORTS AND EXPORTS.

MATERIALS.

Summary for the United States.—Table 15 presents detailed statistics of the materials used in the industry in 1914, 1909, 1904, and 1899.

The total cost of all materials reported for 1914 represents an increase of 202.3 per cent for the 15-year period 1899–1914. The total given for each year includes considerable duplication due to the use of the products of one establishment as materials in another. This is especially true of purchased domestic wood pulp, the cost of which is included in that of the pulp wood used as material by the pulp mills, and also in that of the wood pulp used as material by the paper mills.

Pulp wood represented 18.5 per cent of the total cost of materials in 1914; wood pulp, purchased, 25.4 per cent; rags, 5.7 per cent; waste paper, 9 per cent; manila stock, 1.9 per cent; and all other materials, including fuel and mill supplies, 39.5 per cent. The corresponding proportions in 1909 were: Pulp wood, 20.4 per cent; wood pulp, purchased, 26.5 per cent; rags, 6.5 per cent; waste paper, 8.3 per cent; manila stock, 2.2 per cent; and all other materials, 36.2 per cent. The $77,617,680 reported under "all other materials" for 1914 comprises $21,494,503, representing the cost of all chemicals except sulphur, and of sizing, clay, casein, and other materials; and $56,123,177, covering rent of power and cost of fuel and mill supplies.

Substantial increases are shown in the quantities of all kinds of paper stock used in 1914 as compared with previous censuses, with the exception of straw, the consumption of which decreased by about 60,000 tons during the 15-year period 1899–1914, but made a slight gain in the later year as compared with 1904 and 1909. Waste paper has grown rapidly in importance

as a material, 1,509,981 tons being consumed in 1914, as against only 356,193 tons in 1899, the increase amounting to 323.9 per cent. The corresponding increase for ground wood pulp was 103.4 per cent; for soda fiber, 71.1 per cent; for sulphite fiber, 155.3 per cent; and for rags, 54.2 per cent.

Sulphate fiber was reported separately for the first time in 1914. The figures shown for this item for previous censuses represent such wood pulp as was reported under the heading "other chemical fiber," which in 1909 consisted principally of imported sulphate fiber.

Table 15

	1914	1909	1904	1899
Total cost	$213,181,286	$165,442,341	$111,251,478	$70,530,236
Pulp wood, cost	$39,408,453	$33,772,475	$20,800,871	$9,837,516
Wood pulp, purchased:				
Tons	1,521,980	1,241,914	877,702	644,006
Cost	$54,207,932	$43,861,357	$27,633,164	$18,369,464
Ground, domestic—				
Tons	379,203	333,313	317,286	261,962
Cost	$7,540,922	$6,764,475	$5,754,259	$4,361,211
Ground, imported—				
Tons	153,463	119,536		
Cost	$3,148,755	$2,723,033		
Soda fiber, domestic—				
Tons	155,635	145,163	120,978	94,042
Cost	$6,764,892	$6,464,870	$5,047,105	$3,430,809
Soda fiber, imported—				
Tons	5,289	9,463		
Cost	$297,838	$397,994		
Sulphite fiber, domestic—				
Tons	436,196	453,636	433,160	273,194
Cost	$19,762,127	$19,041,329	$16,567,122	$10,112,189
Sulphite fiber, imported—				
Tons	261,172	172,393		
Cost	$12,128,105	$8,143,397		
Sulphate fiber, domestic—				
Tons	16,414	[2] 8,410	[2] 6,278	[2] 14,808
Cost	$679,326	[2] $326,259	[2] $264,678	[2] $465,255
Sulphate fiber, imported—				
Tons	88,497			
Cost	$3,486,540			
Screenings, mechanical—				
Tons	4,806	[3]	[3]	[3]
Cost	$41,841	[3]	[3]	[3]
Screenings, chemical—				
Tons	21,245	[3]	[3]	[3]
Cost	$357,586	[3]	[3]	[3]
Rags, including cotton and flax waste and sweepings:				
Tons	361,667	357,470	294,552	234,514
Cost	$12,151,288	$10,721,559	$8,864,607	$6,595,427
Old or waste paper:				
Tons	1,509,981	983,882	588,543	356,193
Cost	$19,161,400	$13,691,120	$7,430,335	$4,869,409
Manila stock:				
Rope—				
Tons	64,256	117,080	107,029	99,301
Cost	$2,492,094	$3,560,033	$2,502,332	$2,437,256
Jute bagging, waste, threads, etc.—				
Tons	56,914			
Cost	$1,553,473			
Straw:				
Tons	307,839	303,137	304,585	367,305
Cost	$1,675,598	$1,460,282	$1,502,886	$1,395,659
Other stock for making paper:				
Tons	97,276	29,422	[3]	[3]
Cost	$1,778,669	$479,959	$1,963,066	$817,075
Sulphur:				
Tons	136,458	[3]	130,400	[3]
Cost	$3,134,699	[3]	$3,221,834	[3]
All other materials, cost	$77,617,680	$57,895,556	$37,332,383	$26,208,430

[1] Quantities are reported in tons of 2,000 pounds.
[2] Reported as "other chemical fiber."
[3] Not reported separately.

Pulp wood used.—Table 16 shows the quantity and cost of the principal kinds of pulp wood used in the manufacture of wood pulp for the years 1914, 1904, and 1899, and the quantity only, together with the total cost, for 1909. At the census of 1909 the schedule used in collecting the data for this industry did not provide for reporting the kind or quantity of pulp wood used. This information, however, was obtained by the Census Bureau in collaboration with the Forest Service of the Department of Agriculture, and is given in Table 17, although not strictly comparable with the figures for the other census years.

Table 16

KIND.	WOOD CONSUMED IN THE MANUFACTURE OF WOOD PULP.			
	1914	1909 [1]	1904	1899
Total, cords	4,470,763	4,001,607	3,050,717	1,986,310
Cost	$39,408,453	$33,772,475	$20,800,871	$9,837,516
Spruce, domestic:				
Cords	1,892,739	1,653,249	1,732,531	1,160,118
Cost	$17,893,673	[2]	$11,937,852	$5,586,942
Spruce, imported:				
Cords	768,056	768,332	538,305	349,084
Cost	$9,008,609	[2]	$4,570,017	$2,272,495
Poplar, domestic:				
Cords	328,513	302,876	213,058	236,820
Cost	$2,714,210	[2]	$1,506,971	$1,103,132
Poplar, imported:				
Cords	61,644	25,622	35,313	20,133
Cost	$582,924	[2]	$251,600	$90,962
Hemlock:				
Cords	602,754	559,657	[2]	[2]
Cost	$4,176,542	[2]	[2]	[2]
All other wood, including waste:				
Cords	[3] 817,057	691,871	531,510	220,155
Cost	$5,032,495	[2]	$2,534,431	$783,985

[1] The figures relating to quantity for 1909 represent the wood used by all mills manufacturing wood pulp, including a few for which it was not the primary product. The total cost given for that year, however, refers only to the wood used by mills making pulp as their primary product.
[2] Not reported separately.
[3] Includes: Balsam fir, 125,296 cords; southern pine, 79,322 cords; pine, 62,037 cords; white fir, 39,648 cords; cottonwood, 18,176 cords; tamarack, 15,320 cords; gum, 11,935 cords; all other woods, 211,436 cords; and slabs and other mill waste, 253,887 cords.

Spruce, which continues to be the principal wood used in the manufacture of pulp, contributed 59.5 per cent of the total quantity consumed in 1914. Since 1899, up to which time spruce and poplar had supplied the great bulk of the pulp woods used, the rapid increase in consumption and the decrease in quantity of these woods available for manufacture into pulp have led to the increased use of other and cheaper woods. Chief among these is hemlock, which provided 13.5 per cent of all pulp wood used in 1914, while poplar supplied only 8.7 per cent. The principal other woods used, in the order of their importance, were balsam fir, southern pine, pine, white fir, cottonwood, tamarack, and gum.

Table 17 shows, for the leading five states in the industry and for all other states as a group, the quantity and cost of the principal kinds of wood used in the manufacture of pulp in 1914.

Maine led in the consumption of pulp wood in 1914, using 941,204 cords, or 21.1 per cent of the total for the industry. New York followed with 894,098 cords, or 20 per cent of the total, the cost of which exceeded that of the wood used in Maine. This was due primarily to the use in 1914 of a much larger quantity of imported spruce in New York than in Maine. Maine and New York led in the use of spruce and poplar, their combined consumption of these woods amounting to 53.9 per cent and 59.9 per cent of the respective totals. Wisconsin reported more than half of the hemlock, and Pennsylvania led in the use of "all other wood" and of slabs and other mill waste.

Table 17 KIND.	United States.	Maine.	New Hampshire.	New York.	Pennsylvania.	Wisconsin.	All other states.
Total, Cords	4,470,763	941,204	381,958	894,098	375,730	714,094	1,163,679
Cost	$39,408,453	$8,442,359	$4,418,756	$9,664,422	$3,234,665	$5,586,791	$8,061,460
Spruce:							
Cords	2,660,795	726,670	377,058	706,502	103,114	291,332	456,119
Cost	$26,902,282	$6,757,566	$4,367,909	$7,894,315	$1,202,519	$2,759,024	$3,920,949
Poplar:							
Cords	390,157	150,461	.....	83,403	49,317	3,444	103,532
Cost	$3,297,134	$1,240,657	.....	$780,433	$436,639	$18,092	$821,313
Hemlock:							
Cords	602,754	62	465	28,805	25,722	343,250	204,450
Cost	$4,176,542	$446	$3,967	$266,502	$243,336	$2,371,972	$1,290,319
All other wood:							
Cords	563,170	25,876	4,435	69,694	144,237	60,408	258,520
Cost	$3,806,655	$253,827	$46,880	$673,609	$1,055,771	$338,400	$1,438,168
Slabs, and other mill waste:							
Cords	253,837	38,135	.....	5,694	53,340	15,660	141,058
Cost	$1,225,840	$189,863	.....	$49,563	$296,400	$99,303	$590,711

In Table 18 is presented, for each of the five leading states, the cost of the wood used by pulp mills during 1914, 1909, 1904, and 1899.

Table 18 STATE.	COST OF WOOD USED IN MANUFACTURE OF WOOD PULP.			
	1914	1909	1904	1899
United States	$39,408,453	$33,772,475	$20,800,871	$9,837,516
New York	9,664,422	9,667,765	6,530,006	3,208,522
Maine	8,442,359	7,984,338	4,838,375	1,718,091
Wisconsin	5,586,791	4,325,839	2,502,892	1,136,051
New Hampshire	4,418,756	3,222,871	2,011,363	1,157,960
Pennsylvania	3,234,665	2,111,025	1,222,491	711,450
All other states	8,061,460	6,460,637	3,695,744	1,905,442

Wood pulp used.[1]—The kind and quantity of wood pulp, domestic and foreign, used in the industry during the years 1914, 1909, 1904, and 1899 are shown in Table 19.

The quantity of wood pulp used in the manufacture of paper shows a fairly steady increase from census to census, the consumption in 1914 being nearly three times as great as that in 1899. Considerably more than half the pulp produced in 1914 was made by establishments which themselves used it in the manufacture of paper, whereas in 1899 less than one-half of the total was produced by such establishments. Ground wood pulp represented 43.1 per cent of the total quantity consumed in 1914; sulphite fiber, 41 per cent; soda fiber, 9.9 per cent; and all other wood pulp, 6 per cent. The corresponding percentages for 1899 are: Ground wood pulp, 48.5 per cent; sulphite fiber, 35.6 per cent; soda fiber, 14.7 per cent; and all other wood pulp, 1.3 per cent. Sulphate fiber was first reported separately for 1914. The figures given for this item for previous censuses represent such pulp as was reported under the heading of "other chemical fiber." The rapid increase in the consumption of sulphate fiber during recent years is largely due to its use in the manufacture of kraft wrapping paper, the production of which has grown enormously since 1909.

The consumption of imported wood pulp, which amounted to 508,421 tons in 1914, shows a rapid increase since 1909, when it was first shown separately and a total of 301,392 tons was reported. Imported pulp represented 14.6 per cent of the total consumption in the later year, as against 10.7 per cent in the earlier. Sulphite fiber was the leading imported pulp used during both years, constituting 51.4 per cent of the total imported pulp used in 1914 and 57.2 per cent in 1909. Screenings were first reported separately for 1914. At prior censuses mechanical screenings were included with ground wood pulp and chemical screenings with either soda or sulphite fiber.

Table 19 KIND.	Census year.	WOOD PULP USED (TONS, 2,000 POUNDS). Total.	Produced and consumed in same establishment.	Purchased.
Total	1914	3,490,123	1,968,143	1,521,980
	1909	2,826,591	1,584,677	1,241,914
	1904	2,018,764	1,141,062	877,702
	1899	1,172,880	528,874	644,006
Ground	1914	1,504,955	972,229	532,726
	1909	1,321,368	868,519	452,849
	1904	1,012,862	695,576	317,286
	1899	568,284	306,322	261,962
Domestic	1914	1,351,492	972,229	379,263
	1909	1,201,832	868,519	333,313
Imported	1914	153,463	.....	153,463
	1909	119,536	.....	119,536
Soda fiber	1914	345,354	184,430	160,924
	1909	297,408	142,782	154,626
	1904	187,382	66,404	120,978
	1899	172,142	78,100	94,042
Domestic	1914	340,065	184,430	155,635
	1909	287,945	142,782	145,163
Imported	1914	5,289	.....	5,289
	1909	9,463	.....	9,463
Sulphite fiber	1914	1,429,528	732,160	697,368
	1909	1,199,405	573,376	626,029
	1904	812,242	379,082	433,160
	1899	417,646	144,452	273,194
Domestic	1914	1,168,356	732,160	436,196
	1909	1,027,012	573,376	453,636
Imported	1914	261,172	.....	261,172
	1909	172,393	.....	172,393
Sulphate fiber	1914	154,553	49,642	104,911
	1909	[1] 8,410	.....	[1] 8,410
	1904	[1] 6,278	.....	[1] 6,278
	1899	[1] 14,808	.....	[1] 14,808
Domestic	1914	66,056	49,642	16,414
Imported	1914	88,497	.....	88,497
Screenings, mechanical	1914	15,586	10,780	4,806
Screenings, chemical	1914	40,147	18,902	21,245

[1] Reported as "other chemical fiber."

Materials, by states.—Table 20 shows, by states, the quantity and cost of the several kinds of wood pulp purchased, and the other principal paper stocks used in the industry in 1914, with the quantities alone

[1] See Studies on Paper Pulps, Technologic Papers of the Bureau of Standards, No. 88, for treatise on pulps, their chemical characteristics, results of tests, causes of deterioration of ground wood pulp, etc. Copies may be procured from the Superintendent of Documents, Government Printing Office, Washington, D. C., at 5 cents per copy.

for 1909 and 1904. Wood pulp made by establishments which used it in the manufacture of paper is not included.

Table 20

MATERIAL AND STATE.	1914		1909	1904
	Cost.	Quantity (tons, 2,000 lbs.).	Quantity (tons, 2,000 lbs.).	Quantity (tons, 2,000 lbs.).
Wood pulp, purchased, total	$54,207,932	1,521,980	1,241,914	877,702
Ground, total	10,689,677	532,726	452,849	317,286
New York	4,713,280	236,027	150,844	111,082
Maine	2,061,975	110,466	98,553	60,132
Wisconsin	1,188,212	53,827	64,959	43,814
All other states	2,726,210	132,406	138,493	102,258
Soda fiber, total	7,062,730	160,924	154,626	120,978
Massachusetts	1,979,288	44,102	38,434	39,991
Ohio	1,499,053	33,855	27,326	9,631
Michigan	581,101	12,833	14,950	10,769
All other states	3,003,288	70,134	73,916	60,587
Sulphite fiber, total	31,890,232	697,368	626,029	433,160
Massachusetts	5,823,339	113,036	91,103	63,313
New York	5,062,236	123,013	162,847	145,974
Ohio	4,335,536	86,559	47,167	27,344
Wisconsin	3,796,335	89,952	84,884	57,996
Maine	2,108,150	48,423	52,805	34,020
Michigan	2,022,035	42,765	29,070	15,197
Pennsylvania	1,931,312	40,009	30,712	19,747
All other states	6,811,289	153,611	127,441	69,569
Sulphate fiber, total	4,165,866	104,911	[1] 8,410	[1] 6,278
New York	641,482	16,455		
Massachusetts	570,456	12,786		
Pennsylvania	394,778	10,202		
Ohio	340,218	9,017		
All other states	2,218,932	56,451		
Screenings, mechanical and chemical, total	399,427	26,051	[2]	[2]
Rags, including cotton and flax waste and sweepings, total	12,151,288	361,667	357,470	294,552
Massachusetts	5,181,974	79,307	93,558	99,468
Pennsylvania	1,312,991	63,975	64,654	56,207
Ohio	978,771	37,303	33,744	22,877
Illinois	846,910	40,838	43,262	3,023
New Jersey	772,912	26,818	20,484	20,898
All other states	3,057,730	113,426	101,768	92,079
Old or waste paper, total	19,161,400	1,509,981	983,882	588,543
Michigan	3,419,791	200,370	114,497	60,417
Massachusetts	2,375,667	137,716	106,216	60,424
Ohio	2,307,643	200,996	93,239	55,475
New York	2,102,411	188,379	155,436	101,472
New Jersey	1,542,278	154,879	114,437	47,613
Pennsylvania	1,329,985	125,171	106,150	65,726
Connecticut	1,304,240	111,282	75,169	77,698
Illinois	1,173,482	124,815	75,439	35,496
Indiana	1,012,668	94,227	52,509	30,257
All other states	2,593,235	172,146	90,790	53,965
Manila stock, including jute bagging, rope waste, threads, etc., total	4,045,567	121,170	117,080	107,029
Ohio	850,851	39,230	25,949	12,268
Massachusetts	672,480	15,424	17,515	14,339
New Jersey	642,156	17,008	21,162	24,161
All other states	1,880,080	49,508	52,454	56,261
Straw, total	1,675,598	307,839	303,137	304,585
Indiana	534,725	93,556	140,580	119,981
Ohio	473,599	97,007	70,322	71,936
Illinois	409,114	74,327	57,254	61,936
All other states	258,160	42,949	34,981	50,732

[1] Reported as "other chemical fiber." [2] Not reported separately.

PRODUCTS.

Summary for the United States.—Table 21 presents, for 1914, 1909, 1904, and 1899, statistics of the quantity and value of the principal kinds of paper manufactured, the quantity and value of wood pulp produced for sale, and the total output of wood pulp, including that made and consumed in the same establishments.

The total value of all products of the industry shows a substantial growth from census to census, the percentage of increase for the 15-year period 1899–1914 being 160.9. The total for each year includes considerable duplication, due principally to the fact that the greater portion of the wood pulp produced for sale is purchased by paper mills, with the result that its value, already reported by the pulp mills, enters again into that of the finished products made by the paper mills. The amount of such duplication, however, was of about equal relative importance at each census.

In quantity, news paper was the leading product of the industry at each census, but in value this product was exceeded in importance by book paper (plain, coated, cover, and plate) in each year with the exception of 1904. The total tonnage of paper of all kinds in 1914 amounted to 5,270,047, of which news paper contributed 24.9 per cent; boards, 22.9 per cent; book paper, 17.7 per cent; wrapping paper, 16.7 per cent; fine paper, 4.7 per cent; building (roofing, asbestos, and sheathing) paper, 4.6 per cent; tissue paper, 2.2 per cent; and all other paper, 6.2 per cent. The total value of paper manufactured in 1914 was $291,588,468, of which book paper represented 25.2 per cent; news paper, 18.2-per cent; wrapping paper, 16.9 per cent; boards, 13.5 per cent; fine paper, 11.7 per cent; tissue paper, 4 per cent; building paper, 3.2 per cent; and all other kinds of paper, 7.3 per cent.

It is of interest to note the steady decrease in the output of straw wrapping paper from census to census since 1899, in which year 91,794 tons were produced, as against only 15,606 tons in 1914. Because of its strength, kraft wrapping paper is rapidly taking the place of other kinds for purposes requiring strong wrappers. The production of this grade of paper was first reported separately for 1909, when it amounted to only 12,661 tons, but by 1914 the output had grown to 109,753 tons, or more than eight times the amount produced in 1909.

An increasing proportion of the wood pulp manufactured is being made into paper by the same establishments that produce it. In 1914, 1,980,660 tons, or more than two-thirds of the total output, was thus produced and consumed in the same establishments, whereas the corresponding proportion in 1899 was less than one-half. In tonnage, ground wood pulp was of chief importance, representing 44.7 per cent of the total production in 1914. Following in order of importance were sulphite fiber with 39.8 per cent, soda fiber with 12 per cent, sulphate fiber with 1.8 per cent, and screenings with 1.6 per cent. In 1899 ground wood pulp contributed 49.7 per cent of the total, sulphite fiber 35.3 per cent, and soda fiber 15 per cent. Sulphite fiber shows the greatest percentage of increase in 1914 as compared with 1899, 176.7 per cent. Ground wood pulp gained 120.6 per cent and soda fiber 96.4 per cent. Sulphate fiber and screenings were first reported separately at the last census. In prior census years, so far as can be ascertained, practically all the small amount of sulphate fiber used was imported; and at the earlier censuses mechanical screenings were included with ground wood pulp, and chemical screenings with either soda or sulphite fiber.

Table 21	1914	1909	1904	1899
PRODUCT.[1]				
Total value	[2] $332,147,175	[2] $267,656,964	$188,715,189	$127,326,162
News paper, in rolls or sheets:				
Tons	1,313,284	1,168,098	912,822	569,212
Value	$52,942,774	$46,390,041	$35,906,460	$20,091,874
Hanging papers:				
Tons	96,527	92,158	62,606	54,330
Value	$4,488,910	$4,431,514	$3,013,464	$2,265,345
Poster paper:				
Tons	7,883	7,456	(3)	(3)
Value	$490,766	$465,519	(3)	(3)
Book paper:				
Plain—				
Tons	786,626	575,616	434,500	282,093
Value	$58,496,221	$42,846,674	$31,156,728	$19,466,804
Coated—				
Tons	117,342	95,213	(3)	(3)
Value	$11,605,584	$9,413,961	(3)	(3)
Cover—				
Tons	21,679	17,578	22,150	18,749
Value	$2,809,377	$1,982,853	$2,023,986	$1,665,376
Plate, lithograph, map, wood cut, etc.—				
Tons	9,332	6,498	19,837	22,366
Value	$588,332	$555,352	$1,458,343	$2,018,953
Cardboard, bristol board, card middles, tickets, etc.:				
Tons	83,010	51,449	39,060	28,494
Value	$5,376,434	$3,352,151	$2,764,444	$1,719,813
Fine paper:				
Writing paper—				
Tons	195,351	169,125	131,934	90,204
Value	$28,637,257	$24,966,102	$19,321,045	$12,222,870
All other fine paper—				
Tons	52,377	29,088	14,898	22,503
Value	$5,417,661	$4,110,536	$2,928,125	$3,673,104
Wrapping paper:				
Manila (rope, jute, etc.)—				
Tons	77,878	73,731	86,826	89,419
Value	$7,070,254	$6,989,436	$6,136,080	$5,929,764
Heavy (mill wrappers, etc.)—				
Tons	98,780	108,561	96,992	82,875
Value	$3,588,357	$4,380,794	$4,035,588	$4,143,240
Straw—				
Tons	15,606	32,988	54,232	91,794
Value	$519,309	$870,419	$1,339,348	$2,027,518
Bogus or wood manila, all grades—				
Tons	353,987	367,932	223,371	203,826
Value	$17,975,636	$19,777,707	$10,099,772	$9,148,677
Kraft—				
Tons	109,753	12,661	(3)	(3)
Value	$6,949,244	$936,940	(3)	(3)
All other—				
Tons	225,795	167,194	177,870	67,338
Value	$13,269,953	$9,265,095	$8,774,804	$3,293,174
Tag stock (rope, jute, and sulphite):				
Tons	29,230	(3)	(3)	(3)
Value	$1,935,693	(3)	(3)	(3)
Boards:				
Wood pulp—				
Tons	116,419	71,036	60,863	44,187
Value	$4,227,493	$2,639,496	$2,347,250	$1,406,130
Straw—				
Tons	175,424	171,789	167,278	157,534
Value	$4,270,519	$3,750,851	$4,367,560	$3,187,342
News—				
Tons	127,966	74,606	38,560	32,119
Value	$3,502,134	$2,215,469	$1,174,216	$930,531
PRODUCT—continued.				
Boards—Continued.				
Binders, trunk, and press—				
Tons	61,453	92,012	(3)	(3)
Value	$2,663,744	$3,819,071	(3)	(3)
Leather—				
Tons	26,689			
Value	$1,177,189			
All other—				
Tons	700,844	422,196	253,950	131,777
Value	$23,652,095	$13,720,697	$9,070,531	$4,829,316
Tissue paper:				
Tons	115,401	77,745	43,925	28,406
Value	$11,535,720	$8,553,654	$5,056,438	$3,486,652
Blotting paper:				
Tons	14,157	9,577	8,702	4,351
Value	$1,457,897	$1,186,180	$1,046,790	$580,750
Building (roofing, asbestos, and sheathing) paper:				
Tons	243,908	225,824	145,024	98,915
Value	$9,475,733	$9,251,368	$4,845,628	$3,025,967
All other paper:				
Tons	93,346	96,577	106,206	49,101
Value	$7,464,182	$6,869,169	$6,729,820	$2,795,841
Wood pulp made for sale or for consumption in mills other than those in which produced:				
Tons	912,490	910,846	780,706	650,651
Value	$31,677,717	$30,177,366	$23,144,574	$18,497,701
Ground—				
Tons	313,951	310,747	273,400	280,052
Value	$5,686,919	$5,649,466	$4,323,495	$4,433,699
Soda fiber—				
Tons	163,522	155,844	130,366	99,014
Value	$7,213,056	$6,572,152	$5,159,615	$3,612,802
Sulphite fiber—				
Bleached—				
Tons	214,627	444,255	376,940	271,585
Value	$10,803,787	$17,955,748	$13,661,464	$10,451,400
Unbleached—				
Tons	192,687			
Value	$7,284,492			
Sulphate fiber—				
Tons	10,052	(3)	(3)	(3)
Value	$359,957	(3)	(3)	(3)
Screenings—				
Mechanical—				
Tons	2,553	(3)	(3)	(3)
Value	$27,910	(3)	(3)	(3)
Chemical—				
Tons	15,098	(3)	(3)	(3)
Value	$301,566	(3)	(3)	(3)
All other products, value	$8,880,990	$4,738,549	$1,924,195	$919,415
WOOD PULP.				
Quantity produced (including that used in mills in which manufactured), total, tons	2,893,150	2,495,523	1,921,768	1,179,525
Ground, tons	1,293,661	1,179,266	968,976	588,374
Soda fiber, tons	347,928	298,626	196,770	177,114
Sulphite fiber—				
Bleached, tons	385,349	1,017,631	756,022	416,037
Unbleached, tons	765,978			
Sulphate fiber, tons	52,641	(3)	(3)	(3)
Screenings—				
Mechanical, tons	11,769	(3)	(3)	(3)
Chemical, tons	35,824	(3)	(3)	(3)

[1] Quantities are reported in tons of 2,000 pounds.
[2] In addition, in 1914 paper and pulp to the value of $2,767,407 was produced by 9 establishments engaged primarily in the manufacture of paper boxes, roofing materials, and other products, and in 1909, to the value of $2,567,267, by 15 establishments of this character.
[3] Not reported separately.

The actual amount of increase and the percentage of increase for both the quantity and value of the principal products of the industry during the 15-year period 1899–1914 are shown in the following table.

Table 22	INCREASE:[1] 1899–1914.			
	Amount.		Per cent.	
PRODUCT.	Quantity (tons, 2,000 lbs.).	Value.	Quantity.	Value.
News paper, in rolls or sheets	744,072	$32,850,900	130.7	163.5
Hanging papers	42,197	2,223,565	77.7	98.2
Book paper:				
Plain	504,533	39,029,417	178.9	200.5
Cover	2,930	1,144,001	15.6	68.7
Cardboard, bristol board, card middles, tickets, etc	54,516	3,656,621	191.3	212.6
Fine paper:				
Writing	105,147	16,414,337	116.6	134.3
All other	29,874	1,744,557	132.8	47.5
Wrapping paper:				
Bogus or wood manila, all grades	150,161	$8,826,959	73.7	96.5
Heavy (mill wrappers, etc.)	15,905	−554,883	19.2	−13.4
Manila (rope, jute, etc.)	−11,541	1,140,490	−12.9	19.2
Boards:				
Wood pulp	72,232	2,821,363	163.5	200.6
Straw	17,890	1,083,177	11.4	34.0
News	95,847	2,571,603	298.4	276.4
Tissue paper	86,995	8,049,068	306.3	230.9
Blotting paper	9,806	877,147	225.4	151.0
Building (roofing, asbestos, and sheathing)	146,993	6,449,766	151.7	213.1

[1] A minus sign (−) denotes decrease.

The greatest percentage of increase in quantity is shown for tissue paper, while the greatest proportional gain in value appears for news board. The largest actual increase in tonnage was made by news paper and the next largest by book paper. The increase in value, however, was greater for book paper than for news paper.

Products, by states.—Table 23 presents, by states, the quantity and value of the various products of the paper and wood-pulp mills in 1914, and the quantity produced in 1909 and 1904. In considering this table it should be kept in mind that in many instances figures for states of greater importance in the production of certain kinds of paper than some of those shown could not be given separately without disclosing the operations of individual establishments.

New York led at each census in the production of news paper, hanging papers, manila wrapping paper, wood-pulp board, and tissue paper. New York also ranked first in the quantity of heavy wrapping paper manufactured in 1914, but the greatest value for this item is shown for Pennsylvania. Massachusetts reported the largest total amount of book paper at each census, although in 1914 Pennsylvania's output of plain book paper alone was somewhat greater in tonnage. Massachusetts also led in the manufacture of writing paper, cardboard, bristol board, card middles and tickets, and leather board. New York and Maine ranked first and second, respectively, at each census in the total output of ground wood pulp (including that made and consumed in the same establishments), the former state reporting nearly one-third and the latter more than one-fourth of the total for 1914. Pennsylvania was first in the production of soda fiber at each census. Maine led in the output of sulphite fiber in 1914, but was second in 1909 and 1904, New York reporting larger amounts at each of those censuses.

Table 23

PRODUCT AND STATE.	PAPER AND WOOD PULP. 1914 Value.	1914 Quantity (tons, 2,000 lbs.).	1909 Quantity (tons, 2,000 lbs.).	1904 Quantity (tons, 2,000 lbs.).
News paper, in rolls or sheets, total.	$52,942,774	1,313,284	1,175,554	912,822
New York	19,869,081	489,136	374,808	347,546
Maine	13,262,166	336,020	313,125	215,307
Wisconsin	5,551,537	135,336	169,151	121,749
Minnesota	4,210,004	111,002	43,565	25,379
Vermont	1,353,012	31,223	16,455	34,396
All other states	8,696,974	210,567	258,450	168,445
Hanging papers, total	4,488,910	96,527	92,158	62,606
New York	3,187,737	69,022	62,179	42,722
Wisconsin	585,369	14,870	8,868	1,754
Pennsylvania	257,992	5,599	9,769	7,814
All other states	457,812	7,036	11,342	10,316
Poster paper, total	490,766	7,883	(1)	(2)
Wisconsin	218,998	2,766	(1)	(2)
All other states	271,768	5,117	(1)	(2)
Book paper:				
Plain, total	58,496,221	786,626	575,616	434,500
Massachusetts	8,957,973	106,845	88,744	93,439
Pennsylvania	8,807,670	118,590	73,763	57,779
Michigan	6,990,774	88,840	72,677	48,742
Maine	6,947,240	94,987	82,169	66,797
New York	5,356,874	78,917	66,139	29,092
Ohio	5,128,713	65,596	48,589	17,825
Wisconsin	5,117,812	74,560	57,493	49,989
New Hampshire	1,304,945	17,708	13,400	12,039
All other states	9,884,220	140,583	72,642	58,798
Coated, total	11,605,584	117,342	95,213	(2)
Massachusetts	3,087,399	35,644	26,135	(2)
Michigan	2,615,517	26,101	(2)	(2)
All other states	5,902,668	55,597	69,078	(2)
Cover, total	2,809,377	21,679	17,578	22,150
Massachusetts	1,019,445	6,475	3,898	2,448
Connecticut	281,053	2,069	2,438	2,895
All other states	1,508,879	13,135	11,242	16,807
Plate, lithograph, map, wood-cut, etc., total	588,332	9,332	6,498	19,837
Cardboard, bristol board, card middles, tickets, etc., total	5,376,434	83,010	51,449	39,060
Massachusetts	2,888,717	34,899	26,694	23,504
New York	375,355	8,199	10,438	10,948
All other states	2,112,362	39,912	14,317	4,608
Fine paper:				
Writing, total	28,637,257	195,351	169,125	131,934
Massachusetts	16,619,157	84,506	85,268	76,503
Wisconsin	3,666,972	29,948	27,379	17,333
Ohio	2,039,998	18,485	16,379	6,552
Connecticut	446,442	2,342	2,711	3,430
All other states	5,864,688	60,070	37,388	28,116
All other, total	5,417,661	52,377	29,088	14,898
Pennsylvania	1,467,640	15,556	12,825	2,238
New York	866,428	11,004	(3)	(3)
All other states	3,083,593	25,817	16,263	12,660

PRODUCT AND STATE.	PAPER AND WOOD PULP. 1914 Value.	1914 Quantity (tons, 2,000 lbs.).	1909 Quantity (tons, 2,000 lbs.).	1904 Quantity (tons, 2,000 lbs.).
Wrapping paper:				
Manila (rope, jute, tag, etc.), total	$7,070,254	77,878	73,731	86,826
New York	1,250,725	16,327	17,347	20,883
Ohio	816,247	8,800	12,393	10,056
Pennsylvania	584,586	4,089	5,702	5,964
All other states	4,418,696	48,662	38,289	49,918
Heavy (mill wrappers, etc.), total	3,588,357	98,780	108,561	96,992
Pennsylvania	827,059	18,369	36,619	31,043
New York	662,840	19,654	18,951	12,741
Wisconsin	442,364	11,424	(3)	(3)
Ohio	158,715	5,179	5,725	6,314
All other states	1,497,379	44,154	47,266	46,894
Straw, total	519,309	15,606	32,988	54,232
Ohio	172,156	6,395	8,682	9,078
New York	94,192	2,948	3,374	4,369
All other states	252,961	6,263	20,932	40,785
Bogus or wood, manila, all grades, total	17,975,636	353,987	367,932	228,371
Maine	6,656,440	124,483	132,233	66,631
New York	4,313,583	87,277	79,952	75,262
Wisconsin	2,033,790	43,688	51,641	16,838
Pennsylvania	339,190	8,651	6,167	1,571
Vermont	315,924	5,809	12,635	8,517
All other states	4,316,709	84,079	85,304	59,552
Kraft paper, total	6,949,244	109,753	(4)	(4)
Wisconsin	994,977	15,808	(4)	(4)
All other states	5,954,267	93,945	(4)	(4)
All other wrapping paper, total	13,269,953	225,795	179,855	177,870
Wisconsin	3,562,039	60,320	41,471	53,886
Michigan	2,678,605	44,677	38,224	18,326
Pennsylvania	1,576,572	29,299	15,507	18,514
New York	1,377,383	23,605	30,474	43,926
Ohio	322,885	5,040	13,218	12,489
All other states	3,752,469	62,854	40,961	30,729
Tag stock (rope, jute, and sulphite), total	1,935,693	29,230	(2)	(2)
Boards:				
Wood pulp, total	4,227,493	116,419	71,036	60,863
New York	1,279,332	32,376	23,757	11,011
All other states	2,948,161	84,043	47,279	49,852
Straw, total	4,270,519	175,424	171,789	167,278
Indiana	1,345,818	60,363	82,056	59,114
Ohio	1,075,535	39,496	37,710	33,953
Illinois	963,892	42,952	29,510	22,408
Kansas	304,204	12,070	(3)	(3)
New York	116,019	2,691	746	7,111
All other states	465,051	17,852	21,767	44,692
News, total	3,502,134	127,966	74,606	38,560
New Jersey	1,088,879	42,328	33,411	15,870
All other states	2,413,255	85,638	41,195	22,690

[1] Included in "news paper, in rolls or sheets." [2] Not reported separately. [3] Included in "all other states." [4] Included in "all other wrapping paper."

Table 23—Continued. PAPER AND WOOD PULP.

PRODUCT AND STATE.	1914 Value.	1914 Quantity (tons, 2,000 lbs.).	1909 Quantity (tons, 2,000 lbs.).	1904 Quantity (tons, 2,000 lbs.).
Boards—Continued.				
Binders, trunk, and pressboards, total	$2,663,744	61,453	(1)	(1)
Connecticut	574,459	12,895	(1)	(1)
All other states	2,089,285	48,558	(1)	(1)
Leather, total	1,177,189	26,689	(1)	(1)
Massachusetts	*272,843	6,804	(1)	(1)
Connecticut	264,133	6,763	(1)	(1)
New Hampshire	181,849	3,972	(1)	(1)
All other states	458,364	9,150	(1)	(1)
All other boards, total	23,652,095	700,844	514,208	253,950
New York	4,525,891	135,467	111,487	64,742
Ohio	4,312,758	127,814	54,116	24,843
New Jersey	2,585,873	74,569	37,302	14,822
Michigan	2,539,133	80,482	48,355	12,106
Connecticut	2,165,079	62,937	46,957	36,087
Indiana	1,818,570	55,285	40,556	20,137
Illinois	1,809,857	63,027	51,200	27,416
All other states	3,894,934	101,263	124,235	53,797
Tissue paper, total	11,535,720	115,401	77,745	43,925
New York	3,909,858	46,032	30,049	18,101
New Jersey	1,674,377	10,414	8,939	6,162
Wisconsin	1,515,482	15,355	10,835	5,989
Massachusetts	1,262,594	8,671	(2)	(2)
New Hampshire	989,522	11,469	8,737	2,508
Pennsylvania	726,009	9,911	(2)	(2)
Connecticut	370,077	1,791	2,041	2,169
Vermont	179,284	2,202	3,500	3,045
All other states	908,517	9,556	13,644	5,951
Blotting paper, total	1,457,897	14,157	9,577	8,702
Building, roofing, asbestos and sheathing paper, total	9,475,733	243,908	225,824	145,024
Pennsylvania	2,078,129	55,273	60,168	67,797
Illinois	1,764,355	46,802	48,082	7,954
Ohio	1,086,265	28,172	18,974	15,400
New Jersey	854,898	21,428	21,878	20,802
Massachusetts	343,923	8,562	14,602	7,153
All other states	3,348,163	83,671	62,120	25,918
All other paper, total	7,464,182	93,346	96,577	106,296
Ohio	1,284,077	15,692	5,788	28,127
New York	664,863	11,747	30,320	3,858
Michigan	358,065	5,994	3,484	2,876
Vermont	283,185	4,706	10,974	9,696
Wisconsin	271,985	4,331	(2)	(2)
Connecticut	143,976	1,688	1,702	1,135
Pennsylvania	62,169	551	2,390	2,508
All other states	4,395,862	48,637	41,919	53,096
Wood pulp made for sale or for use in establishments other than those in which produced, total	31,677,717	912,490	910,846	780,706
Ground, total	5,686,919	313,951	310,747	273,400
Maine	2,057,000	118,813	107,116	64,480
New York	1,804,941	100,631	100,383	128,695
Wisconsin	894,363	43,337	37,964	35,645
Vermont	373,891	19,929	30,543	23,529
New Hampshire	135,278	7,825	(2)	(2)
All other states	421,446	23,416	34,741	21,051
Wood pulp, etc.—Continued.				
Soda fiber, total	$7,213,086	163,522	155,844	130,366
Maine	2,016,331	49,081	41,106	45,376
Pennsylvania	1,117,298	27,955	16,589	17,465
New York	950,179	23,499	33,236	17,379
All other states	3,129,278	62,987	64,913	50,146
Sulphite fiber, total	18,088,279	407,314	444,255	376,940
New Hampshire	6,129,035	131,578	93,269	91,895
Wisconsin	2,977,595	78,878	73,719	53,632
Maine	2,527,970	50,432	46,073	58,261
New York	2,134,879	53,874	146,256	89,368
All other states	4,318,800	92,552	84,938	83,784
Sulphate fiber, total	359,957	10,052	(3)	(3)
Screenings, mechanical, total	27,910	2,553	(3)	(3)
New York	18,204	1,875	(3)	(3)
All other states	9,706	678	(3)	(3)
Screenings, chemical, total	301,566	15,098	(3)	(3)
New Hampshire	61,195	3,706	(3)	(3)
Maine	42,791	2,121	(3)	(3)
New York	30,118	3,085	(3)	(3)
Michigan	11,210	877	(3)	(3)
All other states	156,252	5,309	(3)	(3)
All other products, value	8,880,990	.....	.....	.....
Wood pulp produced (including that used in mills in which produced), total	.....	2,893,150	2,495,523	1,921,768
Ground, total	.....	1,293,661	1,179,266	968,976
New York	.....	423,605	405,376	379,029
Maine	.....	357,393	324,264	230,340
Wisconsin	.....	189,221	166,822	124,746
New Hampshire	.....	63,883	(2)	(2)
Vermont	.....	54,356	48,390	51,839
All other states	.....	205,203	234,414	183,022
Soda fiber, total	.....	347,928	298,626	196,770
Pennsylvania	.....	99,845	80,776	53,682
Maine	.....	92,747	78,940	53,257
New York	.....	49,594	39,441	26,966
All other states	.....	105,742	99,469	62,865
Sulphite fiber, total	.....	1,151,327	1,017,631	756,022
Maine	.....	236,385	217,501	173,324
New York	.....	219,446	234,717	200,019
Wisconsin	.....	188,797	154,391	113,047
New Hampshire	.....	171,530	133,687	115,195
All other states	.....	335,169	277,335	154,437
Sulphate fiber, total	.....	52,641	(3)	(3)
Wisconsin	.....	24,633	(3)	(3)
All other states	.....	28,008	(3)	(3)
Screenings, mechanical, total	.....	11,769	(3)	(3)
New York	.....	2,712	(3)	(3)
All other states	.....	9,057	(3)	(3)
Screenings, chemical, total	.....	35,824	(3)	(3)
New York	.....	7,768	(3)	(3)
New Hampshire	.....	7,063	(3)	(3)
Maine	.....	6,921	(3)	(3)
Michigan	.....	3,917	(3)	(3)
All other states	.....	10,155	(3)	(3)

[1] Included in "all other boards." [2] Included in "all other states." [3] Not reported separately.

EQUIPMENT.

Table 24 gives in detail, for 1914, 1909, 1904, and 1899, the number and capacity of the several types of paper machines and pulp equipment.

The average capacity of the Fourdriniers in 1904 was only 11.4 tons per 24 hours, as compared with 15.8 tons in 1914; and the average capacity of cylinder machines increased from 7.7 tons to 11.8 tons during the same period. The total yearly capacity increased by 131.5 per cent during the 15-year period 1899–1914.

The yearly capacity of pulp mills increased by 141.3 per cent from 1899 to 1914. Sulphate fiber equipment was reported for the first time for 1914.

Table 24	1914	1909	1904	1899
Paper machines: [1]				
Total number	1,540	1,480	1,369	1,232
Capacity, yearly, tons	6,439,787	5,293,397	3,857,903	2,782,219
Fourdrinier—				
Number	859	804	752	663
Capacity per 24 hours, tons	13,545	10,508	8,569	(2)
Cylinder—				
Number	681	676	617	569
Capacity per 24 hours, tons	8,024	6,316	4,740	(2)
Pulp equipment: [1]				
Grinders, number	1,497	1,435	1,362	1,168
Digesters, total number	581	542	517	426
Sulphite fiber	361	348	309	(3)
Soda fiber	197	194	208	(3)
Sulphate fiber	23	(2)	(2)	(3)
Capacity, yearly, tons, total	3,708,130	3,405,621	2,644,753	1,536,431
Ground	1,789,363	1,809,685	1,515,088	(3)
Sulphite	1,341,622	1,250,983	885,092	(3)
Soda	499,325	344,953	244,573	(3)
Sulphate	77,820	(3)	(3)	(3)

[1] Capacity in tons of 2,000 pounds. [2] Not reported. [3] Not reported separately.

IMPORTS AND EXPORTS.

The following table shows, for each year from 1899 to 1914, inclusive, the imports of paper, paper stock, wood pulp, and pulp wood, and the exports of paper and wood pulp. These statistics have been compiled from the Statistical Abstract of the United States, issued by the Bureau of Foreign and Domestic Commerce, Department of Commerce. Figures for pulp wood imported are not available for the years prior to 1907. The statistics for both imports and exports of paper include the value of a considerable quantity of manufactures of paper, and this should be taken into consideration when these figures are used in comparison with those relating to the production of paper as given in this report.

Table 25

YEAR ENDING JUNE 30—	IMPORTS.						EXPORTS.		
			Wood pulp.		Pulp wood.			Wood pulp.	
	Paper[1] (value).	Paper stock (value).	Quantity (tons, 2,240 lbs.).	Value.	Cords.	Value.	Paper[1] (value).	Quantity (tons, 2,240 lbs.).	Value.
1914	$20,919,575	$8,571,207	508,360	$17,023,338	1,073,023	$7,245,466	$11,023,774	12,036	$529,741
1913	14,983,089	7,271,405	502,913	16,165,316	1,036,894	6,954,952	11,686,584	18,516	764,020
1912	10,648,725	5,918,358	477,508	14,218,922	901,270	5,834,828	10,617,367	8,879	388,996
1911	12,521,265	5,481,680	491,873	13,980,357	869,955	5,565,273	10,361,501	8,066	371,233
1910	11,503,680	5,206,877	378,322	11,768,014	1,000,342	6,392,023	8,994,277	7,722	360,057
1909	11,632,571	3,638,034	274,216	8,629,263	727,104	4,333,905	7,663,139	9,219	448,960
1908	12,223,058	3,675,926	237,514	7,313,326	923,503	4,989,919	8,064,706	10,645	519,625
1907	10,727,885	5,580,528	213,110	6,348,857	650,366	2,792,751	9,856,733	11,196	498,552
1906	6,998,761	4,374,464	157,224	4,584,942	[2]	[2]	9,536,065	13,162	587,878
1905	5,623,638	3,796,595	167,504	4,500,955	[2]	[2]	8,238,088	10,582	473,585
1904	5,319,086	2,900,713	144,796	3,602,668	[2]	[2]	7,543,728	13,496	593,474
1903	4,733,036	3,015,084	116,881	3,387,770	[2]	[2]	7,180,014	10,029	445,228
1902	4,223,125	2,770,255	67,416	2,059,092	[2]	[2]	7,312,030	17,120	740,103
1901	4,002,989	2,183,686	46,757	1,586,402	[2]	[2]	7,438,901	27,468	1,051,867
1900	3,795,645	3,261,778	82,441	2,405,630	[2]	[2]	6,215,833	12,748	458,463
1899	3,191,589	2,614,914	33,319	671,506	[2]	[2]	5,477,884	24,970	696,319

[1] These figures include the value of a considerable quantity of manufactures of paper.

[2] Not available.

GENERAL TABLES.

The principal statistics secured by the census inquiry concerning the paper and pulp industry are presented, by states, in Tables 26 and 27.

Table 26 shows, for 1914, 1909, and 1904, the number of establishments, average number of wage earners, primary horsepower, wages, cost of materials, and value of products. Table 27 gives more detailed statistics for the industry for 1914 only.

TABLE 26.—COMPARATIVE SUMMARY, BY STATES: 1914, 1909, AND 1904.

STATE.	Census year.	Number of establishments.	Wage earners (average number).	Primary horsepower.	Wages.	Cost of materials.	Value of products.
					Expressed in thousands.		
United States	1914	718	88,457	1,621,154	$53,246	$213,181	$332,147
	1909	777	75,978	1,304,265	40,805	165,442	267,657
	1904	761	65,964	1,093,708	32,019	111,251	188,715
Connecticut	1914	44	1,898	21,111	1,141	4,007	5,969
	1909	51	1,720	19,509	924	3,303	5,527
	1904	50	1,750	18,021	843	2,738	5,039
Delaware	1914	7	591	5,954	327	1,753	2,484
	1909	6	546	4,318	310	1,587	2,292
	1904	6	547	5,115	252	1,270	1,905
Illinois	1914	21	1,704	24,613	1,118	4,265	6,952
	1909	19	1,397	15,169	727	3,099	4,983
	1904	19	959	12,818	462	1,416	2,443
Indiana	1914	24	1,620	20,719	916	4,314	6,234
	1909	27	1,501	18,382	754	3,497	5,202
	1904	36	1,620	19,775	664	2,517	3,917
Iowa	1914	3	87	1,312	54	183	280
	1909	4	205	1,435	81	281	437
	1904	4	152	1,005	66	131	253
Kansas	1914	3	239	2,344	122	403	610
	1909	3	97	920	46	120	218
	1904	3	91	1,078	46	78	202
Maine	1914	38	10,033	245,121	6,754	25,458	40,180
	1909	45	8,647	223,787	5,267	20,504	33,950
	1904	37	7,574	152,294	4,053	13,868	22,951
Maryland	1914	13	1,586	15,028	926	4,126	6,149
	1909	13	1,249	11,407	639	3,278	4,894
	1904	16	1,008	7,343	397	2,453	3,296
Massachusetts	1914	86	13,401	133,860	7,549	26,611	43,353
	1909	88	12,848	115,792	6,542	22,350	40,097
	1904	87	11,705	104,954	5,588	17,947	32,012
Michigan	1914	37	6,051	62,528	3,559	14,545	22,050
	1909	32	4,327	48,700	2,142	9,025	13,922
	1904	30	3,052	31,357	1,306	4,581	7,341
Minnesota	1914	8	1,345	53,259	$983	$3,245	$5,573
	1909	9	607	23,440	361	1,438	2,385
	1904	4	396	7,153	234	677	1,146
New Hampshire	1914	30	3,905	118,123	2,513	12,537	17,708
	1909	34	3,413	79,912	2,106	9,253	13,994
	1904	25	2,522	49,784	1,315	5,328	8,930
New Jersey	1914	33	2,927	29,695	1,709	7,181	10,931
	1909	37	2,223	22,996	1,181	4,769	7,554
	1904	38	1,629	17,336	787	3,022	5,043
New York	1914	150	13,570	392,268	8,577	35,930	56,336
	1909	178	12,073	337,548	6,744	31,767	48,860
	1904	177	12,418	390,730	6,402	22,806	37,751
Ohio	1914	48	5,430	50,013	3,378	16,109	23,284
	1909	47	4,673	51,402	2,419	10,898	16,965
	1904	53	3,883	36,288	1,683	6,154	10,962
Pennsylvania	1914	53	7,447	75,305	3,483	16,047	25,439
	1909	62	6,656	66,910	3,303	11,398	19,873
	1904	65	5,906	54,837	2,839	8,510	15,411
Vermont	1914	23	1,264	42,066	811	3,004	4,776
	1909	25	1,030	38,191	594	2,455	3,902
	1904	28	1,280	42,952	617	2,540	3,831
Virginia	1914	8	1,260	13,585	692	3,424	5,501
	1909	9	912	9,770	412	2,148	3,657
	1904	9	993	7,800	363	1,789	3,034
West Virginia	1914	8	1,033	11,735	506	1,735	2,804
	1909	9	1,162	11,025	478	1,683	2,652
	1904	7	545	4,575	230	760	1,298
Wisconsin	1914	58	8,968	191,693	5,339	20,568	31,205
	1909	57	7,467	136,903	3,891	16,693	25,962
	1904	52	6,338	105,940	2,988	10,692	17,844
All other states	1914	23	4,098	110,822	2,789	7,736	14,329
	1909	22	3,225	66,749	1,884	5,896	10,331
	1904	15	1,596	22,553	884	1,974	4,106

TABLE 27.—DETAIL STATISTICS FOR THE PAPER

	STATE.	Number of establishments.	PERSONS ENGAGED IN THE INDUSTRY. Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks, etc. Male.	Clerks, etc. Female.	Wage earners. Average number.	Wage earners. Number, 15th day of— Maximum month.	Wage earners. Number, 15th day of— Minimum month.	WAGE EARNERS DEC. 15, OR NEAREST REPRESENTATIVE DAY. Total.	16 and over. Male.	16 and over. Female.	Under 16. Male.	Under 16. Female.	Capital.
1	United States	718	95,516	221	2,204	3,540	1,094	88,457	Ap 89,916	Au 86,725	89,005	79,508	9,391	71	35	$534,624,600
2	Connecticut	44	2,098	14	103	50	33	1,898	Ap 1,946	Au 1,821	1,901	1,728	168	5	.....	6,899,200
3	Delaware	7	635	3	14	21	6	591	Se 618	My 578	583	514	68	1	.....	3,502,865
4	Illinois	21	1,954	.....	55	143	52	1,704	Se 1,792	Fe 1,592	1,788	1,750	34	4	.....	9,994,215
5	Indiana	24	1,749	4	49	58	18	1,620	Ap 1,670	Jy 1,528	1,618	1,511	106	1	.....	9,742,152
6	Iowa	3	95	.....	5	2	1	87	Ap 97	Jy 61	93	89	4	.....	.....	349,588
7	Kansas	3	271	3	9	15	5	239	Ap 290	No 197	211	196	15	.....	.....	869,975
8	Maine	38	10,696	20	144	399	100	10,033	Jy 10,342	De 9,545	10,161	9,630	531	.....	.....	80,442,988
9	Maryland	13	1,655	5	20	41	3	1,586	Oc 1,662	Fe 1,500	1,665	1,508	155	2	.....	9,133,002
10	Massachusetts	86	14,409	32	263	492	221	13,401	My 13,658	Au 13,055	13,373	9,273	4,084	4	12	47,979,966
11	Michigan	37	6,451	6	144	188	62	6,051	Oc 6,215	Fe 5,870	6,146	5,203	942	.....	1	22,953,000
12	Minnesota	8	1,417	2	25	36	9	1,345	Fe 1,467	Au [2] 1,261	1,262	1,229	33	.....	.....	16,540,268
13	New Hampshire	30	4,235	14	111	175	30	3,905	Mh 4,047	Au 3,762	3,858	3,701	157	.....	.....	28,830,998
14	New Jersey	33	3,198	12	97	111	51	2,927	Ap 2,994	No 2,898	2,928	2,733	177	13	5	13,697,982
15	New York	150	14,698	57	421	491	159	13,570	Ap 14,104	Au 12,930	13,633	13,120	512	.....	1	110,846,303
16	Ohio	48	5,805	1	166	185	83	5,430	Mh [3] 5,534	De 5,104	5,226	4,584	612	30	.....	22,973,752
17	Pennsylvania	53	8,064	17	154	353	93	7,447	Ap 7,607	De 7,262	7,350	6,774	559	5	12	34,962,148
18	Vermont	23	1,393	15	50	49	15	1,264	Se 1,429	Au 950	1,366	1,300	66	.....	.....	9,724,145
19	Virginia	8	1,357	.....	32	54	11	1,260	Ja 1,351	My 1,214	1,361	1,260	101	.....	.....	7,511,395
20	West Virginia	8	1,102	.....	27	34	8	1,033	My 1,128	Au 958	1,043	987	56	.....	.....	4,079,773
21	Wisconsin	58	9,625	5	222	369	61	8,968	Mh 9,349	Ja 8,751	8,846	7,943	896	3	4	48,812,033
22	All other states [4]	23	4,549	11	93	274	73	4,098	.....	.....	4,593	4,475	115	3	.....	44,778,852

[1] Owned power only. [2] Includes rented power, other than electric. [3] Same number reported for one or more other months.

AND WOOD-PULP INDUSTRY, BY STATES: 1914.

EXPENSES.								Value of products.	Value added by manufacture.	POWER.					
Salaries and wages.			For contract work.	Rent and taxes.		For materials.				Primary horsepower.					Electric horsepower generated in establishments reporting.
Officials.	Clerks, etc.	Wage earners.		Rent of factory.	Taxes, including internal revenue and corporation income.	Principal materials.[1]	Fuel and rent of power.			Total.	Steam engines.[1]	Internal-combustion engines.[2]	Water wheels and motors.[1]	Electric (rented).	
$7,753,955	$5,104,221	$53,245,639	$539,026	$1,120,390	$3,372,663	$188,019,038	$24,261,348	$332,147,175	$118,065,889	1,621,154	597,840	18,874	876,741	127,699	197,512
270,755	45,706	1,140,638	20,062	8,700	49,754	3,434,956	572,038	5,968,797	1,961,803	21,111	12,996	545	7,385	185	372
62,903	62,123	327,082	.....	.....	7,071	1,573,593	179,556	2,483,785	730,036	5,954	5,249	.....	705	.....	.....
170,453	207,270	1,118,113	3,507	38,182	35,500	3,789,520	475,490	6,951,794	2,086,784	24,613	18,230	404	4,804	1,115	3,587
142,828	84,278	915,715	570	7,884	35,926	3,792,131	521,738	6,233,536	1,919,667	20,719	18,104	1,025	675	915	1,878
12,040	988	54,495	25	.....	3,054	143,597	39,265	280,110	97,248	1,312	872	.....	.....	440	.....
20,320	22,526	121,770	.....	.....	7,015	350,131	52,979	609,736	206,626	2,344	2,100	34	.....	210	50
820,214	620,687	6,754,266	57,480	552,997	438,423	22,223,708	3,234,250	40,179,744	14,721,777	245,121	49,077	10	180,382	15,652	39,055
93,053	58,870	925,023	.....	1,500	22,071	3,703,604	302,123	6,149,505	2,023,778	15,028	13,754	.....	1,074	200	9,500
1,040,275	864,152	7,548,020	212,576	205,439	553,650	23,889,103	2,721,645	43,352,545	16,741,797	133,860	68,620	260	51,811	13,169	14,412
448,815	238,455	3,550,470	42,214	18,037	241,203	13,077,332	1,467,613	22,040,990	7,505,045	62,528	48,187	1,225	11,479	1,637	14,022
131,560	47,214	982,892	.....	125	80,200	2,777,153	407,801	5,572,537	2,327,583	53,250	10,350	.....	35,773	7,136	4,532
398,281	240,624	2,513,431	2,578	1,660	204,527	10,974,752	1,562,324	17,708,138	5,171,062	118,123	34,503	2,208	59,205	22,117	4,602
371,799	175,251	1,709,094	11,488	22,757	63,091	6,307,826	873,439	10,031,431	3,750,166	29,695	24,248	1,205	3,392	850	2,463
1,251,551	740,202	8,570,820	41,829	105,902	571,400	31,888,382	4,042,077	56,335,681	20,405,222	302,208	83,027	328	278,795	30,118	33,590
501,616	270,582	3,377,778	9,051	12,761	161,096	14,828,690	1,280,584	23,284,192	7,174,018	50,013	43,609	490	3,900	2,014	7,449
632,706	407,644	3,482,075	62,573	9,891	94,250	14,272,287	1,774,270	25,430,346	9,302,789	75,305	68,591	60	4,845	1,809	19,176
133,010	61,054	811,124	500	35,887	56,895	2,076,802	327,563	4,776,387	1,772,022	42,906	5,321	500	35,595	650	2,319
126,575	101,440	691,753	.....	3,310	32,884	3,130,524	203,007	5,501,084	2,077,553	13,585	8,075	225	5,025	260	4,871
75,354	54,411	500,133	.....	.....	27,007	1,546,450	188,340	2,804,429	1,069,639	11,735	7,550	650	3,250	285	2,340
702,620	451,813	5,338,810	64,120	6,200	518,728	18,305,040	2,202,139	31,205,305	10,637,307	101,693	41,173	9,615	132,200	8,615	26,565
337,522	330,827	2,789,031	11,044	28,999	160,740	6,113,448	1,023,098	14,329,013	6,502,467	110,822	34,114	90	56,206	20,322	5,829

[1] All other states embrace: California, 5 establishments; District of Columbia, 1; Georgia, 1; Mississippi, 1; North Carolina, 3; Oregon, 5; Rhode Island, 1; South Carolina, 1; Texas, 2; Washington, 3.

THE PRINTING AND PUBLISHING INDUSTRY.

By WILLIAM A. COUNTRYMAN.

SUMMARY AND ANALYSIS.

Scope of the industry.—This report presents statistics for six classes of establishments, as follows: (1) Establishments whose chief business is book printing, job printing (or both book and job printing), book printing and publishing, or book publishing only; (2) establishments whose sole business is music printing, or whose chief business is music printing and publishing, or music publishing only; (3) establishments which are engaged in the printing and publishing, or in the publishing only, of newspapers and periodicals, regardless of the relative importance of the other departments or branches, if any, of their business; (4) establishments whose chief business is bookbinding and blank-book making; (5) establishments whose chief business is engraving on steel plates and copper plates and printing from such plates; and (6) establishments whose chief business is lithographing.

The first group is composed of establishments whose chief business is either one or both of the following: (*a*) The publication of books, whether or not the publishing establishment does its own printing; and (*b*) "job" or "contract" printing of any or every character, including the printing of books and of music. Establishments engaged exclusively in the printing of music, however, are included in the second group.

The essential characteristic of establishments in the third group is the publication of newspapers or periodicals, the question whether an establishment of this class does its own printing being immaterial. It should be noted that this group includes every establishment which publishes a newspaper or periodical, even though such publication may constitute only a minor branch of the business.

Because of the overlapping of the various branches of the industry as distinguished in this report, comparisons between them would be in some respects misleading. For this reason some of the tables do not contain separate figures for the several branches, but present only totals for the industry as a whole.

Table 1 shows the important statistical items relating to the six branches of the industry separately and as a whole, for 1914 and 1904, with percentages of increase.

The total value of products for the industry as a whole includes some duplication, due to the fact that establishments in one branch frequently do work for establishments in another branch. Moreover, there is duplication within certain of the individual branches, the book-publishing and job-printing branch being a conspicuous example. Many book publishers do no printing, but hire their work done by job-printing establishments, which are included in the same branch of the industry, while other concerns perform the press-work themselves but hire the composition done. Again, in the newspaper and periodical branch certain concerns which print their own publications also print newspapers or periodicals published by others.

In most industries where there is duplication in value of products reported there is also a corresponding amount of duplication in cost of materials, but the latter form of duplication is relatively unimportant in the printing and publishing industry, since the payments made by certain establishments to other establishments within this industry are not chiefly for materials, but for contract work. In most industries the subtraction of the cost of materials from the total value of products leaves an amount designated as "value added by manufacture," which is exclusive of all, or practically all, duplication. In the case of the printing and publishing industry, however, this "value added by manufacture" includes considerable duplication representing contract work done by one establishment for another. If the total amount reported as paid for this contract work in 1914, $41,532,901, practically all of which was paid to other establishments in the industry, be deducted from the total value of products, $901,534,801, there remains about $860,000,000, which, with a further slight reduction for duplication due to the sale of products by one establishment to another, would represent approximately the net value of products for the industry.

Similarly, the subtraction of the expenditure for contract work from the amount shown as value added by manufacture, $643,686,825, leaves, in round numbers, $600,000,000 as the true value added by manufacture, exclusive of duplication.

In the printing and publishing industry the cost of materials constitutes a comparatively small proportion of the total value of products. The combined cost of materials—a large part of which represents the cost of paper and of fuel and power—used by all six branches of the industry in 1914 was equal to 28.6 per cent of the gross value of products.

For the largest of the six branches, the printing and publishing of newspapers and periodicals, considerable

increases in most of the items appear for the decade 1904–1914. The number of proprietors and firm members decreased slightly, the increase in number of establishments was small, and the rate of increase in average number of wage earners was only about one-sixth; but all the remaining items show considerable increases, that for value of products amounting to about three-fifths.

In the next largest branch of the industry, book publishing and book and job printing, the average number of wage earners increased by nearly one-third and the value of products by more than two-thirds during the ten-year period. The bookbinding and blank-book making and the lithographing branches each reported an increase of over one-fifth in average number of wage earners and of more than one-half in value of products. By far the greatest rates of increase in wage earners and value of products—91.6 per cent and 132 per cent, respectively—appear for steel and copperplate engraving and plate printing. This branch of the industry, however, is the least important of the six, with the single exception of music printing and publishing. For the latter the rates of increase in wage earners and value of products—more than one-half and more than three-fourths, respectively—were greater than for any of the other branches except steel and copperplate engraving and plate printing.

Table 1

	TOTAL FOR THE INDUSTRY.			ESTABLISHMENTS ENGAGED PRIMARILY IN—					
				Printing and publishing, book and job.			Printing and publishing, music.		
	1914	1904	Per cent of increase: 1904–1914.	1914	1904	Per cent of increase: 1904–1914.	1914	1904	Per cent of increase:[1] 1904–1914.
Number of establishments	33,471	27,793	20.4	12,115	8,244	47.0	180	145	24.1
Persons engaged	419,313	316,047	32.7	152,908	111,961	36.6	2,182	1,464	49.0
Proprietors and firm members	31,041	28,368	9.4	11,717	8,766	33.7	146	148	—1.4
Salaried employees	116,180	68,592	69.4	28,070	15,449	81.7	1,163	739	57.4
Wage earners (average number)	272,092	219,087	24.2	113,121	87,746	28.9	873	577	51.3
Primary horsepower	335,210	166,380	101.5	115,233	56,188	105.1	594	203	192.6
Capital	$720,231,654	$432,853,984	66.4	$247,282,409	$142,015,638	74.1	$4,260,844	$3,487,017	22.2
Salaries and wages	332,907,294	194,944,287	70.8	113,419,236	64,120,581	76.9	1,903,872	849,320	124.2
Salaries	137,396,936	67,748,298	102.8	35,005,536	15,399,727	127.3	1,330,887	509,144	161.4
Wages	195,510,358	127,195,989	53.7	78,413,700	48,720,854	60.9	572,985	340,176	68.4
Paid for contract work	41,532,901	28,880,362	43.8	17,658,478	11,322,256	56.0	1,561,812	822,915	89.8
Rent and taxes (including internal revenue)	24,291,193	[2] 12,123,388	[3]	10,278,667	[2] 4,885,355	[3]	246,945	[2] 62,120	[3]
Cost of materials	257,847,976	142,514,182	80.9	96,453,232	52,575,110	83.5	1,046,630	541,220	93.4
Value of products	901,534,801	552,473,353	63.2	307,330,861	182,611,720	68.3	7,271,266	4,147,783	75.3
Value added by manufacture (value of products less cost of materials)	643,686,825	409,959,171	57.0	210,877,629	130,036,610	62.2	6,224,636	3,606,563	72.6

	ESTABLISHMENTS ENGAGED PRIMARILY IN—											
	Printing and publishing, newspapers and periodicals.			Bookbinding and blank-book making.			Engraving, steel and copper plate, including plate printing.			Lithographing.		
	1914	1904	Per cent of increase:[1] 1904–1914.	1914	1904	Per cent of increase: 1904–1914.	1914	1904	Per cent of increase: 1904–1914.	1914	1904	Per cent of increase:[1] 1904–1914.
Number of establishments	19,317	18,033	7.1	1,124	908	23.8	399	215	85.6	336	248	35.5
Persons engaged	212,000	163,682	29.5	25,633	20,359	25.9	8,521	4,194	103.2	18,069	14,387	25.6
Proprietors and firm members	17,560	18,044	—2.7	1,078	999	7.9	369	229	61.1	171	182	—6.0
Salaried employees	80,065	48,781	64.1	2,862	1,647	73.8	1,293	385	235.8	2,727	1,591	71.4
Wage earners (average number)	114,375	96,857	18.1	21,693	17,713	22.5	6,859	3,580	91.6	15,171	12,614	20.3
Primary horsepower	187,269	94,832	97.5	11,266	5,671	98.7	5,670	1,291	339.2	15,178	8,195	85.2
Capital	$384,744,761	$239,505,949	60.6	$29,179,790	$16,904,883	72.6	$19,078,545	$5,402,716	253.1	$35,685,305	$25,537,781	39.7
Salaries and wages	179,580,971	106,949,199	67.9	15,026,590	9,677,446	57.8	6,404,409	2,781,450	130.3	16,572,216	19,566,291	56.8
Salaries	91,019,723	47,127,711	93.1	3,451,867	1,790,501	92.8	1,877,725	553,600	239.2	4,711,198	2,367,615	99.0
Wages	88,561,248	59,821,488	48.0	11,574,723	7,886,945	46.8	4,526,684	2,227,850	103.2	11,861,018	8,198,676	44.7
Paid for contract work	20,960,716	16,219,081	29.2	381,087	160,735	137.1	267,207	29,569	803.7	703,601	325,806	116.0
Rent and taxes (including internal revenue)	10,816,276	[2] 5,631,676	[3]	1,372,360	[2] 761,450	[3]	471,509	[2] 162,589	[3]	1,104,936	[2] 620,198	[3]
Cost of materials	129,082,218	70,354,474	83.5	13,334,207	9,139,937	46.0	3,914,508	1,553,618	152.0	14,017,181	8,349,823	67.9
Value of products	495,905,948	309,301,854	60.3	38,104,368	25,223,650	51.1	13,736,385	5,943,080	132.0	39,135,973	25,245,266	55.0
Value added by manufacture (value of products less cost of materials)	366,823,730	238,947,380	53.5	24,770,161	16,083,713	54.0	9,871,877	4,389,462	124.9	25,118,792	16,895,443	48.7

[1] A minus sign (—) denotes decrease. [2] Exclusive of internal revenue. [3] Figures not comparable.

Related industries.—Among the more important industries related to printing and publishing are engraving and diesinking, wood engraving, photo-engraving, the manufacture of miscellaneous printing materials, stereotyping and electrotyping, and type founding. The statistics for 1914 for these related industries are summarized in Table 2.

Measured by value of products, photo-engraving and stereotyping and electrotyping are by far the most important of the related industries, the former having reported nearly one-half and the latter more than one-fourth of the total for 1914.

Table 2

	Total for related industries.	ESTABLISHMENTS ENGAGED PRIMARILY IN—					
		Engraving and diesinking.	Wood engraving.	Photo-engraving.	Manufacturing printing materials.	Stereotyping and electrotyping.	Type founding.
Number of establishments	1,248	486	72	376	94	189	31
Persons engaged	17,777	2,300	452	8,525	676	4,455	1,369
Proprietors and firm members	1,062	548	78	262	51	108	15
Salaried employees	3,732	216	72	2,052	202	890	300
Wage earners (average number)	12,983	1,536	302	6,211	423	3,457	1,054
Primary horsepower	14,398	1,092	68	3,927	671	6,983	1,657
Capital	$21,811,215	$1,865,298	$246,268	$7,703,210	$1,770,980	$4,709,797	$5,515,662
Salaries and wages	16,297,462	1,301,995	419,854	8,786,527	651,119	4,074,479	1,063,488
Salaries	4,737,514	226,274	109,536	2,619,889	311,078	1,073,110	397,627
Wages	11,559,948	1,075,721	310,318	6,166,638	340,041	3,001,369	665,861
Paid for contract work	317,653	16,428	9,370	230,504	4,529	54,705	2,117
Rent and taxes (including internal revenue)	1,338,003	231,867	28,360	570,570	95,311	337,882	74,013
Cost of materials	7,410,092	596,107	96,384	2,798,132	763,212	2,254,926	901,331
Value of products	31,796,395	3,133,791	719,234	15,358,604	2,110,814	8,154,171	2,319,781
Value added by manufacture (value of products less cost of materials)	24,386,303	2,537,684	622,850	12,560,472	1,347,602	5,899,245	1,418,450

Comparison with earlier censuses.—Table 3 summarizes the statistics for the combined industry in the United States for each census from 1889 to 1914, inclusive, and gives percentages of increase.

Table 3

	PRINTING AND PUBLISHING—ALL BRANCHES COMBINED.									
	Number or amount.					Per cent of increase.				
	1914	1909	1904	1899	1889	1904–1914	1909–1914	1904–1909	1899–1904	1889–1899
Number of establishments	33,471	31,445	27,793	23,814	17,724	20.4	6.4	13.1	16.7	34.4
Persons engaged	419,313	388,466	316,047	(1)	(1)	32.7	7.9	22.9	.....	.....
Proprietors and firm members	31,041	30,424	28,368	(1)	(1)	9.4	2.0	7.2	.....	.....
Salaried employees	116,180	99,608	68,592	40,685	(1)	69.4	16.6	45.2	68.6	.....
Wage earners (average number)	272,092	258,434	219,087	195,260	161,261	24.2	5.3	18.0	12.2	(2)
Primary horsepower	335,210	297,763	166,380	119,775	67,453	101.5	12.6	79.0	38.9	77.6
Capital	$720,231,654	$588,345,708	$432,853,984	$333,003,432	$223,863,731	66.4	22.4	35.9	30.0	48.8
Salaries and wages	332,907,294	268,086,431	194,944,287	139,291,335	121,015,783	70.8	24.2	37.5	40.0	15.1
Salaries	137,396,936	103,458,251	67,748,298	39,475,220	(1)	102.8	32.8	52.7	71.6	.....
Wages	195,510,358	164,628,180	127,195,989	99,816,115	(1)	53.7	18.8	29.4	27.4	.....
Paid for contract work	41,532,901	36,384,359	28,880,362	(1)	(1)	43.8	14.2	26.0	.....	.....
Rent and taxes (including internal revenue)	24,291,193	16,347,981	[3] 12,123,388	(1)	(1)	.....	48.6	.....	.....	.....
Cost of materials	257,847,976	201,774,590	142,514,182	103,654,284	81,874,561	80.9	27.8	41.6	37.5	26.6
Value of products	901,534,801	737,876,087	552,473,353	395,186,629	313,856,256	63.2	22.2	33.6	39.8	25.9
Value added by manufacture (value of products less cost of materials)	643,686,825	536,101,497	409,959,171	291,532,345	231,981,695	57.0	20.1	30.8	40.6	25.7

[1] Figures not available. [2] Figures not strictly comparable. [3] Exclusive of internal revenue.

It will be noted that the rates of increase, so far as shown, for all items covered by the table were less for the period 1909–1914 than for either of the preceding five-year periods. The greatest percentages of increase for the ten-year period 1904–1914 and for the five-year period 1899–1904 appear for salaries, and the rates of increase in this item during the periods 1904–1909 and 1909–1914 were second only to those for primary horsepower and rent and taxes, respectively. The relative increase in cost of materials since the census of 1904 has been considerably greater than in either value of products or value added by manufacture. In 1914 the value added by manufacture represented 71.4 of the total value of products, as compared with 72.7 per cent in 1909, 74.2 per cent in 1904, 73.8 per cent in 1899, and 73.9 per cent in 1889.

Summary, by states.—Table 4 summarizes the more important statistics for the industry as a whole, by states, the states being arranged according to the value of products reported for 1914, with per cent distribution for that year and rank for both 1914 and 1909. Percentages of increase are not shown in this table because the previous census figures for many of the states are not sufficiently comparable.

Statistics for 14 states and the District of Columbia—all but one of which reported products for the combined industry to the value of more than $1,000,000—can not be shown separately in this table without disclosing the operations of individual establishments in one or more minor branches. These states include three with products between $11,000,000 and $16,000,000 in value and two with products valued from $6,000,000 to $10,000,000. For the two important branches of the combined industry—book publishing and book and job printing, and the printing and publishing of newspapers and periodicals—statistics for these states can be shown separately and are given in Tables 5 and 7.

The five leading states ranked alike in both 1914 and 1909 in respect to average number of wage earners, value of products, and value added by manufacture. The 10 states which head the list in the table led in all three respects in both years, although not in precisely the same order.

New York, first in rank in all particulars at both censuses, reported nearly one-fourth of the wage earners and somewhat more than one-fourth of the value of products for 1914, and the three states of

New York, Illinois, and Pennsylvania together reported nearly one-half of the wage earners and a little over one-half of the total value of products for the industry in that year.

Table 4

PRINTING AND PUBLISHING—ALL BRANCHES COMBINED: 1914.

STATE.	Number of establishments.	Wage earners. Average number.	Wage earners. Per cent distribution.	Wage earners. Rank. 1914	Wage earners. Rank. 1909	Value of products. Amount.	Value of products. Per cent distribution.	Value of products. Rank. 1914	Value of products. Rank. 1909	Value added by manufacture. Amount.	Value added by manufacture. Per cent distribution.	Value added by manufacture. Rank. 1914	Value added by manufacture. Rank. 1909
United States	33,471	272,092	100.0	.....	.....	$901,534,801	100.0	.....	.....	$643,686,825	100.0	.....	.....
New York	4,806	64,020	23.5	1	1	257,268,671	28.5	1	1	188,353,768	29.3	1	1
Illinois	2,722	32,838	12.1	2	2	112,833,427	12.5	2	2	79,555,812	12.4	2	2
Pennsylvania	2,538	26,909	9.9	3	3	84,976,922	9.4	3	3	57,498,445	8.9	3	3
Massachusetts	1,344	18,170	6.7	4	4	56,195,811	6.2	4	4	39,378,580	6.1	4	4
Ohio	1,783	18,070	6.6	5	5	55,608,924	6.2	5	5	38,538,944	6.0	5	5
California	1,543	8,759	3.2	7	7	34,774,879	3.8	6	7	25,065,995	3.9	6	7
Missouri	1,353	10,571	3.9	6	6	33,173,414	3.7	7	6	23,602,183	3.7	7	6
Michigan	1,113	8,166	3.0	8	8	24,953,324	2.8	8	8	17,455,196	2.7	8	8
Minnesota	994	6,134	2.3	10	10	20,186,594	2.2	9	9	14,626,901	2.3	9	9
Indiana	922	6,140	2.3	9	9	17,116,746	1.9	10	10	12,098,041	1.9	10	10
Iowa	1,076	4,948	1.8	13	13	15,934,486	1.8	11	12	11,804,654	1.8	11	12
New Jersey	732	5,433	2.0	12	11	14,083,011	1.6	14	11	9,531,942	1.5	13	11
Tennessee	437	2,665	1.0	20	18	8,200,681	0.9	17	17	5,872,254	0.9	17	17
Nebraska	692	2,413	0.9	22	24	7,835,653	0.9	18	20	5,591,543	0.9	19	19
Connecticut	364	2,838	1.0	17	19	7,712,615	0.8	19	23	5,517,400	0.8	20	23
Georgia	441	2,476	0.9	21	22	7,575,931	0.8	20	22	5,603,577	0.9	18	20
Virginia	396	2,790	1.0	19	21	7,069,847	0.8	21	24	5,003,272	0.8	23	24
Colorado	475	2,173	0.8	24	23	7,027,420	0.8	22	19	5,050,252	0.8	21	18
Kansas	772	2,818	1.0	18	16	6,991,276	0.8	23	18	4,639,990	0.7	24	22
Kentucky	414	3,028	1.1	16	17	6,983,581	0.8	24	21	5,018,689	0.8	22	21
Oregon	377	1,556	0.6	28	29	6,010,857	0.7	26	25	4,448,350	0.7	26	25
Louisiana	290	1,405	0.5	31	28	4,316,948	0.5	27	28	3,255,162	0.5	27	28
Rhode Island	102	1,515	0.6	30	30	4,293,489	0.5	28	29	3,131,697	0.5	28	29
Alabama	286	1,346	0.5	32	33	4,121,251	0.5	29	31	3,104,352	0.5	29	31
Oklahoma	624	1,619	0.6	27	25	4,023,851	0.4	30	27	3,100,410	0.5	30	27
Maine	204	1,772	0.7	25	26	3,716,855	0.4	31	30	2,506,462	0.4	31	30
Florida	235	1,220	0.5	33	36	3,017,140	0.3	33	39	2,214,448	0.3	33	39
Utah	166	872	0.3	38	35	2,780,009	0.3	35	33	1,899,791	0.3	35	34
West Virginia	242	1,218	0.4	34	32	2,430,565	0.3	36	36	1,770,549	0.3	36	38
North Dakota	351	752	0.3	40	39	2,220,217	0.2	38	38	1,765,211	0.3	37	37
Arizona	74	335	0.1	46	47	996,822	0.1	45	45	818,349	0.1	45	45
New Mexico	107	258	0.1	47	46	577,936	0.1	47	46	484,271	0.1	46	46
Wyoming	81	183	0.1	48	49	545,718	0.1	48	48	444,444	0.1	48	48
Nevada	42	161	0.1	49	48	473,042	0.1	49	47	375,047	(1)	49	47
All other states	5,313	26,521	9.6	.....	.....	75,506,888	8.4	.....	.....	54,260,844	8.4	.....	.....

[1] Less than one-tenth of 1 per cent.

Book publishing and book and job printing.—Table 5 shows, for this branch of the industry, by states, for the year 1914, the number of establishments, average number of wage earners, value of products, and value added by manufacture, together with the per cent distributions for 1914, the rank of the states for 1914 and 1909, and the percentages of increase for the three five-year periods between 1899 and 1914.

Table 5

PRINTING AND PUBLISHING, BOOK AND JOB: 1914.

STATE.	Number of establishments.	Wage earners. Average number.	Wage earners. Per cent distribution.	Wage earners. Rank. 1914	Wage earners. Rank. 1909	Value of products. Amount.	Value of products. Per cent distribution.	Value of products. Rank. 1914	Value of products. Rank. 1909	Value added by manufacture. Amount.	Value added by manufacture. Per cent distribution.	Value added by manufacture. Rank. 1914	Value added by manufacture. Rank. 1909
United States	12,115	113,121	100.0	.....	.....	$307,330,861	100.0	.....	.....	$210,877,629	100.0	.....	.....
New York	2,389	25,800	22.8	1	1	78,841,261	25.6	1	1	53,166,132	27.6	1	1
Illinois	1,173	18,892	16.7	2	2	54,625,954	17.8	2	2	35,270,600	16.7	2	2
Pennsylvania	1,206	10,139	9.0	3	3	25,285,844	8.2	3	3	16,070,029	7.6	3	3
Massachusetts	741	7,062	6.2	5	4	20,245,246	6.6	4	4	14,731,508	7.0	4	4
Ohio	772	7,978	7.1	4	5	19,915,250	6.5	5	5	13,004,041	6.2	5	5
Missouri	435	5,123	4.5	6	6	12,434,192	4.0	6	6	8,575,864	4.1	6	6
California	631	3,172	2.8	8	9	9,885,477	3.2	7	7	7,032,190	3.3	7	7
Michigan	404	3,860	3.4	7	8	9,380,560	3.1	8	8	6,296,771	3.0	8	8
Minnesota	258	2,901	2.6	9	10	7,652,223	2.5	9	10	5,541,263	2.6	9	10
Indiana	277	2,529	2.2	10	7	6,237,228	2.0	10	9	4,207,745	2.0	10	9
Maryland	197	2,284	2.0	11	11	5,546,639	1.8	11	12	3,532,894	1.7	11	12
Texas	288	1,805	1.6	12	12	4,711,163	1.5	12	11	3,390,820	1.6	12	11
New Jersey	359	1,698	1.5	14	13	4,291,465	1.4	13	13	2,679,518	1.3	13	13
Wisconsin	217	1,765	1.6	13	15	4,239,861	1.4	14	14	2,586,575	1.2	14	15
Iowa	182	1,303	1.2	18	19	3,733,747	1.2	15	16	2,465,851	1.2	15	17
Connecticut	208	1,580	1.4	15	14	3,505,751	1.1	16	15	2,358,827	1.1	16	14
Virginia	165	1,452	1.3	16	18	3,402,118	1.1	17	17	2,214,504	1.1	17	16
Tennessee	142	1,161	1.0	19	16	2,961,955	1.0	18	18	1,999,397	1.0	18	18
Kentucky	124	1,312	1.2	17	17	2,687,309	0.9	19	19	1,810,152	0.9	20	20

PER CENT OF INCREASE.[1]

STATE.	Wage earners (average number). 1909–1914	1904–1909	1899–1904	Value of products. 1909–1914	1904–1909	1899–1904	Value added by manufacture. 1909–1914	1904–1909	1899–1904
United States	4.1	23.9	29.8	22.5	37.4	49.9	21.7	33.3	51.9
New York	— 2.9	26.6	29.0	13.1	39.2	59.4	14.8	33.4	67.2
Illinois	13.8	28.4	23.7	38.4	39.5	43.2	31.5	35.0	38.3
Pennsylvania	5.4	9.2	22.5	15.9	14.5	48.4	14.1	6.5	47.6
Massachusetts	(2)	17.3	10.9	18.1	38.6	1.4	17.7	37.3	—1.0
Ohio	17.1	16.2	27.1	32.9	30.0	45.2	31.0	27.7	49.7
Missouri	—12.0	21.1	37.5	1.6	25.1	60.5	6.0	20.5	86.7
California	9.1	14.4	58.0	32.9	29.0	110.1	39.3	21.3	119.8
Michigan	24.0	37.5	44.1	51.7	56.1	67.6	48.6	60.2	56.7
Minnesota	40.1	16.6	65.4	66.3	35.1	80.2	76.9	28.5	82.5
Indiana	—19.0	29.8	84.5	9.8	46.0	66.6	8.7	57.1	49.6
Maryland	27.8	29.1	6.1	51.7	60.8	0.9	43.6	67.9	3.7
Texas	4.3	42.9	68.7	14.6	75.6	96.8	19.7	77.7	86.4
New Jersey	—1.2	—6.8	27.4	17.4	1.0	77.5	18.9	—6.7	79.6
Wisconsin	12.1	35.2	62.7	43.3	47.8	106.1	31.8	43.8	110.4
Iowa	4.9	46.5	—0.8	34.5	70.1	34.9	37.2	66.6	35.2
Connecticut	—3.5	24.5	34.3	19.3	35.1	15.8	14.7	37.4	14.0
Virginia	9.8	32.9	45.9	23.2	77.5	43.5	16.1	87.4	35.4
Tennessee	—15.2	42.0	15.2	16.9	51.3	34.0	18.5	58.6	30.6
Kentucky	—3.0	1.3	88.3	13.5	24.8	89.5	10.9	28.4	101.4

[1] A minus sign (—) denotes decrease; percentages are omitted where base is less than 100 for wage earners or less than $100,000 for value of products or value added by manufacture, or where comparable figures can not be given.
[2] Decrease of less than one-tenth of 1 per cent.

Table 5—Continued.

STATE.	PRINTING AND PUBLISHING, BOOK AND JOB: 1914.												PER CENT OF INCREASE.								
	Number of establishments.	Wage earners.				Value of products.				Value added by manufacture.				Wage earners (average number).			Value added by manufacture.			Value of products.		
		Average number.	Per cent distribution.	Rank.		Amount.	Per cent distribution.	Rank.		Amount.	Per cent distribution.	Rank.		1909–1914	1904–1909	1899–1904	1909–1914	1904–1909	1899–1904	1909–1914	1904–1909	1899–1904
				1914	1909			1914	1909			1914	1909									
Washington	220	932	0.8	20	22	$2,648,838	0.9	20	20	$1,928,837	0.9	19	19	0.9	72.7	76.0	12.3	90.2	131.9	15.3	81.3	133.5
Nebraska	116	802	0.7	24	24	2,373,523	0.8	21	23	1,360,707	0.6	24	24	11.4	11.6	17.5	36.7	36.5	44.8	19.3	28.9	59.9
Colorado	123	870	0.8	23	21	2,259,949	0.7	22	21	1,497,046	0.7	22	21	−13.3	20.4	67.6	2.2	37.0	55.7	−2.3	33.8	50.8
Georgia	122	923	0.8	22	20	2,217,274	0.7	23	22	1,552,386	0.7	21	22	−11.1	22.3	4.7	3.0	82.5	70.0	5.8	92.2	69.2
Rhode Island	100	930	0.8	21	23	2,006,139	0.6	24	24	1,363,979	0.6	23	23	10.3	18.2	14.8	17.5	32.3	33.3	17.6	35.5	41.3
Oregon	112	515	0.4	29	28	1,688,827	0.5	25	26	1,143,545	0.5	26	25	−10.4	90.4	89.9	12.0	99.9	114.6	10.6	106.0	113.3
District of Columbia	80	762	0.7	25	27	1,618,662	0.5	26	27	1,154,723	0.5	25	27	26.8	−2.0	−10.4	29.5	−28.2	113.5	25.1	−38.7	143.1
Louisiana	93	619	0.5	26	26	1,476,631	0.5	27	28	1,073,123	0.5	27	28	−2.5	−1.2	41.0	18.2	15.5	85.1	27.7	15.1	69.9
Kansas	130	551	0.5	28	25	1,386,784	0.4	28	25	912,457	0.4	28	26	−13.8	41.1	18.0	−10.9	92.2	22.1	−11.0	81.7	37.1
Alabama	79	455	0.4	30	30	1,220,603	0.4	29	30	890,189	0.4	29	29	−3.4	26.3	45.7	42.6	58.8	69.1	50.1	58.5	83.3
North Carolina	91	569	0.5	27	29	1,083,720	0.4	30	31	745,147	0.4	30	30	3.6	104.8	61.4	31.1	111.1	84.8	33.7	104.3	118.1
Maine	99	443	0.4	31	31	812,625	0.3	31	33	572,276	0.3	31	32	−2.4	6.8	54.0	20.9	7.1	51.1	22.0	11.0	49.9
Florida	74	340	0.3	33	38	783,204	0.3	32	30	514,131	0.2	33	35	43.5	53.9	52.5	78.0	65.0	116.6	59.6	68.9	.....
Utah	48	261	0.2	36	33	761,891	0.2	33	32	461,309	0.2	34	33	−11.8	75.1	44.4	−0.6	130.4	87.7	2.5	99.8	100.7
Oklahoma	76	292	0.3	35	32	760,477	0.2	34	29	551,108	0.3	32	31	−11.0	.....	.....	−14.1	442.7	.....	2.1	377.9	.....
West Virginia	58	342	0.3	32	37	647,115	0.2	35	37	459,965	0.2	35	37	35.2	31.1	87.4	54.6	43.6	123.0	58.6	30.7	.....
South Carolina	44	238	0.2	38	35	532,405	0.2	36	35	387,284	0.2	36	36	−10.9	75.7	28.3	19.7	129.7	−30.5	26.4	144.9	−33.7
Vermont	55	297	0.3	34	36	508,559	0.2	37	38	365,306	0.2	37	38	14.7	61.9	10.3	34.2	60.1	2.9	36.8	66.3	2.2
Arkansas	37	186	0.2	39	34	491,576	0.2	38	34	315,924	0.1	39	34	−34.5	93.2	41.3	−19.8	137.9	48.0	−18.3	116.4	64.4
New Hampshire	65	250	0.2	37	39	486,753	0.2	39	39	323,116	0.2	38	39	28.9	20.5	.....	47.8	35.6	82.5	37.5	33.1	.....
North Dakota	20	127	0.1	40	42	415,146	0.1	40	42	276,953	0.1	40	42	28.3	.....	.....	71.1	53.4	19.8	62.6	59.1	.....
Montana	17	116	0.1	42	43	333,676	0.1	41	41	220,653	0.1	41	41	43.2	.....	.....	19.7	134.9	.....	6.4	.....	.....
Mississippi	23	100	0.1	43	40	241,876	0.1	42	40	158,727	0.1	43	40	−35.9	.....	.....	−20.2	161.9	−28.7	−26.3	.....	−40.6
South Dakota	16	79	0.1	44	44	226,561	0.1	43	43	159,981	0.1	42	43	8.2	.....	.....	22.7	58.6	.....	39.7	.....	.....
Delaware	20	122	0.1	41	41	224,445	0.1	44	44	153,033	0.1	44	44	11.9	.....	.....	42.3	42.6	3.6	48.9	−4.4	.....
Idaho	22	62	0.1	46	45	186,124	0.1	45	45	142,035	0.1	45	45	19.2	.....	.....	42.1	.....	.....	41.3	.....	.....
Arizona	13	69	0.1	45	45	179,532	0.1	46	46	132,453	0.1	46	46	32.7	.....	.....	42.1	.....	.....	58.3	.....	.....
Nevada	4	25	(1)	47	46	85,501	(1)	47	47	58,822	(1)	47	47	−13.8	.....	.....	40.1	.....	.....	26.5	.....	.....
Wyoming	5	13	(1)	49	47	48,094	(1)	48	48	32,148	(1)	49	48	.....	.....	.....	25.4	.....	.....	23.5	.....	.....
New Mexico	5	15	(1)	48	48	41,045	(1)	49	49	35,585	(1)	48	49	87.5	.....	.....	139.7	.....	.....	181.8	.....	.....

[1] Less than one-tenth of 1 per cene.

While the rate of increase in value of products in a number of states, from 1909 to 1914, was greater than for the preceding five years, for the United States as a whole and for most of the states—including New York, Massachusetts, Missouri, and Indiana—it was considerably less during the later period than during the earlier, and in the case of five states actual decreases are shown. The falling off in rate of increase for wage earners is even more pronounced, and in 21 states—including New York, Missouri, and Indiana—there were decreases.

The only changes in rank in value of products and value added by manufacture between 1909 and 1914 among the leading ten states are those shown for Minnesota and Indiana, which exchanged places in both respects, but six of the ten ranked differently in the two years in average number of wage earners.

Music printing and publishing.—Table 6 presents, by leading states, for establishments engaged solely in the printing, or chiefly in the printing and publishing or in the publishing only, of music, statistics similar in scope to those given in Table 5 for the book-publishing and book and job printing branch of the industry.

Table 6

STATE.	PRINTING AND PUBLISHING, MUSIC: 1914.							PER CENT OF INCREASE.[1]								
	Number of establishments.	Wage earners.		Value of products.		Value added by manufacture.		Wage earners (average number).			Value of products.			Value added by manufacture.		
		Average number.	Per cent distribution.	Amount.	Per cent distribution.	Amount.	Per cent distribution.	1909–1914	1904–1909	1899–1904	1909–1914	1904–1909	1899–1904	1909–1914	1904–1909	1899–1904
United States	180	873	100.0	$7,271,266	100.0	$6,224,636	100.0	18.1	27.9	25.8	30.4	34.4	82.5	35.6	27.3	97.9
New York	73	437	50.1	3,631,522	49.9	3,043,398	48.9	14.3	34.9	32.1	16.8	43.5	153.9	12.8	40.9	176.1
Illinois	35	96	11.0	1,042,794	14.3	914,716	14.7	.....	.....	.....	10.2	63.4	105.2	37.8	28.0	118.3
Massachusetts	9	120	13.7	609,956	8.4	447,992	7.2	17.6	.....	−43.8	30.3	−9.3	26.6	13.7	−0.2	25.2
Ohio	12	50	5.7	484,344	6.7	412,901	6.6	.....	.....	.....	26.0	43.8	2.6	38.3	28.6	−2.0
Pennsylvania	13	123	14.1	364,194	5.0	300,550	4.8	.....	.....	−70.8	−3.1	−11.6	13.8	−2.9	−15.1	37.7
Missouri	7	20	2.3	201,932	2.8	184,053	3.0	.....	.....	.....	.....	.....	.....	.....	.....	.....
All other states	31	27	3.1	936,524	12.9	921,026	14.8	.....	.....	.....	310.3	.....	.....	437.7	.....	.....

[1] A minus sign (−) denotes decrease; percentages are omitted where base is less than 100 for wage earners, or less than $100,000 for value of products or value added by manufacture, or where comparable figures can not be given.

The selection of states in this table is limited to those reporting products valued at more than $200,000 for which statistics can be shown separately without disclosing the operations of individual establishments. New York reported nearly one-half of the entire value of products and value added by manufacture and practically one-half of the total average number of wage earners.

Newspapers and periodicals.—Table 7 gives for 1914, by states, the principal statistics for the newspaper and periodical branch of the printing and publishing industry, together with the rank of states, per cent distribution, and percentages of increase.

Table 7

PRINTING AND PUBLISHING, NEWSPAPERS AND PERIODICALS.

STATE.	Number of establishments.	Wage earners. Average number.	Wage earners. Per cent distribution.	Wage earners. Rank. 1914	Wage earners. Rank. 1909	Value of products. Amount.	Value of products. Per cent distribution.	Value of products. Rank. 1914	Value of products. Rank. 1909	Value added by manufacture. Amount.	Value added by manufacture. Per cent distribution.	Value added by manufacture. Rank. 1914	Value added by manufacture. Rank. 1909
United States	19,317	114,375	100.0	....	....	$495,905,948	100.0	....	....	$366,823,730	100.0	....	....
New York	1,717	20,089	17.6	1	1	137,753,860	27.8	1	1	102,491,273	27.9	1	1
Pennsylvania	1,133	12,750	11.1	2	2	52,239,269	10.5	2	2	36,789,943	10.0	2	3
Illinois	1,330	9,021	7.9	3	3	47,026,681	9.5	3	3	36,685,766	10.0	3	2
Ohio	901	7,274	6.4	4	4	28,023,290	5.7	4	5	20,250,724	5.5	4	5
Massachusetts	456	6,032	5.3	5	5	26,719,398	5.4	5	4	18,270,255	5.0	5	4
California	822	4,334	3.8	6	7	21,557,591	4.3	6	7	15,904,777	4.3	6	6
Missouri	851	4,279	3.7	7	6	18,034,624	3.6	7	6	13,058,831	3.6	7	7
Michigan	660	3,270	2.9	10	11	12,290,227	2.5	8	10	8,946,668	2.4	8	9
Minnesota	705	2,942	2.6	11	10	11,927,678	2.4	9	8	8,685,303	2.4	10	8
Iowa	874	3,397	3.0	8	9	11,455,048	2.3	10	9	8,831,129	2.4	9	10
Texas	892	2,830	2.5	13	12	10,263,457	2.1	11	12	7,604,650	2.1	11	12
Indiana	622	3,395	3.0	9	8	10,163,181	2.0	12	11	7,582,769	2.1	12	11
Wisconsin	572	2,848	2.5	12	13	8,098,914	1.6	13	13	5,723,445	1.6	13	13
New Jersey	320	2,470	2.2	14	15	7,413,284	1.5	14	15	5,587,572	1.5	14	15
Washington	402	1,302	1.1	21	17	6,856,299	1.4	15	14	5,254,016	1.4	15	14
Kansas	633	2,226	1.9	15	14	5,479,333	1.1	16	16	3,650,564	1.0	19	18
Nebraska	572	1,592	1.4	16	16	5,433,415	1.1	17	17	4,210,600	1.1	16	16
Georgia	313	1,496	1.3	17	21	5,237,563	1.1	18	20	3,968,297	1.1	17	20
Tennessee	282	1,440	1.3	18	18	5,077,180	1.0	19	18	3,755,764	1.0	18	17
Colorado	343	1,115	1.0	25	22	4,278,359	0.9	20	19	3,287,025	0.9	20	19
Maryland	134	1,136	1.0	23	25	4,260,487	0.9	21	21	3,063,648	0.8	23	21
District of Columbia	60	641	0.6	36	31	4,139,268	0.8	22	24	3,127,535	0.9	22	24
Oregon	251	945	0.8	28	28	4,126,752	0.8	23	23	3,148,152	0.9	21	22
Connecticut	131	1,127	1.0	24	23	3,846,514	0.8	24	25	2,959,394	0.8	24	25
Kentucky	276	1,303	1.1	20	19	3,534,218	0.7	25	22	2,718,347	0.7	25	23
Oklahoma	542	1,318	1.1	19	20	3,237,734	0.7	26	26	2,532,255	0.7	26	26
Virginia	218	969	0.8	27	25	3,094,585	0.6	27	29	2,469,163	0.7	27	27
Maine	98	1,265	1.1	22	24	2,804,477	0.6	28	27	1,869,265	0.5	31	29
Alabama	199	831	0.7	31	35	2,771,502	0.6	29	30	2,115,323	0.6	28	31
Louisiana	184	641	0.6	37	30	2,619,924	0.5	30	28	2,032,899	0.5	29	28
Montana	221	784	0.7	32	36	2,460,911	0.5	31	31	1,874,298	0.5	30	30
Florida	161	880	0.8	29	34	2,233,936	0.5	32	38	1,700,317	0.5	32	38
Rhode Island	47	529	0.5	41	41	2,183,284	0.4	33	33	1,686,340	0.5	33	33
North Carolina	238	971	0.8	26	27	2,148,454	0.4	34	34	1,680,995	0.5	34	35
South Dakota	363	722	0.6	33	29	1,909,019	0.4	35	32	1,513,935	0.4	35	32
Arkansas	270	706	0.6	34	32	1,850,413	0.4	36	37	1,379,134	0.4	37	36
Utah	108	536	0.5	40	38	1,817,421	0.4	37	39	1,306,677	0.4	38	39
North Dakota	331	625	0.5	38	33	1,805,071	0.4	38	35	1,488,258	0.4	36	34
West Virginia	181	846	0.7	30	26	1,729,075	0.3	39	36	1,280,758	0.3	39	37
South Carolina	122	655	0.6	35	39	1,452,858	0.3	40	40	1,145,676	0.3	40	40
Idaho	151	425	0.4	43	42	1,156,543	0.2	41	41	894,562	0.2	41	41
Mississippi	196	563	0.5	39	37	1,024,854	0.2	42	42	794,304	0.2	42	42
New Hampshire	68	448	0.4	42	40	944,658	0.2	43	43	748,119	0.2	43	43
Arizona	61	266	0.2	45	45	817,290	0.2	44	44	685,896	0.2	44	44
Vermont	56	354	0.3	44	43	734,385	0.1	45	45	580,846	0.2	45	45
New Mexico	102	243	0.2	46	44	536,891	0.1	46	46	448,686	0.1	46	46
Wyoming	76	170	0.1	48	48	497,624	0.1	47	48	412,296	0.1	47	47
Delaware	34	238	0.2	47	46	451,108	0.1	48	49	311,056	0.1	49	49
Nevada	38	136	0.1	49	47	387,541	0.1	49	47	316,225	0.1	48	48

PER CENT OF INCREASE.[1]

STATE.	Wage earners (average number). 1909–1914	Wage earners (average number). 1904–1909	Wage earners (average number). 1899–1904	Value of products. 1909–1914	Value of products. 1904–1909	Value of products. 1899–1904	Value added by manufacture. 1909–1914	Value added by manufacture. 1904–1909	Value added by manufacture. 1899–1904
United States	5.2	12.2	2.4	22.1	31.3	38.7	18.8	29.2	38.3
New York	4.0	19.1	−1.5	23.2	30.4	36.2	19.4	27.5	39.0
Pennsylvania	16.6	8.1	5.8	26.1	36.7	30.3	26.9	31.8	27.3
Illinois	8.8	15.0	−3.7	18.2	38.9	47.6	20.4	40.2	42.4
Ohio	12.6	4.3	−2.6	30.6	30.7	34.6	23.8	30.1	35.1
Massachusetts	−3.5	15.0	0.1	14.2	11.3	25.4	5.5	11.5	20.9
California	18.7	3.2	31.8	41.5	31.0	69.7	31.6	30.4	70.4
Missouri	5.4	−1.4	9.6	14.4	19.8	42.1	10.9	19.5	39.3
Michigan	11.3	−6.7	8.0	39.6	27.0	35.4	31.2	29.5	28.6
Minnesota	−7.9	24.2	−5.3	11.8	38.5	33.0	4.8	37.5	27.8
Iowa	−1.6	2.8	−1.0	27.5	34.9	34.9	30.2	29.6	35.9
Texas	7.0	19.0	21.5	38.6	36.1	60.6	29.2	32.9	60.7
Indiana	−1.8	4.8	−19.2	24.2	12.9	19.0	21.5	9.8	22.3
Wisconsin	9.0	−4.2	1.8	17.0	24.5	35.5	8.7	25.8	30.7
New Jersey	2.5	13.3	2.5	22.2	35.2	20.3	20.0	31.6	24.6
Washington	−17.2	32.3	89.9	3.5	93.9	158.5	1.2	92.0	142.7
Kansas	−10.1	27.6	9.9	6.6	64.8	32.8	4.8	42.5	34.6
Nebraska	0.8	11.2	6.4	11.4	31.8	45.0	11.4	35.2	45.0
Georgia	14.1	16.1	7.5	27.4	54.7	57.5	22.0	55.5	58.9
Tennessee	−5.9	12.4	43.1	10.5	35.6	53.7	7.1	30.8	52.4
Colorado	−8.3	15.5	−19.2	−4.7	16.9	52.0	−4.8	15.2	48.6
Maryland	15.9	−8.9	−29.6	16.6	13.5	22.9	11.0	7.6	25.4
District of Columbia	−8.4	63.6	−28.7	29.6	52.7	13.2	22.5	45.9	12.3
Oregon	20.8	23.5	3.8	24.1	74.1	77.1	15.2	78.7	82.4
Connecticut	0.2	−0.7	−1.6	21.5	14.4	30.0	23.1	9.3	29.7
Kentucky	−4.5	12.0	5.5	4.3	18.0	28.2	1.8	14.3	30.1
Oklahoma	−0.5	24.0	106.6	7.5	55.5	195.5	6.7	56.7	196.6
Virginia	−1.1	18.9	6.9	36.1	36.3	45.6	33.8	37.0	44.3
Maine	15.2	−14.1	−2.4	8.4	−2.2	20.8	6.8	−10.8	17.1
Alabama	34.7	13.8	−0.2	47.9	33.1	67.4	42.7	29.9	67.2
Louisiana	−13.4	17.5	−27.8	10.7	14.5	43.9	12.0	8.0	48.8
Montana	29.6	43.0	−7.0	35.2	33.1	50.0	25.6	35.8	48.8
Florida	31.7	71.7	27.5	56.7	63.4	81.6	53.2	63.5	88.6
Rhode Island	16.5	−15.8	10.4	28.4	17.5	56.3	26.5	13.6	51.5
North Carolina	17.4	17.6	7.7	28.6	32.4	52.5	29.8	29.8	48.9
South Dakota	−4.0	40.0	27.3	6.6	62.0	74.6	7.8	55.4	78.5
Arkansas	1.3	−6.8	24.7	25.9	24.0	41.2	18.9	22.8	41.4
Utah	−5.0	61.1	−18.8	33.8	19.8	91.0	24.2	13.2	104.2
North Dakota	−9.3	52.4	38.7	8.3	75.0	62.0	14.5	69.6	63.4
West Virginia	−13.1	29.7	6.2	13.2	21.0	39.2	12.5	16.0	36.4
South Carolina	17.4	18.5	14.0	27.0	35.5	65.4	21.4	35.1	69.3
Idaho	2.4	66.7	33.2	14.1	92.1	76.1	11.6	88.3	82.9
Mississippi	−2.4	21.2	8.2	2.3	25.1	42.9	0.6	22.6	44.6
New Hampshire	−5.9	0.2	16.8	20.2	10.0	−5.1	19.7	10.4	−3.4
Arizona	23.1	39.4	11.5	24.2	68.3	65.0	28.7	66.1	68.3
Vermont	−11.1	−10.4	1.8	12.9	−6.4	27.0	12.8	−3.8	24.0
New Mexico	−9.3	88.7	.....	−4.9	101.8	41.7	−0.4	95.5	40.6
Wyoming	14.1	35.5	27.9	10.3	54.7	84.8	10.4	51.7	96.2
Delaware	40.8	−1.7	−21.8	45.0	26.6	12.1	34.8	23.3	14.7
Nevada	−9.9	.....	.....	−15.4	81.2	127.7	−12.2	63.7	.....

[1] A minus sign (−) denotes decrease; percentages are omitted where base is less than 100 for wage earners or less than $100,000 for value added by manufacture.

The states in this table are arranged in the order of their importance in value of products. Each of the leading seven states in 1914 had the same rank in average number of wage earners and value added by manufacture as in value of products, and each of the leading four ranked the same in these respects as in population. It is noteworthy that Minnesota, which ranked nineteenth in population, was eleventh in average number of wage earners, ninth in value of products, and tenth in the value added by manufacture.

The greatest relative increase in average number of wage earners from 1909 to 1914—about two-fifths—is shown for Delaware and the greatest relative increases in value of products and value added by manufacture—nearly three-fifths and more than one-half, respectively—appear for Florida.

It may be mentioned that of the leading ten states only two—Michigan and Minnesota—held the same rank in 1914 in value of products for this branch of the industry as for book publishing and book and job printing, the figures for which are given in Table 5.

The leading states which changed rank between 1909 and 1914 in value of products of the newspaper and periodical branch of the industry include Ohio and Massachusetts, which exchanged places; California and Missouri, which also exchanged places; and Michigan, Minnesota, and Iowa.

Bookbinding and blank-book making.—Table 8 gives, for 1914, by states, for the bookbinding and blank-book making branch of the industry, the more important statistics.

Table 8 BOOKBINDING AND BLANK-BOOK MAKING: 1914.

STATE.	Number of establishments.	Wage earners.		Value of products.		Value added by manufacture.		PER CENT OF INCREASE.[1] Wage earners (average number.)			Value of products.			Value added by manufacture.		
		Average number.	Per cent distribution.	Amount.	Per cent distribution.	Amount.	Per cent distribution.	1909–1914	1904–1909	1899–1904	1909–1914	1904–1909	1899–1904	1909–1914	1904–1909	1899–1904
United States	1,124	21,693	100.0	$38,104,368	100.0	$24,770,161	100.0	8.8	12.6	10.9	20.0	25.8	21.3	23.2	25.0	22.9
New York	383	8,772	40.4	14,813,640	38.9	9,757,986	39.4	4.1	5.6	11.6	9.4	21.3	23.4	13.3	17.7	23.7
Massachusetts	96	3,317	15.3	4,943,081	13.0	3,418,346	13.8	20.1	10.3	−4.0	32.5	9.9	−6.2	41.5	21.8	−10.0
Illinois	102	2,460	11.3	4,283,787	11.2	2,711,408	10.9	40.7	12.0	17.5	50.9	10.6	30.2	43.2	16.0	49.8
Pennsylvania	122	2,032	9.4	3,367,249	8.8	2,027,401	8.2	−3.1	5.7	23.6	−1.0	14.6	48.9	1.2	9.3	41.3
Ohio	60	977	4.5	2,831,673	7.4	1,828,711	7.4	55.6	64.0	−3.5	220.1	93.6	16.8	206.2	88.7	−16.3
Missouri	35	786	3.6	1,556,954	4.1	1,104,708	4.5	48.6	37.8	11.0	92.2	68.1	25.4	96.0	60.7	34.2
Michigan	28	469	2.2	1,261,748	3.3	632,732	2.5	−39.9	244.1	16.4	−22.8	272.2	86.8	−29.5	310.3	46.9
Wisconsin	30	612	2.8	1,014,070	2.7	588,858	2.4	3.4	−13.1	20.5	28.8	−0.7	33.6	27.9	2.1	41.9
New Jersey	34	502	2.3	773,901	2.0	543,379	2.2	−8.4	35.8	24.5	−2.7	96.0	70.6	11.8	66.4	72.5
California	46	359	1.7	730,074	1.9	520,672	2.1	23.8	−38.0	108.0	19.9	−4.3	166.3	15.9	−1.6	160.0
Indiana	17	110	0.5	458,572	1.2	168,788	0.7	−22.5	.....	−57.1	11.1	43.8	−42.3	5.0	47.2	−49.1
Minnesota	19	181	0.8	304,072	0.8	217,945	0.9	−24.6	35.6	−11.9	−31.8	35.7	−7.9	−20.3	18.1	43.2
Virginia	6	209	1.0	261,766	0.7	157,037	0.6	25.9	−1.8	48.2	46.2	36.8	.....	40.4	.....	.....
Iowa	14	91	0.4	254,047	0.7	186,281	0.8	.....	.....	.....	74.2	4.2	.....	65.6	9.1	.....
Maryland	16	230	1.1	252,296	0.7	186,151	0.8	25.7	24.5	−25.0	39.0	28.0	−18.2	30.2	27.5	−18.2
Washington	12	36	0.2	112,059	0.3	77,505	0.3	.....	.....	.....	10.6	.....	.....	.....	.....	.....
All other states	104	550	2.5	885,379	2.3	642,253	2.6	.....	.....	.....	.....	.....	.....	.....	.....	.....

[1] A minus sign (−) denotes decrease; percentages are omitted where base is less than 100 for wage earners, or less than $100,000 for value of products or value added by manufacture.

The selection of states is limited to those reporting products valued at $100,000 or more for 1914, for which figures can be shown separately without disclosing the operations of individual establishments. The leading state, New York, reported about two-fifths of the total value of products, and the combined value of output for the leading three states—New York, Massachusetts, and Illinois—amounted to more than three-fifths of the total. The greatest increases from 1909 to 1914 in average number of wage earners, value of products, and value added by manufacture—nearly three-fifths in the first-named item and more than 200 per cent in the second and third—are shown for Ohio. These great gains are due in large part to the fact that between 1909 and 1914 a new blank-book establishment, with a very large product, began operations in Alliance.

Engraving, steel and copper plate, including plate printing.—Table 9 presents the more important statistics for the leading states in this branch of the industry.

Table 9 ENGRAVING, STEEL AND COPPER PLATE, INCLUDING PLATE PRINTING: 1914.

STATE.	Number of establishments.	Wage earners.		Value of products.		Value added by manufacture.		PER CENT OF INCREASE.[1] Wage earners (average number).			Value of products.			Value added by manufacture.		
		Average number.	Per cent distribution.	Amount.	Per cent distribution.	Amount.	Per cent distribution.	1909–1914	1904–1909	1899–1904	1909–1914	1904–1909	1899–1904	1909–1914	1904–1909	1899–1904
United States	399	6,859	100.0	$13,786,385	100.0	$9,871,877	100.0	28.8	48.8	8.4	46.2	58.7	16.5	36.8	64.4	12.8
New York	118	2,419	35.3	5,269,603	38.2	3,766,366	38.1	15.7	16.5	7.0	24.9	32.8	16.5	14.5	42.8	15.0
Illinois	48	1,425	20.8	3,161,467	22.9	2,258,986	22.9	46.0	120.8	31.9	81.0	128.2	52.1	85.0	123.8	32.0
Pennsylvania	41	1,007	14.7	1,773,679	12.9	1,221,307	12.4	3.0	66.0	5.7	18.4	62.5	14.4	7.3	65.6	10.9
Massachusetts	29	421	6.1	746,290	5.4	586,481	5.9	37.1	86.1	−14.5	51.5	84.9	−24.7	47.6	102.2	−32.5
California	26	126	1.8	235,540	1.7	174,253	1.8	.....	.....	.....	131.7	.....	.....	.....	.....	.....
Kentucky	5	121	1.8	219,059	1.6	140,574	1.4	14.2	.....	.....	82.7	.....	.....	.....	.....	.....
Missouri	13	101	1.5	183,293	1.3	145,501	1.5	−8.2	.....	.....	16.7	1.5	33.2	18.0	1.2	.....
Ohio	10	118	1.7	175,240	1.3	145,821	1.5	.....	.....	.....	.....	.....	.....	.....	.....	.....
Michigan	12	91	1.3	156,303	1.1	118,017	1.2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Maryland	15	66	1.0	138,148	1.0	99,978	1.0	.....	.....	.....	.....	.....	.....	.....	.....	.....
All other states	82	964	14.1	1,727,763	12.5	1,214,593	12.3	.....	.....	.....	.....	.....	.....	.....	.....	.....

[1] A minus sign (−) denotes decrease; percentages are omitted where base is less than 100 for wage earners, or less than $100,000 for value of products or value added by manufacture.

The selection of states in this table is limited to those reporting products valued at more than $100,000, for which statistics can be given without disclosing the operations of individual establishments. In number of wage earners, and value added by manufacture, the percentages of gain during each five-year period were much higher for Illinois than for any of the other states shown. California led in increase in value of products, 1909 to 1914, and Kentucky was second.

Lithographing.—Table 10 shows the principal statistics for the leading states in the lithographing branch of the industry.

The selection of states is limited to those having a value of products amounting to $200,000 or more for which figures can be shown separately without disclosing the operations of individual establishments.

By far the greatest percentages of gain in value of products and value added by manufacture for the five-year period 1909–1914, 96.8 and 78.3 per cent, respectively, appear for Colorado, but the rate of increase in average number of wage earners shown by this state, 15.3 per cent, was less than the corresponding rates for several other states. The greatest relative increase in this item, 42.4 per cent, appears for the District of Columbia. Decreases in average number of wage earners are shown for Ohio, Illinois, Pennsylvania, Wisconsin, and Kentucky, and the last-named three states also show decreases in value of products and value added by manufacture.

Table 10

STATE.	LITHOGRAPHING: 1914.							PER CENT OF INCREASE.[1]								
	Number of establishments.	Wage earners.		Value of products.		Value added by manufacture.		Wage earners (average number).			Value of products.			Value added by manufacture.		
		Average number.	Per cent distribution.	Amount.	Per cent distribution.	Amount.	Per cent distribution.	1909–1914	1904–1909	1899–1904	1909–1914	1904–1909	1899–1904	1909–1914	1904–1909	1899–1904
United States	336	15,171	100.0	$39,135,973	100.0	$25,118,792	100.0	0.7	19.5	−2.9	14.7	35.1	13.5	13.2	31.3	17.7
New York	146	6,503	42.9	16,958,785	43.3	11,128,613	44.3	2.8	2.6	−2.7	16.6	16.3	13.0	19.3	10.2	16.4
Ohio	28	1,673	11.0	4,179,127	10.7	2,896,746	11.5	−3.6	30.1	−20.5	8.0	46.2	−3.1	15.1	44.2	7.0
Massachusetts	13	1,218	8.0	2,931,840	7.5	1,923,998	7.7	16.7	16.8	−17.1	31.9	29.7	−4.2	25.8	34.3	−7.7
Illinois	34	944	6.2	2,692,744	6.9	1,714,336	6.8	−2.0	51.4	1.4	10.0	69.6	2.8	14.1	56.7	29.2
California	14	766	5.0	2,351,051	6.0	1,420,677	5.7	15.5	38.7	13.5	43.0	62.3	40.9	36.6	59.6	44.9
Pennsylvania	23	858	5.7	1,946,687	5.0	1,089,215	4.3	−12.7	30.5	0.8	−6.4	48.1	27.7	−16.5	47.9	19.3
Wisconsin	10	428	2.8	1,102,271	2.8	708,963	2.8	−22.7	12.1	15.7	−4.4	34.9	19.4	−6.6	30.8	17.3
Maryland	6	457	3.0	1,065,392	2.7	664,851	2.6	17.2	18.5	17.1	33.4	24.4	28.5	37.1	18.1	28.7
Missouri	12	262	1.7	762,419	1.9	533,226	2.1	1.2	−25.6	−9.6	22.6	−18.1	10.4	27.0	−15.3	5.4
Kentucky	5	252	1.7	501,121	1.3	318,577	1.3	−8.1	.....	.....	−2.2	.....	.....	−12.3	.....	.....
Iowa	3	138	0.9	446,694	1.1	280,138	1.1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Colorado	3	98	0.6	385,701	1.0	197,810	0.8	15.3	.....	.....	96.8	.....	.....	78.3	.....	.....
District of Columbia	4	141	0.9	314,119	0.8	196,111	0.8	42.4	.....	.....	76.2	.....	.....	44.8	.....	.....
Minnesota	4	76	0.5	239,967	0.6	129,616	0.5	.....	.....	.....	.....	.....	.....	.....	.....	.....
Washington	4	71	0.5	207,097	0.5	129,110	0.5	1.4	.....	.....	11.6	.....	.....	13.0	.....	.....
All other states	27	1,286	8.5	3,050,898	7.8	1,786,805	7.1	.....	.....	.....	.....	.....	.....	.....	.....	.....

[1] A minus sign (−) denotes decrease; percentages are omitted where base is less than 100 for wage earners, or less than $100,000 for value of products or value added by manufacture.

Persons engaged in the industry.—Table 11 shows, for 1914 and 1909, the number of persons engaged in all branches of the printing and publishing industry combined, distributed by sex, the average number of wage earners being distributed also by age. The sex and age classification of the average number of wage earners in this and other tables is an estimate obtained by the method described in the "Explanation of terms."

Table 11

CLASS.	Census year.	PERSONS ENGAGED IN THE INDUSTRY.				
		Total.	Male.	Female.	Per cent of total.	
					Male.	Female.
All classes	1914	419,313	325,983	93,330	77.7	22.3
	1909	388,466	301,681	86,785	77.7	22.3
Proprietors and officials	1914	52,711	50,236	2,475	95.3	4.7
	1909	49,332	47,351	1,981	96.0	4.0
Proprietors and firm members	1914	31,041	29,467	1,574	94.9	5.1
	1909	30,424	29,130	1,294	95.7	4.3
Salaried officers of corporations	1914	9,000	8,528	472	94.8	5.2
	1909	7,265	6,952	313	95.7	4.3
Superintendents and managers	1914	12,670	12,241	429	96.6	3.4
	1909	11,643	11,269	374	96.8	3.2
Clerks and other subordinate salaried employees	1914	94,510	62,436	32,074	66.1	33.9
	1909	80,700	54,905	25,795	68.0	32.0
Wage earners (average number)	1914	272,092	213,311	58,781	78.4	21.6
	1909	258,434	199,425	59,009	77.2	22.8
16 years of age and over	1914	265,860	208,053	57,807	78.3	21.7
	1909	252,101	194,175	57,926	77.0	23.0
Under 16 years of age	1914	6,232	5,258	974	84.4	15.6
	1909	6,333	5,250	1,083	82.9	17.1

Chief editors and managing and city editors are classed as "superintendents and managers," and sub-editors, reporters, and other writers, if regularly employed, as "clerks." Other persons collecting information or writing articles at space rates are not included at all, but amounts paid such persons for their services are included in the item "Paid for contract work," in Tables 1, 3, and 62.

Table 12 gives percentages of increase and per cent distributions based on the figures in Table 11.

Table 12

	PERSONS ENGAGED IN THE INDUSTRY.								
	Per cent of increase,[1] 1909–1914.			Per cent distribution.					
	Total.	Male.	Female.	Total.		Male.		Female.	
				1914	1909	1914	1909	1914	1909
All classes	7.9	8.1	7.5	100.0	100.0	100.0	100.0	100.0	100.0
Proprietors and officials	6.8	6.1	24.9	12.6	12.7	15.4	15.7	2.7	2.3
Proprietors and firm members	2.0	1.2	21.6	7.4	7.8	9.0	9.7	1.7	1.5
Salaried officers of corporations	23.9	22.7	50.8	2.1	1.9	2.6	2.3	0.5	0.4
Superintendents and managers	8.8	8.6	14.7	3.0	3.0	3.8	3.7	0.5	0.4
Clerks and other subordinate salaried employees	17.1	13.7	24.3	22.5	20.8	19.2	18.2	34.4	29.7
Wage earners (average number)	5.3	7.0	−0.4	64.9	66.5	65.4	66.1	63.0	63.0
16 years of age and over	5.5	7.1	−0.2	63.4	64.9	63.8	64.4	61.9	66.7
Under 16 years of age	−1.6	0.2	−10.1	1.5	1.6	1.6	1.7	1.0	1.2

[1] A minus sign (−) denotes decrease.

Of the total number of persons engaged in all branches of the printing and publishing industry in 1914, 12.6 per cent were proprietors and officials, 22.5 per cent were clerks and other subordinate salaried employees, and 64.9 per cent were wage earners. Increases are shown for the period 1909–1914 in all classes of persons engaged, with the exception of the total number of wage earners under 16 years of age and of all female wage earners, for which classes slight decreases appear. The decrease in wage earners under 16 is confined to females, the number of males in this group showing practically no change. The greatest percentage of increase for both sexes combined, 23.9 per cent, is shown for salaried officers of corporations.

In order to compare the distribution of persons engaged in the industry in 1914 with that shown at the census of 1904, it is necessary to use the classification employed at the earlier census. (See "Explanation of terms.") Table 13 presents a comparison based on such a classification for the years 1914, 1909, and 1904, with percentages of increase and per cent distributions.

Table 13

CLASS.	PERSONS ENGAGED IN THE INDUSTRY.							
	Number.			Per cent distribution.			Per cent of increase.	
	1914	1909	1904	1914	1909	1904	1909–1914	1904–1909
Total	410,313	388,406	316,047	100.0	100.0	100.0	7.9	22.9
Proprietors and firm members	31,041	30,424	28,368	7.4	7.8	9.0	2.0	7.2
Salaried employees	116,180	99,608	68,502	27.7	25.6	21.7	16.6	45.2
Wage earners (average)	272,092	258,434	219,087	64.9	66.5	69.3	5.3	18.0

Each of the three classes covered by this table shows increases for both five-year periods, but these increases are much greater, both absolutely and relatively, for the earlier than for the later period.

The average number of wage earners employed and their per cent distribution as males and females 16 years of age and over and children under 16 years of age are given in Table 14 for 1914, 1909, and 1904 for the industry as a whole. The table also shows for each branch of the industry separately a similar distribution of wage earners for 1914 and 1909.

Table 14

INDUSTRY.	Census year.	WAGE EARNERS.			
		Average number.	Per cent of total.		
			16 years of age and over.		Under 16 years of age.
			Male.	Female.	
Printing and publishing, all branches.	1914	272,092	76.4	21.2	2.3
	1909	258,434	75.1	22.4	2.4
	1904	219,087	74.8	22.5	2.7
Book and job	1914	113,121	75.6	22.4	2.0
	1909	108,087	74.8	22.7	2.5
Music	1914	873	80.5	18.8	0.7
	1909	738	80.2	18.6	1.2
Newspapers and periodicals	1914	114,375	81.9	15.3	2.7
	1909	108,072	79.9	17.7	2.5
Bookbinding and blank-book making	1914	21,693	52.0	45.9	2.1
	1909	19,938	50.2	46.8	3.0
Engraving, steel and copper plate, including plate printing	1914	6,859	63.0	34.3	2.7
	1909	5,326	61.5	34.8	3.6
Lithographing	1914	15,171	82.6	16.6	0.8
	1909	15,073	80.8	18.0	1.2

For the industry as a whole, the proportion of male wage earners over 16 years of age has increased from census to census, while the proportions for both females over 16 years of age and children under 16 have decreased. Each branch of the industry also shows, for the period 1909–1914, an increase in the proportion of males 16 years of age and over, while only one shows an increase in the proportion of females and only one an increase in the proportion of children, both these latter increases being small.

The greatest proportions of female wage earners 16 years of age and over in both 1914 and 1909 are shown for the bookbinding and blank-book making branch of the industry, and the newspaper and periodical and the engraving and plate-printing branches reported the largest proportions of children for 1914.

Wage earners employed, by months.—Table 15 gives, for the industry as a whole, the total number

of wage earners employed on the 15th of each month, or the nearest representative day, for the years 1914 and 1909, and the average number employed during each month in 1904, together with the percentage which the number reported for each month forms of the greatest number reported for any month.

Table 15 WAGE EARNERS IN THE INDUSTRY.

MONTH.	Number.[1]			Per cent of maximum.		
	1914	1909	1904	1914	1909	1904
January	274,519	256,480	219,502	99.2	95.0	96.1
February	274,926	257,342	218,242	99.3	95.3	95.5
March	276,848	258,805	218,794	100.0	95.9	95.8
April	273,961	256,592	216,976	99.0	95.1	95.0
May	272,907	255,470	217,097	98.6	94.6	95.0
June	271,313	253,550	214,806	98.0	93.9	94.0
July	267,625	251,757	212,067	96.7	93.3	92.8
August	266,932	252,543	212,833	96.4	93.6	93.2
September	269,842	258,707	218,803	97.5	95.9	95.8
October	271,909	263,715	224,576	98.2	97.7	98.3
November	271,598	266,378	227,039	98.1	98.7	99.4
December	272,724	269,884	228,441	98.5	100.0	100.0

[1] The figures for 1914 and 1909 represent the number employed on the 15th of each month, or the nearest representative day; those for 1904, the average number employed during the month.

For 1914 the greatest activity in the industry is shown for the first three months of the year, the maximum number of wage earners appearing for March and the minimum for August. In 1909 and 1904, however, the maximum employment occurred in December and the minimum in July. The fluctuation was comparatively small in each of the three years, and was considerably less in 1914, when the minimum represented 96.4 per cent of the maximum, than in either 1909 or 1904.

Table 16 gives the total average number of wage earners employed in the combined industry during 1914, together with the total number employed on the 15th of each month, or the nearest representative day, for the United States as a whole, and for 42 states and the District of Columbia.

In only 7 of the states, including 5 of the more important ones, was the month of maximum employment the same as that for the country as a whole (March); while 15 states reported the same month of minimum employment as that shown for the country as a whole (August).

Table 16 WAGE EARNERS: 1914.

[The month of maximum employment for each state is indicated by **boldface** figures and that of minimum by *italic* figures.]

STATE.	Average number employed during the year.	Number employed on 15th day of month, or nearest representative day.											Per cent minimum is of maximum.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
United States	272,092	274,519	274,926	276,848	273,961	272,907	271,313	267,625	*266,932*	269,842	271,909	271,598	272,724	96.4
Alabama	1,346	1,350	1,372	1,368	1,360	1,357	1,342	1,344	1,341	1,333	1,330	1,332	*1,328*	96.4
Arkansas	893	888	905	901	894	906	907	878	891	895	894	880	*877*	96.7
California	8,759	8,687	8,783	8,811	8,710	8,737	8,739	8,633	8,744	*8,637*	8,930	8,855	8,852	96.6
Colorado	2,173	2,170	2,168	2,217	2,174	2,144	2,156	2,148	*2,134*	2,164	2,192	2,204	2,205	96.3
Connecticut	2,838	2,831	2,815	2,840	2,842	2,874	2,869	*2,795*	2,803	2,819	2,849	2,840	**2,879**	97.1
District of Columbia	1,677	1,662	1,681	1,673	1,659	1,698	1,662	*1,641*	1,653	1,683	1,670	1,693	1,749	93.8
Florida	1,220	1,248	1,241	1,241	1,197	1,193	1,165	*1,153*	1,155	1,202	1,273	1,284	1,288	89.5
Georgia	2,476	2,489	2,501	2,501	2,540	2,523	2,524	2,494	2,453	2,429	2,427	*2,420*	*2,411*	94.9
Illinois	32,838	32,717	32,883	33,525	32,696	32,196	32,943	32,966	32,910	33,219	32,603	*32,457*	32,641	96.8
Indiana	6,140	6,234	6,242	6,229	6,124	6,105	6,077	6,017	*6,006*	6,109	6,088	6,131	6,318	95.1
Iowa	4,948	4,968	4,897	4,963	4,952	4,956	4,894	4,786	*4,774*	4,892	5,003	5,102	5,189	92.0
Kansas	2,818	2,783	2,813	2,851	2,839	2,813	2,784	2,800	*2,759*	2,818	2,860	2,838	2,858	96.5
Kentucky	3,028	3,007	*3,002*	3,016	3,039	3,065	3,038	3,048	3,043	3,030	3,031	3,003	3,014	97.9
Louisiana	1,405	1,393	1,409	*1,389*	1,398	1,417	1,401	1,400	1,410	**1,420**	1,397	1,415	1,411	97.8
Maine	1,772	1,829	1,842	1,845	1,805	1,780	1,773	*1,685*	1,691	1,706	1,740	1,765	1,803	91.3
Maryland	4,174	4,176	4,157	4,173	4,189	4,193	4,159	4,148	*4,105*	4,142	4,243	4,182	4,221	96.7
Massachusetts	18,170	18,220	18,423	18,536	18,503	18,325	18,189	17,844	*17,691*	18,024	18,283	18,047	17,955	95.4
Michigan	8,166	8,105	8,238	8,323	8,263	8,176	8,094	8,093	*8,089*	8,120	8,178	8,149	8,214	96.6
Minnesota	6,134	*6,077*	6,110	6,141	6,161	6,147	6,175	6,115	6,130	**6,179**	6,117	6,126	6,130	98.3
Mississippi	673	675	676	675	680	666	661	669	*655*	675	679	682	683	95.9
Missouri	10,571	10,768	10,844	10,938	10,800	10,574	10,461	*10,314*	10,372	10,491	10,499	10,382	10,409	94.3
Montana	902	862	*857*	883	895	911	878	928	941	930	**950**	903	886	90.2
Nebraska	2,413	2,418	2,416	2,419	2,392	2,407	2,379	*2,348*	2,377	2,417	2,459	2,462	**2,464**	95.2
New Hampshire	717	706	709	724	715	730	714	*702*	704	717	715	**734**	734	95.6
New Jersey	5,433	5,445	5,463	5,474	5,337	5,514	5,518	5,383	*5,243*	5,347	5,556	**5,577**	5,339	94.0
New York	64,020	65,300	65,635	66,278	65,157	64,382	63,781	*62,224*	62,283	62,981	62,882	63,523	63,814	93.9
North Carolina	1,542	1,516	*1,508*	1,525	1,516	1,537	1,535	1,535	1,527	1,536	1,587	**1,591**	1,591	94.8
North Dakota	752	750	751	746	739	743	748	*733*	743	736	756	772	**807**	90.8
Ohio	18,070	18,323	18,232	18,246	18,184	18,092	17,985	17,966	*17,841*	17,864	18,048	17,999	18,060	97.3
Oklahoma	1,619	1,585	*1,563*	1,576	1,594	1,634	1,619	1,600	1,600	1,638	1,675	1,664	**1,680**	93.0
Oregon	1,556	1,547	1,539	1,548	1,566	1,564	1,531	*1,528*	1,584	1,552	1,579	1,567	1,567	96.5
Pennsylvania	26,909	27,801	27,302	27,262	27,048	27,173	26,776	26,171	*25,855*	26,301	27,117	26,970	27,132	93.0
Rhode Island	1,515	1,552	1,552	1,533	1,504	1,524	1,500	1,464	*1,451*	1,499	1,529	1,534	1,538	93.5
South Carolina	901	892	910	907	**918**	908	907	902	895	*889*	894	893	897	96.8
South Dakota	801	800	802	795	789	*788*	795	798	794	793	817	**822**	819	95.9
Tennessee	2,665	2,673	2,674	2,656	2,688	2,691	2,666	2,655	*2,626*	2,651	2,652	2,646	2,672	97.6
Texas	4,690	4,738	4,656	4,704	4,707	4,727	4,692	4,699	*4,620*	4,641	4,709	4,680	4,707	97.5
Utah	872	869	868	873	874	882	879	852	*848*	862	876	886	**895**	94.7
Vermont	660	657	666	668	670	**676**	671	671	654	644	653	647	*643*	95.1
Virginia	2,790	2,785	2,789	2,819	2,810	2,789	2,764	*2,752*	2,761	2,776	2,810	**2,828**	2,797	97.3
Washington	2,356	2,328	2,323	2,349	2,320	2,381	2,352	*2,279*	2,301	2,351	2,564	2,330	2,384	88.9
West Virginia	1,218	1,212	1,201	1,213	1,212	1,202	*1,190*	1,194	1,190	1,232	1,249	1,258	1,283	94.2
Wisconsin	5,676	5,721	5,712	5,693	5,707	5,726	5,648	*5,496*	5,532	5,682	5,726	5,689	5,780	95.1

Prevailing hours of labor.—In Table 17 the average number of wage earners reported for 1914 for each branch of the printing and publishing industry have been classified according to the number of hours of labor per week prevailing in the establishments in which they were employed. The number employed in each establishment is classified as a total, even though a few wage earners worked a greater or a smaller number of hours.

Table 17 AVERAGE NUMBER OF WAGE EARNERS IN ESTABLISHMENTS WITH SPECIFIED HOURS OF LABOR: 1914.

PREVAILING HOURS OF LABOR PER WEEK.	Printing and publishing.			Book-binding and blank-book making.	Engraving, steel and copper plate, including plate printing.	Lithographing.
	Book and job.	Music.	Newspapers and periodicals.			
Total	113,121	873	114,375	21,693	6,859	15,171
48 and under	80,023	95	80,130	9,195	4,694	12,622
Between 48 and 54	19,145	676	7,077	5,814	1,727	1,010
54	12,093	60	17,057	5,053	327	528
Between 54 and 60	1,293	39	5,130	1,593	47	20
60	549	3	3,765	38	55	91
Between 60 and 72	13	.....	185	.....	9	.....
72 and over	5	.....	122	.....	.....	.....

The figures in the table show that in all branches of the printing and publishing industry there is a decided tendency toward a comparatively short working day. In the two main branches, book and job printing, and the printing and publishing of newspapers and periodicals, 87.7 per cent and 77 per cent respectively, of the total number of wage earners, were employed where the prevailing hours of labor were less than 54 per week. The percentages of wage earners in such establishments in three of the minor branches were even higher, reaching 95.8 per cent in the case of the lithographing establishments.

Table 18 presents, for 42 states and the District of Columbia, for the years 1914 and 1909, a classification of wage earners in the industry as a whole, similar to that given in Table 17 for each branch of the industry.

The figures for the United States as a whole show plainly the tendency toward a shortening of the working day. In 1909, 78,074 wage earners, or over one-fourth of the total, were employed in establishments where the prevailing hours of labor were 54 or more a week, whereas in 1914, 48,084, or only about one-sixth, were so employed. On the other hand, the number of wage earners whose working hours were 48 and under per week increased from 138,850, or 53.7 per cent of the total, in 1909, to 186,759, or 68.6 per cent of the total, in 1914. Among the states for which separate figures are shown, 48 hours or under per week constituted the most common time of employment in all but three—Maine, South Dakota, and Vermont—in which the largest numbers of wage earners were employed in establishments where the prevailing hours were 54 per week.

Table 18 AVERAGE NUMBER OF WAGE EARNERS.

STATE.	Census year.	Total.	In establishments where the prevailing hours of labor per week were—						
			48 and under.	Between 48 and 54.	54.	Between 54 and 60.	60.	Between 60 and 72.	72 and over.
United States.	1914	272,092	186,759	37,249	35,118	8,131	4,501	207	127
	1909	258,434	138,850	41,510	47,320	19,124	10,911	488	231
Alabama	1914	1,346	737	78	335	44	90	22	40
	1909	1,117	447	32	361	99	188	.....	.....
Arkansas	1914	893	534	51	137	30	128	13	.....
	1909	981	419	49	182	87	237	3	4
California	1914	8,759	8,208	184	322	4	39	1	1
	1909	7,556	5,485	1,038	778	119	119	17	.....
Colorado	1914	2,173	1,927	24	118	95	8	1	.....
	1909	2,366	1,759	77	173	308	39	10	.....
Connecticut	1914	2,838	1,647	675	348	72	96	.....	.....
	1909	2,878	1,372	659	474	346	27	.....	.....
Dist. of Columbia.	1914	1,677	1,578	58	38	.....	3	.....	.....
	1909	1,565	1,259	161	61	83	.....	1	.....
Florida	1914	1,220	604	102	349	142	23	.....	.....
	1909	905	408	39	314	93	43	7	1
Georgia	1914	2,476	1,495	202	393	82	191	4	19
	1909	2,395	793	226	664	302	390	.....	20
Illinois	1914	32,838	24,447	5,181	2,698	312	200	.....	.....
	1909	28,644	18,064	4,496	3,983	1,293	629	57	122
Indiana	1914	6,140	3,412	851	1,068	575	234	.....	.....
	1909	6,756	3,912	500	1,002	628	706	3	5
Iowa	1914	4,948	2,449	519	1,396	330	246	.....	8
	1909	4,853	1,720	560	1,282	568	719	3	1
Kansas	1914	2,818	1,882	147	579	48	160	2	.....
	1909	3,232	1,264	184	720	608	442	8	6
Kentucky	1914	3,028	1,908	174	680	61	188	6	5
	1909	3,135	1,074	804	779	180	283	5	10
Louisiana	1914	1,405	836	36	331	58	137	5	2
	1909	1,544	773	195	356	119	91	1	9
Maine	1914	1,772	624	231	821	65	31	.....	.....
	1909	1,651	573	142	690	208	38	.....	.....
Maryland	1914	4,174	2,446	1,245	320	90	69	1	3
	1909	3,386	1,170	1,082	679	240	215	.....	.....
Massachusetts	1914	18,170	14,156	2,033	1,340	635	6	.....	.....
	1909	17,532	11,404	1,853	2,911	1,342	20	.....	2
Michigan	1914	8,166	5,001	1,394	1,318	297	132	5	19
	1909	7,219	2,718	833	2,334	833	500	1	.....
Minnesota	1914	6,134	3,442	1,039	795	64	172	22	.....
	1909	5,041	1,905	2,106	863	395	210	162	.....
Mississippi	1914	673	369	21	157	6	120	.....	.....
	1909	736	337	7	117	24	247	3	1
Missouri	1914	10,571	7,550	1,358	1,283	155	212	11	2
	1909	10,790	6,457	974	1,883	856	614	5	1
Montana	1914	902	713	28	98	59	4	.....	.....
	1909	691	339	5	177	164	6	.....	.....
Nebraska	1914	2,413	1,238	420	627	25	91	.....	3
	1909	2,329	971	178	792	118	258	1	11
New Hampshire	1914	717	201	169	198	146	3	.....	.....
	1909	677	180	76	132	205	84	.....	.....
New Jersey	1914	5,433	3,509	920	624	285	83	3	.....
	1909	5,451	3,251	1,141	640	315	79	25	.....
New York	1914	64,020	44,314	10,504	7,407	1,522	220	51	2
	1909	63,120	34,754	15,083	8,512	4,081	670	18	2
North Carolina	1914	1,542	720	70	422	90	231	.....	.....
	1909	1,376	527	70	308	137	207	37	.....
North Dakota	1914	752	405	91	186	9	59	.....	2
	1909	788	377	46	268	58	39	.....	.....
Ohio	1914	18,070	12,587	1,826	2,453	1,055	140	.....	.....
	1909	15,756	6,888	1,951	4,670	1,485	744	18	.....
Oklahoma	1914	1,619	1,176	50	295	22	68	2	6
	1909	1,698	1,122	58	323	32	163	.....	.....
Oregon	1914	1,556	1,365	48	128	.....	13	2	.....
	1909	1,450	1,188	81	166	7	13	4	.....

Table 18—Con.

STATE.	Census year.	AVERAGE NUMBER OF WAGE EARNERS. Total.	In establishments where the prevailing hours of labor per week were— 48 and under.	Between 48 and 54.	54.	Between 54 and 60.	60.	Between 60 and 72.	72 and over.
Pennsylvania	1914	26,909	18,878	4,230	2,980	713	97	11	.....
	1909	24,696	14,412	3,297	4,267	1,965	730	25	.....
Rhode Island	1914	1,515	1,158	196	121	19	21	.....	.....
	1909	1,454	529	525	98	278	21	3	.....
outh Carolina	1914	901	456	60	211	57	115	.....	2
	1909	834	336	122	126	34	196	7	13
South Dakota	1914	801	274	141	315	13	58	.....	.....
	1909	825	207	73	447	7	91	.....	.....
Tennessee	1914	2,665	1,621	469	354	74	142	5	.....
	1909	2,914	1,149	386	782	262	335	.....	.....
Texas	1914	4,690	2,939	204	923	332	261	22	9
	1909	4,408	2,191	608	759	320	497	29	4
Utah	1914	872	812	22	31	2	5	.....	.....
	1909	967	438	253	69	198	7	2	.....
Vermont	1914	660	174	31	405	31	19	.....	.....
	1909	666	181	61	317	61	46	.....	.....
Virginia	1914	2,790	1,232	549	812	83	112	2	.....
	1909	2,555	726	341	1,105	178	197	6	2
Washington	1914	2,356	2,225	28	62	27	13	1	.....
	1909	2,624	1,878	294	324	37	86	2	3
West Virginia	1914	1,218	741	90	288	10	89	.....	.....
	1909	1,255	601	35	479	41	99	.....	.....
Wisconsin	1914	5,676	3,421	627	1,165	316	128	15	4
	1909	5,360	2,219	744	1,613	333	415	22	14

Character of ownership.—Table 19 presents statistics concerning the character of ownership, or legal organization, of the establishments reported for the combined printing and publishing industry, and for each branch separately, for 1914 and 1909, while for 29 selected states figures for 1914 only are given for the industry as a whole. In order to avoid disclosing the operations of individual establishments, it is necessary to omit the remaining states and the District of Columbia.

For the United States as a whole, this table shows increases during the five years in the number of establishments under individual and under corporate ownership, together with a decrease for those under "all other" forms of ownership. The greatest proportion of the establishments—57 per cent—is shown for those under individual ownership; but in value of products and average number of wage earners those owned by corporations are far in the lead. For 1914, with a little more than one-fourth of the total number of establishments, the corporations reported over three-fourths of the total value of products and more than two-thirds of the total wage earners, as against slightly smaller proportions for 1909.

Table 19

INDUSTRY AND STATE.	Census year.	NUMBER OF ESTABLISHMENTS OWNED BY— Individuals.	Corporations.	All others.	AVERAGE NUMBER OF WAGE EARNERS. Total.	Of establishments owned by— Individuals.	Corporations.	All others.	Per cent of total. Individuals.	Corporations.	All others.
United States	1914	19,086	8,589	5,796	272,092	55,774	188,873	27,445	20.5	69.4	10.1
	1909	18,248	7,184	6,013	258,434	57,373	167,806	33,255	22.2	64.9	12.9
Printing and publishing: Book and job	1914	7,090	2,880	2,145	113,121	22,715	78,365	12,041	20.1	69.3	10.6
	1909	6,245	2,401	2,062	108,687	23,155	71,125	14,407	21.3	65.4	13.3
Music	1914	85	70	25	873	120	610	143	13.7	69.9	16.4
	1909	86	59	33	738	127	338	273	17.2	45.8	37.0
Newspapers and periodicals.	1914	10,992	5,016	3,309	114,375	25,998	77,693	10,684	22.7	67.9	9.3
	1909	11,069	4,215	3,587	108,672	27,030	68,497	13,145	24.9	63.0	12.1
Bookbinding and blank-book making.	1914	624	289	211	21,693	5,413	13,673	2,607	25.0	63.0	12.0
	1909	584	249	221	19,938	5,102	11,236	3,600	25.6	56.4	18.1
Engraving, steel and copper plate, including plate printing.	1914	196	125	78	6,859	782	5,152	925	11.4	75.1	13.5
	1909	176	76	64	5,326	913	3,741	672	17.1	70.2	12.6
Lithographing	1914	99	209	28	15,171	746	13,380	1,045	4.9	88.2	6.9
	1909	88	184	46	15,073	1,046	12,869	1,158	6.9	85.5	7.7
Alabama	1914	161	65	60	1,346	404	771	171	30.0	57.3	12.7
California	1914	895	346	302	8,759	2,084	5,541	1,134	23.8	63.3	12.9
Colorado	1914	295	118	62	2,173	453	1,573	147	20.8	72.4	6.8
Connecticut	1914	197	115	52	2,838	573	2,065	200	20.2	72.8	7.0
Florida	1914	124	71	40	1,220	307	735	178	25.2	60.2	14.6
Georgia	1914	221	128	92	2,476	566	1,577	333	22.9	63.7	13.4
Illinois	1914	1,387	880	455	32,838	3,913	26,636	2,289	11.9	81.1	7.0
Indiana	1914	510	223	189	6,140	1,836	3,682	622	29.9	60.0	10.1
Iowa	1914	681	171	224	4,948	1,675	2,585	688	33.9	52.2	13.9
Kentucky	1914	217	136	61	3,028	500	2,343	185	16.5	77.4	6.1
Louisiana	1914	154	86	50	1,405	283	988	134	20.1	70.3	9.5
Maine	1914	110	66	28	1,772	331	1,370	71	18.7	77.3	4.0
Massachusetts	1914	722	425	197	18,170	3,474	12,417	2,279	19.1	68.3	12.5
Michigan	1914	635	295	183	8,166	1,615	5,863	688	19.8	71.8	8.4
Minnesota	1914	611	210	173	6,134	1,196	4,413	525	19.5	71.9	8.6
Missouri	1914	805	313	235	10,571	2,148	7,706	717	20.3	72.9	6.8
Nebraska	1914	501	89	102	2,413	737	1,392	284	30.5	57.7	11.8
New Jersey	1914	445	182	105	5,433	1,149	3,743	541	21.1	68.9	10.0
New York	1914	2,379	1,643	784	64,020	10,972	47,410	5,638	17.1	74.1	8.8
North Dakota	1914	256	44	51	752	360	343	49	47.9	45.6	6.5
Ohio	1914	885	562	336	18,070	2,895	13,426	1,749	16.0	74.3	9.7
Oklahoma	1914	443	97	84	1,619	609	859	151	37.6	53.1	9.3
Oregon	1914	221	87	69	1,556	334	1,095	127	21.5	70.4	8.2
Pennsylvania	1914	1,487	552	499	26,909	6,304	17,334	3,271	23.4	64.4	12.2
Rhode Island	1914	90	39	33	1,515	246	1,150	119	16.2	75.9	7.9
Tennessee	1914	244	104	89	2,665	502	1,859	304	18.8	69.8	11.4
Utah	1914	75	47	44	872	178	426	268	20.4	48.9	30.7
Virginia	1914	219	102	75	2,790	880	1,355	555	31.5	48.6	19.9
West Virginia	1914	134	71	37	1,218	336	810	72	27.6	66.5	5.9

INDUSTRY AND STATE.	Census year.	VALUE OF PRODUCTS. Total.	Of establishments owned by— Individuals.	Corporations.	All others.	Per cent of total. Individuals.	Corporations.	All others.
United States	1914	$901,534,801	$136,850,328	$686,696,324	$77,988,149	15.2	76.2	8.6
	1909	737,876,087	137,913,324	516,400,736	83,562,027	18.7	70.0	11.3
Printing and publishing: Book and job	1914	307,330,861	54,760,532	219,984,491	32,585,838	17.8	71.6	10.6
	1909	250,925,934	51,087,829	166,193,805	33,644,300	20.4	66.2	13.4
Music	1914	7,271,266	1,124,839	5,335,895	810,532	15.5	73.4	11.1
	1909	5,575,903	1,614,013	3,011,717	950,173	28.9	54.0	17.0
Newspapers and periodicals.	1914	495,905,948	70,710,425	388,126,392	37,069,131	14.3	78.3	7.5
	1909	406,090,122	75,270,565	290,096,681	40,722,876	18.5	71.4	10.2
Bookbinding and blank-book making.	1914	38,104,368	7,249,974	27,109,950	3,744,444	19.0	71.1	9.8
	1909	31,742,416	6,573,276	20,492,230	4,676,910	20.7	64.5	14.7
Engraving, steel and copper plate, including plate printing.	1914	13,786,385	1,284,850	10,918,433	1,583,102	9.3	79.2	11.5
	1909	9,432,479	1,279,793	7,084,220	1,068,466	13.6	75.1	11.3
Lithographing	1914	39,135,973	1,719,708	35,221,163	2,195,102	4.4	90.0	5.6
	1909	34,109,233	2,087,848	29,522,083	2,499,302	6.1	86.6	7.3
Alabama	1914	4,121,251	713,664	2,987,057	420,530	17.3	72.5	10.2
California	1914	34,774,879	7,177,527	23,699,855	3,897,497	20.6	68.2	11.2
Colorado	1914	7,027,420	1,227,890	5,327,352	472,178	17.5	75.8	6.7
Connecticut	1914	7,712,615	1,526,305	5,684,774	501,536	19.8	73.7	6.5
Florida	1914	3,017,140	658,332	1,987,762	371,046	21.8	65.9	12.3
Georgia	1914	7,575,931	1,187,378	5,532,793	855,760	15.7	73.0	11.3
Illinois	1914	112,833,427	11,554,995	95,254,720	6,023,712	10.2	84.4	5.3
Indiana	1914	17,116,746	4,504,686	10,852,802	1,759,258	26.3	63.4	10.3
Iowa	1914	15,934,486	3,927,571	10,205,183	1,801,732	24.6	64.0	11.3
Kentucky	1914	6,983,581	823,879	5,782,037	377,665	11.8	82.8	5.4
Louisiana	1914	4,316,948	545,888	3,485,607	285,453	12.6	80.7	6.6
Maine	1914	3,716,855	543,631	3,028,673	144,551	14.6	81.5	3.9
Massachusetts	1914	56,195,811	6,990,197	43,085,864	6,119,750	12.4	76.7	10.9
Michigan	1914	24,953,324	3,567,182	19,620,496	1,765,646	14.3	78.6	7.1
Minnesota	1914	20,186,594	3,011,354	15,806,087	1,369,153	14.9	78.3	6.8
Missouri	1914	33,173,414	6,378,265	25,079,967	1,715,182	19.2	75.6	5.2
Nebraska	1914	7,835,653	1,812,023	5,208,499	815,131	23.1	66.5	10.4
New Jersey	1914	14,083,011	2,614,123	10,191,004	1,277,884	18.6	72.4	9.1
New York	1914	257,268,671	28,541,072	208,953,546	19,774,053	11.1	81.2	7.7
North Dakota	1914	2,220,217	917,075	1,019,195	283,947	41.3	45.9	12.8
Ohio	1914	55,608,924	7,323,345	43,308,709	4,976,870	13.2	77.9	8.9
Oklahoma	1914	4,023,851	1,277,341	2,346,202	400,308	31.7	58.3	9.9
Oregon	1914	6,010,857	1,184,288	4,287,903	538,666	19.7	71.3	9.0
Pennsylvania	1914	84,976,922	14,690,322	62,146,906	8,139,694	17.3	73.1	9.6
Rhode Island	1914	4,293,489	515,841	3,512,189	265,459	12.0	81.8	6.2
Tennessee	1914	8,200,681	1,078,817	6,192,290	929,574	13.2	75.5	11.3
Utah	1914	2,780,009	386,749	1,787,225	606,035	13.9	64.3	21.8
Virginia	1914	7,069,847	1,626,788	4,321,149	1,121,910	23.0	61.1	15.9
West Virginia	1914	2,430,565	614,283	1,671,316	144,966	25.3	68.8	6.0

In respect to the relative importance of the establishments under the three forms of ownership, the table shows considerable variation among the states. In New York, the leading state in the industry, establishments controlled by corporations represented more than one-third of the total, gave employment to nearly three-fourths of the wage earners, and reported a little more than four-fifths of the value of the products. On the other hand, in North Dakota, the least important state, measured by either average number of wage earners or value of products, the corporations controlled only one-eighth of the total number of establishments and reported less than one-half of the total number of wage earners and of the total value of products.

Size of establishments.—Table 20 shows, for the combined printing and publishing industry and for each of its branches, for 1914 and 1909, the number of establishments, grouped according to value of products, and, for each group, the average number of wage earners, value of products, and value added by manufacture, with the per cent distribution.

Table 20

INDUSTRY AND VALUE OF PRODUCT.	NUMBER OF ESTABLISHMENTS.				AVERAGE NUMBER OF WAGE EARNERS.				VALUE OF PRODUCTS.				VALUE ADDED BY MANUFACTURE.			
	1914	1909	Per cent distribution.		1914	1909	Per cent distribution.		1914	1909	Per cent distribution.		1914	1909	Per cent distribution.	
			1914	1909			1914	1909			1914	1909			1914	1909
UNITED STATES	33,471	31,445	100.0	100.0	272,092	258,434	100.0	100.0	$901,534,801	$737,876,087	100.0	100.0	$643,686,825	$536,101,497	100.0	100.0
Less than $5,000	17,201	16,524	51.4	52.6	19,265	21,386	7.1	8.3	42,356,622	40,128,238	4.7	5.4	33,658,091	31,678,189	5.2	5.9
$5,000 to $20,000	10,306	9,698	30.8	30.8	43,437	45,396	16.0	17.6	99,039,126	93,342,071	11.0	12.6	76,856,305	72,556,014	11.9	13.5
$20,000 to $100,000	4,473	3,976	13.4	12.6	68,253	67,680	25.1	26.2	193,007,423	168,339,719	21.4	22.8	142,655,537	123,792,498	22.2	23.1
$100,000 to $1,000,000	1,387	1,173	4.1	3.7	101,634	94,623	37.4	36.6	351,252,606	298,983,798	39.0	40.5	246,958,797	213,184,766	38.4	39.8
$1,000,000 and over	104	74	0.3	0.2	39,503	29,349	14.5	11.4	215,879,024	137,082,261	23.9	18.6	143,558,095	94,860,030	22.3	17.7
PRINTING AND PUBLISHING, BOOK AND JOB	12,115	10,708	100.0	100.0	113,121	103,687	100.0	100.0	307,330,861	250,925,934	100.0	100.0	210,877,629	173,275,387	100.0	100.0
Less than $5,000	5,402	4,790	44.6	44.7	4,945	5,065	4.4	4.7	13,065,523	11,553,829	4.3	4.6	9,463,400	8,322,324	4.5	4.8
$5,000 to $20,000	4,094	3,629	33.8	33.9	18,317	18,242	16.2	16.8	40,551,051	36,071,066	13.2	14.4	28,908,705	25,800,896	13.7	14.9
$20,000 to $100,000	2,047	1,810	16.9	16.9	34,903	35,456	30.9	32.6	88,944,772	76,936,794	28.9	30.7	61,112,627	52,701,778	29.0	30.4
$100,000 to $1,000,000	554	465	4.6	4.3	46,324	43,103	41.0	39.7	128,217,904	106,771,567	41.7	42.6	87,695,322	73,901,550	41.6	42.6
$1,000,000 and over	18	14	0.1	0.1	8,632	6,821	7.6	6.3	36,551,611	19,592,678	11.9	7.8	23,697,575	12,548,839	11.2	7.2
PRINTING AND PUBLISHING, MUSIC	180	178	100.0	100.0	873	738	100.0	100.0	7,271,266	5,575,903	100.0	100.0	6,224,636	4,589,701	100.0	100.0
Less than $5,000	71	68	39.4	38.2	15	25	1.7	3.4	150,609	136,422	2.1	2.4	140,432	126,196	2.3	2.7
$5,000 to $20,000	45	62	25.0	34.8	75	77	8.6	10.4	450,427	672,477	6.2	12.1	410,326	609,388	6.6	13.3
$20,000 to $100,000	46	32	25.6	18.0	173	283	19.8	38.3	2,372,863	1,576,883	32.6	28.3	2,127,283	1,283,282	34.2	28.0
$100,000 to $1,000,000	18	16	10.0	9.0	610	353	69.9	47.8	4,297,367	3,190,121	59.1	57.2	3,546,595	2,570,835	57.0	56.0
$1,000,000 and over																
PRINTING AND PUBLISHING, NEWSPAPERS AND PERIODICALS	19,317	18,871	100.0	100.0	114,375	108,672	100.0	100.0	495,905,948	406,090,122	100.0	100.0	366,823,730	308,730,517	100.0	100.0
Less than $5,000	11,142	11,145	57.7	59.1	13,374	15,337	11.7	14.1	27,631,219	27,051,300	5.6	6.7	22,783,258	22,085,589	6.2	7.2
$5,000 to $20,000	5,533	5,394	28.6	28.6	20,344	22,081	17.8	20.3	51,317,416	50,146,291	10.3	12.3	42,297,720	41,107,580	11.5	13.3
$20,000 to $100,000	1,940	1,756	10.0	9.3	22,180	22,013	19.4	20.3	82,109,202	73,213,399	16.6	18.0	66,132,178	58,652,436	18.0	19.0
$100,000 to $1,000,000	624	523	3.2	2.8	33,155	31,463	29.0	29.0	170,151,087	149,124,130	34.3	36.7	125,109,125	111,688,937	34.1	36.2
$1,000,000 and over	78	53	0.4	0.3	25,322	17,778	22.1	16.4	164,697,024	106,555,002	33.2	26.2	110,501,449	75,195,975	30.1	24.4
BOOKBINDING AND BLANK-BOOK MAKING	1,124	1,054	100.0	100.0	21,693	19,938	100.0	100.0	38,104,368	31,742,416	100.0	100.0	24,770,161	20,112,510	100.0	100.0
Less than $5,000	399	367	35.5	34.8	743	748	3.4	3.8	1,070,879	977,285	2.8	3.1	894,173	789,061	3.6	3.9
$5,000 to $20,000	414	414	36.8	39.3	3,300	3,538	15.2	17.7	4,249,843	4,251,599	11.2	13.4	3,329,346	3,295,536	13.4	16.4
$20,000 to $100,000	233	201	20.7	19.1	6,458	6,087	29.8	30.5	9,964,163	8,708,137	26.1	27.4	6,798,330	5,828,790	27.4	29.0
$100,000 to $1,000,000	76	71	6.8	6.7	10,271	9,019	47.3	45.2	20,153,644	16,689,273	52.9	52.6	12,024,655	9,558,130	48.5	47.5
$1,000,000 and over	2	1	0.2	0.1	921	546	4.2	2.7	2,665,839	1,116,122	7.0	3.5	1,723,657	640,993	7.0	3.2
ENGRAVING, STEEL AND COPPER PLATE, INCLUDING PLATE PRINTING	399	316	100.0	100.0	6,859	5,326	100.0	100.0	13,786,385	9,432,479	100.0	100.0	9,871,877	7,214,880	100.0	100.0
Less than $5,000	136	107	34.1	33.9	158	160	2.3	3.0	343,179	278,598	2.5	3.0	294,116	242,684	3.0	3.4
$5,000 to $20,000	154	129	38.6	40.8	1,070	989	15.6	18.6	1,724,581	1,366,309	12.5	14.5	1,341,439	1,131,665	13.6	15.7
$20,000 to $100,000	86	65	21.6	20.6	2,071	1,469	30.2	27.6	3,403,287	2,395,851	24.7	25.4	2,551,161	1,771,058	25.8	24.5
$100,000 to $1,000,000	22	14	5.5	4.4	2,305	1,595	33.6	29.9	5,523,982	2,960,210	40.1	31.4	3,690,164	2,128,262	37.4	29.5
$1,000,000 and over	1	1	0.3	0.3	1,255	1,113	18.3	20.9	2,791,356	2,431,511	20.2	25.8	1,993,997	1,941,211	20.2	26.9
LITHOGRAPHING	336	318	100.0	100.0	15,171	15,073	100.0	100.0	39,135,973	34,109,233	100.0	100.0	25,118,792	22,178,502	100.0	100.0
Less than $5,000	51	47	15.2	14.8	30	51	0.2	0.3	95,213	130,804	0.2	0.4	82,712	112,335	0.3	0.5
$5,000 to $20,000	66	70	19.6	22.0	331	469	2.2	3.1	745,808	834,329	1.9	2.4	568,769	640,949	2.3	2.9
$20,000 to $100,000	121	112	36.0	35.2	2,468	2,372	16.3	15.7	6,213,136	5,508,655	15.9	16.1	3,933,958	3,555,154	15.7	16.0
$100,000 to $1,000,000	93	84	27.7	26.4	8,969	9,090	59.1	60.3	22,908,622	20,248,497	58.5	59.4	14,892,936	13,337,052	59.3	60.1
$1,000,000 and over	5	5	1.5	1.6	3,373	3,091	22.2	20.5	9,173,194	7,386,948	23.4	21.7	5,640,417	4,333,012	22.5	20.4

For 1914, 1,491 establishments, or 4.4 per cent of the total number in the industry, each reported products exceeding $100,000 in value, as compared with 1,247, or 4 per cent of the total, for 1909; and for the later year these establishments reported 51.9 per cent of the total average number of wage earners for the industry, 62.9 per cent of the total value of products, and 60.7 per cent of the total value added by manufacture. During the five-year period increases took place in the number of establishments in each group, as well as in the value of products and value added by manufacture, but the average number of wage earners for the two groups of establishments with products valued at less than $20,000 decreased. Increases are shown in the proportions which the average numbers of wage earners in the groups of establishments with products valued at $100,000 and over represented of the total, while decreases took

place in the cases of the other three groups. In respect to value of products and value added by manufacture, the only group for which the proportions increased was that made up of establishments with products valued at $1,000,000 and over. It should be borne in mind in this connection, however, that the last-named group shows a relatively greater increase in number of establishments than is shown in the other groups.

In both the two leading branches of the industry—book publishing and book and job printing, and the printing and publishing of newspapers and periodicals—the changes in proportions during the five-year period were similar to those shown for the industry as a whole.

Table 21 shows the size of establishments in 1914, as measured by the number of wage earners employed in each branch of the printing and publishing industry.

Table 21

WAGE EARNERS PER ESTABLISHMENT.	ESTABLISHMENTS: 1914						WAGE EARNERS (AVERAGE NUMBER): 1914.					
	Printing and publishing.			Bookbinding and blank-book making.	Engraving, steel and copper plate, including plate printing.	Lithographing.	Printing and publishing.			Bookbinding and blank-book making.	Engraving, steel and copper plate, including plate printing.	Lithographing.
	Book and job.	Music.	Newspapers and periodicals.				Book and job.	Music.	Newspapers and periodicals.			
Total	12,115	180	19,317	1,124	399	336	113,121	873	114,375	21,693	6,859	15,171
No wage earners	2,672	139	5,541	72	57	43	.....	.....	.....	.....	.....	.....
1 to 5	6,009	20	10,749	475	147	56	14,329	47	24,506	1,233	385	165
6 to 20	2,337	13	2,151	382	129	89	25,046	137	21,854	4,068	1,457	1,132
21 to 50	726	4	532	124	43	71	23,000	128	16,604	3,916	1,296	2,341
51 to 100	208	1	188	51	13	38	14,561	64	13,352	3,616	899	2,575
101 to 250	123	3	117	29	8	31	18,438	497	18,421	4,407	1,256	4,631
251 to 500	28	.....	28	9	1	5	9,255	.....	9,100	3,355	311	1,888
501 to 1,000	11	.....	9	2	.....	3	1,126	.....	6,036	1,098	.....	2,439
Over 1,000	1	.....	2	.....	1	.....	7,366	.....	4,502	.....	1,255	.....

Considering the total for all branches combined, there were 8,524 establishments in operation during 1914 in which no wage earners were employed. These are small establishments in which the work is done by the proprietors or firm members. In some cases they employ a few wage earners for short periods, but the number is so small and the period so short that in computing the average number, as described in the "Explanation of terms," no wage earners could be shown for the establishment. The comparatively small establishments predominate in the more important branches of the industry. Of the 12,115 establishments reported for the book and job printing branch, 8,346, or 68.9 per cent, employed from 1 to 20 wage earners during the year, and in the newspaper and periodical branch, out of a total of 19,317 establishments, the corresponding figures were 12,900, or 66.8 per cent. On the other hand, while these small establishments predominate in numbers, they gave employment to only 34.8 per cent and 40.5 per cent of the wage earners, respectively, in these two leading branches.

Table 22 shows, for 1914 and 1909, for the combined industry in the United States as a whole and in 42 states and the District of Columbia separately, statistics similar to those given in Table 21 for each branch of the industry.

Table 22

STATE.	Census year.	TOTAL.		ESTABLISHMENTS EMPLOYING—															
				No wage earners.	1 to 5 wage earners.		6 to 20 wage earners.		21 to 50 wage earners.		51 to 100 wage earners.		101 to 250 wage earners.		251 to 500 wage earners.		501 to 1,000 wage earners.		Over 1,000 wage earners.	
		Establishments.	Wage earners (average number).	Establishments.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.
United States	1914	33,471	272,092	8,524	17,456	40,665	5,081	53,694	1,500	47,285	499	35,067	311	47,650	71	23,909	25	16,939	4	6,883
	1909	31,445	258,434	6,940	17,210	40,714	5,044	52,969	1,387	44,463	490	34,853	280	41,971	64	21,269	26	17,284	4	4,911
Alabama	1914	286	1,346	52	181	429	37	366	14	432	2	119	.....	.....	.....	.....	.....	.....	.....	.....
	1909	274	1,117	47	185	460	32	322	9	265	1	70	.....	.....	.....	.....	.....	.....	.....	.....
Arkansas	1914	309	893	63	217	474	24	248	4	105	1	66	.....	.....	.....	.....	.....	.....	.....	.....
	1909	295	981	53	205	444	31	291	5	131	.....	.....	1	115	.....	.....	.....	.....	.....	.....
California	1914	1,543	8,759	505	712	1,604	243	2,439	60	1,849	11	818	11	1,726	1	323	.....	.....	.....	.....
	1909	1,240	7,556	343	648	1,505	180	1,961	42	1,347	16	1,113	10	1,369	1	261	.....	.....	.....	.....
Colorado	1914	475	2,173	142	267	529	46	432	13	379	4	310	3	523	.....	.....	.....	.....	.....	.....
	1909	439	2,366	118	246	540	57	595	9	296	5	326	4	609	.....	.....	.....	.....	.....	.....
Connecticut	1914	364	2,838	92	161	401	76	871	25	800	9	616	1	150	.....	.....	.....	.....	.....	.....
	1909	363	2,878	82	169	410	76	854	28	893	6	397	2	324	.....	.....	.....	.....	.....	.....
District of Columbia	1914	157	1,677	50	52	127	35	371	10	301	8	591	2	287	.....	.....	.....	.....	.....	.....
	1909	156	1,565	40	63	147	31	316	14	453	7	510	1	139	.....	.....	.....	.....	.....	.....
Florida	1914	235	1,220	41	148	365	37	353	6	234	2	140	1	128	.....	.....	.....	.....	.....	.....
	1909	174	905	29	112	248	23	230	7	192	3	235	.....	.....	.....	.....	.....	.....	.....	.....
Georgia	1914	441	2,476	84	232	658	48	497	18	542	7	489	2	290	.....	.....	.....	.....	.....	.....
	1909	442	2,395	104	253	592	61	612	17	554	5	360	2	277	.....	.....	.....	.....	.....	.....
Illinois	1914	2,722	32,838	789	1,224	2,939	424	4,622	166	5,138	52	3,419	46	7,092	15	4,738	5	3,764	1	1,126
	1909	2,608	28,644	708	1,218	2,948	433	4,686	144	4,505	54	3,784	34	5,372	11	3,289	6	4,060	.....	.....

Table 22—Con.

STATE.	Census year.	TOTAL.		ESTABLISHMENTS EMPLOYING—															
				No wage earners.	1 to 5 wage earners.		6 to 20 wage earners.		21 to 50 wage earners.		51 to 100 wage earners.		101 to 250 wage earners.		251 to 500 wage earners.		501 to 1,000 wage earners.		Over 1,000 wage earners.	
		Establishments.	Wage earners (average number).	Establishments.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.
Indiana	1914	922	6,140	172	521	1,276	179	1,832	33	1,083	11	749	5	762	1	438				
	1909	892	6,756	140	512	1,236	187	1,880	33	1,109	13	822	6	863			1	846		
Iowa	1914	1,076	4,948	179	732	1,707	124	1,371	32	969	5	360	4	541						
	1909	1,110	4,853	158	777	1,778	135	1,378	34	1,060	3	217	3	420						
Kansas	1914	772	2,818	172	512	1,080	70	727	13	348	4	276			1	387				
	1909	798	3,232	154	544	1,195	79	796	14	432	6	416			1	393				
Kentucky	1914	414	3,028	83	238	597	69	717	12	354	7	490	4	611	1	259				
	1909	431	3,135	90	257	659	59	639	13	379	6	452	5	720	1	286				
Louisiana	1914	290	1,405	66	165	364	44	452	12	333	2	142	1	114						
	1909	268	1,544	48	164	388	40	432	13	444	2	156	1	124						
Maine	1914	204	1,772	37	107	282	42	416	13	430	3	195	1	196	1	253				
	1909	195	1,651	32	99	249	44	464	16	592	3	228	1	118						
Maryland	1914	370	4,174	65	182	477	81	854	25	761	8	511	8	1,317	1	254				
	1909	371	3,396	65	194	496	75	791	26	849	7	530	4	720						
Massachusetts	1914	1,344	18,170	385	508	1,331	294	3,215	89	2,707	39	2,759	19	3,048	5	1,538	5	3,242		
	1909	1,279	17,532	326	521	1,371	277	3,919	92	2,890	32	2,279	20	2,989	7	2,426	4	2,558		
Michigan	1914	1,113	8,166	229	629	1,535	173	1,767	55	1,793	19	1,446	5	753	3	872				
	1909	1,045	7,219	214	589	1,420	175	1,891	45	1,454	12	837	9	1,363	1	254				
Minnesota	1914	994	6,134	246	573	1,216	128	1,354	28	952	11	754	7	1,306			1	552		
	1909	950	5,641	195	584	1,268	119	1,194	35	1,166	11	775	5	718			1	520		
Mississippi	1914	220	673	44	150	308	21	233	5	132										
	1909	225	736	25	173	408	24	242	3	86										
Missouri	1914	1,353	10,571	301	788	1,897	169	1,734	56	1,809	21	1,422	13	1,952	4	1,219	1	538		
	1909	1,322	10,790	282	778	1,844	172	1,721	48	1,591	21	1,681	12	1,714	5	1,525	1	714		
Montana	1914	239	902	63	146	266	20	200	6	206	3	126	1	104						
	1909	135	691	24	92	207	11	101	5	178	3	205								
Nebraska	1914	692	2,413	189	434	827	50	541	12	408	5	371	2	266						
	1909	674	2,329	189	415	807	51	546	13	428	5	355	1	193						
New Hampshire	1914	137	717	35	71	181	26	259	2	49	2	107	1	121						
	1909	143	677	29	84	189	24	265	4	94	2	129								
New Jersey	1914	732	5,433	175	385	1,013	126	1,251	26	789	12	789	6	958	2	633				
	1909	684	5,451	150	366	966	125	1,193	25	795	9	607	7	1,219	2	671				
New York	1914	4,806	64,020	1,563	1,840	4,626	883	9,637	291	9,553	108	7,686	81	11,884	26	9,238	12	8,270	2	3,096
	1909	4,426	63,120	1,261	1,771	4,638	885	9,574	286	9,231	111	8,089	72	10,884	25	8,543	11	7,250	4	4,911
North Carolina	1914	330	1,542	46	220	567	52	514	11	376	1	85								
	1909	322	1,376	47	212	527	57	605	4	112	2	132								
North Dakota	1914	351	752	87	241	399	17	143	5	159	1	51								
	1909	330	788	60	218	431	17	152	5	205										
Ohio	1914	1,783	18,070	395	860	2,152	346	3,831	117	3,504	34	2,359	26	4,175	4	1,476	1	573		
	1909	1,655	15,756	326	817	2,060	351	3,714	101	3,161	38	2,632	18	2,562	3	1,112	1	515		
Oklahoma	1914	624	1,619	160	418	761	33	350	12	347			1	161						
	1909	598	1,698	100	442	863	45	432	9	281	2	122								
Oregon	1914	377	1,556	123	197	406	48	495	5	164	2	163	2	328						
	1909	324	1,459	72	195	416	49	497	4	118	3	208	1	220						
Pennsylvania	1914	2,538	26,909	663	1,141	2,942	488	5,041	152	4,717	51	3,678	36	5,889	6	1,981			1	2,661
	1909	2,461	24,696	548	1,211	3,066	474	5,012	137	4,411	48	3,467	36	5,663	6	2,256	1	821		
Rhode Island	1914	162	1,515	42	75	181	31	385	8	235	4	331	2	383						
	1909	147	1,454	29	75	180	32	381	5	211	2	138	4	544						
South Carolina	1914	167	901	14	121	301	24	268	6	185	2	147								
	1909	161	834	19	105	293	32	287	3	107	2	147								
South Dakota	1914	380	801	78	278	466	19	208	5	127										
	1909	392	825	72	300	538	16	178	4	109										
Tennessee	1914	437	2,665	122	242	544	46	493	17	604	5	348	5	676						
	1909	413	2,914	111	229	536	41	394	19	629	8	588	4	514	1	253				
Texas	1914	1,190	4,690	301	724	1,548	121	1,184	33	996	8	574	3	388						
	1909	1,067	4,408	199	725	1,590	109	1,107	23	641	7	495	4	575						
Utah	1914	166	872	43	89	193	26	231	5	149	2	140	1	159						
	1909	122	967	25	65	164	23	217	6	218	1	68	2	300						
Vermont	1914	113	660	23	55	147	26	215	8	238	1	60								
	1909	115	666	18	62	157	27	257	8	252										
Virginia	1914	396	2,790	72	232	585	60	610	22	662	6	437	4	496						
	1909	369	2,555	62	219	546	59	644	18	550	10	693	1	122						
Washington	1914	640	2,356	239	324	665	58	627	13	439	3	224	3	401						
	1909	506	2,624	102	312	659	73	762	11	412	6	494	2	297						
West Virginia	1914	242	1,218	36	161	392	34	378	10	348	1	100								
	1909	235	1,255	30	161	390	34	356	8	273			2	236						
Wisconsin	1914	831	5,676	139	509	1,181	127	1,353	31	1,109	21	1,568	4	465						
	1909	833	5,360	144	500	1,139	136	1,379	33	1,116	14	1,038	6	688						

Of the total number of establishments in all branches of the industry, 17,456, or 52.2 per cent, employed from 1 to 5 wage earners; 6,581, or 19.7 per cent, from 6 to 50; 810, or 2.4 per cent, from 51 to 250; and 100, or three-tenths of 1 per cent, more than 250. The percentages for average number of wage earners employed differ greatly, of course, from those just given. The group of establishments employing from 1 to 5 wage earners, which represented 52.2 per cent of the total number of establishments, reported only 14.9 per cent of the total wage earners. On the other hand, the groups of establishments having more than 50 wage earners, although representing only 2.7 per cent of the total number of establishments in the industry, gave employment to 47.9 per cent of the total wage earners. The groups of establishments having more than 250 wage earners comprised three-tenths of 1 per cent of the total number of establishments, but employed 17.5 per cent of the wage earners. Of the four establishments having more than 1,000 wage earners in 1914, two were located in New York and one each in Illinois and Pennsylvania.

Engines and power.—Table 23 shows, for 1914, 1909, and 1904, for all branches of the industry combined, the number and horsepower of engines or motors employed in generating power (including electric motors operated by purchased current). It also shows separately the number and horsepower of electric motors operated by current generated in the establishments reporting.

Table 23

POWER.	NUMBER OF ENGINES OR MOTORS.			HORSEPOWER. Amount.			HORSEPOWER. Per cent distribution.		
	1914	1909	1904	1914	1909	1904	1914	1909	1904
Primary power, total	98,672	62,048	29,805	335,210	297,763	166,380	100.0	100.0	100.0
Owned	7,889	9,460	8,826	86,406	93,806	83,253	25.8	31.5	50.0
Steam engines and turbines [1]	710	1,090	1,765	57,583	59,334	54,957	17.2	19.9	33.0
Internal-combustion engines	6,849	7,755	6,207	27,435	32,152	24,964	8.2	10.8	15.0
Water wheels, turbines, and motors	330	615	854	1,388	2,320	3,332	0.4	0.8	2.0
Rented	90,783	52,588	20,979	248,804	203,957	83,127	74.2	68.5	50.0
Electric	90,783	52,588	20,979	246,697	197,692	75,479	73.6	66.4	45.4
Other	.....	.....	.....	2,107	6,265	7,648	0.6	2.1	4.6
Electric	99,988	60,731	24,666	283,206	229,312	93,219	100.0	100.0	100.0
Rented	90,783	52,588	20,979	246,697	197,692	75,479	87.1	86.2	81.0
Generated by establishments reporting	9,205	8,143	3,687	36,509	31,620	17,740	12.9	13.8	19.0

[1] Figures for horsepower include, for 1909 and 1904, the amounts reported under the head of "other" owned power.

Of the important industries in which rented electric current is used to a greater extent than steam as a source of power, printing and publishing is a conspicuous example. Rented electric power increased 161.9 per cent between 1904 and 1909, and 24.8 per cent during the following five-year period, and for the decade 1904–1914 an increase of 226.8 per cent is shown. The proportion which this class of power represents of the total primary power has also increased greatly—from a little more than four-ninths in 1904 to about two-thirds in 1909 and to nearly three-fourths in 1914. Furthermore, over two-fifths of the owned power in 1914 was converted into electric current before being used.

Fuel.—Closely related to the subject of power is that of fuel consumed in generating it. Table 24 shows, with reference to the combined industry, for the United States as a whole and for 42 selected states and the District of Columbia separately, the consumption of the leading kinds of fuel in 1914.

Table 24

STATE.	COAL. Anthracite (tons, 2,240 lbs.)	COAL. Bituminous (tons, 2,000 lbs.)	Coke (tons, 2,000 lbs.)	Oil, including gasoline (barrels)	Gas (1,000 cubic feet)
United States	165,903	351,395	4,830	52,849	2,270,571
Alabama	131	1,265	62	507	21,333
Arkansas	73	411	.....	644	11,474
California	69	371	2	10,288	89,781
Colorado	123	4,910	28	375	30,628
Connecticut	2,719	3,260	38	91	19,871
District of Columbia	1,164	2,592	1	31	24,992
Florida	287	250	29	828	4,988
Georgia	399	1,679	23	688	12,442
Illinois	5,586	72,908	333	1,375	108,935
Indiana	599	17,409	144	912	57,987
Iowa	589	16,399	267	1,965	21,638
Kansas	128	2,960	38	1,074	72,429
Kentucky	55	5,817	10	576	16,230
Louisiana	51	473	7	392	21,316
Maine	1,488	1,421	13	101	2,379
Maryland	2,697	5,501	33	145	15,738
Massachusetts	9,405	24,803	410	441	124,822
Michigan	1,807	15,979	432	1,262	51,493
Minnesota	2,459	8,679	208	836	25,211
Mississippi	32	606	5	363	2,590
Missouri	572	26,535	45	13,548	65,551
Montana	69	1,945	1	484	6,543
Nebraska	446	6,597	29	858	15,543
New Hampshire	500	597	24	11	2,583
New Jersey	8,314	7,002	17	332	47,092
New York	71,523	29,217	611	1,541	375,747
North Carolina	203	2,260	32	526	8,256
North Dakota	707	1,912	45	782	1,508
Ohio	895	40,519	714	889	409,403
Oklahoma	118	1,050	10	898	66,831
Oregon	25	478	.....	1,465	13,194
Pennsylvania	44,917	14,908	51	868	275,761
Rhode Island	1,663	2,669	20	16	7,494
South Carolina	498	973	5	356	1,816
South Dakota	583	2,462	28	873	1,165
Tennessee	21	5,961	510	245	11,914
Texas	244	2,964	30	3,374	75,875
Utah	372	1,042	5	60	5,379
Vermont	700	93	18	47	3,546
Virginia	1,144	3,671	98	325	12,232
Washington	24	1,335	17	762	14,830
West Virginia	.....	549	.....	158	76,312
Wisconsin	1,849	7,112	392	823	24,951
All other states	650	1,887	45	714	10,768

SPECIAL STATISTICS RELATING TO PRODUCTS.

Summary for the printing and publishing industry proper.—Although the Bureau of the Census recognizes six branches in the printing and publishing industry, the business of actual publishing and printing is restricted to three of these, namely, book publishing and book and job printing, music printing and publishing, and the printing and publishing of newspapers and periodicals. In each of these branches the receipts from publications constitute a large part of the value of products, the aggregate value of such publications representing 89.9 per cent in 1914 of the value of products for the industry as a whole. With the exceptions of Table 61, which relates to the entire industry, and Table 62, which gives detailed statistics for each of the six branches, the remainder of this report is devoted to the presentation of special statistics relating to the products of the above-named three branches of the industry, which constitute what may be termed the printing and publishing industry proper.

Table 25 gives, for 1914, 1909, and 1904, statistics as to the values of the various classes of products, with percentages of increase for the two five-year periods and for the decade as a whole.

The total value of products given in this table includes some duplication, the exact amount of which it is impossible to ascertain. The entire amounts of the items "ready prints (patent insides and outsides)," "books and pamphlets printed for publication by others," "sheet music and books of music printed for publication by others," and "machine composition for others" represent duplication, since they are included in the final values of the various classes of publications covered by the table (disregarding the fact that not all the matter thus printed for publication by others was published during the same year, and the further fact that some of the matter published in 1914 had been printed by others during the preceding year); portions of the items "job printing," "bookbinding and blank books," and "electrotyping, engraving, lithographing, etc.," also represent duplication.

It should be borne in mind that the items "bookbinding and blank books" and "electrotyping, engraving, lithographing, etc.," shown in Table 25, cover only such products as are produced by the three branches constituting the printing and publishing industry proper, and therefore represent only a small proportion of the total output of these classes of products by the entire printing and publishing industry.

Most of the classes and subclasses of products covered by the table show substantial rates of increase for the five-year period 1909–1914; but decreases appear for "ready prints (patent insides and outsides)," "sheet music and books of music printed for publication by others," and "bookbinding and blank books."

Table 25 PRINTING AND PUBLISHING—BOOK AND JOB, MUSIC, AND NEWSPAPERS AND PERIODICALS.

PRODUCT.	1914	1909	1904	Per cent of increase.[1] 1904-1914	1909-1914	1904-1909
Number of establishments	31,612	29,757	26,422	19.6	6.2	12.6
Book and job	12,115	10,705	8,389	44.4	13.1	27.6
Music	180	178	[2]	.....	1.1	.....
Newspapers and periodicals	19,317	18,871	18,033	7.1	2.4	4.6
Total value	$810,508,075	$662,591,959	$496,061,357	63.4	22.3	33.6
Publications:						
Newspapers and periodicals	419,209,701	337,596,288	256,816,282	63.2	24.2	31.5
Subscriptions and sales	163,577,090	135,063,043	111,298,691	47.0	21.1	21.4
Advertising	255,632,611	202,533,245	145,517,591	75.7	26.2	39.2
Newspapers	283,588,966	232,993,094	[3]	.....	21.7	.....
Subscriptions and sales	99,541,860	84,438,702	.....	.....	17.9	.....
Advertising	184,047,106	148,554,392	.....	.....	23.9	.....
Periodicals other than newspapers	135,620,735	104,603,194	[3]	.....	29.7	.....
Subscriptions and sales	64,035,230	50,624,341	.....	.....	26.5	.....
Advertising	71,585,505	53,978,853	.....	.....	32.6	.....
Ready prints (patent insides and outsides)	1,965,214	2,293,077	[4]	.....	−14.3	.....
Books and pamphlets—						
Published or printed and published	68,587,778	62,930,394	53,312,492	28.7	9.0	18.0
Printed for publication by others	19,049,651	10,209,509	[4]	.....	86.6	.....
Sheet music and books of music—						
Published or printed and published	6,803,491	5,510,698	4,673,685	45.6	23.5	17.9
Printed for publication by others	822,585	1,000,966	[4]	.....	−17.8	.....
Other products for sale and in execution of orders:						
Job printing	249,730,932	204,154,096	149,262,070	67.3	22.3	36.8
Machine composition for others	5,682,098	[4]	[4]	.....	.....	.....
Bookbinding and blank books	15,097,109	18,810,392	15,565,118	−3.0	−19.7	20.8
Electrotyping, engraving, lithographing, etc.	9,698,641	8,201,398	3,829,888	153.2	18.3	114.1
All other products	13,860,875	11,885,141	12,601,822	10.0	16.6	−5.7

[1] A minus sign (−) denotes decrease.
[2] Included in "book and job."
[3] Not reported separately.
[4] Included in "job printing."

Table 26 gives, for 1914, by states and geographic divisions, the values of the several classes of products, or receipts, of the three branches of the printing and publishing industry proper, taken as a whole.

As mentioned in the discussion of Table 25, the total value of products includes some duplication due to the fact that a number of the items represent, wholly or in part, work done by certain establishments for others within the industry.

The item "job printing (not elsewhere included)" in this table is not identical with the item "job printing" in Table 25, for the reason that the latter includes the amounts received by job printers for the printing of newspapers and periodicals for publication by others, which sums are shown separately in Table 26.

PRINTING AND PUBLISHING, BOOK AND JOB, MUSIC, AND NEWSPAPERS

Table 26

	DIVISION AND STATE.	Number of establishments.	Total value.	NEWSPAPERS.			PERIODICALS (OTHER THAN NEWSPAPERS).			BOOKS AND PAMPHLETS.	
				Printed and published or published by establishment reporting.		Printed for publication by others.	Printed and published or published by establishment reporting.		Printed for publication by others.	Printed and published or published by establishment reporting.	Printed for publication by others.
				Subscriptions and sales.	Advertising.		Subscriptions and sales.	Advertising.			
1	UNITED STATES	31,612	[1] $810,508,075	$99,541,860	$184,047,106	$2,313,254	$64,035,230	$71,585,505	$6,263,217	$68,587,778	$19,049,651
2	NEW ENGLAND	2,134	65,408,845	9,353,506	15,894,849	148,263	4,149,898	3,290,052	470,001	7,469,402	2,150,461
3	Maine	197	3,617,102	480,858	810,282	4,705	550,779	621,026	1,267	40,045	12,209
4	New Hampshire	133	1,431,411	278,247	421,486	.....	9,106	11,412	143	6,770	23,156
5	Vermont	111	1,242,944	212,872	308,762	.....	14,507	28,250	15,117	8,506	44,847
6	Massachusetts	1,206	47,574,600	6,707,836	10,739,339	139,213	3,484,954	2,455,904	442,906	6,951,808	1,806,719
7	Rhode Island	147	4,189,423	527,058	1,443,188	240	17,040	100,744	9,353	110,969	82,929
8	Connecticut	340	7,353,365	1,146,635	2,171,792	4,105	73,512	72,716	1,215	351,304	180,601
9	MIDDLE ATLANTIC	7,192	309,824,899	29,071,155	53,037,744	887,624	38,303,921	43,468,208	4,136,699	42,468,260	5,064,981
10	New York	4,159	220,226,643	19,359,680	32,897,529	751,139	29,747,145	30,716,740	3,836,910	36,323,314	3,160,146
11	New Jersey	681	11,708,949	1,314,845	3,925,199	89,237	448,073	152,276	32,644	56,205	873,060
12	Pennsylvania	2,352	77,889,307	8,396,630	16,215,016	47,248	8,108,703	12,599,192	267,145	6,088,741	1,031,775
13	EAST NORTH CENTRAL	6,980	202,328,428	22,925,429	41,611,515	286,109	12,671,705	14,434,109	683,846	12,131,001	9,044,652
14	Ohio	1,685	48,422,884	5,853,534	11,903,213	55,723	3,847,408	3,225,013	120,896	2,122,063	245,794
15	Indiana	901	16,431,259	2,562,070	4,222,280	41,350	864,727	722,710	144,868	711,941	115,149
16	Illinois	2,538	102,695,429	9,592,167	16,363,738	109,651	6,857,958	8,974,993	332,571	8,526,286	8,229,146
17	Michigan	1,067	22,440,081	2,749,080	6,228,782	41,922	665,978	846,673	48,992	458,711	269,263
18	Wisconsin	789	12,338,775	2,168,578	2,893,502	37,463	435,634	664,720	36,519	312,000	185,300
19	WEST NORTH CENTRAL	5,498	84,479,244	13,072,088	23,628,045	349,273	4,045,809	5,135,484	289,160	3,607,029	662,694
20	Minnesota	965	19,583,099	2,662,070	5,101,728	82,930	912,265	1,022,294	44,290	2,001,599	115,650
21	Iowa	1,058	15,191,745	2,463,557	4,541,917	49,098	766,111	1,167,756	20,153	371,186	123,091
22	Missouri	1,293	30,670,748	4,494,956	8,278,152	51,670	1,444,509	1,703,276	112,850	1,108,146	331,382
23	North Dakota	351	2,220,217	401,114	784,492	39,546	93,361	10,884	2,749	307	3,750
24	South Dakota	379	2,135,580	437,675	685,496	16,289	45,627	130,269	5,452	32,735	2,615
25	Nebraska	689	7,811,238	1,316,636	2,332,505	81,799	221,113	464,752	94,173	68,310	81,620
26	Kansas	763	6,866,617	1,296,080	1,903,755	27,941	562,823	636,253	9,493	24,746	4,086
27	SOUTH ATLANTIC	2,319	40,849,244	6,040,576	12,369,580	80,763	1,868,332	1,205,074	310,455	816,271	1,531,595
28	Delaware	54	675,553	84,916	253,336	19,512	24,952	5,648	1,800	.....	26,300
29	Maryland	333	9,810,774	1,001,946	2,789,122	10,332	67,339	50,727	33,962	339,402	523,951
30	District of Columbia	141	5,767,930	776,041	1,808,751	16,143	1,019,407	299,095	157,694	98,933	85,243
31	Virginia	384	6,513,856	762,228	1,473,919	1,840	217,690	107,717	36,157	256,026	550,629
32	West Virginia	239	2,376,190	466,842	811,426	850	21,489	9,811	.....	6,773	42,955
33	North Carolina	329	3,232,174	724,165	907,548	9,962	155,104	71,214	15,750	15,355	98,641
34	South Carolina	166	1,985,263	420,834	676,337	528	35,464	14,516	8,358	12,666	12,452
35	Georgia	438	7,470,364	1,319,275	2,375,273	16,446	296,351	601,628	54,874	84,196	157,467
36	Florida	235	3,017,140	484,529	1,273,868	5,150	30,536	44,718	1,860	2,920	33,957
37	EAST SOUTH CENTRAL	1,324	19,540,688	2,956,791	5,511,540	62,294	1,182,784	840,077	36,770	365,312	152,493
38	Kentucky	401	6,226,527	896,103	1,626,016	11,477	199,379	294,099	15,774	68,501	94,702
39	Tennessee	426	8,055,326	1,087,574	1,994,522	39,475	852,151	297,323	3,459	202,891	41,773
40	Alabama	278	3,992,105	726,175	1,434,160	11,247	113,020	236,997	6,297	93,270	12,781
41	Mississippi	219	1,266,730	246,939	456,842	95	18,234	11,658	11,240	650	3,237
42	WEST SOUTH CENTRAL	2,386	25,449,405	4,946,930	8,872,715	132,010	503,989	809,210	48,161	347,521	121,817
43	Arkansas	308	2,350,989	502,104	729,087	18,902	51,207	30,747	1,700	36,492	8,577
44	Louisiana	277	4,096,555	788,791	1,357,731	30,520	98,003	199,036	15,485	19,348	63,827
45	Oklahoma	619	4,005,581	678,592	1,455,605	40,751	86,407	194,160	18,021	33,464	9,318
46	Texas	1,182	14,996,280	2,977,443	5,330,292	41,837	268,372	475,267	12,955	258,217	40,095
47	MOUNTAIN	1,337	15,848,392	3,069,463	5,636,319	110,800	246,101	266,450	52,478	169,437	62,046
48	Montana	238	2,794,587	595,799	1,014,473	5,942	16,341	62,136	10,018	20,643	36,763
49	Idaho	173	1,342,667	293,749	499,953	3,991	3,694	6,365	1,520	10,038	7,430
50	Wyoming	81	545,718	100,122	232,101	1,280	16,971	11,450	325	.....	.....
51	Colorado	466	6,538,303	1,140,409	2,239,266	26,688	110,277	129,673	20,098	83,814	6,942
52	New Mexico	107	577,936	113,784	220,496	.....	11,228	9,201	6,005	1,610	500
53	Arizona	74	996,822	165,250	425,180	5,800	9,042	12,207	13,486	2,995	1,822
54	Utah	156	2,579,312	544,740	832,681	67,099	78,548	35,418	720	50,337	8,589
55	Nevada	42	473,042	115,610	172,169	.....	.....	.....	306	.....	.....
56	PACIFIC	2,442	46,778,930	8,105,922	17,484,799	256,118	1,062,601	2,046,841	235,647	1,213,545	253,912
57	Washington	622	9,505,137	1,658,812	3,737,037	200,485	189,568	317,454	42,848	148,093	20,456
58	Oregon	363	5,815,579	1,143,317	2,018,131	14,528	185,479	337,812	20,864	41,034	5,566
59	California	1,457	31,458,214	5,303,793	11,729,631	41,105	687,644	1,391,575	171,935	1,024,418	232,890

[1] In addition, printing and publishing, etc., to the value of $2,813,574, was reported by establishments in other industries.

Mercantile and manufacturing establishments do a considerable amount of printing of books, pamphlets, circulars, and other advertising matter in connection with their own peculiar business. This printing was reported for such cases only where the plant was large and separately conducted so that proper separate statements could be made.

AND PERIODICALS—VALUE OF PRODUCTS OR RECEIPTS, BY CLASSES: 1914.

SHEET MUSIC AND BOOKS OF MUSIC.		Engravings, lithographs, etc., printed for publication by others.	Ready prints (patent insides and outsides) for publication by others.	Stereotyped plates for use by others.	Job printing (not elsewhere included).	Machine composition done for others.	Bookbinding.	Blank books.	Electrotyping, engraving, etc.	All other products.	
Printed and published or published by establishment reporting.	Printed for publication by others.										
$6,803,491	$822,585	$4,561,044	$1,965,214	$772,565	$241,154,461	$5,682,098	$10,943,861	$4,153,248	$4,365,032	$13,860,875	1
531,364	49,622	199,504	24,592	18,494	18,855,864	349,412	1,438,760	47,434	344,570	622,797	2
.....	.....	16,835	.....	.....	1,034,201	9,010	9,789	100	4,901	21,095	3
.....	.....	.....	.....	.....	621,615	598	41,524	600	6,392	10,362	4
.....	.....	50	.....	.....	599,650	1,826	2,601	4,075	880	1,001	5
530,264	49,547	10,771	24,592	18,494	12,163,010	299,574	1,002,304	20,976	319,517	406,872	6
.....	75	99,848	.....	.....	1,453,843	16,960	200,939	125	475	125,637	7
1,100	.....	72,000	.....	.....	2,933,545	21,444	181,603	21,558	12,405	57,830	8
3,934,879	584,650	1,476,539	240,675	199,020	73,150,187	1,656,799	3,716,025	930,737	1,206,130	6,290,666	9
3,105,457	582,214	1,315,171	202,384	126,123	46,860,750	1,347,896	3,178,260	419,596	885,433	5,410,756	10
6,200	309	.....	.....	8,023	4,597,192	49,200	18,568	20,227	6,030	111,661	11
823,222	2,127	161,368	38,291	64,874	21,692,245	259,703	519,197	490,914	314,667	768,249	12
1,971,953	149,368	1,452,486	565,415	241,252	72,903,118	1,781,205	2,954,345	1,302,901	1,741,609	3,476,410	13
456,745	2,000	175,351	186,488	119,608	17,558,256	297,449	698,037	444,464	237,842	873,000	14
31,850	100	16,100	57,729	17,273	5,546,570	165,467	264,393	218,932	102,918	624,832	15
914,064	144,668	724,106	238,622	86,988	36,161,727	942,435	1,556,675	588,117	944,372	1,407,145	16
569,294	.....	375,664	27,342	6,484	8,588,290	312,207	312,647	27,401	396,831	514,520	17
.....	2,600	161,265	55,234	10,899	5,048,275	63,647	122,593	23,987	59,646	56,913	18
198,335	13,709	556,779	806,177	175,374	27,609,966	793,968	795,767	875,692	371,862	1,492,033	19
3,808	.....	101,976	126,747	38,002	6,433,280	269,823	246,930	89,632	111,724	218,351	20
3,170	675	63,787	164,744	30,315	4,747,270	92,251	152,795	173,324	38,837	221,708	21
187,348	13,034	323,667	363,681	59,155	10,729,237	335,979	138,681	384,854	78,630	531,041	22
.....	.....	19,361	36,581	12,389	720,066	9,737	14,132	17,775	.....	53,973	23
.....	.....	.....	19,768	8,170	671,174	4,147	18,529	21,424	.....	36,210	24
4,007	.....	6,988	60,339	19,088	2,342,396	50,507	128,102	121,985	49,758	367,160	25
2	.....	41,000	34,317	8,255	1,966,543	31,524	96,598	66,698	92,913	63,590	26
68,903	14,013	357,608	65,774	39,200	14,394,753	121,589	498,370	392,129	78,954	595,305	27
.....	.....	.....	.....	.....	255,669	.....	2,000	500	.....	920	28
2,756	11,003	236,587	25,590	13,580	3,943,413	51,072	262,407	193,455	2,201	251,929	29
10,000	.....	.....	.....	.....	1,360,939	17,031	14,714	.....	24,137	79,802	30
16,540	2,385	5,262	.....	.....	2,879,751	33,502	60,987	19,322	3,081	86,820	31
.....	.....	90,000	786	.....	834,604	4,707	58,993	12,115	.....	14,839	32
.....	.....	13,625	17,159	8,576	1,083,213	2,419	50,183	40,889	.....	18,371	33
.....	625	8,108	1,800	150	731,681	675	3,861	40,449	12,200	4,759	34
39,607	.....	3,026	20,439	16,894	2,197,172	7,334	23,746	84,229	37,335	135,072	35
.....	.....	1,000	.....	.....	1,108,311	4,849	21,479	1,170	.....	2,793	36
50,511	6,072	114,030	49,404	17,998	7,047,736	180,451	190,749	142,552	225,408	407,716	37
5,000	.....	14,305	.....	1,050	2,673,649	7,671	30,828	82,625	17,236	188,112	38
45,511	6,072	99,725	35,879	8,294	2,338,609	78,231	60,242	15,744	202,959	144,892	39
.....	.....	.....	12,745	8,654	1,048,052	93,934	87,626	33,506	5,213	68,428	40
.....	.....	.....	780	.....	487,426	615	12,053	10,677	.....	6,284	41
30,660	.....	139,196	109,468	55,492	7,986,897	216,088	303,571	275,751	87,011	372,918	42
9,000	.....	.....	26,889	9,128	802,990	15,059	8,849	13,050	634	86,574	43
.....	.....	4,120	.....	50	1,350,793	8,498	78,761	50,638	.....	30,954	44
.....	.....	10,000	39,414	15,784	1,288,710	44,585	2,910	43,351	.....	44,509	45
21,660	.....	125,076	43,165	30,530	4,544,404	147,946	213,051	168,712	86,377	210,881	46
5,032	200	23,835	59,143	24,075	5,252,100	103,959	269,596	98,580	105,580	293,198	47
.....	.....	.....	276	.....	934,208	2,330	32,406	31,988	16,579	14,685	48
.....	200	800	.....	.....	487,581	1,941	5,172	11,914	1,811	6,508	49
.....	.....	.....	200	.....	167,954	.....	12,222	1,901	100	1,092	50
.....	.....	10,957	39,969	15,638	2,320,690	35,836	142,852	41,653	86,590	86,956	51
.....	.....	.....	.....	.....	198,150	665	5,100	9,361	.....	1,836	52
.....	.....	.....	.....	.....	343,563	3,775	10,600	500	500	2,102	53
5,032	.....	12,078	18,698	8,437	616,009	59,412	60,739	1,000	.....	179,775	54
.....	.....	.....	.....	.....	183,945	.....	505	263	.....	244	55
11,854	4,951	241,067	44,566	1,660	13,953,840	478,627	776,678	87,472	203,908	309,832	56
.....	.....	5,370	332	160	2,783,054	96,907	123,595	25,685	53,710	101,571	57
633	.....	25,920	16,064	.....	1,795,906	78,337	98,882	1,857	533	30,716	58
11,221	4,951	209,777	28,170	1,500	9,374,880	303,383	554,201	59,930	149,665	177,545	59

The Bureau of the Census did not secure reports from establishments soliciting job printing but doing no printing; reports, however, were secured from publishers of books and of music even though other establishments did the work. Many important publishing firms are in this category. Publishers of newspapers and periodicals who had their papers set up and printed outside are also included.

Of the geographic divisions, the Middle Atlantic, the East North Central, and the West North Central led in 1914, as in 1909, in receipts both for subscriptions and sales of newspapers and for newspaper advertising. These three divisions represented 29.2 per cent, 23 per cent, and 13.1 per cent, respectively, of the United States total for subscriptions and sales, and 28.8 per cent, 22.6 per cent, and 12.8 per cent, respectively, of the total for advertising. These percentages are all greater, and in the cases of the first-named two divisions, considerably greater, than the proportions which the estimated populations of the several divisions in 1914 represented of the total for the country—namely, Middle Atlantic, 21.2 per cent; East North Central, 19.5 per cent; and West North Central, 12.3 per cent. Among the states, New York was first in receipts for subscriptions and sales and for advertising, with 19.4 per cent and 17.9 per cent, respectively; Illinois second, with 9.6 per cent and 8.9 per cent, respectively; and Pennsylvania third, with 8.4 per cent and 8.8 per cent, respectively. The estimated population of New York in 1914 formed 10 per cent of the total for the United States; of Illinois, 6.1 per cent; and of Pennsylvania, 8.3 per cent.

In combined receipts for subscriptions and sales of periodicals other than newspapers, and for advertising in such periodicals, the Middle Atlantic division ranked first, followed in order by the East North Central and West North Central divisions. Among the states, New York ranked first, Pennsylvania second, and Illinois third. The last-named state occupied second place in receipts from this class of advertising in 1909, but was outranked by Pennsylvania in 1914.

In receipts from printing and publishing by the same establishments, or publishing only, of books and pamphlets, the Middle Atlantic division ranked first, the East North Central second, and the New England division third. Over one-half of these receipts is shown for New York alone. Next in order are Illinois, Massachusetts, and Pennsylvania. The ranking in 1909 was the same, except that in that year Pennsylvania occupied third place and Massachusetts fourth.

The publication of sheet music and books of music is carried on principally in the Middle Atlantic and East North Central divisions. New York reported nearly one-half of the total value in 1914, and Illinois and Pennsylvania occupied second and third places.

In job printing (not including the printing of newspapers and periodicals, books and pamphlets and music, for publication for others) the Middle Atlantic division led, followed closely by the East North Central; the West North Central division occupied third place. The leading states were New York, with 19.4 per cent of the total for the United States, Illinois, with 15 per cent, and Pennsylvania, with 9 per cent. These states ranked in the same order in 1909, with only slightly different percentages—20.4, 14.4, and 9.2, respectively.

Book and job printing and publishing.—Table 27 presents, for 1914 and 1909, by leading states, statistics for the values of the various products of book-publishing and book and job-printing establishments. Figures for 1904 are not available.

Table 27

PRINTING AND PUBLISHING, BOOK AND JOB—VALUE OF PRODUCTS BY LEADING STATES: 1914 AND 1909.

STATE.	Census year.	Total.	Newspapers and periodicals printed for publication by others.	Books and pamphlets.		Music, engravings, lithographs, ready prints and stereotyped plates, printed and published, published only, or printed for publication by others.	Job printing, not elsewhere included.	Machine composition done for others.	Book binding.	Blank books.	Electrotyping, engraving, etc.	All other products.
				Printed and published, or published only.	Printed for publication by others.							
United States..	1914	$307,330,861	$7,407,590	$49,595,482	$17,662,613	[1] $6,665,123	$196,682,104	$5,270,868	$9,498,144	$3,772,649	$3,451,780	$7,324,508
	1909	250,925,934	6,681,624	44,394,621	9,169,943	[2] 5,053,128	157,099,380	.....	12,241,819	4,748,250	3,943,591	7,593,578
California.....	1914	9,885,477	187,684	802,031	207,474	231,841	7,393,594	261,716	504,420	55,030	143,909	97,778
	1909	7,438,072	218,417	453,172	132,616	73,776	5,812,574	.....	478,979	79,918	91,243	97,377
Illinois.....	1914	54,625,954	359,811	7,479,963	8,184,261	1,017,379	32,541,930	923,919	1,550,256	586,127	926,755	1,055,553
	1909	39,474,143	465,027	7,783,151	581,038	518,685	25,306,538	.....	2,243,465	614,592	927,565	1,034,082
Indiana.....	1914	6,237,228	166,039	633,950	69,895	70,598	4,116,330	160,221	247,144	217,692	99,800	455,559
	1909	5,680,867	21,190	813,031	164,009	47,073	3,608,386	.....	389,111	209,800	296,573	131,694
Maryland.....	1914	5,546,639	39,499	316,502	497,351	277,868	3,680,889	50,298	256,732	192,905	2,201	232,394
	1909	3,657,154	77,511	444,131	192,000	500	2,318,131	.....	231,929	58,640	172,636	161,676
Massachusetts.....	1914	20,245,246	336,759	6,507,223	1,494,866	70,234	10,226,954	272,711	973,272	20,916	250,423	91,888
	1909	17,138,951	329,126	5,158,126	1,334,841	125,753	8,604,920	.....	1,215,935	18,883	220,873	130,494
Michigan.....	1914	9,380,560	74,300	428,910	260,444	409,042	7,016,854	308,507	291,764	23,050	335,800	231,889
	1909	6,185,479	139,373	494,438	92,288	192,958	4,762,349	.....	130,397	54,128	166,429	153,119
Minnesota.....	1914	7,652,223	99,333	1,861,259	106,701	246,438	4,674,802	246,687	160,535	82,939	47,679	125,850
	1909	4,602,128	85,168	235,471	99,280	276,545	3,469,377	.....	188,667	163,994	29,145	54,481

[1] Includes sheet music and books of music printed and published or published by the establishment reporting, to the value of $85,330, and printed for publication by others, to the value of $101,038; engravings, lithographs, etc., printed for publication by others, to the value of $2,705,503; ready prints to the value of $1,713,039; and stereotyped plates to the value of $567,607, combined to avoid disclosing the operations of individual establishments in certain states.

[2] Includes sheet music and books of music printed and published or published by the establishment reporting, to the value of $28,115, and printed for publication by others, to the value of $150,180; engravings, lithographs, etc., printed for publication by others, to the value of $2,969,917; ready prints to the value of $1,548,580; and stereotyped plates to the value of $356,336, combined to avoid disclosing the operations of individual establishments in certain states.

Table 27—Con. PRINTING AND PUBLISHING, BOOK AND JOB—VALUE OF PRODUCTS BY LEADING STATES: 1914 AND 1909.

STATE.	Census year.	Total.	Newspapers and periodicals printed for publication by others.	Books and pamphlets.		Music, engravings, lithographs, ready prints and stereotyped plates, printed and published, published only, or printed for publication by others.	Job printing, not elsewhere included.	Machine composition done for others.	Book binding.	Blank books.	Electrotyping, engraving, etc.	All other products.
				Printed and published, or published only.	Printed for publication by others.							
Missouri	1914	$12,434,192	$155,218	$611,452	$322,851	$524,472	$9,490,658	$322,175	$138,678	$383,529	$39,876	$445,283
	1909	12,240,660	99,577	658,011	185,798	478,692	9,214,409	.....	259,710	632,541	186,958	524,964
New Jersey	1914	4,291,465	106,829	34,136	839,884	317	3,223,971	38,281	8,296	15,073	30	24,648
	1909	3,655,413	10,816	219,670	62,573	3,049	3,054,911	(1)	165,724	48,972	29,602	60,096
New York	1914	78,841,261	4,372,296	23,214,259	2,771,244	1,519,528	40,885,335	1,292,488	2,437,708	357,802	598,870	1,391,731
	1909	69,706,292	3,722,464	19,196,562	3,391,799	1,191,972	35,229,938	.....	3,317,799	641,119	504,793	2,509,846
Ohio	1914	19,915,250	225,048	1,631,240	195,897	418,797	15,253,054	267,595	615,926	431,404	167,342	708,947
	1909	14,987,412	327,614	2,812,093	553,460	462,390	9,533,896	.....	406,769	307,916	279,512	303,762
Pennsylvania	1914	25,285,844	250,830	4,238,249	881,672	204,000	17,743,390	186,595	427,224	487,164	271,627	545,093
	1909	21,810,516	311,449	4,122,762	1,018,603	250,514	14,107,336	.....	929,126	408,740	157,941	504,045
Texas	1914	4,711,163	45,839	233,925	35,231	180,291	3,465,884	134,824	204,126	168,105	85,035	157,903
	1909	4,110,397	15,614	285,562	48,769	146,364	2,587,550	.....	199,865	264,114	270,034	292,525
Wisconsin	1914	4,239,861	69,270	252,766	109,786	229,750	3,343,323	60,210	71,814	15,871	51,105	35,966
	1909	2,959,012	10,917	126,383	131,621	38,752	2,429,802	.....	67,348	15,333	42,900	95,956
All other states	1914	44,038,498	918,835	1,299,617	1,685,056	1,264,568	33,625,136	744,641	1,610,249	735,042	431,328	1,724,026
	1909	37,279,438	847,361	1,592,058	1,181,248	1,246,105	27,059,203	.....	2,016,995	1,229,560	567,387	1,539,461

[1] Includes sheet music and books of music printed and published or published by the establishment reporting to the value of $28,115, and printed for publication by others, to the value of $150,180; engravings, lithographs, etc., printed for publication by others, to the value of $2,969,917; ready prints to the value of $1,548,580; and stereotyped plates to the value of $356,336, combined to avoid disclosing the operations of individual establishments in certain states.

Books and pamphlets printed and published, or published only, contributed 16.1 per cent of the total value of all products of this branch of the industry in 1914, compared with 17.7 per cent in 1909. The state of New York alone reported 46.8 per cent of the value of these books and pamphlets in 1914 and 43.2 per cent in 1909.

Table 28 gives the principal statistics for each of the four subclassifications of the book-publishing and book and job printing branch of the industry, for 1914, and 1909, figures for 1904 not being available.

Table 28 PRINTING AND PUBLISHING—BOOK AND JOB.

ESTABLISHMENTS DOING CHIEFLY OR WHOLLY—	Census year.	Establishments.		Materials.		Products.		Added by manufacture.	
		Number	Per cent distribution.	Cost.	Per cent distribution.	Value.	Per cent distribution.	Value.	Per cent distribution.
Total	1914	12,115	100.0	$96,453,232	100.0	$307,330,861	100.0	$210,877,629	100.0
	1909	10,708	100.0	77,650,547	100.0	250,925,934	100.0	173,275,387	100.0
Job printing	1914	11,080	91.5	86,595,192	89.8	247,326,316	80.5	160,731,124	76.2
	1909	9,721	90.8	68,074,849	87.7	198,006,576	78.9	129,931,727	75.0
Book printing and publishing	1914	154	1.3	6,140,648	6.4	17,397,939	5.7	11,257,291	5.3
	1909	163	1.5	6,019,409	7.8	17,338,734	6.9	11,319,325	6.5
Book publishing without printing	1914	665	5.5	3,351,255	3.5	38,780,318	12.6	35,429,063	16.8
	1909	666	6.2	3,327,461	4.3	32,859,180	13.1	29,531,719	17.0
Linotype work and typesetting	1914	216	1.8	366,137	0.4	3,826,288	1.2	3,460,151	1.6
	1909	158	1.5	228,828	0.3	2,721,444	1.1	2,492,616	1.4

In the case of establishments doing publishing only the cost of materials does not include the sums paid the establishments doing the printing (which sums are classified under contract work); and since in many cases the printing establishments themselves furnish the paper and other material used, the cost of materials does not possess the same significance for the establishments doing publishing only, taken as a group, as for those doing printing. Similarly, the value added by manufacture (which is obtained by deducting the cost of materials from the value of products) does not truly represent, in the case of publishing establishments, the value actually added by the "manufacturing process."

In the case of establishments doing chiefly or wholly job printing and of those doing linotype work and typesetting, somewhat greater proportions of the various totals are shown for 1914 than for 1909; while correspondingly decreased proportions appear for the other two classes of establishments.

Table 29 gives statistics relative to character and number of copies of books and pamphlets printed in

1914 and 1909, including those remaining in the hands of publishers at the close of each year. The figures in this table cover pamphlets for general use and publications of scientific, literary, and similar associations, but do not cover the publication of books or pamphlets of wholly foreign production. Comparative statistics for earlier census years are not available.

Table 29

CHARACTER.	BOOKS AND PAMPHLETS. Number of copies printed. 1914	1909	Per cent of total. 1914	1909
Total	175,166,698	161,361,844	100.0	100.0
Biography and correspondence	517,602	657,464	0.3	0.4
Description, geography, and travel	3,017,151	4,540,647	1.7	2.8
Domestic and rural	1,500,226	2,023,193	0.9	1.3
Education	51,069,521	41,636,847	29.2	25.8
Fiction	39,598,501	46,942,399	22.6	29.1
Fine arts, including illustrated gift books	1,387,604	2,849,371	0.8	1.8
History	2,458,912	2,923,187	1.4	1.8
Humor and satire	959,288	885,262	0.5	0.5
Juvenile	16,399,881	10,184,030	9.4	6.3
Law	1,701,602	1,496,194	1.0	0.9
Literature and collected works	5,673,792	5,037 972	3.2	3.1
Medicine and hygiene	2,337,312	1 519,480	1.3	0.9
Philosophy	189,996	265,077	0.1	0.2
Physical and mathematical science	1,752,826	356,413	1.0	0.2
Poetry and the drama	1,926,892	1,980,824	1.1	1.2
Political and social science	1,807,042	1,862,429	1.0	1.2
Religion and theology	24,411,502	23,608,230	13.9	14.6
Scientific and similar associations	1,279,427	1,258,562	0.7	0.8
Sports and amusements	4,011,909	2,430,074	2.3	1.5
Useful arts	2,133,267	1,104,599	1.2	0.7
Works of reference	11,032,385	7,799,590	6.3	4.8

Works on education, fiction, and religion and theology constitute the leading classes of books and pamphlets printed, as measured by number of copies. The increase during the five-year period in the total number of copies of all classes amounted to 8.6 per cent. The greatest absolute increase was in works on education, and the greatest relative increase—nearly 400 per cent—was in works on physical and mathematical science. Decreases are shown for 9 of the 21 classes covered by the table, of which the most important is fiction. The falling off in this class is due in part to the disappearance of some of the paper-covered novels and in part to the increase in juvenile books.

Music printing and publishing.—Table 30 presents, for 1914 and 1909, by leading states, statistics as to the values of products of establishments engaged solely in music printing or chiefly in music printing and publishing or music publishing only. Comparative figures for earlier census years are not available.

In both 1914 and 1909 New York was far in the lead, with 49.9 per cent of the total output in the earlier year and 55.8 per cent in the later. The increase in total value of products during the semidecade amounted to about three-tenths. The greatest proportional increase shown for any one state—about one-half—is that for Massachusetts; but the value of output for "all other states" nearly trebled.

Table 30

STATE.	PRINTING AND PUBLISHING, MUSIC. Total. 1914	1909	Per cent of increase.	Sheet music and books of music. Printed and published, or published by establishments reporting. 1914	1909	Printed for publication by others. 1914	1909	All other products.[1] 1914	1909
United States	$7,271,266	$5,575,903	30.4	$6,088,746	$4,581,342	$712,569	$848,038	$469,951	$146,523
Illinois	1,042,794	946,517	10.2	879,905	889,466	98,524	33,981	64,365	23,070
Massachusetts [2]	530,264	352,312	50.5	530,264	352,312				
New York	3,631,522	3,110,433	16.8	3,051,953	2,583,342	567,117	412,781	12,452	114,310
Ohio	484,344	384,537	26.0	409,544	309,605		74,932	74,800	
Pennsylvania	364,194	375,823	−3.1	310,320	261,917		112,099	53,874	1,807
All other states [2]	1,218,148	406,281	199.8	906,760	184,700	46,928	214,245	264,460	7,336

[1] Includes, for 1914, periodicals to the value of $93,177, books and pamphlets to the value of $21,921, electroplating, engraving, lithographing, and stereotyped plates to the value of $115,557, job printing to the value of $19,356, and other products to the value of $219,940; for 1909, books and pamphlets to the value of $58,748, job printing to the value of $6,764, bookbinding and blank books to the value of $37,219, and other products to the value of $43,792.

[2] To avoid disclosing the operations of individual establishments, receipts for music "printed for publication by others" and for "all other products" reported by establishments in Massachusetts are excluded from the figures given for that state and are included with those for "all other states."

Table 31 presents, for 1914 and 1909, statistics for establishments doing printing only or both printing and publishing, in comparison with those for establishments doing publishing.

Table 31

ESTABLISHMENTS DOING—	Census year.	PRINTING AND PUBLISHING, MUSIC. Establishments. Number.	Per cent distribution.	Materials. Cost.	Per cent distribution.	Products. Value.	Per cent distribution.	Added by manufacture. Value.	Per cent distribution.
Total	1914	180	100.0	$1,046,630	100.0	$7,271,266	100.0	$6,224,636	100.0
	1909	178	100.0	986,202	100.0	5,575,903	100.0	4,589,701	100.0
Printing or printing and publishing	1914	36	20.0	812,401	77.6	2,174,639	29.9	1,362,238	21.9
	1909	40	22.5	602,249	61.1	1,780,973	31.9	1,178,724	25.7
Publishing only	1914	144	80.0	234,229	22.4	5,096,627	70.1	4,862,398	78.1
	1909	138	77.5	383,953	38.9	3,794,930	68.1	3,410,977	74.3

At each census the establishments doing publishing only were much more numerous than those doing printing, and the value of their products was also much greater. Moreover, the proportions in both respects were larger in 1914 than in 1909.

As explained in the discussion of Table 28, the cost of materials and value added by manufacture do not possess the same significance for the establishments doing publishing only, taken as a group, as for those doing printing.

Printing and publishing of newspapers and periodicals—products and receipts.—The receipts and values of products of establishments engaged primarily in the printing and publishing of newspapers and periodicals, with the percentages of increase, are shown in Table 32 for 1914, 1909, and 1904.

Table 32

NEWSPAPERS AND PERIODICALS—PRODUCTS AND RECEIPTS.

KIND.	1914		1909	1904	Per cent of increase.[1]		
	Value.	Per cent of total.	Value.	Value.	1904–1914	1909–1914	1904–1909
Total	$495,905,944	100.0	$406,090,122	$309,301,854	60.3	22.1	31.3
Newspapers and periodicals	[2] 418,848,707	84.5	337,549,528	256,816,282	63.1	24.1	31.4
Advertising	255,421,144	51.5	202,527,925	145,517,591	75.5	26.1	39.2
Subscriptions and sales	163,427,563	33.0	135,021,603	111,298,691	46.8	21.0	21.3
Book and job printing	67,599,014	13.6	62,022,414	47,446,127	42.5	9.0	30.7
Books and pamphlets	20,357,413	4.1	19,516,591	14,697,941	38.5	4.3	32.8
Sheet music and books of music	638,393	0.1	903,989	128,961	395.0	−29.4	601.0
Engravings, lithographs, etc.	301,118	0.1	374,230	[3]			
Ready prints	252,131	0.1	744,497	[3]			
Stereotype plates	160,260	[4]	74,202	[3]			
Job printing, not elsewhere included[5]	45,889,699	9.3	40,408,905	32,619,225	40.7	13.6	23.9
All other products or work	9,458,223	1.9	6,518,180	5,039,445	87.7	45.1	29.3
Bookbinding	1,439,831	0.3	1,340,131	1,449,949	−0.7	7.4	−7.6
Blank books	380,599	0.1	442,973	434,147	−12.3	−14.1	2.0
Electrotyping, engraving, etc.	904,250	0.2	471,676	647,037	39.8	91.7	−27.1
Machine composition	411,230	0.1	[3]	[3]			
Miscellaneous	6,322,313	1.3	4,263,400	2,508,312	152.1	48.3	70.0

[1] A minus sign (−) denotes decrease.
[2] Does not include $149,527 received for subscriptions and sales, and $211,467 for advertising, tabulated under "printing and publishing, book and job," and "printing and publishing, music."
[3] Not reported separately.
[4] Less than one-tenth of 1 per cent.
[5] Includes the printing of newspapers and periodicals for publication by others.

The total receipts of this branch of the industry increased by about three-fifths during the decade 1904–1914, the rate of growth being somewhat greater in the earlier five-year period than in the later one.

The receipts from subscriptions and sales of newspapers and periodicals and from advertising therein increased by nearly two-thirds between 1904 and 1914, and constituted in the later year more than five-sixths of the total value of products for this branch of the industry. The receipts from advertising in 1914 were nearly three-fifths greater than those from subscriptions and sales, and the rates of increase for both five-year periods were greater in the case of the former item than in that of the latter.

The receipts from book and job printing done by establishments engaged primarily in the publication of newspapers and periodicals, which constituted nearly one-seventh of the entire receipts in 1914, show a considerably smaller rate of increase than that for receipts derived from newspapers and periodicals.

Table 33 presents, for 1914 and 1909, statistics for establishments that print and publish newspapers and periodicals in comparison with those that do publishing only.

Table 33

NEWSPAPER ESTABLISHMENTS DOING—	Census year.	ESTABLISHMENTS.		MATERIALS.		PRODUCTS.		ADDED BY MANUFACTURE.	
		Number	Per cent distribution.	Cost.	Per cent distribution.	Value.	Per cent distribution.	Value.	Per cent distribution.
Total	1914	19,317	100.0	$129,082,218	100.0	$495,905,948	100.0	$366,823,730	100.0
	1909	18,871	100.0	97,359,605	100.0	406,090,122	100.0	308,730,517	100.0
Printing and publishing	1914	15,540	80.4	118,095,005	91.5	406,774,908	82.0	288,679,903	78.7
	1909	15,533	82.3	89,403,701	91.8	340,176,310	83.8	250,772,609	81.2
Publishing only	1914	3,777	19.6	10,987,213	8.5	89,131,040	18.0	78,143,827	21.3
	1909	3,338	17.7	7,955,904	8.2	65,913,812	16.2	57,957,908	18.8

Nearly one-fifth of the newspaper and periodical establishments reported for 1914, as against a little more than one-sixth in 1909, did no printing.

As explained in the discussion of Table 28, the items "cost of materials" and "value added by manufacture" do not possess the same significance for the establishments doing publishing only, taken as a group, as for those doing printing.

Distribution.—Table 34 shows, for 1914 and 1909, by states arranged according to circulation in 1914, the number and average combined circulation per issue of all newspapers and periodicals, whatever their character or period of issue.

Between 1909 and 1914 the total number of newspapers and periodicals in the United States increased by 613, or 2.8 per cent, and their average combined circulation per issue increased by 41,131,867, or 25 per cent. New York, the leading state in respect to both number and circulation, reported 28.4 per cent of the total circulation for 1914, compared with 26.7 per cent for 1909. The first three states in rank—New York, Illinois, and Pennsylvania—together reported substantially the same proportion of the total for 1914 as for 1909—51.1 per cent for the later year and 51.3 per cent for the earlier.

A notable increase is shown for Indiana, which advanced from twelfth place in 1909 to ninth in 1914. This increase, which took place despite a decrease in number of publications, was due largely to the increase in circulation reported by a number of important agricultural periodicals.

Classification according to character.—The number and circulation of newspapers and periodicals, classified according to character, are shown in Table 35, for 1914, 1909, and 1904, with percentages of increase from 1904 to 1914 and for each five-year period.

Table 34

STATE.	NUMBER.		AVERAGE COMBINED CIRCULATION PER ISSUE.	
	1914	1909	1914	1909
United States	22,754	22,141	205,594,907	164,463,040
New York	2,128	1,953	58,443,376	43,953,617
Illinois	1,657	1,682	25,101,616	20,823,166
Pennsylvania	1,498	1,520	21,530,742	19,674,336
Ohio	1,173	1,181	15,707,597	10,753,143
Massachusetts	632	537	10,072,651	9,636,182
Missouri	1,004	1,003	9,098,333	7,577,639
Tennessee	344	330	6,966,391	5,601,541
Iowa	928	1,004	4,856,573	3,806,253
Indiana	775	799	4,460,735	2,859,173
Minnesota	766	758	4,333,613	3,176,700
Maine	113	130	4,316,630	4,262,579
California	975	854	4,086,078	3,025,250
Kansas	709	736	3,818,403	2,703,594
Michigan	736	747	3,627,929	2,766,282
Nebraska	650	623	3,003,305	2,303,151
Texas	1,005	962	2,833,082	2,180,922
Wisconsin	648	677	2,150,934	2,121,662
Georgia	351	357	1,709,343	1,626,562
District of Columbia	77	67	1,682,764	1,107,790
New Jersey	350	348	1,509,137	1,071,456
Washington	438	369	1,376,495	1,068,554
Kentucky	326	339	1,250,043	1,194,245
Virginia	265	258	1,232,608	1,019,968
Colorado	395	382	1,176,604	1,133,364
Oklahoma	596	593	1,081,933	857,959
North Carolina	269	264	1,059,311	789,191
Maryland	182	163	938,364	800,550
Oregon	289	254	917,846	735,363
Alabama	222	227	849,234	518,074
Connecticut	148	160	611,685	539,765
Arkansas	306	288	611,288	496,299
Louisiana	217	198	541,803	511,939
Montana	248	139	507,892	246,798
North Dakota	341	333	457,595	372,642
West Virginia	207	214	426,419	361,598
South Dakota	381	402	416,671	485,101
Florida	189	160	391,503	283,992
Utah	121	94	376,962	261,937
South Carolina	140	138	336,165	278,512
Rhode Island	53	47	333,696	254,493
Mississippi	218	219	267,319	315,731
Idaho	167	130	202,721	140,781
New Hampshire	83	86	194,399	209,063
Delaware	39	35	164,873	82,577
Vermont	77	82	153,896	161,031
Wyoming	88	70	139,059	102,857
New Mexico	111	97	119,969	87,526
Arizona	76	73	111,064	79,808
Nevada	43	59	38,258	45,544

Table 35

CHARACTER.	NUMBER.			AVERAGE COMBINED CIRCULATION PER ISSUE.			PER CENT OF INCREASE.[1]					
							Number.			Circulation.		
	1914	1909	1904	1914	1909	1904	1904–1914	1909–1914	1904–1909	1904–1914	1909–1914	1904–1909
Total	22,754	22,141	21,848	205,594,907	164,463,040	150,009,723	4.1	2.8	1.3	37.1	25.0	9.6
News, politics, and family reading	17,574	17,698	17,032	69,533,556	61,074,990	53,355,893	3.2	—0.7	3.9	30.3	13.8	14.5
Agricultural, horticultural, dairy, stock raising, etc	346	316	360	18,091,350	11,327,253	8,106,275	—3.9	9.5	—12.2	123.2	59.7	39.7
College and school periodicals	303	271	178	353,755	330,705	248,240	70.2	11.8	52.2	42.5	7.0	33.2
Commerce, finance, insurance, railroads, etc	323	264	364	2,196,958	1,411,738	2,470,832	—11.3	22.3	—27.5	—11.1	55.6	—42.9
Education and history	231	202	173	2,533,833	1,879,383	2,119,797	33.5	14.4	16.8	19.5	34.8	—11.3
Fraternal organizations	312	[2] 419	[2] 450	7,092,592	[2] 6,982,235	[2] 5,356,427	[3]	[3]	—6.9	[3]	[4]	30.4
General literature, including monthly and quarterly magazines	284	340	328	38,495,435	31,322,035	30,615,577	—13.4	—16.5	3.7	25.7	22.9	2.3
Labor	163	[4]	[4]	1,633,700	[4]	[4]						
Law	65	56	81	76,571	151,346	194,035	—19.8	16.1	—30.9	—60.5	—49.4	—22.0
Medicine and surgery	178	197	192	910,085	931,584	1,054,948	—7.3	—9.6	2.6	—13.7	—2.3	—11.7
Reform and social science	179	[5]	[5]	2,900,574	[5]	[5]						
Religious	1,412	1,251	1,287	34,515,249	29,523,777	22,383,631	9.7	12.9	—2.8	54.2	16.9	31.9
Science and mechanics	135	139	83	1,683,381	1,421,955	525,523	62.7	—2.9	67.5	220.3	18.4	170.6
Society, art, music, fashion, etc	212	164	155	14,703,958	13,445,661	15,289,431	36.8	29.3	5.8	—3.8	9.4	—12.1
Trade journals generally	873	685	627	9,284,145	3,572,441	3,428,596	39.2	27.4	9.3	170.8	159.9	4.2
Miscellaneous	164	139	538	1,589,735	1,087,937	4,860,518	—69.5	18.0	—74.2	—67.3	46.1	—77.6

[1] A minus sign (—) denotes decrease.
[2] Includes a number of labor publications.
[3] Figures not comparable.
[4] Included in "fraternal organizations."
[5] Included in other classifications, principally "religious," "medicine and surgery," "law," "education and history," and "miscellaneous."

For all newspapers and periodicals combined, the rates of increase between 1909 and 1914 were more than twice as great for number and more than two and one-half times as great for circulation as the corresponding rates for the preceding five-year period. For all classes combined and for most of them separately the increases in circulation during the ten-year period were relatively greater or the decreases were relatively

less than the corresponding increases or decreases in number; and in some instances the increases in circulation were accompanied by decreases in number. In the cases of college and school periodicals and those devoted to education and history, to law, and to medicine and surgery, however, the increases in circulation were less, or the decreases greater, than the corresponding increases or decreases in number; and in the case of those devoted to society, art, music, fashion, etc., a slight decrease in circulation was accompanied by a considerable increase in number.

The greatest absolute increases in number for both the five-year period 1909–1914 and the ten-year period 1904–1914 are shown for trade journals, but the greatest relative increase in number for the five-year period is that for publications devoted to society, art, music, fashion, etc., and the greatest relative increase for the decade is that for college and school periodicals.

The greatest absolute gains in circulation for both five-year periods and for the decade are shown for newspapers (news, politics, and family reading). The greatest relative gains in circulation during the later five-year period and during the decade appear for trade journals and for periodicals devoted to science and mechanics, respectively.

The newspapers in 1914 represented 77.2 per cent of the total number of publications shown in this table, as against 79.9 per cent in 1909 and 77.9 per cent in 1904, but their average combined circulation per issue amounted to only 33.8 per cent of the total in 1914, 37.1 per cent in 1909, and 35.6 per cent in 1904.

The decreases in number of periodicals devoted to fraternal organizations and the small gain in their circulation are accounted for by the fact that this group included, for 1909 and 1904, periodicals published in the interest of labor organizations, which are shown separately for 1914. Likewise, periodicals devoted to reform, classified for 1914 under "reform and social science," were included, for 1909 and 1914, under classifications naming the objects in connection with which the reform was sought—such as "religion," "medicine and surgery," "law," etc.—while social-science publications were included, for those years, principally under "education and history" and "miscellaneous."

The number of newspapers and other periodicals issued, classified according to character, are shown, for 1914 and 1909, by leading states, in Table 36. Figures for 1904 are not available.

At both censuses Illinois led in newspapers, agricultural papers, and periodicals devoted to fraternal organizations; Pennsylvania, in college and school periodicals and those devoted to labor (separate figures for 1909 not available) and to religion; and New York, in all other classes except that designated "miscellaneous," in the case of which that state, although far in the lead in 1909, reported the same number as Illinois for 1914.

Table 36

CHARACTER OF PUBLICATION, AND STATE.	NUMBER. 1914	NUMBER. 1909
NEWS, POLITICS, AND FAMILY READING.		
United States	17,574	17,698
California	705	674
Illinois	1,094	1,169
Indiana	655	718
Iowa	838	891
Kansas	656	679
Massachusetts	367	326
Michigan	600	634
Minnesota	660	643
Missouri	779	797
Nebraska	577	558
New York	1,075	1,080
Ohio	815	882
Oklahoma	562	573
Pennsylvania	937	1,013
South Dakota	369	384
Texas	898	857
Washington	356	322
Wisconsin	558	596
All other states	5,073	4,902
AGRICULTURAL, HORTICULTURAL, DAIRY, STOCK RAISING, ETC.		
United States	346	316
Illinois	35	36
Iowa	12	21
New York	34	28
Ohio	10	7
Pennsylvania	13	12
All other states	242	212
COLLEGE AND SCHOOL PERIODICALS.		
United States	303	271
Illinois	14	28
Massachusetts	24	17
New York	34	26
Pennsylvania	35	29
Texas	10	13
All other states	186	158
COMMERCE, FINANCE, INSURANCE, RAILROADS, ETC.		
United States	323	264
Illinois	35	23
Michigan	11	5
New York	86	91
Pennsylvania	27	24
All other states	164	121
EDUCATION AND HISTORY.		
United States	231	202
Illinois	27	33
Massachusetts	21	18
New York	51	37
Pennsylvania	19	15
All other states	113	99
FRATERNAL.		
United States	312	[1] 419
Illinois	32	49
Indiana	10	17
Iowa	5	10
Massachusetts	13	22
Nebraska	6	10
New York	30	37
Ohio	15	30
All other states	201	244
GENERAL LITERATURE.		
United States	284	340
Illinois	28	36
Iowa	2	6
Kansas	4	5
Maine	6	10
Massachusetts	15	18
Missouri	7	14
New York	116	112
Ohio	17	14
Pennsylvania	10	17
All other states	79	108
LABOR.		
United States	163	[2]
California	13	.....
Illinois	13	.....
Massachusetts	8	.....
Michigan	7	.....
Missouri	12	.....
New York	12	.....
Ohio	13	.....
Pennsylvania	15	.....
All other states	70	.....
LAW.		
United States	65	56
Illinois	5	10
Massachusetts	2	3
Michigan	4	4
Missouri	3	4
New York	8	8
All other states	43	27
MEDICINE AND SURGERY.		
United States	178	197
Illinois	17	20
Michigan	7	11
Missouri	13	19
New York	42	42
Pennsylvania	16	18
All other states	83	87
REFORM AND SOCIAL SCIENCE.		
United States	179	[3]
California	17	.....
Illinois	13	.....
Massachusetts	7	.....
Missouri	8	.....
New York	44	.....
Ohio	30	.....
Pennsylvania	11	.....
All other	49	.....
RELIGIOUS.		
United States	1,412	1,251
Illinois	153	123
Massachusetts	76	55
New York	148	135
Ohio	140	142
Pennsylvania	276	252
Tennessee	75	53
All other states	544	491
SCIENCE AND MECHANICS.		
United States	135	139
District of Columbia	9	4
Illinois	21	26
New York	46	52
Pennsylvania	12	20
All other states	47	37
SOCIETY, ART, MUSIC, AND FASHION.		
United States	212	164
Illinois	14	10
Massachusetts	7	9
New York	95	75
Pennsylvania	16	12
All other states	80	58
TRADE JOURNALS.		
United States	873	685
Illinois	134	102
Massachusetts	46	25
Michigan	18	15
Missouri	36	37
New York	285	191
Ohio	46	42
Pennsylvania	69	62
All other states	239	211
MISCELLANEOUS.		
United States	164	139
Illinois	22	17
Massachusetts	6	9
New York	22	39
All other states	114	74

[1] Includes a number of labor publications.
[2] Included in "fraternal."
[3] Included in other classifications, principally "religious," "medicine and surgery," "law," "education and history," and "miscellaneous."

Classification according to language.—Table 37 shows, for 1914, 1909, and 1904, with percentages of increase for each five years and for the decade, the numbers of newspapers and periodicals published in English and in certain specified foreign languages.

Table 37

LANGUAGE.	NUMBER.			PER CENT OF INCREASE.[1]		
	1914	1909	1904	1904–1914	1909–1914	1904–1909
Total	22,754	22,141	21,848	4.1	2.8	1.3
English	21,272	20,744	20,599	3.3	2.5	0.7
Foreign (including foreign and English)	1,482	1,397	1,249	18.7	6.1	11.8
French	53	39	46	15.2	35.9	−15.2
German	616	692	700	−12.0	−11.0	− 1.1
Italian	127	104	63	101.6	22.1	65.1
Scandinavian	174	161	162	7.4	8.1	− 0.6
Letto-Slavic	237	169	128	85.2	40.2	32.0
All other	275	232	150	83.3	18.5	54.7

[1] A minus sign (−) denotes decrease.

During each of the periods covered by the table the rate of increase in the total number of publications in foreign languages was much greater than that in the number issued in English, but the absolute increase in the English publications was greater for the later five-year period and for the decade than that in the foreign-language publications. At each census the most numerous class in the foreign-language group was that made up of German papers, but this class shows a decrease during each of the periods covered. The greatest rate of increase during the later five-period is shown for the Letto-Slavic papers, but the greatest relative gain during the decade was that for the Italian papers. Estimates of increase and decrease in circulation can not, however, be safely based upon these figures, since a given number of publications at one census may show a greater circulation than a larger number at another.

Circulation of newspapers and periodicals in general.—The increases or decreases shown in numbers and in circulation are, of course, the net increases or decreases during the five years between censuses. Certain newspapers have been abandoned since 1909 and others have been established. In some instances also, even among the daily publications, there are market reports and produce and stock exchange publications not shown in newspaper directories. In some instances small dailies or Sunday editions in outlying sections of cities are established and disappear more or less rapidly as the census years come and go, being experiments only and for purely local purposes; or sometimes they become weeklies, semiweeklies, or triweeklies.

The figures for circulation are, in the main, such as are reported by the publishers of the newspapers and periodicals, and may not in all cases have been compiled by them on the same basis at every census. Greater care has evidently been taken with these figures at the recent censuses than at those of earlier years. This is doubtless due, at least in part, to the fact that the United States postal laws and regulations now require semiannual statements, under oath, of the average number of copies per issue of daily papers sold, or distributed, during the preceding six months.

The Bureau of the Census, at the census of 1914, required the average for the month of December, instead of for the entire year, as heretofore. The demand for news of the European war, which began in August, may have made this December average greater than the average for the entire year, but it is not believed that comparisons with previous censuses are seriously effected thereby.

The figures for circulation given in the tables of this report, with the exception of Table 38, represent the sums of the average circulations per issue of the individual publications, as reported to this Bureau. Based on these figures, the estimated aggregate numbers of copies published during the years 1914, 1909, and 1904, by periods of issue, with percentages of the total for all periods, have been compiled and are presented in Table 38. For the daily the multiplier used was 313 days; for the Sunday, 52; for the triweekly, 156; for the semiweekly, 104; for the weekly, 52; for the monthly, 12; and for the quarterly, 4. The multipliers for "all other classes" were based also on the number of times each publication was issued during the year.

Table 38

CLASS.	AGGREGATE NUMBER OF COPIES PUBLISHED DURING THE YEAR.			PER CENT OF TOTAL.		
	1914	1909	1904	1914	1909	1904
Total	14,041,921,066	11,591,353,613	9,887,416,245	100.0	100.0	100.0
Daily	9,007,343,102	7,578,348,801	6,145,004,739	64.1	65.4	62.2
Sunday	856,957,036	694,058,664	625,161,732	6.1	6.0	6.3
Triweekly	85,721,220	52,320,684	46,206,264	0.6	0.5	0.5
Semiweekly	258,297,416	240,543,576	305,496,256	1.8	2.0	3.1
Weekly	2,617,522,076	2,122,794,180	1,883,789,284	18.6	18.3	19.1
Monthly	950,290,056	759,366,420	771,673,860	6.8	6.6	7.8
Quarterly	75,409,604	64,232,396	46,838,620	0.5	0.6	0.5
All other classes	190,380,556	79,688,892	63,245,490	1.4	0.7	0.6

These figures show very clearly the great lead maintained by the daily newspapers over all other periodicals in respect to the total number of copies issued during the year. The aggregate number of copies issued during the year by the publishers of all classes of newspapers and periodicals combined increased 21.1 per cent between 1909 and 1914, and 17.2 per cent during the preceding five-year period. Increases are shown by all classes for the period 1909–1914 and by all classes except two—the semiweeklies and the monthlies—for the preceding five years. Between 1909 and 1914 the proportions which the aggregate circulation of the dailies, the semiweeklies, and the quarterlies represented of the total decreased somewhat while the proportions for all the other classes increased.

Period of issue.—Table 39 shows, for 1914, 1909, and 1904, the number and aggregate circulation per issue of newspapers and periodicals by certain specified periods of issue, with percentages of increase and per cent distribution.

Table 39

NEWSPAPERS AND PERIODICALS.

CLASS.	1914	1909	1904	Per cent of increase.[1] 1904–1914	1909–1914	1904–1909	Per cent distribution. 1914	1909	1904
All classes:									
Number	22,754	22,141	21,848	4.1	2.8	1.3	100.0	100.0	100.0
Aggregate circulation per issue	205,594,907	164,463,040	150,009,723	37.1	25.0	9.6	100.0	100.0	100.0
Daily:									
Number	2,580	2,600	2,452	5.2	−0.8	6.0	11.3	11.7	11.2
Aggregate circulation per issue	28,777,454	24,211,977	19,632,603	46.6	18.9	23.3	14.0	14.7	13.1
Sunday:									
Number	571	520	494	15.6	9.8	5.3	2.5	2.3	2.3
Aggregate circulation per issue	16,479,943	13,347,282	12,022,341	37.1	23.5	11.0	8.0	8.1	8.0
Triweekly:									
Number	84	73	58	44.8	15.1	25.9	0.4	0.3	0.3
Aggregate circulation per issue	549,495	335,389	296,194	85.5	63.8	13.2	0.3	0.2	0.2
Semiweekly:									
Number	583	635	645	−9.6	−8.2	−1.6	2.6	2.9	3.0
Aggregate circulation per issue	2,483,629	2,312,919	2,937,464	−15.4	7.4	−21.2	1.2	1.4	2.0
Weekly:									
Number	15,172	15,097	15,008	1.1	0.5	0.6	66.7	68.2	68.7
Aggregate circulation per issue	50,336,963	40,822,965	36,226,717	38.9	23.3	12.7	24.5	24.8	24.1
Monthly:									
Number	2,822	2,491	2,500	12.9	13.3	−0.4	12.4	11.3	11.4
Aggregate circulation per issue	79,190,838	63,280,535	64,306,155	23.1	25.1	−1.6	38.5	38.4	42.9
Quarterly:									
Number	500	361	353	41.6	38.5	2.3	2.2	1.6	1.6
Aggregate circulation per issue	18,853,901	16,058,099	11,709,655	61.0	17.4	37.1	9.2	9.8	7.8
All other classes:									
Number	442	364	340	30.0	21.4	7.1	1.9	1.6	1.6
Aggregate circulation per issue	8,922,684	4,093,874	2,878,594	210.0	118.0	42.2	4.3	2.5	1.9

[1] A minus sign (−) denotes decrease.

During the five-year period 1909–1914 increases took place in the circulation of all newspapers and periodicals, and in the number of all except the dailies and the semiweeklies, and for the ten-year period 1904–1914 increases are shown in both number and circulation of all classes except the semiweeklies. For all classes combined, the percentage of increase in average circulation per issue was considerably greater for the later five-year period than for the earlier; and the same is true of each of the separate classes except the dailies and quarterlies. The greatest absolute increase in circulation between 1909 and 1914 appears for the monthly magazines. This increase, amounting to 15,910,303, is especially noteworthy in view of the fact that this class shows a decrease of 1,025,620 for the preceding five years. Next in order in respect to absolute increases in circulation per issue during both the later five-year period and the ten-year period are the weeklies, the dailies, and the Sunday papers.

Disregarding "all other classes," in the case of which very large percentages of increase in circulation are shown, the greatest relative gains in this respect, for both the later five-year period and the ten-year period, are those for the triweeklies.

At each of the three censuses the weeklies, with approximately two-thirds of the total number of publications, were far in the lead in numbers, the monthlies occupying second place and the dailies third. By far the greatest proportions of the average combined circulation per issue, however—more than three-eighths in 1914 and 1909 and more than two-fifths in 1904—appear for the monthlies, next in order being the weeklies, with a little less than one-fourth of the total at each census, and the dailies, with about one-seventh in 1914 and 1909 and a little more than one-eighth in 1904.

Dailies.—According to the census definition the daily newspaper is a publication issued every week day, Sunday editions being excluded. A morning and an evening edition of the same newspaper are counted as two papers. The numbers of daily newspapers, divided into morning and evening issues, are shown, for 1914, 1909, and 1904, by geographic divisions and states, in Table 40.

In the United States as a whole the evening editions represented 69.2 per cent of the total number in 1914, as against slightly larger proportions in 1909 and 1904. Among the geographic divisions, the corresponding proportions for 1914 ranged from 77.1 per cent in New England to 57.6 per cent in the South Atlantic states.

For the period 1909–1914 a decrease of 54 was shown in the number of evening editions reported for the United States as a whole. This decrease is in part offset by an increase of 34 in the number of morning editions, leaving 20 as the net decrease for morning and evening editions combined.

Among the divisions, the greatest increases during the later five-year period for the combined morning and evening editions are shown for the Pacific and the South Atlantic states, the gains in the former division being mainly evening editions and those in the latter principally morning editions. The greatest decrease was shown by the East North Central division and pertained entirely to evening editions. Among the states, the greatest gains appear for California and Texas and the greatest losses for Indiana and Illinois.

Table 40

DIVISION AND STATE.	NUMBER OF DAILY PUBLICATIONS.								
	Total.			Morning.			Evening.		
	1914	1909	1904	1914	1909	1904	1914	1909	1904
United States	2,580	2,600	2,452	794	760	637	1,786	1,840	1,815
New England	179	172	179	41	45	44	138	127	135
Maine	15	14	17	7	7	6	8	7	11
Massachusetts	93	86	89	18	15	21	75	71	68
Rhode Island	12	12	13	2	4	3	10	8	10
Connecticut	36	38	36	9	11	9	27	27	27
New Hampshire and Vermont	23	22	24	5	8	5	18	14	19
Middle Atlantic	504	508	492	165	166	134	339	342	358
New York	234	231	217	88	84	65	146	147	152
New Jersey	46	54	55	13	19	13	33	35	42
Pennsylvania	224	223	220	64	63	56	160	160	164
East North Central	671	702	694	160	156	128	511	546	566
Ohio	181	184	190	44	37	38	137	147	152
Indiana	160	172	161	38	38	28	122	134	133
Illinois	184	194	192	47	51	36	137	143	156
Michigan	80	87	86	19	20	16	61	67	70
Wisconsin	66	65	65	12	10	10	54	55	55
West North Central	339	344	330	102	77	77	237	267	253
Minnesota	51	42	51	17	10	16	34	32	35
Iowa	68	68	66	18	15	15	50	53	51
Missouri	89	91	92	30	20	24	59	71	68
Nebraska	34	34	31	11	11	10	23	23	21
Kansas	69	78	65	17	12	6	52	66	59
North Dakota and South Dakota	28	31	25	9	9	6	19	22	19
South Atlantic	198	186	183	84	75	71	114	111	112
Maryland	19	18	20	9	9	10	10	9	10
Virginia	32	32	31	13	13	14	19	19	17
West Virginia	33	34	33	11	11	11	22	23	22
North Carolina	29	31	30	12	9	10	17	22	20
South Carolina	16	13	14	8	5	4	8	8	10
Georgia	29	27	26	12	14	11	17	13	15
Florida	26	19	20	11	7	8	15	12	12
Delaware and District of Columbia	14	12	9	8	7	3	6	5	6
East South Central	91	95	86	34	39	33	57	56	53
Kentucky	33	35	34	16	16	14	17	19	20
Tennessee	17	16	17	8	7	8	9	9	9
Alabama	24	26	21	5	11	8	19	15	13
Mississippi	17	18	14	5	5	3	12	13	11
West South Central	218	218	183	60	53	34	158	165	149
Arkansas	33	29	27	7	6	3	26	23	24
Louisiana	19	23	25	7	6	7	12	17	18
Oklahoma	59	67	44	11	15	6	48	52	38
Texas	107	99	87	35	26	18	72	73	69
Mountain	125	137	105	51	54	35	74	83	70
Montana	21	17	12	10	6	5	11	11	7
Colorado	44	53	42	18	19	13	26	34	29
Arizona	16	19	16	7	8	5	9	11	11
Nevada	11	15	9	3	7	3	8	8	6
Idaho, Wyoming, New Mexico, and Utah	33	33	26	13	14	9	20	19	17
Pacific	255	238	200	97	95	81	158	143	119
Washington	43	41	29	17	17	10	26	24	19
Oregon	34	31	23	12	13	9	22	18	14
California	178	166	148	68	65	62	110	101	86

When the 1914 figures are compared with those for 1904, the only division showing a decrease in morning and evening editions combined is the East North Central; the only one for which a decrease in morning editions appears is the New England; and the only ones reporting a falling off in evening editions are the Middle Atlantic, East North Central, and West North Central.

Table 41 shows, by geographic divisions and states, for 1914 and 1909, the combined average circulation per issue of daily newspapers, exclusive of Sunday editions, for the total of such publications and for morning and evening issues separately. In order to avoid disclosing the reported circulations of certain papers, the figures for a few of the states have been combined.

By far the greatest proportions of the total circulation per issue are shown for the Middle Atlantic and East North Central divisions—32.2 per cent and 25.3 per cent, respectively, in 1914, as against 35.6 per cent and 23 per cent, respectively, in 1909. The leading states in 1914 were New York, with 20.4 per cent of the total; Pennsylvania, with 10.2 per cent; and Illinois, with 9.1 per cent. In only five other states—Massachusetts, Ohio, Michigan, Missouri, and California—was the proportion more than 3 per cent of the total for the United States.

The total reported circulation of dailies in the United States for 1914 shows an increase of 4,565,477, or nearly one-fifth, over that for 1909, and in each of the divisions except the Mountain an increase also appears for the five-year period. The greatest absolute increase in circulation in any division—1,710,680—was that reported for the East North Central; next in order in this respect were the Pacific division, with 726,930, and the Middle Atlantic, with 663,052. The greatest relative increase, however—over one-half—is shown for the West South Central division. Other divisions reporting considerable rates of increase are the Pacific, in which the growth was also a little more than one-half, and the East North Central and South Atlantic divisions, in each of which the gain was more than three-tenths.

Among the states showing large absolute increases are Ohio, with 941,693; New York, with 620,686; Illinois, with 296,748; Massachusetts, with 294,653; and Texas, with 279,883. The states for which the greatest proportional increases were reported are Texas, with more than five-sixths; South Carolina and Ohio, with more than three-fifths each; and California, with more than four-sevenths. A few of the states show decreases, of which the greatest in point of number—192,402—was that for Missouri. This was due to discontinuance of a daily publication connected with a monthly magazine of larger circulation. The greatest proportional decline, amounting to one-fourth, appears for Colorado.

In the United States as a whole, as in each geographic division and in most of the states, the circulation of the evening papers exceeded that of the morning papers in 1914. Among the divisions the greatest proportion which the circulation of the evening papers represented of the total in 1914—64.5 per cent—appears for the East North Central, and the smallest—52.9 per cent—for the South Atlantic. Of the corresponding proportions for the individual states, the greatest—84.3 per cent—appears for Rhode Island and the smallest—37.3 per cent—for South Carolina. In only seven of the states for which separate figures are given in the table—Maine, North Carolina, South Carolina, Florida, Louisiana, Montana, and Arizona—was the circulation of the morning papers, as reported for 1914, in excess of that for the evening papers, and in all these states except Louisiana the same condition prevailed in 1909. In addition, the group comprising Idaho, Wyoming, New Mexico, and Utah shows an excess of morning over evening circulation for both

years. Seven States—Missouri, Maryland, Tennessee, Alabama, Texas, Nevada, and California—having larger morning than evening circulations in 1909 reported the opposite condition in 1914. For the United States as a whole, as well as for the New England, Middle Atlantic, and East North Central divisions, the proportion which the circulation of the morning papers represented of the total increased between 1909 and 1914. The remaining divisions reported decreases in this respect, and the West North Central and Mountain divisions also reported actual decreases in morning circulation. The only division to show an actual decrease in evening circulation was the Middle Atlantic.

Table 41

DAILY NEWSPAPERS.

Average combined circulation per issue, exclusive of Sunday editions.

DIVISION AND STATE.	Total.				Morning.		Evening.		Per cent which circulations of morning and evening editions represent of total.			
									1914		1909	
	1914	Per cent of total, 1914.	1909	Per cent of increase,[1] 1909–1914.	1914	1909	1914	1909	Morning.	Evening.	Morning.	Evening.
UNITED STATES	28,777,454	100.00	24,211,977	18.9	11,692,368	9,605,694	17,085,086	14,606,283	40.6	59.4	39.7	60.3
NEW ENGLAND	2,711,635	9.4	2,350,643	15.4	990,774	840,831	1,720,861	1,509,812	36.5	63.5	35.8	64.2
Maine	117,842	0.4	85,363	38.0	64,094	44,713	53,748	40,650	54.4	45.6	52.4	47.6
Massachusetts	2,060,343	7.2	1,765,690	16.7	793,403	652,632	1,266,940	1,113,058	38.5	61.5	37.0	63.0
Rhode Island	148,895	0.5	147,045	1.3	23,429	30,838	125,466	116,207	15.7	84.3	21.0	79.0
Connecticut	275,773	1.0	258,543	6.7	73,612	71,942	202,161	186,601	26.7	73.3	27.8	72.2
New Hampshire and Vermont	108,782	0.4	94,002	15.7	36,236	40,706	72,546	53,296	33.3	66.7	43.3	56.7
MIDDLE ATLANTIC	9,278,023	32.2	8,614,971	7.7	4,198,662	3,505,476	5,079,361	5,109,495	45.3	54.7	40.7	59.3
New York	5,874,207	20.4	5,253,521	11.8	2,756,251	2,168,690	3,117,956	3,084,831	46.9	53.1	41.3	58.7
New Jersey	451,681	1.6	437,144	3.3	88,469	110,959	363,212	326,185	19.6	80.4	25.4	74.6
Pennsylvania	2,952,135	10.2	2,924,306	1.0	1,353,942	1,225,827	1,598,193	1,698,479	45.9	54.1	41.9	58.1
EAST NORTH CENTRAL	7,286,844	25.3	5,576,164	30.7	2,587,532	1,778,898	4,699,312	3,797,266	35.5	64.5	31.9	68.1
Ohio	2,484,548	8.6	1,542,855	61.0	995,999	385,254	1,488,549	1,157,601	40.1	59.9	25.0	75.0
Indiana	777,435	2.7	625,591	24.3	259,870	219,665	517,565	405,926	33.4	66.6	35.1	64.9
Illinois	2,620,661	9.1	2,323,913	12.8	981,351	889,180	1,639,310	1,434,733	37.4	62.6	38.3	61.7
Michigan	888,981	3.1	681,919	30.4	244,762	179,757	644,219	502,162	27.5	72.5	26.4	73.6
Wisconsin	515,219	1.8	401,886	28.2	105,550	105,042	409,669	296,844	20.5	79.5	26.1	73.9
WEST NORTH CENTRAL	3,373,427	11.7	3,167,058	6.5	1,275,760	1,339,874	2,097,667	1,827,184	37.8	62.2	42.3	57.7
Minnesota	655,070	2.3	476,252	37.5	233,443	116,212	421,627	360,040	35.6	64.4	24.4	75.6
Iowa	587,268	2.0	450,919	30.2	153,185	110,794	434,083	340,125	26.1	73.9	24.6	75.4
Missouri	1,432,219	5.0	1,624,621	−11.8	622,759	892,263	809,460	732,358	43.5	56.5	54.9	45.1
Nebraska	329,840	1.1	262,109	25.8	109,658	85,929	220,182	176,180	33.2	66.8	32.8	67.2
Kansas	267,463	0.9	250,050	7.0	109,438	96,130	158,025	153,920	40.9	59.1	38.4	61.6
North and South Dakota	101,567	0.4	103,107	−1.5	47,277	38,546	54,290	64,561	46.5	53.5	37.4	62.6
SOUTH ATLANTIC	1,565,078	5.4	1,197,455	30.7	737,092	574,586	827,986	622,869	47.1	52.9	48.0	52.0
Maryland	400,680	1.4	310,870	28.9	198,620	170,516	202,060	140,354	49.6	50.4	54.9	45.1
Virginia	233,975	0.8	174,149	34.4	105,354	78,253	128,621	95,896	45.0	55.0	44.9	55.1
West Virginia	123,722	0.4	99,407	24.5	60,948	45,086	62,774	54,321	49.3	50.7	45.4	54.6
North Carolina	120,823	0.4	93,952	28.6	73,802	49,623	47,021	44,329	61.1	38.9	52.8	47.2
South Carolina	83,885	0.3	51,624	62.5	52,570	33,115	31,315	18,509	62.7	37.3	64.1	35.9
Georgia	265,416	0.9	215,660	23.1	104,581	84,541	160,835	131,119	39.4	60.6	39.2	60.8
Florida	119,102	0.4	80,300	48.3	63,616	44,802	55,486	35,498	53.4	46.6	55.8	44.2
Delaware and District of Columbia	217,475	0.8	171,493	26.8	77,601	68,650	139,874	102,843	35.7	64.3	40.0	60.0
EAST SOUTH CENTRAL	845,080	2.9	658,675	28.3	347,634	307,641	497,446	351,034	41.1	58.9	46.7	53.3
Kentucky	311,019	1.1	226,180	37.5	128,851	89,164	182,168	137,016	41.4	58.6	39.4	60.6
Tennessee	301,583	1.0	245,658	22.8	146,818	127,295	154,765	118,363	48.7	51.3	51.8	48.2
Alabama	186,686	0.6	139,345	34.0	56,111	72,982	130,575	66,363	30.1	69.9	52.4	47.6
Mississippi	45,792	0.2	47,492	−3.6	15,854	18,200	29,938	29,292	34.6	65.4	38.3	61.7
WEST SOUTH CENTRAL	1,080,050	3.8	712,442	51.6	458,838	341,142	621,212	371,300	42.5	57.5	47.9	52.1
Arkansas	87,614	0.3	60,175	45.6	43,699	29,974	43,915	30,201	49.9	50.1	49.8	50.2
Louisiana	139,686	0.5	136,226	2.5	70,287	64,946	69,399	71,280	50.3	49.7	47.7	52.3
Oklahoma	242,305	0.8	185,479	30.6	78,553	79,817	163,752	105,662	32.4	67.6	43.0	57.0
Texas	610,445	2.1	330,562	84.7	266,299	166,405	344,146	164,157	43.6	56.4	50.3	49.7
MOUNTAIN	539,917	1.9	564,099	−4.3	238,223	293,524	301,694	270,575	44.1	55.9	52.0	48.0
Montana	87,113	0.3	70,203	24.1	50,774	36,146	36,339	34,057	58.3	41.7	51.5	48.5
Colorado	249,465	0.9	335,147	−25.6	83,012	159,250	166,453	175,897	33.3	66.7	47.5	52.5
Arizona	32,875	0.1	33,328	−1.4	16,852	17,840	16,023	15,488	51.3	48.7	53.5	46.5
Nevada	15,179	0.1	15,830	−4.1	6,476	9,562	8,703	6,268	42.7	57.3	60.4	39.6
Idaho, Wyoming, New Mexico, and Utah	155,285	0.5	109,591	41.7	81,109	70,726	74,176	38,865	52.2	47.8	64.5	35.5
PACIFIC	2,097,400	7.3	1,370,470	53.0	857,853	623,722	1,239,547	746,748	40.9	59.1	45.5	54.5
Washington	456,489	1.6	317,158	43.9	146,251	111,058	310,238	206,100	40.9	68.0	59.1	65.0
Oregon	218,449	0.8	150,560	45.1	77,626	55,375	140,823	95,185	35.5	64.5	36.8	63.2
California	1,422,462	4.9	902,752	57.6	633,976	457,289	788,486	445,463	44.6	55.4	50.7	49.3

[1] A minus sign (−) denotes decrease.

Dailies in 14 leading cities.—Table 42 shows, for 1914, 1909, and 1904, for 14 leading cities, each of which was estimated to have a population of 400,000 or over in 1914, the total of all dailies combined and the numbers of morning and evening editions separately, together with the average combined daily circulation for the total. The cities are listed in the order of their size.

Table 42

DAILY NEWSPAPERS IN CITIES HAVING MORE THAN 400,000 INHABITANTS IN 1914.

CITY.	Number.									Average combined daily circulation.					
	Total.			Morning.			Evening.						Per cent of increase.[1]		
	1909	1914	1904	1914	1909	1904	1914	1909	1904	1914	1909	1904	1904–1914	1909–1914	1904–1909
United States	2,580	2,600	2,452	794	760	637	1,786	1,840	1,815	28,777,454	24,211,977	19,632,603	46.6	18.9	23.3
Total for 14 cities	310	289	267	161	141	128	149	148	139	14,086,250	12,372,454	10,686,074	31.8	13.9	15.8
New York, N. Y.	98	85	75	58	44	37	40	41	38	4,515,570	4,090,922	3,588,193	25.8	10.4	14.0
Chicago, Ill	40	39	34	18	19	11	22	20	23	2,049,002	1,809,325	1,584,187	29.3	13.2	14.2
Philadelphia, Pa	21	22	21	11	12	12	10	10	9	1,342,816	1,533,597	1,405,866	−4.5	−12.4	9.1
St. Louis, Mo	11	13	15	7	7	10	4	6	5	614,338	626,235	565,716	8.6	−1.9	10.7
Boston, Mass	17	13	14	7	5	6	10	8	8	1,537,932	1,300,069	1,054,365	45.9	18.3	23.3
Cleveland, Ohio	13	13	13	7	5	4	6	8	9	577,284	403,151	349,058	65.4	43.2	15.5
Baltimore, Md	10	10	11	6	7	7	4	3	4	358,100	285,000	276,429	29.5	25.6	3.1
Pittsburgh, Pa	16	13	11	6	6	6	10	7	5	565,010	537,933	466,024	21.4	5.1	15.4
Detroit, Mich	10	8	9	5	2	3	5	6	6	419,850	284,080	258,300	62.5	47.8	10.0
Buffalo, N. Y	11	13	11	3	2	2	8	11	9	382,456	311,131	285,114	34.1	22.9	9.1
San Francisco, Cal	24	29	29	15	19	18	9	10	11	560,598	434,582	340,392	64.7	29.0	27.7
Los Angeles, Cal	13	9	5	8	5	3	5	4	2	395,687	162,970	82,503	379.6	142.8	97.8
Milwaukee, Wis	13	9	11	4	3	4	9	6	7	323,486	221,089	196,957	64.2	46.3	12.3
Cincinnati, Ohio	13	13	8	6	5	5	7	8	3	444,521	372,370	232,970	90.8	19.4	59.8

[1] A minus sign (−) denotes decrease.

These 14 cities reported 48.9 per cent of the daily circulation of the entire country for 1914, as against 51.1 per cent for 1909 and 54.4 per cent for 1904. The circulation of New York City dailies alone constituted 15.7 per cent of the total for all dailies in the United States in 1914, as compared with 16.9 per cent in 1909 and 18.3, in 1904. These proportional decreases take on added significance when considered in connection with the fact that the population of New York City has been increasing more rapidly than that of the country as a whole, the rate of increase between 1900 and 1910 being more than four-fifths greater than that for the entire United States. It is noteworthy that despite the fact that in the United States as a whole the evening papers are more than twice as numerous as those issued in the morning, in the 14 cities, taken as a group, and in 7 of them separately—New York, Philadelphia, St. Louis, Cleveland, Baltimore, San Francisco, and Los Angeles—the morning outnumbered the evening papers in 1914.

Table 43 shows, for 1914, 1909, and 1904, the circulation of the morning and evening dailies in the 14 cities covered by Table 42.

Table 43

MORNING AND EVENING NEWSPAPERS IN CITIES HAVING MORE THAN 400,000 INHABITANTS IN 1914.

CITY.	Average combined circulation per issue.												Per cent of total.					
	Morning.						Evening.						Morning.			Evening.		
	1914	1909	1904	Per cent of increase.[1]			1914	1909	1904	Per cent of increase.[1]			1914	1909	1904	1914	1909	1904
				1904–1914	1909–1914	1904–1909				1904–1914	1909–1914	1904–1909						
United States	11,692,368	9,605,694	7,843,565	49.1	21.7	22.5	17,085,086	14,606,283	11,789,038	44.9	17.0	23.9	40.6	39.7	40.0	59.4	60.3	60.0
Total for 14 cities	6,501,186	5,354,599	4,603,908	41.2	21.4	16.3	7,585,064	7,017,855	6,082,166	24.7	8.1	15.4	46.2	43.3	43.1	53.8	56.7	56.9
New York, N. Y.	2,393,961	1,806,820	1,394,196	71.7	32.5	29.6	2,121,609	2,284,102	2,193,997	−3.3	−7.1	4.1	53.0	44.2	38.9	47.0	55.8	61.1
Chicago, Ill	813,528	755,633	604,584	34.6	7.7	25.0	1,234,474	1,053,642	979,603	26.0	17.2	7.6	39.7	41.8	38.2	60.3	58.2	61.8
Philadelphia, Pa	797,813	753,309	732,829	8.9	5.9	2.8	545,003	780,288	673,037	−19.0	−30.2	15.9	59.4	49.1	52.1	40.6	50 9	47.9
St. Louis, Mo	287,548	284,816	318,403	−9.7	1.0	−10.5	326,790	341,419	247,313	32.1	−4.3	38.1	46.8	45.5	56.3	53.2	54.5	43.7
Boston, Mass	709,878	560,663	461,221	53.9	26.6	21.6	828,054	739,406	593,144	39.6	12.0	24.7	46.2	43.1	43.7	53.8	56.9	56.3
Cleveland, Ohio	222,137	158,920	93,917	136.5	39.8	69.2	355,147	244,231	255,141	39.2	45.4	−4.3	38.5	39.4	26.9	61.5	60.6	73.1
Baltimore, Md	183,322	164,447	170,145	7.7	11.5	−3.3	174,778	120,553	106,284	64.4	45.0	13.4	51.2	57.7	61.6	48.8	42.3	38.4
Pittsburgh, Pa	220,391	211,131	261,949	−15.9	4.4	−19.4	345,219	326,802	204,075	69.2	5.6	60.1	39.0	39.2	56.2	61.0	60.8	43.8
Detroit, Mich	124,801	70,595	62,678	99.1	76.8	12.6	295,049	213,485	195,622	50.8	38.2	9.1	29.7	24.9	24.3	70.3	75.1	75.7
Buffalo, N. Y	108,922	89,239	71,940	51.4	22.1	24.0	273,534	221,892	213,174	28.3	23.3	4.1	28.5	28.7	25.2	71.5	71.3	74.8
San Francisco, Cal	274,647	280,354	261,290	5.1	−2.0	7.3	285,951	154,228	79,102	261.5	85.4	95.0	49.0	64.5	76.8	51.0	35.5	23.2
Los Angeles, Cal	190,533	81,900	39,750	379.3	132.6	106.0	205,154	81,070	42,753	379.9	153.1	89.6	48.2	50.3	48.2	51.8	49.7	51.8
Milwaukee, Wis	72,366	62,734	79,006	−8.4	15.4	−20.6	251,120	158,355	117,951	112.9	58.6	34.3	22.4	28.4	40.1	77.6	71.6	59.9
Cincinnati, Ohio	101,339	73,988	52,000	94.9	37.0	42.3	343,182	298,382	180,970	89.6	15.0	64.9	22.8	19.9	22.3	77.2	80.1	77.7

[1] A minus sign (−) denotes decrease.

Although in 1914 the morning outnumbered the evening papers in these 14 cities, taken as a group, the circulation of the latter exceeded that of the former. The morning circulation, however, represented a greater percentage of the total in 1914 than in 1909. This change is due entirely to the marked increases of this percentage shown for New York and Philadelphia and to the moderate or small increases which took place in St. Louis, Boston, Cincinnati, and Detroit, the remaining 8 cities showing decreases in this respect. The most pronounced increase during the period 1909–1914 in the proportion which the circulation of morning papers represented of the total is that shown for Philadelphia—from 49.1 per cent in the earlier year to 59.4 per cent in the later, the last-mentioned percentage being the greatest shown for any city covered by the table. For the entire decade, however, the greatest proportional increase in the circulation of morning papers is that which took place in New York City—from 38.9 per cent of the total in 1904 to 44.2 per cent in 1909 and to 53 per cent in 1914.

Language.—Table 44 shows, for 1914, 1909, and 1904, the total number and average combined circulation per issue of daily newspapers printed in English and of those printed in foreign languages, together with percentages of increase and of total.

Table 44

	NUMBER.			AVERAGE COMBINED CIRCULATION PER ISSUE.								
										Per cent of increase.		
	1914	1909	1904	1914	Per cent of total.	1909	Per cent of total.	1904	Per cent of total.	1904–1914	1909–1914	1904–1909
Total	2,580	2,600	2,452	28,777,454	100.0	24,211,977	100.0	19,632,603	100.0	46.6	18.9	23.3
English	2,420	2,463	2,325	26,178,627	91.0	22,425,696	92.6	18,416,711	93.8	42.1	16.7	21.8
Foreign	160	137	127	2,598,827	9.0	1,786,281	7.4	1,215,892	6.2	113.7	45.5	46.9

The rate of increase in the circulation of foreign-language papers, which in 1914 represented a little more than one-twelfth of the total circulation, was more than twice as great during each of the five-year periods covered by the table, and more than two and one-half times as great during the decade as a whole, as the corresponding rate for papers printed in English.

Table 45 shows, for 1914, 1909, and 1904, the number and average combined circulation per issue of foreign-language dailies, with percentages of increase, for the United States and for those of the leading states for which figures can be given separately without disclosing the circulation of individual papers.

Table 45

STATE.	DAILY NEWSPAPERS IN FOREIGN LANGUAGES.								
	Number.			Average combined circulation per issue.					
							Per cent of increase.[1]		
	1914	1909	1904	1914	1909	1904	1904–1914	1909–1914	1904–1909
United States	160	137	127	2,598,827	1,786,281	1,215,892	113.7	45.5	46.9
California	16	13	11	81,655	48,633	34,350	137.7	67.9	41.6
Illinois	25	21	20	343,688	271,500	200,180	71.7	26.6	35.6
Indiana	3	5	7	19,687	17,766	14,350	37.2	10.8	23.8
Massachusetts	6	5	3	26,547	16,200	11,232	136.4	63.9	44.2
Michigan	5	5	4	39,247	18,975	11,300	247.3	106.8	67.9
Missouri	3	6	5	41,512	141,151	75,960	−45.4	70.6	85.8
New York	40	35	28	1,509,093	968,340	557,956	170.5	55.8	73.6
Ohio	12	11	11	130,965	89,665	69,687	87.9	46.1	28.7
Pennsylvania	11	8	10	151,745	75,649	112,127	35.3	100.6	−32.5
Wisconsin	6	6	8	106,801	58,433	54,774	95.0	82.8	6.7
All other states	33	22	20	147,887	79,969	73,976	99.9	84.9	8.1

[1] A minus sign (−) denotes decrease.

One-fourth of the total foreign-language dailies in 1914, with about three-fifths of the total circulation of such papers in that year, were reported for New York alone. Three states—Indiana, Pennsylvania, and Wisconsin—show decreases in number of foreign-language papers during the five-year period 1904–1909, but the only one of these to show a decrease in circulation was Pennsylvania. For the following five years only two states—Indiana and Missouri—reported decreases in number, and the latter was the only one for which a decrease in circulation appears. New York shows the greatest absolute gain in circulation for each of the five-year periods covered by the table, as well as the greatest percentage of increase between 1904 and 1909, but the greatest relative growth during the later five-year period and during the decade appears for Michigan.

Table 46 shows, for 1914, 1909, and 1904, the number of dailies printed in each of the foreign languages represented.

Table 46

LANGUAGE.	NUMBER OF DAILIES IN FOREIGN LANGUAGES.		
	1914	1909	1904
Total	160	137	127
Arabic	2	1	1
Bohemian	8	7	6
Bulgarian	1	.....	.....
Chinese	5	3	4
Croatian	3	1	.....
Finnish	4	1	1
French	12	9	8
German	55	65	75
Greek	2	1	.....
Hungarian	4	3	3
Italian	12	10	7
Japanese	10	8	4
Japanese and English	.....	1	.....
Lithuanian	1	.....	.....
Norwegian	.....	.....	1
Norwegian and Danish	2	2	1
Polish	12	9	6
Russian	2	.....	.....
Ruthenian	1	.....	.....
Serbian	1	.....	.....
Slavonic (not specified)	.....	.....	1
Slovak	4	1	.....
Slovenian	1	1	1
Spanish	8	3	.....
Yiddish	10	11	8

The German-language papers were far in the lead at each census, but show marked decreases in number for each of the five-year periods covered by the table. These papers represented over one-third of the total foreign-language dailies in 1914, as against not quite one-half in 1909 and nearly three-fifths in 1904. For both 1914 and 1909, New York reported the greatest number of German dailies, and Illinois, the next greatest. Next to the German papers, those printed in French, in Italian, and in Polish were the most numerous in 1914, 12 dailies being reported for each of these languages. Next in order were the Yiddish and Japanese dailies, with 10 each, and the Bohemian and Spanish, with 8 each. Massachusetts led in number of dailies printed in French; New York in number of those printed in Italian and in Yiddish; Illinois in number of Polish and Bohemian dailies; and Texas in number of Spanish dailies. The 5 Chinese papers were all published in California.

With the exception of the German, Japanese-English, and Yiddish papers, which show decreases, and of the Norwegian-Danish and Slovenian papers, which remained stationary, all the foreign-language papers increased in number during the period 1909–1914.

Table 47 shows, for 1914, 1909, and 1904, the average combined circulation per issue of the various classes of foreign-language dailies, so far as it can be shown without disclosing the circulation of individual papers, together with percentages of increase from census to census.

Of the total foreign-language circulation, the German dailies reported 31.7 per cent for 1914, compared with 42.2 per cent for 1909 and 55.9 per cent for 1904; those printed in Yiddish, 29.4 per cent, 29.4 per cent, and 18.6 per cent, respectively; those in Italian, 10.4 per cent, 9 per cent, and 7.5 per cent, respectively; those in Polish, 8 per cent, 5 per cent, and 4.1 per cent, respectively; and those in Hungarian, 4 per cent, 3 per cent, and 1.8 per cent, respectively. It is worthy of note that the German papers, which in 1914 were more than five times as numerous as the Yiddish, reported only a slightly greater circulation.

Table 47

LANGUAGE.	AVERAGE COMBINED CIRCULATION PER ISSUE OF FOREIGN-LANGUAGE DAILIES.					
	1914	1909	1904	Per cent of increase.[1]		
				1904–1914	1909–1914	1904–1909
Total	2,598,827	1,786,281	1,215,892	113.7	45.5	46.9
Bohemian	73,688	52,143	45,267	62.8	41.3	15.2
Chinese	16,569	9,500	8,800	88.3	74.4	8.0
French	52,660	40,230	47,872	10.0	30.9	−16.0
German	823,062	753,116	680,231	21.0	9.3	10.7
Hungarian	103,245	54,300	21,700	375.8	90.1	150.2
Italian	269,674	160,300	91,350	195.2	68.2	75.5
Japanese	39,961	24,603	9,500	320.6	62.4	159.0
Polish	207,380	88,937	49,616	318.0	133.2	79.2
Spanish	28,150	3,400	.....	.....	727.9	.....
Yiddish	762,910	524,900	226,156	237.3	45.3	132.1
All other languages [2]	221,528	74,852	35,400	525.8	196.0	111.4

[1] A minus sign (−) denotes decrease.
[2] Includes, for 1914, Arabic, Bulgarian, Croatian, Finnish, Greek, Lithuanian, Norwegian and Danish, Russian, Serbian, Slovak, and Slovenian or Slovenic; for 1909, Arabic, Croatian, Danish and Norwegian, Finnish, Greek, Japanese-English, Slovak and Slovenian; for 1904, Arabic, Danish and Norwegian, Finnish, Norwegian, Slavonic, not specified, and Slovenian.

Increases are shown with reference to all classes for the later five-year period and with reference to all classes except the French papers for the earlier period as well. The greatest absolute gain in circulation during each five-year period appears for the Yiddish papers. The greatest relative increases for the periods 1909–1914 and 1904–1909 are shown for the Spanish and the Japanese dailies, respectively. High rates of increase also appear for the Polish papers.

Sunday newspapers.—Table 48 shows, for 1914, 1909, and 1904, by states and geographic divisions, the number and average combined circulations per issue for Sunday newspapers, with percentages of total circulation for 1914 and of increases in circulation during each five-year period and during the ten years.

The greatest proportion of the total number of Sunday newspapers shown for any of the geographic divisions is that for the East North Central—more than one-fifth in each of the three years covered by the table—but the greatest proportion of the circulation—more than one-third in each year—appears for the Middle Atlantic. Among the states, the greatest proportion of both number and circulation are those shown by New York, which for 1914 amounted to nearly one-tenth of the total number and nearly one-fourth of the total circulation.

During the five-year period 1909–1914 the Sunday newspapers in the United States increased in number by 51, or about one-tenth, and in average combined circulation per issue by 3,132,661, or nearly one-fourth, these gains being much greater than the corresponding ones for the preceding five-year period. During the ten years 1904–1914 the increase in number was 77, or nearly one-sixth, and the growth in circulation equaled 4,457,602, or more than one-third.

Table 48

DIVISION AND STATE.	SUNDAY NEWSPAPERS (INCLUDING SUNDAY EDITIONS OF DAILIES).									
	Number.			Average combined circulation per issue.						
								Per cent of increase.[1]		
	1914	1909	1904	1914	Per cent of total: 1914.	1909	1904	1904–1914	1909–1914	1904–1909
UNITED STATES	571	520	494	16,479,943	100.0	13,347,282	12,022,341	37.1	23.5	11.0
NEW ENGLAND	34	29	26	1,439,928	8.7	1,267,440	1,047,420	37.5	13.6	21.0
Massachusetts	21	15	16	1,271,453	7.7	1,122,049	926,441	37.2	13.3	21.1
Connecticut	8	10	5	100,581	0.6	86,261	59,095	70.2	16.6	46.0
Maine and Rhode Island[2]	5	4	5	67,894	0.4	59,130	61,884	9.7	14.8	−4.5
MIDDLE ATLANTIC	101	81	78	5,761,587	35.0	4,509,679	4,433,843	29.9	27.8	1.7
New York	55	48	44	3,917,088	23.8	2,957,727	3,061,565	27.9	32.4	−3.4
New Jersey	7	6	7	83,995	0.5	70,670	73,118	14.9	18.9	−3.3
Pennsylvania	39	27	27	1,760,504	10.7	1,481,282	1,299,160	35.5	18.9	14.0
EAST NORTH CENTRAL	116	106	105	3,269,351	19.8	2,855,912	2,651,242	23.3	14.5	7.7
Ohio	28	25	23	830,219	5.0	645,869	544,416	52.5	28.5	18.6
Indiana	18	20	21	254,126	1.5	206,176	365,180	−30.4	23.3	−43.5
Illinois	48	38	40	1,635,121	9.9	1,616,506	1,442,721	13.3	1.2	12.0
Michigan	14	15	12	342,163	2.1	256,583	172,687	98.1	33.4	48.6
Wisconsin	8	8	9	207,722	1.3	130,778	126,238	64.5	58.8	3.6
WEST NORTH CENTRAL	65	64	67	2,004,978	12.2	1,649,780	1,475,300	35.9	21.5	11.8
Minnesota	7	7	10	369,912	2.3	237,205	190,304	94.4	55.9	24.6
Iowa	14	14	13	200,666	1.2	169,678	133,746	50.0	18.3	26.9
Missouri	23	21	24	1,131,459	6.9	978,377	970,071	16.6	15.6	0.9
Nebraska	12	8	8	187,287	1.1	129,050	99,779	87.7	45.1	29.3
Kansas	5	6	5	86,727	0.5	88,044	60,500	43.4	−1.5	45.5
North Dakota and South Dakota[2]	4	8	7	28,927	0.2	47,426	20,900	38.4	−39.0	126.9
SOUTH ATLANTIC	65	55	57	1,100,039	6.7	751,231	589,247	86.7	46.4	27.5
Maryland	4	5	5	265,817	1.6	182,582	182,500	45.6	45.6	[3]
Virginia	9	8	10	117,531	0.7	79,258	62,688	87.5	48.3	26.4
West Virginia	9	7	6	56,143	0.4	44,939	36,962	51.9	24.9	21.6
North Carolina	12	7	8	87,833	0.5	39,281	35,091	150.3	123.6	11.9
South Carolina	7	4	6	63,783	0.4	32,447	24,617	159.1	96.6	31.8
Georgia	10	13	14	259,108	1.6	172,039	143,052	81.1	50.6	20.3
Florida	9	6	5	83,171	0.5	48,539	30,390	173.7	71.3	59.7
Delaware and District of Columbia[2]	5	5	3	166,653	1.0	152,146	73,947	125.4	9.5	105.8
EAST SOUTH CENTRAL	34	35	33	437,205	2.6	414,052	274,576	59.2	5.6	50.8
Kentucky	9	12	10	88,246	0.5	115,855	83,115	6.2	−23.8	39.4
Tennessee	6	7	9	171,558	1.0	183,196	125,905	36.3	−6.4	45.5
Alabama	12	9	10	144,830	0.9	78,679	52,756	174.5	84.1	49.1
Mississippi	7	7	4	32,571	0.2	36,322	12,800	154.5	−10.3	183.8
WEST SOUTH CENTRAL	56	56	43	821,241	5.0	583,028	450,472	82.3	40.9	29.4
Arkansas	5	7	7	63,967	0.4	50,593	24,337	162.8	26.4	107.9
Louisiana	7	8	8	178,168	1.1	152,920	159,183	11.9	16.5	−3.9
Oklahoma	12	11	8	117,158	0.7	77,326	43,802	167.5	51.5	76.5
Texas	32	30	20	461,948	2.8	302,189	223,150	107.0	52.9	35.4
MOUNTAIN	44	39	32	445,670	2.7	362,439	313,113	42.3	23.0	15.8
Montana	7	7	5	60,321	0.4	48,088	34,111	76.8	25.4	41.0
Idaho	8	3	3	34,566	0.2	13,864	7,675	350.4	149.3	80.6
Colorado	11	13	14	214,916	1.3	223,008	222,854	−3.6	−3.6	0.1
Arizona	8	9	4	18,244	0.1	17,400	10,273	77.6	4.9	69.4
Utah	3	3	3	92,580	0.5	45,428	34,200	170.7	103.8	32.8
Wyoming, New Mexico, and Nevada[2]	7	4	3	25,043	0.2	14,651	4,000	526.1	70.9	266.3
PACIFIC	56	55	53	1,199,944	7.3	953,721	787,128	52.4	25.8	21.2
Washington	12	13	9	276,212	1.7	243,663	130,161	112.2	13.4	87.2
Oregon	7	6	8	146,975	0.9	93,142	58,800	150.0	57.8	58.4
California	37	36	36	776,757	4.7	616,916	598,167	29.9	25.9	3.1

[1] A minus sign (−) denotes decrease. [2] Can not be shown separately without disclosing the circulation of individual papers. [3] Less than one-tenth of 1 per cent.

The greatest absolute gains shown by any geographic division appear for the Middle Atlantic—20 in number and 1,251,908 in circulation for the later five-year period and 23 in number and 1,327,744 in circulation for the ten-year period. This division also shows the greatest relative gain—nearly one-fourth—in number for the five-year period, but for the ten years the greatest relative gain in this respect—nearly one-third—appears for the New England division. The greatest proportional growth in circulation—more than four-ninths for the five-year period and more than six-sevenths for the ten years—is shown for the South Atlantic division. The greatest gain in number—12—which took place in any one of the states during the later five years is that for Pennsylvania, but the greatest absolute increase in circulation, amounting to 959,361, is shown for New York. This state also, despite a slight decrease between 1904 and 1909, shows the greatest absolute gain for the ten years—855,523. The greatest relative gains in circulation—149.3 per cent for the later five-year period and 350.4 per cent for the ten-year period—appear for Idaho.

Although 15 states (including North and South Dakota, for which the increases are combined in order to avoid disclosing the circulation of individual papers) reported fewer Sunday papers for 1914 than for 1909, only 7—Kansas, North and South Dakota combined, Kentucky, Tennessee, Mississippi, and Colorado—show decreases in circulation for the same period.

Of the 571 Sunday papers published in 1914, 78, with an aggregate circulation of 1,574,180, were printed in languages other than English. Of these, 32, with a circulation of 537,427, were printed in German, and 8, with a circulation of 485,573, in Yiddish. The foreign-language papers published in 1909 numbered 61, and their aggregate circulation amounted to 927,008.

Table 49 shows, for 1914, 1909, and 1904 the number and circulation of Sunday newspapers in the 14 cities which were estimated to have more than 400,000 inhabitants in 1914, together with percentages of increase from census to census and for the ten-year period 1904–1914. The cities covered by the table are listed in the order of their size.

Table 49 SUNDAY NEWSPAPERS IN CITIES HAVING MORE THAN 400,000 INHABITANTS IN 1914.

CITY.	Number.			Average combined circulation per issue.					
							Per cent of increase.[1]		
	1914	1909	1904	1914	1909	1904	1904–1914	1909–1914	1904–1909
United States	571	520	494	16,479,943	13,347,282	12,022,341	37.1	23.5	11.0
Total for 14 cities	121	119	120	10,008,865	9,039,970	8,062,959	24.1	10.7	12.1
New York, N. Y.	31	32	30	3,165,139	2,744,990	2,639,348	19.9	15.3	4.0
Chicago, Ill.	20	15	16	1,454,637	1,473,597	1,344,071	8.2	−1.3	9.6
Philadelphia, Pa.	18	13	13	1,015,984	1,052,052	952,847	6.6	−3.4	10.4
St. Louis, Mo.	6	7	7	677,320	670,101	611,405	10.8	1.1	9.6
Boston, Mass.	4	4	5	1,095,956	992,332	835,046	31.2	10.4	18.8
Cleveland, Ohio	4	5	4	280,195	186,340	137,281	104.1	50.4	35.7
Baltimore, Md.	4	6	6	265,817	184,378	184,500	44.1	44.2	−0.1
Pittsburgh, Pa.	6	6	7	410,054	385,305	307,526	33.3	6.4	25.3
Detroit, Mich.	3	4	5	243,259	142,976	123,506	97.0	70.1	15.8
Buffalo, N. Y.	5	7	6	253,678	241,876	220,687	14.9	4.9	9.6
San Francisco, Cal.	7	7	7	369,949	359,736	388,652	−4.8	2.8	−7.4
Los Angeles, Cal.	4	4	2	298,755	208,500	65,000	359.6	43.3	220.8
Milwaukee, Wis.	5	5	7	186,158	130,287	119,390	55.9	42.9	9.1
Cincinnati, Ohio	4	4	5	291,964	267,500	133,700	118.4	9.1	100.1

[1] A minus sign (−) denotes decrease.

In the 14 cities taken as a group, the number of Sunday newspapers remained almost unchanged between the census years; and among the individual cities, the only ones in which any marked changes in this respect took place are Chicago, Philadelphia, Baltimore, and Buffalo, of which the first two show considerable increases and the last two considerable decreases for the later five-year period. For the group, the increase in circulation was nearly uniform from census to census, but the individual cities show pronounced variations. With the exceptions of Philadelphia and Chicago, for which slight decreases appear for the period 1909–1914, and of San Francisco and Baltimore, in which a decline took place between 1904 and 1909—very slight in the case of Baltimore—all the cities show increases from census to census. The greatest percentages of growth during the later and during the earlier five-year periods appear for Detroit and for Los Angeles, respectively, and the latter city also shows the greatest proportional increase for the ten-year period.

Weeklies.—A weekly "newspaper" is a publication issued once a week and giving general and political news and family reading. It may or may not be published in connection with a daily.

A weekly "periodical" is a publication issued once a week and devoted chiefly to purposes other than the spread of general and political news. This designation covers all the "popular" weeklies of large circulation. Some of these contain reviews of current news and political matter, but they are not ordinarily considered as "newspapers." All religious and college weeklies are classed as "periodicals"; also such publications as are devoted to certain specific interests, as, for example, agriculture, commerce, fraternal organizations, labor, and science.

The number and circulation of weekly newspapers and periodicals for 1914, 1909, and 1904 are shown, by geographic divisions and states, with percentages of increase, in Table 50.

Nearly one-third of the circulation of weekly newspapers and periodicals in 1914 was reported from the Middle Atlantic division and nearly one-fourth from the East North Central—substantially the same proportions as those for 1909. New York reported nearly one-fifth of the total circulation for 1914, and Pennsylvania and Illinois each about one-eighth.

For the country as a whole the rate of increase between 1909 and 1914 was nearly twice as great as that for the preceding five years. Each division shows an increase for each period, but 16 states show decreases for the later five years and 15 for the earlier.

Table 50

DIVISION AND STATE.	WEEKLY NEWSPAPERS AND PERIODICALS.								
	Number.			Average combined circulation per issue.					
							Per cent of increase.[1]		
	1914	1909	1904	1914	1909	1904	1904–1914	1909–1914	1904–1909
UNITED STATES	15,172	15,097	15,006	50,336,963	40,822,965	36,226,717	38.9	23.3	12.7
NEW ENGLAND	609	590	606	3,105,093	2,500,006	2,116,920	46.7	24.2	18.1
Maine	73	87	92	162,139	186,616	197,485	−17.9	−13.1	−5.5
New Hampshire	60	66	104	109,806	141,287	146,390	−25.0	−22.3	−3.5
Vermont	59	67	82	82,103	92,355	122,049	−32.7	−11.1	−24.3
Massachusetts	322	271	300	2,552,499	1,911,486	1,445,984	76.5	33.5	32.2
Rhode Island	22	21	29	48,028	34,013	39,542	60.2	43.9	−14.0
Connecticut	73	78	80	149,618	134,349	165,479	−9.6	10.9	−18.5
MIDDLE ATLANTIC	2,040	2,009	2,138	10,409,602	12,458,495	11,000,372	49.2	31.7	13.2
New York	1,006	975	981	9,872,226	6,756,243	5,336,435	85.0	46.1	26.6
New Jersey	246	247	270	391,044	383,231	381,246	2.6	2.0	0.5
Pennsylvania	788	847	887	6,146,332	5,319,021	5,282,691	16.3	15.6	0.7
EAST NORTH CENTRAL	3,096	3,272	3,538	12,386,409	10,466,986	9,908,413	25.0	18.3	5.6
Ohio	641	699	781	3,110,883	2,913,730	2,747,511	13.2	6.8	6.0
Indiana	485	517	560	1,291,735	781,806	891,634	44.9	65.2	−12.3
Illinois	967	1,018	1,080	6,216,067	5,008,500	4,592,043	35.4	24.1	9.1
Michigan	517	526	570	793,176	750,208	774,758	2.4	5.7	−3.2
Wisconsin	486	512	538	973,948	1,012,502	902,467	7.9	−3.8	12.2
WEST NORTH CENTRAL	3,872	3,925	3,838	9,002,113	7,575,538	6,308,099	57.0	30.7	20.1
Minnesota	620	614	634	1,790,818	1,200,856	1,151,145	55.6	41.0	10.3
Iowa	738	784	804	1,459,849	1,419,709	1,167,294	25.1	2.8	21.6
Missouri	721	731	730	3,542,326	1,871,585	1,730,457	103.6	89.3	7.6
North Dakota	315	310	212	265,981	250,075	175,513	51.5	2.4	48.0
South Dakota	347	360	263	268,243	277,127	198,604	35.1	−3.2	39.5
Nebraska	538	521	535	916,257	1,074,554	861,840	6.3	−14.7	24.7
Kansas	593	605	600	1,658,639	1,403,032	1,015,146	63.4	18.2	38.2
SOUTH ATLANTIC	1,129	1,116	1,112	2,156,791	2,007,315	1,922,075	12.2	4.3	7.6
Delaware	24	23	24	20,632	25,950	29,815	−0.6	14.2	−13.0
Maryland	125	120	139	161,045	185,554	228,001	−29.4	−13.2	−18.6
District of Columbia	17	15	24	301,339	185,246	213,500	41.1	62.7	−13.2
Virginia	165	161	149	429,016	392,106	352,856	21.6	9.4	11.1
West Virginia	153	156	166	222,504	187,822	213,975	4.0	18.5	−12.2
North Carolina	172	178	157	329,922	305,082	263,091	25.4	−16.6	50.4
South Carolina	91	90	103	148,597	133,240	137,439	8.1	11.5	−3.1
Georgia	241	246	233	363,121	423,807	371,274	−2.2	−14.3	14.2
Florida	141	127	117	171,615	137,818	112,124	53.1	24.5	22.9
EAST SOUTH CENTRAL	788	810	807	1,024,940	1,905,125	1,601,662	20.2	1.0	18.9
Kentucky	221	226	230	348,342	481,057	466,926	−25.4	−27.7	3.2
Tennessee	224	223	230	923,117	923,431	753,200	22.5	(2)	22.6
Alabama	174	179	171	401,616	278,245	213,543	130.2	76.7	30.3
Mississippi	169	182	176	161,865	221,492	167,993	−3.6	−26.9	31.9
WEST SOUTH CENTRAL	1,650	1,602	1,301	2,047,776	1,894,359	1,605,514	27.5	8.1	18.0
Arkansas	243	234	232	273,078	241,413	246,118	11.0	13.1	−1.9
Louisiana	157	141	143	148,987	176,193	172,949	−13.9	−15.4	1.9
Oklahoma	497	499	387	500,335	512,229	352,013	42.1	−2.3	45.5
Texas	702	728	629	1,125,376	964,524	834,434	34.9	16.7	15.6
MOUNTAIN	942	774	621	1,095,355	742,136	595,358	84.0	47.6	24.7
Montana	203	101	99	202,746	92,027	75,403	287.9	218.1	21.9
Idaho	134	108	74	102,226	91,134	51,265	99.4	12.2	77.8
Wyoming	67	55	36	51,847	39,227	28,060	84.8	32.2	39.8
Colorado	293	278	274	430,727	338,992	294,242	46.4	27.4	14.9
New Mexico	90	80	53	69,802	62,826	38,865	79.6	11.1	61.7
Arizona	48	41	38	41,420	24,675	30,283	36.8	67.9	−18.5
Utah	82	65	57	91,339	71,542	65,742	38.9	27.7	8.8
Nevada	27	40	20	15,248	22,613	11,435	33.3	−32.6	97.8
PACIFIC	1,037	939	865	1,308,884	1,212,405	1,167,395	12.1	8.0	3.9
Washington	307	208	226	276,979	252,396	217,845	27.1	9.7	15.9
Oregon	201	176	152	349,363	229,585	180,395	93.7	52.2	27.3
California	529	495	487	682,542	730,424	769,155	−11.3	−6.6	−5.0

[1] A minus sign (−) denotes decrease.

[2] Decrease of less than one-tenth of 1 per cent.

The greatest absolute increases in circulation between 1909 and 1914, as well as for the ten-year period—3,951,107 and 5,409,230, respectively—shown by any division are those for the Middle Atlantic; and the greatest relative increases—47.5 per cent for the five-year period and 84 per cent for the ten years—appear for the Mountain division. Among the states the greatest absolute increases—3,115,983 for the later

five years and 4,535,791 for the ten years—are those shown by New York; while the greatest relative increases—218.1 per cent for the later five years and 287.9 per cent for the decade—appear for Montana.

Separate statistics for weekly newspapers and for weekly periodicals, for 1914, 1909, and 1904, with percentages of increase from census to census, are presented, by leading states, in Table 51.

Table 51

STATE.	NUMBER OF WEEKLY— Periodicals.			Newspapers.			AVERAGE COMBINED CIRCULATION PER ISSUE. Periodicals.						Newspapers.					
										Per cent of increase.[1]						Per cent of increase.[1]		
	1914	1909	1904	1914	1909	1904	1914	1909	1904	1904–1914	1909–1914	1904–1909	1914	1909	1904	1904–1914	1909–1914	1904–1909
United States.	1,379	1,194	1,493	13,793	13,903	13,513	28,486,357	19,876,630	17,418,166	63.5	43.3	14.1	21,850,606	20,946,335	18,808,551	16.2	4.3	11.4
California	75	61	87	454	434	400	275,208	254,521	289,828	−5.0	8.1	−12.2	407,334	475,903	479,327	−15.0	−14.4	−0.7
Illinois	145	121	160	822	897	929	3,982,208	3,159,772	3,199,712	24.5	26.0	−1.2	2,234,459	1,848,818	1,392,331	60.4	20.9	32.8
Indiana	34	19	39	451	498	521	714,990	206,060	213,568	234.8	247.0	−3.5	576,745	575,806	678,066	−14.9	0.2	−15.1
Iowa	23	27	36	715	757	828	250,975	565,962	279,000	−10.0	−55.7	102.9	1,208,874	853,747	888,294	36.1	41.6	−3.9
Kansas	19	21	14	574	584	586	191,772	212,705	66,290	189.3	−9.8	220.9	1,466,867	1,190,327	948,856	54.6	23.2	25.4
Kentucky	14	22	32	207	204	198	94,828	188,350	194,700	−51.3	−49.7	−3.3	253,514	293,607	272,226	−6.9	−13.7	7.9
Massachusetts	77	54	62	245	217	247	2,124,440	1,483,153	1,103,915	92.4	43.2	34.4	428,059	428,333	342,069	25.1	−0.1	25.2
Michigan	37	26	31	480	500	539	208,887	171,602	149,532	39.7	21.7	14.8	584,289	578,696	625,226	−6.5	1.0	−7.4
Minnesota	25	27	37	595	587	597	646,651	161,665	241,398	167.9	300.0	−33.0	1,144,167	1,108,191	909,747	25.8	3.2	21.8
Missouri	66	58	65	655	673	665	2,084,215	583,258	507,319	310.8	257.3	15.0	1,458,111	1,288,227	1,232,138	18.3	13.2	4.6
Nebraska	25	21	28	513	500	507	306,331	164,950	271,918	12.7	85.7	−39.3	609,926	909,604	589,922	3.4	−32.9	54.2
New York	267	223	243	739	752	738	7,974,662	5,090,589	3,716,951	114.5	56.7	37.0	1,897,564	1,665,654	1,619,484	17.2	13.9	2.8
North Carolina	16	19	22	156	159	135	83,300	165,406	88,400	−5.8	−49.6	87.1	246,622	230,276	174,691	41.2	7.1	31.8
Ohio	84	86	108	557	613	673	1,856,280	1,687,358	1,390,655	33.5	10.0	21.3	1,254,603	1,226,372	1,356,856	−7.5	2.3	−9.6
Pennsylvania	157	132	150	631	715	737	5,032,402	3,920,143	3,896,792	29.1	28.4	0.6	1,113,930	1,398,878	1,385,899	−19.6	−20.4	0.9
Tennessee	31	25	42	193	198	188	611,246	486,896	377,460	61.9	25.5	29.0	311,871	436,535	375,830	−17.0	−28.6	16.2
Texas	32	28	39	730	700	590	259,381	207,450	212,250	22.2	25.0	−2.3	865,995	757,074	622,184	39.2	14.4	21.7
Virginia	23	15	17	142	146	132	236,765	193,367	167,700	41.2	22.4	15.3	192,251	198,739	185,156	3.8	−3.3	7.3
Wisconsin	21	12	27	465	500	511	360,749	167,036	245,736	46.8	116.0	−32.0	613,199	845,466	656,731	−6.6	−27.5	28.7
All other states	208	197	254	4,469	4,269	3,792	1,191,067	806,287	805,042	47.9	47.7	0.2	4,982,226	4,636,082	4,073,518	22.3	7.5	13.8

[1] A minus sign (−) denotes decrease.

It is noteworthy that in the United States as a whole, although the weekly newspapers were ten times as numerous in 1914 as the weekly periodicals, the circulation of the latter exceeded that of the former by more than three-tenths. Furthermore, during the five-year period 1909–1914 the periodicals increased in number by nearly one-sixth and in circulation by more than two-fifths, whereas the newspapers declined slightly in number and increased only to a small extent in circulation.

The publication of weekly periodicals is to a large extent concentrated in five states, which together reported, for 1914, 51.5 per cent of the total number and 74.4 per cent of the total circulation. These states, named in the order of their importance in respect to circulation, are New York, Pennsylvania, Illinois, Massachusetts, and Missouri. The greatest absolute increase in circulation of periodicals during the period 1909–1914—2,884,073—is shown for New York, and the greatest relative gain—300 per cent, for Minnesota.

In 1914, 849 weekly newspapers, with an average combined circulation of 3,380,645 per issue, were published in connection with dailies. Corresponding figures for earlier years are not available.

Table 52 shows, for 1914 and 1909, the number and circulation of weekly periodicals, classified according to character, with percentages of total circulation. Figures for 1904 are not available.

By far the most important classes of weekly periodicals, as measured by circulation, are those devoted to religion, those classed as general literature, and those pertaining to agriculture, horticulture, dairying, stock raising, etc. These three classes together contributed nearly one-half of the total number and five-sixths of the total circulation in 1914. The religious publications alone represented over three-eighths of the total number and reported nearly three-sevenths of the total circulation; and those devoted to general literature, although representing only about 4 per cent of the total number, show more than one-fourth of the total circulation.

Table 52

CHARACTER.	WEEKLY PERIODICALS. Number.		Average combined circulation per issue.		Per cent of total.	
	1914	1909	1914	1909	1914	1909
Total	1,379	1,194	28,486,357	19,876,630	100.0	100.0
Agriculture, horticulture, dairying, stock raising, etc.	81	92	4,008,547	2,351,368	14.1	11.8
College and school	88	65	94,249	72,460	0.3	0.4
Commerce, finance, insurance, railroads, etc.	84	84	283,925	340,819	1.0	1.7
Education and history	18	14	1,043,466	397,962	3.7	2.0
Fraternal	31	69	275,100	454,930	1.0	2.3
General literature	56	52	7,701,592	5,799,136	27.0	29.2
Labor	84	[1]	355,900	[1]	1.2	[1]
Law	22	19	54,565	47,843	0.2	0.2
Medicine and surgery	8	7	119,487	105,811	0.4	0.5
Reform and social science	42	[2]	286,081	[2]	1.0	[2]
Religion	524	483	12,116,666	8,544,673	42.5	43.0
Science and mechanics	20	23	275,157	289,478	1.0	1.5
Society, art, music, fashion, etc.	55	49	555,543	269,945	2.0	1.4
Trade	227	195	1,104,976	1,041,735	3.9	5.2
Miscellaneous	39	42	211,103	160,470	0.7	0.8

[1] Included in "fraternal."
[2] Included in other classifications, principally "general literature."

Table 53 shows, by leading states, for 1914, 1909, and 1904, with percentages of increase, the number and circulation of weekly newspapers and periodicals printed in languages other than English.

Table 53 WEEKLY NEWSPAPERS AND PERIODICALS IN LANGUAGES OTHER THAN ENGLISH.

STATE.	Number.			Average combined circulation per issue.			Per cent increase.[1]		
	1914	1909	1904	1914	1909	1904	1904–1914	1909–1914	1904–1909
United States	868	875	788	4,239,426	3,543,898	2,976,995	42.4	19.6	19.0
California	31	30	29	59,300	36,178	42,642	39.1	63.9	−15.2
Colorado	17	14	9	52,175	54,385	22,600	130.9	−4.1	140.6
Connecticut	11	10	11	27,691	21,750	27,741	−0.2	27.3	−21.6
Illinois	93	95	81	981,137	559,617	543,314	80.6	75.3	3.0
Indiana	6	9	20	47,255	10,750	27,490	71.9	339.6	−60.9
Iowa	35	42	45	105,850	108,583	83,675	26.5	−2.5	29.8
Kansas	13	11	8	19,255	18,567	11,830	62.8	3.7	56.9
Louisiana	11	7	5	10,061	22,000	23,989	−58.1	−54.3	−8.3
Maryland	6	9	9	6,430	20,336	19,970	−67.8	−68.4	1.8
Massachusettts	35	29	22	133,742	94,106	53,850	148.4	42.1	74.8
Michigan	32	30	34	78,205	72,957	75,280	3.8	7.2	−3.1
Minnesota	45	43	51	349,430	357,589	384,478	−9.1	−2.3	−7.0
Missouri	24	26	24	205,922	111,218	71,500	188.0	85.2	55.5
Nebraska	33	34	27	236,471	374,112	210,402	12.4	−36.8	77.8
New Jersey	30	32	26	60,232	61,407	60,490	−0.4	−1.9	1.5
New Mexico	18	19	12	21,405	26,015	15,150	41.3	−17.7	71.7
New York	103	94	71	624,127	417,494	380,450	64.0	49.5	9.7
North Dakota	16	10	9	33,773	22,490	16,480	104.9	50.2	36.5
Ohio	62	69	60	327,352	369,814	298,355	9.7	−11.5	24.0
Oklahoma	3	5	5	1,700	5,276	8,076	−78.9	−67.8	−34.7
Oregon	9	5	5	49,182	32,900	24,000	104.9	49.5	37.1
Pennsylvania	79	69	64	368,862	186,239	182,289	102.4	98.1	2.2
Rhode Island	4	3	4	19,900	5,400	4,400	352.3	268.5	22.7
South Dakota	7	12	9	31,208	32,200	16,056	94.4	−3.1	100.5
Texas	40	41	27	93,195	77,321	48,342	92.8	20.5	59.9
Utah	8	4	5	9,400	4,900	7,050	33.3	91.8	−30.5
Washington	21	16	12	33,160	24,625	30,290	9.5	34.7	−18.7
Wisconsin	53	73	77	211,312	358,819	238,676	−11.5	−41.1	50.3
All other states	23	34	27	41,694	56,850	48,130	−13.4	−26.7	18.1

[1] A minus sign (−) denotes decrease.

The circulation of foreign-language weeklies amounted to 8.4 per cent of the total circulation of all weeklies in 1914, compared with 8.7 in 1909, and 8.2 in 1904. The decreases, shown for several states, are due principally to the falling off in the circulation of publications printed in French and German.

Illinois led in 1914 in circulation of Polish and Swedish weeklies; New York in circulation of those in French, Italian, Russian, Serbian, Spanish, and Yiddish; Pennsylvania in circulation of those in Croatian, Ruthenian, and Slovak; Minnesota in circulation of those in Norwegian and Norwegian-Danish; Ohio in circulation of those in German (closely followed by Missouri and Wisconsin) and in Hungarian; Nebraska in circulation of those in Bohemian and in Danish; and Massachusetts in circulation of those in Portuguese.

Table 54 shows, for 1914, 1909, and 1904, with percentages of increase and of totals, the circulation of weekly newspapers and periodicals printed in each of the leading foreign languages.

By far the greatest proportion of the total circulation of foreign-language weeklies in each of the years covered by the table is shown for the German papers. The circulation of this class, however, decreased nearly 14 per cent between 1909 and 1914, and during the same period the proportion which it represented of the total circulation decreased from nearly one-half to only a little more than one-third. The second class in importance is that comprising papers printed in Swedish, which contributed more than one-sixth of the total circulation of foreign-language weeklies in 1914, as against a little over one-eighth in 1909. The only other classes shown separately in the table which contributed more than 5 per cent of the total circulation in 1914 were the Polish and Italian papers.

Table 54 WEEKLY NEWSPAPERS AND PERIODICALS IN LANGUAGES OTHER THAN ENGLISH—AVERAGE COMBINED CIRCULATION PER ISSUE.

LANGUAGE.	1914	1909	1904	Per cent of increase.[1]			Per cent of total.		
				1904–1914	1909–1914	1904–1909	1914	1909	1904
United States	4,239,426	3,543,898	2,976,995	42.4	19.6	19.0	100.0	100.0	100.0
Bohemian	75,874	67,950	67,014	13.2	11.7	1.4	1.8	1.9	2.3
Croatian	44,000	7,000	4,350	911.5	528.6	60.9	1.0	0.2	0.1
Danish	53,526	65,950	50,325	6.4	−18.8	31.0	1.3	1.9	1.7
Dutch	51,800	42,850	39,035	32.7	20.9	9.8	1.2	1.2	1.3
Finnish	15,880	30,950	35,786	−55.7	−48.8	−13.5	0.4	0.9	1.2
French	75,157	66,283	79,119	−5.0	13.4	−16.2	1.8	1.9	2.7
German	1,438,888	1,668,369	1,417,172	1.5	−13.8	17.7	33.9	47.1	47.6
Hungarian	30,715	11,275	14,800	107.5	172.4	−23.8	0.7	0.3	0.5
Italian	271,276	219,475	168,850	60.7	23.6	30.0	6.4	6.2	5.7
Lithuanian	93,265	30,100	19,239	384.8	209.8	56.5	2.2	0.8	0.6
Norwegian	173,200	207,676	206,029	−15.9	−16.6	0.8	4.1	5.9	6.9
Polish	383,722	288,820	236,890	62.0	32.9	21.9	9.1	8.1	8.0
Portuguese	19,100	14,050	8,400	127.4	35.9	67.3	0.5	0.4	0.3
Slovenian	3,185	11,035	4,500	−29.2	−71.1	145.2	0.1	0.3	0.2
Spanish	173,974	82,235	23,200	649.9	111.6	254.5	4.0	2.3	0.8
Swedish	727,927	449,944	462,909	57.3	61.8	−2.8	17.2	12.7	15.5
Yiddish	157,500	91,160	75,586	108.4	72.8	20.6	3.7	2.6	2.5
All other	450,457	188,776	63,791	606.1	138.6	195.9	10.6	5.3	2.1

[1] A minus sign (−) denotes decrease.

The greatest absolute gain in circulation during the later five-year period and the ten-year period—277,983 and 265,018, respectively—are shown for the Swedish papers. The greatest relative gains—more than 500 per cent for the five-year period and more than 900 per cent for the ten years—appear for the weeklies printed in Croatian. Especially high rates of increase are also shown for the Spanish, Lithuanian, Portuguese, Yiddish, and Hungarian papers. The great gain in the circulation of the "all other" weeklies is due in part to a decided increase in the circulation of Slovak publications, most of which are printed in Pennsylvania. Among the other foreign-language weeklies included in the "all other" class are those printed in Arabic, Armenian, Esperanto, Flemish, Greek, Russian, Ruthenian, Ukranian, and English-and-Gaelic.

Publications with miscellaneous periods of issue.—Table 55 presents, for 1914 and 1909, by geographic divisions and states, the number of publications issued semiweekly, triweekly, monthly, quarterly, and at "all other" periods, except daily, Sunday, and weekly. Figures for 1904 are not available.

Of the miscellaneous publications, the monthlies are by far the most numerous. In both 1914 and 1909 nearly one-third of these periodicals were published in the Middle Atlantic division and nearly one-fourth in the East North Central. New York state alone reported more than one-fifth of the total for each year. The semiweeklies, which are next in order, although far behind the monthlies, are found in greatest number

in the East North Central division and in the state of Ohio; of the quarterlies, third in importance as measured by number, more were reported from the Middle Atlantic division and from the state of Pennsylvania than from any other division and state; and in respect to the triweeklies, the least numerous class, the East North Central and the Middle Atlantic divisions and the state of New York are in the lead.

Table 55

DIVISION AND STATE.	NUMBER OF PUBLICATIONS ISSUED—									
	Semi-weekly.		Tri-weekly.		Monthly.		Quarterly		At all other periods except daily, Sunday, and weekly.	
	1914	1909	1914	1909	1914	1909	1914	1909	1914	1909
United States	583	635	84	73	2,822	2,491	500	361	442	364
New England	26	21	6	5	173	164	49	36	30	25
Maine	5	2	1	1	13	22	2	1	1	1
New Hampshire	3	2	2	1	5	4	----	----	----	----
Vermont	----	----	----	----	7	5	1	----	----	1
Massachusetts	7	5	3	3	118	107	44	31	24	19
Rhode Island	3	3	----	----	11	8	1	----	2	1
Connecticut	8	9	----	----	19	18	1	4	3	3
Middle Atlantic	86	97	19	16	919	800	185	156	122	94
New York	43	46	13	10	622	521	66	54	89	68
New Jersey	3	4	----	1	33	26	6	5	9	5
Pennsylvania	40	47	6	5	264	253	113	97	24	21
East North Central	150	177	20	18	697	622	133	98	106	91
Ohio	47	54	6	6	183	152	57	37	30	24
Indiana	27	29	2	1	62	52	13	2	8	6
Illinois	36	43	5	5	312	289	54	50	51	45
Michigan	21	28	7	6	84	73	4	4	9	8
Wisconsin	19	23	----	----	56	56	5	5	8	8
West North Central	82	98	10	8	313	332	34	22	64	66
Minnesota	7	8	----	----	65	68	3	2	13	17
Iowa	34	50	6	4	53	66	3	4	12	14
Missouri	11	13	1	----	110	117	23	12	26	18
North Dakota	2	1	----	----	10	5	----	----	2	1
South Dakota	3	3	1	----	8	11	1	2	1	3
Nebraska	17	14	2	2	37	35	3	1	7	8
Kansas	8	9	----	2	30	30	1	1	3	5
South Atlantic	73	78	8	7	177	166	38	19	31	29
Delaware	----	----	----	----	9	8	1	----	----	----
Maryland	2	2	1	1	16	13	11	2	4	2
District of Columbia	----	----	1	----	34	28	5	5	6	6
Virginia	4	10	2	2	31	28	16	7	6	10
West Virginia	2	6	----	----	9	10	----	----	1	1
North Carolina	28	23	----	----	18	15	3	4	7	6
South Carolina	17	20	1	1	8	8	----	1	----	1
Georgia	14	14	3	3	46	51	1	----	7	3
Florida	6	3	----	----	6	5	1	----	----	----
East South Central	37	44	5	4	98	86	34	21	23	20
Kentucky	21	23	4	4	28	28	2	2	8	9
Tennessee	8	10	----	----	50	49	31	19	8	6
Alabama	2	6	----	----	7	4	----	----	3	3
Mississippi	6	5	1	----	13	5	1	----	4	2
West South Central	45	39	1	2	119	104	7	4	19	16
Arkansas	9	5	----	----	10	12	5	1	1	----
Louisiana	4	6	1	1	24	16	----	----	5	3
Oklahoma	3	1	----	----	20	12	1	----	4	3
Texas	29	27	----	1	65	64	1	3	9	10
Mountain	28	30	6	6	85	53	4	----	15	5
Montana	4	8	----	----	11	5	----	----	2	1
Idaho	7	5	1	1	5	----	----	----	----	----
Wyoming	6	5	----	----	4	4	----	----	1	----
Colorado	4	6	1	----	35	[1]31	3	----	4	1
New Mexico	2	1	----	----	8	2	1	----	2	----
Arizona	----	----	----	----	3	3	----	----	3	1
Utah	5	5	1	3	19	8	----	----	3	2
Nevada	----	----	3	2	----	----	----	----	----	----
Pacific	56	51	9	7	241	164	16	5	32	18
Washington	9	10	2	----	53	32	4	----	8	5
Oregon	12	10	2	1	22	27	6	1	5	2
California	35	31	5	6	166	105	6	4	19	11

[1] Includes one semimonthly.

Each class except the semiweeklies shows, for the country as a whole, an increase during the five-year period covered by the table. The monthlies gained in every division except the West North Central; the quarterlies, in every division; and the triweeklies, in every division except the West South Central and the Mountain, the number in the latter division remaining unchanged. The semiweeklies decreased in every division except the New England, the West South Central, and the Pacific.

Triweeklies and semiweeklies.—Table 56 shows, by leading states, for 1914, 1909, and 1904, the average combined circulation per issue of triweekly and semiweekly newspapers and periodicals, with percentages of totals.

Table 56

STATE.	TRIWEEKLIES AND SEMIWEEKLIES—AVERAGE COMBINED CIRCULATION PER ISSUE.					
	1914	1909	1904	Per cent of total.		
				1914	1909	1904
United States	3,033,124	2,648,308	3,233,658	100.0	100.0	100.0
California	39,209	44,856	28,600	1.3	1.7	0.9
Illinois	104,369	138,165	177,213	3.4	5.2	5.5
Indiana	40,176	51,978	55,965	1.3	2.0	1.7
Iowa	134,263	156,926	188,630	4.4	5.9	5.8
Kentucky	58,584	61,248	41,058	1.9	2.3	1.3
Massachusetts	26,550	23,225	38,025	0.9	0.9	1.2
Michigan	45,883	82,640	99,339	1.5	3.1	3.1
Minnesota	117,374	37,062	63,396	3.9	1.4	2.0
Missouri	108,326	353,481	590,203	3.6	13.3	18.2
Nebraska	38,219	31,085	24,730	1.3	1.2	0.8
New York	364,733	250,403	362,797	12.0	9.5	11.2
North Carolina	79,341	55,891	38,909	2.6	2.1	1.2
Ohio	185,140	131,806	113,749	6.1	5.0	3.5
Oregon	30,009	26,725	27,330	1.0	1.0	0.8
Pennsylvania	337,806	243,089	467,339	11.1	9.2	14.5
South Carolina	29,250	44,622	28,401	1.0	1.7	0.9
Texas	221,852	265,816	227,909	7.3	10.0	7.0
Washington	46,038	59,937	85,811	1.5	2.3	2.7
Wisconsin	130,414	42,708	194,230	4.3	1.6	6.0
All other states	895,588	546,645	380,024	29.5	20.6	11.8

The circulation of this class of publications decreased considerably between 1904 and 1909 but increased 14.5 per cent during the following five years.

The state of New York led in 1914, followed in order by Pennsylvania and Texas. The leading three states in 1909, shown in the table, named in the order of their importance, were Missouri, Texas, and New York.

Monthly publications.—Table 57 shows, by leading states, for 1914, 1909, and 1904, the average combined circulation per issue of monthly publications, with percentages of totals.

The monthly publications show a marked increase, amounting to 25.1 per cent, for the five-year period 1909–1914, following a decrease of 1.6 per cent during the preceding five years.

The state of New York is far in the lead in the circulation of this class of publications, its proportion of the total having been greater than two-fifths at each of the three censuses. Illinois was second in importance and Pennsylvania third in both 1914 and 1909, but in 1904 Maine occupied second place and Illinois third.

Table 57 MONTHLY PUBLICATIONS—AVERAGE COMBINED CIRCULATION PER ISSUE.

STATE.	1914	1909	1904	Per cent of total. 1914	1909	1904
United States	79,190,838	63,280,535	64,306,155	100.0	100.0	100.0
Arkansas	100,700	136,750	45,330	0.1	0.2	0.1
California	1,122,367	619,900	522,526	1.4	1.0	0.8
Colorado	168,932	230,308	348,815	0.2	0.4	0.5
District of Columbia	1,037,184	518,784	414,530	1.3	0.8	0.6
Georgia	276,036	386,337	120,927	0.4	0.6	0.2
Illinois	10,242,371	9,402,099	6,344,791	12.9	15.0	9.9
Indiana	1,905,086	976,962	1,288,928	2.5	1.5	2.1
Iowa	2,256,097	1,490,861	846,256	2.9	2.4	1.3
Kansas	1,584,540	932,288	319,425	2.0	1.5	0.5
Kentucky	159,229	136,995	142,550	0.2	0.2	0.2
Maine	4,059,797	3,900,796	6,622,541	5.1	6.3	10.3
Massachusetts	2,153,439	2,789,065	4,374,209	2.7	4.4	6.8
Michigan	1,428,889	927,601	1,372,519	1.8	1.5	2.1
Minnesota	1,122,249	824,955	956,696	1.4	1.3	1.5
Missouri	1,755,852	2,265,275	3,365,168	2.2	3.6	5.2
New Jersey	543,247	156,862	336,129	0.7	0.2	0.5
New York	33,048,962	25,035,615	28,217,126	42.5	40.5	43.9
Nebraska	1,364,598	684,513	399,444	1.7	1.1	0.6
North Carolina	104,510	40,265	30,750	0.1	0.1	(1)
Ohio	5,501,906	2,685,470	2,006,287	7.0	4.2	3.1
Oregon	108,860	219,351	81,400	0.1	0.3	0.1
Pennsylvania	6,046,975	6,107,571	4,385,686	7.6	9.7	6.8
Tennessee	875,088	517,643	247,143	1.1	0.8	0.4
Texas	375,035	256,700	211,929	0.5	0.4	0.3
Virginia	232,195	183,605	167,448	0.3	0.3	0.3
Washington	256,479	161,624	118,491	0.3	0.3	0.2
Wisconsin	267,130	468,088	500,046	0.4	0.7	0.8
All other states	442,465	473,682	519,065	0.6	0.7	0.8

[1] Less than one-tenth of 1 per cent.

Quarterlies.—Table 58 presents, by leading states, for 1914, 1909, and 1904, statistics as to the circulation of quarterly publications.

Table 58 QUARTERLY PUBLICATIONS—AVERAGE COMBINED CIRCULATION PER ISSUE.

STATE.	1914	1909	1904	Per cent of total. 1914	1909	1904
United States	18,853,001	16,058,099	11,709,655	100.0	100.0	100.0
Illinois	3,828,000	1,907,558	1,898,000	20.3	12.3	16.2
Massachusetts	1,361,467	1,401,844	445,581	7.2	8.7	3.8
Missouri	414,245	203,504	191,948	2.2	1.3	1.6
New York	1,447,019	2,437,289	900,317	7.7	15.2	7.8
Ohio	2,874,057	2,288,134	2,169,200	15.2	14.2	18.5
Pennsylvania	3,838,673	3,516,933	3,768,107	20.4	21.9	32.1
Tennessee	4,497,800	3,649,100	1,760,021	23.9	22.7	15.0
All other states	591,434	593,737	577,481	3.1	3.7	4.9

The circulation of the quarterly publications has increased materially from census to census. Tennessee led all other states in this respect in both 1914 and 1909, but in 1904 Pennsylvania occupied first place. The importance of Tennessee in this field of journalism is due in considerable part to the circulation of religious quarterlies published in that state.

The marked decrease shown by New York for the five-year period 1909–1914 is due in part to the fact that a number of publications treated as Sunday-school quarterlies at the census of 1909 were reported as pamphlets (presumably belonging to the graded-lesson system) at the census of 1914.

"All other."—Table 59 gives, by principal states, for 1914, 1909, and 1904, the circulation of publications having periods of issue other than daily, Sunday, weekly, semiweekly, triweekly, monthly, or quarterly, together with percentages of totals.

Table 59 PUBLICATIONS ISSUED AT "ALL OTHER" PERIODS—AVERAGE COMBINED CIRCULATION PER ISSUE.

STATE.	1914	1909	1904	Per cent of total. 1914	1909	1904
United States	8,922,684	4,093,874	2,878,594	100.0	100.0	100.0
Illinois	453,821	276,335	133,043	5.1	6.7	4.6
Iowa	209,830	110,010	56,975	2.4	2.7	2.0
Massachusetts	646,900	622,223	396,003	7.3	15.2	13.8
Minnesota	259,690	311,170	252,647	2.9	7.6	8.8
Missouri	713,906	280,796	149,555	8.0	6.9	5.2
New York	3,319,141	662,819	179,515	37.2	16.2	6.2
Ohio	720,244	545,279	383,247	8.1	13.3	13.3
Pennsylvania	448,317	82,134	154,225	5.0	2.0	5.4
Texas	37,226	58,281	16,400	0.4	1.4	0.6
Virginia	5,031	6,950	4,300	0.1	0.2	0.1
All other states	2,108,578	1,137,877	1,152,084	23.6	27.8	40.0

The circulation of publications included in this class shows pronounced gains from census to census, the increase for the decade covered by the table being more than 200 per cent.

The state of New York, with nearly three-eighths of the total circulation, was far in the lead of all others in 1914. This state also occupied first place in 1909, but its proportion of the total in that year was only about one-sixth. The increase shown by New York for the five-year period 1909–1914 amounts to 2,656,322, or more than 400 per cent. This very rapid increase is due in large part to the growth in circulation reported for the National Sunday Magazine, which is issued biweekly and furnished to Sunday newspapers.

Foreign languages.—Table 60 gives, by leading states, for 1914, 1909, and 1904, the number and circulation of foreign-language periodicals, other than those issued weekly, together with percentages of increase in circulation.

Table 60 TRIWEEKLY AND SEMIWEEKLY NEWSPAPERS AND PERIODICALS AND MONTHLY, QUARTERLY, AND "ALL OTHER" PERIODICALS IN FOREIGN LANGUAGES.

STATE.	Number 1914	Number 1909	Number 1904	Average combined circulation per issue. 1914	1909	1904	Per cent of increase.[1] 1904–1914	1909–1914	1904–1909
United States	376	327	283	3,609,735	2,773,610	2,531,776	42.6	30.1	9.6
California	12	7	6	57,300	25,750	8,050	611.8	122.5	219.9
Illinois	45	47	37	448,462	421,826	247,151	81.5	6.3	70.7
Indiana	10	7	8	92,958	78,934	30,990	200.0	17.8	154.7
Iowa	11	15	12	122,144	152,049	167,835	—27.2	—19.7	—9.4
Massachusetts	15	13	6	438,523	264,732	104,352	320.2	65.6	153.7
Michigan	15	12	11	46,509	40,150	39,550	17.6	15.8	1.5
Minnesota	23	27	24	156,502	158,695	141,000	11.0	—1.4	12.5
Missouri	28	19	14	338,737	281,876	112,115	202.1	20.2	151.4
Nebraska	15	9	5	332,338	81,625	303,334	9.6	307.2	—73.1
New York	62	55	58	487,045	527,186	841,027	—42.1	—7.6	—37.4
Ohio	39	42	33	281,872	317,461	222,442	26.7	—11.2	42.7
Pennsylvania	29	14	20	420,564	89,935	68,918	510.2	367.6	30.5
Wisconsin	25	27	25	213,768	209,065	186,063	14.5	2.2	12.0
All other states[2]	47	33	24	173,013	124,326	57,749	199.6	39.2	115.3

[1] A minus sign (—) denotes decrease.

[2] Includes in 1914: Colorado, 1; Connecticut, 2; Kansas, 2; Kentucky, 1; Louisiana, 4; Maine, 1; Maryland, 5; Montana, 1; New Hampshire, 2; New Mexico, 4; New Jersey, 7; North Dakota, 1; Oregon, 1; Rhode Island, 2; Texas, 8; Utah, 1; and Washington, 4. In 1909, Colorado, 3; Connecticut, 1; Kansas, 2; Kentucky, 3; Maine, 1; Montana, 1; New Jersey, 1; New Mexico, 1; Oregon, 2; Rhode Island, 1; Tennessee, 2; Texas, 12; Vermont, 1; and Washington, 2. In 1904: Colorado, 2; Delaware, 2; Kansas, 2; Kentucky, 1; Montana, 1; New Hampshire, 2; New Jersey, 5; Oregon, 2; Rhode Island, 1; Texas, 3; Washington, 2; and West Virginia 1.

These classes of publications show marked increases in both number and circulation for the period 1909–1914, following less pronounced gains for the preceding five years. During the later period increases in number took place in all the states except Illinois, Iowa, Minnesota, Ohio, and Wisconsin, while increases in circulation appear for all the states except Iowa, Minnesota, New York, and Ohio. New York reported the greatest number of publications for each year, as well as the greatest circulation.

The leading languages represented by these publications were German, Swedish, Bohemian, and Spanish.

DETAIL STATE TABLES.

Table 61 shows, by states, for 1914, 1909, and 1904, the number of establishments, average number of wage earners, primary horsepower, wages, cost of materials, and value of products for the industry as a whole. Table 62 presents, by states, for 1914 only, statistics in detail for the six branches of the industry separately.

TABLE 61.—COMPARATIVE SUMMARY, BY STATES: 1914, 1909, AND 1904.

STATE.	Census year.	Number of establishments.	Wage earners (average number).	Primary horsepower.	Wages.	Cost of materials.	Value of products.
					Expressed in thousands.		
United States	1914	33,471	272,092	335,210	$195,510	$257,848	$901,535
	1909	31,445	258,434	297,763	164,028	201,775	737,876
	1904	27,793	210,087	166,380	127,196	142,514	552,473
Alabama	1914	286	1,346	2,804	858	1,017	4,121
	1909	274	1,117	1,092	650	666	2,768
	1904	241	915	712	469	432	1,947
Arizona	1914	74	335	273	303	178	997
	1909	64	268	221	232	168	784
	1904	50	189	94	161	107	470
California	1914	1,543	8,759	14,053	7,772	9,709	34,775
	1909	1,240	7,556	7,674	6,432	6,327	25,032
	1904	1,091	7,080	5,238	5,182	4,525	19,127
Colorado	1914	475	2,173	2,413	1,744	1,977	7,027
	1909	439	2,366	2,045	1,823	1,806	6,962
	1904	419	1,902	1,531	1,343	1,311	5,467
Connecticut	1914	364	2,838	3,618	1,932	2,195	7,713
	1909	363	2,878	3,425	1,737	1,769	6,370
	1904	328	2,528	2,530	1,502	1,276	5,066
Florida	1914	235	1,220	1,325	898	803	3,017
	1909	174	905	794	529	434	1,866
	1904	155	543	382	271	270	1,139
Georgia	1914	441	2,476	2,985	1,696	1,972	7,576
	1909	442	2,395	2,008	1,344	1,588	6,400
	1904	359	2,066	1,264	964	1,030	3,980
Illinois	1914	2,722	32,838	33,503	24,048	33,278	112,833
	1909	2,608	28,644	26,975	18,437	24,680	87,247
	1904	2,414	22,818	17,577	13,883	17,034	62,292
Indiana	1914	922	6,140	7,978	3,994	5,019	17,117
	1909	892	6,756	17,868	3,522	4,025	14,356
	1904	865	5,819	3,996	2,941	3,175	11,473
Iowa	1914	1,076	4,948	6,545	3,336	4,130	15,934
	1909	1,110	4,853	5,527	2,591	3,287	12,129
	1904	1,113	4,317	3,861	2,038	2,048	8,549
Kansas	1914	772	2,818	3,722	1,547	2,351	6,991
	1909	798	3,232	4,808	1,650	2,290	7,009
	1904	724	2,476	1,556	1,092	1,055	4,139
Kentucky	1914	414	3,028	3,025	1,968	1,965	6,984
	1909	431	3,135	2,945	1,690	1,645	6,454
	1904	398	2,588	2,397	1,291	1,171	4,807
Louisiana	1914	290	1,405	1,619	985	1,062	4,317
	1909	268	1,544	1,494	1,061	1,013	3,823
	1904	240	1,313	1,197	836	742	3,184
Maine	1914	204	1,772	1,760	955	1,210	3,717
	1909	195	1,651	1,565	779	1,102	3,438
	1904	217	1,804	1,352	768	932	3,400
Massachusetts	1914	1,344	18,170	20,295	13,266	16,818	56,195
	1909	1,279	17,532	47,629	11,684	12,881	47,445
	1904	1,144	15,112	11,785	9,064	10,918	39,274
Michigan	1914	1,113	8,166	13,033	5,602	7,498	24,953
	1909	1,045	7,219	7,651	4,000	4,934	17,348
	1904	937	5,999	5,292	2,981	3,424	12,050
Minnesota	1914	994	6,134	7,101	4,259	5,560	20,187
	1909	950	5,641	5,765	3,507	4,096	15,982
	1904	919	4,613	3,958	2,633	2,787	11,564
Missouri	1914	1,353	10,571	14,330	$7,391	$9,571	$33,173
	1909	1,322	10,790	10,472	6,610	8,627	29,651
	1904	1,253	9,757	8,384	5,330	6,801	24,412
Nebraska	1914	692	2,413	3,203	1,652	2,244	7,836
	1909	674	2,329	2,552	1,397	1,711	6,667
	1904	631	2,073	1,687	1,093	1,294	4,991
Nevada	1914	42	161	224	163	98	473
	1909	54	180	214	193	112	519
	1904	29	67	62	64	33	253
New Jersey	1914	732	5,433	7,124	4,036	4,251	14,083
	1909	684	5,451	5,636	3,624	3,472	12,333
	1904	588	4,367	4,171	2,470	2,285	8,627
New Mexico	1914	107	258	252	183	94	578
	1909	93	283	1,230	174	121	589
	1904	56	149	103	93	55	295
New York	1914	4,806	64,020	66,802	49,008	68,915	257,269
	1909	4,426	63,120	53,973	43,559	56,494	216,946
	1904	3,718	53,436	29,652	34,071	39,482	164,834
North Dakota	1914	351	752	2,212	547	455	2,220
	1909	330	788	948	533	440	1,916
	1904	229	515	392	313	237	1,110
Ohio	1914	1,783	18,070	24,308	12,800	17,070	55,609
	1909	1,655	15,756	18,417	9,355	11,904	41,657
	1904	1,542	13,859	12,272	7,573	8,679	31,327
Oklahoma	1914	624	1,619	2,288	1,022	923	4,024
	1909	598	1,698	1,664	1,044	1,004	3,989
	1904	423	1,139	652	574	473	2,101
Oregon	1914	377	1,556	7,230	1,407	1,563	6,011
	1909	324	1,459	1,927	1,448	1,103	5,041
	1904	245	1,018	993	724	658	2,776
Pennsylvania	1914	2,538	26,909	35,659	17,701	27,478	84,977
	1909	2,461	24,696	25,839	14,335	22,753	70,584
	1904	2,162	22,328	20,029	12,093	16,074	55,063
Rhode Island	1914	162	1,515	2,587	1,044	1,162	4,293
	1909	147	1,454	1,944	956	1,064	3,780
	1904	140	1,432	939	787	816	3,070
Tennessee	1914	437	2,665	2,892	1,871	2,328	8,201
	1909	413	2,914	2,965	1,701	1,954	7,173
	1904	340	2,330	1,914	1,231	1,323	5,091
Utah	1914	166	872	1,246	741	880	2,780
	1909	122	967	1,357	685	723	2,405
	1904	104	545	262	369	325	1,523
Virginia	1914	396	2,790	2,881	1,596	2,067	7,070
	1909	369	2,555	2,210	1,307	1,405	5,370
	1904	309	2,101	1,309	903	973	3,522
West Virginia	1914	242	1,218	1,885	721	660	2,431
	1909	235	1,255	1,560	634	541	1,992
	1904	222	944	1,196	480	351	1,554
Wyoming	1914	81	183	235	157	101	546
	1909	65	162	138	141	90	490
	1904	47	119	96	84	52	313
All other states	1914	5,313	26,521	33,800	18,307	21,246	75,507
	1909	4,901	24,885	25,171	15,264	15,546	61,367
	1904	4,141	20,826	17,545	11,525	10,366	43,683

TABLE 62.—DETAIL STATISTICS FOR THE PRINTING AND

	STATE.	Number of establishments.	PERSONS ENGAGED IN THE INDUSTRY. Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks, etc. Male.	Clerks, etc. Female.	Wage earners. Average number.	Wage earners. Number, 15th day of— Maximum month.	Wage earners. Number, 15th day of— Minimum month.	WAGE EARNERS DEC. 15, OR NEAREST REPRESENTATIVE DAY. Total.	16 and over. Male.	16 and over. Female.	Under 16. Male.	Under 16. Female	Capital.
PRINTING AND PUBLISHING, BOOK AND JOB.																
1	United States	12,115	152,908	11,717	7,699	12,278	8,093	113,121	Mh 116,496	Jy 110,453	113,816	86,021	25,449	1,898	448	$247,282,409
2	Alabama	79	685	76	62	66	26	455	Fe 475	De 438	440	357	65	17	1	927,505
3	Arizona	13	101	14	8	8	2	69	Se 87	Oc 60	64	53	10	1	.....	114,121
4	Arkansas	37	270	42	20	14	8	186	Je 196	De 173	175	132	39	4	.....	466,155
5	California	631	4,685	673	235	374	231	3,172	De 3,240	Se 3,086	3,397	2,542	807	40	8	6,928,068
6	Colorado	123	1,186	106	77	84	49	870	Mh 942	Au 828	894	747	130	17	.....	1,758,756
7	Connecticut	208	2,123	192	109	121	121	1,580	My 1,624	Au 1,540	1,593	1,201	356	30	6	2,996,501
8	Delaware	20	156	17	4	6	7	122	Fe 133	Au 112	129	70	56	3	.....	229,418
9	District of Columbia	80	979	75	67	47	28	762	De 789	Jy 737	786	600	184	2	.....	1,786,693
10	Florida	74	489	75	32	30	12	340	De 356	Je 318	359	291	59	8	1	808,753
11	Georgia	122	1,277	128	84	98	44	923	Fe 972	No 877	889	620	247	20	2	2,227,035
12	Idaho	22	100	20	10	4	4	62	Fe 70	Je 57	64	56	7	1	.....	198,030
13	Illinois	1,173	24,434	1,037	1,094	1,918	1,493	18,892	Mh 19,522	De 18,667	18,785	13,928	4,296	393	168	36,353,178
14	Indiana	277	3,457	282	184	259	203	2,529	De 2,682	Oc 2,458	2,679	1,800	767	56	56	5,938,740
15	Iowa	182	1,889	197	109	147	133	1,303	De 1,395	Fe 1,230	1,405	984	389	24	8	3,634,376
16	Kansas	130	828	141	41	59	36	551	Se 564	Au 531	563	406	155	2	.....	1,219,761
17	Kentucky	124	1,649	85	115	78	59	1,312	My 1,336	Fe 1,290	1,111	770	334	7	.....	2,660,505
18	Louisiana	93	917	79	86	112	21	619	My 629	Ja 606	623	513	83	27	.....	1,221,345
19	Maine	99	614	101	27	27	16	443	Je 459	Oc 423	454	325	126	2	1	679,717
20	Maryland	197	2,970	174	156	219	137	2,284	Oc 2,340	Au 2,223	2,324	1,931	346	43	4	4,439,188
21	Massachusetts	741	9,601	716	403	645	775	7,062	Mh 7,354	Au 6,745	7,040	4,975	1,905	127	33	18,276,525
22	Michigan	404	5,189	377	307	418	227	3,860	Mh 3,984	Au 3,714	3,887	2,880	950	51	6	6,860,748
23	Minnesota	258	4,105	256	235	464	249	2,901	Ap 2,951	De 2,826	2,890	2,053	821	15	1	6,122,158
24	Mississippi	23	143	22	7	11	3	100	De 106	Au [2] 97	107	90	16	1	.....	271,500
25	Missouri	435	6,785	400	345	685	232	5,123	Mh 5,331	Jy 4,974	5,183	3,781	1,296	93	13	9,569,294
26	Montana	17	151	11	9	10	5	116	Oc 130	Ja 111	112	87	22	2	1	401,140
27	Nebraska	116	1,089	127	61	59	40	802	No 820	Jy 773	816	601	209	6	.....	1,620,559
28	Nevada	4	34	1	6	1	1	25	Oc [3] 27	De [3] 23	23	19	3	1	.....	115,551
29	New Hampshire	65	351	75	7	10	9	250	De [3] 257	Ja 241	264	191	71	2	.....	366,379
30	New Jersey	359	2,420	371	124	151	76	1,698	Mh 1,822	Au 1,474	1,733	1,462	237	25	9	3,996,641
31	New Mexico	5	24	6	2	.....	1	15	No [3] 17	De 2	17	13	4	.....	.....	10,519
32	New York	2,369	35,323	2,217	1,592	3,443	2,271	25,800	Mh 27,132	Jy 24,700	25,780	20,725	4,731	284	40	62,307,813
33	North Carolina	91	756	79	55	31	22	569	De [3] 599	Au [3] 550	598	448	128	18	4	953,706
34	North Dakota	20	176	14	15	9	11	127	De 140	Jy 118	140	107	32	1	.....	403,904
35	Ohio	772	10,365	697	564	698	428	7,978	Ja 8,182	Se 7,863	7,949	5,873	2,036	37	3	15,445,512
36	Oklahoma	76	452	69	36	34	21	292	De 313	Au 273	322	256	58	8	.....	758,106
37	Oregon	112	754	111	54	47	27	515	Ap 527	Je 497	527	441	80	5	1	1,250,941
38	Pennsylvania	1,206	13,506	1,347	558	877	585	10,139	Ja 10,491	Au 9,809	10,339	7,556	2,400	325	58	24,398,868
39	Rhode Island	100	1,238	105	66	73	64	930	Ja 971	Au 885	929	652	262	12	3	1,655,612
40	South Carolina	44	342	42	19	32	11	238	Fe 247	Au 229	238	185	39	14	.....	645,932
41	South Dakota	16	121	13	9	14	6	79	Fe 86	Se 75	79	67	12	.....	.....	230,583
42	Tennessee	142	1,598	124	109	143	61	1,161	Mh 1,191	No 1,134	1,164	901	260	3	.....	2,095,332
43	Texas	288	2,626	300	148	305	68	1,805	Ja 1,896	Se 1,747	1,800	1,450	310	35	5	3,929,939
44	Utah	48	371	48	27	27	8	261	Je [3] 266	Oc 254	264	219	34	11	.....	541,637
45	Vermont	55	382	57	16	3	9	297	My 309	Au 288	292	229	62	1	.....	473,458
46	Virginia	165	1,932	157	119	112	92	1,452	Mh 1,485	Jy 1,406	1,474	1,056	388	30	.....	3,364,301
47	Washington	220	1,377	200	91	112	42	932	Oc 1,099	Jy 866	940	778	139	22	1	2,169,466
48	West Virginia	58	456	56	29	19	10	342	De 355	Ap 331	358	259	92	4	3	667,448
49	Wisconsin	217	2,416	202	166	174	109	1,765	My 1,822	Au [3] 1,723	1,804	1,334	391	67	12	3,745,300
50	Wyoming	5	16	3	.....	.....	.....	13	No 15	Ja [3] 12	13	7	5	1	.....	45,692
PRINTING AND PUBLISHING, MUSIC.																
1	United States	180	2,182	146	168	571	424	873	Mh 901	Jy 845	858	691	161	6	.....	$4,260,844
2	California	4	10	6	.....	1	1	2	([4]) 2	([4]) 2	2	1	1	.....	.....	4,246
3	Illinois	35	383	31	29	88	139	96	Mh [3] 100	Au 91	94	64	30	.....	.....	805,381
4	Massachusetts	9	216	5	14	40	37	120	Ja 128	Au 112	121	98	21	2	.....	568,098
5	Missouri	7	43	1	8	7	7	20	Oc 24	Fe [4] 18	20	15	5	.....	.....	130,054
6	New York	73	1,019	54	73	303	152	437	Ap 448	Jy 424	438	367	69	2	.....	1,944,748
7	Ohio	12	159	11	21	46	31	50	Ap 55	De 45	45	41	4	.....	.....	243,527
8	Pennsylvania	13	179	15	4	25	12	123	No 140	De 107	108	90	16	2	.....	330,352
9	All other states [5]	27	173	23	19	61	45	25	.....	.....	30	15	15	.....	.....	234,438

[1] Owned power only.
[2] Includes rented power, other than electric.
[3] Same number reported for one or more other months.

PUBLISHING INDUSTRY, BY STATES: 1914.

EXPENSES.								Value of products.	Value added by manufacture.	POWER.						
Salaries and wages.			For contract work.	Rent and taxes.		For materials.				Primary horsepower.					Electric horsepower generated in establishments reporting.	
Officials.	Clerks, etc.	Wage earners.		Rent of factory.	Taxes, including internal revenue and corporation income.	Principal materials.	Fuel and rent of power.			Total.	Steam engines.[1]	Internal-combustion engines.[2]	Water wheels and motors.[2]	Electric (rented).		
PRINTING AND PUBLISHING, BOOK AND JOB.																
$7,419,133	$17,586,403	$78,413,700	$17,658,478	$9,060,030	$1,277,737	$93,234,002	$3,219,230	$307,330,861	$210,877,629	115,233	17,481	6,032	115	91,605	12,060	1
110,797	65,381	200,150	24,732	30,177	6,901	316,077	13,437	1,220,603	890,189	440	.....	10	1	429	.....	2
10,080	10,149	57,745	200	8,912	1,445	44,912	2,167	179,532	132,453	37	.....	.....	.....	37	.....	3
29,888	17,825	117,154	5,614	16,134	2,862	170,135	5,517	491,576	315,924	185	.....	4	.....	181	.....	4
524,896	512,383	2,633,660	570,530	346,364	43,379	2,777,863	75,424	9,885,477	7,032,190	3,214	.....	33	1	3,180	.....	5
147,590	109,905	676,920	71,304	87,116	11,471	741,740	21,163	2,259,949	1,497,046	741	60	2	.....	679	200	6
107,905	170,262	958,484	153,322	87,389	21,713	1,105,356	41,568	3,505,751	2,358,827	1,443	227	68	15	1,133	40	7
8,920	6,133	66,404	1,593	3,210	1,043	68,044	3,368	224,445	153,033	127	.....	11	.....	116	.....	8
142,630	55,881	505,133	28,536	47,462	8,065	438,334	25,605	1,618,662	1,154,723	573	.....	65	.....	508	.....	9
53,951	33,714	260,189	1,551	33,597	3,806	259,878	9,195	783,204	514,131	313	.....	23	.....	290	.....	10
161,683	126,269	589,209	21,040	60,776	15,480	641,295	23,593	2,217,274	1,552,386	1,038	19	51	.....	968	10	11
12,650	6,030	51,612	1,647	9,204	2,183	41,963	2,126	186,124	142,035	56	.....	.....	.....	56	2	12
2,704,751	3,001,934	14,013,192	3,746,038	1,619,702	162,165	18,857,206	498,148	54,625,954	35,270,600	17,031	4,080	265	.....	12,686	3,338	13
354,370	350,024	1,606,097	195,335	137,919	33,597	1,962,104	67,379	6,237,228	4,207,745	2,800	932	99	.....	1,859	402	14
215,166	206,676	827,195	42,424	90,442	18,577	1,226,629	41,267	3,733,747	2,465,851	1,192	.....	80	.....	1,112	3	15
82,460	65,683	334,251	7,487	42,883	12,019	458,750	15,577	1,386,784	912,457	689	.....	81	1	607	4	16
191,702	131,758	780,492	15,588	55,990	10,355	842,401	34,756	2,687,309	1,810,152	1,181	10	17	.....	1,154	1	17
132,207	80,700	405,966	55,191	56,520	4,742	384,749	18,759	1,476,631	1,073,123	620	.....	28	.....	592	.....	18
40,777	17,488	254,388	17,207	25,787	4,240	220,180	11,169	812,325	572,276	450	4	58	2	386	.....	19
385,437	271,050	1,304,101	185,475	114,542	24,635	1,058,236	55,509	5,546,039	3,532,894	3,225	595	153	.....	2,477	685	20
998,826	1,395,795	4,837,871	2,228,472	539,560	121,432	5,344,811	168,927	20,245,246	14,731,508	6,638	1,445	276	12	4,905	867	21
608,350	630,071	2,621,231	127,170	213,687	66,636	2,076,893	106,896	9,380,560	6,296,771	6,679	494	25	2	6,158	370	22
503,351	595,279	1,989,911	420,082	180,822	47,018	2,039,822	71,138	7,652,223	5,541,263	2,650	195	6	.....	2,449	20	23
12,022	12,794	71,745	311	6,882	1,992	79,430	3,719	241,876	158,727	98	.....	6	.....	92	.....	24
771,087	887,442	3,498,837	307,108	349,929	47,126	3,720,284	138,044	12,434,192	8,575,864	5,508	1,022	185	.....	4,301	552	25
17,214	19,044	113,053	30	8,545	2,453	108,990	4,333	333,676	220,653	90	.....	.....	.....	90	.....	26
117,738	81,300	520,431	20,839	76,671	12,056	984,838	27,978	2,373,523	1,360,707	956	31	8	.....	917	4	27
9,621	1,480	27,980	34	5,353	674	25,789	890	85,501	58,822	24	.....	.....	.....	24	.....	28
15,024	16,193	155,707	1,205	13,834	2,627	156,382	7,255	486,753	323,116	327	.....	12	17	298	.....	29
212,361	140,822	1,092,477	47,042	111,877	18,893	1,541,576	70,371	4,291,465	2,679,518	2,023	415	174	.....	1,434	341	30
2,475	440	8,360	.....	1,375	208	5,070	390	41,045	35,585	13	.....	.....	.....	13	.....	31
4,101,081	5,077,476	18,027,608	7,406,334	2,651,727	183,088	19,796,698	878,431	78,841,261	58,166,132	24,619	3,331	1,566	42	19,680	2,290	32
75,902	36,122	346,015	3,045	30,621	8,343	320,028	17,945	1,083,720	745,147	488	6	30	.....	452	2	33
23,373	23,130	94,932	2,250	10,273	2,778	133,968	4,225	415,146	276,953	1,158	.....	5	.....	1,153	.....	34
1,238,425	888,907	5,097,537	513,710	438,906	131,862	6,703,096	208,113	19,915,250	13,004,041	8,964	1,849	975	1	6,139	2,230	35
50,610	45,565	212,912	8,035	32,496	7,422	199,681	9,688	760,477	551,108	449	80	8	.....	361	.....	36
112,365	74,824	471,639	33,048	77,779	8,107	525,167	20,115	1,688,827	1,143,545	680	.....	2	2	676	20	37
1,397,970	1,140,471	6,308,084	720,478	698,208	56,119	8,957,535	258,280	25,285,844	16,070,029	9,585	2,417	1,322	8	5,838	1,199	38
204,780	117,952	552,301	15,475	57,208	11,749	621,525	20,635	2,006,139	1,363,979	696	.....	19	2	675	2	39
39,908	27,891	146,053	530	11,303	5,463	138,672	6,449	532,405	387,284	197	.....	7	.....	190	.....	40
16,048	14,466	55,315	2,521	7,102	1,886	63,128	3,452	220,561	159,981	113	.....	2	.....	111	.....	41
233,160	175,571	905,173	38,037	90,170	13,836	930,320	32,238	2,961,955	1,999,397	1,128	25	17	1	1,085	69	42
276,109	348,215	1,290,793	97,041	101,525	43,008	1,270,287	50,056	4,711,163	3,390,820	1,755	4	34	.....	1,717	4	43
46,666	36,313	199,825	16,569	22,666	4,533	202,551	8,031	761,891	461,309	202	.....	2	.....	200	.....	44
23,610	10,607	189,080	5,609	14,050	3,721	135,754	7,490	508,559	365,306	313	.....	15	7	291	3	45
221,661	137,538	845,432	217,327	56,630	26,943	1,144,424	43,253	3,402,181	2,214,504	1,347	167	30	.....	1,150	.....	46
176,700	141,310	662,601	88,233	117,871	12,990	607,227	22,774	2,648,838	1,928,837	875	.....	.....	.....	875	6	47
38,631	25,702	211,904	1,578	16,670	5,877	177,325	9,825	647,115	459,965	520	15	129	.....	376	.....	48
208,381	234,883	1,096,256	71,230	113,957	30,682	1,601,616	51,670	4,239,861	2,586,575	1,674	58	129	1	1,486	7	49
.....	.....	11,296	.....	2,000	331	15,063	883	48,094	32,148	19	.....	.....	.....	19	.....	50
PRINTING AND PUBLISHING, MUSIC.																
$437,131	$893,756	$572,985	$1,501,812	$226,704	$20,241	$1,026,430	$20,200	$7,271,266	$6,224,636	594	.....	11	.....	583	.....	1
.....	600	1,535	3,001	980	15	1,000	120	15,146	13,426	5	.....	.....	.....	5	.....	2
93,148	150,572	62,626	273,312	32,914	3,308	124,327	3,751	1,042,794	914,716	118	.....	.....	.....	118	.....	3
20,891	50,027	76,233	142,374	18,427	4,783	150,295	2,669	609,956	447,992	96	.....	.....	.....	96	.....	4
10,370	10,818	14,868	11,822	3,722	924	17,007	872	201,932	184,053	21	.....	.....	.....	21	.....	5
187,029	437,096	304,423	675,037	131,482	7,044	578,021	10,103	3,631,522	3,043,398	306	.....	.....	.....	306	.....	6
40,115	61,650	34,327	80,275	8,474	1,424	71,431	12	484,344	412,901	.....	.....	.....	.....	.....	.....	7
6,872	25,690	68,593	79,022	9,205	120	61,500	2,084	364,194	300,550	27	.....	.....	.....	27	.....	8
63,106	138,094	10,380	290,311	21,500	2,623	13,189	589	921,378	907,600	21	.....	11	.....	10	.....	9

[1] Same number reported throughout the year.

[2] All other states embrace: Arkansas, 1 establishment; Connecticut, 1; District of Columbia, 1; Georgia, 3; Indiana, 2; Iowa, 2; Kentucky, 1; Maryland, 2; Michigan 3; Minnesota, 2; Nebraska, 1; New Jersey, 2; Oklahoma, 1; Tennessee, 2; Texas, 2; Virginia, 1.

TABLE 62.—DETAIL STATISTICS FOR THE PRINTING AND

STATE.	Number of establishments.	PERSONS ENGAGED IN THE INDUSTRY.								WAGE EARNERS DEC. 15, OR NEAREST REPRESENTATIVE DAY.					Capital.
		Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks, etc.		Wage earners.			Total.	16 and over.		Under 16.		
					Male.	Female.	Average number.	Number, 15th day of—			Male.	Female	Male.	Female	
								Maximum month.	minimum month.						
PRINTING AND PUBLISHING, NEWSPAPERS AND PERIODICALS.															
1 United States	19,317	212,000	17,560	11,992	46,319	21,754	114,375	De 115,834	Au 112,504	116,840	95,728	17,908	2,973	231	$384,744,761
2 Alabama	199	1,696	210	109	327	119	831	Fe 835	De 825	838	709	48	79	2	2,281,913
3 Arizona	61	428	48	33	62	19	266	Au 274	Ja 255	257	230	20	5	2	667,661
4 Arkansas	270	1,288	323	73	151	35	706	Fe 712	Jy 694	719	571	130	18	.....	1,670,487
5 California	822	8,800	776	450	2,614	626	4,334	Oc 4,420	Ap 4,274	4,350	3,934	338	73	5	14,256,182
6 Colorado	343	2,044	297	138	372	122	1,115	Oc 1,155	Mh [1] 1,094	1,153	1,010	95	45	3	2,691,009
7 Connecticut	131	1,942	71	137	461	146	1,127	De 1,156	Mh 1,109	1,154	1,006	125	23	.....	3,508,812
8 Delaware	34	361	29	26	50	18	238	De 256	Ja 224	259	222	30	7	.....	525,156
9 District of Columbia	60	1,526	22	98	501	264	641	De 657	Jy 623	660	541	96	7	16	2,871,780
10 Florida	161	1,353	140	106	162	65	880	De 932	Jy 834	937	751	101	83	2	2,358,438
11 Georgia	313	2,786	320	205	609	156	1,496	Je 1,531	Fe 1,468	1,476	1,325	95	56	.....	3,573,331
12 Idaho	151	694	151	33	67	18	425	Oc 442	My 414	446	364	49	32	1	1,027,968
13 Illinois	1,330	18,038	1,143	1,111	4,375	2,388	9,021	Mh 9,147	Au 8,808	9,101	7,410	1,477	187	27	32,568,038
14 Indiana	622	5,632	580	317	900	440	3,395	Mh 3,449	Au 3,329	3,416	2,657	701	39	19	7,942,076
15 Iowa	874	5,899	951	311	729	511	3,397	De 3,540	Jy 3,278	3,569	2,629	851	86	3	9,796,471
16 Kansas	633	3,582	660	154	327	215	2,226	Oc 2,261	Au 2,187	2,137	1,498	579	56	4	4,220,317
17 Kentucky	276	2,286	254	181	412	136	1,303	Au 1,338	Ja 1,280	1,337	1,137	159	40	1	2,646,424
18 Louisiana	184	1,299	170	73	337	78	641	Se 657	Mh 625	654	595	30	27	2	1,530,730
19 Maine	98	1,610	48	90	134	73	1,265	Mh 1,341	Jy 1,166	1,293	709	555	29	.....	2,527,624
20 Maryland	134	2,093	96	127	581	153	1,136	De 1,150	Au 1,119	1,157	1,030	86	41	.....	2,873,832
21 Massachusetts	456	10,660	288	581	2,415	1,344	6,032	Oc 6,150	Jy 5,877	6,020	5,232	694	74	20	18,420,327
22 Michigan	660	6,166	767	356	1,293	480	3,270	De 3,329	Ja 3,215	3,611	3,011	522	34	44	8,597,065
23 Minnesota	705	5,338	687	290	965	454	2,942	De 3,008	Ja 2,889	2,996	2,496	445	54	1	8,426,504
24 Mississippi	196	857	181	45	46	22	563	Ap 572	Au 548	591	437	55	98	1	968,750
25 Missouri	851	7,861	832	389	1,648	713	4,279	Mh 4,337	Se 4,208	4,329	3,491	786	46	6	11,678,081
26 Montana	221	1,250	216	65	148	37	784	Au 820	Fe 743	776	674	85	17	.....	1,838,218
27 Nebraska	572	2,972	601	150	420	209	1,592	De 1,630	Jy 1,554	1,633	1,277	328	26	2	3,869,796
28 Nevada	38	201	32	16	10	7	136	Oc 142	Mh 129	141	119	8	14	.....	500,651
29 New Hampshire	68	625	54	45	49	29	448	No 459	Jy 436	458	343	108	3	4	1,003,535
30 New Jersey	320	3,995	236	225	846	218	2,470	No 2,526	Mh 2,426	2,504	2,215	255	33	1	6,167,916
31 New Mexico	102	419	98	34	37	7	243	De 260	Ja 235	261	209	36	16	.....	603,875
32 New York	1,717	45,171	1,197	2,426	13,778	7,681	20,089	De 20,483	Au 19,690	20,697	17,634	2,759	285	19	97,641,233
33 North Carolina	238	1,534	198	151	147	67	971	No 991	Ap 949	992	776	115	97	4	1,920,555
34 North Dakota	331	1,128	336	49	77	41	625	De 667	Ap 612	665	537	106	19	3	2,148,364
35 Ohio	901	12,359	715	700	2,252	1,418	7,274	De 7,377	Jy 7,125	7,409	5,989	1,278	140	2	20,682,947
36 Oklahoma	542	2,226	528	133	171	76	1,318	Oc 1,364	Fe 1,269	1,374	1,093	186	91	4	2,845,391
37 Oregon	251	1,880	242	95	457	141	945	No 969	Mh 920	961	846	103	11	1	2,870,709
38 Pennsylvania	1,133	20,501	916	1,045	3,977	1,813	12,750	Ja 13,082	Au 12,241	12,996	10,110	2,448	426	12	56,002,339
39 Rhode Island	47	870	22	55	215	49	529	Oc 538	Au 516	535	484	44	7	.....	2,456,187
40 South Carolina	122	1,060	94	81	182	48	655	Je [1] 664	Ja 639	667	562	46	59	.....	1,720,529
41 South Dakota	363	1,234	332	58	69	53	722	No 744	My 710	740	507	191	37	5	2,240,481
42 Tennessee	282	2,417	265	126	431	155	1,440	De 1,461	Au 1,427	1,425	1,228	183	13	1	5,063,767
43 Texas	892	5,338	931	297	1,039	241	2,830	De 2,870	Fe 2,781	2,882	2,530	222	129	1	8,794,483
44 Utah	108	1,047	71	62	340	38	536	No 554	Au 518	550	449	76	20	5	1,564,599
45 Vermont	56	506	45	33	36	38	354	Fe 363	Oc 342	353	268	85	.....	.....	797,339
46 Virginia	218	1,801	229	128	350	125	969	Oc 995	Je 959	962	792	130	40	.....	2,934,014
47 Washington	402	2,764	351	162	771	178	1,302	Oc 1,340	Au 1,268	1,331	1,153	154	24	.....	4,009,591
48 West Virginia	181	1,295	170	81	158	40	846	De 878	Au 823	911	691	179	41	.....	2,013,232
49 Wisconsin	572	4,951	575	308	783	437	2,848	De 2,929	Jy 2,775	2,979	2,099	692	182	6	6,948,683
50 Wyoming	76	317	62	34	38	13	170	No 178	Jy 162	178	148	24	4	2	477,351
BOOKBINDING AND BLANK-BOOK MAKING.															
1 United States	1,124	25,633	1,078	810	1,213	839	21,693	Mh 22,536	No 20,878	21,458	11,167	9,840	253	198	$29,179,790
2 California	46	478	48	26	28	17	359	De 375	Se 330	372	184	186	2	.....	461,792
3 District of Columbia	6	63	7	1	1	1	53	My 55	No 50	52	35	16	1	.....	60,982
4 Illinois	102	2,801	82	85	82	92	2,460	Jy 2,751	No 2,248	2,454	1,312	1,081	29	32	2,773,214
5 Indiana	17	157	14	14	12	7	110	Ap 117	De [1] 104	108	70	38	.....	.....	256,609
6 Iowa	14	145	12	11	22	9	91	Ja 102	Oc [2] 85	95	57	38	.....	.....	151,021
7 Kansas	6	13	6	.....	.....	.....	7	Mh [2] 8	De [2] 6	8	3	5	.....	.....	7,495
8 Louisiana	7	55	9	4	.....	.....	42	Fe 48	Ap [2] 39	53	30	22	1	.....	31,374
9 Maine	7	80	4	8	3	1	64	Mh 68	No 60	61	29	31	1	.....	56,703
10 Maryland	16	260	16	3	9	2	230	Jy 244	Fe 222	240	128	101	7	4	171,989
11 Massachusetts	96	3,688	91	82	104	94	3,317	Jy 3,404	De 3,202	3,324	1,733	1,554	17	20	3,927,259
12 Michigan	28	559	20	25	21	24	469	Mh 522	De 394	404	229	160	8	7	921,266
13 Minnesota	19	221	17	11	5	7	181	De 186	Ja [1] 172	190	95	92	2	1	222,554
14 Missouri	35	976	26	39	80	45	786	Fe 915	No 676	690	346	322	8	14	1,369,686
15 New Hampshire	3	14	2	1	.....	.....	11	Oc [1] 12	De [1] 10	12	6	6	.....	.....	7,036

[1] Same number reported for one or more other months.

PUBLISHING INDUSTRY, BY STATES: 1914—Continued.

EXPENSES.								Value of products.	Value added by manufacture.	POWER.						
Salaries and wages.			For contract work.	Rent and taxes.		For materials.				Primary horsepower.					Electric horsepower generated in establishments reporting.	
Officials.	Clerks, etc.	Wage earners.		Rent of factory.	Taxes, including internal-revenue and corporation-income.	Principal materials.	Fuel and rent of power.			Total.	Steam engines.	Internal-combustion engines.	Water wheels and motors.[1]	Electric (rented).		
PRINTING AND PUBLISHING, NEWSPAPERS AND PERIODICALS.																
$29,082,222	$61,937,501	$88,561,248	$20,960,716	$8,155,122	$2,661,154	$124,557,235	$4,524,983	$495,905,948	$366,823,730	187,269	29,335	21,891	1,210	134,833	15,290	1
209,620	353,525	532,058	72,656	26,656	20,466	622,114	34,065	2,771,502	2,115,323	2,312	28	193	6	2,085	1	2
63,026	77,312	245,590	25,081	19,857	6,848	118,514	12,880	817,290	685,896	236	.....	35	.....	201	.....	3
111,194	121,026	453,065	70,125	47,920	11,808	448,610	22,669	1,850,413	1,379,134	847	2	292	.....	553	4	4
1,024,216	3,315,595	4,156,983	830,801	427,184	108,482	5,470,973	181,841	21,557,591	15,904,777	9,798	5	477	30	9,286	256	5
318,765	458,519	933,068	175,877	79,584	29,072	942,890	48,444	4,278,359	3,287,025	1,485	10	211	17	1,247	.....	6
283,397	479,347	888,856	111,438	61,001	24,281	828,430	58,690	3,846,514	2,959,394	2,067	313	113	17	1,624	140	7
27,526	41,534	132,001	32,782	7,840	1,552	132,184	7,868	451,108	311,056	293	35	38	.....	220	.....	8
342,119	622,254	556,250	771,834	51,777	21,914	980,088	31,645	4,139,268	3,127,535	1,384	275	5	.....	1,104	.....	9
185,846	185,783	629,264	41,188	43,811	16,053	493,578	35,041	2,233,936	1,700,317	1,012	46	220	.....	746	.....	10
398,630	643,076	1,074,145	248,574	93,130	37,277	1,221,602	47,664	5,237,563	3,968,297	1,926	7	312	3	1,604	.....	11
57,789	69,011	318,941	18,168	36,080	10,387	238,736	23,245	1,156,543	894,562	483	.....	63	5	415	.....	12
2,810,107	6,066,890	6,711,009	4,741,706	709,347	192,217	9,988,297	352,618	47,026,681	36,685,766	12,997	1,589	875	19	10,514	523	13
541,212	1,032,566	2,266,200	614,312	153,375	60,694	2,452,770	127,642	10,163,181	7,582,769	4,844	108	667	22	4,047	37	14
645,823	945,027	2,329,890	299,354	180,732	62,386	2,468,509	155,410	11,455,048	8,831,129	5,206	548	1,050	12	3,596	160	15
228,601	472,070	1,176,894	85,977	97,270	42,564	1,764,347	64,922	5,479,833	3,650,564	2,613	88	901	2	1,622	121	16
282,074	362,033	909,630	164,365	51,012	21,198	762,031	53,840	3,534,218	2,718,347	1,611	128	348	16	1,119	.....	17
122,148	405,768	497,363	121,113	40,816	10,883	563,197	23,828	2,619,924	2,032,899	887	5	177	3	702	.....	18
136,968	163,717	669,642	33,190	41,714	13,857	901,111	34,101	2,804,477	1,869,265	1,266	429	84	21	732	179	19
248,875	729,403	859,570	123,637	105,009	30,501	1,167,896	28,943	4,260,487	3,063,648	3,268	626	153	2	2,487	5	20
1,794,160	3,461,841	5,364,438	1,729,692	441,436	215,247	8,202,009	247,134	26,719,398	18,270,255	10,051	1,814	329	30	7,878	933	21
665,230	1,469,600	2,333,351	426,948	172,888	93,530	3,215,882	127,677	12,290,227	8,946,668	5,271	178	683	38	4,372	63	22
601,717	1,358,985	2,088,182	511,509	183,580	71,646	3,125,569	116,806	11,927,678	8,685,303	4,298	170	695	.....	3,433	1	23
55,428	56,533	299,640	18,996	25,331	10,392	212,966	17,584	1,024,854	794,304	545	.....	207	.....	338	3	24
944,276	2,136,958	3,139,029	713,272	322,816	96,415	4,821,045	154,748	18,034,624	13,058,831	8,080	2,498	1,040	9	4,533	1,432	25
125,599	213,752	816,400	49,570	61,407	18,431	545,601	41,012	2,460,911	1,874,298	818	23	202	7	586	.....	26
284,907	558,617	1,117,503	313,648	98,290	31,555	1,155,114	67,701	5,433,415	4,210,600	2,233	275	733	3	1,222	83	27
27,823	21,422	135,040	4,359	11,335	4,893	61,714	9,602	387,541	316,225	200	.....	60	5	135	.....	28
68,655	43,588	285,876	26,648	19,775	5,132	179,964	16,575	944,658	748,119	496	6	54	21	415	3	29
447,206	905,502	2,076,626	264,364	151,584	45,671	1,709,736	115,976	7,413,284	5,587,572	3,632	870	435	30	2,297	447	30
43,419	45,073	174,671	15,891	17,716	5,868	78,363	9,842	536,891	448,686	239	.....	63	2	174	.....	31
8,532,440	21,666,695	18,441,725	3,588,375	2,422,961	458,920	34,371,959	890,628	137,753,860	102,491,273	29,784	4,854	1,703	449	22,778	3,413	32
194,710	146,760	531,403	47,495	33,527	15,647	423,710	43,749	2,148,454	1,680,995	1,196	120	300	2	774	61	33
72,367	84,286	451,678	54,387	50,303	16,954	283,364	33,449	1,805,071	1,488,258	1,054	8	596	7	443	1	34
1,544,101	2,904,509	5,632,571	936,212	312,971	193,015	7,541,397	231,169	28,023,290	20,250,724	12,720	2,536	1,908	43	8,233	1,698	35
201,379	193,810	803,255	48,952	106,340	33,053	661,786	43,693	3,237,734	2,532,255	1,829	25	582	.....	1,222	6	36
188,741	549,709	863,263	185,867	102,357	23,234	935,639	42,961	4,126,752	3,148,152	6,470	.....	72	30	6,368	.....	37
2,745,044	4,823,708	9,118,085	1,814,615	545,881	269,307	15,042,549	406,777	52,239,269	36,789,943	23,623	8,667	2,270	209	12,477	4,736	38
128,324	210,410	448,200	46,859	28,953	48,275	467,148	29,796	2,183,284	1,686,340	1,852	977	28	2	845	12	39
125,476	159,307	384,477	5,435	25,342	12,211	278,916	28,266	1,452,858	1,145,676	740	38	208	11	483	6	40
75,761	85,745	478,126	22,402	42,322	16,675	353,353	41,731	1,909,019	1,513,935	1,046	.....	591	4	451	4	41
241,482	558,499	930,270	188,247	71,699	32,835	1,268,311	53,105	5,077,180	3,755,764	1,695	225	171	10	1,289	27	42
573,718	1,130,131	2,234,052	319,652	196,412	67,582	2,533,908	124,899	10,263,457	7,604,650	4,334	517	1,137	4	2,676	529	43
98,755	252,284	486,476	96,394	47,895	11,538	488,090	22,654	1,817,421	1,306,677	985	675	48	1	261	163	44
51,888	48,016	220,325	13,470	9,761	7,239	139,898	13,641	734,385	580,846	471	59	31	7	374	.....	45
189,416	342,695	599,466	180,507	51,738	16,529	580,238	45,184	3,094,585	2,469,163	1,250	33	177	.....	1,040	15	46
368,922	948,958	1,341,974	464,745	141,847	34,628	1,543,114	59,169	6,856,299	5,254,016	2,122	30	124	37	1,931	7	47
94,596	124,009	491,582	40,808	41,632	13,828	426,820	21,497	1,729,075	1,280,758	1,315	78	607	33	597	166	48
510,080	851,624	1,787,828	245,180	125,101	63,731	2,262,740	112,729	8,098,914	5,723,445	4,169	417	542	30	3,180	55	49
48,666	40,019	145,317	4,039	17,807	4,733	75,455	9,873	497,624	412,296	216	.....	81	11	124	.....	50
BOOKBINDING AND BLANK-BOOK MAKING.																
$1,814,956	$1,636,911	$11,574,723	$381,087	$1,238,732	$134,128	$12,981,986	$352,221	$38,104,368	$24,770,161	11,266	2,282	639	63	8,282	585	1
41,306	28,131	227,035	6,926	25,896	3,853	204,584	4,818	730,074	520,672	203	.....	.....		203	.....	2
2,080	988	29,209	100	3,414	498	29,908	764	79,319	48,647	16	.....	.....		16	.....	3
215,547	158,395	1,433,614	9,923	175,107	12,577	1,533,253	39,126	4,283,787	2,711,408	1,228	.....	15	.....	1,213	.....	4
20,055	17,199	62,439	.....	8,113	2,180	287,314	2,470	458,572	168,788	145	.....	.....		145	.....	5
20,107	37,050	49,758	5,160	7,663	1,096	66,543	1,223	254,047	186,281	30	.....	.....		30	15	6
.....	.....	3,452	.....	876	48	4,089	89	15,360	11,182	4	.....	.....		4	.....	7
4,291	.....	23,542	.....	1,896	49	7,710	623	55,756	47,418	16	.....	.....		16	.....	8
22,157	3,764	31,099	.....	2,537	407	33,855	977	99,753	64,921	44	.....	.....		44	.....	9
4,010	7,040	103,266	160	9,831	676	62,977	3,168	252,296	186,151	88	10	8	.....	70	.....	10
191,698	193,220	1,839,465	21,989	125,190	33,544	1,478,333	46,402	4,943,081	3,418,346	1,843	1,055	39	.....	749	444	11
44,313	53,771	241,711	5,264	13,376	5,148	620,977	8,039	1,261,748	632,732	272	.....	2	.....	270	13	12
18,439	5,614	101,717	.....	12,213	1,422	83,831	2,296	304,072	217,945	76	.....	.....		76	.....	13
77,048	86,995	462,103	3,785	33,562	7,223	440,355	11,891	1,556,954	1,104,708	413	.....	.....		413	.....	14
600	.....	7,202	468	1,164	30	3,423	54	17,191	13,714	3	.....	.....		3	.....	15

TABLE 62.—DETAIL STATISTICS FOR THE PRINTING AND

	STATE.	Number of establishments.	PERSONS ENGAGED IN THE INDUSTRY.								WAGE EARNERS DEC. 15, OR NEAREST REPRESENTATIVE DAY.					Capital.
			Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks, etc.		Wage earners.			Total.	16 and over.		Under 16.		
						Male.	Female.	Average number.	Number, 15th day of—			Male.	Female.	Male.	Female	
									Maximum month.	Minimum month.						
	BOOK BINDING AND BLANK-BOOK MAKING—Continued.															
16	New Jersey	34	617	32	19	46	18	502	Mh 519	De 485	489	294	188	4	3	$981,497
17	New York	383	10,367	382	309	562	342	8,772	Mh 9,414	Au 8,376	8,624	4,457	4,031	86	50	11,769,229
18	Ohio	60	1,268	66	44	84	97	977	Fe 1,030	De 942	946	567	372	3	4	2,044,094
19	Oklahoma	3	11	2	1	1	.....	7	De [1] 8	Fe [1] 5	8	4	4	.....	.....	11,598
20	Oregon	6	75	4	4	4	3	60	Au 82	No 51	57	23	34	.....	.....	44,346
21	Pennsylvania	122	2,367	121	76	84	54	2,032	Jy 2,168	Au 1,928	2,049	976	996	50	27	2,546,775
22	Tennessee	8	38	10	.....	1	.....	27	Ja [2] 28	Oc [1] 25	29	19	10	.....	.....	30,149
23	Texas	5	23	4	.....	1	.....	18	Mh 23	No 13	19	12	6	1	.....	16,683
24	Virginia	6	226	9	3	2	3	209	Au 232	De 191	191	68	116	2	5	253,190
25	Washington	12	56	14	3	1	2	36	No [1] 37	Je 34	35	24	11	.....	.....	91,631
26	Wisconsin	30	728	28	25	49	14	612	De 688	Jy 543	689	321	309	28	31	676,932
27	All other states [4]	53	347	52	16	11	7	261	.....	.....	259	145	111	3	.....	294,686
	ENGRAVING, STEEL AND COPPER PLATE, INCLUDING PLATE PRINTING.															
1	United States	399	8,521	369	321	572	400	6,859	My 7,022	Au 6,624	6,840	4,313	2,343	111	73	$19,078,545
2	Alabama	4	37	1	5	2	1	28	([3]) 28	([3]) 28	28	23	4	1	.....	37,918
3	California	26	167	27	7	3	4	126	De 152	Jy 115	142	103	38	1	.....	106,283
4	Colorado	3	68	1	2	1	4	60	De 67	Oc [4] 56	57	32	25	.....	.....	34,142
5	District of Columbia	6	93	9	6	2	2	74	De 85	Au 62	83	64	19	.....	.....	30,509
6	Illinois	48	1,723	40	75	103	80	1,425	De 1,470	Mh 1,354	1,472	1,040	347	40	45	2,864,796
7	Kentucky	5	150	4	9	9	7	121	My 132	Au 112	120	55	62	3	.....	94,163
8	Maryland	15	99	13	3	6	11	66	De [2] 69	Au 59	67	44	16	3	4	71,591
9	Massachusetts	29	523	22	27	28	25	421	De 439	Au 406	430	242	182	4	2	668,036
10	Michigan	12	115	8	5	4	7	91	De 100	My [4] 87	99	75	23	1	.....	106,145
11	Minnesota	6	43	7	.....	1	1	34	Au [2] 35	De 33	33	17	15	1	.....	20,106
12	Missouri	13	139	13	15	6	4	101	Ja 109	Au 88	110	66	42	2	.....	60,162
13	New York	118	3,037	119	84	270	145	2,419	Ja 2,583	No 2,144	2,181	1,375	789	12	5	9,431,689
14	Ohio	10	153	8	9	12	6	118	Je 131	Ja 112	118	86	25	4	3	69,023
15	Oregon	7	52	2	5	8	1	36	Ja 39	Se 33	36	28	8	.....	.....	56,122
16	Pennsylvania	41	1,239	42	34	85	71	1,007	De 1,071	Jy 881	1,044	557	446	30	11	2,139,176
17	Texas	3	46	7	1	.....	1	37	My 43	Au [2] 32	39	27	10	.....	2	19,000
18	Utah	5	45	2	2	1	1	39	De 46	Au [4] 35	42	25	14	2	1	34,669
19	Virginia	4	28	3	.....	.....	3	22	Oc [2] 23	Ja [2] 21	23	14	7	2	.....	8,550
20	All other states [4]	44	764	41	32	31	26	634	.....	.....	716	440	271	5	.....	3,226,465
	LITHOGRAPHING.															
1	United States	336	18,069	171	680	1,483	564	15,171	Je 15,343	Fe 15,039	15,314	12,649	2,545	90	30	$35,685,305
2	California	14	923	3	31	87	36	766	No 818	Ja 722	809	666	142	1	.....	2,001,572
3	Colorado	3	133	.....	8	23	4	98	Se [1] 104	Mh 90	102	77	24	1	.....	334,025
4	District of Columbia	4	164	.....	11	8	4	141	Au 158	Mh 117	158	149	9	.....	.....	278,910
5	Illinois	34	1,150	14	54	99	39	944	My 965	Fe 914	956	810	136	8	2	2,095,232
6	Iowa	3	168	.....	8	17	5	138	Ap 156	Ja 119	139	110	29	.....	.....	257,102
7	Kentucky	5	302	1	17	25	7	252	My [1] 266	No 224	234	198	36	.....	.....	810,034
8	Maryland	6	542	12	19	39	15	457	Jy [1] 485	No [4] 440	447	382	48	16	1	1,094,741
9	Massachusetts	13	1,500	5	54	161	62	1,218	Je 1,236	De 1,201	1,201	903	295	3	.....	2,400,253
10	Minnesota	4	105	.....	8	18	3	76	No 80	Ja [1] 73	77	61	16	.....	.....	239,442
11	Missouri	12	357	4	27	50	14	262	Je 274	No 243	267	213	52	2	.....	748,132
12	New York	146	7,614	86	241	559	225	6,503	No 6,593	My 6,404	6,604	5,552	1,036	14	2	15,241,409
13	Ohio	28	1,951	8	72	136	62	1,673	Je 1,714	No 1,625	1,624	1,395	227	2	.....	4,059,347
14	Pennsylvania	23	1,007	18	28	78	25	858	Ja 903	Au 842	850	679	135	25	11	1,993,695
15	Washington	4	90	.....	8	8	3	71	Se 85	Fe 61	69	57	12	.....	.....	220,009
16	Wisconsin	10	508	2	23	37	18	428	My 453	De 390	442	369	61	10	2	1,093,903
17	All other states [5]	27	1,555	18	71	138	42	1,286	.....	.....	1,335	1,028	287	8	12	2,817,499

[1] Same number reported for one or more other months.
[2] All other states embrace: Alabama, 4 establishments; Colorado, 3; Connecticut, 17; Delaware, 1; Georgia, 2; Idaho, 2; Kentucky, 3; Mississippi, 1; Montana, 1; Nebraska, 1; North Carolina, 1; Rhode Island, 9; South Dakota, 1; Utah, 4; Vermont, 2; West Virginia, 1.
[3] Same number reported thoughout the year.

PUBLISHING INDUSTRY, BY STATES: 1914—Continued.

EXPENSES.								Value of products.	Value added by manufacture.	POWER.						
Salaries and wages.			For contract work.	Rent and taxes.		For materials.				Primary horsepower.					Electric horsepower generated in establishments reporting.	
Officials.	Clerks, etc.	Wage earners.		Rent of factory.	Taxes, including internal-revenue and corporation-income.	Principal materials.	Fuel and rent of power.			Total.	Steam engines.	Internal-combustion engines.	Water wheels and motors.	Electric (rented).		

BOOK BINDING AND BLANK-BOOK MAKING—Continued.

$55,059	$54,530	$276,109	$3,063	$12,383	$4,412	$219,795	$10,727	$773,901	$543,379	353	211	5	1	136	.....	16
776,431	668,446	4,552,185	247,857	577,513	31,842	4,899,289	156,365	14,813,640	9,757,986	4,081	705	319	60	2,997	2	17
89,040	121,512	534,364	9,190	41,475	15,798	983,087	19,275	2,831,673	1,828,711	758	.....	27	.....	731	.....	18
1,200	400	4,472	.....	1,110	112	4,475	199	14,535	9,861	8	.....	.....	.....	8	.....	19
10,800	5,502	34,274	30	5,558	869	22,095	1,168	98,302	75,039	63	.....	.....	.....	63	.....	20
141,044	122,514	1,008,196	37,774	119,353	3,004	1,315,848	24,000	3,367,249	2,027,401	1,102	301	209	.....	592	111	21
.....	720	12,732	.....	2,690	109	6,012	640	40,055	32,503	12	.....	.....	.....	12	.....	22
.....	00	11,780	.....	002	72	4,046	270	24,249	19,333	14	.....	.....	.....	14	.....	23
3,060	2,608	77,249	3,040	3,080	1,364	101,442	3,287	261,766	157,037	105	.....	.....	.....	105	.....	24
4,082	867	27,768	1,174	5,574	1,051	33,460	1,094	112,059	77,505	28	.....	.....	.....	28	.....	25
42,043	52,851	282,202	22,936	27,080	4,384	416,442	8,770	1,014,070	588,858	221	.....	3	.....	218	.....	26
27,246	14,614	137,780	1,330	21,086	2,360	116,743	4,481	440,859	310,035	140	.....	12	2	126	.....	27

ENGRAVING, STEEL AND COPPER PLATE, INCLUDING PLATE PRINTING.

$899,494	$978,231	$4,526,084	$207,207	$384,365	$87,144	$3,775,764	$138,744	$13,786,385	$9,871,877	5,070	1,055	58	.....	4,557	744	1
8,270	1,203	21,114	672	2,127	200	13,733	824	51,421	36,864	21	.....	.....	.....	21	.....	2
9,885	5,448	92,004	8,492	14,009	616	60,304	983	235,540	174,253	50	.....	5	.....	45	.....	3
3,380	2,314	20,844	.....	1,030	113	18,097	279	57,031	38,655	11	.....	.....	.....	11	.....	4
9,360	1,050	31,084	1,200	6,001	157	23,206	631	90,210	66,373	9	.....	.....	.....	9	.....	5
207,000	195,241	953,904	120,700	78,813	12,896	860,085	32,700	3,161,407	2,258,986	1,305	750	1	.....	554	692	6
18,020	9,932	68,602	300	4,625	618	77,042	843	210,059	140,574	42	.....	.....	.....	42	4	7
4,420	10,498	30,083	5,835	6,402	180	37,150	1,020	138,148	99,978	21	.....	.....	.....	21	.....	8
73,003	33,135	274,782	18,224	34,475	4,333	153,550	6,250	746,200	586,481	724	.....	10	.....	714	.....	9
8,800	7,208	72,015	385	6,302	506	35,715	2,571	156,303	118,017	50	.....	.....	.....	50	5	10
.....	1,600	20,022	700	5,310	03	9,052	228	59,456	49,570	16	.....	.....	.....	16	.....	11
24,830	5,208	63,490	960	10,114	311	37,075	717	183,293	145,501	23	.....	.....	.....	23	.....	12
310,898	511,067	1,684,252	56,714	115,088	54,079	1,441,531	61,706	5,269,603	3,760,366	2,005	100	.....	.....	1,905	36	13
18,557	9,000	73,453	100	6,231	242	27,186	2,233	175,240	145,821	37	.....	.....	.....	37	.....	14
13,049	8,186	38,236	60	7,356	350	14,041	1,300	95,691	80,344	17	.....	.....	.....	17	.....	15
89,871	132,051	602,207	50,632	49,475	3,001	539,041	12,731	1,773,079	1,221,307	509	125	34	.....	350	7	16
1,820	624	20,860	.....	2,460	170	12,850	352	52,400	39,198	8	.....	.....	.....	8	.....	17
1,198	1,000	25,830	100	4,986	433	10,260	740	73,088	56,679	23	.....	.....	.....	23	.....	18
.....	1,000	14,354	200	1,070	71	5,377	490	28,233	22,366	4	.....	.....	.....	4	.....	19
95,534	41,176	412,040	6,837	28,331	8,085	383,051	12,044	1,210,633	824,538	705	80	8	.....	707	.....	20

LITHOGRAPHING.

$2,192,010	$2,519,188	$11,861,018	$703,001	$911,518	$193,418	$13,007,502	$340,070	$30,135,973	$25,118,792	15,178	7,430	911	.....	6,837	7,200	1
90,000	177,740	660,932	24,343	43,003	6,251	910,341	14,033	2,351,051	1,420,677	783	10	.....	.....	773	.....	2
27,001	40,935	84,756	.....	8,105	788	185,561	2,390	385,761	197,810	103	.....	.....	.....	103	.....	3
26,419	7,416	117,803	10,541	5,469	1,013	112,113	5,895	314,119	196,111	83	15	.....	.....	68	.....	4
196,311	185,549	873,502	23,501	80,403	8,287	954,333	24,075	2,692,744	1,714,330	824	125	.....	.....	699	180	5
17,220	27,568	110,126	.....	9,420	905	102,546	4,010	446,094	280,138	97	.....	.....	.....	97	.....	6
45,711	30,826	188,318	.....	2,800	4,008	178,012	3,632	501,121	318,577	179	100	.....	.....	79	.....	7
52,724	62,854	266,208	0,173	14,585	2,055	304,045	6,496	1,065,302	664,851	411	310	13	.....	88	300	8
132,820	318,401	873,520	115,780	16,620	26,051	984,920	22,022	2,931,840	1,923,998	943	770	.....	.....	173	1,178	9
18,525	10,341	58,232	.....	7,021	655	108,007	1,744	239,967	129,616	61	.....	.....	.....	61	.....	10
107,863	64,535	212,805	21,023	21,093	2,000	223,058	6,135	702,419	533,226	285	25	.....	.....	260	.....	11
892,247	982,186	5,007,711	449,520	544,007	61,007	5,663,208	166,964	16,958,785	11,128,613	6,007	3,180	319	.....	2,508	2,927	12
225,966	273,584	1,427,918	16,107	40,678	36,774	1,218,111	34,270	4,179,127	2,896,746	1,820	715	386	.....	728	976	13
84,825	147,403	695,748	13,989	63,240	2,404	841,282	16,100	1,946,087	1,080,215	813	455	108	.....	250	599	14
17,920	12,588	59,205	4,320	8,825	1,111	75,798	2,189	207,007	120,110	81	.....	.....	.....	81	.....	15
75,645	63,020	307,031	4,118	10,281	13,426	382,017	11,201	1,102,271	708,963	463	145	.....	.....	318	117	16
180,213	140,233	927,033	11,006	34,028	25,333	1,230,050	27,443	3,050,898	1,786,805	2,156	1,580	85	....	491	923	17

[a] All other states embrace: Arkansas, 1 establishment; Connecticut, 5; Georgia, 1; Indiana, 1; Iowa, 1; Kansas, 2; Louisiana, 4; Nebraska, 2; New Hampshire, 1; New Jersey, 11; Oklahoma, 2; Rhode Island, 6; Tennessee, 2; Washington, 2; West Virginia, 1; Wisconsin, 2.

[b] All other states embrace: Connecticut, 2 establishments; Indiana, 3; Kansas, 1; Louisiana, 2; Michigan, 6; New Jersey, 6; Oregon, 1; South Carolina, 1; Tennessee, 1; Utah, 1; Virginia, 2; West Virginia, 1.

THE LEATHER INDUSTRY.

By Elmore W. Sanderson.

SUMMARY AND ANALYSIS.

Scope of the report.—This report presents statistics for the manufacture of leather and for several industries in which leather is used as material. The basic industry of the group is the tanning, currying, and finishing of leather, but statistics are also presented for the manufacture of boots and shoes and of cut stock and findings; saddlery and harness; leather belting; leather gloves and mittens; leather goods, not elsewhere specified; trunks and valises; and pocketbooks. For three of these industries, the manufacture of "leather," "boots and shoes," and "leather gloves and mittens," detail data are shown for the quantity and value of various products.

Table 1 gives the number of establishments, average number of wage earners, amount of wages paid, cost of materials, and value of products for each of the industries included in the report for 1914, 1909, and 1904.

Table 1 — LEATHER AND ITS FINISHED PRODUCTS.

INDUSTRY.	Census year.	Number of establishments.	Wage earners. Average number.	Wage earners. Wages.	Cost of materials.	Value of products.
Total	1914	6,758	307,060	$169,357,560	$753,135,354	$1,104,594,557
	1909	5,728	309,766	155,110,878	609,874,518	992,713,322
	1904	5,318	264,459	120,833,174	480,220,706	724,391,050
Leather, tanned, curried, and finished.	1914	741	55,936	31,914,497	284,245,420	367,201,705
	1909	919	62,202	32,102,845	248,278,933	327,874,187
	1904	1,049	57,239	27,049,152	191,179,073	252,620,986
Boots and shoes	1914	1,355	191,555	105,695,404	310,356,586	501,760,458
	1909	1,343	185,116	92,359,152	277,467,743	442,630,726
	1904	1,316	149,924	69,059,680	197,363,495	320,107,458
Boot and shoe cut stock.	1914	236	7,819	4,052,123	51,450,498	59,964,523
	1909	232	6,693	3,156,460	36,919,919	44,661,497
	1904	290	5,936	2,364,209	21,586,872	27,675,815
Saddlery and harness	1914	2,551	12,969	7,995,612	33,086,442	53,558,612
	1909	1,347	14,632	8,071,484	33,177,937	54,224,602
	1904	1,076	15,032	7,634,311	23,774,239	42,054,842
Boot and shoe findings.	1914	369	6,714	3,225,683	20,304,183	28,303,186
	1909	343	6,488	2,947,083	18,350,551	25,505,419
	1904	289	4,434	1,647,877	6,337,810	9,904,887
Trunks and valises	1914	561	9,911	5,540,157	13,625,457	26,471,527
	1909	524	11,122	5,537,329	14,629,065	28,027,964
	1904	373	9,091	4,139,034	9,107,785	18,643,580
Belting, leather	1914	151	2,951	2,069,545	15,480,110	23,035,951
	1909	139	3,006	1,860,880	15,622,603	23,691,887
	1904	[1] 117	2,092	1,164,548	9,317,200	14,220,306
Gloves and mittens, leather.	1914	352	10,668	4,558,360	12,170,694	21,614,109
	1909	377	11,354	4,763,830	13,208,001	23,630,598
	1904	339	10,645	3,840,253	10,000,889	17,740,385
Leather goods, not elsewhere specified.	1914	378	7,071	3,603,865	10,632,124	19,333,934
	1909	425	7,681	3,623,200	10,290,439	18,838,281
	1904	423	7,785	3,137,125	9,626,614	17,655,345
Pocketbooks	1914	64	1,466	702,314	1,783,840	3,350,552
	1909	79	1,472	688,615	1,929,327	3,628,161
	1904	46	2,281	796,985	1,926,723	3,767,446

[1] Includes some leather hose.

While leather is the principal material used in all of the industries shown in Table 1, quantities of other materials are consumed. This is especially true of the manufacture of trunks and valises and to some extent of saddlery and harness and pocketbooks. The boot and shoe industry includes establishments that manufacture overgaiters, leggings, moccasins, etc., also those that do work, in whole or in part, on materials furnished by others, and establishments that specialize in stitching, crimping, and making buttonholes. The total for the 10 industries contains numerous duplications in the cost of materials and value of products, due to the use of the products of some establishments as materials by others. These duplications, however, do not affect the number of establishments, wage earners employed, and wages paid.

There was a constant increase during the decade in the number of establishments, wages paid, cost of materials, and value of products for the group of industries as a whole, though certain of the individual industries show decreases in some of these items. The increase in the number of establishments is due almost entirely to the number reported for saddlery and harness. It is possible that some of the establishments reported for this branch of the industry in 1914 were of the class omitted from the enumeration in 1909 because they were engaged largely in custom work. The average number of wage earners employed during 1914 in the leather industries was somewhat less than in 1909, but an increase of 42,601, or 16.1 per cent, over the number reported for 1904.

The industries represented are grouped in the table according to value of products, except that "leather, tanned, curried, and finished," being the basic industry of the group, is placed first. It contributed approximately one-third of the combined value of products at each census.

The manufacture of boots, shoes, and other leather footwear is the most important industry of the group as measured by value of products. It contributed about 45 per cent of the combined total in each census year. Boots and shoes, including cut stock and findings, formed over one-half of the total at each census, except for 1904. Saddlery and harness contributed about 5 per cent and pocketbooks only three-tenths of 1 per cent of the total value of products.

Leather, boots and shoes, cut stock, findings, and miscellaneous leather goods, all show an increase in value of products compared with previous censuses, while saddlery and harness, leather belting, trunks and valises, leather gloves and mittens, and pocketbooks show a decrease in 1914 as compared with 1909.

LEATHER, TANNED, CURRIED, AND FINISHED.

Scope of the industry.—This industry includes all establishments converting hides and skins of animals into leather. The hides and skins are subjected to the same preliminary process; this is carried on in the beam house and consists of soaking, cleansing, unhairing, etc. If the hides are not to be treated whole, after being soaked, they are divided into sides by being split down the back. Hides, intended for sole or other heavy leather, after being washed and scraped are ready for tanning, but skins that are to be converted into pliable leather are "bated" to remove the lime used in unhairing.

There are two methods of tanning, vegetable and mineral, the method adopted being determined by the raw material used and the kind of leather to be produced. Tanning is a comparatively simple process, the hides and skins being immersed in tanning liquors and laid away in vats, heavy hides requiring more time than light hides or skins. The finishing processes on the other hand, are numerous and complicated.

Old-style methods and ideas have disappeared from the tanning industry and new uses for leather have increased the demand for quantity and variety. Some of the results of modern tanning are remarkable for the high degree of perfection reached in the appearance and durability of the leather.

The majority of the establishments purchase the raw material and produce a finished product. Many establishments perform but one process, some tan only, others curry or finish, while still others do only one or more of the several processes incident to the completion of the finished product. There are establishments that buy rough tanned leather from other establishments and curry or finish it. Some establishments tan, curry, or finish hides and skins for others; when the hides or skins are furnished by other tanners or dealers in leather, the value of products reported by the establishments in which the work is done is the amount received for this work and not the value of the leather manufactured. Under these conditions some duplication occurs in the total cost of materials and value of products, but the percentage is small. In addition, there are some establishments assigned to industries other than "leather, tanned, curried, and finished" that make leather and use it in further manufacture.

Comparison with earlier censuses.—Table 2 summarizes the statistics of establishments engaged in the tanning, currying, and finishing of leather for each census from 1869 to 1914, inclusive, and gives percentages of increase from census to census.

Table 2 LEATHER, TANNED, CURRIED AND FINISHED.

	Number or amount.							Per cent of increase.[1]					
	1914	1909	1904	1899	1889	1879	1869	1909–1914	1904–1909	1899–1904	1889–1899	1879–1889	1869–1879.
Number of establishments	741	919	1,049	1,306	1,787	5,628	7,569	−19.4	−12.4	−19.7	−26.9	[2]	[2]
Persons engaged	60,780	67,100	61,602	56,024	[3]	[3]	[3]	−9.4	8.9	10.0			
Proprietors and firm members	566	784	1,112	1,473	[3]	[3]	[3]	−27.8	−29.5	−24.5			
Salaried employees	4,278	4,114	3,251	2,442	[3]	[3]	[3]	4.0	26.5	33.1			
Wage earners (average number)	55,936	62,202	57,239	52,109	42,392	40,282	35,243	−10.1	8.7	9.8	22.9	[2]	[2]
Primary horsepower	172,712	148,140	117,450	88,860	60,031	[3]	39,583	16.6	26.1	32.2	48.0		
Capital	$332,180,085	$332,726,952	$242,584,254	$173,977,421	$98,088,698	$73,383,911	$61,124,812	−0.2	37.2	39.4	77.4	33.7	20.1
Salaries and wages	39,290,725	38,846,481	31,501,058	25,749,933	23,985,879	16,503,828	14,505,775	1.1	23.3	22.3	7.4	45.3	13.8
Salaries	7,376,228	6,743,636	4,451,906	3,158,842	[3]	[3]	[3]	9.4	51.5	40.9			
Wages	31,914,497	32,102,845	27,049,152	22,591,091	[3]	[3]	[3]	−0.6	18.7	19.7			
Paid for contract work	1,152,642	473,869	881,168	53,396	[3]	[3]	[3]	143.3	−46.2	1,550.3			
Rent and taxes (including internal revenue)	2,206,023	1,579,445	[4] 1,029,263	[4] 864,300	[3]	[3]	[3]	39.7					
Cost of materials	284,245,420	248,278,933	191,179,073	155,000,004	122,946,721	156,384,117	118,569,634	14.5	29.9	23.3	26.1	[2]	[2]
Value of products	367,201,705	327,874,187	252,620,986	204,038,127	172,136,092	200,264,944	157,237,597	12.0	29.8	23.8	18.5	[2]	[2]
Value added by manufacture (value of products less cost of materials)	82,956,285	79,595,254	61,441,913	49,038,123	49,189,371	43,880,827	38,667,963	4.2	29.5	25.3	−0.3	[2]	[2]

[1] A minus sign (−) denotes decrease. [2] Figures not strictly comparable. [3] Figures not available. [4] Exclusive of internal revenue.

The decrease in the number of establishments and of proprietors and firm members shown in Table 2 is due primarily to the gradual concentration of the industry in larger and more perfectly equipped establishments and to changes in the character of ownership. Establishments are frequently incorporated during the period between the censuses. In such cases proprietors and firm members would be reported at the census prior to incorporation and only salaried officials and other employees at the subsequent census. The number of salaried employees and their salaries increased at each census, the latter to a greater degree than the former. The number of wage earners employed in 1914 was 10.1 per cent less than the number reported in 1909 and 2.3 per cent less than in 1904. There was a slight decrease in wages paid during the five years ending with 1914, but an increase of 18.7 per cent during the period ending with 1909. There was an increase of 12 per cent from 1909 to 1914 in the value of products and increases in most of the other items during each of the five-year periods.

The increase in value of products does not necessarily mean that the volume of business done in the leather industry in 1914 was greater than in 1909, for

the decrease in number of skins tanned (see Table 15) and in number of wage earners employed indicate the contrary. The increase appears to be due to advance in prices and in cost of manufacture, for salaries and wages were higher, prices paid for hides and skins were greater, and other materials, including chemicals and other tanning materials, commanded higher prices than in previous census years.

The horsepower of the engines and motors used in the industry has nearly doubled since 1899. Much of this increase is due to the substitution of machinery for hand power, though the natural growth of the industry accounts for part of it.

Summary, by states.—Table 3 summarizes the more important statistics of the industry, by states, the states being arranged according to the value of products reported for 1914. The per cent distribution for 1914, the rank of the states in 1914 and 1909, and percentages of increase for each five-year period beginning with 1899, are also presented.

Table 3 LEATHER, TANNED, CURRIED, AND FINISHED: 1914.

STATE.	Number of establishments.	Wage earners. Average number.	Wage earners. Per cent distribution.	Wage earners. Rank. 1914	Wage earners. Rank. 1909	Value of products. Amount.	Value of products. Per cent distribution.	Value of products. Rank. 1914	Value of products. Rank. 1909	Value added by manufacture. Amount.	Value added by manufacture. Per cent distribution.	Value added by manufacture. Rank. 1914	Value added by manufacture. Rank. 1909
United States	741	55,936	100.0	....	....	$367,201,705	100.0	....	....	$82,956,285	100.0	....	....
Pennsylvania	120	11,988	21.4	1	1	85,252,532	23.2	1	1	16,943,812	20.4	1	1
Massachusetts	126	10,164	18.2	2	2	45,265,434	12.3	2	3	12,071,373	14.6	2	2
Wisconsin	27	5,869	10.5	3	3	42,204,202	11.5	3	2	9,151,016	11.0	4	3
New York	98	5,360	9.6	4	4	36,018,342	9.8	4	5	8,106,071	9.8	5	5
New Jersey	84	5,108	9.1	5	5	31,651,831	8.6	5	4	9,571,200	11.5	3	4
Michigan	23	2,773	5.0	6	8	25,503,573	6.9	6	6	4,521,326	5.5	6	7
Illinois	28	2,678	4.8	7	7	17,509,256	4.8	7	7	3,591,824	4.3	7	8
Ohio	28	1,605	2.9	9	9	11,627,916	3.2	8	10	3,121,663	3.8	8	9
West Virginia	18	1,072	1.9	12	11	11,014,540	3.0	9	8	2,319,626	2.8	10	11
California	29	1,361	2.4	10	12	10,020,739	2.7	10	11	2,162,440	2.6	11	10
Virginia	21	1,205	2.2	11	10	9,834,439	2.7	11	12	1,616,401	1.9	13	12
Delaware	20	2,382	4.2	8	6	9,183,205	2.5	12	9	2,709,151	3.3	9	6
North Carolina	17	877	1.6	13	13	7,182,400	2.0	13	13	1,637,214	2.0	12	13
Kentucky	11	600	1.1	14	14	4,198,575	1.1	14	14	956,441	1.2	14	14
Maryland	10	440	0.8	16	15	3,485,016	0.9	15	15	856,106	1.0	15	16
Indiana	10	434	0.8	17	17	2,928,107	0.8	16	17	602,232	0.7	17	15
New Hampshire	8	452	0.8	15	20	2,863,759	0.8	17	20	612,827	0.7	16	20
Missouri	10	227	0.4	20	21	2,572,987	0.7	18	18	531,377	0.6	18	19
Maine	10	358	0.6	19	16	2,410,005	0.7	20	19	358,429	0.4	20	18
All other states	43	983	1.8	....	....	6,465,847	1.8	....	....	1,515,756	1.8	....	....

PER CENT OF INCREASE.[1]

STATE.	Wage earners (average number). 1909–1914	Wage earners (average number). 1904–1909	Wage earners (average number). 1899–1904	Value of products. 1909–1914	Value of products. 1904–1909	Value of products. 1899–1904	Value added by manufacture. 1909–1914	Value added by manufacture. 1904–1909	Value added by manufacture. 1899–1904
United States	−10.1	8.7	9.8	12.0	29.8	23.8	4.2	29.5	25.3
Pennsylvania	−14.4	−2.8	7.6	9.4	12.2	24.8	−9.9	34.2	6.1
Massachusetts	−0.9	13.0	29.4	13.2	19.9	27.9	7.4	9.0	64.4
Wisconsin	−22.2	35.9	5.6	−5.5	72.8	28.7	−7.0	64.7	48.1
New York	−5.8	4.5	−16.6	30.3	27.7	−6.7	21.0	24.8	−7.2
New Jersey	−8.1	12.3	18.5	11.3	32.3	56.4	16.3	32.3	47.7
Michigan	21.0	31.1	22.4	66.4	64.1	55.3	40.8	55.1	56.9
Illinois	−10.8	8.3	22.4	17.4	38.6	37.1	29.1	7.6	25.2
Ohio	−14.8	17.0	16.3	14.8	55.5	25.7	29.6	17.4	45.7
West Virginia	−31.8	66.1	42.5	−11.5	105.4	88.8	12.2	59.9	93.0
California	−2.6	−7.7	4.2	7.0	16.0	9.0	−7.1	7.8	35.3
Virginia	−24.2	50.7	18.7	19.0	41.8	23.6	−11.3	64.0	8.8
Delaware	−21.8	7.4	15.4	−24.0	17.8	9.0	−31.1	68.0	−1.4
North Carolina	5.4	55.8	45.9	32.6	103.4	77.2	30.0	101.8	67.3
Kentucky	−4.8	−13.5	−10.1	−1.0	7.3	5.2	−5.9	−11.2	30.9
Maryland	−5.6	−12.2	16.7	31.0	39.2	9.0	56.5	27.8	24.8
Indiana	9.0	50.2	−33.8	26.7	119.9	−33.9	0.6	108.4	−28.8
New Hampshire	71.2	−46.3	−10.9	81.1	−10.9	−33.4	48.6	−8.0	−26.9
Missouri	3.2	1.4	17.3	26.5	80.4	38.1	21.8	10.7	51.5
Maine	−17.9	−15.3	−12.3	27.0	23.8	2.0	−20.9	−13.9	3.3
All other states	.....	.....	.....	.....	.....	.....	.....	.....	.....

[1] Percentages are based on figures in Table 24; a minus sign (−) denotes decrease.

Naturally the industry has developed rapidly in the states where the materials can be obtained most conveniently. Establishments that specialize in sole and other heavy leather predominate in localities where forests are plentiful and where quantities of tan bark can be obtained.

Pennsylvania ranked first in the manufacture of leather in both 1914 and 1909, contributing nearly one-fourth of the total value of products for the leather industry in the United States. It led in the production of sole and goatskin upper leather and also produced patent, fancy, harness, case, bag and strap, rough, and other leathers. In 1914, 46.9 per cent of all the sole leather was reported by Pennsylvania, while Michigan, West Virginia, New York, and Wisconsin, together produced 32 per cent (see Table 20). Pennsylvania occupied first place not only in value of output, but in number of wage earners employed and in value added by manufacture, about one-fifth of the total for each of these items being reported by this state.

Massachusetts ranked second, the place it held in 1904, but relinquished, as far as value of products was concerned, to Wisconsin in 1909. The state led in the manufacture of upper leather made from calf and sheep skins, of finished splits, and of patent leather made from skins.

Wisconsin ranked third, having exchanged places with Massachusetts. Calfskin upper, cattle side upper, and sole and harness leather were produced in large quantities.

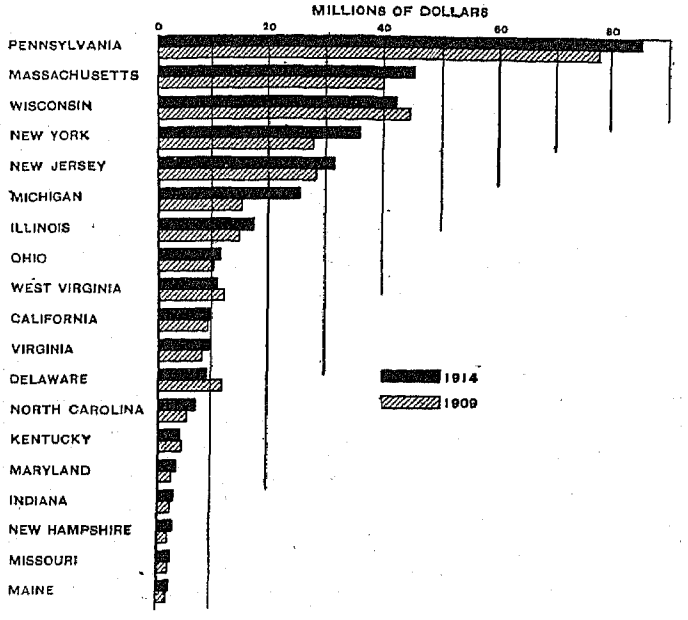
New York was fourth in importance as measured by value of products, exchanging places with New Jersey, which dropped to fifth place. The former state increased its output over 1909 to a much greater extent than the latter The principal leathers made in New York were sole, calf and sheep skin upper, cattle side upper, finished splits, and glove leather. New Jersey produced a large share of the upholstery (automobile, furniture, and carriage), fancy, and bookbinders' leather and considerable patent and rough leather.

The value of products reported by Michigan increased $10,172,469, or 66.4 per cent, the greatest increase shown by any of the more important leather manufacturing states. Despite this fact, the state occupied sixth place, as it did in 1909. Michigan led all states except Pennsylvania in the manufacture of sole leather, chiefly hemlock tanned. Other states in order of their importance which reported a value of

product of over $10,000,000 were Illinois, reporting large quantities of calfskin upper and cattle side upper leather; Ohio, the principal products of which were harness and upholstery leather; West Virginia, with union and oak sole leather as its chief products; and California, producing mainly oak sole and harness leather.

The following diagram shows graphically the value of products for the most important states in the industry in 1914 and 1909.

LEATHER, TANNED, CURRIED, AND FINISHED—VALUE OF PRODUCTS FOR LEADING STATES: 1914 AND 1909.



Summary for leading cities.—Table 4 shows the value of products for 1914, 1909, and 1904 for the five leading cities in the industry ranked by value of products reported for 1914.

Table 4

CITY.	1914		1909		1904	
	Rank.	Value of products.	Rank.	Value of products.	Rank.	Value of products.
Philadelphia, Pa.	1	$23,557,091	2	$23,526,421	1	$23,903,239
Milwaukee, Wis.	2	22,893,306	1	27,483,829	2	14,074,397
Newark, N. J.	3	20,118,019	3	18,858,046	3	13,577,719
Chicago, Ill.	4	15,662,742	4	13,243,550	5	9,420,426
Peabody, Mass.	5	14,720,944	5	12,893,653	6	7,919,370

Philadelphia, the first city in the United States in the leather industry, produced chiefly "goatskin upper" leather. The city of Milwaukee is noted for its tanneries of large size. In 1914 two were idle; this fact and the reduced output reported by some of the others account for the change in Milwaukee from first place in 1909 to second in 1914. The principal kind of leather made was "calfskin upper." Newark is noted for the manufacture of automobile, carriage, furniture, patent, and fancy leather. Chicago manufactured chiefly upper leather. The establishments in Peabody, Mass., made principally upper and patent leathers. These five cities have a combined value of products of $96,952,102, or 26.4 per cent of the total for the United States.

Persons engaged in the industry.—Table 5 shows, for 1914 and 1909, the number of persons engaged in the leather industry, distributed by sex, the average number of wage earners being distributed also by age. The sex and age classification of the average number of wage earners in this and other tables are estimates obtained by the method described under "Explanation of terms."

Table 5

CLASS.	Census year.	PERSONS ENGAGED IN THE INDUSTRY.				
		Total.	Male.	Female.	Per cent of total.	
					Male.	Female.
All classes	1914	60,780	58,289	2,491	95.9	4.1
	1909	67,100	64,439	2,661	96.0	4.0
Proprietors and officials	1914	2,001	1,945	56	97.2	2.8
	1909	2,331	2,293	38	98.4	1.6
Proprietors and firm members	1914	566	528	38	93.3	6.7
	1909	784	759	25	96.8	3.2
Salaried officers of corporations	1914	581	567	14	97.6	2.4
	1909	629	618	11	98.2	1.8
Superintendents and managers	1914	854	850	4	99.5	0.5
	1909	918	916	2	99.8	0.2
Clerks and other subordinate salaried employees.	1914	2,843	2,298	545	80.8	19.2
	1909	2,567	2,092	475	81.5	18.5
Wage earners (average number)	1914	55,936	54,046	1,890	96.6	3.4
	1909	62,202	60,054	2,148	96.5	3.5
16 years of age and over	1914	55,774	53,926	1,848	96.7	3.3
	1909	61,753	59,674	2,079	96.6	3.4
Under 16 years of age	1914	162	120	42	74.1	25.9
	1909	449	380	69	84.6	15.4

Of the 60,780 persons engaged in the industry during 1914, 92 per cent were wage earners, 3.3 per cent proprietors and officials, and 4.7 per cent clerks and other subordinate salaried employees. Clerks and other subordiante salaried employees showed a larger proportion of females than any of the other classes, except wage earners under 16 years of age. Of the wage earners 16 years of age and over, the females constituted 3.3 per cent, a slightly smaller proportion than in 1909. Figures for the sex and age distribution of wage earners, by states, will be found in Table 25.

Table 6 gives, for the several classes of persons engaged in the industry, the percentages of increase from 1909 to 1914 and the per cent distribution at the two censuses.

The table shows decreases for the five-year period in the total number of the several classes of employees, with the exception of clerks and other subordinate salaried employees in which class there was an increase of 10.8 per cent. Females in this class show a greater relative increase than males. The smallest percentage of decrease is 7 per cent, shown for superintendents and managers.

Table 6

CLASS.	PERSONS ENGAGED IN THE INDUSTRY.									
	Per cent of increase,[1] 1909–1914.			Per cent distribution.					
	Total.	Male.	Female.	Total.		Male.		Female.	
				1914	1909	1914	1909	1914	1909
All classes	−9.4	−9.5	−6.4	100.0	100.0	100.0	100.0	100.0	100.0
Proprietors and officials	−14.2	−15.2	.....	3.3	3.5	3.3	3.6	2.2	1.4
Proprietors and firm members	−27.8	−30.4	.....	0.9	1.2	0.9	1.2	1.5	0.9
Salaried officers of corporations	−7.6	−8.3	.....	1.0	0.9	0.9	1.0	0.5	0.4
Superintendents and managers	−7.0	−7.2	.....	1.4	1.4	1.5	1.4	0.2	0.1
Clerks and other subordinate salaried employees	10.8	9.8	14.9	4.7	3.8	4.0	3.2	21.9	17.9
Wage earners (average number)	−10.1	−10.0	−12.0	92.0	92.7	92.7	93.2	75.9	80.7
16 years of age and over	−9.7	−9.6	−11.1	91.7	92.0	92.5	92.6	74.2	78.1
Under 16 years of age	−63.9	−68.4	.....	0.3	0.7	0.2	0.6	1.7	2.6

[1] A minus sign (−) denotes decrease; percentages are omitted where base is less than 100.

Wage earners employed, by months.—The following table gives, for the industry, the total number of wage earners employed on the 15th of each month, or the nearest representative day, for 1914 and 1909, and the average number employed during each month in 1904, together with the percentage which the number reported for each month forms of the greatest number reported for any month.

Table 7

MONTH.	WAGE EARNERS IN THE INDUSTRY.					
	Number.[1]			Per cent of maximum.		
	1914	1909	1904	1914	1909	1904
January	58,250	62,063	56,121	99.2	93.1	97.2
February	58,455	62,373	57,097	99.5	93.5	98.9
March	58,743	61,726	57,718	100.0	92.6	100.0
April	58,001	60,095	57,480	98.7	90.1	99.6
May	57,009	60,075	57,266	97.0	90.1	99.2
June	56,530	60,559	57,338	96.2	90.8	99.3
July	55,216	61,039	57,550	94.0	91.5	99.7
August	54,294	61,166	57,647	92.4	91.7	99.9
September	53,715	62,049	57,534	91.4	93.0	99.7
October	53,491	63,383	57,255	91.1	95.0	99.2
November	53,793	65,174	56,355	91.6	97.7	97.6
December	53,735	66,694	57,507	91.5	100.0	99.6

[1] The figures for 1914 and 1909 represent the number employed on the 15th of each month, or the nearest representative day; those for 1904, the average number employed during the month.

For 1914 the earlier part of the year shows the greatest activity, the maximum number of wage earners appearing for March and the minimum for October, but in 1909 the maximum number was employed in December, and the minimum number in May; in 1904 the maximum number was reported for March and the minimum for January. The greatest difference between the maximum and minimum numbers employed in any one of the three census years was 6,619, in 1909.

Table 8 gives the total average number of wage earners employed during 1914, together with the total number employed on the 15th of each month, or the nearest representative day, for each state in which the average number of wage earners was 500 or more in 1914.

Pennsylvania gave employment to the greatest number of wage earners in June (12,460) and the smallest in December (11,229, or 90.1 per cent of the maximum). Massachusetts, the second state in importance in the industry, gave employment to the greatest number of wage earners in February (10,931) and the smallest in August (9,197, or 84.1 per cent of the maximum). The greatest stability of employment during 1914 is shown for Michigan and the greatest variation for Delaware.

Table 8

WAGE EARNERS: 1914.
[Month of maximum employment for each state is indicated by **boldface** figures and that of minimum by *italic* figures.]

STATE.	Average number employed during year.	Number employed on 15th day of the month or nearest representative day.												Percent minimum is of maximum.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
United States	55,936	58,250	58,455	**58,743**	58,001	57,009	56,530	55,216	54,294	53,715	*53,491*	53,793	53,735	91.1
California	1,361	1,384	1,392	1,429	1,376	1,422	1,390	1,322	1,316	1,367	*1,260*	1,312	1,362	88.2
Delaware	2,382	2,704	2,683	2,627	2,714	**2,717**	2,625	2,559	2,349	2,025	2,008	1,857	*1,716*	63.2
Illinois	2,678	2,833	**2,847**	2,814	2,680	2,762	2,689	2,684	2,599	*2,455*	2,470	2,601	2,702	86.2
Kentucky	600	*538*	541	541	594	593	613	619	624	635	627	631	**644**	83.5
Massachusetts	10,164	10,898	**10,931**	10,824	10,654	10,269	10,028	9,512	*9,197*	9,611	9,798	10,157	10,089	84.1
Michigan	2,773	2,789	**2,855**	2,832	2,768	2,747	2,772	2,819	2,748	2,726	*2,711*	2,751	2,758	95.0
New Jersey	5,108	5,466	5,357	5,454	5,275	5,316	5,115	4,963	4,856	4,998	4,978	4,851	*4,667*	85.4
New York	5,360	5,641	**5,714**	5,640	5,406	5,382	5,342	5,279	5,213	*5,056*	5,076	5,196	5,375	88.5
North Carolina	877	797	781	844	929	954	991	1,006	968	854	820	799	*781*	77.6
Ohio	1,605	1,703	1,739	1,722	1,675	1,635	1,612	1,528	1,560	1,566	1,559	1,500	*1,461*	84.0
Pennsylvania	11,988	12,195	12,071	12,215	12,419	12,107	**12,460**	12,139	12,000	12,059	11,564	11,398	*11,229*	90.1
Virginia	1,205	1,190	1,197	1,198	1,213	1,225	1,317	1,295	1,267	1,166	1,137	1,140	*1,115*	84.7
West Virginia	1,072	*823*	849	995	1,022	1,105	1,171	1,218	1,186	1,176	1,138	1,093	1,083	68.0
Wisconsin	5,869	6,145	6,318	**6,530**	6,197	5,873	5,628	5,550	5,564	*5,339*	5,608	5,731	5,945	81.8

Prevailing hours of labor.—In Table 9 the average number of wage earners reported for 1914 and 1909 for the leather industry and for each state for which an average of 500 or more wage earners were reported at the census of 1914, have been classified according to the number of hours per week prevailing in the establishments in which they were employed. The number employed in each establishment was classified as a total, even though a few employees worked a greater or less number of hours.

Table 9

STATE.	Census year.	AVERAGE NUMBER OF WAGE EARNERS.							
		Total.	In establishments where the prevailing hours of labor per week were—						
			48 and under.	Between 48 and 54.	54.	Between 54 and 60.	60.	Between 60 and 72.	72
United States...	1914	55,936	909	3,241	10,355	22,205	19,209	15	2
	1909	62,202	572	1,578	4,380	24,682	30,981	2	7
California.....	1914	1,361	2	.....	1,314	45	.....	.....	.....
	1909	1,398	2	67	1,193	116	20	.....	.....
Delaware.....	1914	2,382	.....	1,093	36	324	929	.....	.....
	1909	3,045	.....	83	620	250	2,092	.....	.....
Illinois.....	1914	2,678	.....	102	78	2,138	360	.....	.....
	1909	3,001	.....	313	57	1,197	1,434	.....	.....
Kentucky.....	1914	600	12	66	254	40	228	.....	.....
	1909	630	.....	163	199	54	214	.....	.....
Massachusetts.....	1914	10,164	244	283	4,071	5,043	523	.....	.....
	1909	10,252	155	108	120	8,292	1,577	.....	.....
Michigan.....	1914	2,773	.....	11	972	563	1,227	.....	.....
	1909	2,291	.....	.....	.....	519	1,772	.....	.....
New Jersey.....	1914	5,108	110	341	283	3,592	782	.....	.....
	1909	5,560	180	245	115	4,578	442	.....	.....
New York.....	1914	5,360	194	282	1,398	2,464	1,022	.....	.....
	1909	5,688	18	226	211	2,470	2,763	.....	.....
North Carolina.....	1914	877	.....	.....	.....	139	738	.....	.....
	1909	832	.....	1	1	8	820	2	.....
Ohio.....	1914	1,605	.....	.....	503	290	812	.....	.....
	1909	1,884	95	1	815	367	606	.....	.....
Pennsylvania.....	1914	11,988	174	649	356	5,259	5,050	.....	.....
	1909	14,098	65	139	708	5,187	7,904	.....	5
Virginia.....	1914	1,205	20	.....	.....	94	1,089	.....	2
	1909	1,590	1	49	1	31	1,506	.....	2
West Virginia.....	1914	1,072	.....	80	139	.....	853	.....	.....
	1909	1,571	.....	1	68	128	1,374	.....	.....
Wisconsin.....	1914	5,869	20	.....	67	1,319	4,448	15	.....
	1909	7,548	.....	.....	13	717	6,818	.....	.....

The figures in this table for the United States and for the states emphasize the tendency toward a shortening of the working day of wage earners. In 1909, 55,672, or 89.5 per cent, of the total average number of wage earners in the industry, were employed in establishments where the prevailing hours of labor were over 54 per week, whereas but 41,431, or 74.1 per cent, were so employed in 1914. There was a marked increase during the five-year period in the proportion of wage earners in establishments where the prevailing hours were 54 per week, and a corresponding decrease in the proportion of those in establishments where the hours were 60 per week.

Of the more important states presented, Massachusetts shows the most pronounced decrease in hours of labor. In 1909, 3.7 per cent of the wage earners were employed in establishments where the prevailing hours of labor were 54 or less per week, but in 1914 the proportion thus employed had increased to 45.2 per cent. In New York the percentage of employes in establishments of this class increased from 8 to 35 per cent; in Pennsylvania, from 6.5 per cent to 14 per cent; and in Delaware, from 23.1 per cent to 47.4 per cent.

Character of ownership.—Table 10 presents statistics concerning the character of ownership, or legal organization, of establishments in the industry for 1914 and 1909; and for 1914 for each state for which an average of more than 500 wage earners was reported.

Relatively, corporations increased in importance and in 1914 formed 55.9 per cent of the total number of establishments as compared with 49.4 per cent in 1909. Corporations thus controlled more than one-half of the tanneries of the country, and in 1914 reported 77.5 per cent of the average number of wage earners and 78.2 per cent of the total value of products. In 1909 the corresponding proportions were slightly less.

Table 10

STATE.	NUMBER OF ESTABLISHMENTS OWNED BY—			AVERAGE NUMBER OF WAGE EARNERS.						VALUE OF PRODUCTS.						
				Total.	In establishments owned by—			Per cent of total.			Total.	Of establishments owned by—			Per cent of total.		
	Individuals.	Corporations.	All others.		Individuals.	Corporations.	All others.	Individuals.	Corporations.	All others.		Individuals.	Corporations.	All others.	Individuals.	Corporations.	All others.
United States:																	
1914	162	414	165	55,936	3,821	43,349	8,766	6.8	77.5	15.7	$367,201,705	$16,369,359	$287,158,754	$63,673,592	4.5	78.2	17.3
1909	259	454	206	62,202	4,326	46,394	11,482	7.0	74.6	18.5	327,874,187	16,745,360	250,296,374	60,832,453	5.1	76.3	18.6
California	2	21	6	1,361	.....	1,192	[1] 169	.....	87.6	[1] 12.4	10,020,739	.....	8,610,506	[1] 1,410,233	.....	85.9	[1] 14.1
Delaware	3	13	4	2,382	201	1,570	611	8.4	65.9	25.7	9,183,205	502,798	5,835,910	2,844,497	5.5	63.5	31.0
Illinois	4	15	9	2,678	283	2,064	331	10.6	77.1	12.3	17,509,256	2,285,422	13,142,836	2,080,998	13.0	75.1	11.9
Kentucky	2	9	.....	600	.....	[1] 600	.....	.....	[1] 100.0	.....	4,198,575	.....	[1] 4,198,575	.....	.....	[1] 100.0	.....
Massachusetts	39	61	26	10,164	1,228	7,742	1,194	12.1	76.2	11.7	45,265,434	2,428,279	38,741,662	4,095,493	5.4	85.6	9.0
Michigan	.....	21	2	2,773	.....	[2] 2,773	.....	.....	[2] 100.0	.....	25,503,573	.....	[2] 25,503,573	.....	.....	[2] 100.0	.....
New Jersey	23	48	13	5,108	470	3,784	854	9.2	74.1	16.7	31,651,831	2,489,572	23,120,483	6,041,776	7.9	73.0	19.1
New York	30	32	36	5,360	816	2,604	1,940	15.2	48.6	36.2	36,018,342	3,234,642	17,003,237	15,780,463	9.0	47.2	43.8
North Carolina	5	6	6	877	.....	613	[1] 264	.....	69.9	[1] 30.1	7,182,400	.....	4,241,239	[1] 2,941,161	.....	59.1	[1] 40.9
Ohio	4	19	5	1,605	25	1,504	76	1.6	93.7	4.7	11,627,916	189,889	10,840,933	597,094	1.6	93.2	5.1
Pennsylvania	14	77	29	11,988	191	9,706	2,091	1.6	81.0	17.4	85,252,532	802,688	65,781,277	18,668,567	0.9	77.2	21.9
Virginia	4	13	4	1,205	4	1,060	141	0.3	88.0	11.7	9,834,439	5,378	8,472,385	1,356,676	0.1	86.1	13.8
West Virginia	3	12	3	1,072	.....	985	[1] 87	.....	91.9	[1] 8.1	11,014,540	.....	10,093,088	[1] 921,452	.....	91.6	[1] 8.4
Wisconsin	2	16	9	5,869	.....	5,087	[1] 782	.....	86.7	[1] 13.3	42,204,202	.....	37,214,155	[1] 4,990,047	.....	88.2	[1] 11.8

[1] Includes the group "individuals."

[2] Includes the group "all others."

In every state shown in the table the average number of wage earners and the value of products reported by establishments owned by corporations were in excess of the number and amount reported by individuals and "all others," which includes general and limited partnerships, etc.

Size of establishments.—The tendency of the leather industry to become concentrated in large establishments is indicated by the statistics given in Table 11.

In 1914, 103 establishments, or 13.9 per cent of the total, each reported products to the value of $1,000,000 or over, as compared with 78, or 8.5 per cent of the total, for 1909. These establishments in 1914 reported 54.4 per cent of the total average number of wage earners, 59.7 per cent of the total value of products, and 56.4 per cent of the total value added by manufacture, as compared with 46.9 per cent, 48.2 per cent, and 47 per cent, respectively, in 1909.

Table 11

VALUE OF PRODUCT.	Census year.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
All classes	1914	741	55,936	$367,201,705	$82,956,285
	1909	919	62,202	327,874,187	79,595,254
Less than $5,000	1914	69	98	180,367	89,269
	1909	121	132	276,306	135,748
$5,000 to $20,000	1914	63	355	640,153	330,471
	1909	117	573	1,242,071	560,276
$20,000 to $100,000	1914	161	2,997	8,238,478	3,288,078
	1909	193	3,652	9,875,058	3,806,722
$100,000 to $1,000,000	1914	345	22,031	138,883,035	32,427,786
	1909	410	28,682	158,569,294	37,676,527
$1,000,000 and over	1914	103	30,455	219,259,672	46,820,681
	1909	78	29,163	157,911,458	37,415,981
Per cent distribution:					
Less than $5,000	1914	9.3	0.2	(1)	0.1
	1909	13.2	0.2	0.1	0.2
$5,000 to $20,000	1914	8.5	0.6	0.2	0.4
	1909	12.7	0.9	0.4	0.7
$20,000 to $100,000	1914	21.7	5.4	2.2	4.0
	1909	21.0	5.9	3.0	4.8
$100,000 to $1,000,000	1914	46.6	39.4	37.8	39.1
	1909	44.6	46.1	48.4	47.3
$1,000,000 and over	1914	13.9	54.4	59.7	56.4
	1909	8.5	46.9	48.2	47.0

[1] Less than one-tenth of 1 per cent.

Table 12 shows the size of establishments in 1914 and 1909 as measured by the number of wage earners employed, for the industry as a whole, and for the 14 leading states.

Table 12

STATE.	Census year.	TOTAL.		ESTABLISHMENTS EMPLOYING—															
				No wage earners.	1 to 5 wage earners.		6 to 20 wage earners.		21 to 50 wage earners.		51 to 100 wage earners.		101 to 250 wage earners.		251 to 500 wage earners.		501 to 1,000 wage earners.		Over 1,000 wage earners.	
		Establishments.	Wage earners (average number)	Establishments.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.
United States	1914	741	55,936	18	113	289	152	1,982	141	4,677	175	12,229	103	15,346	24	8,655	12	7,708	3	5,050
	1909	919	62,202	30	213	480	166	2,184	200	6,809	150	10,956	116	17,869	26	9,021	14	9,617	4	5,266
California	1914	29	1,361	.....	3	7	9	127	6	190	8	525	3	512	.....	.....	.....	.....	.....	.....
	1909	40	1,398	.....	10	27	11	163	10	328	6	424	3	456	.....	.....	.....	.....	.....	.....
Delaware	1914	20	2,382	.....	2	9	4	40	2	61	8	608	2	361	1	463	1	840	.....	.....
	1909	16	3,045	.....	.....	.....	2	39	3	110	3	255	6	903	.....	.....	1	593	1	1,140
Illinois	1914	28	2,678	1	1	2	6	66	4	89	8	648	6	970	1	370	1	533	.....	.....
	1909	29	3,001	.....	3	5	7	93	4	137	5	367	7	1,126	2	620	1	653	.....	.....
Kentucky	1914	11	600	.....	.....	.....	3	39	3	105	3	187	2	269	.....	.....	.....	.....	.....	.....
	1909	18	630	.....	2	3	7	97	5	163	3	243	1	124	.....	.....	.....	.....	.....	.....
Massachusetts	1914	126	10,164	.....	15	52	35	466	31	1,021	25	1,737	13	2,089	2	525	4	2,623	1	1,651
	1909	132	10,252	.....	20	60	28	350	40	1,356	23	1,652	15	2,385	.....	.....	5	3,128	1	1,321
Michigan	1914	23	2,773	.....	.....	.....	3	37	3	80	7	492	8	1,442	2	722	.....	.....	.....	.....
	1909	24	2,291	1	.....	.....	3	53	7	288	4	339	8	1,311	1	300	.....	.....	.....	.....
New Jersey	1914	84	5,108	1	13	31	23	292	18	632	14	1,011	12	1,925	2	658	1	559	.....	.....
	1909	86	5,560	1	8	24	24	335	27	916	6	415	15	2,375	5	1,495	.....	.....	.....	.....
New York	1914	98	5,360	6	19	52	19	237	24	799	15	1,002	11	1,479	3	955	1	836	.....	.....
	1909	109	5,688	4	21	51	23	306	28	810	18	1,338	12	1,953	3	1,230	.....	.....	.....	.....
North Carolina	1914	17	877	1	7	12	1	12	.....	.....	5	361	2	240	1	252	.....	.....	.....	.....
	1909	39	832	3	25	38	3	41	1	42	5	381	2	330	.....	.....	.....	.....	.....	.....
Ohio	1914	28	1,605	.....	8	25	4	63	9	292	2	168	4	567	1	490	.....	.....	.....	.....
	1909	36	1,884	1	11	26	5	53	12	366	3	219	3	452	.....	.....	1	768	.....	.....
Pennsylvania	1914	120	11,988	3	7	19	18	255	14	515	44	2,901	23	3,128	8	3,050	2	1,022	1	1,098
	1909	163	14,003	7	25	57	22	281	24	849	50	3,565	22	3,119	10	3,574	3	2,563	.....	.....
Virginia	1914	21	1,205	1	5	5	3	53	.....	.....	7	511	5	636	.....	.....	.....	.....	.....	.....
	1909	39	1,590	4	16	23	.....	.....	8	309	4	272	7	986	.....	.....	.....	.....	.....	.....
West Virginia	1914	18	1,072	1	4	7	.....	.....	4	175	5	391	4	499	.....	.....	.....	.....	.....	.....
	1909	20	1,571	1	4	4	.....	.....	5	214	4	288	5	759	1	306	.....	.....	.....	.....
Wisconsin	1914	27	5,869	.....	2	6	5	78	5	171	6	415	3	433	3	1,170	2	1,295	1	2,301
	1909	32	7,548	.....	5	16	4	50	5	157	5	393	4	724	4	1,496	3	1,907	2	2,805

Of the total number of establishments reporting for the industry, 18 in 1914 and 30 in 1909, employed no wage earners. These establishments were comparatively small, and the work was done by the proprietors or firm members. Some of them employed a few wage earners for a short time, but the number was so small and the period of employment so short that in computing the average number, as described in the "Explanation of terms," no wage earners could be shown.

The number of establishments employing not more than 20 wage earners formed 35.8 per cent of the total number in 1914 but employed only 4.1 per cent of the wage earners. In 1909 this class formed 41.2 per cent of the establishments and gave employment to practically the same proportion of wage earners as in 1914. The largest number of wage earners was reported by establishments employing from 101 to 250 wage earners. This class represented 13.9 per cent of the establishments and gave employment to 27.4 per cent of the wage earners in 1914, the corresponding percentages for 1909 being 12.6 and 28.7, respectively.

The proportion of establishments employing more than 100 wage earners increased from 17.4 per cent of the total number in 1909 to 19.2 per cent in 1914, while the proportion of wage earners in these establishments decreased from 67.1 to 65.7 per cent.

In all of the states shown in the table, except California, Kentucky, and West Virginia, the majority of wage earners were employed in establishments reporting more than 100. Seven states reported establishments employing more than 500 wage earners in 1914.

Engines and power.—Table 13 shows, for 1914, 1909, and 1904, for the leather industry, the number and horsepower of engines or motors employed in generating power (including electric motors operated by purchased current). It also shows separately the number and horsepower of electric motors operated by current generated in the establishments reporting.

Table 13

POWER.	NUMBER OF ENGINES OR MOTORS.			HORSEPOWER. Amount.			Per cent distribution.		
	1914	1909	1904	1914	1909	1904	1914	1909	1904
Primary power, total	2,908	2,065	1,807	172,712	148,140	117,450	100.0	100.0	100.0
Owned	1,332	1,590	1,665	150,164	140,238	114,591	86.9	94.7	97.6
Steam engines and turbines [1]	1,210	1,440	1,524	140,299	131,451	107,550	81.2	88.7	91.6
Internal-combustion engines	91	104	77	7,997	7,231	5,086	4.6	4.9	4.3
Water wheels, turbines, and motors	31	46	64	1,868	1,556	1,955	1.1	1.1	1.7
Rented	1,576	475	142	22,548	7,902	2,859	13.1	5.3	2.4
Electric	1,576	475	142	21,570	6,487	2,014	12.5	4.4	1.7
Other	.....	.....	.....	978	1,415	845	0.6	0.9	0.7
Electric	4,838	2,340	731	73,424	35,919	14,539	100.0	100.0	100.0
Rented	1,576	475	142	21,570	6,487	2,014	29.4	18.1	13.9
Generated by establishments reporting	3,262	1,865	589	51,854	29,432	12,525	70.6	81.9	86.1

[1] Figures for horsepower include for 1909 and 1904 the amounts reported under the head of "other" owned power.

The table shows an increase in primary power, from 1909 to 1914, of 24,572 horsepower, or 16.6 per cent, and of 55,262, or 47.1 per cent, during the decade ending with 1914. Steam, which formed 81.2 per cent of the total horsepower reported in 1914, was the predominating power used in the industry, though its relative importance decreased during the decade. Rented power, which was almost wholly electric, has increased rapidly since 1904. In 1914 it formed 13.1 per cent of the total primary power, as compared with 5.3 per cent in 1909 and 2.4 per cent in 1904. There has also been a considerable increase at each census in the use of electric motors run by current generated within the same establishment. Internal-combustion engines, water wheels, etc., were not extensively used.

Fuel.—Closely related to the kind of power employed in the industry is that of the fuel consumed in generating this power.

Table 14 shows, for 1914, the quantity of each kind of fuel used, for which data were obtained, for the industry as a whole and for 14 separate states.

Pennsylvania reported 333,819 tons of bituminous coal, or 29.7 per cent of the total for the industry, and 76.8 per cent of the total amount of gas. California reported 65,088 barrels, or practically all of the oil used. Spent tan bark was utilized for fuel in many tanneries, otherwise the amount of coal, gas, oil, and coke consumed would have been much greater.

Table 14

STATE.	COAL. Anthracite (tons, 2,240 lbs.).	COAL. Bituminous (tons, 2,000 lbs.).	Coke (tons, 2,000 lbs.).	Oil, including gasoline (barrels).	Gas (1,000 cubic feet).
United States	89,140	1,124,444	2,489	67,252	527,657
California	.....	1,209	.....	65,088	.....
Delaware	291	25,373	.....	10	933
Illinois	.....	64,146	.....	10	70
Kentucky	.....	27,009	.....	.....	86,920
Massachusetts	24,176	106,311	682	154	355
Michigan	63	84,275	.....	41	.....
New Jersey	25,966	63,329	71	1,394	558
New York	14,331	96,782	369	3	18,032
North Carolina	.....	17,504	510	1	.....
Ohio	.....	45,001	271	10	9,091
Pennsylvania	23,153	333,819	111	284	405,411
Virginia	.....	25,419	.....	211	133
West Virginia	.....	40,016	.....	1	5,174
Wisconsin	42	129,946	7	7	825
All other states	1,118	64,305	468	38	155

SPECIAL STATISTICS OF MATERIALS AND PRODUCTS.

Hides and skins treated.—Table 15 shows, for the United States as a whole, the number of hides and skins treated during the census years 1914, 1909, and 1904.

Table 15

MATERIAL AND CENSUS YEAR.	HIDES AND SKINS TREATED.				
	Aggregate.	By establishments assigned to the industry "leather, tanned, curried, and finished."			By establishments assigned to other industries.
		Total.	Purchased.	Treated under contract for concerns not in the industry.	
Hides and skins:					
1914	138,547,692	137,839,363	113,841,035	23,998,328	708,329
1909	146,328,586	145,881,151	116,040,986	29,840,165	447,435
1904	131,011,956	130,960,218	108,206,677	22,753,541	51,738
Hides—					
1914	20,867,820	20,434,344	18,598,637	1,835,707	433,476
1909	20,516,332	20,263,693	18,360,415	1,903,278	252,639
1904	18,555,497	18,543,044	17,581,613	961,431	12,453
Skins—					
1914	117,679,872	117,405,019	95,242,398	22,162,621	274,853
1909	125,812,254	125,617,458	97,680,571	27,936,887	194,796
1904	112,456,459	112,417,174	90,625,064	21,792,110	39,285

While there was an increase of 1.7 per cent in the number of hides treated during 1914, as compared with 1909, there was a considerable decrease in the number of skins, resulting in a net decrease of 7,780,894, or 5.3 per cent. The greater proportion of hides and skins treated were those purchased in a dry or green state by the tanners, converted into leather of various kinds, and sold as such. A large number, however, were treated under contract by tanners for concerns not in the industry. A comparatively small number were treated by establishments assigned to other industries, which used the leather produced in the manufacture of belting, saddlery and harness, footwear, and other finished products. At each of the three censuses cattle hides represented about one-seventh, and the skins of other animals—chiefly goats, sheep, and calves—about six-sevenths of the entire number treated. Imported as well as domestic hides and skins are included in the statistics, but separate figures are not shown for each.

The latest statistics concerning the domestic production of hides and skins were collected at the census of 1909, and are summarized in Table 16.

Table 16

KIND.	NUMBER OF HIDES AND SKINS TAKEN OFF IN UNITED STATES: 1909.			Number of hides and skins treated: 1909.	Ratio of number taken off in United States to number treated (per cent).
	Total.	By slaughterhouses, rendering establishments, etc.	On farms and ranges.		
Total	33,665,169	30,476,414	3,188,755	146,328,586	23.0
Cattle	13,764,686	12,356,046	1,408,640	20,516,332	67.1
Calves	5,196,043	4,064,443	1,131,600		
Sheep and lambs	14,274,413	13,744,887	529,526		
Goats and kids	287,497	168,508	118,989	125,812,254	[1] 15.8
Horses and colts	114,834	114,834	.....		
All other animals	27,696	27,696	.....		

[1] The total number taken off, from which this ratio is computed, was 19,908,402.

Materials used.—Table 17 shows, for 1914, 1909, and 1904, for leather, tanned, curried, and finished, the total number of establishments reported, the number and cost of hides and skins treated, the cost of purchased rough leather, and of all other materials used.

Table 17

	1914	1909	1904
Number of establishments:			
Classified as "leather, tanned, curried, and finished"	741	919	1,049
Assigned to other industries, but producing leather for use in further manufacture in the same establishment	27	34	(1)
Hides and skins, total number	138,547,692	146,328,586	[2] 131,011,956
Hides, total number	20,867,820	20,516,332	18,555,497
Cattle—			
Number	17,776,558	18,613,054	[2] 17,504,066
Cost	$151,609,541	$121,266,814	$89,126,593
Horse—			
Number	1,250,245	(1)	(1)
Cost	$4,036,633	(1)	(1)
Treated for others, number	1,841,017	1,903,278	961,431
Skins, total number	117,679,872	125,812,254	112,456,459
Calf and kip—			
Number	16,067,793	19,735,549	12,481,225
Cost	$33,117,713	$31,798,263	$15,725,613
Goat, etc.—			
Number	37,755,867	48,193,848	47,665,603
Cost	$23,916,965	$27,928,019	$26,756,012
Sheepskins—			
Number	40,364,926	26,148,336	27,492,359
Cost	$19,339,258	$12,268,487	$10,547,883
Other skins—			
Number	1,328,540	3,797,634	[3] 3,025,166
Cost	[3] $4,377,496	$3,802,491	$3,311,821
Treated for others, number	22,162,746	27,936,887	21,792,110
Purchased rough leather used, cost	$8,651,051	$12,329,841	$10,852,655
All other materials, cost	$44,759,117	$44,063,115	$34,858,493

[1] Figures not available.
[2] Includes 12,453 hides and 39,285 skins treated by establishments assigned to other industries, the cost of which was not reported.
[3] Includes $2,991,795, the value of skins for which the number was not reported.

The figures in this table cover the entire production and thus do not agree with the totals in other tables that are confined to establishments engaged principally in the tanning, currying, and finishing of leather. They include the statistics of establishments that manufactured leather for the trade, and of establishments assigned to other industries that made leather and used it in further manufacture. The total cost of materials used can not be given, as the cost of hides and skins treated under contract for those who were not tanners, curriers, or finishers was not reported. The value of these hides and skins for 1914, however, estimated by the establishment doing the work, is given in Table 22. The cost of the materials reported by establishments that made leather for the trade was $284,245,420 in 1914, $248,278,933 in 1909, and $191,179,073 in 1904. The establishments which made leather and used it in further manufacture reported $5,562,354 as the cost of materials in 1914 and $5,178,097 in 1909. No figures are available for 1904.

The number of cattle hides tanned in 1914 was 4.5 per cent less, while their value was 25 per cent more than in 1909. The number of calfskins and kipskins treated decreased by 3,667,756, or 18.6 per cent; but during the same period the cost of these skins

increased by $1,319,450, or 4.1 per cent. The tanning of goatskins decreased largely, 10,437,981 fewer being treated in 1914 than in 1909, a decrease of 21.7 per cent, while the cost decreased 14.4 per cent. On the other hand, sheepskins and lambskins show an increase over 1909 of 14,216,590, or 54.4 per cent, in number, and of $7,070,771, or 57.6 per cent, in cost.

In addition to the foregoing, there were tanned in 1914, 1,095,360 kangaroo skins, 233,180 colt skins, and a number of hog, pig, deer, buck, seal, dog, alligator, shark, elk, moose, and other skins, the total cost of which was $4,377,496.

Of the principal skins used, sheep and lamb are the only kind that show an increase in quantity tanned. The decrease in the tanning of calfskins and goatskins was largely due to a falling off in importations. As practically all goatskins and nearly one-half of the calfskins were imported, the decrease of these two kinds of skins increased the use of sheepskins, for sheepskins were more easily procurable, cost less, and were used in many instances as a substitute for calf and goat skins.

The $44,759,117 shown for "all other materials" includes tanning materials containing tannic acid (such as bark, extracts, etc.); acids, alkalies (including "hypo" soaps, borax, and carbonates), chromates, and other chemicals used in chrome tanning; oil, stearin, degras, tallow, dyes, dyestuffs, and other materials used in currying and finishing leather.

An effort was made in 1914 to segregate to a certain extent the cost of tanning and finishing materials, especially chemicals, but so many manufacturers failed to furnish the required data that the results, except as to the total cost, are unreliable. Of the total amount reported for "all other materials" in 1914, approximately 50 per cent was expended for vegetable tanning materials, 10 per cent for mineral tanning materials, and 40 per cent for currying and finishing materials.

Table 18 presents, by states, for the leather, tanning, currying, and finishing industry, the cattle hides and principal skins treated in 1914, 1909, and 1904, with the cost for 1914. Hides and skins treated by establishments which use them in further manufacture and those treated under contract for establishments not in the leather industry are not included.

Table 18

MATERIAL AND STATE.	NUMBER. 1914	1909	1904	Cost, 1914.
Cattle hides, total	17,457,591	18,360,415	17,581,613	$148,751,002
California	541,049	611,421	634,417	5,067,693
Illinois	892,256	663,928	707,441	5,786,640
Indiana	246,008	180,485	119,754	1,698,877
Kentucky	230,694	285,938	325,826	2,402,866
Maryland	207,128	184,648	163,734	1,946,667
Massachusetts	764,636	1,251,036	1,126,634	5,205,907
Michigan	1,708,952	1,430,885	1,126,456	15,807,830
Missouri	176,382	100,318	95,875	1,602,685
New Hampshire	111,831	(1)	73,959	867,823

[1] Included in "all other states," to avoid disclosure of individual operations.

Table 18—Continued.

MATERIAL AND STATE.	NUMBER. 1914	1909	1904	Cost, 1914.
Cattle hides—Continued.				
New Jersey	699,054	771,193	562,709	$7,809,311
New York	2,050,403	1,639,467	1,569,750	15,042,357
North Carolina	435,527	364,766	280,197	4,483,131
Ohio	460,521	514,226	403,655	5,530,059
Oregon	14,760	21,913	52,469	126,936
Pennsylvania	4,657,229	5,449,826	5,447,947	38,573,094
Virginia	660,526	626,712	588,397	6,827,747
West Virginia	816,240	1,038,368	711,378	7,428,139
Wisconsin	2,185,178	2,471,848	2,457,195	17,658,109
All other states	599,217	753,437	1,133,820	4,885,131
Calf and kip skins, total	16,067,793	19,732,638	12,481,221	33,117,713
California	71,144	113,449	107,834	224,561
Illinois	1,885,276	3,008,616	2,291,546	4,399,144
Massachusetts	5,630,003	5,439,226	4,009,400	11,039,546
New Jersey	866,831	373,206	109,436	1,405,629
New York	2,060,623	2,107,584	1,135,591	3,476,444
Wisconsin	4,650,863	6,986,673	3,633,271	10,620,920
All other states	903,053	1,703,884	1,194,143	1,951,469
Goat and kid skins, total	37,755,867	48,077,664	47,665,603	23,916,965
Delaware	6,778,452	11,121,120	11,013,895	5,291,850
Massachusetts	5,137,413	6,299,952	7,493,129	3,343,748
New Jersey	4,910,279	6,373,704	3,411,843	2,792,897
Pennsylvania	20,019,153	23,117,712	24,220,530	11,906,728
All other states	910,570	1,165,176	1,526,206	581,742
Sheep and lamb skins, total	40,090,198	26,082,060	27,492,359	19,247,682
California	1,577,740	1,328,712	1,510,067	966,183
Delaware	1,049,389	925,512	463,404	685,599
Illinois	1,069,914	1,562,628	2,065,943	774,399
Massachusetts	16,912,063	8,730,684	8,429,140	7,297,749
New Jersey	5,353,064	2,645,040	1,715,076	2,836,718
New York	8,309,020	6,491,352	7,124,420	3,819,324
Pennsylvania	3,756,551	2,445,024	2,402,204	1,846,752
All other states	2,062,457	1,953,108	3,782,105	1,000,958

Products.—Table 19 gives, for 1914, 1909, and 1904, the quantity and value of products for the entire industry, including contract work.

Table 19

	1914	1909	1904
Total value	$413,830,706	$368,097,525	$273,285,455
Establishments classified as "leather, tanned, curried, and finished," value of products	367,201,705	327,874,187	252,620,988
Establishments assigned to other industries, but producing leather for use in further manufacture in the same establishments, value of leather products	7,311,231	6,231,374	154,932
Hides and skins tanned, curried, or finished for others not tanners, curriers, or finishers, estimated value	39,317,770	33,991,964	20,509,567
Leather, value	$388,274,642	$346,563,790	$257,430,302
Sole—			
Sides	18,097,665	17,857,708	17,937,938
Value	$116,347,196	$88,481,147	$69,205,600
Hemlock—			
Sides	5,626,696	7,970,200	9,929,964
Value	$31,007,435	$32,283,692	$32,676,015
Oak—			
Sides	5,275,936	3,850,595	3,607,963
Value	$38,432,618	$26,178,886	$19,157,805
Union—			
Sides	6,588,799	5,756,227	4,400,011
Value	$42,457,755	$28,375,815	$17,371,780
Chrome—			
Sides	606,234	280,686	(1)
Value	$4,449,388	$1,642,754	(1)
Belting—			
Butts	973,591	817,838	429,782
Value	$12,876,554	$10,647,078	$4,754,456
Harness—			
Sides	2,943,720	3,968,703	4,369,561
Value	$21,745,808	$24,930,284	$20,274,188
Cattle side upper (other than patent)—			
Sides	8,257,645	8,053,357	6,850,469
Value	$33,003,690	$24,661,614	$15,487,252
Upholstery (automobile, furniture, and carriage), value	$14,328,358	$14,266,742	$7,780,804
Sold in rough, value	$4,511,251	$6,351,439	$10,190,949
Made for others on contract, estimated value	$39,317,770	$33,991,964	$20,509,567
All other, value	$146,144,015	$143,233,522	$109,237,486
All other products, value	$13,269,324	$8,767,566	$7,665,223
Amount received for tanning, currying, or finishing for others, value	$12,286,740	$12,766,169	$8,189,960

[1] Not reported separately.

The total value of products increased by $45,733,181, or 12.4 per cent, in 1914, as compared with 1909, and by $140,545,221, or 51.4 per cent, as compared with 1904. The value of products reported by establishments classified as "leather, tanned, curried, and finished" in 1914 exceeded that in 1909 by 12 per cent and formed 88.7 per cent of the total value of products in 1914 and 89.1 per cent in 1909. The estimated value of hides and skins treated for others who were not tanners, curriers, or finishers formed 9.5 per cent of the total in 1914 and 9.2 per cent in 1909. The value of leather reported by establishments classified according to the finished product formed 1.8 per cent and 1.7 per cent, respectively.

The total value of leather, including the estimated value of that made on contract for others not tanners, curriers, or finishers increased by $41,710,852, or 12 per cent, over the amount reported in 1909.

Sole leather shows an increase in value amounting to $27,866,049, or 31.5 per cent. The increase in total quantity, however, amounted to only 239,957 sides, or 1.3 per cent. Oak, union, and chrome sole leathers show substantial increases in both quantities and values. The number of hides made into sole leather by the use of chemicals (the chrome process) is still comparatively small, but the production in 1914 was more than double that in 1909. During the same period the production of hemlock sole leather decreased by 2,343,504 sides, or 29.4 per cent, and the value by $1,276,257, or 4 per cent. The number of belting butts tanned increased by 155,753, or 19 per cent, and by $2,229,476, or 20.9 per cent, in value. The manufacture of harness leather decreased by 1,024,983 sides, or 25.8 per cent, and the quantity of cattle side upper leather (other than patent) increased by 204,288 sides, or 2.5 per cent. The production of rough leather, sold as such, decreased by $1,840,188, or 29 per cent. The manufacture of belting offal was first reported separately at the census of 1914 and was valued at $956,912.

The scope of the 1914 census, so far as the special statistics for the leather industry were concerned, was so large that in the case of many of the items the figures obtained are not comparable with those for 1909. These items are not shown separately in the comparative statement, but are included in the total for "all other leather" for both 1914 and 1909. Separate totals are given in Table 23 for these items and numerous others for which separate data were reported at the census of 1914. "All other products" includes wool, to the value of $2,496,741 in 1914 and $2,487,790 in 1909, and also the value of hair, glue stock, fertilizer materials, etc.

Table 20 presents, by states, for the leather tanning, currying, and finishing industry, the principal kinds of leather made in 1914, 1909, and 1904, with the value for 1914. Only the more important states with regard to a special class of leather are given. Certain products could not be shown separately for some states without disclosing individual operations. Leather made by establishments which use it in further manufacture and that made on contract for concerns not in the leather industry are not included.

Table 20

PRODUCT AND STATE.	QUANTITY. 1914	1909	1904	Value, 1914.
	Sides.	*Sides.*	*Sides.*	
Sole leather, total	18,075,482	17,805,252	17,937,938	$116,188,059
California	402,780	472,236	575,393	3,248,183
Kentucky	300,846	404,382	393,808	2,698,439
Maryland	245,896	(1)	126,034	1,767,751
Michigan	1,871,940	1,603,512	1,353,293	12,641,509
New Jersey	339,811	120,600	.....	3,083,632
New York	1,358,240	1,138,461	1,195,986	7,184,038
North Carolina	447,568	371,666	74,883	3,388,408
Pennsylvania	8,475,596	9,207,352	9,476,139	50,485,259
Virginia	936,781	673,757	563,907	7,535,199
West Virginia	1,426,584	1,933,037	1,262,538	9,035,266
Wisconsin	1,122,044	839,371	1,091,531	7,646,946
All other states	1,147,396	1,040,878	1,824,426	7,473,429
Hemlock, total	5,626,606	7,963,728	9,929,964	31,007,435
Michigan	1,520,296	1,372,068	1,353,293	10,234,758
Pennsylvania	3,524,274	4,752,308	5,672,327	17,454,913
Wisconsin	328,149	558,474	1,038,181	2,111,270
All other states	253,977	1,279,978	1,866,163	1,206,494
Oak, total	5,267,936	3,805,861	3,607,963	38,384,062
California	391,502	429,716	575,393	3,176,303
Kentucky	300,846	404,382	393,808	2,698,439
North Carolina	447,568	371,401	74,883	3,388,408
Pennsylvania	899,753	730,222	331,766	6,524,947
Virginia	845,073	673,757	563,907	6,832,554
West Virginia	276,524	153,495	424,824	2,167,661
All other states	2,105,670	1,042,888	1,243,382	13,595,750
Union, total	6,588,799	5,756,227	4,400,011	42,457,755
New York	402,120	512,365	465,207	2,462,586
Pennsylvania	3,945,085	3,676,802	3,472,046	25,701,757
West Virginia	1,150,060	1,066,360	349,348	6,867,605
Wisconsin	694,474	(1)	53,350	4,849,109
All other states	397,060	501,700	60,060	2,576,698
Chrome, total	592,051	279,436	(2)	4,338,807
Wisconsin	99,421	(1)	(2)	686,567
All other states	492,630	279,436	(2)	3,652,240
Cattle side upper leather (other than patent), total	8,245,964	7,940,769	6,850,469	32,939,139
California	290,866	24,268	22,780	1,405,381
Illinois	1,196,277	932,482	364,950	5,216,713
Massachusetts	989,809	1,500,748	1,881,547	2,810,363
New York	2,255,504	1,509,259	1,622,303	9,181,915
Wisconsin	2,292,882	2,741,267	1,923,636	9,431,174
All other states	1,220,626	1,229,755	1,035,253	4,893,593
	Butts.	*Butts.*	*Butts.*	
Belting leather, total	647,224	521,035	420,782	8,369,584
North Carolina	203,812	123,478	36,500	2,896,549
Virginia	167,046	176,356	51,935	1,363,350
All other states	276,366	221,201	341,347	4,109,685
	Sides.	*Sides.*	*Sides.*	
Harness leather, total	2,777,312	3,946,235	4,360,561	20,969,169
California	209,728	383,264	330,041	2,128,674
Indiana	120,830	238,385	231,192	992,634
Michigan	403,346	214,879	195,695	2,580,218
Missouri	121,035	153,870	124,219	1,022,257
New York	252,133	237,108	184,182	2,041,408
Ohio	335,127	363,981	300,434	2,802,957
Pennsylvania	180,204	257,044	518,178	1,603,774
Wisconsin	631,787	1,331,925	1,504,944	4,523,512
All other states	454,023	765,689	992,676	3,273,735

PRODUCT AND STATE.	VALUE. 1914	1909	1904
Upholstery leather, total	$14,328,358	$14,266,742	$7,780,804
New Jersey	8,344,416	8,836,740	5,143,295
Ohio	3,404,590	3,734,827	1,708,850
All other states	2,579,352	1,695,175	838,659
Bookbinders leather, total	1,362,673	2,450,155	2,283,761
New Jersey	740,661	1,502,657	1,235,594
All other states	622,012	947,498	1,048,167
Rough leather sold, total	4,494,985	6,335,599	10,180,949
California	62,471	210,051	362,799
Indiana	84,799	(1)	12,000
Massachusetts	357,829	442,430	179,152
New Jersey	1,423,008	1,234,065	873,093
New York	627,051	599,947	836,408
Ohio	143,458	(1)	181,347
Pennsylvania	750,656	1,182,142	2,298,589
Wisconsin	75,808	226,950	687,114
All other states	968,405	2,440,005	4,760,447

[1] Included in "all other states," to avoid disclosure of individual operations.
[2] Not reported separately.

Table 20—Continued.

PRODUCT AND STATE.	VALUE. 1914	1909	1904
All other leather, including offal leather, total.	$143,144,469	$139,095,651	$106,798,793
California	2,127,874	2,161,084	1,897,811
Connecticut	392,272	388,169	221,379
Delaware	7,786,281	11,368,291	9,583,233
Illinois	10,643,483	10,045,482	8,362,484
Indiana	1,138,061	523,258	36,614
Kentucky	331,287	223,853	250,228
Maine	426,901	359,123	710,105
Massachusetts	32,503,561	28,410,065	21,750,913
Michigan	4,588,439	3,562,715	2,153,276
Missouri	263,277	178,348	37,952
New Hampshire	400,313	(1)	949,236
New Jersey	16,170,076	14,286,268	11,843,945
New York	14,058,794	11,938,736	8,876,661
Ohio	2,748,208	1,793,937	1,259,677
Oregon	77,735	114,449	165,358
Pennsylvania	27,043,886	28,566,642	26,980,872
Virginia	589,410	687,718	619,840
Wisconsin	19,383,698	22,238,865	9,524,168
All other states	2,470,913	2,248,648	1,575,041

[1] Included in "all other states," to avoid disclosure of individual operations.

Leather produced by establishments assigned to other industries.—Table 21 shows, for 1914, the quantity and value of the several kinds of leather produced by 27 establishments engaged primarily in other industries but which made leather for use in further manufacture in the same establishment. Of these establishments 10 manufactured belting leather to the value of $4,635,340 and continued the process until finished belting was produced; 7 produced leather, valued at $776,639, and manufactured saddles and harness; other establishments made boots and shoes, leather gloves and mittens, leather goods, etc.

Table 21

PRODUCT.	PRODUCED BY ESTABLISHMENTS ASSIGNED TO OTHER INDUSTRIES: 1914. Unit.	Quantity.	Value.
Total			$7,311,231
Leather:			
Belting—			
Oak	Butts	314,497	4,320,194
Chrome	Butts	11,870	186,776
Offal			128,370
Harness	Sides	166,408	776,639
Sole	Sides	22,183	159,137
All other [1]			1,589,320
All other products			134,911
Amount received for tanning, currying, and finishing for others.			15,884

[1] Upper, horse, glove, patent, etc.

Contract work on materials furnished by others.—Table 22 gives the number of hides, skins, sides, and splits treated under contract for others in 1914, 1909, and 1904, distinguishing the work done for tanners, curriers, and finishers from that done for others not tanners, curriers, or finishers. It also gives the estimated value of the products in each class for 1914.

The data for work done under contract for establishments in the industry are presented in this table, in order to show the total amount paid for this class of work, as the quantity and cost of raw stock and the quantity and value of the finished products are included in the statistics for the leather industry, being reported in each case by the establishment for which the work was done. The number of hides and skins treated by tanneries for others not tanners, curriers, or finishers has been included in the total number treated in the United States, though there may be duplication caused by reporting the same hides and skins twice, once as tanned and again as curried or finished. There were 114 establishments that did custom or contract work exclusively and 61 that manufactured leather for others as well as for sale.

Table 22

CLASS OF WORK.	WORK DONE UNDER CONTRACT. Total.	For establishments in the industry.	For establishments in other industries.
Hides tanned:			
Number—			
1914	1,958,407	1,086,021	872,386
1909	2,203,068	981,383	1,221,685
1904	1,287,014	860,918	426,096
Estimated value of the product, 1914	$19,165,887	$8,554,309	$10,611,578
Skins tanned:			
Number—			
1914	14,815,436	5,145,585	9,669,851
1909	12,323,117	2,435,281	9,887,836
1904	15,926,245	2,646,632	13,279,613
Estimated value of the product, 1914	$12,069,273	$3,562,830	$8,506,443
Sides curried or finished:			
Number—			
1914	3,804,792	1,878,151	1,926,641
1909	2,971,000	1,607,813	1,363,187
1904	1,402,054	331,385	1,070,669
Estimated value of the product, 1914	$15,619,184	$7,642,606	$7,976,578
Splits curried or finished:			
Number—			
1914	2,005,471	747,225	1,258,246
1909	1,907,659	969,522	938,137
1904	732,119	390,366	341,753
Estimated value of the product, 1914	$2,174,692	$1,214,562	$960,130
Skins curried or finished:			
Number—			
1914	16,188,445	3,695,675	12,492,770
1909	22,939,052	4,890,001	18,049,051
1904	15,881,124	3,672,590	12,208,534
Estimated value of the product, 1914	$14,933,416	$3,771,837	$11,161,579

Imports and exports of leather.—The Bureau of Foreign and Domestic Commerce gives the total value of leather imported during the calendar year 1910 as $6,385,907, which is about the average annual value reported for the preceding 20 years. In 1913 imports had increased to $9,292,422, and in 1914 to $15,008,801. This increase from 1913 to 1914 was due chiefly to the removal of duty on sole, belting, and upper leather. In 1915, however, the total value of imports had fallen to $9,620,835.

Exports of leather are much greater than imports and are increasing at a more rapid rate Their value for the calendar year 1900 was $21,297,539; for 1910, $37,457,588; and for 1915, $80,865,037; an increase of 279.7 per cent from 1900 to 1915 and of 115.9 per cent from 1910 to 1915.

Materials and products: 1914.—Table 23 is a detail statement of the special statistics for the leather industry, as reported on the supplemental schedule for 1914.

Table 23	Unit of measure.	Quantity.	Amount.
MATERIALS.			
			Cost.
Total cost			$284,245,420
Tanning (raw stock used during year)			232,950,831
Cattle hides (all kinds)—			
Dry (12 pounds and over)	Number	3,618,702	21,511,334
Green or green salted (25 pounds and over).	Number	13,838,889	127,239,668
Horsehides—			
Dry	Number	506,424	1,288,399
Green or pickled	Number	634,622	2,272,574
Calf and kip skins—			
Dry (under 12 pounds)	Number	3,818,900	5,579,323
Green or pickled (under 25 pounds).	Number	12,248,893	27,538,390
Goat and kid skins—			
Dry	Number	33,878,299	21,241,560
Green or pickled	Number	2,232,216	1,345,790
Tanned but unfinished (imported).	Number	1,645,352	1,329,615
Sheep and lamb skins—			
Dry	Number	13,694,113	7,088,407
Green or pickled	Number	26,426,085	12,159,275
Colt and ass skins—			
Dry	Number	220,593	533,577
Green or pickled	Number	12,587	17,273
Kangaroo skins	Number	1,095,360	834,851
Pig skins			819,555
All other raw stock			2,151,240
Currying (purchased rough leather used during the year)			7,070,378
Rough leather	Sides	822,615	3,831,570
Rough grains (split leather)	Sides	243,419	626,065
Rough splits—			
Whole side splits	Sides	777,117	878,814
Butt splits	Butts	69,227	84,377
All other rough leather			1,649,552
All other materials, including tanning and finishing materials.			44,224,211
PRODUCTS.			
			Value.
Total value			$367,201,705
Rough leather, for sale in the rough	Equivalent sides.	584,052	2,115,432
Rough grains (split leather), for sale in the rough.	Equivalent sides.	144,259	538,464
Rough splits, for sale in the rough:			
Whole side splits	Sides	1,144,399	1,477,991
Butt splits	Butts	291,614	303,098
Sole leather:			
Hemlock	Equivalent sides.	5,626,696	31,007,435
Union	Equivalent sides.	6,588,799	42,457,755
Oak	Equivalent sides.	5,267,936	38,384,062
Chrome	Equivalent sides.	592,051	4,338,807
Belting:			
Oak	Butts	638,789	8,235,075
Chrome	Butts	8,435	134,509
Belting offal			828,542
Saddlery	Equivalent sides.	236,138	974,197
Skirting	Equivalent sides.	311,646	2,082,963
Harness:			
Hemlock	Sides	274,489	2,105,769
Union	Sides	1,155,202	8,114,748
Oak	Sides	1,342,301	10,726,202
Chrome	Sides	5,320	22,450
Case, bag, and strap leather	Sides	1,004,581	5,383,255
Bookbinders' (whole-hide leather)	Hides	248,726	1,079,529
Upholstery leather (automobile, furniture, and carriage):			
Whole-hide grains	Hides	654,053	8,172,698
Whole-hide splits	Hides	1,104,561	6,155,660
Cattle side upper (other than patent):			
Chrome	Sides	4,684,829	19,119,061
Combination (chrome and vegetable tannage).	Sides	1,339,446	4,753,030
Vegetable	Sides	2,221,689	9,067,048
Horse leather (other than patent):			
Upper	Sides	406,741	1,360,103
Glove	Sides	343,949	998,303
Other horse	Sides	214,660	523,518
Finished splits:			
Whole side splits	Sides	7,359,312	7,788,086
Butt splits	Butts	1,288,467	759,067
Patent leather:			
Cattle sides	Sides	1,791,320	7,016,709
Horse sides	Sides	1,035,711	2,547,401
Calf and kip	Skins	58,135	100,612
Goat and kid	Skins	3,614,790	3,966,577
Sheep and lamb	Skins	975,327	632,303
Colt	Skins	223,169	812,638
All other			514,572
PRODUCTS—continued.			
Upper leather:			*Value.*
Calf and kip	Skins	15,869,401	$41,812,734
Goat and kid	Skins	29,874,538	26,113,234
Sheep and lamb	Skins	16,794,641	10,885,175
Cabretta, kangaroo and wallaby	Skins	3,730,260	4,198,017
All other upper, not elsewhere specified.			2,042,390
Glove leather:			
Calf and kip	Skins	356,935	725,024
Goat and kid	Skins	5,694	4,080
Sheep and lamb	Skins	3,637,279	2,169,839
All other glove, not elsewhere specified.			387,409
Fancy leather:			
Calf and kip	Skins	362,816	674,366
Goat and kid	Skins	1,132,254	1,200,218
Sheep and lamb	Skins	6,061,190	4,531,371
All other fancy, not elsewhere specified.			2,370,013
Bookbinders' (pig and other skins)	Skins	265,133	283,144
Piano action	Skins	92,639	159,631
Chamois	Skins	1,948,533	925,492
Suspender	Skins	126,251	321,964
All other leather			8,335,266
Miscellaneous by-products:			
Wool	Pounds	8,413,541	2,496,741
Hair (equivalent washed and dried)	Pounds	65,262,896	2,361,975
Glue stock	Pounds	264,579,971	2,806,383
Fertilizer materials	Pounds	22,989,737	198,848
All other products and by-products			5,270,466
Amount charged for tanning, currying, or finishing for others.			12,270,856
For establishments assigned to other industries but producing leather for use in further manufacture.			
MATERIALS.			
			Cost.
Total cost			$5,562,354
Cattle hides (all kinds):			
Dry (12 pounds and over)	Number	45,745	191,367
Green or green salted (25 pounds and over).	Number	273,222	2,667,172
Horsehides, green or pickled	Number	109,199	475,660
Sheep or lamb skins, green or pickled	Number	274,728	91,576
All other raw stock			21,000
Rough leather	Sides	238,508	1,408,093
Rough splits:			
Whole-side splits	Sides	1,500	2,200
Butt splits	Butts	5,000	6,600
All other rough leather			163,780
All other materials, including tanning and finishing materials.			534,906
PRODUCTS.			
			Value.
Total value			$7,311,231
Rough leather, for sale in the rough	Equivalent sides.	3,000	16,266
Sole leather:			
Oak	Equivalent sides.	8,000	48,556
Chrome	Equivalent sides.	14,183	110,581
Belting:			
Oak	Butts	314,497	4,320,194
Chrome	Butts	11,870	186,776
Belting offal			128,370
Harness:			
Hemlock	Sides	12,000	39,000
Union	Sides	25,000	123,000
Oak	Sides	129,408	614,639
Cattle side, upper (other than patent):			
Chrome	Sides	4,548	25,748
Combination (chrome and vegetable tannage).	Sides	6,433	35,303
Vegetable	Sides	700	3,500
Horse leather (other than patent):			
Upper	Sides	83,327	254,981
Glove	Sides	270,498	584,275
Finished splits:			
Whole-side splits	Sides	9,687	9,514
Butt splits	Butts	22,200	1,757
Patent leather			188,860
Glove leather, sheep and lamb	Skins	274,728	129,809
All other leather			339,307
Miscellaneous by-products:			
Hair (equivalent washed and dried)	Pounds	1,079,641	17,040
Glue stock	Pounds	4,219,394	30,596
Fertilizer materials	Pounds	227,580	1,811
All other products and by-products			85,464
Amount charged for tanning, currying, or finishing for others.			15,884

DETAIL STATE TABLES.

Table 24 shows, for 1914, 1909, and 1904, by states, the number of establishments, average number of wage earners, primary horsepower, wages, cost of materials, and value of products reported for the leather industry. Table 25 presents, for 1914, by states, the more detailed statistics of the industry.

TABLE 24.—COMPARATIVE SUMMARY, BY STATES, FOR 1914, 1909, AND 1904.

STATE.	Census year.	Number of establishments.	Wage earners (average number).	Primary horsepower.	Wages.	Cost of materials.	Value of products.
					Expressed in thousands.		
United States	1914	741	55,936	172,712	$31,914	$284,245	$367,202
	1909	919	62,202	148,140	32,103	248,279	327,874
	1904	1,049	57,239	117,450	27,049	191,179	252,621
California	1914	29	1,361	3,676	1,007	7,858	10,021
	1909	40	1,398	3,534	988	7,039	9,367
	1904	49	1,515	3,291	945	5,912	8,072
Connecticut	1914	7	185	340	100	636	906
	1909	8	150	356	95	805	1,047
	1904	9	169	371	82	543	748
Delaware	1914	20	2,382	5,163	1,187	6,474	9,183
	1909	16	3,045	4,417	1,367	8,147	12,079
	1904	20	2,836	5,377	1,176	7,911	10,251
Illinois	1914	28	2,678	7,920	1,538	13,917	17,509
	1909	29	3,001	6,769	1,582	12,131	14,912
	1904	28	2,770	5,260	1,326	8,174	10,758
Indiana	1914	10	434	1,127	226	2,326	2,928
	1909	10	398	1,028	205	1,713	2,311
	1904	13	265	624	134	764	1,051
Kentucky	1914	11	600	2,276	329	3,242	4,199
	1909	18	630	2,669	308	3,224	4,241
	1904	20	728	1,766	327	2,807	3,952
Maine	1914	10	358	1,995	182	2,061	2,419
	1909	17	436	1,467	208	1,452	1,905
	1904	27	515	1,787	237	1,974	2,500
Maryland	1914	10	440	1,458	229	2,629	3,485
	1909	13	466	1,321	211	2,114	2,661
	1904	17	531	982	218	1,483	1,911
Massachusetts	1914	126	10,164	26,534	5,918	33,194	45,265
	1909	132	10,252	19,231	5,444	28,766	40,002
	1904	132	9,074	15,303	4,556	23,041	33,353
Michigan	1914	23	2,773	6,787	1,739	20,982	25,504
	1909	24	2,291	6,719	1,133	12,121	15,331
	1904	25	1,747	4,391	866	7,271	9,340
Missouri	1914	10	227	700	156	2,042	2,573
	1909	9	220	519	146	1,599	2,035
	1904	9	217	546	131	734	1,128
New Hampshire	1914	8	452	3,174	$263	$2,251	$2,884
	1909	4	264	890	114	1,169	1,581
	1904	8	492	1,255	215	1,326	1,774
New Jersey	1914	84	5,108	12,306	3,260	22,081	31,652
	1909	86	5,560	9,243	3,473	20,198	28,431
	1904	73	4,953	7,495	2,793	15,272	21,495
New York	1914	98	5,360	20,039	2,955	27,912	36,018
	1909	109	5,688	14,265	2,912	20,941	27,842
	1904	118	5,444	13,231	2,485	16,275	21,643
North Carolina	1914	17	877	2,806	355	5,545	7,182
	1909	39	832	2,672	290	4,156	5,415
	1904	34	534	1,521	149	2,038	2,662
Ohio	1914	28	1,605	4,450	1,054	8,506	11,628
	1909	36	1,884	4,244	1,083	7,720	10,128
	1904	40	1,610	2,770	839	4,462	6,513
Oregon	1914	5	34	163	20	148	188
	1909	8	49	224	34	181	244
	1904	11	94	314	67	367	485
Pennsylvania	1914	120	11,988	39,964	6,492	68,309	85,253
	1909	163	14,008	37,440	6,801	59,113	77,926
	1904	205	14,413	31,075	6,418	55,412	69,428
Virginia	1914	21	1,205	3,648	525	8,218	9,834
	1909	39	1,590	4,223	589	6,445	8,267
	1904	44	1,055	2,508	358	4,719	5,830
West Virginia	1914	18	1,072	4,887	615	8,695	11,015
	1909	20	1,571	5,305	775	10,383	12,451
	1904	33	946	2,973	434	4,769	6,062
Wisconsin	1914	27	5,869	20,142	3,404	33,053	42,204
	1909	32	7,548	17,112	3,988	34,829	44,668
	1904	33	5,556	9,816	2,687	19,871	25,845
All other states	1914	31	764	3,157	360	4,166	5,372
	1909	67	921	4,492	357	4,033	5,230
	1904	101	1,775	4,794	606	6,054	7,820

TABLE 25.—DETAIL STATISTICS FOR LEATHER, TANNED, CURRIED, AND FINISHED, BY STATES: 1914.

STATE.	Number of establishments.	PERSONS ENGAGED IN THE INDUSTRY. Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks, etc. Male.	Clerks, etc. Female.	Wage earners. Average number.	Wage earners. Number, 15th day of— Maximum month.	Wage earners. Number, 15th day of— Minimum month.	WAGE EARNERS DEC. 15, OR NEAREST REPRESENTATIVE DAY. Total.	16 and over. Male.	16 and over. Female.	Under 16. Male.	Under 16. Female.	Capital.	EXPENSES. Salaries and wages. Officials.	EXPENSES. Salaries and wages. Clerks, etc.
United States	741	60,780	566	1,435	2,298	545	55,936	Mh 58,743	Oc 53,491	56,371	54,345	1,863	121	42	$332,180,085	$4,530,535	$2,845,693
California	20	1,512	15	70	43	23	1,361	Mh 1,429	Oc 1,260	1,362	1,359	3	.....	.....	9,560,152	180,759	86,454
Connecticut	7	217	3	15	7	7	185	Ja 210	Je 166	179	160	19	.....	.....	818,582	27,391	11,932
Delaware	20	2,608	13	49	123	41	2,382	My 2,717	De 1,716	2,365	1,705	649	6	5	7,079,969	157,572	133,141
Illinois	28	2,897	24	53	122	20	2,678	Fe 2,847	Se 2,455	3,012	2,990	19	3	.....	16,774,503	188,979	144,451
Indiana	10	486	5	25	18	4	434	Fe 468	Jy 392	471	471	.....	.....	.....	3,094,009	53,700	22,056
Kentucky	11	661	2	28	25	6	600	De 644	Ja 538	644	644	.....	.....	.....	5,258,246	73,112	34,190
Maine	10	384	6	14	5	1	358	Fe 425	Se 286	366	366	.....	.....	.....	2,504,824	24,384	3,981
Maryland	10	479	8	11	16	4	440	Je 475	Oc 411	447	440	6	1	.....	2,432,806	67,077	20,252
Massachusetts	126	10,886	97	178	345	102	10,164	Fe 10,931	Au 9,197	10,754	10,556	168	28	2	47,418,119	520,983	419,806
Michigan	23	2,971	2	70	94	32	2,773	Fe 2,855	Oc 2,711	2,726	2,724	1	1	.....	19,002,119	267,499	154,900
Missouri	10	266	5	18	11	5	227	Ja 252	Jy 215	233	232	.....	1	.....	1,941,847	42,092	15,024
New Hampshire	8	548	4	35	37	20	452	Ap 565	Jy 325	549	537	12	.....	.....	2,762,370	38,137	54,388
New Jersey	84	5,086	51	171	308	48	5,108	Ja 5,466	De 4,667	4,815	4,709	101	5	.....	23,349,973	580,093	347,606
New York	98	5,920	114	136	252	58	5,360	Fe 5,714	Se 5,056	5,697	5,644	45	8	.....	27,064,638	474,128	319,850
North Carolina	17	951	22	24	25	3	877	Jy 1,006	De [1] 781	793	789	3	1	.....	6,260,902	144,028	21,912
Ohio	28	1,751	18	62	48	18	1,605	Fe 1,739	De 1,461	1,602	1,599	3	.....	.....	13,147,152	164,070	61,830
Oregon	5	40	4	1	1	.....	34	Fe [1] 38	Se 30	31	31	.....	.....	.....	177,494	1,200	720
Pennsylvania	120	12,833	106	293	366	80	11,988	Je 12,460	De 11,229	11,296	10,727	472	62	35	79,908,690	932,872	444,242
Virginia	21	1,280	16	32	27	6	1,205	Je 1,317	De 1,115	1,145	1,108	35	2	.....	9,289,330	91,150	33,862
West Virginia	18	1,139	14	28	22	3	1,072	Jy 1,218	Ja 828	1,066	1,065	.....	1	.....	7,725,342	65,329	24,477
Wisconsin	27	6,410	20	87	387	47	5,869	Mh 6,530	Se 5,339	6,007	5,741	324	2	.....	42,769,623	359,692	471,023
All other states [2]	31	849	17	35	16	17	764	.....	.....	751	748	3	.....	.....	3,839,395	76,288	19,596

STATE.	EXPENSES—continued. Salaries and wages—Continued. Wage earners.	For contract work.	Rent and taxes. Rent of factory.	Rent and taxes. Taxes, including internal revenue and corporation income.	For materials. Principal materials.	For materials. Fuel and rent of power.	Value of products.	Value added by manufacture.	POWER. Primary horsepower. Total.	Steam engines. [3]	Internal-combustion engines. [4]	Water wheels and motors. [3]	Electric (rented).	Electric horsepower generated in establishments reporting.
United States	$31,014,497	$1,152,042	$713,733	$1,402,290	$280,488,394	$3,757,026	$367,201,705	$82,956,285	172,712	140,299	8,975	1,868	21,570	51,854
California	1,007,256	5,302	1,956	33,219	7,782,645	75,654	10,020,739	2,162,440	3,676	2,337	12	.....	1,327	802
Connecticut	99,723	.....	6,250	5,467	624,005	11,714	905,961	270,242	340	174	120	15	31	3
Delaware	1,180,722	.....	5,900	18,916	6,393,189	80,865	9,183,205	2,709,151	5,163	4,902	.....	.....	261	668
Illinois	1,537,540	.....	87,253	50,723	13,756,950	160,482	17,509,250	3,591,824	7,920	7,175	50	.....	695	728
Indiana	225,547	.....	8,020	9,152	2,203,040	32,235	2,928,107	602,232	1,127	985	.....	.....	142	78
Kentucky	329,329	.....	.....	19,382	3,194,218	47,016	4,198,575	956,441	2,276	1,433	85	.....	758	49
Maine	181,029	.....	62	7,246	2,011,433	49,143	2,419,005	358,429	1,995	1,625	.....	60	310	350
Maryland	228,572	.....	4,506	11,682	2,604,611	24,209	3,485,016	856,106	1,458	1,458	.....	.....	.....	500
Massachusetts	5,018,205	500,800	183,306	196,192	32,578,102	615,959	45,265,434	12,071,373	26,534	20,052	468	445	4,969	9,354
Michigan	1,738,851	2,714	1,200	196,615	20,691,334	290,913	25,503,573	4,521,326	6,787	5,680	25	.....	1,082	2,622
Missouri	156,015	.....	2,548	7,875	2,017,543	24,067	2,572,987	531,377	700	435	.....	.....	265	16
New Hampshire	262,618	1,760	1,737	14,206	2,174,620	76,312	2,863,759	612,827	3,174	1,080	.....	420	1,674	36
New Jersey	3,259,651	199,010	81,436	100,553	21,763,713	316,018	31,651,831	9,571,200	12,306	9,035	404	75	2,192	5,020
New York	2,955,163	424,200	100,482	78,718	27,558,748	353,523	36,018,342	8,106,071	20,039	15,252	1,080	545	3,162	5,918
North Carolina	355,101	12,000	.....	37,373	5,492,656	52,530	7,182,400	1,637,214	2,806	2,550	6	88	162	1,453
Ohio	1,054,401	.....	6,967	77,696	8,401,167	105,086	11,627,916	3,121,663	4,450	3,942	145	.....	363	2,072
Oregon	20,090	.....	.....	1,080	144,510	3,247	187,602	39,845	163	49	.....	.....	114	.....
Pennsylvania	6,492,420	6,790	164,946	230,450	67,436,795	872,925	85,252,532	16,943,812	39,964	33,105	5,722	26	1,111	7,999
Virginia	524,896	.....	4,000	32,003	8,158,647	59,391	9,834,439	1,616,401	3,648	3,523	110	.....	15	332
West Virginia	614,752	.....	.....	52,550	8,624,630	70,284	11,014,540	2,319,626	4,887	4,489	398	.....	.....	632
Wisconsin	3,403,592	.....	35,107	285,126	32,674,238	378,948	42,204,202	9,151,015	20,142	17,503	350	.....	2,289	12,427
All other states [2]	362,364	.....	17,967	20,166	4,112,000	54,615	5,372,284	1,205,669	3,157	2,315	.....	194	648	795

[1] Same number reported for one or more other months.
[2] All other states embrace: Georgia, 4 establishments; Iowa, 2; Louisiana, 1; Minnesota, 4; Montana, 1; Rhode Island, 2; Tennessee, 9; Texas, 1; Utah, 1; Vermont, 2; Washington, 3; Wyoming, 1.
[3] Owned power only.
[4] Includes rented power, other than electric.

BOOTS AND SHOES.

Scope of the industry.—This industry includes factories manufacturing boots, shoes, and slippers, moccasins, leggings, overgaiters, etc., and also establishments performing only special operations on materials largely furnished, such as stitching, crimping, making buttonholes, and other processes constituting the work done. There were 1,355 establishments in the industry, and 1,248 of these were reported as making complete boots and shoes; 53 made, primarily, overgaiters, moccasins, leggings, etc., and 54 performed some process on contract, largely on materials furnished. The amount paid for this work is a part of the $501,760,458 reported as the value of the products of the boot and shoe industry.

Comparison with earlier censuses.—Table 26 summarizes the statistics of establishments engaged in the manufacture of boots and shoes for each census from 1879 to 1914, inclusive, and gives the percentages of increase from census to census.

Table 26

	NUMBER OR AMOUNT.						PER CENT OF INCREASE.[1]				
	1914	1909	1904	1899	1889	1879	1909–1914	1904–1909	1899–1904	1889–1899	1879–1889
Number of establishments	1,355	1,343	1,316	1,599	2,082	1,959	0.9	2.1	−17.7	−23.2	6.3
Persons engaged	210,348	200,847	160,159	(2)	(2)	(2)	4.7	25.4	5.6	.....	.....
Proprietors and firm members	1,090	1,218	1,424	(2)	(2)	(2)	−10.5	−14.5	.....	.....	.....
Salaried employees	17,703	14,513	8,811	7,779	(2)	(2)	22.0	64.7	13.3	.....	.....
Wage earners (average number)	191,555	185,116	149,924	141,830	133,690	111,152	3.5	23.5	5.7	(3)	(3)
Primary horsepower	100,232	85,896	56,220	49,444	30,686	11,574	16.7	52.8	13.7	61.1	165.1
Capital	$254,590,832	$197,090,344	$122,526,093	$99,819,233	$95,282,311	$12,994,028	29.2	60.9	22.7	4.8	121.6
Salaries and wages	$128,623,475	$109,646,165	$77,766,362	$66,110,832	$66,375,076	$43,001,438	17.3	41.0	17.6	−0.4	54.4
Salaries	$22,928,071	$17,287,013	$8,706,682	$7,669,949	(2)	(2)	32.6	98.5	13.5	.....	.....
Wages	$105,695,404	$92,359,152	$69,059,680	$58,440,883	(2)	(2)	14.4	33.7	18.2	.....	.....
Paid for contract work	$1,500,381	$1,811,706	$1,471,980	$1,751,948	(2)	(2)	−17.2	23.1	−16.0	.....	.....
Rent and taxes (including internal revenue)	$3,571,773	$2,436,145	[4] $1,573,585	[4] $1,380,615	(2)	(2)	46.6	.....	.....	.....	.....
Cost of materials	$310,356,586	$277,467,743	$197,363,495	$168,632,654	$118,785,831	$102,442,442	11.9	40.6	17.0	42.0	16.0
Value of products	$501,760,458	$442,630,726	$320,107,458	$258,969,580	$220,649,358	$166,050,354	13.4	38.3	23.6	17.4	32.9
Value added by manufacture (value of products less cost of materials)	$191,403,872	$165,162,983	$122,743,963	$90,336,926	$101,863,527	$63,607,912	15.9	34.6	35.9	−11.3	60.1
Number of pairs of boots and shoes, all kinds	292,666,468	285,017,181	242,110,035	217,965,419	179,409,388	125,478,511	2.7	17.7	11.1	21.5	43.0

[1] A minus sign (−) denotes decrease. [2] Figures not available. [3] Figures not strictly comparable. [4] Exclusive of internal revenue.

The number of establishments reported in 1914 was a slight increase over the number for 1909. The number of salaried employees and their salaries show substantial increases for each census for which these figures are shown, salaries showing, generally, the greater relative increase.

The industry gave employment to 191,555 wage earners in 1914, an increase over 1909 of 3.5 per cent and over 1904 of 27.8 per cent. Wages show a much greater proportionate increase than the number of wage earners, the percentage of increase between 1909 and 1914 being 14.4 per cent and between 1904 and 1914, 53 per cent. The cost of the materials used is reflected in the increased value of the products. The cost of materials in 1914 was 11.9 per cent more than in 1909, while the increase in value of products for 1909-1914 was $59,129,732, or 13.4 per cent. Included with the value of products but not shown separately in the table is $2,708,190, the value of cut stock and findings made by boot and shoe manufacturers principally for their own use.

The value added by manufacture increased by 15.9 per cent during the period 1909-1914. The amount paid for contract work in 1914 shows a decrease compared with 1909, while rent and taxes increased at each census.

In addition to the total value of products shown in the table, footwear, to the value of $855,582 in 1914 and $65,114 in 1909, was made as a subsidiary product by establishments engaged primarily in the manufacture of leather, saddlery and harness, and other products. The output of this class of establishments in 1914 included athletic, sporting, and fancy shoes, and bathing, slumber, and novelty slippers, valued at $519,198.

Specialization in the boot and shoe industry.—Table 27 gives the principal data for the boot and shoe industry, by classes, including regular shoe factories, factories specializing, and factories making footwear not strictly boots and shoes.

In 1914 the establishments making complete boots and shoes formed 92.1 per cent of the total number in the industry, and the value of products reported by them was 99.5 per cent of the total value of products; the corresponding percentages in 1909 were 91.4 and 99.1, respectively. There were, however, 54 establishments in 1914 which did work under contract for other establishments, and in 1909 there were 62 establishments of this character. Of these establishments in 1914, 18 made complete shoes or parts of shoes, 24 were reported as doing stitching, 8 as making buttonholes, and 4 as doing crimping. The amount paid for this work, which is part of the total value of the products of the industry, amounted to $797,426, while in 1909 the amount was $1,356,926. Included in the boot and shoe industry is a class of establishments engaged in the manufacture of overgaitors, leggings, moccasins, and other footwear, not strictly boots and shoes. There were 53 of these establishments reported at each of the last two censuses, and the value of their output in 1914 was $1,818,287, and in 1909, $2,830,430.

Table 27

	Census year.	Number of establishments.	Wage earners (average number).	Capital.	Wages.	Cost of materials.	Value of products.	Value added by manufacture.
Boots and shoes, total	1914	1,355	191,555	$254,590,832	$105,695,404	$310,356,586	$501,760,458	$191,403,872
	1909	1,343	185,116	197,090,344	92,359,152	277,467,743	442,630,726	165,162,983
Regular factory product	1914	1,248	189,774	253,116,682	104,856,829	309,240,548	499,144,745	189,904,197
	1909	1,228	182,642	195,034,177	91,284,239	275,298,510	438,443,370	163,144,860
Contract work	1914	18	364	52,711	209,128	64,538	354,945	290,407
	1909	23	382	239,337	231,211	391,519	778,922	387,403
Stitching	1914	24	571	92,608	262,826	48,405	382,209	333,804
	1909	30	866	107,682	363,392	59,988	530,164	470,176
Crimping	1914	4	6	9,218	3,732	203	9,732	9,529
	1909	5	10	8,272	6,495	716	17,384	16,668
Buttonholes	1914	8	50	16,229	24,460	5,616	50,540	44,924
	1909	4	34	5,547	15,943	4,921	30,456	25,535
Overgaiters, moccasins, and leggings	1914	53	790	1,303,384	338,429	997,276	1,818,287	821,011
	1909	53	1,182	1,695,329	457,872	1,712,089	2,830,430	1,118,341

Summary, by states.—Table 28 summarizes the more important statistics of the industry, by states, the states being arranged according to the value of products reported for 1914. The per cent distribution for 1914, the rank of the states in 1914 and 1909, and percentages of increase for each five-year period beginning with 1899 are also presented.

Table 28

STATE.	BOOTS AND SHOES: 1914. Number of establishments	Wage earners. Average number.	Wage earners. Per cent distribution.	Wage earners. Rank. 1914	Wage earners. Rank. 1909	Value of products. Amount.	Value of products. Per cent distribution.	Value of products. Rank. 1914	Value of products. Rank. 1909	Value added by manufacture. Amount.	Value added by manufacture. Per cent distribution.	Value added by manufacture. Rank. 1914	Value added by manufacture. Rank. 1909
United States	1,355	191,555	100.0	....	....	$501,760,458	100.0	....	....	$191,403,872	100.0	....	....
Massachusetts	464	76,944	40.2	1	1	200,529,858	40.0	1	1	80,204,178	41.9	1	1
New York	235	26,193	13.7	2	2	67,288,809	13.4	2	2	27,100,777	14.2	2	2
Missouri	49	13,169	6.9	5	3	40,311,210	8.0	3	3	14,364,772	7.5	3	3
New Hampshire	55	12,037	6.7	6	5	37,664,039	7.5	4	4	11,298,967	5.9	6	5
Ohio	62	14,461	7.5	3	4	32,773,922	6.5	5	5	13,526,326	7.1	4	4
Pennsylvania	131	13,184	6.9	4	6	27,844,752	5.5	6	6	11,320,623	5.9	5	6
Maine	50	8,815	4.6	7	7	22,836,073	4.6	7	7	8,093,474	4.2	7	8
Wisconsin	61	5,772	3.0	9	9	17,643,350	3.5	8	9	5,654,578	3.0	9	9
Illinois	47	6,071	3.2	8	8	16,891,626	3.4	9	8	5,909,081	3.1	8	7
New Jersey	42	3,834	2.0	10	10	8,238,710	1.6	10	11	3,471,883	1.8	10	10
Minnesota	14	2,012	1.0	12	12	5,918,031	1.2	11	10	1,937,639	1.0	12	11
Michigan	24	2,035	1.1	11	13	5,357,151	1.1	12	13	2,175,760	1.1	11	12
All other states	121	6,128	3.2	....	....	18,462,927	3.7	....	....	6,345,814	3.3	....	....

STATE.	PER CENT OF INCREASE.[1] Wage earners (average number). 1909–1914	1904–1909	1899–1904	Value of products. 1909–1914	1904–1909	1899–1904	Value added by manufacture. 1909–1914	1904–1909	1899–1904
United States	3.5	23.5	5.7	13.4	38.3	23.6	15.9	34.6	35.9
Massachusetts	3.0	19.3	6.8	7.2	20.6	23.2	10.2	30.4	34.9
New York	27.5	24.1	4.8	51.5	30.1	33.4	49.3	26.5	43.8
Missouri	−19.4	56.7	76.3	−5.2	81.0	108.8	5.7	58.7	162.7
New Hampshire	−0.8	25.2	−13.3	10.7	51.7	−4.2	12.0	46.3	0.9
Ohio	−7.9	13.0	9.2	7.4	21.4	40.3	9.2	17.0	54.6
Pennsylvania	24.7	19.1	−2.9	43.5	32.8	10.4	42.4	34.6	17.5
Maine	35.4	12.7	−10.2	50.7	22.7	0.5	50.4	32.9	3.1
Wisconsin	13.6	57.5	28.7	34.5	101.3	35.9	22.4	101.4	41.5
Illinois	8.6	41.6	−11.5	11.8	67.4	−3.7	5.2	66.7	10.8
New Jersey	−6.1	−2.6	−5.2	9.5	7.8	[2]	9.4	1.2	13.3
Minnesota	−24.5	55.4	−15.4	−21.8	81.5	15.3	−26.4	71.2	24.3
Michigan	−17.1	42.5	54.3	1.9	48.9	84.4	14.0	26.0	101.6
All other states	−21.8	19.7	−1.4	−11.8	55.7	17.1	−8.1	45.3	29.1

[1] Percentages are based on figures in Table 46; a minus sign (−) denotes decrease.

[2] Less than one-tenth of 1 per cent.

Statistics for the 12 states having products valued at $5,000,000 or over are shown in the table, 9 of these reporting products valued at more than $16,000,000 each.

Massachusetts, as formerly, led the other states, with an output valued at $200,529,858. This amount is 40 per cent of the total value of products reported for the United States, and though the proportion is slightly less than in 1909 and 1904, there was an actual increase, as compared with 1909, of $13,484,091, or 7.2 per cent.

New York ranked second, with a value of products of $67,288,809, representing an increase of $22,863,677, or 51.5 per cent, over that reported for 1909. New York contributed 13.4 per cent to the total for the industry and showed a greater actual increase for the five-year period 1909–1914 than any other state.

Missouri showed a decrease in value of products, but held third place, the position it occupied in 1909. It contributed 8 per cent toward the total value reported for the United States as against 9.6 per cent in 1909.

New Hampshire, with a product of $37,664,039, forming 7.5 per cent of the total value, ranked fourth.

There was little change in the ranking of the states in 1914 as compared with 1909. In 1914 Wisconsin ranked eighth, changing places with Illinois, which held this place in 1909; New Jersey, ranking tenth in 1914, changed places with Minnesota; and Michigan, holding twelfth place in 1914, changed places with Virginia which does not appear in the table for 1914.

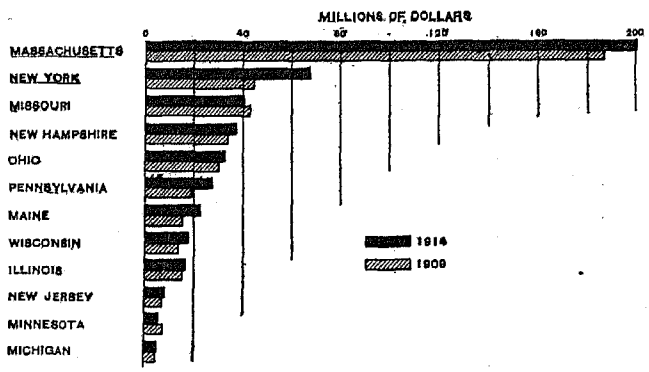
The rank of these states, according to number of wage earners and value added by manufacture, is also given in the table.

In 1914 the extreme eastern states, Maine, New Hampshire, Massachusetts, New York, New Jersey, and Pennsylvania, contributed 72.6 per cent of the total value of products for the industry; Ohio and

Illinois reported 9.9 per cent of the total; Missouri, 8 per cent; Minnesota, Michigan, and Wisconsin, 5.8 per cent; and the 25 other states, 3.7 per cent. The 3 New England states, Massachusetts, New Hampshire, and Maine, produced more than one-half of the footwear manufactured in the country. Ever since the inception of the industry in this country, the East, led by Massachusetts, has predominated in the production of boots, shoes, and slippers. This fact is further emphasized by reference to Table 29, which gives the rank of leading cities of the industry, and Table 41, which shows the quantity of footwear produced in the United States during 1914, 1909, and 1904, by states.

The following diagram shows graphically the value of products reported for the most important states in the industry in 1914 and 1909.

BOOTS AND SHOES—VALUE OF PRODUCTS FOR LEADING STATES: 1914 AND 1909.



Summary for leading cities.—Table 29 shows the value of products for 1914, 1909, and 1904 for the 12 leading cities, each reporting products in 1914 valued at over $10,000,000, ranked according to value of products in 1914.

Table 29	1914		1909		1904	
	Rank.	Value of products.	Rank.	Value of products.	Rank.	Value of products.
Brockton, Mass.	1	$35,032,665	2	$32,464,288	1	$30,073,014
Lynn, Mass.	2	30,066,815	1	34,620,870	2	25,952,571
Haverhill, Mass.	3	25,319,953	4	20,977,540	4	15,257,899
New York, N. Y.	4	23,859,062	5	16,695,108	5	11,905,374
St. Louis, Mo.	5	(1)	3	(1)	3	19,101,166
Cincinnati, Ohio	6	14,525,078	6	14,080,755	6	10,596,928
Rochester, N. Y.	7	13,519,755	8	11,990,187	7	8,620,011
Boston, Mass.	8	13,253,410	10	8,819,284	11	5,575,927
Manchester, N. H.	9	(1)	7	(1)	9	6,567,903
Milwaukee, Wis.	10	11,665,824	12	7,431,884	21	2,929,405
Chicago, Ill.	11	10,247,250	11	8,212,087	10	5,592,684
Auburn, Me.	12	10,236,020	13	6,282,520	14	4,263,162

[1] Figures can not be shown without disclosing individual operations.

Prior to 1900 Lynn, Mass., was the foremost city in the manufacture of footwear, but at the 1900 census Brockton reported the largest production and Lynn held second place. This was true at the census of 1904 also, but in 1909 Lynn again ranked first, dropping back in 1914, when Brockton reported products valued at $35,032,665, the largest amount ever reported by any city for the boot and shoe industry. Brockton and Lynn each reported a value of products of over $30,000,000 at both the 1914 and 1909 censuses. Haverhill ranked third and New York fourth in 1914, while St. Louis dropped from third place to fifth. The 12 cities given in the table report a combined product which forms over 40 per cent of the total for the United States.

Of the several important centers for the industry, the principal one is represented by Boston, Brockton, Lynn, Haverhill, and surrounding towns. The four cities mentioned contributed in 1914 $103,672,843, or 20.7 per cent of the total value of products of the industry for the United States.

Persons engaged in the industry.—Table 30 shows, for 1914 and 1909, the number of persons engaged in the industry, distributed by sex, the average number of wage earners being distributed also by age. The sex and age classification of the average number of wage earners in this and other tables is an estimate obtained by the method described in the "Explanation of terms."

Table 30		PERSONS ENGAGED IN THE INDUSTRY.				
CLASS.	Census year.	Total.	Male.	Female.	Per cent of total. Male.	Per cent of total. Female.
All classes	1914	210,348	136,388	73,960	64.8	35.2
	1909	200,847	130,398	70,449	64.9	35.1
Proprietors and officials	1914	5,173	4,928	245	95.3	4.7
	1909	4,678	4,467	211	95.5	4.5
Proprietors and firm members	1914	1,090	1,051	39	96.4	3.6
	1909	1,218	1,165	53	95.6	4.4
Salaried officers of corporations	1914	1,020	1,000	20	98.0	2.0
	1909	890	875	15	98.3	1.7
Superintendents and managers	1914	3,063	2,877	186	93.9	6.1
	1909	2,570	2,427	143	94.4	[1]5.6
Clerks and other subordinate salaried employees.	1914	13,620	7,780	5,840	57.1	42.9
	1909	11,053	6,428	4,625	58.2	41.8
Wage earners (average number)	1914	191,555	123,680	67,875	64.6	35.4
	1909	185,116	119,503	65,613	64.6	35.4
16 years of age and over	1914	187,976	121,738	66,238	64.8	35.2
	1909	177,500	115,119	62,381	64.9	35.1
Under 16 years of age	1914	3,579	1,942	1,637	54.3	45.7
	1909	7,616	4,384	3,232	57.6	42.4

Of the 210,348 persons engaged in this industry during 1914, 91.1 per cent were wage earners; 2.5 per cent, proprietors and officials; and 6.4 per cent, clerks and other subordinate salaried employees. While more than one-third (35.4 per cent) of the wage earners were females, the largest proportion of females in any class, 42.9 per cent, was shown for clerks and other subordinate salaried employees. Females formed nearly one-half, or 45.7 per cent, of the wage earners under 16 years of age. There was little change in the proportion of females in the different classes in 1914 as compared with 1909. Figures for the age and sex distribution of wage earners, by states, will be found in Table 47.

Table 31 gives, for the several classes of persons engaged in the industry, the percentages of increase from 1909 to 1914 and the per cent distribution at the two censuses.

Table 31

CLASS.	PERSONS ENGAGED IN THE INDUSTRY.								
	Per cent of increase,[1] 1909–1914.			Per cent distribution.					
				Total.		Male.		Female.	
	Total.	Male.	Female.	1914	1909	1914	1909	1914	1909
All classes	4.7	4.6	5.0	100.0	100.0	100.0	100.0	100.0	100.0
Proprietors and officials	10.6	10.3	16.1	2.5	2.3	3.6	3.4	0.3	0.3
Proprietors and firm members	−10.5	−9.8	−26.4	0.5	0.6	0.8	0.9	0.1	0.1
Salaried officers of corporations	14.6	14.3	33.3	0.5	0.4	0.7	0.7	.....	.....
Superintendents and managers	19.2	18.5	30.1	1.5	1.3	2.1	1.8	0.2	0.2
Clerks and other subordinate salaried employees	23.2	21.0	26.3	6.5	5.5	5.7	4.9	7.9	6.6
Wage earners (average number)	3.5	3.5	3.4	91.1	92.2	90.7	91.7	91.8	93.1
16 years of age and over	5.9	5.7	6.2	89.4	88.4	89.3	88.3	89.6	88.5
Under 16 years of age	−53.0	−55.7	−49.4	1.7	3.8	1.4	3.4	2.2	4.6

[1] A minus sign (−) denotes decrease.

This table shows increases for the five-year period in the total number of the several classes of employees, with the exception of proprietors and firm members and wage earners under 16 years of age.

The decrease in number of proprietors and firm members was doubtless in some degree due to changes in the character of ownership. During the period between the censuses, a considerable number of establishments operated by individuals or firms became incorporated, and their owners in some instances were reported as salaried officials in 1914. The decrease since 1909 in number of wage earners under 16 years of age, amounting to 4,037, or 53 per cent, is in line with the growing opposition to child labor.

Wage earners employed, by months.—Table 32 shows, for the industry, the total number of wage earners employed on the 15th of each month, or the nearest representative day, for the years 1914 and 1909, and the average number employed during each month in 1904, together with the percentage which the number reported for each month forms of the greatest number reported for any month.

Table 32

MONTH.	WAGE EARNERS IN THE INDUSTRY.					
	Number.[1]			Per cent of maximum.		
	1914	1909	1904	1914	1909	1904
January	200,739	185,081	140,825	98.8	90.0	97.9
February	203,135	188,742	152,023	100.0	97.4	99.3
March	198,772	186,357	153,025	97.9	96.2	100.0
April	189,856	179,606	140,225	93.5	92.7	97.5
May	188,934	177,475	144,686	93.0	91.6	94.6
June	191,110	179,116	145,555	94.1	92.4	95.1
July	193,354	183,006	147,360	95.2	94.4	96.5
August	191,036	180,888	150,709	94.0	90.5	98.5
September	186,740	186,377	151,151	91.9	96.2	98.8
October	183,053	180,494	151,202	90.4	96.2	98.8
November	183,212	187,572	151,779	90.2	96.8	99.2
December	188,119	193,702	152,248	92.6	100.0	99.5

[1] The figures for 1914 and 1909 represent the number employed on the 15th of each month, or the nearest representative day; those for 1904, the average number employed during the month.

For 1914 the first three months of the year show the greatest activity in the boot and shoe industry, the maximum number of wage earners appearing for February and the minimum for November. For 1909 the latter part of the year was the period of greatest activity, the month of maximum employment being December and that of minimum, May; while in 1904, the maximum number was reported for March, and the minimum, as in 1909, for May. The greatest difference between the maximum and the minimum numbers in any one of the three census years was 19,923 in 1914, when the minimum represented 90.2 per cent of the maximum, and the least difference was 8,339 in 1904, a variation of 5.4 per cent from the maximum number.

Table 33 gives the total average number of wage earners employed during 1914, together with the total number employed on the 15th of each month, or the nearest representative day, for each state in which the average number of wage earners was 500 or more in 1914.

This table indicates stability of employment for the industry as a whole, though in many of the states there was considerable fluctuation in the number of wage earners employed from month to month. Massachusetts, which gave employment to about 40 per cent of the total number of wage earners reported for the industry, employed the greatest number of wage earners in January, 82,818, and the smallest number, 72,023, or 87 per cent of the maximum, in October. The greatest stability of employment is shown for Pennsylvania, the minimum number representing 95.9 per cent of the maximum. In Virginia the minimum number was 65.9 per cent of the maximum, the greatest variation shown by any state, but this was an unusual condition, due to one establishment being shut down during December.

Table 33

WAGE EARNERS: 1914.
[Month of maximum employment for each state is indicated by **boldface** figures and that of minimum by *italic* figures.]

STATE.	Average number employed during year.	Number employed on 15th day of the month or nearest representative day.												Percent minimum is of maximum.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
United States	191,555	200,739	**203,135**	198,772	189,856	188,934	191,110	193,354	191,036	186,740	183,653	*183,212*	188,119	90.2
California	617	652	667	**672**	661	649	609	*567*	569	590	596	594	578	84.4
Connecticut	567	*466*	502	532	561	584	587	562	498	540	611	666	**695**	67.1
Illinois	6,071	5,896	5,920	6,075	*5,814*	6,149	6,281	**6,461**	6,303	6,162	6,020	5,861	5,910	90.0
Maine	8,815	**9,836**	9,721	9,461	9,190	8,896	*8,118*	8,120	8,305	8,318	8,272	8,607	8,936	82.5
Maryland	595	636	**648**	631	592	561	575	*537*	546	572	620	607	615	82.9
Massachusetts	76,944	**82,818**	82,688	80,575	77,315	74,971	76,076	76,430	76,971	74,043	*72,023*	73,940	75,478	87.0
Michigan	2,035	**2,297**	2,226	2,181	1,902	1,888	1,932	2,113	2,162	2,072	1,881	*1,800*	1,966	78.4
Minnesota	2,012	1,964	**2,268**	2,151	2,100	2,115	2,047	2,026	1,827	*1,751*	1,900	2,027	1,968	77.2
Missouri	13,169	13,621	13,902	14,527	**14,887**	14,354	13,924	13,754	12,137	13,010	12,209	*9,987*	11,716	67.1
New Hampshire	12,937	**13,853**	13,648	12,924	12,467	*12,401*	12,732	12,971	13,158	13,023	12,836	12,534	12,697	89.5
New Jersey	3,834	4,104	4,178	3,891	3,852	3,898	3,885	3,817	3,900	3,735	3,620	*3,594*	3,734	86.0
New York	26,193	26,293	26,814	26,741	*25,572*	25,794	26,093	**26,981**	26,071	25,678	26,157	25,725	26,397	94.8
Ohio	14,461	14,392	**16,147**	14,990	*11,452*	13,726	15,169	15,470	15,218	14,169	13,778	14,431	14,610	70.8
Pennsylvania	13,184	13,224	**13,455**	13,386	13,239	*12,909*	13,167	13,379	13,302	13,111	12,993	12,975	13,068	95.9
Virginia	1,555	1,730	1,627	1,577	1,482	1,567	1,656	1,610	1,705	1,583	1,506	1,477	*1,140*	65.9
Wisconsin	5,772	**6,065**	5,786	5,922	5,963	5,817	*5,476*	5,788	5,644	5,718	5,772	5,522	5,791	90.3

Prevailing hours of labor.—In Table 34 the average number of wage earners reported for 1914 and 1909, for the industry and for the states in which an average of 500 or more were reported at the census of 1914, has been classified according to the number of hours of labor per week prevailing in the establishments in which they were employed.

Table 34

STATE.	Census year.	AVERAGE NUMBER OF WAGE EARNERS.							
		Total.	In establishments where the prevailing hours of labor per week were—						
			48 and under.	Between 48 and 54.	54.	Between 54 and 60.	60.	Between 60 and 72.	72 and over.
United States	1914	191,555	4,968	23,263	79,699	77,854	5,773	.....	....
	1909	185,116	543	6,094	44,109	105,554	28,583	221	12
California	1914	617	7	228	374	.....	8	.....	....
	1909	695	.....	.....	641	.....	35	19	....
Connecticut	1914	567	.....	.....	188	377	2	.....	....
	1909	520	.....	.....	40	480	.....	.....	....
Illinois	1914	6,071	18	195	1,175	4,503	180	.....	....
	1909	5,588	5	57	492	3,934	1,100	.....	....
Maine	1914	8,815	.....	73	461	8,029	252	.....	....
	1909	6,508	.....	169	268	4,723	1,348	.....	....
Maryland	1914	595	.....	68	.....	270	257	.....	....
	1909	589	.....	65	4	118	402	.....	....
Massachusetts	1914	76,944	1,089	12,224	42,064	21,292	275	.....	....
	1909	74,710	104	3,835	30,299	39,509	963	.....	....
Michigan	1914	2,035	115	20	1,402	232	266	.....	....
	1909	2,455	6	11	1,674	572	192	.....	....
Minnesota	1914	2,012	39	.....	432	779	762	.....	....
	1909	2,664	.....	4	8	1,732	920	.....	....
Missouri	1914	13,169	110	819	5,783	6,063	394	.....	....
	1909	16,336	4	.....	2,210	9,197	4,925	.....	....
New Hampshire	1914	12,937	346	310	318	11,902	61	.....	....
	1909	13,042	.....	12	98	11,380	1,552	.....	....
New Jersey	1914	3,834	245	262	4	3,310	13	.....	....
	1909	4,084	12	12	71	3,534	455	.....	....
New York	1914	26,193	318	7,396	14,361	4,098	20	.....	....
	1909	20,545	61	1,073	4,677	9,554	5,089	85	6
Ohio	1914	14,461	810	103	6,089	7,201	258	.....	....
	1909	15,693	190	298	2,542	8,853	3,810	.....	....
Pennsylvania	1914	13,184	1,312	1,413	5,929	4,473	57	.....	....
	1909	10,576	2	451	479	8,400	1,127	117	....
Virginia	1914	1,555	.....	.....	.....	1,516	39	.....	....
	1909	2,677	.....	.....	.....	472	2,205	.....	....
Wisconsin	1914	5,772	308	16	528	2,412	2,508	.....	....
	1909	5,081	2	28	387	1,454	3,210	.....	....

The number employed in each establishment was classified as a total, even though a few employees worked a greater or smaller number of hours.

The figures in this table emphasize the tendency toward a shortening of the working-day of wage earners. In 1909, 28,816, or 15.6 per cent of the total average number of wage earners, worked in establishments where the prevailing hours of labor were 60 or more per week, whereas, but 5,773, or 3 per cent, were so reported in 1914; also the number of wage earners employed in establishments where the hours of work were between 54 and 60 decreased from 105,554, or from 57 per cent of the total, in 1909 to 77,854, or 40.6 per cent, in 1914. Massachusetts, reporting the largest number of wage earners, shows a very pronounced decrease in hours of labor. In 1909, 54.2 per cent of the wage earners were employed in establishments where the hours of labor were over 54 per week, but in 1914 the proportion thus employed had decreased to 28 per cent. Other important states, New York, Ohio, Pennsylvania, and Missouri show similar conditions.

Character of ownership.—Table 35 presents statistics concerning the character of ownership, or legal organization, of establishments in the industry, for 1914 and 1909, and for 14 of the more important states.

This table shows, for the industry, an increase during the five-year period 1909–1914 in the number of establishments operated under corporate ownership and a decrease in the number for other forms of ownership. Corporate ownership controlled 50.6 per cent of the factories in 1914 as compared with 45.4 per cent in 1909, reported about three-fourths of the value of products at both censuses, and gave employment to practically the same proportion of the average number of wage earners.

Of the states shown in the table, New York is the only one reporting more establishments under individual than corporate ownership. Connecticut

reported three establishments of each kind. In all other states corporations predominated. In Massachusetts, the state which produced by far more footwear than any other state, or any four states, 40.5 per cent of all the establishments were controlled by corporations. They gave employment to 73.7 per cent of the wage earners and reported 74.4 per cent of the value of products.

Table 35

STATE.	NUMBER OF ESTABLISHMENTS OWNED BY—			AVERAGE NUMBER OF WAGE EARNERS.						VALUE OF PRODUCTS.						
				Total.	In establishments owned by—			Per cent of total.			Total.	Of establishments owned by—			Per cent of total.		
	Individuals.	Corporations.	All others.		Individuals.	Corporations.	All others.	Individuals.	Corporations.	All others.		Individuals.	Corporations.	All others.	Individuals.	Corporations.	All others.
United States:																	
1914	387	686	282	191,555	12,469	148,887	30,199	6.5	77.7	15.8	$501,760,458	$28,188,732	$394,709,381	$78,862,345	5.6	78.7	15.7
1909	435	610	298	185,116	14,199	135,336	35,581	7.7	73.1	19.2	442,630,726	30,649,970	329,375,572	82,605,184	6.9	74.4	18.7
California	2	9	5	617	.....	592	[1]25	.....	95.9	4.1	1,891,356	.....	1,824,921	[1]66,435	.....	96.5	3.5
Illinois	16	23	8	6,071	343	5,299	429	5.6	87.3	7.1	16,891,626	1,108,785	14,727,840	1,055,001	6.6	87.2	6.2
Maine	6	38	6	8,815	36	8,257	522	0.4	93.7	5.9	22,836,073	143,356	20,912,085	1,780,632	0.6	91.6	7.8
Massachusetts	147	188	129	76,944	6,562	56,682	13,700	8.5	73.7	17.8	200,529,858	15,762,303	149,231,773	35,535,782	7.9	74.4	17.7
Michigan	4	18	2	2,035	.....	2,016	[1]19	.....	99.1	0.9	5,357,151	.....	5,328,416	[2]28,735	.....	99.5	0.5
Minnesota	2	12	.....	2,012	.....	[1]2,012	.....	.....	.....	.....	5,918,031	.....	[1]5,918,031	.....	.....	.....	.....
Missouri	3	46	.....	13,169	.....	[1]13,169	.....	.....	.....	.....	40,311,210	.....	[1]40,311,210	.....	.....	.....	.....
New Hampshire	9	36	10	12,937	573	11,293	1,071	4.4	87.3	8.3	37,664,039	1,289,025	34,046,642	2,328,372	3.4	90.4	6.2
New Jersey	9	21	12	3,834	168	2,769	897	4.4	72.2	23.4	8,238,710	292,513	6,140,774	1,805,423	3.6	74.5	21.9
New York	103	87	45	26,193	2,388	14,517	9,288	9.1	55.4	35.5	67,288,809	4,943,834	35,428,906	26,916,069	7.3	52.7	40.0
Ohio	6	52	4	14,461	371	13,910	180	2.6	96.2	1.2	32,773,922	594,945	31,658,520	520,457	1.8	96.6	1.6
Pennsylvania	37	61	33	13,184	1,464	9,010	2,710	11.1	68.3	20.6	27,844,752	2,785,283	19,299,273	5,760,196	10.0	69.3	20.7
Virginia	.....	6	2	1,555	.....	[2]1,555	.....	.....	.....	.....	3,708,558	.....	[2]3,708,558	.....	.....	.....	.....
Wisconsin	11	45	5	5,772	117	5,535	120	2.0	95.9	2.1	17,643,350	277,103	16,952,052	414,195	1.6	96.1	2.3

[1] Includes the group "individuals."

[2] Includes the group "all others."

Size of establishments.—The tendency of the boot and shoe industry to become concentrated in large establishments is indicated by the statistics given in Table 36.

Table 36

VALUE OF PRODUCT.	Census year.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
All classes	1914	1,355	191,555	$501,760,458	$191,403,872
	1909	1,343	185,116	442,630,726	165,162,983
Less than $5,000	1914	138	250	361,978	226,086
	1909	127	279	368,716	220,569
$5,000 to $20,000	1914	210	1,556	2,226,096	1,233,593
	1909	228	1,932	2,636,777	1,486,348
$20,000 to $100,000	1914	303	8,460	16 506,114	7,313,294
	1909	303	8,416	15,111,582	6,816,447
$100,000 to $1,000,000	1914	567	85,018	214,095,324	81,835,420
	1909	563	89,277	204,736,816	78,024,182
$1,000,000 and over	1914	137	96,271	268,570,946	100,795,479
	1909	122	85,212	219,776,835	78,615,437
Per cent distribution:					
Less than $5,000	1914	10.2	0.1	0.1	0.1
	1909	9.5	0.2	0.1	0.1
$5,000 to $20,000	1914	15.5	0.8	0.4	0.6
	1909	17.0	1.0	0.6	0.9
$20,000 to $100,000	1914	22.4	4.4	3.3	3.8
	1909	22.6	4.5	3.4	4.1
$100,000 to $1,000,000	1914	41.8	44.4	42.7	42.8
	1909	41.9	48.2	46.3	47.2
$1,000,000 and over	1914	10.1	50.3	53.5	52.7
	1909	9.1	46.0	49.6	47.6

For 1914, 137 establishments, or 10.1 per cent of the total number in the industry, each reported products of $1,000,000 or over in value, as compared with 122, or 9.1 per cent of the total, for 1909. For 1914 these establishments reported 50.3 per cent of the average number of wage earners, 53.5 per cent of the value of products, and 52.7 per cent of the value added by manufacture, as against 46 per cent, 49.6 per cent, and 47.6 per cent, respectively, for 1909. This group is the only one for which each item in the table shows a larger proportion of the total in 1914 than in 1909. In 1914 the small establishments—those having products of less than $5,000 in value—although representing 10.2 per cent of the total number, reported less than one-tenth of 1 per cent of the total value of products.

The largest group of establishments was that reporting products valued at "$100,000 to $1,000,000." This group comprises 41.8 per cent of the total number and reported 42.7 per cent of the total value of products in 1914.

Table 37 shows the size of establishments in 1914 and 1909, as measured by the number of wage earners employed, for the industry as a whole and for each state in which the average number of wage earners was 500 or more in 1914.

Of the total number of establishments in the industry, 32, or 2.4 per cent, in 1914, and 26, or 1.9 per cent, in 1909 employed no wage earners. The establishments for which no wage earners were reported were comparatively small plants in which the work was done by the proprietors or firm members. Some of these establishments employed a few wage earners for a short time, but the number was so small and the period of employment so short that in computing the average number, as described in the "Explanation of terms," no wage earners could be shown for these establishments.

In 1914 the greatest number of establishments in any of the groups shown in the table was 252, or 18.6 per cent of the total number, in the group employing from 101 to 250 wage earners. These establishments gave employment to 41,220 wage earners, or 21.5 per cent of the entire number in the industry.

There is little change shown for 1914 in the proportion of establishments or wage earners in the various groups as compared with 1909. The establishments employing more than 500 wage earners, however, show an increase both actually and proportionately. In 1909 there were 78 of these establishments, or 5.8 per cent of the total number, employing 67,162 wage earners, or 36.3 per cent of the entire number, while, in 1914, there were 85 establishments in this class, or 6.3 per cent, employing 76,113 wage earners, or 39.7 per cent of all those reported for the industry.

New York reported nine more establishments employing over 100 wage earners in 1914 than in 1909, and the proportion of the total number of wage earners in factories of this class increased from 81 per cent to 87.3 per cent. In this state there were two more establishments employing over 1,000 wage earners in 1914 than in 1909.

Illinois, Maine, and Wisconsin each reported an establishment employing over 1,000 wage earners for the first time in 1914, and Massachusetts reported an additional establishment in this class.

Table 37

STATE.	Census year.	TOTAL.		ESTABLISHMENTS EMPLOYING—															
				No wage earners.	1 to 5 wage earners.		6 to 20 wage earners.		21 to 50 wage earners.		51 to 100 wage earners.		101 to 250 wage earners.		251 to 500 wage earners.		501 to 1,000 wage earners.		Over 1,000 wage earners.	
		Establishments.	Wage earners (average number).	Establishments.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.
United States	1914	1,355	191,555	32	214	579	231	2,887	198	6,890	203	14,919	252	41,220	140	48,947	67	45,964	18	30,149
	1909	1,343	185,116	26	206	598	236	2,839	208	7,045	199	14,673	239	38,796	151	54,003	62	43,248	16	23,914
California	1914	16	617	1	6	25	1	7	1	50	6	373	1	162	.....	.....	.....	.....	.....	.....
	1909	18	695	.....	6	23	5	61	1	41	3	205	3	365	.....	.....	.....	.....	.....	.....
Connecticut	1914	9	567	2	2	7	1	7	.....	.....	1	55	3	498	.....	.....	.....	.....	.....	.....
	1909	9	520	1	1	5	2	20	2	59	1	55	2	381	.....	.....	.....	.....	.....	.....
Illinois	1914	47	6,071	2	10	21	10	98	3	101	6	435	10	1,709	3	1,017	2	1,610	1	1,030
	1909	46	5,588	1	8	22	8	104	9	345	5	402	8	1,377	4	1,416	3	1,922	.....	.....
Maine	1914	50	8,815	.....	8	17	10	108	6	221	7	532	10	1,758	3	965	5	4,212	1	1,002
	1909	47	6,508	.....	9	21	4	54	7	248	7	557	11	1,957	8	2,991	1	680	.....	.....
Maryland	1914	7	595	.....	.....	.....	1	20	1	32	2	140	3	403	.....	.....	.....	.....	.....	.....
	1909	11	589	1	1	4	1	12	3	86	3	231	2	256	.....	.....	.....	.....	.....	.....
Massachusetts	1914	464	76,944	10	72	208	64	834	72	2,503	70	5,355	75	12,044	65	22,402	27	17,121	9	16,477
	1909	469	74,710	9	66	189	70	890	85	2,794	54	3,930	84	13,249	71	25,948	22	14,618	8	13,092
Michigan	1914	24	2,035	1	4	6	6	76	1	27	6	439	4	504	1	317	1	666	.....	.....
	1909	23	2,455	.....	6	20	3	25	2	67	6	459	4	611	1	276	1	997	.....	.....
Minnesota	1914	14	2,012	.....	.....	.....	3	38	1	25	1	57	7	1,061	2	831	.....	.....	.....	.....
	1909	18	2,664	.....	3	10	2	15	2	78	5	402	2	239	3	1,295	1	625	.....	.....
Missouri	1914	49	13,169	1	3	6	2	27	3	90	5	378	12	2,114	18	6,477	4	2,579	1	1,493
	1909	52	16,336	2	3	10	4	65	1	23	4	351	13	2,360	17	5,697	6	4,380	2	3,450
New Hampshire	1914	55	12,937	.....	3	4	5	53	5	183	8	565	15	2,394	11	3,825	8	5,913	.....	.....
	1909	52	13,042	.....	1	5	5	70	5	194	11	763	12	2,178	10	3,335	6	4,294	2	2,203
New Jersey	1914	42	3,834	3	4	11	6	72	7	274	11	865	8	1,505	3	1,107	.....	.....	.....	.....
	1909	40	4,084	4	2	3	8	88	6	217	8	592	7	1,215	4	1,420	1	549	.....	.....
New York	1914	235	26,193	6	50	150	68	836	35	1,207	17	1,131	32	5,084	15	5,245	9	6,054	3	6,486
	1909	219	20,545	3	52	166	56	681	32	1,089	26	1,976	28	4,528	11	3,790	10	7,156	1	1,159
Ohio	1914	62	14,461	.....	4	8	5	63	7	198	6	480	25	4,342	7	2,335	6	4,402	2	2,633
	1909	63	15,693	1	2	3	9	97	3	96	7	500	23	3,885	9	3,303	7	4,908	2	2,901
Pennsylvania	1914	131	13,184	1	11	24	21	285	30	1,093	34	2,375	23	3,996	7	2,575	4	2,836	.....	.....
	1909	124	10,576	1	14	34	28	360	27	1,012	24	1,733	20	3,178	8	2,863	2	1,396	.....	.....
Virginia	1914	8	1,555	.....	.....	.....	.....	.....	2	67	.....	.....	3	468	3	1,020	.....	.....	.....	.....
	1909	8	2,677	.....	.....	.....	1	6	.....	.....	2	140	2	277	1	343	1	802	1	1,109
Wisconsin	1914	61	5,772	1	11	26	8	114	14	453	10	719	13	2,035	2	831	1	571	1	1,023
	1909	59	5,081	.....	9	14	9	110	13	397	12	847	12	1,802	3	990	1	921	.....	.....

Engines and power.—Table 38 shows, for 1914, 1909, and 1904, for the industry, the number and horsepower of engines or motors employed in generating power (including electric motors operated by purchased current). It also shows separately the number and horsepower of electric motors operated by current generated in the establishments reporting.

This table shows an increase in primary power in 1914 amounting to 14,336 horsepower, or 16.7 per cent, compared with 1909, and 44,012, or 78.3 per cent, compared with 1904. The use of rented power, now almost wholly electric, has greatly increased since 1904, when it represented only 21.4 per cent of the total primary power reported. In 1909 the amount of rented power had increased to 27.8 per cent of the total and in 1914 to 35.1 per cent. Rented electric power used has more than doubled since 1909 and has increased nearly sixfold since 1904. The use of electric motors run by current generated within the same establishments has increased more than 100 per cent, compared with 1909

and nearly 500 per cent since 1904. Of the total increase from 1909 to 1914 in primary power, only 3,405 horsepower, or 23.8 per cent, was in that generated by steam engines and turbines. Power generated by internal-combustion engines and water wheels, turbines, and motors formed a small proportion of the total primary power reported for the industry, and this proportion decreased slightly at each census.

Table 38

POWER.	NUMBER OF ENGINES OR MOTORS.			HORSEPOWER.					
				Amount.			Per cent distribution.		
	1914	1909	1904	1914	1909	1904	1914	1909	1904
Primary power, total	5,960	2,624	1,216	100,232	85,896	56,220	100.0	100.0	100.0
Owned	595	672	683	65,057	61,974	44,220	64.9	72.2	78.6
Steam engines and turbines[1]	480	524	534	60,085	56,680	40,253	59.9	66.0	71.6
Internal-combustion engines	91	122	115	3,421	3,235	2,355	3.4	3.8	4.2
Water wheels, turbines, and motors	24	26	34	1,551	2,059	1,612	1.6	2.4	2.8
Rented	5,365	1,952	533	35,175	23,922	12,000	35.1	27.8	21.4
Electric	5,365	1,952	533	30,909	14,553	5,328	30.8	16.9	9.5
Other	.....	.....	.....	4,266	9,369	6,672	4.3	10.9	11.9
Electric	8,514	3,474	1,069	54,159	29,169	11,695	100.0	100.0	100.0
Rented	5,365	1,952	533	30,909	14,553	5,328	57.1	49.9	45.6
Generated by establishments reporting	3,149	1,522	536	23,250	14,616	6,367	42.9	50.1	54.4

[1] Figures for horsepower include for 1909 and 1904 the amounts reported under the head of "other" owned power.

Fuel.—Closely related to the kind of power employed in the industry is that of fuel consumed in generating this power. Table 39 shows, for 1914, the quantity of each kind of fuel used, for which data were obtained, for the industry as a whole and for 16 separate states.

Bituminous coal was used to a greater extent than any other kind of fuel. Of the quantity reported, Massachusetts contributed 29.2 per cent. Of the 78,076 tons of anthracite coal used, New York reported 35.2 per cent, more than any other state. Of the total amount of gas used for fuel, the state of Ohio reported 56.1 per cent and New York 17.5 per cent. Every state reported the use of gas except Connecticut. Oil was used to some extent. California reported 1,785 barrels, or 49.5 per cent of the total. Coke did not figure largely in the fuel supply. Ohio reported two-thirds of all coke used.

Table 39

STATE.	Coal.		Coke (tons, 2,000 lbs.).	Oil, including gasoline (barrels).	Gas (1,000 cubic feet).
	Anthracite (tons, 2,240 lbs.).	Bituminous (tons, 2,000 lbs.).			
United States	78,076	277,921	2,943	3,608	181,667
California	.....	155	.....	1,785	1,403
Connecticut	17	588	.....	.....	.....
Illinois	2,411	13,123	.....	110	1,483
Maine	976	10,074	.....	214	348
Maryland	.....	798	.....	2	843
Massachusetts	19,220	81,067	167	200	7,169
Michigan	169	6,097	.....	.....	559
Minnesota	915	3,380	.....	3	535
Missouri	6,550	39,779	.....	18	4,162
New Hampshire	1,642	21,949	.....	76	2,215
New Jersey	2,985	5,338	7	29	3,322
New York	27,513	27,749	.....	21	31,815
Ohio	100	31,966	1,963	431	101,855
Pennsylvania	12,406	12,151	656	465	4,385
Virginia	.....	4,976	.....	7	161
Wisconsin	3,126	10,833	115	151	2,709
All other states	46	6,698	35	96	18,703

SPECIAL STATISTICS RELATING TO PRODUCTS.

Products.—The special schedule used in collecting statistics for the boot and shoe industry at the last four censuses required a detailed statement of the number of pairs and value of the different kinds of boots, shoes, and slippers manufactured, except that values were not called for in 1909. Table 40 gives the number of pairs and value of the different kinds of footwear produced in the industry for 1914, 1904, and 1899.

Table 40

	1914	1904	1899
Total value	[1] $501,760,458	[1] $320,107,458	$258,969,580
Boots, shoes, and slippers:			
Total number of pairs	202,666,468	242,110,035	217,965,419
Total value	$480,053,124	$315,987,387	$255,720,266
Boots and shoes—			
Number of pairs	252,516,603	216,039,401	195,589,173
Value	$455,398,112	$298,658,805	$240,744,149
Men's—			
Number of pairs	98,031,144	83,434,322	67,742,839
Value	$210,994,422	$142,038,632	$108,105,938
Boys' and youths'—			
Number of pairs	22,895,719	21,717,236	21,030,479
Value	$32,852,560	$24,301,298	$20,739,297
Women's—			
Number of pairs	80,916,239	69,470,876	64,972,653
Value	$148,433,738	$98,202,016	$81,804,303
Misses' and children's—			
Number of pairs	48,322,395	41,416,967	41,843,202
Value	$51,870,908	$34,056,919	$30,004,611

	1914	1904	1899
Boots, shoes, and slippers—Continued.			
Boots and shoes—Continued.			
Fiber—			
Number of pairs	2,351,106	[2]	[2]
Value	$2,246,484	[2]	[2]
Slippers—			
Number of pairs	17,733,689	17,518,291	17,092,841
Value	$22,024,283	$13,996,832	$12,934,606
Men's, boys', and youths'—			
Number of pairs	3,666,972	4,403,097	4,446,965
Value	$3,450,362	$3,464,561	$2,800,213
Women's, misses', and children's—			
Number of pairs	14,066,717	13,115,194	12,645,876
Value	$18,573,921	$10,532,271	$10,134,393
Infants' shoes and slippers—			
Number of pairs	15,476,763	[2]	[2]
Value	$7,572,774	[2]	[2]
All other kinds—			
Number of pairs	6,039,413	8,552,343	5,283,405
Value	$4,057,955	$3,331,690	$2,041,511
All other products, including amount received for work done for others	$12,707,334	$4,120,071	$3,249,314

[1] Exclusive of boots and shoes to the value of $855,582 for 1914, and to the value of $89,000 for 1904, reported by establishments engaged primarily in other industries.
[2] Not reported separately.

Production, by kinds.—Table 41 gives the number of pairs of the different kinds of footwear produced in the industry in the United States and in 10 of the more important states during the census years 1914, 1909, and 1904.

The total output of boots and shoes, exclusively, in 1914, amounted to 252,516,603 pairs, which includes fiber shoes to the number of 2,351,106 pairs. Fiber shoes have been included in "all other pairs," as they were not reported separately in 1909 nor were they divided in 1914 as to men's, women's, etc. "All other pairs" in 1914 represent principally infants' shoes and slippers and felt or other fiber slippers, and in 1909 they cover not only infants' shoes and slippers and felt and carpet slippers, but sandals, athletic, sporting, logging, and mining shoes, and other similar footwear, of which the quantities were not given for 1914, although the values were reported. Infants' shoes and slippers were not reported separately in 1904.

Table 41

STATE.	Census year.	Number of establishments.	Total number of pairs.	BOOTS AND SHOES (NUMBER OF PAIRS). Total.	Men's.	Boys' and youths'.	Women's.	Misses' and children's.	SLIPPERS (NUMBER OF PAIRS). Total.	Men's, boys', and youths'.	Women's, misses', and children's.	All other, pairs.
United States	1914	1,355	292,666,468	[1] 250,165,497	98,031,144	22,895,719	80,916,239	48,322,395	17,733,689	3,666,972	14,066,717	[2] 24,767,282
	1909	1,343	285,017,181	247,643,197	93,888,892	23,838,626	86,595,314	43,320,365	17,507,834	4,802,841	12,704,993	19,866,150
	1904	1,316	242,110,035	216,039,401	83,434,322	21,717,236	69,470,876	41,416,967	17,518,291	4,403,097	13,115,194	8,552,343
Massachusetts	1914	464	115,224,383	98,009,176	44,750,716	8,318,252	32,295,781	12,644,427	11,799,532	3,061,796	8,737,736	5,415,675
	1909	469	118,009,926	102,826,648	45,155,939	9,019,124	36,778,432	11,873,153	10,155,324	3,369,808	6,785,516	5,027,954
	1904	502	107,259,876	93,546,297	44,873,920	8,439,461	28,190,958	12,036,958	12,069,160	3,549,189	8,519,971	1,644,419
New York	1914	235	38,798,158	29,108,742	9,923,488	2,590,175	12,021,725	4,573,354	1,301,509	108,531	1,192,978	8,387,907
	1909	219	28,538,451	20,105,346	3,853,855	745,527	10,141,133	5,364,831	2,518,469	701,356	1,817,113	5,914,636
	1904	188	23,827,290	19,010,064	5,576,787	1,265,183	7,174,649	4,993,445	2,037,412	393,968	1,643,444	2,779,814
New Hampshire	1914	55	24,659,886	22,708,546	11,048,926	4,010,136	3,773,648	3,875,836	1,674,374	159,872	1,514,502	276,966
	1909	52	25,534,114	25,069,572	11,698,985	4,176,479	4,587,874	4,606,234	282,124	----------	282,124	182,418
	1904	50	22,110,427	20,790,119	7,835,134	3,614,135	4,759,444	4,581,406	1,270,308	244,020	1,026,288	50,000
Pennsylvania	1914	131	22,184,502	17,717,501	1,697,909	1,230,664	3,672,662	11,116,356	312,334	[3]	[3]	4,154,577
	1909	124	17,588,474	11,631,329	942,959	1,105,348	3,285,815	6,297,207	1,165,117	127,944	1,037,173	4,792,028
	1904	119	13,336,420	9,998,589	1,116,021	1,035,721	3,417,319	4,429,528	328,741	6,778	321,963	3,009,090
Missouri	1914	49	20,868,352	20,444,240	8,840,878	748,018	6,758,611	4,096,733	102,422	[3]	[3]	321,690
	1909	52	25,931,107	24,657,160	9,303,028	2,087,258	8,642,965	4,623,909	616,229	27,551	588,678	657,718
	1904	34	16,439,858	15,918,052	5,740,729	1,819,192	5,993,114	2,365,017	249,806	26,500	223,306	272,000
Ohio	1914	62	17,973,441	17,161,199	1,419,925	1,734,957	10,966,825	3,039,492	662,456	[3]	[3]	149,786
	1909	63	18,908,915	17,693,316	1,702,194	1,372,330	11,154,083	3,464,709	1,147,239	180,507	966,732	68,360
	1904	62	18,263,416	18,063,299	1,661,202	1,590,568	9,797,093	5,014,436	192,053	25,379	166,674	8,064
Maine	1914	50	15,709,277	12,704,966	4,476,245	572,980	4,256,166	3,399,575	[3]	[3]	667,239	[3]
	1909	47	9,275,102	9,066,454	4,786,134	665,270	2,886,923	728,127	[3]	[3]	[3]	[3]
	1904	50	9,261,587	9,152,833	5,709,462	1,048,268	2,244,921	150,182	29,934	9,710	20,224	78,820
Wisconsin	1914	61	8,382,882	8,017,963	5,000,827	865,138	1,336,525	815,473	135,999	21,515	114,484	228,920
	1909	59	7,296,629	6,777,363	4,055,496	652,109	1,442,341	627,417	204,872	39,018	165,854	314,394
	1904	53	4,408,468	3,951,542	2,064,125	548,867	737,567	600,983	269,942	41,288	228,654	186,984
Illinois	1914	47	8,292,659	7,370,553	3,934,629	1,058,239	1,625,866	751,819	246,835	49,140	197,695	675,271
	1909	46	8,295,805	6,893,731	4,018,016	1,270,520	1,034,470	570,725	274,697	112,900	161,797	1,127,377
	1904	44	6,143,462	5,736,197	3,463,185	691,165	887,707	694,140	261,265	43,099	218,166	146,000
New Jersey	1914	42	6,112,974	3,738,459	596,830	4,438	611,980	2,525,211	196,842	17,882	178,960	2,177,673
	1909	40	6,154,954	4,943,451	602,075	137,612	755,486	3,448,278	663,476	125,181	538,295	548,027
	1904	51	6,274,064	5,816,608	543,657	87,104	672,309	4,513,538	428,036	33,276	394,760	29,420
All other states	1914	159	14,459,954	13,184,062	6,340,771	1,762,722	3,596,450	1,484,119	1,301,386	248,236	1,463,123	3,300,507
	1909	172	19,483,704	17,978,827	7,770,211	2,607,049	5,885,792	1,715,775	480,287	118,576	361,711	1,890,956
	1904	163	14,785,167	14,055,801	4,845,100	1,577,572	5,595,795	2,037,334	381,634	29,890	351,744	347,732

[1] The total number of pairs of boots and shoes reported was 252,516,603, but 2,351,106 pairs of fiber shoes have been included in "all other pairs," as they were not divided as to kind.
[2] Includes 2,351,106 pairs of fiber shoes which could not be segregated as to kind and 15,476,763 pairs of infants' shoes and slippers.
[3] Included with "all other states," to avoid disclosure of individual operations.

Massachusetts in 1914, as at previous censuses, produced more boots, shoes, and slippers than any other state and more of every class for which figures are shown, except the "all other pairs" class. The state, however, reports an actual decrease in quantity, amounting to 2,785,543 pairs, or 2.4 per cent, as compared with 1909. Of the total number of pairs of footwear manufactured in the United States, the proportion contributed by Massachusetts was smaller than at previous censuses, amounting to 39.4 per cent in 1914, as compared with 41.4 in 1909, and 44.3 in 1904. In the manufacture of men's, boys' and youths', and women's shoes the state shows a decreased production, while more misses' and children's shoes were made in 1914 than 1909. Of the "slippers," Massachusetts produced the largest portion of the total output, 66.5 per cent in 1914, compared with 58 per cent in 1909. The increase was in women's, misses', and children's slippers and amounted to 1,952,220 pairs, or 28.8 per cent; men's, boys', and youths' slippers showed a small decrease.

Despite the decrease in number of pairs of boots, shoes, and slippers reported in Massachusetts there was a substantial increase in value of this product (see Table 46). Higher cost of leather, of findings, and of labor accounts largely for the increased value of footwear of all kinds, not only in the state of Massachusetts, the early home of the boot and shoe industry, but in all parts of the country.

New York stands out as reporting for the period 1909–1914 not only the greatest increase in value of products but the largest actual increase in quantity of boots and shoes manufactured, amounting to 9,003,396 pairs, or 44.8 per cent. The greatest increase was in the number of men's shoes, although the quantity of boys' and youths' and of women's also increased. The output of misses' and children's shoes decreased to some extent.

In the manufacture of boots and shoes Pennsylvania shows the largest relative increase from 1909 to 1914. This increase was 6,086,262 pairs, or 52.3 per cent. Maine also showed a largely increased output, amounting to 3,638,512 pairs, or 40.1 per cent.

Infants' shoes and slippers.—Statistics for infants' shoes and slippers were given separately for the first time at the 1909 census. Table 42 shows that there were 15,476,763 pairs reported in 1914, an increase of 476,042, or 3.2 per cent, over the 1909 figures.

Table 42

STATE.	INFANTS' SHOES AND SLIPPERS (NUMBER OF PAIRS).	
	1914	1909
United States	15,476,763	15,000,721
Illinois	545,169	1,002,277
Massachusetts	3,109,511	3,610,576
Missouri	318,002	657,368
New Hampshire	276,966	182,418
New Jersey	2,093,534	312,398
New York	4,306,631	3,797,675
Pennsylvania	4,117,042	4,563,505
Wisconsin	170,332	145,319
All other states	539,576	729,185

Production, by method of manufacture.—The demand for novelty in shoes and the improved upper leather in almost endless variety put on the market by the tanners gave the shoe manufacturer his opportunity. There have never before been so many kinds and styles of shoes manufactured. Men, women, misses, and children are wearing fancy shoes of varied hues and colors regardless of seasons, and the shapes are as many as lasts and patterns can be made to produce.

The standard types of shoes manufactured, however, remain the same. They are the McKay, the "turned," the "welted," and the "wood or metal fastened." The oldest is the McKay. The shoe is sewed from a channel in the outsole through the sole and insole, the machine making a "chain" or "loop" stitch from a single waxed thread which leaves a ridge of thread on the inside of the shoe. The "turned" shoe is made inside out and turned after stitching. The "welted" shoe, considered the best type of shoe manufactured, is made on a machine which sews from the channel of the insole, through upper and welt, uniting all three, and leaving the loop on the outside of the welt. The outsole is then stitched to the welt only, by another machine, which sews from a channel made in the outsole, through outsole and welt. The "wood or metal fastened" is a type of shoe that has the sole fastened to the upper by wooden pegs or wire screws.

Table 43 gives, by classes, for the United States as a whole, the number of pairs of boots, shoes, and slippers produced, by method of manufacture, for 1914 and 1909.

Table 43

KIND.	Census year.	NUMBER OF PAIRS. Total.	Welted.	Turned.	McKay.	Wood or metal fastened.
Total	1914	292,666,468	106,714,700	55,378,961	105,309,744	25,263,063
	1909	285,017,181	92,119,600	46,566,988	118,266,871	28,063,722
Boots and shoes	1914	252,516,603	104,466,823	29,609,882	93,448,378	24,991,520
	1909	247,643,197	87,391,763	26,317,990	107,063,644	26,869,800
Men's	1914	98,031,144	63,975,763	582,802	14,951,419	18,521,160
	1909	93,888,892	53,212,450	989,240	20,438,585	19,248,617
Boys' and youths'.	1914	22,895,719	4,229,490	41,210	13,451,259	5,173,760
	1909	23,838,626	4,423,934	50,377	15,016,611	4,347,704
Women's	1914	80,916,239	28,319,295	15,066,037	36,738,465	792,442
	1909	86,595,314	25,871,899	14,281,764	44,518,966	922,685
Misses' and children's.	1914	48,322,395	7,803,807	11,837,713	28,178,753	1,502,122
	1909	43,320,365	3,883,480	10,996,609	27,089,482	1,350,794
Fiber	1914	2,351,106	138,468	2,082,120	128,482	2,036
	1909	(1)	(1)	(1)	(1)	(1)
Slippers, not elsewhere specified.	1914	17,733,689	1,362,287	9,087,331	7,222,128	61,943
	1909	17,507,834	1,318,995	7,611,748	8,396,874	180,217
Men's, boys', and youths'.	1914	3,666,972	296,078	1,563,428	1,753,623	53,843
	1909	4,802,841	648,007	1,733,742	2,286,652	134,440
Women's, misses', and children's.	1914	14,066,717	1,066,209	7,523,903	5,468,505	8,100
	1909	12,704,993	670,988	5,878,006	6,110,222	45,777
Infants' shoes and slippers.	1914	15,476,763	864,015	13,226,124	1,311,024	75,600
	1909	15,000,721	1,979,593	11,447,508	1,520,072	53,548
All other [2]	1914	6,939,413	21,575	3,455,624	3,328,214	134,000
	1909	4,865,429	1,429,249	1,189,742	1,286,281	960,157

[1] Not reported separately.
[2] Includes athletic, sporting, logging, and mining shoes, sandals, and felt and other fiber slippers.

The production of boots, shoes, and slippers, according to method of manufacture, was first reported in 1909.

Of the total number of boots and shoes manufactured in 1914, 41.4 per cent were made by the welted method and 37 per cent by the McKay, while in 1909 the largest number, or 43.2 per cent, were McKay and 35.3 per cent welted. Of the boots and shoes made for men, nearly two-thirds were welted, while the large majority of the boys' and youths' shoes were McKay. Women's shoes were more evenly divided as to the method of manufacture, 45.4 per cent being McKay, 35 per cent welted, and most of the remainder turned.

Of the total production of slippers, more than half, 51.2 per cent, were of the turned variety. For men's, boys' and youths', however, there were more McKay reported than turned. Nearly 90 per cent of the infants' shoes and slippers were turned.

Table 44 shows, by method of manufacture, the total number of pairs of boots, shoes, and slippers produced in the 12 leading states for 1914 and 1909.

The number of welted shoes made outnumbered all others in the states of Massachusetts, New York, Illinois, Minnesota, and Michigan. In 1909 this was also true of the last three states, but the McKay shoes produced in Massachusetts outnumbered the welted by a small number of pairs, and more turned were produced in New York than any other kind. All the other states shown in the table manufactured more footwear by the McKay than any other method in 1914, except Pennsylvania and New Jersey which show the largest number as turned.

Table 44

STATE.	Census year.	NUMBER OF PAIRS OF BOOTS, SHOES, AND SLIPPERS. Total.	Welted.	Turned.	McKay.	Wood or metal fastened.
United States.	1914	292,666,468	106,714,700	55,378,961	105,309,744	25,263,063
	1909	285,017,181	92,119,600	46,560,988	118,266,871	28,063,722
Massachusetts	1914	115,224,383	48,245,803	21,084,585	38,009,118	7,884,877
	1909	118,009,926	43,068,216	18,104,556	43,910,241	12,926,913
New York	1914	38,798,158	12,531,062	10,996,094	7,315,343	7,955,659
	1909	28,538,451	8,841,244	9,817,985	7,682,691	2,196,531
New Hampshire	1914	24,659,886	8,767,505	(1)	13,750,567	(1)
	1909	25,534,114	6,342,752	1,042,833	15,947,025	2,201,504
Pennsylvania	1914	22,184,502	4,943,311	11,107,454	5,605,405	528,332
	1909	17,588,474	3,436,095	8,615,131	4,900,313	636,935
Missouri	1914	20,868,352	7,779,541	930,719	9,423,161	2,734,931
	1909	25,931,107	7,427,519	1,499,685	15,132,538	1,871,365
Ohio	1914	17,973,441	6,075,029	(1)	10,384,742	(1)
	1909	18,908,915	5,828,114	1,746,079	10,286,810	1,047,912
Maine	1914	15,709,277	5,925,381	3,330,532	6,217,774	235,590
	1909	9,275,102	4,746,113	535,489	3,686,416	307,084
Wisconsin	1914	8,382,882	2,500,424	727,324	3,304,325	1,850,809
	1909	7,296,629	1,825,953	565,617	2,123,436	2,781,623
Illinois	1914	8,292,659	3,988,692	(1)	3,780,123	(1)
	1909	8,295,805	3,820,728	(1)	3,458,585	(1)
New Jersey	1914	6,112,974	1,074,736	3,495,465	1,542,773	.....
	1909	6,154,954	1,480,016	2,972,614	1,702,324	(2)
Minnesota	1914	2,718,874	1,295,773	289,675	573,759	559,667
	1909	3,195,530	1,618,890	171,385	875,652	529,603
Michigan	1914	2,117,230	906,942	(1)	(1)	775,369
	1909	2,986,002	1,121,617	625,961	510,074	728,350

[1] Figures can not be shown without disclosing individual operations.
[2] Included in "McKay," to avoid disclosure of individual operations.

More than two-thirds of the production of Pennsylvania were misses' and children's shoes or infants' shoes and slippers, a large percentage of these classes being turned. New Jersey reported more than one-third of the output as infants' shoes and slippers, and practically all of these were turned. The table shows that states in which the McKay method or turned method predominated in 1914 reported the same in 1909, except Maine which shows welted as the largest class in 1909 but McKay in 1914.

Exports of boots and shoes.—Table 45 gives the value of the exports of leather boots, shoes, and slippers for the fiscal years ending June 30, 1870, 1880, 1890, 1900, 1905, and for each succeeding year to 1915, inclusive. (The figures are taken from the Statistical Abstract of the United States.)

Table 45

FISCAL YEAR ENDED JUNE 30—	Value of exports of boots and shoes.	FISCAL YEAR ENDED JUNE 30—	Value of exports of boots and shoes.
1915	$24,934,807	1907	$10,666,949
1914	18,229,714	1906	9,142,748
1913	18,547,840	1905	8,057,697
1912	16,009,002	1900	4,276,656
1911	13,746,842	1890	662,974
1910	12,408,575	1880	441,069
1909	10,305,814	1870	419,612
1908	11,469,559		

DETAIL STATE TABLES.

Table 46 shows, for 1914, 1909, and 1904, by states, the number of establishments, average number of wage earners, primary horsepower, wages, cost of materials, and value of products reported for the boot and shoe industry. Table 47 presents, for 1914, by states, the more detailed statistics for the industry.

TABLE 46.—COMPARATIVE SUMMARY, BY STATES, FOR 1914, 1909, AND 1904.

STATE.	Census year.	Number of establishments.	Wage earners (average number).	Primary horsepower.	Wages.	Cost of materials.	Value of products.
					Expressed in thousands.		
United States	1914	1,355	191,555	100,232	$105,695	$310,357	$501,760
	1909	1,343	185,116	85,806	92,359	277,468	442,631
	1904	1,316	149,924	56,220	69,060	197,363	320,107
California	1914	16	617	475	396	1,253	1,891
	1909	18	695	369	402	1,120	1,924
	1904	21	700	241	385	961	1,678
Illinois	1914	47	6,071	3,286	3,185	10,982	16,892
	1909	46	5,588	2,623	2,980	9,495	15,111
	1904	44	3,947	1,838	1,865	5,656	9,026
Iowa	1914	9	389	427	244	501	845
	1909	10	716	345	318	1,059	1,633
	1904	5	478	263	186	522	854
Kentucky	1914	9	440	423	180	1,672	2,564
	1909	10	419	232	167	2,439	3,235
	1904	9	659	263	200	1,360	1,930
Maine	1914	50	8,815	4,369	4,948	14,743	22,836
	1909	47	6,508	3,330	3,152	9,778	15,158
	1904	50	5,775	2,652	2,623	8,302	12,351
Maryland	1914	7	595	242	278	824	1,447
	1909	11	589	250	237	901	1,412
	1904	14	651	178	236	535	1,011
Massachusetts	1914	464	76,944	32,870	46,744	120,326	200,530
	1909	469	74,710	28,742	41,970	114,277	187,046
	1904	502	62,633	19,694	33,161	88,493	144,291
Michigan	1914	24	2,035	1,596	932	3,181	5,357
	1909	23	2,455	786	936	3,347	5,256
	1904	23	1,723	649	681	2,016	3,531
Minnesota	1914	14	2,012	1,159	1,121	3,980	5,918
	1909	18	2,664	1,411	1,290	4,935	7,568
	1904	17	1,714	883	719	2,632	4,170
Missouri	1914	49	13,169	8,911	$6,113	$25,946	$40,311
	1909	52	16,336	10,421	7,676	28,943	42,534
	1904	34	10,428	5,144	4,335	14,930	23,494
New Hampshire	1914	55	12,937	6,714	6,676	26,365	37,664
	1909	52	13,042	7,744	6,418	23,937	34,027
	1904	50	10,415	4,541	4,377	15,530	22,426
New Jersey	1914	42	3,834	1,814	1,935	4,767	8,239
	1909	40	4,084	1,344	1,863	4,352	7,524
	1904	51	4,192	1,420	1,754	3,842	6,977
New York	1914	235	26,193	14,458	15,195	40,188	67,289
	1909	219	20,545	9,374	10,202	26,274	44,425
	1904	188	16,556	5,854	7,583	19,793	34,137
Ohio	1914	62	14,461	9,813	7,030	19,248	32,774
	1909	63	15,693	8,809	6,532	18,148	30,529
	1904	62	13,890	5,997	5,223	14,558	25,140
Pennsylvania	1914	131	13,184	6,271	6,119	16,524	27,845
	1909	124	10,576	4,213	4,181	11,455	19,402
	1904	119	8,878	3,100	3,230	8,701	14,608
Washington	1914	11	178	194	112	500	707
	1909	9	170	148	88	450	599
	1904	5	106	31	47	121	226
Wisconsin	1914	61	5,772	3,888	2,695	11,989	17,643
	1909	59	5,081	2,665	2,131	8,494	13,114
	1904	53	3,226	1,389	1,248	4,220	6,514
All other states	1914	69	3,909	3,317	1,792	7,368	11,008
	1909	73	5,245	3,090	1,816	8,064	12,134
	1904	69	3,953	2,080	1,207	5,191	7,743

TABLE 47.—DETAIL STATISTICS FOR BOOTS AND SHOES, BY STATES: 1914.

STATE.	Number of establishments.	PERSONS ENGAGED IN THE INDUSTRY.								WAGE EARNERS DEC. 15, OR NEAREST REPRESENTATIVE DAY.					Capital.	EXPENSES.	
		Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks, etc.		Wage earners.			Total.	16 and over.		Under 16.			Salaries and wages.	
					Male.	Female.	Average number.	Number, 15th day of—			Male.	Female.	Male.	Female.		Officials.	Clerks, etc.
								Maximum month.	Minimum month.								
United States	1,355	210,348	1,090	4,083	7,780	5,840	191,555	Fe 203,135	No 183,212	195,347	124,148	67,549	1,981	1,669	$254,590,832	$9,306,853	$13,621,218
California	16	734	38	24	40	15	617	Mh 672	Jy 567	585	408	162	13	2	919,704	53,080	49,849
Connecticut	9	644	12	25	10	21	567	De 695	Ja 466	695	380	292	10	13	901,215	65,054	38,709
Illinois	47	6,738	32	111	337	137	6,071	Jy 6,461	Ap 5,814	6,285	3,743	2,388	75	79	8,365,952	273,624	439,576
Indiana	6	442	2	16	44	20	360	Fe 444	My 260	383	226	124	18	15	1,093,620	30,998	55,150
Iowa	9	433	1	9	20	8	389	Oc 446	Mh 338	443	240	184	14	5	462,515	14,060	24,071
Kansas	4	38	0	1	1	2	28	Au 34	Ja [1] 22	33	23	10	.....	.....	49,921	1,500	1,102
Kentucky	9	572	11	48	64	9	440	Oc 460	Ap 402	451	229	211	3	8	1,929,803	93,966	122,842
Louisiana	7	304	18	6	11	8	261	Jy 272	No 240	258	185	68	5	.....	434,100	9,772	11,523
Maine	50	9,371	23	179	166	188	8,815	Ja 9,836	Je 8,118	9,054	5,827	3,163	42	22	8,042,710	408,343	402,982
Maryland	7	666	3	20	35	13	595	Fe 648	Jy 537	631	405	218	7	1	947,823	27,930	31,297
Massachusetts	464	83,877	445	1,542	2,327	2,619	76,044	Ja 82,818	Oc 72,023	78,971	51,096	26,604	640	625	92,253,524	3,396,648	4,501,075
Michigan	24	2,271	10	57	84	85	2,035	Ja 2,207	No 1,800	1,964	1,209	723	22	10	3,064,420	116,002	144,805
Minnesota	14	2,284	1	40	165	66	2,012	Fe 2,268	So 1,751	2,033	1,446	574	6	7	6,102,974	114,556	267,049
Missouri	49	15,225	3	272	1,426	355	13,169	Ap 14,887	No 9,087	12,749	7,803	4,773	96	77	27,701,768	660,633	2,203,822
New Hampshire	55	13,027	38	257	322	373	12,037	Ja 13,853	My 12,401	12,857	8,337	4,402	74	44	12,733,266	505,423	558,194
New Jersey	42	4,172	37	106	142	53	3,834	Fe 4,178	No 3,594	3,886	2,390	1,456	15	25	4,520,556	236,998	174,131
New York	235	28,668	207	516	889	863	26,193	Jy 26,981	Ap 25,572	27,060	17,900	8,735	223	202	29,955,081	1,304,497	1,716,079
North Carolina	4	82	7	3	2	.....	70	Au 74	Ja 66	71	70	.....	1	.....	155,170	2,300	2,700
Ohio	62	15,995	18	318	717	481	14,461	Fe 16,147	Ap 11,432	15,016	8,756	6,120	77	54	21,542,379	799,494	1,447,851
Pennsylvania	131	14,248	121	298	426	210	13,184	Fe 13,455	My 12,909	13,262	8,004	4,458	444	356	15,817,846	709,571	586,629
Texas	7	72	13	3	1	1	54	No [1] 57	Au [1] 50	57	55	2	.....	.....	81,667	5,360	1,113
Virginia	8	1,738	6	39	45	93	1,555	Ja 1,730	De 1,140	1,540	994	509	46	21	2,452,888	72,796	45,645
Washington	11	217	7	12	14	6	178	Ja 203	Jy [1] 164	180	133	39	8	.....	1,067,937	23,366	21,055
Wisconsin	61	6,507	21	156	374	184	5,772	Ja 6,065	Je 5,470	5,853	3,670	1,969	118	96	12,545,864	319,109	692,900
All other states [2]	24	1,123	10	25	53	21	1,014	.....	.....	1,030	649	356	18	7	1,448,120	61,773	80,469

STATE.	EXPENSES—continued.						Value of products.	Value added by manufacture.	POWER.					
	Salaries and wages—Con.		Rent and taxes.		For materials.				Primary horsepower.					Electric horsepower generated in establishments reporting.
	Wage earners.	For contract work.	Rent of factory.	Taxes, including internal revenue and corporation income.	Principal materials.	Fuel and rent of power.			Total.	Steam engines. [3]	Internal-combustion engines. [4]	Water wheels and motors. [3]	Electric (rented).	
United States	$105,695,404	$1,500,381	$2,084,659	$1,487,114	$308,353,255	$2,003,331	$501,760,458	$191,403,872	100,232	60,085	7,687	1,551	30,909	23,250
California	396,471	500	12,504	7,218	1,244,121	9,238	1,891,350	637,997	475	100	.....	.....	375	.....
Connecticut	251,532	60,000	4,905	3,004	1,331,988	6,072	1,957,709	619,649	227	112	.....	.....	115	.....
Illinois	3,184,622	6,609	110,079	161,147	10,024,089	57,556	16,891,626	5,909,081	3,286	2,258	80	1	947	1,209
Indiana	184,033	.....	240	6,978	765,256	10,824	1,277,895	501,815	423	25	10	.....	388	.....
Iowa	244,411	.....	3,000	2,527	490,502	10,433	844,671	343,736	427	80	.....	.....	347	76
Kansas	15,930	.....	1,028	238	30,169	775	66,773	35,829	38	.....	.....	.....	38	.....
Kentucky	170,861	230,860	2,040	7,070	1,666,021	5,699	2,564,209	892,489	428	75	10	.....	343	30
Louisiana	120,105	.....	1,050	4,388	360,809	6,657	533,632	166,166	166	.....	.....	.....	166	15
Maine	4,048,181	922	14,490	31,159	14,630,124	103,475	22,836,073	8,093,474	4,369	1,372	18	185	2,794	378
Maryland	278,256	.....	9,094	4,730	815,914	8,514	1,447,174	622,746	242	75	12	.....	155	.....
Massachusetts	46,743,858	788,153	808,245	550,412	119,047,543	678,137	200,520,858	80,204,178	32,870	18,859	4,305	350	9,356	3,741
Michigan	932,241	.....	27,330	26,802	3,149,200	32,101	5,357,151	2,175,760	1,596	837	64	.....	695	110
Minnesota	1,121,155	.....	51,052	29,450	3,040,560	39,832	5,918,031	1,937,639	1,159	315	.....	.....	844	240
Missouri	6,112,990	77,978	53,738	138,083	25,800,015	145,523	40,311,210	14,364,772	8,911	6,960	.....	.....	1,951	3,933
New Hampshire	6,676,251	20,143	79,899	81,337	26,219,019	146,053	37,664,039	11,298,967	6,714	3,864	30	265	2,555	708
New Jersey	1,934,964	32,732	25,180	17,673	4,734,537	32,200	8,238,710	3,471,883	1,814	1,551	112	.....	151	455
New York	15,105,343	128,854	456,811	96,228	30,865,411	322,621	67,288,809	27,100,777	14,458	8,766	747	610	4,335	5,304
North Carolina	14,004	.....	.....	370	103,416	520	148,935	44,999	217	75	16	125	1	.....
Ohio	7,020,581	44,808	142,070	147,701	10,090,194	148,402	32,773,922	13,526,326	9,813	5,970	1,945	.....	1,898	3,792
Pennsylvania	6,118,873	40,560	110,053	32,295	16,411,197	112,032	27,844,752	11,320,623	6,271	4,454	255	.....	1,562	1,175
Texas	28,392	.....	2,100	879	54,464	1,366	121,743	65,913	32	.....	.....	.....	32	.....
Virginia	715,800	4,234	5,915	29,656	2,543,432	17,882	3,708,558	1,147,244	1,343	1,200	.....	.....	143	861
Washington	111,644	.....	3,937	6,341	496,188	3,502	707,177	207,427	194	.....	.....	.....	194	.....
Wisconsin	2,605,107	23,767	47,855	92,166	11,907,793	80,979	17,643,350	5,654,578	3,888	2,777	73	10	1,028	1,258
All other states [2]	401,733	31,252	18,675	7,363	2,111,403	21,888	3,103,095	1,059,804	871	360	10	5	496	25

[1] Same number reported for one or more other months.
[2] All other states embrace: Alabama, 2 establishments; Colorado, 1; Georgia, 1; Nebraska, 2; New Mexico, 1; Oklahoma, 1; Oregon, 4; Rhode Island, 2; South Carolina, 1; Tennessee, 2; Utah, 1; Vermont, 4; and West Virginia, 2.
[3] Owned power only.
[4] Includes rented power, other than electric.

BOOT AND SHOE CUT STOCK.

Scope of the industry.—Establishments under this classification are engaged primarily in the manufacture of soles, top lifts, heels, tips, inner soles, and similar articles used in making shoes. At the census of 1909 statistics for this industry were combined with those for the manufacture of boots and shoes and boot and shoe findings.

Comparison with earlier censuses.—Table 48 summarizes the statistics of the establishments engaged in the manufacture of boot and shoe cut stock for each census from 1879 to 1914 and gives percentages of increase.

The condition of this industry depends largely upon the extent to which the articles are manufactured in the boot and shoe factories. The value of the products, however, has increased steadily during the period covered by Table 48. There has also been an increase in the cost of materials, the number of wage earners employed, and the wages paid during each period since 1879, except between 1899 and 1904, when there was a slight decrease in the number of wage earners.

In addition to the product covered by the table, there was $2,076,236 reported in 1914 as the value of boot and shoe cut stock manufactured as a subsidiary product by establishments engaged primarily in other industries.

Table 48

	NUMBER OR AMOUNT.						PER CENT OF INCREASE.[1]				
	1914	1909	1904	1899	1889	1879	1909–1914	1904–1909	1899–1904	1889–1899	1879–1889
Number of establishments	236	232	290	342	344	172	1.7	−20.0	−15.2	−0.6	100.0
Persons engaged	9,309	7,535	6,715	6,921	(2)	(2)	23.5	12.2	−3.0	.....	.....
Proprietors and firm members	231	255	362	424	(2)	(2)	−9.4	−29.6	−14.6	.....	.....
Salaried employees	1,259	587	417	342	(2)	(2)	114.5	40.8	21.9	.....	.....
Wage earners (average number)	7,819	6,693	5,936	6,155	4,992	2,885	16.8	12.8	−3.6	(3)	(3)
Primary horsepower	6,829	4,769	4,519	3,202	2,788	(2)	43.2	5.5	41.1	14.8	.....
Capital	$30,455,245	$15,735,034	$9,850,007	$7,003,080	$5,401,834	$1,210,300	93.6	59.7	40.7	29.6	346.3
Salaries and wages	5,564,083	3,799,752	2,796,596	2,533,580	2,323,271	735,482	46.4	35.9	10.4	9.1	215.9
Salaries	1,511,960	643,292	432,387	302,889	(2)	(2)	135.0	48.8	42.8	.....	.....
Wages	4,052,123	3,156,460	2,364,209	2,230,691	(2)	(2)	28.4	33.5	6.0	18.0	157.1
Paid for contract work	12,522	5,425	5,636	17,589	(2)	(2)	130.8	−3.7	−68.0	.....	.....
Rent and taxes (including internal revenue)	388,478	241,709	[4] 192,948	[4] 173,793	(2)	(2)	60.7	25.3	11.0	.....	.....
Cost of materials	51,450,498	36,919,919	21,586,872	17,800,282	13,744,655	5,939,249	39.4	71.0	21.3	29.5	131.4
Value of products	59,964,523	44,661,497	27,675,815	23,242,892	17,903,846	7,531,635	34.3	61.4	19.1	29.8	137.7
Value added by manufacture (value of products less cost of materials)	8,514,025	7,741,578	6,088,943	5,442,610	4,159,191	1,592,386	10.0	27.1	11.9	30.9	161.2

[1] A minus sign (−) denotes decrease. [2] Figures not available. [3] Figures not strictly comparable. [4] Exclusive of internal revenue.

Wage earners employed, by months.—Table 49 shows, for the industry, the total number of wage earners employed on the 15th of each month, or the nearest representative day, for the years 1914 and 1909, and the average number employed during each month in 1904, together with the percentage which the number reported for each month forms of the greatest number for any month.

Table 49

MONTH.	WAGE EARNERS IN THE INDUSTRY.					
	Number.[1]			Per cent of maximum.		
	1914	1909	1904	1914	1909	1904
January	8,392	6,764	5,883	99.5	97.0	97.0
February	8,434	6,972	5,905	100.0	100.0	97.4
March	8,409	6,934	5,967	99.7	99.5	98.4
April	8,095	6,636	5,793	96.0	95.2	95.6
May	7,670	6,599	5,946	90.9	94.6	98.1
June	7,581	6,562	5,865	89.9	94.1	96.8
July	7,505	6,515	5,828	89.0	93.4	96.1
August	7,710	6,651	5,906	91.4	95.4	97.4
September	7,699	6,623	6,018	91.3	95.0	99.3
October	7,651	6,538	6,029	90.7	93.8	99.5
November	7,125	6,723	6,030	84.5	96.4	99.5
December	7,557	6,814	6,062	89.6	97.7	100.0

[1] The figures for 1914 and 1909 represent the number employed on the 15th of each month, or the nearest representative day; those for 1904, the average number employed during the month.

The largest number employed in any month in 1914 was 8,434 in February. The smallest number was employed in November—7,125, or 84.5 per cent of the largest. In 1909 the maximum number—6,972—was also reported for February, but the minimum was reported for July—6,515, or 93.4 per cent of the maximum. The maximum number was reported for December in 1904, while April showed the minimum—95.6 per cent of the maximum.

Prevailing hours of labor.—In Table 50 the average number of wage earners reported for 1914 and 1909, for the industry, has been classified according to the number of hours of labor prevailing in the establishments in which they were employed. The number employed in each establishment was classified as a total, even though a few employees worked a greater or smaller number of hours.

Table 50

PREVAILING HOURS OF LABOR PER WEEK.	WAGE EARNERS IN ESTABLISHMENTS WITH SPECIFIED NUMBER OF HOURS.			
	Average number.		Per cent of total.	
	1914	1909	1914	1909
Total	7,819	6,693	100.0	100.0
48 and under	106	101	1.4	1.5
Between 48 and 54	1,246	283	15.9	4.2
54	2,383	1,813	30.5	27.1
Between 54 and 60	3,847	3,840	49.2	57.4
60	211	656	2.7	9.8
Between 60 and 72	26	.....	0.3	.....

The figures indicate a tendency toward a shortening of the working-day. In 1914, 47.8 per cent of the average number of wage earners were employed in establishments where the prevailing hours of labor were 54 or less per week, as compared with 32.8 per cent in 1909. The largest number of wage earners (49.2 per cent in 1914 and 57.4 per cent in 1909) was employed in establishments in which the prevailing hours were between 54 and 60 per week.

Character of ownership.—Table 51 presents statistics concerning the character of ownership, or legal organization, of establishments in the industry for 1914 and 1909.

The corporate form of ownership is the most important and is the only group for which an increase is shown for the number of establishments. Although the corporations operated only 28 per cent of the establishments, they employed 68.6 per cent of the wage earners, reported 64.5 per cent of the products, and 60 per cent of the value added by manufacture in 1914.

Table 51

CHARACTER OF OWNERSHIP.	Census year.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
All classes	1914	236	7,819	$59,964,523	$8,514,025
	1909	232	6,693	44,661,497	7,741,578
Individuals	1914	114	1,283	7,174,374	1,527,538
	1909	125	1,312	7,168,642	1,562,793
Corporations	1914	66	5,362	38,685,147	5,110,849
	1909	48	3,931	22,246,570	3,565,166
All others	1914	56	1,174	14,105,002	1,875,638
	1909	59	1,450	15,246,285	2,673,619
Per cent distribution:					
Individuals	1914	48.3	16.4	12.0	17.9
	1909	53.9	19.6	16.1	20.2
Corporations	1914	28.0	68.6	64.5	60.0
	1909	20.7	58.7	49.8	45.2
All others	1914	23.7	15.0	23.5	22.0
	1909	25.4	21.7	34.1	34.5

Size of establishments.—Table 52 shows the size of establishments in 1914 and 1909, as measured by the number of wage earners employed, for the industry as a whole and for the four leading states.

Table 52

STATE.	Census year.	TOTAL.		ESTABLISHMENTS EMPLOYING—													
				No wage earners.	1 to 5 wage earners.		6 to 20 wage earners.		21 to 50 wage earners.		51 to 100 wage earners.		101 to 250 wage earners.		251 to 500 wage earners.		Over 500 wage earners.	
		Establishments.	Wage earners (average number).	Establishments.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.
United States	1914	236	7,819	8	71	211	88	1,027	37	1,211	20	1,496	8	1,243	1	311	3	2,320
	1909	232	6,693	7	76	227	85	947	35	1,131	13	998	12	2,118	4	1,272	.....	.....
Massachusetts	1914	180	3,781	4	56	176	75	869	27	905	13	977	4	543	1	311	.....	.....
	1909	176	3,915	4	58	180	69	761	31	1,008	6	438	7	1,246	1	282	.....	.....
Missouri	1914	3	1,558	.....	.....	.....	.....	.....	.....	.....	1	62	.....	.....	.....	.....	2	1,496
	1909	3	808	.....	.....	.....	.....	.....	.....	.....	1	86	.....	.....	2	722	.....	.....
New Hampshire	1914	5	902	.....	1	1	2	29	1	48	.....	.....	.....	.....	.....	.....	1	824
	1909	5	334	.....	.....	.....	3	42	1	24	.....	.....	.....	.....	1	268	.....	.....
New York	1914	17	587	1	5	10	3	25	4	130	2	146	2	276	.....	.....	.....	.....
	1909	21	684	1	9	23	5	66	2	68	2	165	2	362	.....	.....	.....	.....
All other states	1914	31	991	3	9	24	8	104	5	128	4	311	2	424	.....	.....	.....	.....
	1909	27	952	2	9	24	8	78	1	31	4	309	3	510	.....	.....	.....	.....

The 8 establishments for which no wage earners were reported were comparatively small plants in which the work was done by the proprietors or firm members. Some of these establishments employed a few wage earners for a short time, but the number was so small and the period of employment so short that in computing the average number, as described in the "Explanation of terms," no wage earners could be shown. The largest group of establishments consists of 88 (37.3 per cent of the total number), employing 6 to 20 wage earners. There were, however, 3 establishments which employed more than 500 wage earners each. They gave employment to 2,320 wage earners, or 29.7 per cent of the total number reported for the industry.

DETAIL STATE TABLE.

TABLE 53.—DETAIL STATISTICS FOR BOOT AND SHOE CUT STOCK, BY STATES: 1914.

STATE.	Number of establishments.	PERSONS ENGAGED IN THE INDUSTRY.								WAGE EARNERS DEC. 15, OR NEAREST REPRESENTATIVE DAY.					Capital.	EXPENSES.	
		Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks, etc.		Wage earners.			Total.	16 and over.		Under 16.			Salaries and wages.	
					Male.	Female.	Average number.	Number, 15th day of— Maximum month.	Number, 15th day of— Minimum month.		Male.	Female.	Male.	Female.		Officials.	Clerks, etc.
United States	236	9,309	231	293	680	286	7,819	Fe 8,434	No 7,125	7,837	5,764	1,940	87	46	$30,455,245	$570,374	$941,556
Illinois	5	354	2	17	7	6	322	Oc 359	Ja 303	355	260	84	11	.....	753,899	26,858	9,463
Maine	4	33	4	2	.....	.....	27	Au 32	Jy 17	30	27	3	.....	.....	77,009	1,540	.....
Massachusetts	180	4,394	192	129	161	131	3,781	Mh 4,044	Jy 3,547	3,960	2,829	1,084	32	15	15,016,107	276,693	294,032
New York	17	671	13	34	27	10	587	Oc 616	My 553	611	396	197	18	.....	2,613,662	56,463	30,096
Pennsylvania	6	202	4	9	7	5	177	Ja 198	Au 166	173	120	39	10	4	568,211	17,900	10,627
All other states[1]	24	3,655	16	102	478	134	2,925	.....	.....	2,708	2,132	533	16	27	11,426,357	190,920	597,368

STATE.	EXPENSES—continued						Value of products.	Value added by manufacture.	POWER.					
	Salaries and wages—Continued.	For contract work.	Rent and taxes.		For materials.				Primary horsepower.					Electric horsepower generated in establishments reporting.
	Wage earners.		Rent of factory.	Taxes, including internal revenue and corporation income.	Principal materials.	Fuel and rent of power.			Total.	Steam engines.[2]	Internal-combustion engines.[3]	Water wheels and motors.[2]	Electric (rented).	
United States	$4,052,123	$12,522	$269,666	$118,812	$51,290,122	$160,376	$59,964,523	$8,514,025	6,829	1,889	885	295	3,760	380
Illinois	185,958	.....	16,900	2,544	1,146,136	4,426	1,498,342	347,780	146	100	.....	.....	46	.....
Maine	14,994	8,212	1,500	292	74,284	7,673	120,943	38,986	436	75	.....	295	66	.....
Massachusetts	2,029,107	1,463	182,740	61,681	30,329,686	82,919	35,636,846	5,224,241	3,045	775	816	.....	1,454	110
New York	241,746	.....	23,855	6,358	1,891,333	19,560	2,517,552	606,659	964	649	53	.....	262	76
Pennsylvania	69,648	.....	3,845	1,481	855,629	1,962	1,041,864	184,273	71	.....	10	.....	61	.....
All other states[1]	1,510,670	2,847	40,826	46,456	16,993,054	43,836	19,148,976	2,112,086	2,167	290	6	.....	1,871	194

[1] All other states embrace: Kansas, 1 establishment; Kentucky, 1; Maryland, 1; Minnesota, 1; Missouri, 3; New Hampshire, 5; New Jersey, 4; Ohio, 5; Virginia, 1; Wisconsin, 2.
[2] Owned power only.
[3] Includes rented power, other than electric.

BOOT AND SHOE FINDINGS.

Scope of the industry.—The establishments under this classification manufacture primary pegs, bows, clasps, stays, tips, toe caps, buckles, heel caps, rands, staples, backstays, counters, shanks, heels, trimmings, pipings, beadings, uppers, box toes, arch supporters, shoe tacks, and other boot and shoe findings not made in the regular factories. The magnitude of the operations depends largely upon the extent to which the articles are made in the boot and shoe factories.

Comparison with earlier censuses.—Table 54 summarizes the statistics of establishments engaged in the manufacture of boot and shoe findings for each census from 1879 to 1914 and gives percentages of increase.

Table 54

	NUMBER OR AMOUNT.						PER CENT OF INCREASE.[1]				
	1914	1909	1904	1899	1889	1879	1909–1914	1904–1909	1899–1904	1889–1899	1879–1889
Number of establishments	369	343	289	312	455	216	7.6	18.7	−7.4	−31.4	110.6
Persons engaged	7,948	7,541	5,066	(2)	(2)	(2)	5.4	48.9	.....	.....	.....
Proprietors and firm members	381	365	342	(2)	(2)	(2)	4.4	6.7	.....	.....	.....
Salaried employees	853	688	290	227	(2)	(2)	24.0	137.2	27.8	.....	.....
Wage earners (average number)	6,714	6,488	4,434	3,246	3,434	1,935	3.5	46.3	36.6	(3)	(3)
Primary horsepower	5,868	5,637	3,229	2,843	1,987	(2)	4.1	74.6	13.6	43.1	.....
Capital	$12,562,864	$9,498,870	$4,425,601	$3,540,839	$3,009,149	$980,064	32.3	114.6	25.0	17.7	207.0
Salaries and wages	4,258,527	3,646,199	1,920,713	1,438,317	1,670,273	621,500	16.8	89.8	33.5	−13.9	168.7
Salaries	1,032,814	699,116	272,836	185,826	(2)	(2)	47.7	156.2	46.8	.....	.....
Wages	3,225,683	2,947,083	1,647,877	1,252,491	(2)	(2)	9.5	78.8	31.6	.....	.....
Paid for contract work	111,582	144,528	81,830	(2)	(2)	(2)	−22.8	76.6	.....	.....	.....
Rent and taxes (including internal revenue)	322,910	239,141	[4] 118,290	(2)	(2)	(2)	35.0	102.2	.....	.....	.....
Cost of materials	20,304,183	18,350,551	6,337,810	5,022,591	3,868,099	1,636,921	10.6	189.5	26.2	29.8	136.3
Value of products	28,303,186	25,505,419	9,904,887	7,834,615	6,805,330	2,935,787	11.0	157.5	26.4	15.1	131.8
Value added by manufacture (value of products less cost of materials)	7,999,003	7,154,868	3,567,077	2,812,024	2,937,231	1,298,866	11.8	100.6	26.9	−4.3	126.1

[1] A minus sign (−) denotes decrease. [2] Figures not available. [3] Figures not strictly comparable. [4] Exclusive of internal revenue.

There was a continuous growth in the industry from 1879 to 1914. The value of the products shows a substantial increase for each period, and the horsepower employed has increased rapidly since 1889.

Each item in the table shows an increase for each five-year period from 1904 to 1914, except the amount paid for contract work. The amount of this item depends largely upon the methods followed and not upon the magnitude of the operations.

In addition to the value of the products already shown in the table, in 1914 there were boot and shoe findings, to the value of $762,493, reported as a subsidiary product by establishments engaged primarily in other industries.

Wage earners employed, by months.—Table 55 shows, for the industry, the total number of wage earners employed on the 15th of each month, or the nearest representative day, for 1914 and 1909, and the average number employed during each month in 1904, together with the percentage which the number reported for each month forms of the greatest number reported for any month.

Table 55

MONTH.	WAGE EARNERS IN THE INDUSTRY. Number.[1]			Per cent of maximum.		
	1914	1909	1904	1914	1909	1904
January	7,617	6,274	4,534	100.0	91.2	98.4
February	7,476	6,381	4,595	98.1	92.8	99.8
March	7,169	6,487	4,606	94.1	94.3	100.0
April	6,825	6,265	4,468	89.6	91.1	97.0
May	6,631	6,308	4,329	87.1	91.7	94.0
June	6,309	6,441	4,216	82.8	93.7	91.5
July	6,272	6,408	4,201	82.3	93.2	91.2
August	6,449	6,645	4,308	84.7	96.6	93.3
September	6,252	6,572	4,436	82.1	95.6	96.3
October	6,336	6,524	4,465	83.2	94.9	96.9
November	6,496	6,682	4,469	85.3	97.2	97.0
December	6,736	6,876	4,581	88.4	100.0	99.5

[1] The figures for 1914 and 1909 represent the number employed on the 15th of each month, or the nearest representative day; those for 1904, the average number employed during the month.

The number of wage earners employed in the industry has steadily increased since 1904. The largest number employed during any month in 1914 was 7,617, reported for January, and the smallest number was 6,252, or 82.1 per cent of the former, reported for September. In 1909 the maximum number was reported for December, 6,876, and the minimum, 6,265, or 91.1 per cent of the largest number, for April. March was the month of maximum employment in 1904, while July, showing 91.2 per cent of the maximum, reported the smallest number for any month.

Prevailing hours of labor.—In Table 56 the average number of wage earners reported for 1914 and 1909 for the industry has been classified according to number of hours of labor per week prevailing in the establishments in which they were employed. The number employed in each establishment is classified as a total, even though a few employees worked a greater or smaller number of hours.

Table 56

PREVAILING HOURS OF LABOR PER WEEK.	WAGE EARNERS IN ESTABLISHMENTS WITH SPECIFIED NUMBER OF HOURS. Average number.		Per cent of total.	
	1914	1909	1914	1909
Total	6,714	6,488	100.0	100.0
48 and under	392	52	5.8	.8
Between 48 and 51	646	199	9.6	3.1
54	2,257	1,689	33.6	26.0
Between 54 and 60	3,252	4,248	48.4	65.5
60 and over	[1] 167	300	2.5	4.6

[1] Includes one wage earner reported in the class "over 72."

The general trend toward shorter working hours is shown by this table. In 1909, 70.1 per cent of all the wage earners were reported by establishments in which the prevailing hours of labor were more than 54 per week, while in 1914 but 50.9 per cent were reported by this class of establishments.

The largest number of wage earners in both 1914 and 1909 worked in establishments operating between 54 and 60 hours per week, and the next largest number in those operating 54 hours, but in 1914 these wage earners together formed a smaller proportion of the total number than in 1909.

Character of ownership.—Table 57 presents statistics concerning the character of ownership, or legal organization, of establishments in the industry for 1914 and 1909:

Table 57

CHARACTER OF OWNERSHIP.	Census year.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
All classes	1914	369	6,714	$28,303,186	$7,999,003
	1909	343	6,488	25,505,419	7,154,868
Individuals	1914	169	1,601	6,068,976	1,895,641
	1909	186	2,046	6,435,881	2,059,681
Corporations	1914	101	3,311	15,541,480	3,740,246
	1909	76	2,878	14,094,536	3,214,322
All others	1914	99	1,802	6,692,730	2,363,116
	1909	81	1,564	4,975,002	1,880,865
Per cent distribution: Individuals	1914	45.8	23.8	21.4	23.7
	1909	54.2	31.5	25.2	28.8
Corporations	1914	27.4	49.3	54.9	46.8
	1909	22.2	44.4	55.3	44.9
All others	1914	26.8	26.8	23.6	29.5
	1909	23.6	24.1	19.5	26.3

Since 1909 there has been an increase in the number of establishments under corporate ownership. In 1909, 76 establishments, or 22.2 per cent of the total number, were corporations, and in 1914, 101 establishments, or 27.4 per cent, were under this form of ownership. These establishments employed 49.3 per cent of the wage earners, reported 54.9 per cent of the value of products, and 46.8 per cent of the value added by manufacture. There was a considerable increase in the number of establishments in the "all other" class (which is composed chiefly of partnerships or firms), but the

number of establishments under individual ownership decreased.

Size of establishments.—Table 58 shows the size of establishments in 1914 and 1909, as measured by the number of wage earners employed, for the industry as a whole and for the three leading states.

Table 58

STATE.	Census year.	TOTAL.		ESTABLISHMENTS EMPLOYING—									
				No. wage earners.	1 to 5 wage earners.		6 to 20 wage earners.		21 to 50 wage earners.		51 to 100 wage earners.		Over 100 wage earners.	
		Establishments.	Wage earners (average number).	Establishments.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.
United States	1914	369	6,714	26	146	395	106	1,212	60	1,895	22	1,474	9	1,738
	1909	343	6,488	16	135	364	101	1,201	62	1,918	21	1,503	8	1,502
Massachusetts	1914	240	4,389	11	91	269	72	849	44	1,340	16	1,069	6	862
	1909	215	4,438	7	67	215	80	967	38	1,195	18	1,277	5	784
New Hampshire	1914	11	976	.....	.....	.....	2	23	7	269	.....	.....	2	684
	1909	11	835	.....	1	4	.....	.....	6	180	2	173	2	478
New York	1914	57	781	7	26	55	15	151	4	123	4	260	1	192
	1909	56	398	6	33	71	11	118	5	156	1	53	.....	.....
All other states	1914	61	568	8	29	71	17	189	5	163	2	145	.....	.....
	1909	61	817	3	34	74	10	116	13	387	.....	.....	1	240

The 26 establishments shown for 1914 and the 16 for 1909 for which no wage earners were reported were comparatively small plants in which the work was done by the proprietors or firm members. Some of these establishments employed a few wage earners for a short time, but the number was so small and the period of employment so short that in computing the average number, as described in the "Explanation of terms," no wage earners could be shown.

Of the total number of establishments, 68.3 per cent employed from 1 to 20 wage earners. Only nine establishments, or 2.4 per cent, employed more than 100 wage earners, two of these employing more than 250 wage earners each. While the establishments in this class formed but 2.4 per cent of the total, they gave employment to 25.9 per cent of the total number of wage earners. There has been an increase from 1909 to 1914 in each class of establishments, with the exception of the group employing from 21 to 50 wage earners. Of the nine establishments employing more than 100 wage earners six were in Massachusetts, two in New Hampshire, and one in New York.

DETAIL STATE TABLE.

TABLE 59.—DETAIL STATISTICS FOR BOOT AND SHOE FINDINGS, BY STATES: 1914.

STATE.	Number of establishments.	PERSONS ENGAGED IN THE INDUSTRY.								WAGE EARNERS DEC. 15, OR NEAREST REPRESENTATIVE DAY.					Capital.	EXPENSES.	
		Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks, etc.		Wage earners.			Total.	16 and over.		Under 16.			Salaries and wages.	
					Male.	Female.	Average number.	Number, 15th day of— Maximum month.	Number, 15th day of— Minimum month.		Male.	Female.	Male	Female.		Officials.	Clerks, etc.
United States..	369	7,948	381	291	285	277	6,714	Ja 7,617	Se 6,252	6,808	4,529	2,143	86	50	$12,562,864	$528,700	$504,144
Illinois	5	11	6	1	.....	.....	4	(1) 4	(1) 4	4	4	.....	.....	.....	7,500	1,500	.....
Maine	5	157	.....	8	2	3	144	De [2] 181	Ja 111	181	132	49	.....	.....	311,388	11,360	2,825
Massachusetts	240	5,168	259	174	171	175	4,389	Ja 5,138	Je 3,990	4,388	2,917	1,389	41	41	8,768,190	344,147	320,810
New York	57	930	57	33	35	24	781	De 944	Se 609	723	443	234	43	3	791,874	68,770	38,572
Pennsylvania	9	64	9	1	1	.....	53	Fe 59	Se 49	57	36	18	1	2	54,062	1,600	1,000
Texas	3	11	2	.....	.....	.....	9	(1) 9	(1) 9	9	9	.....	.....	.....	9,871	.....	.....
Wisconsin	4	54	3	5	2	2	42	Ja 48	Mh... 36	45	30	15	.....	.....	116,922	6,140	2,084
All other states [3]	46	1,553	45	69	74	73	1,292	.....	.....	1,401	958	438	1	4	2,503,057	95,183	138,853

STATE.	EXPENSES—continued.						Value of products.	Value added by manufacture.	POWER.					
	Salaries and wages—Continued.	For contract work.	Rent and taxes.		For materials.				Primary horsepower.					Electric horsepower generated in establishments reporting.
	Wage earners.		Rent of factory.	Taxes, including internal revenue and corporation income.	Principal materials.	Fuel and rent of power.			Total.	Steam engines. [4]	Internal-combustion engines. [5]	Water wheels and motors. [4]	Electric (rented).	
United States..	$3,225,683	$111,582	$251,745	$71,165	$20,156,987	$147,196	$28,303,186	$7,999,003	5,868	2,262	666	220	2,720	638
Illinois	2,497	.....	1,148	10	7,765	140	17,380	9,475	2	.....	.....	.....	2	.....
Maine	83,149	.....	919	1,110	205,703	3,502	373,085	163,880	348	250	.....	.....	98	162
Massachusetts	2,233,864	82,213	186,408	55,446	13,405,310	98,241	19,021,309	5,517,758	3,806	1,305	451	40	2,010	268
New York	275,047	16,679	37,811	2,503	934,128	15,898	1,606,394	656,368	373	.....	68	40	265	.....
Pennsylvania	24,582	92	2,445	186	43,321	2,318	102,854	57,215	10	.....	.....	.....	10	.....
Texas	4,580	.....	420	105	16,547	44	32,032	15,441	2	.....	.....	.....	2	.....
Wisconsin	21,249	.....	2,270	306	130,803	2,858	188,843	55,182	44	.....	.....	.....	44	3
All other states [3]	580,715	12,598	20,324	11,499	5,413,410	24,195	6,961,289	1,523,684	1,283	707	147	140	289	205

[1] Same number reported throughout the year.
[2] Same number reported for one or more other months.
[3] All other states embrace: Connecticut, 1 establishment; Kentucky, 2; Louisiana, 2; Maryland, 2; Michigan, 1; Missouri, 2; New Hampshire, 11; New Jersey, 12; Ohio, 6; Rhode Island, 3; Virginia, 2; Washington, 2.
[4] Owned power only.
[5] Includes rented power, other than electric.

LEATHER GLOVES AND MITTENS.

Scope of the industry.—This industry includes establishments making leather gloves, mittens, and gauntlets, lined and unlined, for men, boys, women, misses and children, whether for dress, street, or working purposes.

Returns were received from 352 establishments engaged in the industry in 1914, with products valued at $21,614,109, including leather gloves, mittens, and gauntlets, valued at $20,296,558, and other products, to the value of $1,317,551.

In addition to those establishments comprising the leather glove and mitten industry, there were reported at each census establishments engaged primarily in other industries, which manufactured as subsidiary products leather gloves, mittens, and gauntlets, to the value of $642,462 in 1914, $264,961 in 1909, $166,164 in 1904, and $217,157 in 1899.

Comparison with earlier censuses.—Table 60 summarizes the statistics of establishments engaged in the manufacture of leather gloves and mittens for each census from 1899 to 1914, inclusive, and gives percentages of increase from census to census.

Table 60

	NUMBER OR AMOUNT.				PER CENT OF INCREASE.[1]		
	1914	1909	1904	1899[2]	1909–1914	1904–1909	1899–1904
Number of establishments	352	377	339	381	−6.6	11.2	−11.0
Persons engaged	12,345	12,950	11,712	15,325	−4.7	10.6	−23.6
Proprietors and firm members	417	458	427	508	−9.0	7.3	−15.9
Salaried employees	1,260	1,138	640	637	10.7	77.8	0.5
Wage earners (average number)	10,668	11,354	10,645	14,180	−6.0	6.7	[3]
Primary horsepower	3,357	2,889	2,725	2,114	16.2	6.0	28.9
Capital	$17,080,393	$16,908,671	$10,705,599	$9,004,427	1.0	57.9	18.9
Salaries and wages	$5,958,695	$6,019,372	$4,424,826	$4,695,296	−1.0	36.0	−5.8
Salaries	$1,400,335	$1,256,042	$584,573	$544,170	11.5	114.9	7.4
Wages	$4,558,360	$4,763,330	$3,840,253	$4,151,126	−4.3	24.0	[3]
Paid for contract work	$927,164	$992,216	$393,723	$93,795	−6.6	152.0	[3]
Rent and taxes (including internal revenue)	$193,769	$167,417	[4] $106,351	[4] $109,354	15.7	57.4	−2.7
Cost of materials	$12,170,694	$13,208,001	$10,000,889	$9,382,102	−7.9	32.1	6.6
Value of products	$21,614,109	$23,630,593	$17,740,385	$16,721,234	−8.5	33.2	6.1
Value added by manufacture (value of products less cost of materials)	$9,443,415	$10,422,597	$7,739,496	$7,339,132	−9.4	34.7	5.5
Gloves, mittens, and gauntlets, manufactured, dozen pairs	3,082,376	3,368,655	3,370,146	2,895,661	−8.5	[5]	16.4

[1] A minus sign (−) denotes decrease.
[2] The figures given for 1899 represent leather gloves and mittens only, and do not agree with the general statistics for that year.
[3] Figures for 1899 not comparable with those for later censuses (see explanation in text).
[4] Exclusive of internal revenue.
[5] Less than one-tenth of 1 per cent decrease.

The number of establishments reporting for 1914 was less by 25, or 6.6 per cent, than the number for 1909, and during the same period the value of products decreased by $2,016,489, or 8.5 per cent, although an increase is shown as compared with 1904 and 1899. The production of gloves, mittens, and gauntlets in 1914 was 286,279 dozen pairs, or 8.5 per cent, less than in 1909; and the value decreased from $22,525,861 in the earlier year to $20,296,558 in the later, or by 9.9 per cent. The depression during 1914 was due principally to labor disturbances in Fulton County, N. Y., where 43.5 per cent of the establishments, reporting nearly one-half of the entire production of the United States, are located.

The number of wage earners and wages paid for 1914 both show a small decrease as compared with 1909 and an increase as compared with 1904. The 1899 figures for these items and for "contract work" are not comparable with those for the later censuses, because pieceworkers, doing work at home in 1899, were reported as wage earners and their earnings included with wages. Not being able to ascertain accurately the number of persons engaged in glove making in their homes or the time given to this work, the pieceworkers have not been included with wage earners at subsequent censuses, but the amount paid for their services is reported as paid for contract work. There were, however, 4,778 such employees reported in 1914, practically all of these (4,669) being reported for New York state.

Summary, by states.—Table 61 summarizes the more important statistics of the leather glove and mitten industry, by states, the states being arranged according to the value of products reported for 1914. The per cent distribution for 1914, the rank of the states for 1914 and 1909, and percentages of increase for each five-year period beginning with 1899, are also shown.

New York is the home of the leather glove and mitten industry and has ranked first at every census. Wisconsin ranked second in 1914, though it reported only 13.5 per cent of the total value of products and 16 per cent of the number of wage earners. The five leading states—New York, Wisconsin, Illinois, California, and Iowa—held the same relative positions in 1914 as in 1909, not only in value of products, but in number of wage earners and value added by manufacture.

Table 61

STATE.	LEATHER GLOVES AND MITTENS: 1914. Number of establishments.	Wage earners. Average number.	Wage earners. Per cent distribution.	Wage earners. Rank. 1914	Wage earners. Rank. 1909	Value of products. Amount.	Value of products. Per cent distribution.	Value of products. Rank. 1914	Value of products. Rank. 1909	Value added by manufacture. Amount.	Value added by manufacture. Per cent distribution.	Value added by manufacture. Rank. 1914	Value added by manufacture. Rank. 1909
United States	352	10,668	100.0	....	....	$21,614,109	100.0	....	....	$9,443,415	100.0	....	....
New York	210	6,026	56.5	1	1	12,845,284	59.4	1	1	5,764,865	61.0	1	1
Wisconsin	24	1,711	16.0	2	2	2,021,587	13.5	2	2	1,175,564	12.4	2	2
Illinois	28	1,371	12.9	3	3	2,773,867	12.8	3	3	1,086,647	11.5	3	3
California	24	422	4.0	4	4	950,679	4.4	4	4	493,113	5.2	4	4
Iowa	8	195	1.8	5	5	626,254	2.9	5	5	267,438	2.8	5	5
Indiana	4	176	1.6	6	9	272,483	1.3	6	8	109,427	1.2	6	11
Washington	6	52	0.5	9	14	147,849	0.7	7	13	68,503	0.7	7	12
Pennsylvania	7	78	0.7	7	15	123,326	0.6	8	17	43,055	0.5	10	18
All other states	35	637	6.0	....	....	952,780	4.4	....	....	434,803	4.6	....	....

PER CENT OF INCREASE.[1]	Wage earners (average number).[2] 1909–1914	Wage earners (average number).[2] 1904–1909	Value of products. 1909–1914	Value of products. 1904–1909	Value of products. 1899–1904	Value added by manufacture. 1909–1914	Value added by manufacture. 1904–1909	Value added by manufacture. 1899–1904
United States	−6.0	6.6	−8.5	33.2	4.8	−9.4	34.7	4.0
New York	−4.2	12.0	−10.4	44.1	−8.3	−8.7	48.5	−6.1
Wisconsin	4.2	17.6	4.4	26.7	335.7	1.2	33.6	362.8
Illinois	4.7	15.4	9.9	49.2	−31.9	4.0	24.6	−32.9
California	−26.0	10.5	−22.8	35.1	−1.1	−26.7	48.9	−6.6
Iowa	−16.7	−11.0	−9.6	−0.7	145.8	−16.4	−5.9	113.8
Indiana	15.0	−52.3	20.9	−56.2	57.2	48.4	−57.3	40.2
Washington	.....	.....	23.3	11.1	.....	.....	.....	.....
Pennsylvania	.....	.....	.....	.....	.....	.....	.....	.....
All other states	.....	.....	.....	.....	.....	.....	.....	.....

[1] Percentages are based on figures in Table 78; a minus sign (−) denotes decrease. Percentages are omitted where base is less than 100 for wage earners or less than $100,000 for value of products or value added by manufacture.
[2] Percentages for the period 1899–1904, can not be shown, as figures are not comparable.

Production in Fulton County, N. Y.—Fulton County has been the center of the leather glove and mitten industry ever since its establishment in the United States. Table 62 gives comparative statistics for the county and its two principal cities—Gloversville and Johnstown—for 1914 and 1909.

Table 62

	FULTON COUNTY, N. Y. 1914 Number or amount.	1914 Per cent of total for United States.	1909 Number or amount.	1909 Per cent of total for United States.	GLOVERSVILLE. 1914 Number or amount.	1914 Per cent of total for United States.	1909 Number or amount.	1909 Per cent of total for United States.	JOHNSTOWN. 1914 Number or amount.	1914 Per cent of total for United States.	1909 Number or amount.	1909 Per cent of total for United States.
Number of establishments	153	43.5	156	41.4	93	26.4	87	23.1	50	14.2	54	14.3
Persons engaged	5,733	46.4	6,201	47.9	3,972	32.2	4,220	.....	1,466	11.9	1,598	.....
Proprietors and firm members	207	49.6	226	49.3	122	29.3	117	25.5	70	16.8	85	18.6
Salaried employees	553	43.9	537	47.2	375	29.8	401	35.2	155	12.3	119	10.5
Wage earners (average number)	4,973	46.6	5,438	47.9	3,475	32.6	3,702	32.6	1,241	11.6	1,394	12.3
Primary horsepower	925	27.5	832	28.8	646	19.2	556	19.2	164	4.9	162	5.6
Capital	$8,452,501	49.5	$9,698,040	57.4	$5,806,533	34.0	$6,439,354	38.1	$2,170,872	12.7	$2,721,570	16.1
Salaries and wages	$2,857,538	48.0	$3,050,136	50.7	$1,971,259	33.1	$2,188,196	36.3	$733,852	12.3	$703,495	11.7
Salaries	$612,396	43.7	$560,608	44.6	$414,778	29.6	$459,405	36.6	$171,652	12.3	$88,151	7.0
Wages	$2,245,142	49.3	$2,489,528	52.3	$1,556,481	34.1	$1,728,791	36.3	$562,200	12.3	$615,344	12.9
Paid for contract work	$860,247	92.8	(1)	.....	$594,857	64.2	(1)	.....	$210,242	22.7	(1)	.....
Rent and taxes (including internal revenue)	$45,034	23.7	(1)	.....	$27,915	14.4	(1)	.....	$16,523	8.5	(1)	.....
Cost of material	$6,103,592	50.1	$7,310,030	55.3	$4,080,043	33.5	$4,950,854	37.5	$1,535,922	12.6	$1,880,470	14.2
Value of products	$11,010,247	50.9	$12,933,788	54.7	$7,309,017	33.8	$8,869,706	37.5	$2,914,259	13.5	$3,258,362	13.8
Value added by manufacture (value of products less cost of materials)	$4,906,655	52.0	$5,623,758	54.0	$3,228,974	34.2	$3,918,852	37.6	$1,378,337	14.6	$1,377,892	13.2
Gloves, mittens, and gauntlets manufactured, dozen pairs	1,282,027	41.6	1,628,297	48.3	781,081	25.3	988,431	29.3	348,851	11.3	411,772	12.2

[1] Comparable figures not available.

In 1914 Fulton County contained 43.5 per cent of the establishments and reported 50.9 per cent of the total value of products for the industry, as compared with 41.4 and 54.7 per cent, respectively, for 1909. Of the 3,082,376 dozen pairs of gloves manufactured in 1914, the establishments in Fulton County reported 1,282,027 dozen pairs, or 41.6 per cent, as compared with 1,628,297 dozen pairs, or 48.3 per cent of the total, for 1909.

Of the total value of products reported for the United States, Gloversville contributed, in 1914, 33.8 per cent, and of the total number of dozen pairs of gloves and mittens produced, 25.3 per cent, while Johnstown contributed 13.5 per cent and 11.3 per cent, respectively. Compared with 1909 there was a general decrease in the industry in the county, but its relative importance at the two censuses remained practically the same.

Persons engaged in the industry.—Table 63 shows, for 1914 and 1909, the number of persons engaged in the leather glove and mitten industry, distributed by sex, the average number of wage earners being distributed also by age. The sex and age classification of the average number of wage earners in this and other tables is an estimate obtained by the method described in the "Explanation of terms."

Of the 12,345 persons engaged in the industry during 1914, 86.4 per cent were wage earners, 6.3 per cent proprietors and officials, and 7.3 per cent clerks. Of the wage earners 16 years of age and over, the females constituted 55.4 per cent, slightly less than in 1909. Figures for the sex and age distribution of wage earners, by states, are given in Table 79.

Table 63

CLASS.	Census year.	PERSONS ENGAGED IN THE INDUSTRY. Total.	Male.	Female.	Per cent of total. Male.	Female.
All classes	1914	12,345	6,045	6,300	49.0	51.0
	1909	12,950	6,219	6,731	48.0	52.0
Proprietors and officials	1914	774	740	34	95.6	4.4
	1909	760	714	46	93.9	6.1
Proprietors and firm members	1914	417	399	18	95.7	4.3
	1909	458	436	22	95.2	4.8
Salaried officers of corporations	1914	109	108	1	99.1	0.9
	1909	85	81	4	95.3	4.7
Superintendents and managers	1914	248	233	15	94.0	6.0
	1909	217	197	20	90.8	9.2
Clerks and other subordinate salaried employees	1914	903	570	333	63.1	36.9
	1909	836	532	304	63.6	36.4
Wage earners (average number)	1914	10,668	4,735	5,933	44.4	55.6
	1909	11,354	4,973	6,381	43.8	56.2
16 years of age and over	1914	10,504	4,689	5,815	44.6	55.4
	1909	11,085	4,846	6,239	43.7	56.3
Under 16 years of age	1914	164	46	118	28.0	72.0
	1909	269	127	142	47.2	52.8

Table 64 gives, for the several classes of persons engaged in the industry, the percentages of increase from 1909 to 1914 and the per cent distribution at the two censuses.

Table 64

CLASS.	PERSONS ENGAGED IN THE INDUSTRY. Per cent of increase,[1] 1909–1914. Total.	Male.	Female.	Per cent distribution. Total. 1914	Total. 1909	Male. 1914	Male. 1909	Female. 1914	Female. 1909
All classes	−4.7	−2.8	−6.4	100.0	100.0	100.0	100.0	100.0	100.0
Proprietors and officials	1.8	3.6	.....	6.3	5.9	12.2	11.5	0.5	0.7
Proprietors and firm members	−9.0	−8.5	.....	3.4	3.5	6.6	7.0	0.3	0.3
Salaried officers of corporations	.....	.....	.....	0.9	0.7	1.8	1.3	(2)	0.1
Superintendents and managers	14.3	18.3	.....	2.0	1.7	3.8	3.2	0.2	0.3
Clerks and other subordinate salaried employees	8.0	7.1	9.5	7.3	6.4	9.4	8.6	5.3	4.5
Wage earners (average number)	−6.0	−4.8	−7.0	86.4	87.7	78.3	79.9	94.2	94.8
16 years of age and over	−5.2	−3.2	−6.8	85.1	85.6	77.6	77.9	92.3	92.7
Under 16 years of age	−39.0	−63.8	−16.9	1.3	2.1	0.8	2.0	1.9	2.1

[1] A minus sign (−) denotes decrease; percentages are omitted where base is less than 100.

[2] Less than one-tenth of 1 per cent.

During the five years covered by this table, there was a decrease in the number reported for the several classes of employees, with the exception of superintendents and managers and of clerks and other subordinate employees. The number of wage earners 16 years of age and over decreased by 5.2 per cent. Of the total number of females engaged in the industry in 1914, 94.2 per cent were wage earners.

Wage earners employed, by months.—Table 65 shows, for the industry, the total number of wage earners employed on the 15th of each month, or the nearest representative day, for the years 1914 and 1909, and the average number employed during each month in 1904, together with the percentage which the number reported for each month forms of the greatest number reported for any month.

For 1914 the largest number of wage earners was employed during the late winter and early spring months, the maximum number being reported for March and the minimum for November. In 1909 December was the month of maximum employment, and the minimum number was reported for January. In 1904 the maximum month was September and the minimum January. The year 1914 shows the greatest fluctuation in number of wage earners employed and 1909 the greatest stability. The variation in 1914 amounted to 3,230, the minimum number representing 72.6 per cent of the maximum.

Table 65

MONTH.	WAGE EARNERS IN THE INDUSTRY. Number.[1] 1914	1909	1904	Per cent of maximum. 1914	1909	1904
January	11,762	10,659	9,433	99.8	88.8	81.1
February	11,745	10,985	9,450	99.6	91.5	81.3
March	11,791	11,145	9,791	100.0	92.8	84.2
April	11,573	11,139	9,934	98.2	92.8	85.4
May	11,379	11,188	10,013	96.5	93.2	86.1
June	11,348	11,333	10,521	96.2	94.4	90.5
July	11,012	11,299	11,293	93.4	94.1	97.1
August	11,059	11,372	11,585	93.8	94.7	99.6
September	9,788	11,590	11,626	83.0	96.5	100.0
October	9,417	11,583	11,568	79.9	96.5	99.5
November	8,561	11,961	11,438	72.6	99.6	98.4
December	8,581	12,007	11,088	72.8	100.0	95.4

[1] The figures for 1914 and 1909 represent the number employed on the 15th of each month, or the nearest representative day; those for 1904, the average number employed during the month.

Table 66 gives the total average number of wage earners employed during 1914, together with the total number employed on the 15th of each month, or the nearest representative day, for each state in which the average number of wage earners was 500 or more in 1914.

The fluctuation in the total number of wage earners employed each month followed closely the changes in the state of New York, which in each

month of the year gave employment to more than one-half of the total number of wage earners reported for the industry. New York gave employment to the greatest number of wage earners in March (6,750), and the smallest number in November (4,379, or 64.9 per cent of the maximum). Other states individually did not furnish employment to enough wage earners to affect to any appreciable extent the general showing for the whole country. The least variation for the states shown is for Illinois, the proportion which the minimum number employed formed of the maximum being 87 per cent.

Table 66

WAGE EARNERS: 1914.
[Month of maximum employment for each state is indicated by **boldface** figures and that of minimum by *italic* figures.]

STATE.	Average number employed during year.	Number employed on 15th day of the month or nearest representative day.											Percent minimum is of maximum.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
United States	10,668	11,762	11,745	**11,791**	**11,573**	11,379	11,348	11,012	11,059	9,788	9,417	*8,561*	8,581	72.6
Illinois	1,371	1,460	1,458	1,457	1,440	1,431	1,377	1,329	1,347	1,310	1,302	1,271	*1,210*	87.0
New York	6,026	6,643	6,666	**6,750**	6,643	6,640	6,679	6,537	6,541	5,382	5,009	*4,329*	4,383	64.9
Wisconsin	1,711	1,953	1,917	1,886	1,826	1,715	1,704	1,665	1,670	1,640	1,604	1,497	*1,455*	74.5

Prevailing hours of labor.—In Table 67 the average number of wage earners reported for 1914 and 1909 for the industry and for the three leading states has been classified according to the number of hours of labor per week prevailing in the establishments in which they were employed. The number employed in each establishment is classified as a total, even though a few employees worked a greater or a smaller number of hours.

Table 67

STATE.	Census year.	AVERAGE NUMBER OF WAGE EARNERS.					
		Total.	In establishments where the prevailing hours of labor per week were—				
			48 and under.	Between 48 and 54.	54.	Between 54 and 60.	60 and over.
United States	1914	10,668	1,030	2,229	4,063	3,044	302
	1909	11,354	555	1,017	917	7,743	1,122
Illinois	1914	1,371	125	63	306	872	5
	1909	1,309	134	99	356	679	41
New York	1914	6,026	256	1,255	2,895	1,608	12
	1909	6,287	115	241	193	5,490	248
Wisconsin	1914	1,711	224	384	551	381	171
	1909	1,642	53	64	188	875	462
All other states	1914	1,560	425	527	311	183	114
	1909	2,116	253	613	180	699	371

The figures in this table, for the United States and for the states presented, emphasize the tendency toward a shortening of the working-day of wage earners. In 1909, 8,865, or 78.1 per cent of the total average number of wage earners for the industry, were employed in establishments where the prevailing hours of labor were more than 54 per week, whereas but 3,346, or 31.4 per cent, were so employed in 1914. There was a marked increase during the five-year period in the proportion of wage earners working 54 hours per week, and a corresponding decrease in the proportion of those working between 54 and 60 hours per week. Of the states given in the table New York shows the most pronounced decrease in hours of labor. In 1909 only 8.7 per cent of the wage earners in this state were employed in establishments where the hours of labor were 54 or less per week, but in 1914 the proportion thus employed had increased to 73.1 per cent. Wisconsin shows conditions similar to New York, while Illinois shows an increase in the proportion of wage earners in establishments operating between 54 and 60 hours per week.

Character of ownership.—Table 68 presents statistics concerning the character of ownership, or legal organization, of establishments in the industry for 1914 and 1909.

Table 68

CHARACTER OF OWNERSHIP.	Census year.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
All classes	1914	352	10,668	$21,614,109	$9,443,415
	1909	377	11,354	23,630,598	10,422,597
Individuals	1914	170	1,889	3,518,008	1,672,280
	1909	190	2,135	4,222,329	1,936,560
Corporations	1914	80	4,815	9,544,230	4,137,744
	1909	73	4,723	10,106,657	4,325,226
All others	1914	102	3,964	8,551,871	3,633,391
	1909	114	4,496	9,301,612	4,160,811
Per cent distribution:					
Individuals	1914	48.3	17.8	16.3	17.7
	1909	50.4	18.8	17.9	18.6
Corporations	1914	22.7	45.1	44.2	43.8
	1909	19.4	41.6	42.8	41.5
All others	1914	29.0	37.2	39.6	38.5
	1909	30.2	39.6	39.4	39.9

There was an increase for the industry during the five-year period 1909 to 1914 in the number of establishments operated under corporate ownership and a decrease in the number for all other forms of ownership. Corporations operated only 22.7 per cent of the establishments, but they reported 44.2 per cent of the total value of products and gave employment to 45.1 per cent of the total average number of wage earners.

Size of establishments.—The tendency of the industry to become concentrated in large establishments is indicated by the statistics given in Table 69.

Table 69

VALUE OF PRODUCT.	Census year.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
All classes	1914	352	10,668	$21,614,109	$9,443,415
	1909	377	11,354	23,630,598	10,422,597
Less than $5,000	1914	67	72	162,783	89,311
	1909	77	131	201,786	111,969
$5,000 to $20,000	1914	108	613	1,279,224	605,053
	1909	117	683	1,339,783	703,097
$20,000 to $100,000	1914	115	2,943	5,205,684	2,408,240
	1909	123	3,089	5,751,826	2,657,434
$100,000 and over	1914	62	7,040	14,966,418	6,340,811
	1909	60	7,451	16,337,203	6,950,097
Per cent distribution: Less than $5,000	1914	19.0	0.7	0.8	0.9
	1909	20.4	1.2	0.9	1.1
$5,000 to $20,000	1914	30.7	5.7	5.9	6.4
	1909	31.0	6.0	5.7	6.7
$20,000 to $100,000	1914	32.7	27.6	24.1	25.5
	1909	32.6	27.2	24.3	25.5
$100,000 and over	1914	17.6	66.0	69.2	67.1
	1909	15.9	65.6	69.1	66.7

For 1914, 62 establishments, or 17.6 per cent of the total number in the industry, each reported products of $100,000 or over in value. These establishments reported 66 per cent of the average number of wage earners employed, 69.2 per cent of the value of products, and 67.1 per cent of the value added by manufacture. In the same year the small establishments—those having products less than $5,000 in value—although representing 19 per cent of the total number, reported only eight-tenths of 1 per cent of the total value of products. For establishments in the class having products valued at $100,000 and over, the proportion that the value of products formed of the total for the industry was practically the same in 1914 and 1909.

Table 70 shows the size of establishments in 1914 and 1909, as measured by the number of wage earners employed, for the industry as a whole and the three leading states.

Of the 352 establishments reported for the industry in 1914, 24, or 6.8 per cent, employed no wage earners. The establishments for which no wage earners were reported were comparatively small plants in which the work was done by the proprietors or firm members. Some of these establishments employed a few wage earners for a short time, but the number was so small and the period of employment so short that in computing the average number, as described in the "Explanation of terms," no wage earners could be shown. A majority of the establishments in the industry were small, 213, or 60.5 per cent of the total number, employing not more than 20 wage earners. This class of establishments, however, represented a slightly smaller proportion of the total number of establishments in 1914 than in 1909. The largest number of wage earners was reported for the establishments employing from 101 to 250 in 1914, and the number of wage earners formed 30.9 per cent of the total number, compared with 22.7 per cent in 1909.

New York and Wisconsin show a slightly increased proportion of establishments employing more than 20 wage earners in 1914 as compared with 1909. In Illinois the tendency has been the other way, although the average number of wage earners was larger per establishment in this class than in 1909, and there was an additional establishment employing over 100 wage earners.

Table 70

STATE.	Census year.	TOTAL.		ESTABLISHMENTS EMPLOYING—													
				No. wage earners.	1 to 5 wage earners.		6 to 20 wage earners.		21 to 50 wage earners.		51 to 100 wage earners.		101 to 250 wage earners.		Over 250 wage earners.	
		Establishments.	Wage earners (average number).	Establishments.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.
United States	1914	352	10,668	24	106	257	107	1,233	53	1,706	37	2,537	21	3,293	4	1,642
	1909	377	11,354	27	121	325	109	1,343	56	1,843	39	2,795	18	2,572	7	2,476
Illinois	1914	28	1,371	3	5	16	10	123	3	103	5	337	1	104	1	688
	1909	29	1,309	.....	6	18	5	70	12	402	5	360	.....	.....	1	459
New York	1914	216	6,026	11	69	162	69	797	32	1,014	22	1,534	10	1,565	3	954
	1909	225	6,287	17	78	208	69	841	23	726	23	1,656	11	1,486	4	1,370
Wisconsin	1914	24	1,711	.....	1	5	6	73	6	199	4	277	7	1,157	.....	.....
	1909	23	1,642	.....	5	17	5	56	3	97	4	263	4	562	2	647
All other states	1914	84	1,560	10	31	74	22	240	12	390	6	389	3	467	.....	.....
	1909	100	2,116	10	32	82	30	376	18	618	7	516	3	524	.....	.....

Engines and power.—Table 71 shows, for 1914, 1909, and 1904, for the leather glove and mitten industry, the number and horsepower of engines or motors employed in generating power (including electric motors operated by purchased current). It also shows separately the number and horsepower of electric motors operated by current generated in the establishments reporting.

Table 71

POWER.	NUMBER OF ENGINES OR MOTORS.			HORSEPOWER.					
				Amount.			Per cent distribution.		
	1914	1909	1904	1914	1909	1904	1914	1909	1904
Primary power, total	518	378	266	3,357	2,889	2,725	100.0	100.0	100.0
Owned	40	68	94	2,031	2,016	2,209	60.5	69.8	81.1
Steam engines and turbines[1]	24	31	43	1,757	1,625	1,676	52.3	56.2	61.5
Internal-combustion engines	13	25	41	82	141	283	2.4	4.9	10.4
Water wheels, turbines, and motors	3	12	10	192	250	250	5.7	8.7	9.2
Rented	478	310	172	1,326	873	516	39.5	30.2	18.9
Electric	478	310	172	1,277	850	436	38.0	29.4	16.0
Other	.....	.....	.....	49	23	80	1.5	0.8	2.9
Electric	508	330	176	1,515	1,000	472	100.0	100.0	100.0
Rented	478	310	172	1,277	850	436	84.3	85.0	92.4
Generated by establishments reporting	30	20	4	238	150	36	15.7	15.0	7.6

[1] Figures for horsepower include for 1909 and 1904 the amounts reported under the head of "other" owned power.

From 1909 to 1914 there was an increase in primary power amounting to 468 horsepower, or 16.2 per cent. The use of rented power, now almost wholly electric, has greatly increased since 1904, when it represented only 18.9 per cent of the total primary power reported. In 1909 the amount of rented power had increased to 30.2 per cent of the total and in 1914 to 39.5 per cent. There was an increase at each census in the use of electric motors run by current generated within the same establishment, but this power is still a small proportion of the power used. Steam power increased in use from 1909 to 1914 by only 8.1 per cent. The use of internal-combustion engines, water wheels, turbines, and motors, not very great at any time, decreased at each census.

Fuel.—Closely related to the kind of power employed in the industry is that of the fuel consumed in generating this power. Table 72 shows, for 1914, the quantity of each kind of fuel used, for which data were obtained, for the industry as a whole and for six separate states.

Table 72

STATE.	COAL.		Coke (tons, 2,000 lbs.).	Oil, including gasoline (barrels).	Gas (1,000 cubic feet).
	Anthracite (tons, 2,240 lbs.).	Bituminous (tons, 2,000 lbs.).			
United States	2,530	12,262	38	207	11,648
California	.....	4	.....	60	1,591
Illinois	69	5,827	.....	5	524
Indiana	.....	302	.....	3	33
Iowa	10	485	.....	.....	3,700
New York	2,305	2,821	8	67	4,519
Wisconsin	24	2,124	30	61	72
All other states	122	699	.....	11	1,209

SPECIAL STATISTICS RELATING TO PRODUCTS.

Products.—Table 73 shows the quantity and value of the different kinds of leather gloves, mittens, and gauntlets reported by establishments in the industry for 1914, 1909, and 1904.

Table 73

PRODUCT.	1914[1]	1909[1]	1904[1]
Total value	$21,614,109	$23,630,598	$17,740,385
Gloves, mittens, and gauntlets:			
Dozen pairs	3,082,376	3,368,655	3,370,146
Value	$20,296,558	$22,525,861	$17,122,772
Men's—			
Dozen pairs	2,367,263	2,585,977	2,915,415
Value	$15,334,605	$17,060,797	$14,515,770
Unlined—			
Dozen pairs	1,571,649	1,664,718	1,598,332
Value	$11,286,861	$11,838,623	$8,182,689
Lined—			
Dozen pairs	594,880	921,259	1,317,083
Value	$3,584,118	$5,222,174	$6,333,081
Part leather and part fabric—			
Dozen pairs	200,734	[2]	[2]
Value	$463,626	[2]	[2]
Women's and children's—			
Dozen pairs	425,501	479,664	454,731
Value	$3,963,170	$4,390,423	$2,607,002
Gloves, mittens, and gauntlets—Con.			
Women's and children's—Con.			
Unlined—			
Dozen pairs	325,530	326,690	213,370
Value	$3,196,761	$3,375,560	$1,576,159
Lined—			
Dozen pairs	99,971	152,974	241,361
Value	$766,409	$1,014,863	$1,030,843
Boys—			
Dozen pairs	289,612	303,014	[2]
Value	$998,783	$1,074,641	[2]
Unlined—			
Dozen pairs	51,797	90,511	[2]
Value	$199,630	$371,306	[2]
Lined—			
Dozen pairs	237,815	212,503	[2]
Value	$799,153	$703,335	[2]
All other products, value	$1,317,551	$1,104,737	$617,613

[1] Exclusive, for 1914, of 16 establishments engaged primarily in other industries that made 206,327 dozen pairs of leather gloves, mittens, and gauntlets, valued at $642,402; for 1909, of 16 similar establishments that made 36,944 dozen pairs, valued at $264,961; and for 1904, of leather gloves, mittens, and gauntlets, to the value of $166,164.

[2] Not reported separately.

The output of gloves, mittens, and gauntlets decreased in both quantity and value during the five-year period 1909–1914. Men's gloves, which largely outnumbered all other kinds, forming 76.8 per cent of the total number in 1914, decreased 8.5 per cent in quantity and 10.1 per cent in value. Gloves for boys formed 9.4 per cent of the total output, and this kind decreased 4.4 per cent in quantity and 7.1 per cent in value. Women's and children's gloves constituted 13.8 per cent of the entire number reported and, while the number of dozen pairs made decreased 11.3 per cent, the value decreased but 9.7 per cent.

Gloves made partly of leather and partly of fabric, which previously were not reported separately, formed 8.5 per cent of the men's gloves made in 1914. Unlined gloves, mittens, and gauntlets predominated in both men's and women's and children's classes, and the decrease in the quantity was less for this variety than for the lined. The lined were the largest portion of the boys' gloves, this being the only class shown in the table which reported an increase in production and value as compared with 1909.

Table 74 shows the number of dozen pairs of gloves, mittens, and gauntlets manufactured from different kinds of leather in the United States in 1914, together with the value of the different styles of gloves reported.

Of dress and street gloves, 525,169 dozen pairs, or 48.3 per cent, were of imported, and 288,827, or 26.6 per cent, were of domestic lamb or sheep skin; 208,821 dozen pairs, or 19.2 per cent, were of mocha; and 5.9 per cent, goat or other kinds. Of working gloves, 852,513 dozen pairs, or 42.7 per cent, were of horsehide, cattle hide, or calfskin; 675,190, or 33.8 per cent, were sheepskin; and 23.5 per cent were deer or other kind. More working gloves were reported than those classed as dress or street gloves, the proportion being nearly two to one. The average value of the latter, however, was almost double the former. There were no working gloves reported for women and children, nor dress or street gloves for boys. Of the gloves manufactured, 63.2 per cent were unlined, 30.3 per cent were lined, and 6.5 per cent were part leather and part fabric, not classified as lined or unlined.

Table 74 LEATHER GOODS, MITTENS, AND GAUNTLETS: 1914.

KIND.	Total.	Men's.			Women's and children's.	
		Unlined.	Lined.	Part leather and part fabric.	Unlined.	Lined.
Dress gloves, street gloves, mittens, and gauntlets:						
Dozen pairs	1,086,569	487,324	173,744	.....	325,530	99,971
Value	$10,494,253	$4,974,044	$1,557,039	.....	$3,196,761	$766,409
Domestic lamb or sheep skin, dozen pairs	288,827	87,744	118,935	.....	28,798	53,350
Imported lamb or sheep skin, dozen pairs	525,169	255,469	33,168	.....	208,416	28,116
Mocha, dozen pairs	208,821	104,225	17,036	.....	70,673	16,887
Goat or "real" kid, dozen pairs	24,298	10,728	1,482	.....	10,593	1,495
All other, dozen pairs	39,454	29,158	3,123	.....	7,050	123
Working gloves, mittens and gauntlets:					Boys'.[1]	
Dozen pairs	1,995,807	1,084,325	421,136	200,734	51,797	237,815
Value	$9,802,305	$6,312,817	$2,027,079	$463,626	$199,630	$799,153
Sheepskin, dozen pairs	675,190	262,665	137,956	55,973	41,417	177,179
Horsehide, cattle hide, or calfskin, dozen pairs	852,513	525,803	208,111	64,772	6,300	47,527
Deer or elk skin, dozen pairs	94,002	80,971	12,201	.....	266	564
All other, dozen pairs	374,102	214,886	62,868	79,989	3,814	12,545

[1] No working gloves were reported for women and children.

Summary, by States.—Table 75 shows, by states, the quantity and value of leather gloves, mittens, and gauntlets manufactured in 1914, the number of dozen pairs being given for each of the more specific classes.

Table 75

KIND.	United States.	California.	Illinois.	New York.	Wisconsin.	All other states.
Products, total value	$21,614,109	$950,679	$2,773,867	$12,845,284	$2,921,587	$2,122,692
Gloves, mittens, and gauntlets:						
Dozen pairs	3,082,376	106,392	473,906	1,578,840	548,228	375,010
Value	$20,296,558	$916,962	$2,281,380	$12,493,261	$2,667,929	$1,937,026
Dress gloves, street gloves, mittens, and gauntlets:						
Dozen pairs	1,086,569	11,303	9,391	1,031,016	9,559	25,300
Domestic lamb or sheep skin	288,827	1,297	5,566	272,557	6,287	3,120
Imported lamb or sheep skin	525,169	2,002	3,755	510,920	272	8,220
Mocha	208,821	1,263	20	201,639	3,000	2,899
Goat or "real" kid	24,298	6,586	30	13,880	.....	3,802
All other	39,454	155	20	32,020	.....	7,259
Value	$10,494,253	$78,454	$81,584	$9,928,409	$96,424	$309,382
Men's, unlined—						
Dozen pairs	487,324	7,409	6,111	456,445	3,611	13,748
Domestic lamb or sheep skin	87,744	(1)	(1)	76,438	(1)	1,972
Imported lamb or sheep skin	255,469	(1)	(1)	249,951	(1)	4,041
Mocha	104,225	(1)	(1)	100,799	(1)	1,915
Goat or "real" kid	10,728	(1)	(1)	5,611	.....	457
All other	29,158	(1)	(1)	23,046	.....	5,362
Value	$4,974,044	$37,652	$42,198	$4,688,228	$28,616	$177,350
Men's, lined—						
Dozen pairs	173,744	(1)	(1)	166,176	(1)	3,044
Domestic lamb or sheep skin	118,935	(1)	(1)	114,932	(1)	590
Imported lamb or sheep skin	33,168	(1)	(1)	33,162	.....	.....
Mocha	17,036	.....	(1)	16,458	.....	573
Goat or "real" kid	1,482	(1)	(1)	387	.....	.....
All other	3,123	.....	(1)	1,237	.....	1,881
Value	$1,557,039	(1)	(1)	$1,511,792	(1)	$15,669
Women's and children's, unlined—						
Dozen pairs	325,530	2,647	2,854	309,021	(1	8,308
Domestic lamb or sheep skin	28,798	387	(1)	27,848	.....	558
Imported lamb or sheep skin	208,416	1,346	2,829	200,062	.....	4,179
Mocha	70,673	(1)	(1)	67,550	(1)	360
Goat or "real" kid	10,593	846	(1)	6,542	.....	3,195
All other	7,050	(1)	(1)	7,019	.....	16
Value	$3,196,761	$36,273	$34,903	$2,968,622	(1)	$113,763
Women's and children's, lined—						
Dozen pairs	99,971	(1)	396	99,374	.....	200
Domestic lamb or sheep skin	53,350	(1)	(1)	53,339	.....	.....
Imported lamb or sheep skin	28,116	.....	(1)	27,745	.....	.....
Mocha	16,887	.....	(1)	16,832	.....	50
Goat or "real" kid	1,495	.....	(1)	1,340	.....	150
All other	123	.....	(1)	118	.....	.....
Value	$766,409	(1)	$4,033	$759,767	.....	$2,600

[1] Included in totals, but amount not shown, in order to avoid disclosure of individual operations.

Table 75—Continued.

KIND.	United States.	California.	Illinois.	New York.	Wisconsin.	All other states.
Working gloves, mittens, and gauntlets:						
Dozen pairs	1,995,807	95,089	464,515	547,824	538,669	349,710
Sheepskin	675,190	18,203	83,079	361,090	133,552	79,266
Horsehide, cattle hide, or calfskin	852,513	57,741	202,593	79,810	341,078	171,291
Deer or elk skin	94,002	5,764	2,302	42,670	4,954	38,312
All other	374,102	13,381	176,541	64,254	59,085	60,841
Value	$9,802,305	$838,508	$2,199,796	$2,504,852	$2,571,505	$1,627,644
Men's, unlined—						
Dozen pairs	1,084,325	83,032	298,419	241,305	258,960	204,609
Sheepskin	262,665	7,713	50,904	136,152	27,639	40,257
Horsehide, cattle hide, or calfskin	525,803	57,056	159,089	45,135	183,931	80,592
Deer or elk skin	80,971	5,714	1,737	35,167	4,547	33,806
All other	214,886	12,549	86,689	24,851	40,843	49,954
Value	$6,312,817	$754,169	$1,579,125	$1,268,765	$1,503,555	$1,207,203
Men's, lined—						
Dozen pairs	421,136	4,205	92,942	137,897	145,289	40,803
Sheepskin	137,956	3,849	30,120	81,554	14,639	7,803
Horsehide, cattle hide, or calfskin	208,111	365	43,004	24,420	114,385	25,937
Deer or elk skin	12,201	.....	565	6,723	407	4,506
All other	62,868	.....	19,253	25,200	(1)	2,557
Value	$2,027,079	$41,191	$495,776	$696,795	$623,626	$169,691
Men's, part leather and part fabric—						
Dozen pairs	200,734	.....	(1)	34,697	.....	95,513
Sheepskin	55,973	.....	.....	31,607	.....	24,366
Horsehide, cattle hide, or calfskin	64,772	.....	.....	(1)	.....	63,317
Deer or elk skin	.....	.....	.....	.....	.....	.....
All other	79,989	.....	(1)	(1)	.....	7,830
Value	$463,626	.....	(1)	$125,771	.....	$224,566
Boys', unlined—						
Dozen pairs	51,797	7,682	(1)	23,119	18,028	1,843
Sheepskin	41,417	(1)	(1)	19,231	13,337	1,349
Horsehide, cattle hide, or calfskin	6,300	(1)	(1)	(1)	(1)	494
Deer or elk skin	266	(1)	.....	(1)	.....	.....
All other	3,814	(1)	(1)	(1)	(1)	.....
Value	$199,630	$41,269	(1)	$84,105	$62,323	$7,045
Boys', lined—						
Dozen pairs	237,815	(1)	(1)	110,806	118,302	6,942
Sheepskin	177,179	(1)	(1)	92,546	77,937	5,491
Horsehide, cattle hide, or calfskin	47,527	(1)	(1)	(1)	38,156	951
Deer or elk skin	564	.....	.....	564	.....	.....
All other	12,545	.....	(1)	9,696	(1)	500
Value	$799,153	(1)	(1)	$389,416	$382,001	$19,139
All other products, value	$1,317,551	$33,717	$492,487	$352,023	$253,658	$185,666

1 Included in totals, but amount not shown, in order to avoid disclosure of individual operations.

Table 76 shows, by states, the output and value of gloves, mittens, and gauntlets in 1914 and 1909, classified as dress or working gloves.

Table 76

KIND AND STATE.	PRODUCTS.			
	1914	1909	1914	1909
	Value.	*Value.*	*Doz. pairs.*	*Doz. pairs.*
Gloves, mittens, and gauntlets, total.	$20,296,558	$22,525,881	3,082,376	3,368,655
California	916,962	1,226,220	106,392	130,371
Illinois	2,281,380	2,441,798	473,906	503,363
Iowa	461,552	493,973	58,492	98,737
New York	12,493,261	14,122,840	1,578,840	1,850,438
Wisconsin	2,667,929	2,345,771	548,228	425,442
All other states	1,475,474	1,895,459	316,518	360,304
Dress gloves, street gloves, mittens, and gauntlets, total	10,494,253	12,534,746	1,086,569	1,418,750
California	78,454	115,246	11,303	10,720
Illinois	81,584	219,978	9,391	30,143
Iowa	21,876	65,000	1,174	7,300
New York	9,928,409	11,418,955	1,031,016	1,287,618
Wisconsin	96,424	267,151	9,559	35,850
All other states	287,506	448,416	24,126	47,119
Working gloves, mittens, and gauntlets, total	9,802,305	9,991,115	1,995,807	1,949,905
California	838,508	1,110,974	95,089	119,651
Illinois	2,199,796	2,221,820	464,515	473,220
Iowa	439,676	428,973	57,318	91,437
New York	2,564,852	2,703,685	547,824	562,820
Wisconsin	2,571,505	2,078,620	538,669	389,592
All other states	1,187,968	1,447,043	292,392	313,185

New York, the most important state in the industry, contributed 94.9 per cent in 1914 and 90.8 per cent in 1909 of all the leather dress and street gloves produced in the United States. The same state also contributed 27.4 per cent of all the working gloves manufactured in 1914 and 28.9 per cent in 1909. Every state given in the table shows a decrease in quantity of leather gloves produced, except Wisconsin, which made a substantial gain of 122,786 dozen pairs, or 28.9 per cent.

Imports.—Table 77 gives the value of the annual imports of leather gloves and mittens from 1900 to 1915, inclusive, as shown by the reports of the Bureau of Foreign and Domestic Commerce.

Table 77

YEAR ENDING JUNE 30—	Value of imports.	YEAR ENDING JUNE 30—	Value of imports.
1915	$7,673,516	1907	$10,633,668
1914	9,487,969	1906	6,812,719
1913	7,691,927	1905	4,727,489
1912	7,804,597	1904	5,095,337
1911	7,624,845	1903	5,029,278
1910	7,781,651	1902	5,366,381
1909	7,465,319	1901	5,534,259
1908	7,826,719	1900	6,107,765

DETAIL STATE TABLES.

Table 78 shows, for 1914, 1909, and 1904, by states, the number of establishments, average number of wage earners, primary horsepower, wages, cost of materials, and value of products reported for the leather glove and mitten industry. Table 79 presents, for 1914, by states, the more detailed statistics of the industry.

TABLE 78.—COMPARATIVE SUMMARY, BY STATES, FOR 1914, 1909, AND 1904.

STATE.	Census year.	Number of establishments.	Wage earners (average number).	Primary horsepower.	Wages.	Cost of materials.	Value of products.
					Expressed in thousands.		
United States	1914	352	10,668	3,357	$4,558	$12,171	$21,614
	1909	377	11,354	2,889	4,764	13,208	23,631
	1904	339	10,645	2,725	3,840	10,001	17,740
California	1914	24	422	58	203	458	951
	1909	23	570	58	267	558	1,231
	1904	22	516	43	223	459	911
Illinois	1914	28	1,371	797	646	1,687	2,774
	1909	29	1,309	657	519	1,478	2,523
	1904	24	1,134	560	425	852	1,691
Indiana	1914	4	176	95	65	163	272
	1909	3	153	44	48	152	225
	1904	5	321	96	87	343	514
Iowa	1914	8	195	94	85	359	626
	1909	10	234	236	94	373	693
	1904	8	263	295	101	368	698
Massachusetts	1914	5	42	6	24	35	93
	1909	8	109	21	52	43	135
	1904	5	165	51	71	135	265
Minnesota	1914	5	8	5	$3	$6	$12
	1909	6	37	5	13	35	61
	1904	7	65	12	22	52	98
New York	1914	216	6,026	1,098	2,697	7,080	12,845
	1909	225	6,287	1,003	2,841	8,023	14,336
	1904	194	5,613	770	2,131	5,696	9,946
Pennsylvania	1914	7	78	30	24	80	123
	1909	3	42	7	12	33	54
	1904	4	45	15	11	33	49
Washington	1914	6	52	17	29	79	148
	1909	6	59	10	21	59	120
	1904	7	53	15	23	55	108
Wisconsin	1914	24	1,711	670	589	1,746	2,922
	1909	23	1,642	301	573	1,637	2,709
	1904	21	1,396	226	437	1,339	2,209
All other states	1914	25	587	487	193	478	848
	1909	41	912	547	324	817	1,454
	1904	42	1,074	642	309	679	1,251

TABLE 79.—DETAIL STATISTICS FOR LEATHER GLOVES AND MITTENS, BY STATES: 1914.

STATE.	Number of establishments.	PERSONS ENGAGED IN THE INDUSTRY.								WAGE EARNERS DEC. 15, OR NEAREST REPRESENTATIVE DAY.					Capital.	EXPENSES.	
		Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks, etc.		Wage earners.			Total.	16 and over.		Under 16.			Salaries and wages.	
					Male.	Female.	Average number.	Number 15th day of—			Male.	Female.	Male.	Female.		Officials.	Clerks, etc.
								Maximum month.	Minimum month.								
United States	352	12,345	417	357	570	333	10,668	Mh 11,791	No 8,561	11,026	4,846	6,010	48	122	$17,080,398	$582,877	$817,458
California	24	565	29	27	62	25	422	Ja 488	De 352	440	182	258	.....	.....	998,930	60,190	87,055
Illinois	28	1,530	30	48	43	38	1,371	Ja 1,460	De 1,270	1,282	581	652	6	43	2,048,149	80,082	51,803
Indiana	4	194	1	8	7	2	176	Ap 195	No 144	193	82	111	.....	.....	194,436	12,405	7,235
Iowa	8	265	11	18	25	16	195	Fe [1] 230	Se 158	182	72	107	.....	3	675,689	22,812	70,091
Massachusetts	5	52	7	2	1	.....	42	De 46	Jy [1] 39	46	14	31	.....	1	32,196	4,000	500
Minnesota	5	14	4	2	.....	.....	8	No 13	Mh 6	10	3	7	.....	.....	8,801	1,340	.....
New York	216	6,968	283	168	292	199	6,026	Mh 6,750	No 4,379	6,556	3,087	3,429	22	18	9,394,923	255,857	448,832
Pennsylvania	7	92	6	5	2	1	78	Ja 107	Se 62	74	25	42	1	6	89,669	1,590	1,679
Washington	6	81	7	1	13	8	52	Ap 66	De 37	59	27	32	.....	.....	110,795	1,000	3,929
Wisconsin	24	1,925	8	62	109	35	1,711	Ja 1,953	De 1,455	1,553	519	973	13	48	2,621,179	124,595	116,858
All other states [2]	25	659	31	16	16	9	587	.....	.....	631	254	368	6	3	905,631	19,006	29,476

STATE.	EXPENSES—continued.						Value of products.	Value added by manufacture.	POWER.					Electric horsepower generated in establishments reporting.
	Salaries and wages—Continued.		Rent and taxes.		For materials.				Primary horsepower.					
	Wage earners.	For contract work.	Rent of factory.	Taxes, including internal revenue and corporation income.	Principal materials.	Fuel and rent of power.			Total.	Steam engines. [3]	Internal-combustion engines. [4]	Water wheels and motors. [3]	Electric (rented).	
United States	$4,558,360	$927,164	$134,010	$59,759	$12,060,980	$109,714	$21,614,109	$9,443,415	3,357	1,757	131	192	1,277	238
California	202,609	3,820	11,906	5,192	453,797	3,769	950,679	493,113	58	.....	6	.....	52	2
Illinois	645,888	740	11,210	7,729	1,666,350	20,870	2,773,867	1,086,647	797	600	4	.....	193	.....
Indiana	65,258	.....	1,000	622	160,622	2,434	272,483	109,427	95	40	.....	.....	55	.....
Iowa	85,272	850	2,340	3,412	355,008	3,808	626,254	267,438	94	30	.....	.....	64	.....
Massachusetts	24,010	800	2,300	8	34,924	521	92,773	57,328	6	.....	.....	.....	6	.....
Minnesota	2,895	.....	927	6	5,828	142	12,051	6,081	5	.....	.....	.....	5	.....
New York	2,697,122	909,397	69,601	19,278	7,027,079	53,340	12,845,284	5,764,865	1,098	543	72	2	481	68
Pennsylvania	24,460	.....	1,770	645	79,349	922	123,326	43,055	30	6	8	.....	16	.....
Washington	28,704	.....	2,142	1,078	77,769	1,577	147,849	68,503	17	.....	.....	.....	17	.....
Wisconsin	589,458	7,371	25,338	17,056	1,729,661	16,302	2,921,587	1,175,564	670	328	6	.....	336	157
All other states [2]	192,704	4,186	5,476	4,733	470,593	5,969	847,956	371,394	487	210	35	190	52	11

[1] Same number reported for one or more other months.
[2] All other states embrace: Colorado, 2 establishments; Connecticut, 2; Maryland, 2; Michigan, 3; Missouri, 2; New Hampshire, 3; New Jersey, 1; Ohio, 6; Oregon, 1; Virginia, 3.
[3] Owned power only.
[4] Includes rented power, other than electric.

SADDLERY AND HARNESS.

Scope of the industry.—This classification covers the manufacture of saddles and stirrups, saddletrees, wagon and carriage harness, horse collars, bridles, halters, horse boots, sweat pads, saddle and horse-shoe pads, turf goods, lines, straps, etc. The principal material used in the manufacture of these articles was leather, although some halters were reported as made of webbing or rope.

Comparison with earlier censuses.—Prior to 1899 the small custom shops were included in the statistics, but as these have since been omitted, the data shown in Table 80 are not strictly comparable. The large increase in the number of establishments between 1909 and 1914 may be due to the inclusion in 1914 of a number of establishments of the class omitted in 1909 and 1904 as being largely engaged in custom work.

Table 80 summarizes the statistics of establishments engaged in the manufacture of saddlery and harness for each census from 1879 to 1914, inclusive, and gives the percentages of increase from census to census.

Table 80

	NUMBER OR AMOUNT.						PER CENT OF INCREASE.[1]				
	1914	1909	1904	1899	1889	1879	1909–1914	1904–1909	1899–1904	1889–1899	1879–1889
Number of establishments	2,551	1,347	1,076	873	7,931	7,999	89.4	25.2	23.3	−89.0	−0.9
Person engaged	18,383	19,014	18,354	[2]	[2]	[2]	−3.3	3.6			
Proprietors and firm members	2,768	1,452	1,181	[2]	[2]	[2]	90.6	22.9			
Salaried employees	2,646	2,930	2,141	1,737	[2]	[2]	−9.7	36.9	23.3		
Wage earners (average number)	12,969	14,632	15,032	14,364	22,672	21,446	−11.4	−2.7	4.7	[3]	[3]
Primary horsepower	10,397	17,234	7,370	6,018	2,347	[2]	−39.7	133.8	22.5	156.4	
Capital	$45,207,380	$39,224,195	$29,264,460	$20,462,903	$35,346,620	$16,508,019	15.3	34.0	43.0	−42.1	114.1
Salaries and wages	11,154,740	11,002,925	9,653,458	7,682,974	16,030,845	7,997,752	1.4	14.0	25.6	−52.1	100.4
Salaries	3,159,128	2,931,441	2,019,147	1,428,512	[2]	[2]	7.8	45.2	41.3		
Wages	7,995,612	8,071,484	7,634,311	6,254,462	[2]	[2]	−0.9	5.7	22.1		
Paid for contract work	114,945	56,142	82,575	[2]	[2]	[2]	104.7	−32.0			
Rent and taxes (including internal revenue)	1,185,232	826,854	[4]655,759	[2]	[2]	[2]	43.3	26.1			
Cost of materials	33,036,442	33,177,937	23,774,239	19,770,574	24,674,225	19,968,716	−0.3	39.6	20.3	−19.9	23.6
Value of products	53,558,612	54,224,602	42,054,842	33,702,563	52,970,801	38,081,643	−1.2	28.9	24.8	−36.4	39.1
Value added by manufacture (value of products less cost of materials)	20,472,170	21,046,665	18,280,603	13,931,989	28,296,576	18,112,927	−2.7	15.1	31.2	−50.8	56.2

[1] A minus sign (−) denotes decrease. [2] Figures not available. [3] Figures not strictly comparable. [4] Exclusive of internal revenue.

The totals for the industry for 1914 indicate a decrease as compared with 1909, but a substantial increase over 1904. During the decade 1904–1914, the value of the products increased 27.4 per cent and the cost of material 39.2 per cent. The amount paid for wages increased 4.7 per cent, although the number of wage earners employed shows a decrease of 13.7 per cent. Primary horsepower increased steadily from 1889 to 1904, and from 1904 to 1914 the increase was 41.1 per cent.

In addition to the value of products shown in Table 80, saddlery and harness, to the value of $1,028,992 in 1914 and of $653,944 in 1909, were manufactured in establishments engaged primarily in the manufacture of leather, leather belting, boots and shoes, etc.

Wage earners employed, by months.—Table 81 shows, for the industry, the total number of wage earners employed on the 15th of each month, or the nearest representative day, for 1914 and 1909 and the average number employed during each month in 1904, together with the percentage which the number reported for each month forms of the greatest number reported for any month.

The largest number of wage earners employed in any month in 1914 was 13,854, in February, and the smallest number, 11,876, in September. In 1909 the maximum number was employed in December and the minimum in August. For 1904 the maximum number was reported for March and the minimum number for August. The greatest fluctuation in the number employed is shown for 1914, when the minimum number was 85.7 per cent of the maximum, and the greatest stability of employment is shown for 1909, the minimum number representing 94.3 per cent of the maximum.

Table 81

MONTH.	WAGE EARNERS IN THE INDUSTRY.					
	Number.[1]			Per cent of maximum.		
	1914	1909	1904	1914	1909	1904
January	13,705	14,550	15,354	99.4	95.9	98.1
February	13,854	14,827	15,400	100.0	97.7	98.4
March	13,653	14,880	15,653	98.5	98.1	100.0
April	13,399	14,742	15,510	96.7	97.2	99.1
May	13,135	14,635	15,230	94.8	96.5	97.3
June	12,834	14,546	15,001	92.6	95.9	95.8
July	12,436	14,366	14,448	89.8	94.7	92.3
August	12,105	14,301	14,330	87.4	94.3	91.5
September	11,876	14,419	14,607	85.7	95.0	93.3
October	12,401	14,432	14,807	89.5	95.1	94.6
November	12,679	14,728	14,945	91.5	97.1	95.5
December	13,491	15,170	14,999	97.4	100.0	95.8

[1] The figures for 1914 and 1909 represent the number employed on the 15th of each month, or the nearest representative day; those for 1904, the average number employed during the month.

Prevailing hours of labor.—In Table 82 the average number of wage earners reported for 1914 and 1909, for the industry, has been classified according to number of hours of labor per week prevailing in the establishments in which they were employed. The number employed in each establishment was classified as a total, even though a few employees worked a greater or a smaller number of hours.

Table 82

PREVAILING HOURS OF LABOR PER WEEK.	WAGE EARNERS IN ESTABLISHMENTS WITH SPECIFIED NUMBER OF HOURS.			
	Average number.		Per cent of total.	
	1914	1909	1914	1909
Total	12,969	14,632	100.0	100.0
48 and under	464	298	3.6	2.0
Between 48 and 54	598	897	4.6	6.1
54	4,040	2,219	31.2	15.2
Between 54 and 60	4,518	5,920	34.8	40.5
60	3,323	5,224	25.6	35.7
Between 60 and 72	15	72	0.1	0.5
72	11	2	0.1	(1)

[1] Less than one-tenth of 1 per cent.

This table shows a tendency toward shorter working hours. In 1909, 76.7 per cent of the wage earners were in establishments where the prevailing hours were more than 54 per week, but in 1914, 60.7 per cent of the wage earners were in this class.

The largest group of wage earners in both 1914 and 1909 was that in establishments where the prevailing hours of labor were between 54 and 60 per week; in 1914 the proportion of the wage earners in these establishments was 34.8 per cent, compared with 40.5 per cent in 1909. The next largest group of wage earners in 1914 was the group working 54 hours per week, but in 1909 the second largest group worked 60 hours.

Character of ownership.—Table 83 presents statistics concerning the character of ownership, or legal organization, of establishments in the industry for 1914 and 1909.

Table 83

CHARACTER OF OWNERSHIP.	Census year.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
All classes	1914	2,551	12,969	$53,558,612	$20,472,170
	1909	1,347	14,632	54,224,602	21,046,665
Individuals	1914	1,802	3,105	11,651,293	5,512,360
	1909	743	3,222	10,933,219	4,863,886
Corporations	1914	324	8,265	34,706,544	12,119,743
	1909	296	8,993	33,825,913	12,420,515
All others	1914	425	1,599	7,200,775	2,810,067
	1909	308	2,417	9,465,470	3,762,264
Per cent distribution:					
Individuals	1914	70.6	23.9	21.8	27.1
	1909	55.2	22.0	20.2	23.1
Corporations	1914	12.7	63.7	64.8	59.2
	1909	22.0	61.5	62.4	59.0
All others	1914	16.7	12.3	13.4	13.7
	1909	22.9	16.5	17.5	17.9

The table shows that the corporations, though constituting but 12.7 per cent of the entire number of establishments, employed 63.7 per cent of the total number of wage earners and contributed 64.8 per cent of the total value of products and 59.2 per cent of the value added by manufacture. Although the industry as a whole has declined somewhat, the figures representing the corporations in 1914 show actual and proportional increases in value of products since 1909.

Size of establishments.—Table 84 shows the size of establishments in 1914 and 1909, as measured by the number of wage earners employed, for the industry as a whole and for the 12 leading states.

Table 84

STATE.	Census year.	TOTAL.		ESTABLISHMENTS EMPLOYING—									
				No wage earners.	1 to 5 wage earners.		6 to 20 wage earners.		21 to 50 wage earners.		51 to 100 wage earners.		Over 100 wage earners.	
		Establishments.	Wage earners. (average number).	Establishments.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.
United States	1914	2,551	12,969	493	1,718	2,819	214	2,482	78	2,521	32	2,218	16	2,929
	1909	1,347	14,632	53	878	2,085	246	2,671	107	3,445	41	2,949	22	3,482
Georgia	1914	37	758	4	21	45	5	57	5	162	1	52	1	442
	1909	27	633	.....	14	46	4	34	5	123	3	186	1	244
Illinois	1914	216	819	46	146	240	17	217	6	168	.....	.....	1	194
	1909	84	1,085	4	50	149	17	194	10	295	1	76	2	371
Indiana	1914	152	842	25	106	183	13	146	4	113	2	143	2	257
	1909	108	1,074	6	75	136	17	166	5	181	1	85	4	506
Iowa	1914	150	546	10	126	163	7	88	6	226	1	69	.....	.....
	1909	59	576	.....	41	92	9	113	6	187	3	184	.....	.....
Kentucky	1914	40	500	3	25	42	4	61	4	122	4	275	.....	.....
	1909	27	669	.....	11	36	4	42	8	269	4	322	.....	.....
Minnesota	1914	76	530	13	52	85	3	45	4	138	4	262	.....	.....
	1909	26	552	.....	14	40	5	74	2	62	4	272	1	104
Missouri	1914	107	803	24	63	110	12	136	3	106	4	336	1	115
	1909	75	1,090	4	47	99	11	128	7	193	3	262	3	408
New York	1914	246	818	57	167	261	18	231	3	108	.....	.....	1	218
	1909	118	824	4	86	181	22	224	5	198	.....	.....	1	221
Ohio	1914	154	1,403	26	106	171	10	119	5	135	3	210	4	768
	1909	51	1,390	.....	25	81	11	138	8	282	3	211	4	673
Pennsylvania	1914	189	740	49	120	231	12	116	6	188	1	57	1	148
	1909	64	616	10	36	104	10	88	6	176	1	71	1	177
Texas	1914	75	567	11	53	115	5	60	1	26	5	366	.....	.....
	1909	53	627	2	35	101	6	43	6	180	4	303	.....	.....
Wisconsin	1914	89	662	23	56	73	4	39	4	102	.....	.....	2	448
	1909	21	541	2	8	24	8	87	1	45	.....	.....	2	385

The 493 establishments for which no wage earners were reported in 1914 were comparatively small plants in which the work was done by the proprietors or firm members. Some of these establishments employed a few wage earners for a short time, but the number was so small and the period of employment so short that in computing the average number, as described in the "Explanation of terms," no wage earners could be shown. In 1914, 1,718 of the establishments, or 67.3 per cent, employed 1 to 5 wage earners, and these gave employment to 21.7 per cent of the total number of wage earners. On the other hand, there were 48 establishments, or less than 2 per cent of the total number, each of which employed more than 50 wage earners, and the wage earners employed in these formed 39.7 per cent of the wage earners in the industry. The largest number of establishments was reported from New York state, and nine-tenths of these establishments employed no wage earners or not more than 5 and only 1 establishment was reported as employing more than 50 wage earners, but 26.7 per cent of the wage earners were employed in this establishment. Georgia, Ohio, Texas, and Wisconsin each reported practically three-fourths of the establishments as employing no wage earners or less than 6, but in each state more than 60 per cent of the wage earners were in establishments employing more than 50 wage earners.

DETAIL STATE TABLE.

Table 85 presents, for 1914, by states, detailed statistics of the industry.

TABLE 85.—DETAIL STATISTICS FOR

	STATE.	Number of establishments.	PERSONS ENGAGED IN THE INDUSTRY.								WAGE EARNERS DEC. 15, OR NEAREST REPRESENTATIVE DAY.					Capital.
			Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks, etc.		Wage earners.			Total.	16 and over.		Under 16.		
						Male.	Female.	Average number.	Number, 15th day of—			Male.	Female.	Male.	Female.	
									Maximum month.	Minimum month.						
1	United States	2,551	18,383	2,768	741	1,567	338	12,969	Fe 13,854	Se 11,876	13,673	12,804	768	85	16	$45,207,380
2	Alabama	13	73	13	3	1	.....	56	Je 70	No 23	32	29	1	2	.....	104,418
3	Arizona	3	38	5	2	1	.....	30	Se [3] 31	Ap [3] 29	30	30	.....	.....	.....	28,304
4	Arkansas	23	121	36	6	16	3	60	Jy 67	No 48	65	64	1	.....	.....	310,404
5	California	107	487	112	31	65	13	266	Mh 288	Oc 242	262	257	4	1	.....	1,675,988
6	Colorado	25	222	20	15	17	8	162	Oc [3] 170	Ja 147	170	168	1	1	.....	555,044
7	Delaware	7	33	7	.....	2	2	22	My 23	No 21	22	21	.....	1	.....	40,927
8	Georgia	37	896	43	32	56	7	758	Fe 912	De 544	812	728	77	7	.....	1,781,211
9	Idaho	27	54	35	.....	.....	.....	19	Au [3] 21	Ja 15	24	24	.....	.....	.....	175,208
10	Illinois	216	1,178	229	35	71	24	819	Mh 866	Au 747	850	798	48	3	1	2,840,537
11	Indiana	152	1,125	179	41	47	16	842	Fe 964	Jy 690	885	833	50	2	.....	2,588,896
12	Iowa	150	871	171	33	100	21	546	De 611	Jy 476	601	591	9	1	.....	2,970,083
13	Kansas	111	442	129	19	24	9	261	De 298	My 244	297	283	12	2	.....	1,122,159
14	Kentucky	40	654	39	36	62	17	500	Fe 605	Se 399	539	515	23	.....	1	1,458,604
15	Louisiana	10	201	11	7	40	3	140	Ja 158	No 114	135	128	2	5	.....	917,744
16	Maine	31	74	32	.....	1	1	40	Je [3] 43	No [3] 37	41	40	1	.....	.....	125,870
17	Maryland	47	304	54	6	43	2	199	Ja 225	Se 166	194	186	8	.....	.....	635,986
18	Massachusetts	43	326	46	7	9	4	260	De 345	Ja 241	345	313	32	.....	.....	661,174
19	Michigan	81	467	89	16	29	5	328	My 347	Fe 315	348	327	21	.....	.....	1,082,509
20	Minnesota	76	705	71	37	54	13	530	Ap 572	Au 483	550	518	31	1	.....	1,555,797
21	Mississippi	10	48	15	5	4	.....	24	Fe [3] 30	Au [3] 20	30	28	2	.....	.....	77,294
22	Missouri	107	1,197	108	58	209	19	803	De 1,042	Je 723	839	821	15	3	.....	3,230,876
23	Montana	16	67	14	4	7	.....	42	Jy 44	Ja 40	42	41	.....	1	.....	213,403
24	Nebraska	27	273	33	13	54	4	169	De 181	Jy [3] 158	183	181	2	.....	.....	956,262
25	Nevada	6	28	3	2	.....	1	22	Au [3] 23	Mh [3] 21	22	22	.....	.....	.....	57,660
26	New Hampshire	4	96	2	4	1	1	88	Ja 149	Oc 37	62	60	2	.....	.....	337,987
27	New Jersey	48	154	47	8	4	.....	95	Jy 103	De [3] 90	92	84	5	3	.....	199,899
28	New Mexico	8	21	6	1	.....	.....	14	No [3] 16	My 8	16	16	.....	.....	.....	20,281
29	New York	246	1,214	264	43	61	28	818	Ja 914	Jy 767	805	765	37	3	.....	2,355,057
30	North Carolina	37	206	40	15	11	2	138	Mh 153	Oc [3] 122	128	124	4	.....	.....	436,813
31	North Dakota	10	113	9	10	5	1	88	Je 98	De 76	93	93	.....	.....	.....	580,110
32	Ohio	154	1,854	166	79	165	41	1,403	De 1,548	Au 1,306	1,554	1,395	134	25	.....	4,138,397
33	Oklahoma	30	100	32	5	9	.....	54	No 57	Jy [3] 52	59	59	.....	.....	.....	163,288
34	Oregon	41	250	45	10	26	6	163	My 178	Oc 148	163	161	2	.....	.....	743,419
35	Pennsylvania	189	1,050	211	20	56	23	740	My 787	No 692	711	621	79	9	2	2,018,198
36	Rhode Island	12	32	11	1	2	.....	18	Jy [3] 19	De [3] 17	17	17	.....	.....	.....	21,228
37	South Carolina	9	35	8	1	.....	.....	26	Ja [3] 27	Se [3] 24	27	27	.....	.....	.....	66,658
38	South Dakota	6	38	3	4	6	1	24	Je [3] 25	De [3] 23	23	23	.....	.....	.....	110,491
39	Tennessee	63	567	61	36	46	11	413	Fe 509	Au 313	468	434	18	10	6	1,228,908
40	Texas	75	825	95	30	118	15	567	De 758	Oc 416	662	644	16	2	.....	2,920,233
41	Utah	48	200	56	8	13	1	122	Je [3] 129	De 111	113	113	.....	.....	.....	497,826
42	Vermont	7	22	8	1	.....	.....	13	Fe 16	De [3] 11	12	12	.....	.....	.....	10,677
43	Virginia	40	352	45	14	32	7	254	Ja 270	No 230	255	251	3	1	.....	947,538
44	Washington	33	127	39	6	7	4	71	My 74	Jy 69	74	73	1	.....	.....	414,649
45	West Virginia	17	171	20	6	15	3	127	Je 133	No 119	135	126	9	.....	.....	528,158
46	Wisconsin	89	858	91	23	65	17	662	De 731	Au 594	737	626	108	.....	3	1,689,179
47	Wyoming	11	35	8	2	1	.....	24	Au [3] 26	De [3] 22	25	25	.....	.....	.....	108,060
48	All other states [4]	9	179	7	6	12	5	149	.....	.....	124	109	10	2	3	500,188

[1] Owned power only.

[2] Includes rented power, other than electric.

SADDLERY AND HARNESS, BY STATES: 1914.

EXPENSES.								Value of products.	Value added by manufacture.	POWER.						
Salaries and wages.			For contract work.	Rent and taxes.		For materials.				Primary horsepower.					Electric horsepower generated in establishments reporting.	
Officials.	Clerks, etc.	Wage earners.		Rent of factory.	Taxes, including internal revenue and corporation income.	Principal materials.	Fuel and rent of power.			Total.	Steam engines.[1]	Internal-combustion engines.[2]	Water wheels and motors.[1]	Electric (rented).		
$1,205,870	$1,803,258	$7,095,612	$114,045	$847,305	$337,027	$32,709,899	$286,543	$53,558,612	$20,472,170	10,397	3,344	697	119	6,237	647	1
4,200	1,300	23,742	.....	4,164	754	74,758	750	143,284	67,776	98	75	2	.....	21	.....	2
3,300	800	27,098	.....	1,375	160	55,609	1,015	111,120	54,496	29	.....	.....	.....	29	.....	3
9,040	26,770	50,815	.....	10,999	2,486	200,599	1,590	413,551	151,353	58	.....	7	.....	51	.....	4
60,740	92,957	226,905	2,739	55,847	13,329	1,004,802	4,831	1,877,128	867,495	218	.....	2	.....	216	10	5
25,206	17,142	120,537	.....	12,876	4,281	401,267	3,186	685,161	280,708	69	.....	.....	.....	69	.....	6
.....	2,600	10,984	.....	313	505	17,660	185	39,508	21,663	.....	.....	.....	.....	.....	.....	7
77,267	79,227	289,584	.....	9,265	14,253	1,375,477	22,406	1,950,489	552,606	539	164	52	32	291	10	8
.....	.....	18,644	.....	6,040	2,189	112,425	1,360	200,030	86,245	20	.....	.....	.....	20	1	9
58,818	78,831	546,518	3,765	63,226	18,874	2,061,195	17,240	3,433,482	1,355,047	501	225	15	.....	261	131	10
64,214	73,540	492,909	250	29,585	16,969	1,822,080	15,268	3,006,159	1,168,811	1,342	888	31	.....	423	.....	11
59,844	135,906	383,851	2,758	25,024	18,017	1,876,505	13,752	3,022,456	1,132,199	417	60	63	1	293	23	12
23,231	26,963	173,006	170	27,331	12,347	687,340	6,508	1,173,689	479,841	197	25	19	4	149	.....	13
71,542	84,840	330,994	15,800	10,362	8,576	1,411,937	7,467	2,074,016	654,612	256	.....	16	.....	240	5	14
22,640	57,184	86,432	.....	11,408	5,152	479,676	2,052	871,493	389,765	99	12	.....	.....	87	.....	15
.....	988	24,080	107	3,690	760	64,151	1,429	128,502	62,922	27	.....	.....	.....	27	.....	16
7,660	41,190	108,420	589	9,543	6,936	424,380	3,576	735,048	307,092	157	115	10	.....	32	47	17
7,185	9,803	173,668	.....	12,589	5,677	491,026	4,844	836,524	340,654	89	50	.....	.....	39	1	18
19,460	27,738	107,044	19,256	21,193	10,048	786,720	8,197	1,328,575	533,649	212	.....	5	.....	207	.....	19
56,006	70,913	373,708	36	36,085	19,838	1,449,575	15,032	2,241,379	776,172	362	50	1	.....	311	1	20
4,920	3,600	13,740	.....	4,075	1,365	97,530	614	146,914	48,770	121	85	2	.....	34	.....	21
126,224	190,101	522,304	53,547	60,396	16,005	2,388,524	16,463	3,937,020	1,532,033	906	171	30	.....	705	65	22
8,860	6,901	51,491	.....	8,380	2,384	166,881	1,512	274,463	106,070	66	.....	3	.....	63	.....	23
25,140	58,442	124,559	.....	16,320	6,847	487,100	5,241	801,246	308,905	177	.....	11	.....	166	2	24
3,900	600	19,490	.....	2,220	505	31,730	739	70,825	38,356	11	.....	.....	.....	11	.....	25
8,988	17,575	55,021	.....	515	2,088	132,338	763	235,370	102,269	298	210	.....	80	8	.....	26
6,518	2,170	63,063	100	13,165	933	114,363	1,424	271,535	155,748	28	.....	7	.....	21	.....	27
1,050	.....	13,976	.....	1,560	75	24,177	154	49,523	25,192	4	.....	.....	.....	4	.....	28
63,332	92,535	516,802	1,652	83,748	13,282	1,319,886	34,333	2,675,392	1,321,173	731	65	80	.....	586	.....	29
18,082	12,139	60,131	.....	7,080	3,197	330,857	2,944	529,565	195,764	117	45	17	.....	55	.....	30
18,080	7,940	62,715	.....	3,447	3,249	272,170	1,389	421,973	148,414	57	.....	7	.....	50	.....	31
140,550	164,521	704,811	1,005	39,980	33,895	3,046,468	21,178	4,869,957	1,802,311	1,106	567	149	.....	390	203	32
8,820	12,016	42,814	.....	10,350	2,717	238,305	1,241	367,701	128,095	39	.....	2	.....	37	.....	33
17,432	28,910	135,582	326	21,840	4,822	607,139	4,228	952,394	341,027	190	41	.....	.....	149	.....	34
34,940	72,307	384,856	405	39,330	6,791	1,039,083	15,361	2,124,283	1,060,839	459	183	93	.....	183	10	35
1,100	1,200	11,380	.....	3,376	134	19,168	277	51,983	32,538	2	.....	.....	.....	2	.....	36
1,200	.....	12,713	.....	1,480	712	23,415	311	47,683	23,957	5	.....	.....	.....	5	2	37
5,900	9,500	20,188	.....	3,070	1,144	68,503	705	146,513	77,245	11	.....	.....	.....	11	.....	38
45,685	46,332	226,228	1,000	20,018	5,347	1,043,184	8,032	1,624,813	572,997	328	50	25	1	252	.....	39
75,378	147,914	390,564	720	56,650	27,036	2,424,006	8,809	3,382,244	949,339	336	.....	22	.....	314	.....	40
12,360	10,980	83,574	.....	6,047	6,458	306,564	2,408	482,868	173,896	27	.....	.....	.....	27	.....	41
1,020	.....	7,062	.....	608	93	16,188	86	31,544	15,270	2	.....	.....	.....	2	.....	42
27,360	43,472	127,536	1,250	12,812	6,531	730,756	7,977	1,042,972	304,239	150	35	13	.....	102	.....	43
10,150	9,055	64,891	25	23,507	3,834	332,695	2,151	502,771	227,925	58	.....	.....	.....	58	.....	44
9,000	15,820	70,895[3]	.....	6,772	2,248	201,668	1,784	555,666	262,214	147	125	3	.....	19	40	45
34,287	59,007	354,103	9,310	37,706	18,582	2,032,184	11,085	3,057,179	1,013,910	298	103	10	.....	185	96	46
2,400	102	22,561	.....	3,161	1,184	49,207	697	103,380	53,476	7	.....	.....	1	6	.....	47
12,800	14,317	103 394	.....	1,652	2,018	308,499	2,650	469,241	158,092	26	.....	.....	.....	26	.....	48

[3] Same number reported for one or more other months.

[4] All other states embrace: Connecticut, 7 establishments; Florida, 2.

LEATHER BELTING.

Scope of the industry.—This industry includes all establishments making belting of leather. Though leather belting is used principally for the transmission of power, the classification covers the manufacture of leather belting for automobiles, motorcycles, and cycle cars, as well as for machinery. This industry prior to 1914 was "belting and hose, leather," but the designation was changed to "belting, leather," as only a small quantity of leather hose was made. At the censuses of 1914 and 1909, no establishments were reported as engaged primarily in the manufacture of leather hose, but the figures for the earlier censuses include such establishments.

Comparison with earlier censuses.—Table 86 summarizes the statistics of establishments engaged in the manufacture of leather belting for each census from 1879 to 1914, inclusive, and gives percentages of increase from census to census.

Table 86

	NUMBER OR AMOUNT.						PER CENT OF INCREASE.[1]				
	1914	1909	1904	1899	1889	1879	1909–1914	1904–1909	1899–1904	1889–1899	1879–1889
Number of establishments	151	139	117	104	93	96	8.6	18.8	12.5	11.8	−3.1
Persons engaged	4,263	4,370	2,800	(2)	(2)	(2)	−2.4	56.1			
Proprietors and firm members	86	100	94	(2)	(2)	(2)	−14.0	6.4			
Salaried employees	1,226	1,264	614	443	(2)	(2)	−3.0	105.9	38.6		
Wage earners (average number)	2,951	3,006	2,092	1,667	1,342	1,227	−1.8	43.7	25.5	(3)	(3)
Primary horsepower	7,411	5,638	3,220	2,162	1,040	(2)	31.4	75.1	48.9	107.9	
Capital	$20,138,522	$17,457,064	$10,785,245	$7,408,219	$4,973,420	$2,748,799	15.4	61.9	45.6	49.0	80.9
Salaries and wages	3,829,188	3,362,700	1,951,867	1,398,751	1,114,754	606,037	13.9	72.3	39.5	25.5	83.9
Salaries	1,759,643	1,501,820	787,319	484,874	(2)	(2)	17.2	90.8	62.4		
Wages	2,069,545	1,860,880	1,164,548	913,877	(2)	(2)	11.2	59.8	27.4		
Paid for contract work	57,722	6,592	16,958	(2)	(2)	(2)	775.6	−61.1			
Rent and taxes (including internal revenue)	339,233	208,260	[4] 174,715	(2)	(2)	(2)	62.9	19.2			
Cost of materials	15,480,110	15,622,603	9,317,206	7,499,952	6,132,704	5,019,853	−0.9	67.7	24.2	22.3	22.2
Value of products	23,035,951	23,691,887	14,220,306	10,622,522	8,633,634	6,525,737	−2.8	66.6	33.9	23.0	32.3
Value added by manufacture (value of products less cost of materials)	7,555,841	8,069,284	4,903,100	3,122,570	2,500,930	1,505,884	−6.4	64.6	57.0	24.9	66.1

[1] A minus sign (−) denotes decrease. [2] Figures not available. [3] Figures not strictly comparable. [4] Exclusive of internal revenue.

There was an increase of 12 establishments in the industry during the period 1909–1914, but slight decreases for some of the other items. For the decade 1904–1914 substantial increases are shown. During the decade the number of wage earners increased 41.1 per cent and the amount paid in wages, 77.7 per cent. Both the cost of materials and the value of the products show a steady increase from 1879 to 1904, and the increases from 1904 to 1914 were 66.1 per cent and 62 per cent, respectively.

In addition to the value of products shown, leather belting to the value of $738,174 in 1914 and of $237,801 in 1909 was made in establishments engaged primarily in other industries.

Wage earners employed, by months.—Table 87 gives, for the industry, the total number of wage earners employed on the 15th of each month, or the nearest representative day, for 1914 and 1909, and the average number employed during each month in 1904, together with the percentage which the number reported for each month forms of the greatest number reported for any month.

The maximum number employed in 1914 was 3,004, and this number was reported for January and February. There was little variation in the number employed, the minimum number reported for June, 2,879, being 95.8 per cent of the maximum. In 1909 there was a greater fluctuation in the number employed, as the minimum number employed in May represented 89.2 per cent of the maximum, employed in December. April was the month of maximum employment in 1904 and November that of minimum.

Table 87

MONTH.	WAGE EARNERS IN THE INDUSTRY. Number.[1]			Per cent of maximum.		
	1914	1909	1904	1914	1909	1904
January	3,004	2,980	2,137	100.0	92.8	98.2
February	3,004	2,952	2,165	100.0	92.0	99.5
March	2,988	2,943	2,174	99.5	91.7	99.9
April	2,940	2,877	2,176	97.9	89.6	100.0
May	2,913	2,863	2,145	97.0	89.2	98.6
June	2,879	2,889	2,114	95.8	90.0	97.2
July	2,894	2,915	2,055	96.3	90.8	94.4
August	2,914	3,052	2,014	97.0	95.1	92.6
September	2,954	3,092	2,018	98.3	96.3	92.7
October	2,958	3,106	2,020	98.5	96.8	92.8
November	2,975	3,184	1,976	99.0	99.2	90.8
December	2,989	3,210	2,110	99.5	100.0	97.0

[1] The figures for 1914 and 1909 represent the number employed on the 15th of each month, or the nearest representative day; those for 1904, the average number employed during the month.

Prevailing hours of labor.—In Table 88 the average number of wage earners reported for 1914 and 1909 for the industry has been classified according to the number of hours of labor per week prevailing in the establishments in which they were employed. The number employed in each establishment was classified as a total, even though a few employees worked a greater or smaller number of hours.

The figures in the table show a tendency toward a shorter working-day for wage earners. The wage earners in establishments operating less than 54 hours per week formed 26.2 per cent of the total number in 1914 and but 15.5 per cent in 1909. In 1914 there were 1,683 wage earners, or 57 per cent of the total, employed in establishments where the prevailing hours of labor were more than 54 per week, compared with 1,949 wage earners, or 64.9 per cent of the total, in 1909.

Table 88

PREVAILING HOURS OF LABOR PER WEEK.	WAGE EARNERS IN ESTABLISHMENTS WITH SPECIFIED NUMBER OF HOURS.			
	Average number.		Per cent of total.	
	1914	1909	1914	1909
Total	2,951	3,006	100.0	100.0
48 and under	245	134	8.3	4.5
Between 48 and 54	528	330	17.9	11.0
54	495	593	16.8	19.7
Between 54 and 60	1,558	1,466	52.8	48.8
60	122	483	4.1	16.1
Between 60 and 72	3	.....	0.1	.....

The largest number of wage earners in both 1914 and 1909 was employed by establishments in which the prevailing hours were between 54 and 60 per week; this number was 52.8 per cent of the total in 1914 and 48.8 per cent in 1909.

Character of ownership.—Table 89 presents statistics concerning the character of ownership, or legal organization, of establishments in the industry for 1914 and 1909.

Table 89

CHARACTER OF OWNERSHIP.	Census year.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
All classes	1914	151	2,951	$23,035,951	$7,555,841
	1909	139	3,006	23,691,887	8,069,284
Individuals	1914	45	250	1,711,244	602,625
	1909	40	248	2,214,401	1,119,876
Corporations	1914	88	2,617	20,628,404	6,708,297
	1909	75	2,317	18,012,453	5,937,388
All others	1914	18	84	696,303	244,919
	1909	24	441	3,465,033	1,012,020
Per cent distribution: Individuals	1914	29.8	8.5	7.4	8.0
	1909	28.8	8.3	9.3	13.9
Corporations	1914	58.3	88.7	89.5	88.8
	1909	54.0	77.1	76.0	73.6
All others	1914	11.9	2.8	3.0	3.2
	1909	17.3	14.7	14.6	12.5

In 1914 the corporate form of ownership was the most common, 88, or 58.3 per cent, of the establishments being corporations. Though the corporations were only slightly over half of the total number of establishments they reported more than 88 per cent of each of the other items shown in the table. The 45 establishments operated under individual ownership reported 8.5 per cent of the wage earners, 7.4 per cent of the value of products, and 8 per cent of the value added by manufacture. Both the number of corporations and the proportion which they formed of the total for the industry in 1914 were greater than in 1909. On the other hand, though there were 5 more establishments under individual ownership in 1914 than in 1909 they were relatively less important.

Size of establishments.—Table 90 shows the size of establishments in 1914 and 1909, as measured by the number of wage earners employed, for the industry as a whole and for the two leading states.

Table 90

WAGE EARNERS PER ESTABLISHMENT.	Census year.	UNITED STATES.		MASSACHUSETTS.		NEW YORK.		ALL OTHER STATES.	
		Establishments.	Wage earners (average number).	Establishments.	Wage earners (average number).	Establishments.	Wage earners (average number).	Establishments.	Wage earners (average number).
All establishments	1914	151	2,951	20	1,113	35	546	96	1,292
	1909	139	3,006	16	955	28	604	95	1,447
No wage earners	1914	5	.....	1	.....	1	.....	3	.....
	1909	7	.....	1	.....	.....	.....	6	.....
1 to 5 wage earners	1914	85	215	4	8	24	56	57	151
	1909	60	168	2	6	17	51	41	111
6 to 20 wage earners	1914	35	392	8	83	6	69	21	240
	1909	47	555	8	104	7	98	32	353
21 to 50 wage earners	1914	14	394	5	146	1	22	8	226
	1909	13	387	3	85	1	26	9	276
51 to 100 wage earners	1914	7	510	1	68	1	76	5	366
	1909	7	515	1	79	2	191	4	245
Over 100 wage earners	1914	5	1,440	1	808	2	323	2	309
	1909	5	1,381	1	681	1	238	3	462

The establishments for which no wage earners were reported in 1914 were comparatively small plants, in which the work was done by the proprietors or firm members. Some of these establishments employed a few wage earners for a short time, but the number was so small and the period of employment so short that in computing the average number, as described in the "Explanation of terms," no wage earners could be shown.

In 1914 there were 85 establishments, or 56.3 per cent of the total number, which employed from 1 to 5 wage earners, the wage earners reported by them being 7.3 per cent of the total. Five establishments were reported as employing over 100 wage earners, and these establishments employed 48.8 per cent of all the wage earners reported by the industry.

New York reported 35, or 23.2 per cent, of the establishments in the industry and of these, 71.4 per cent were small plants employing no wage earners or not more than 5. Only 2 establishments employed more than 100 wage earners. Though the majority of the establishments in Massachusetts were small, employing not more than 20 wage earners, there was 1 establishment which employed more than 800, or 27.4 per cent of the entire number of wage earners in the industry.

DETAIL STATE TABLE.

TABLE 91.—DETAIL STATISTICS FOR LEATHER BELTING, BY STATES: 1914.

STATE.	Number of establishments.	PERSONS ENGAGED IN THE INDUSTRY.								WAGE EARNERS DEC. 15, OR NEAREST REPRESENTATIVE DAY.					Capital.	EXPENSES.	
		Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks, etc.		Wage earners.			Total.	16 and over.		Under 16.			Salaries and wages.	
					Male.	Female.	Average number.	Number, 15th day of— Maximum month.	Number, 15th day of— Minimum month.		Male.	Female.	Male.	Female.		Officials.	Clerks, etc.
United States	151	4,263	86	250	757	219	2,951	Ja[1] 3,004	Je 2,879	3,007	2,906	70	29	2	$20,138,522	$685,067	$1,074,576
California	6	43	1	5	8	3	26	Je[1] 27	Ja[1] 25	26	26	.....	.....	.....	191,535	12,600	10,948
Illinois	8	235	7	17	42	12	157	Au 172	De 137	137	136	1	.....	.....	1,162,363	67,596	99,150
Louisiana	3	21	.....	3	5	2	11	Au 13	Oc 9	10	10	.....	.....	.....	84,964	6,613	5,297
Massachusetts	20	1,490	8	50	247	72	1,113	De 1,212	Au 1,086	1,215	1,166	41	8	.....	5,852,158	117,263	316,315
Missouri	5	84	2	10	18	10	44	My 52	De[1] 41	43	42	.....	1	.....	523,742	29,070	27,051
New Jersey	8	100	11	8	17	7	57	Mh 62	Jy[1] 54	56	54	.....	.....	2	179,960	22,900	27,976
New York	35	818	27	39	173	33	546	Ja 573	De 514	527	518	5	4	.....	4,713,672	124,876	236,658
Ohio	10	125	.....	20	17	10	78	Ja 88	No[1] 71	79	78	1	.....	.....	607,349	45,303	24,790
Pennsylvania	15	282	14	20	53	6	189	Ja 192	Se 186	189	180	1	8	.....	1,042,466	46,862	60,613
Rhode Island	4	25	1	3	1	1	19	Ja[1] 22	Au[1] 14	19	19	.....	.....	.....	90,432	6,400	1,420
Tennessee	4	21	3	2	2	.....	14	No[1] 15	Se 12	14	14	.....	.....	.....	50,341	2,240	1,694
Washington	3	15	2	2	3	2	6	(2) 6	(2) 6	6	6	.....	.....	.....	69,947	3,380	5,460
All other states[3]	30	1,004	10	71	171	61	691	.....	.....	686	657	21	8	.....	5,569,603	199,964	266,144

STATE.	EXPENSES—continued.						Value of products.	Value added by manufacture.	POWER.					
	Salaries and wages—Continued.	For contract work.	Rent and taxes.		For materials.				Primary horsepower.					Electric horsepower generated in establishments reporting.
	Wage earners.		Rent of factory.	Taxes, including internal revenue and corporation income.	Principal materials.	Fuel and rent of power.			Total.	Steam engines.[4]	Internal-combustion engines.[5]	Water wheels and motors.[4]	Electric (rented).	
United States	$2,069,545	$57,722	$183,795	$155,438	$15,339,523	$140,587	$23,035,951	$7,555,841	7,411	5,700	177	55	1,479	380
California	23,774	.....	7,660	1,095	168,446	1,189	257,424	87,789	47	.....	.....	.....	47	.....
Illinois	128,806	.....	27,517	2,167	975,113	2,702	1,404,769	426,954	136	70	.....	.....	66	8
Louisiana	8,897	.....	2,401	415	102,755	227	138,890	35,908	15	.....	.....	.....	15	.....
Massachusetts	764,181	41,260	20,250	47,153	4,945,491	34,749	7,297,476	2,317,236	1,386	1,220	49	.....	117	104
Missouri	33,515	.....	6,144	2,651	359,774	4,060	503,411	139,577	156	.....	.....	.....	156	.....
New Jersey	43,006	.....	3,600	1,378	202,197	3,337	465,523	259,989	86	12	.....	.....	74	.....
New York	387,306	15,258	60,134	45,128	3,093,894	46,210	4,892,087	1,751,983	3,312	3,100	33	.....	179	18
Ohio	56,030	128	5,941	5,836	539,593	3,122	729,572	186,857	216	60	.....	55	101	.....
Pennsylvania	128,606	.....	22,132	3,062	1,285,700	9,530	1,775,296	480,066	310	185	36	.....	89	49
Rhode Island	12,218	.....	658	506	89,033	1,369	130,506	40,104	88	80	.....	.....	8	.....
Tennessee	10,752	.....	2,190	209	79,756	1,079	115,055	34,220	54	15	.....	.....	39	.....
Washington	6,087	516	2,940	409	16,749	123	52,768	35,896	9	.....	.....	.....	9	.....
All other states[3]	466,367	560	22,228	45,429	3,481,022	32,890	5,273,174	1,759,262	1,596	958	59	.....	579	210

[1] Same number reported for one or more other months.
[2] Same number reported throughout the year.
[3] All other states embrace: Alabama, 1 establishment; Colorado, 1; Connecticut, 3; Delaware, 1; Georgia, 2; Indiana, 3; Iowa, 1; Maine, 1; Maryland, 2; Michigan, 4; Minnesota, 3; New Hampshire, 1; North Carolina, 2; Oregon, 1; Texas, 1; Virginia, 1; Wisconsin, 2.
[4] Owned power only.
[5] Includes rented power, other than electric.

LEATHER GOODS, NOT ELSEWHERE SPECIFIED.

Scope of the industry.—Establishments included in this industry are those manufacturing hand bags, belts, wristlets for watches, straps, music rolls, burnt-leather goods, razor strops, leather cases of all kinds, fobs, handles, firemen's leather helmets, suspender parts, sweatbands, tags, kid hair curlers, washers, valves, dog collars, leather garments, and similar products.

Comparison with earlier censuses.—Table 92 summarizes the statistics of establishments engaged in the manufacture of leather goods for each census from 1879 to 1914 and gives percentages of increase.

Table 92

	NUMBER OR AMOUNT.						PER CENT OF INCREASE.[1]				
	1914	1909	1904	1899	1889	1879	1909–1914	1904–1909	1899–1904	1889–1899	1879–1889
Number of establishments	378	425	423	315	164	84	−11.1	0.5	34.3	92.1	95.2
Persons engaged	8,023	9,318	9,196	(2)	(2)	(2)	−7.5	1.3			
Proprietors and firm members	396	448	499	(2)	(2)	(2)	−11.6	−10.2			
Salaried employees	1,156	1,189	912	638	(2)	(2)	−2.8	30.4	42.9		
Wage earners (average number)	7,071	7,681	7,785	6,293	2,997	1,430	−7.9	−1.3	23.7	(3)	(3)
Primary horsepower	3,272	3,851	3,554	1,644	2,264	(2)	−15.0	8.4	116.2	−27.4	
Capital	$10,951,427	$10,389,283	$8,508,111	$5,511,294	$3,571,847	$1,426,850	5.4	22.1	54.4	54.3	150.3
Salaries and wages	5,042,101	5,034,746	4,020,551	2,833,805	1,618,770	587,208	0.1	25.2	41.9	75.1	175.7
Salaries	1,438,236	1,411,546	883,426	562,140	(2)	(2)	1.9	59.8	57.2		
Wages	3,603,865	3,623,200	3,137,125	2,271,755	(2)	(2)	−0.5	15.5	38.1		
Paid for contract work	96,493	100,248	90,745	(2)	(2)	(2)	−3.7	10.5			
Rent and taxes (including internal revenue)	391,101	319,905	[4] 309,410	(2)	(2)	(2)	22.3	3.4			
Cost of materials	10,632,124	10,290,439	9,626,614	6,191,058	3,324,828	1,511,848	3.3	6.9	55.5	86.2	119.9
Value of products	19,333,934	18,838,281	17,655,345	11,787,611	6,291,507	2,736,543	2.6	6.7	49.8	87.4	129.9
Value added by manufacture (value of products less cost of materials)	8,701,810	8,547,842	8,028,731	5,596,553	2,966,679	1,224,695	1.8	6.5	43.5	88.6	142.2

[1] A minus sign (−) denotes decrease. [2] Figures not available. [3] Figures not strictly comparable. [4] Exclusive of internal revenue.

Although the number of establishments reported by the industry varied from census to census, there has been a continued increase in the cost of the materials used and the value of the products; the percentage of increase, however, has steadily declined since 1889. During the period from 1909 to 1914 the value of products increased 2.6 per cent and the cost of materials, 3.3 per cent. For the same period, the number of persons engaged shows a decrease and while the amount of salaries paid shows an increase of 1.9 per cent, the amount of wages decreased slightly.

In addition to the value of products shown in Table 92, leather goods, to the value of $1,886,123 in 1914 and $1,924,943 in 1909, were manufactured as a subsidiary product by establishments engaged primarily in other industries.

Wage earners employed, by months.—Table 93 shows, for the industry, the total number of wage earners employed on the 15th of each month, or the nearest representative day, for the years 1914 and 1909 and the average number employed during each month in 1904, together with the percentage which the number reported for each month forms of the greatest number reported for any month.

Table 93

MONTH.	WAGE EARNERS IN THE INDUSTRY.					
	Number.[1]			Per cent of maximum.		
	1914	1909	1904	1914	1909	1904
January	6,077	7,129	7,286	85.0	82.7	81.4
February	6,820	7,242	7,384	86.8	84.0	82.5
March	6,881	7,203	7,490	87.6	81.6	83.7
April	6,860	7,259	7,473	87.3	84.2	83.5
May	6,807	7,248	7,416	86.7	84.1	82.8
June	6,939	7,252	7,220	88.3	84.1	80.6
July	6,988	7,418	7,124	89.0	86.0	79.6
August	7,115	7,789	7,438	90.6	90.3	83.1
September	7,553	8,139	8,183	96.2	94.4	91.4
October	7,854	8,480	8,678	100.0	98.4	96.9
November	7,417	8,623	8,953	94.4	100.0	100.0
December	6,941	8,204	8,769	88.4	95.8	97.9

[1] The figures for 1914 and 1909 represent the number employed on the 15th of each month, or the nearest representative day; those for 1904, the average number employed during the month.

As a rule, this industry shows the winter as the time of least activity with a practically continuous increase to the season of greatest activity in the late fall. The greatest number employed in any month in 1914 was 7,854 in October and the smallest number 6,677, or 85 per cent of the maximum, in January. In 1909 the month of maximum employment was November, the minimum number reported for January being 82.7 per cent of the maximum. November was the month of maximum employment in 1904 also, while the smallest number on the 15th day of any month was reported for July, when 79.6 per cent of the maximum was employed.

The greatest stability of employment was shown for 1914 and the greatest fluctuation for 1904.

Prevailing hours of labor.—In Table 94 the average number of wage earners reported for 1914 and 1909 for the industry, has been classified according to number of hours of labor per week prevailing in the establishments in which they were employed. The number employed in each establishment was classified as a total, even though a few employees worked a greater or smaller number of hours.

Table 94

PREVAILING HOURS OF LABOR PER WEEK.	WAGE EARNERS IN ESTABLISHMENTS WITH SPECIFIED NUMBER OF HOURS.			
	Average number.		Per cent of total.	
	1914	1909	1914	1909
Total	7,071	7,681	100.0	100.0
48 and under	511	295	7.2	3.8
Between 48 and 54	2,032	940	28.7	12.2
54	2,287	1,433	32.3	18.7
Between 54 and 60	2,040	4,020	28.9	52.3
60	197	943	2.8	12.3
Between 60 and 72	4	49	0.1	0.6
72		1		(1)

[1] Less than one-tenth of 1 per cent.

The table clearly shows the tendency toward a shorter working-day for wage earners. The wage earners in establishments in which the prevailing hours of labor were 60 or more per week formed 2.9 per cent of the total number in 1914, as compared with 12.9 per cent in 1909. There were 4,830, or 68.2 per cent of the 7,071 wage earners in the industry, in 1914, employed in establishments operating 54 hours or less per week, while, in 1909, but 34.7 per cent of the wage earners were in establishments of this class. The largest number of wage earners in 1914 was

employed in those establishments operating 54 hours per week and in 1909 in those operating between 54 and 60 hours, and the proportion of the total these formed was 32.3 per cent in 1914 and 52.3 per cent in 1909.

Character of ownership.—Table 95 presents statistics concerning the character of ownership, or legal organization, of establishments in the industry for 1914 and 1909.

The figures in the table show a relatively large number of individually owned small establishments and the greater importance and size of establishments owned by corporations. This was the case both in 1914 and 1909. The 108 corporations, although forming but 28.6 per cent of the number of establishments, employed nearly one-half (3,246, or 45.9 per cent) of the average number of wage earners and reported 45.2 per cent of the value of products and about the same proportion (45.3 per cent) of the value added by manufacture.

Table 95

CHARACTER OF OWNERSHIP.	Census year.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
All classes	1914	378	7,071	$19,333,934	$8,701,810
	1909	425	7,681	18,838,281	8,547,842
Individuals	1914	163	1,127	2,878,301	1,304,628
	1909	219	1,906	4,752,238	2,070,201
Corporations	1914	108	3,246	8,747,319	3,941,322
	1909	108	3,570	8,571,310	3,906,985
All others	1914	107	2,698	7,708,314	3,455,860
	1909	98	2,205	5,514,733	2,570,656
Per cent distribution:					
Individuals	1914	43.1	15.9	14.9	15.0
	1909	51.5	24.8	25.2	24.2
Corporations	1914	28.6	45.9	45.2	45.3
	1909	25.4	46.5	45.5	45.7
All others	1914	28.3	38.2	39.9	39.7
	1909	23.1	28.7	29.3	30.1

Size of establishments.—Table 96 shows the size of establishments in 1914 and 1909, as measured by the number of wage earners employed, for the industry as a whole and for the three leading states.

Table 96

STATE.	Census year.	TOTAL.		ESTABLISHMENTS EMPLOYING—											
				No wage earners.	1 to 5 wage earners.		6 to 20 wage earners.		21 to 50 wage earners.		51 to 100 wage earners.		101 to 250 wage earners.		251 to 500 wage earners.	
		Establishments.	Wage earners (average number).	Establishments.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.
United States	1914	378	7,071	29	127	365	139	1,707	56	1,764	17	1,167	7	985	3	1,083
	1909	425	7,681	29	164	455	145	1,796	60	1,924	15	1,027	8	1,087	4	1,392
New Jersey	1914	24	854	2	9	22	6	78	4	125	1	56	1	154	1	419
	1909	33	1,038	4	9	31	13	168	5	149	.....	.....	1	195	1	495
New York	1914	174	3,539	10	48	141	69	876	29	929	14	977	4	616	.....	.....
	1909	176	3,465	9	54	142	63	793	35	1,061	11	764	3	379	1	326
Pennsylvania	1914	28	951	5	3	18	7	76	6	193	.....	.....	.....	.....	2	664
	1909	35	998	5	14	38	8	101	3	103	3	185	.....	.....	2	571
All other states	1914	152	1,727	12	62	184	57	677	17	517	2	134	2	215	.....	.....
	1909	181	2,180	11	87	244	61	734	17	611	1	78	4	513	.....	.....

The number of establishments in this industry has decreased since 1909 as well as the number of wage earners employed. There were 29 establishments having no wage earners both in 1914 and 1909, but these constituted a slightly larger proportion of the total in 1914 than 1909.

The establishments for which no wage earners were reported were comparatively small plants in which the work was done by the proprietors or firm members. Some of these establishments employed a few wage earners for a short time, but the number was so small and the period of employment so short that in computing the average number, as described in the "Explanation of terms," no wage earners could be hown. The majority of the establishments were small, employing few workers. In 1914 there were 266, or more than two-thirds, of the establishments which employed from 1 to 20 wage earners, and these reported 29.3 per cent of the total number of wage earners. On the other hand, there were 10 establishments which employed more than 100 wage earners each, and the wage earners in these establishments formed 29.2 per cent of the total number.

New York reported 174 establishments in 1914 and the largest group of these was 69, employing from 6 to 20 wage earners, or 24.8 per cent of the total number for the state. Four establishments employed between 101 and 250 wage earners and the number in these establishments was 17.4 per cent of the total number for the industry in the state.

DETAIL STATE TABLE.

TABLE 97.—DETAIL STATISTICS FOR LEATHER GOODS, NOT ELSEWHERE SPECIFIED, BY STATES: 1914.

STATE.	Number of establishments.	PERSONS ENGAGED IN THE INDUSTRY.								WAGE EARNERS DEC. 15, OR NEAREST REPRESENTATIVE DAY.					Capital.	EXPENSES.	
		Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks, etc.		Wage earners.			Total.	16 and over.		Under 16.			Salaries and wages.	
					Male.	Female.	Average number.	Number, 15th day of— Maximum month.	Number, 15th day of— Minimum month.		Male.	Female.	Male.	Female.		Officials.	Clerks, etc.
United States..	378	8,623	396	276	608	272	7,071	Oc 7,854	Ja 6,677	7,174	4,292	2,499	139	244	$10,951,427	$578,910	$559,326
California	14	160	17	8	11	5	119	Oc 146	Ja 97	117	59	58	.....	.....	140,304	10,760	8,904
Connecticut	6	76	6	6	.....	2	62	Mh 69	Jy 57	58	53	5	.....	.....	91,580	17,575	506
Illinois	38	567	27	40	31	21	448	Fe 472	De 402	453	299	143	4	7	935,043	57,802	59,881
Indiana	3	74	1	8	.....	2	63	Mh 83	No 45	40	20	26	.....	.....	102,842	12,851	1,301
Massachusetts	41	532	39	27	31	19	416	No 529	Ja 327	512	269	229	7	7	637,354	42,211	34,588
Michigan	10	205	4	19	7	12	163	Ja 186	De 129	154	90	61	2	1	319,273	46,072	20,989
Missouri	5	50	3	4	6	6	31	Ja 37	Jy 27	32	27	5	.....	.....	74,350	5,016	7,614
New Jersey	24	942	21	17	42	8	854	Oc 907	Ja 816	914	500	404	6	4	1,406,605	42,690	69,127
New York	174	4,283	211	110	303	120	3,539	Oc 4,124	Ja 3,287	3,523	2,459	984	45	35	4,512,283	220,536	432,820
Ohio	12	77	12	3	3	6	53	Fe 59	Se 43	58	36	22	.....	.....	123,164	4,731	6,070
Pennsylvania	28	1,149	33	15	111	39	951	Oc 1,051	Ja 896	950	377	432	30	111	1,619,162	57,944	146,941
Wisconsin	4	17	3	1	4	1	8	My [1] 10	De [1] 7	7	3	4	.....	.....	15,151	780	4,619
All other states [2]	19	491	19	18	59	31	364	.....	.....	350	100	126	45	79	975,316	29,936	65,966

STATE.	EXPENSES—continued.						Value of products.	Value added by manufacture.	POWER.					
	Salaries and wages—Continued.		Rent and taxes.		For materials.				Primary horsepower.					Electric horsepower generated in establishments reporting.
	Wage earners.	For contract work.	Rent of factory.	Taxes, including internal revenue and corporation income.	Principal materials.	Fuel and rent of power.			Total.	Steam engines. [3]	Internal-combustion engines. [4]	Water wheels and motors. [3]	Electric (rented).	
United States..	$3,603,865	$96,493	$350,207	$40,894	$10,534,890	$97,734	$19,333,934	$8,701,810	3,272	1,603	283	3	1,383	339
California	54,658	1,540	10,566	778	142,693	555	288,979	145,731	12	.....	.....	.....	12	.....
Connecticut	30,411	.....	1,080	754	78,652	1,189	194,409	114,568	74	50	8	.....	16	.....
Illinois	233,115	.....	42,531	4,446	1,169,366	15,744	1,858,919	673,809	1,044	750	13	.....	281	35
Indiana	25,770	.....	555	858	179,312	2,472	250,794	69,010	83	70	.....	.....	13	.....
Massachusetts	215,391	13,294	20,937	3,602	727,112	6,395	1,309,049	575,542	218	30	42	.....	146	.....
Michigan	77,761	.....	5,100	3,049	442,116	2,880	664,492	219,496	156	.....	36	.....	120	.....
Missouri	20,378	13,100	2,382	131	28,289	2,857	135,555	104,409	45	40	.....	.....	5	.....
New Jersey	405,459	691	9,042	7,025	1,025,727	10,440	1,831,799	795,632	407	275	69	.....	63	179
New York	1,940,089	67,388	220,336	10,143	5,286,226	38,682	9,894,716	4,569,808	672	150	36	.....	486	71
Ohio	29,403	.....	1,472	850	105,881	1,414	169,420	62,125	60	.....	29	.....	31	.....
Pennsylvania	399,467	15	23,260	4,260	924,636	8,706	1,839,869	906,527	321	198	28	.....	95	54
Wisconsin	3,437	.....	616	67	11,138	207	25,071	13,726	12	.....	10	.....	2	.....
All other states [2]	168,526	465	12,330	4,931	413,242	6,193	870,862	451,427	108	40	12	3	113	.....

[1] Same number reported for one or more other months.
[2] All other states embrace: Alabama, 1 establishment; Colorado, 3; Iowa, 1; Kansas, 1; Maryland, 2; Minnesota, 2; New Hampshire, 1; Oregon, 1; Rhode Island, 4; Texas, 1; Washington, 2.
[3] Owned power only.
[4] Includes rented power, other than electric.

POCKETBOOKS.

Scope of the industry.—The establishments for which statistics are presented in this report include those manufacturing pocketbooks, purses, ladies' purse hand bags, cardcases, wallets, coin purses, etc., made chiefly of leather.

Comparison with earlier censuses.—Table 98 summarizes the statistics of establishments engaged in the manufacture of pocketbooks for each census from 1879 to 1914 and gives percentages of increase.

Table 98

	NUMBER OR AMOUNT.						PER CENT OF INCREASE.[1]				
	1914	1909	1904	1899	1889	1879	1909–1914	1904–1909	1899–1904	1889–1899	1879–1889
Number of establishments	64	79	46	68	62	53	−19.0	71.7	−32.4	9.7	17.0
Persons engaged	1,738	1,771	2,500	1,862	(2)	(2)	−1.9	−29.2	34.3	.....	.....
Proprietors and firm members	81	100	62	85	(2)	(2)	−19.0	61.3	−27.1	.....	.....
Salaried employees	191	199	157	124	(2)	(2)	−4.0	26.8	26.6	.....	.....
Wage earners (average number)	1,466	1,472	2,281	1,653	1,208	1,413	−0.4	−35.5	38.0	(3)	(3)
Primary horsepower	243	178	317	181	156	(2)	36.5	−43.8	75.1	16.0	.....
Capital	$1,609,601	$1,892,862	$2,127,824	$991,876	$1,121,834	$598,350	−15.0	−11.0	114.5	−11.6	87.5
Salaries and wages	941,206	931,067	1,031,431	734,814	661,992	484,947	1.1	−9.7	40.4	11.0	36.5
Salaries	238,892	242,452	234,446	146,219	(2)	(2)	−1.5	3.4	60.3	.....	.....
Wages	702,314	688,615	796,985	588,595	(2)	(2)	2.0	−13.6	35.4	.....	.....
Paid for contract work	26,831	4,115	22,000	2,162	(2)	(2)	406.2	−81.3	917.6	.....	.....
Rent and taxes (including internal revenue)	53,232	61,473	[4] 28,938	[4] 30,285	(2)	(2)	−13.4	112.6	−4.5	.....	.....
Cost of materials	1,783,840	1,929,327	1,926,723	1,278,226	968,948	930,033	−7.5	0.1	50.7	31.9	4.2
Value of products	3,350,552	3,628,161	3,767,446	2,495,188	2,165,462	1,769,036	−7.7	−3.7	51.0	15.2	22.4
Value added by manufacture (value of products less cost of materials)	1,566,712	1,698,834	1,840,723	1,216,962	1,196,514	839,003	−7.8	−7.7	51.3	1.7	42.6

[1] A minus sign (−) denotes decrease. [2] Figures not available. [3] Figures not strictly comparable. [4] Exclusive of internal revenue.

The table shows that there has been a decrease in the industry from census to census since 1904, but for the period from 1899 to 1904 substantial increases are shown. During the period from 1909 to 1914 decreases are shown for all the items given, except horsepower and amount paid for wages and for contract work. The large increase in the latter item is not significant, as the amount paid for this work depends largely upon the methods followed and not upon the magnitude of the operations.

In addition to the value of products given in the tables, pocketbooks, to the value of $684,374 in 1914 and $319,902 in 1909, were reported as a subsidiary product of establishments engaged primarily in other industries, such as the manufacture of leather goods, signs and advertising novelties, silversmithing and silverware, and trunks and valises.

Wage earners employed, by months.—Table 99 shows, for the industry, the total number of wage earners employed on the 15th of each month, or the nearest representative day, for 1914 and 1909, and the average number during each month in 1904, together with the percentage which the number reported for each month forms of the greatest number for any month.

In 1914 the greatest number employed in any month was 1,695 in October and the smallest number was 1,243, employed in December. In 1909 the maximum number employed was 1,695 also, reported for November, but the minimum number was 1,324, reported for May. In 1904, as in 1909, November was the month of maximum employment, 2,484 wage earners being employed and July reported the minimum number 2,063. For each year shown the fall was the season of greatest activity, although there was considerable variation from season to season. The year 1904 shows the greatest stability of employment, the minimum number employed representing 83.1 per cent of the maximum, while the corresponding percentages for 1914 and 1909 were 73.3 per cent and 78.1 per cent, respectively.

Table 99

MONTH.	WAGE EARNERS IN THE INDUSTRY.					
	Number.[1]			Per cent of maximum.		
	1914	1909	1904	1914	1909	1904
January	1,300	1,380	2,192	76.7	81.4	88.2
February	1,399	1,467	2,193	82.5	86.5	88.3
March	1,545	1,431	2,206	91.2	84.4	88.8
April	1,506	1,358	2,264	88.8	80.1	91.1
May	1,432	1,324	2,273	84.5	78.1	91.5
June	1,398	1,403	2,215	82.5	82.8	89.2
July	1,438	1,347	2,063	84.8	79.5	83.1
August	1,517	1,460	2,129	89.5	86.1	85.7
September	1,627	1,539	2,409	96.0	90.8	97.0
October	1,695	1,653	2,473	100.0	97.5	99.6
November	1,492	1,695	2,484	88.0	100.0	100.0
December	1,243	1,614	2,471	73.3	95.2	99.5

[1] The figures for 1914 and 1909 represent the number employed on the 15th of each month, or the nearest representative day; those for 1904, the average number employed during the month.

Prevailing hours of labor.—In Table 100 the average number of wage earners, reported for 1914 and 1909 for the industry, has been classified according to number of hours of labor per week prevailing in the establishments in which they were employed. The number employed in each establishment is classified as a total, even though a few employees worked a greater or smaller number of hours.

Table 100

PREVAILING HOURS OF LABOR PER WEEK.	WAGE EARNERS IN ESTABLISHMENTS WITH SPECIFIED NUMBER OF HOURS.			
	Average number.		Per cent of total.	
	1914	1909	1914	1909
Total	1,466	1,472	100.0	100.0
48 and under	212	49	14.5	3.3
Between 48 and 54	275	156	18.8	10.6
54	702	164	47.9	11.1
Between 54 and 60	274	755	18.7	51.3
60	3	348	0.2	23.6

The tendency toward a shorter working-day is plainly shown by the table. Establishments operating 54 hours or less per week reported 81.2 per cent of the total average number of wage earners in 1914, as compared with 25 per cent in 1909. In 1914 the largest number of wage earners, 702, or 47.9 per cent of the total, was employed in establishments where the prevailing hours were 54 per week, while in 1909 the largest number, 755, or 51.3 per cent, was reported by establishments operating between 54 and 60 hours.

Character of ownership.—Table 101 shows the character of ownership, or legal organization, of establishments in the industry for 1914 and 1909.

Table 101

CHARACTER OF OWNERSHIP.	Census year.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
All classes	1914	64	1,466	$3,350,552	$1,566,712
	1909	79	1,472	3,628,161	1,698,834
Individuals	1914	30	214	588,335	261,131
	1909	40	240	495,102	244,046
Corporations	1914	14	635	1,276,523	656,609
	1909	13	742	1,656,426	776,607
All others	1914	20	617	1,485,694	648,972
	1909	26	490	1,476,633	678,181
Per cent distribution:					
Individuals	1914	46.9	14.6	17.6	16.7
	1909	50.6	16.3	13.6	14.4
Corporations	1914	21.9	43.3	38.1	41.9
	1909	16.5	50.4	45.7	45.7
All others	1914	31.2	42.1	44.3	41.4
	1909	32.9	33.3	40.7	39.9

The "all others" class of establishments, formed largely of firms and partnerships and comprising about one-third of the entire number of establishments in 1914, employed 42.1 per cent of the wage earners and contributed 44.1 per cent to the value of products and 41.4 per cent to the value added by manufacture. The corporations reported 43.3 per cent of the wage earners, 38.1 per cent of the value of the product and 41.9 per cent of the value added by manufacture in 1914. Both the individuals and "all others" classes formed an increased proportion of the total in 1914 as compared with 1909.

Size of establishments.—Table 102 shows the size of establishments in 1914 and 1909 as measured by the number of wage earners employed.

Table 102

WAGE EARNERS PER ESTABLISHMENT.	ESTABLISHMENTS.				WAGE EARNERS (AVERAGE NUMBER).			
	1914	1909	Per cent of total.		1914	1909	Per cent of total.	
			1914	1909			1914	1909
All establishments	64	79	100.0	100.0	1,466	1,472	100.0	100.0
No wage earners	7	3	10.9	3.8	.....	.....	.....	.....
1 to 5 wage earners	19	30	29.7	38.0	48	71	3.3	4.8
6 to 20 wage earners	21	28	32.8	35.4	261	330	17.8	22.4
21 to 50 wage earners	11	11	17.2	13.9	335	368	22.9	25.0
51 to 100 wage earners	2	6	3.1	7.6	190	483	13.0	32.8
101 to 250 wage earners	3	1	4.7	1.3	380	220	25.9	14.9
251 to 500 wage earners	1	.....	1.6	.....	252	.....	17.2	.....

The seven establishments for which no wage earners were reported in 1914 were small plants in which the work was done by the proprietors or firm members. Some of them employed a few wage earners for a short time, but the number was so small and the period of employment so short that in computing the average number, as described in the "Explanation of terms," no wage earners could be shown. The majority of the establishments were small, 62.5 per cent of them in 1914 employing from 1 to 20 wage earners and reporting 21.1 per cent of the total number. In 1909 the corresponding percentages for this class of establishments were 73.4 per cent and 27.2 per cent respectively. There were four establishments in the industry which employed more than 100 wage earners, and the wage earners employed in these were 43.1 per cent of the entire number.

DETAIL STATE TABLE.

TABLE 103.—DETAIL STATISTICS FOR POCKETBOOKS, BY STATES: 1914.

STATE.	Number of establishments.	PERSONS ENGAGED IN THE INDUSTRY. Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks, etc. Male.	Clerks, etc. Female.	Wage earners. Average number.	Wage earners. Number, 15th day of— Maximum month.	Wage earners. Number, 15th day of— Minimum month.	WAGE EARNERS DEC. 15, OR NEAREST REPRESENTATIVE DAY. Total.	16 and over. Male.	16 and over. Female.	Under 16. Male.	Under 16. Female.	Capital.	EXPENSES. Salaries and wages. Officials.	Salaries and wages. Clerks, etc.
United States..	64	1,738	81	52	79	60	1,466	Oc 1,695	De 1,243	1,323	740	546	17	20	$1,609,601	$101,664	$137,228
Illinois	3	27	4	.....	.....	.....	23	De [1] 31	My [1] 15	31	31	.....	.....	.....	6,300	.....	.....
Massachusetts	19	434	14	17	12	14	377	Mh 463	De 338	360	124	228	3	5	522,590	48,316	30,492
New York	36	929	49	20	51	33	776	Oc 1,011	De 637	637	429	201	4	3	742,618	31,725	84,065
Pennsylvania	5	61	4	3	5	4	45	Ap 50	Au 39	46	26	20	.....	.....	61,218	3,640	6,942
All other states [2]	10	287	10	12	11	9	245	.....	.....	249	130	97	10	12	276,875	17,983	15,729

STATE.	EXPENSES—continued. Salaries and wages—Continued. Wage earners.	For contract work.	Rent and taxes. Rent of factory.	Rent and taxes. Taxes, including internal revenue and corporation income.	For materials. Principal materials.	For materials. Fuel and rent of power.	Value of products.	Value added by manufacture.	POWER. Primary horsepower. Total.	Steam engines. [3]	Internal-combustion engines. [4]	Water wheels and motors. [3]	Electric (rented).	Electric horsepower generated in establishments reporting.
United States..	$702,314	$20,831	$45,218	$8,014	$1,768,580	$15,260	$3,350,552	$1,566,712	243	80	5	.....	158	82
Illinois	12,752	48	300	8	34,885	66	52,114	17,163	.....	.....	.....	.....	.....	.....
Massachusetts	172,486	688	6,831	4,700	336,567	2,933	738,954	399,404	68	.....	.....	.....	68	.....
New York	408,793	19,995	34,171	635	1,184,418	8,361	2,098,160	905,381	136	80	4	.....	52	82
Pennsylvania	19,287	.....	2,500	6	36,824	1,479	98,503	60,200	11	.....	.....	.....	11	.....
All other states [2]	88,996	100	1,416	2,615	175,886	2,371	362,821	184,564	28	.....	1	.....	27	.....

[1] Same number reported for one or more other months.
[2] All other states embrace: California, 2 establishments; Iowa, 1; New Jersey, 1; North Carolina, 1; Ohio, 1; Oregon, 1; Wisconsin, 3.
[3] Owned power only.
[4] Includes rented power, other than electric.

TRUNKS AND VALISES.

Scope of the industry.—The establishments included in this industry are engaged in the manufacture of trunks of leather, wood, canvas and fiber, and of suit cases, telescopes, sample, medicine and vacuum bottle cases, hat boxes, luncheon kits, satchels, golf and traveling bags, of leather, leatherette, imitation leather, canvas, or other materials.

Comparison with earlier censuses.—Table 104 summarizes the statistics of establishments engaged in the manufacture of trunks and valises for each census from 1879 to 1914, and gives percentages of increase.

Table 104

	NUMBER OR AMOUNT. 1914	1909	1904	1899	1889	1879	Per cent of increase. [1] 1909–1914	1904–1909	1899–1904	1889–1899	1879–1889
Number of establishments	561	524	373	312	395	265	7.1	40.5	19.6	−21.0	49.1
Persons engaged	12,154	13,422	10,458	(2)	(2)	(2)	−9.4	28.3	.....	.....	.....
Proprietors and firm members	549	552	406	(2)	(2)	(2)	−0.5	36.0	.....	.....	.....
Salaried employees	1,694	1,748	961	708	(2)	(2)	−3.1	81.9	35.7	.....	.....
Wage earners (average number)	9,911	11,122	9,091	6,964	6,032	4,534	−10.9	22.3	30.5	(2)	(2)
Primary horsepower	7,566	6,885	5,016	3,314	2,001	(2)	9.9	37.3	51.4	65.6	.....
Capital	$18,570,817	$18,308,037	$11,018,937	$6,929,044	$6,900,756	$2,792,256	1.4	66.2	59.0	0.4	147.1
Salaries and wages	7,706,448	7,652,587	5,150,005	3,469,173	3,513,749	1,786,586	0.7	48.6	48.5	−1.3	96.7
Salaries	2,166,291	2,115,258	1,010,971	692,157	(2)	(2)	2.4	109.2	46.1	.....	.....
Wages	5,540,157	5,537,329	4,139,034	2,777,016	(2)	(2)	0.1	33.8	49.0	.....	.....
Paid for contract work	8,969	49,690	8,335	(2)	(2)	(2)	−82.0	496.2	.....	.....	.....
Rent and taxes (including internal revenue)	763,783	636,981	[4] 123,263	(2)	(2)	(2)	20.0	50.5	.....	.....	.....
Cost of materials	13,625,457	14,629,065	9,107,785	5,954,718	4,703,982	3,910,133	−6.9	60.6	53.0	26.6	20.3
Value of products	26,471,527	28,027,964	18,643,580	12,428,646	10,821,621	7,252,470	−5.6	50.3	50.0	14.8	49.2
Value added by manufacture (value of products less cost of materials)	12,846,070	13,398,899	9,535,795	6,473,928	6,117,639	3,342,337	−4.1	40.5	47.3	5.8	83.0

[1] A minus sign (−) denotes decrease. [2] Figures not available. [3] Figures not strictly comparable. [4] Exclusive of internal revenue.

There was an increase of 188 establishments during the decade 1904–1914, and during the same period the number of wage earners increased 9 per cent; the amount paid in wages, 33.9 per cent; the cost of materials, 49.6 per cent; and the value of products, 42 per cent.

In addition to the value of products shown in the table, there were trunks and valises, to the value of $296,201 in 1914 and of $675,219 in 1909, manufactured by establishments engaged primarily in other industries, such as the making of saddlery and harness, leather goods, pocketbooks, etc.

Wage earners employed, by months.—Table 105 shows, for the industry, the total number of wage earners employed on the 15th of each month, or the nearest representative day, for 1914 and 1909, and the average number employed during each month in 1904, together with the percentage which the number reported for each month forms of the greatest number reported for any month.

Table 105

MONTH.	WAGE EARNERS IN THE INDUSTRY. Number.[1]			Per cent of maximum.		
	1914	1909	1904	1914	1909	1904
January	9,816	10,283	8,549	92.3	87.9	90.0
February	10,324	10,682	8,711	97.1	91.3	91.7
March	10,427	11,008	9,048	98.1	94.1	95.2
April	10,633	10,815	9,133	100.0	92.4	96.1
May	10,318	11,143	9,083	97.0	95.2	95.6
June	10,174	11,070	9,129	95.7	94.6	98.2
July	10,124	10,957	9,440	95.2	93.6	99.4
August	9,935	11,420	9,500	93.4	97.6	100.0
September	9,845	11,700	9,476	92.6	100.0	99.7
October	9,643	11,638	9,372	90.7	99.5	98.7
November	9,096	11,587	9,088	85.5	99.0	95.7
December	8,597	11,169	8,563	80.9	95.5	90.1

[1] The figures for 1914 and 1909 represent the number employed on the 15th of each month, or the nearest representative day; those for 1904, the average number employed during the month.

The greatest number in 1914 was 10,633, employed in April, and the smallest number was 8,597, or 80.6 per cent of the maximum, employed in December. In 1909 September was the month of maximum employment, when 11,700 were employed and January was the month of minimum employment, 87.9 per cent of the maximum being reported. In 1904 August was the month of greatest employment and January, as in 1909, that of least; the minimum number represented 90 per cent of the maximum.

Prevailing hours of labor.—In Table 106 the average number of wage earners reported for 1914 and 1909, for the industry, has been classified according to the number of hours of labor per week prevailing in the establishments in which they were employed. The number employed in each establishment was classified as a total, even though a few employees worked a greater or smaller number of hours.

This table emphasizes the tendency toward a shorter working-day. In 1914, 20.7 per cent of the wage earners were employed in establishments where the prevailing hours were less than 54 per week, while in 1909 only 7 per cent of the wage earners were in this class of establishments. Compared with this, 54.1 per cent of the wage earners in 1914 and 69.9 per cent in 1909 were employed in those establishments which operated more than 54 hours per week.

Table 106

PREVAILING HOURS OF LABOR PER WEEK.	WAGE EARNERS IN ESTABLISHMENTS WITH SPECIFIED NUMBER OF HOURS. Average number.		Per cent of total.	
	1914	1909	1914	1909
Total	9,911	11,122	100.0	100.0
48 and under	466	399	4.7	3.6
Between 48 and 54	1,589	378	16.0	3.4
54	2,498	2,564	25.2	23.1
Between 54 and 60	3,566	4,753	36.0	42.7
60	1,756	2,992	17.7	26.9
Between 60 and 72	36	13	.4	0.1
72	.....	2	.....	0.0
Over 72	.....	21	.....	0.2

Character of ownership.—Table 107 presents statistics concerning the character of ownership, or legal organization, of establishments in the industry for 1914 and 1909.

Table 107

CHARACTER OF OWNERSHIP.	Census year.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
All classes	1914	561	9,911	$26,471,527	$12,846,070
	1909	524	11,122	28,027,964	13,398,899
Individuals	1914	265	1,750	4,839,045	2,328,047
	1909	231	1,679	4,492,693	2,104,500
Corporations	1914	170	6,628	17,332,027	8,572,774
	1909	152	7,119	17,474,051	8,498,444
All others	1914	126	1,533	4,300,455	1,945,249
	1909	141	2,324	6,061,220	2,795,955
Per cent distribution: Individuals	1914	47.2	17.7	18.3	18.1
	1909	44.1	15.1	16.0	15.7
Corporations	1914	30.3	66.9	65.5	66.7
	1909	29.0	64.0	62.3	63.4
All others	1914	22.5	15.5	16.2	15.1
	1909	26.9	20.9	21.6	20.9

The table shows an increase since the 1909 census in the number of establishments operated under individual and corporate ownership and a decrease in the number of those establishments classed as "all other," which is composed chiefly of firms. The corporate establishments, which formed but 30.3 per cent of the total number in 1914, reported 66.9 per cent of the wage earners, 65.5 per cent of the value of products, and 66.7 per cent of the value added by manufacture. For each item the proportion of the total for the industry shown for corporations was greater in 1914 than 1909.

Size of establishments.—Table 108 shows the size of establishments in 1914 and 1909, as measuerd by the number of wage earners employed, for the industry as a whole and for the seven leading states.

Table 108

STATE.	Census year.	TOTAL.		ESTABLISHMENTS EMPLOYING—											
				No wage earners.	1 to 5 wage earners.		6 to 20 wage earners.		21 to 50 wage earners.		51 to 100 wage earners.		101 to 250 wage earners.		Over 250 wage earners.	
		Establishments.	Wage earners (average number).	Establishments.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.
United States	1914	561	9,911	49	254	640	147	1,713	60	1,804	30	2,070	19	2,764	2	920
	1909	524	11,122	22	226	590	159	1,820	60	1,894	33	2,300	20	3,061	4	1,457
Illinois	1914	47	1,035	3	15	41	15	184	7	242	6	371	1	197	.....	.....
	1909	44	1,219	1	16	57	12	143	9	299	4	330	1	115	1	275
Missouri	1914	21	535	1	8	16	7	107	3	84	.....	.....	2	378	.....	.....
	1909	23	664	4	8	15	5	64	2	43	1	64	3	478	.....	.....
New Jersey	1914	27	720	2	10	29	4	37	6	164	2	150	3	340	.....	.....
	1909	20	570	.....	3	7	10	117	4	154	2	104	1	188	.....	.....
New York	1914	149	2,340	8	65	176	45	515	17	462	10	711	4	476	.....	.....
	1909	140	2,607	7	58	154	41	477	22	662	8	612	3	427	1	275
Pennsylvania	1914	58	1,002	8	17	35	23	241	6	172	3	214	.....	.....	1	340
	1909	51	845	3	22	51	17	174	4	128	4	264	1	228	.....	.....
Virginia	1914	11	1,174	1	2	5	.....	.....	4	125	1	75	2	389	1	580
	1909	7	1,235	.....	.....	.....	1	10	2	65	.....	.....	3	522	1	638
Wisconsin	1914	18	820	3	2	3	4	58	3	117	4	274	2	368	.....	.....
	1909	19	1,165	.....	5	16	3	51	3	89	3	195	4	545	1	269

In 1914 there were 49 establishments, more than twice as many as in 1909, which employed no wage earners. These were comparatively small plants in which the work was done by the proprietors or firm members. Some of these establishments employed a few wage earners for a short time, but the number was so small and the period of employment so short that in computing the average number, as described in the "Explanation of terms," no wage earners could be shown. There were 401, or 71.5 per cent, of the establishments which employed 1 to 20 wage earners in 1914, and the wage earners employed in these formed but 23.7 per cent of the total number.

There were in the industry in 1914, however, 21 establishments which employed more than 100 wage earners and these employed 37.2 per cent of the wage earners. New York reported more establishments and more wage earners than any other state. Of these establishments 8 employed no wage earners and 110, or 73.8 per cent of the total, employed not more than 20 each, the wage earners in these forming 29.5 per cent of those for the state. There were 4 establishments in New York which employed more than 100 wage earners and these plants gave employment to 20.3 per cent of the wage earners.

DETAIL STATE TABLE.

TABLE 109.—DETAIL STATISTICS FOR TRUNKS AND VALISES, BY STATES: 1914.

STATE.	Number of establishments.	PERSONS ENGAGED IN THE INDUSTRY.								WAGE EARNERS DEC. 15, OR NEAREST REPRESENTATIVE DAY.					Capital.	EXPENSES.	
		Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks, etc.		Wage earners.			Total.	16 and over.		Under 16.			Salaries and wages.	
					Male.	Female.	Average number.	Number, 15th day of— Maximum month.	Number, 15th day of— Minimum month.		Male.	Female.	Male.	Female.		Officials.	Clerks, etc.
United States	561	12,154	549	535	838	321	9,911	Ap 10,633	De 8,597	9,658	8,438	973	210	37	$18,570,817	$1,031,829	$1,134,462
Alabama	5	25	3	5	4	2	11	Se 13	Oc[1] 9	12	12	.....	.....	.....	19,717	6,065	2,709
California	36	314	35	19	24	8	228	Ap 242	De 210	215	181	33	1	.....	571,700	23,679	38,621
Colorado	12	82	9	6	10	1	56	Mh 67	My 49	53	52	.....	1	.....	127,606	9,545	8,415
Georgia	3	30	3	5	2	.....	20	Ja 35	No[1] 12	19	19	.....	.....	.....	27,298	8,066	1,183
Illinois	47	1,224	43	37	84	25	1,035	Mh 1,084	De 964	1,036	905	121	7	3	1,530,878	84,081	104,456
Indiana	7	194	8	2	21	7	156	Ap 211	De 123	141	110	23	7	1	333,472	2,700	20,399
Iowa	7	19	6	2	.....	.....	11	Fe[1] 14	De[1] 10	11	11	.....	.....	.....	35,401	240	.....
Kansas	4	19	1	3	4	.....	11	De 22	Je[1] 8	22	20	2	.....	.....	44,280	3,150	656
Louisiana	3	44	3	3	1	1	36	Ja 39	De[1] 34	36	36	.....	.....	.....	48,835	5,648	1,004
Maine	5	277	2	18	29	9	219	Mh 300	Oc 155	200	175	25	.....	.....	726,224	32,130	33,768
Maryland	7	63	7	5	4	2	45	Au 48	Ja 43	44	40	2	2	.....	25,248	4,240	3,586
Massachusetts	25	490	26	25	41	21	377	Ap 412	Ja 305	392	290	75	12	15	716,081	41,778	54,681
Michigan	12	229	13	12	9	11	184	Mh[1] 207	De 163	163	123	32	6	2	412,256	24,359	12,034
Missouri	21	719	14	39	65	16	585	Au 671	De 395	539	484	50	5	.....	1,039,998	80,054	76,077
Nebraska	4	11	3	.....	.....	.....	8	De 10	Ja[1] 6	9	8	1	.....	.....	25,938	.....	.....
New Jersey	27	848	25	36	41	26	720	Ap 871	De 528	707	676	30	1	.....	1,291,486	64,257	42,603
New York	149	2,846	155	103	177	71	2,340	Ap[1] 2,432	De 2,153	2,307	2,077	210	20	.....	3,352,774	212,447	215,106
Ohio	21	354	17	24	12	14	287	Ap 325	No 225	230	205	24	1	.....	562,426	49,449	24,285
Pennsylvania	58	1,194	76	34	61	21	1,002	Ap 1,103	De 896	989	900	74	10	5	1,296,992	96,436	163,700
Tennessee	7	134	5	10	13	2	104	Fe 128	No 73	96	83	8	5	.....	182,768	14,600	13,300
Texas	12	103	12	8	7	3	73	Jy 79	No[1] 64	72	71	1	.....	.....	152,446	17,850	9,145
Utah	5	20	7	1	.....	.....	12	(2) 12	(2) 12	12	11	.....	1	.....	32,779	750	.....
Virginia	11	1,346	8	52	90	22	1,174	My 1,234	De 1,023	1,167	1,005	56	104	2	2,924,723	97,371	82,966
Washington	.....	46	9	5	2	.....	30	Au[1] 34	No 22	29	26	3	.....	.....	71,165	3,651	1,047
Wisconsin	18	1,007	13	52	95	27	820	Ap 859	De 760	800	611	157	24	8	2,200,386	118,918	176,373
All other states[3]	45	516	46	29	42	32	367	.....	.....	357	307	46	3	1	817,940	39,365	48,348

STATE.	EXPENSES—continued.						Value of products.	Value added by manufacture.	POWER.					
	Salaries and wages—Continued.		Rent and taxes.		For materials.				Primary horsepower.					Electric horsepower generated in establishments reporting.
	Wage earners.	For contract work.	Rent of factory.	Taxes, including internal revenue and corporation income.	Principal materials.	Fuel and rent of power.			Total.	Steam engines.[4]	Internal-combustion engines.[5]	Water wheels and motors.[4]	Electric (rented).	
United States	$5,540,157	$8,969	$632,202	$131,581	$13,464,342	$161,115	$26,471,527	$12,846,070	7,566	4,608	288	551	2,119	2,274
Alabama	7,638	.....	4,236	384	15,323	231	42,232	26,678	14	.....	.....	.....	14	.....
California	142,828	14	38,673	3,919	292,955	2,595	611,339	315,789	165	60	.....	.....	105	5
Colorado	32,160	.....	5,940	878	54,902	931	156,867	101,034	52	.....	.....	.....	52	.....
Georgia	9,574	.....	2,170	149	15,101	562	53,235	37,572	38	25	.....	.....	13	.....
Illinois	693,741	.....	72,843	10,545	1,227,510	11,782	2,637,761	1,398,469	522	281	.....	.....	241	365
Indiana	79,326	.....	6,175	1,591	154,824	7,885	264,231	101,542	288	132	.....	.....	156	.....
Iowa	9,268	.....	2,500	637	14,344	216	31,435	16,875	5	.....	.....	.....	5	.....
Kansas	7,515	.....	2,880	335	9,622	392	29,573	19,559	35	.....	.....	.....	35	.....
Louisiana	13,158	.....	2,010	751	42,958	476	73,890	30,456	27	.....	.....	.....	27	.....
Maine	126,703	.....	2,280	2,287	256,757	6,088	448,658	185,813	908	325	.....	551	32	152
Maryland	20,480	.....	8,278	354	29,536	424	78,161	48,201	6	.....	.....	.....	6	.....
Massachusetts	223,695	.....	25,933	8,189	646,395	3,393	1,138,108	488,320	69	6	5	.....	58	.....
Michigan	104,122	.....	8,780	5,098	169,670	3,504	432,487	259,313	94	48	.....	.....	46	17
Missouri	356,535	.....	58,413	7,333	729,684	13,366	1,786,654	1,043,604	441	150	4	.....	287	330
Nebraska	6,118	.....	2,550	187	11,627	674	31,651	19,350	11	.....	.....	.....	11	.....
New Jersey	481,128	2,891	40,436	14,251	981,030	19,110	2,079,702	1,079,562	988	830	27	.....	131	141
New York	1,334,554	2,064	209,777	14,255	4,100,580	35,210	7,128,712	2,992,922	771	290	117	.....	364	22
Ohio	172,267	.....	14,394	4,753	293,549	4,407	678,355	380,399	271	175	4	.....	92	63
Pennsylvania	552,553	500	62,540	4,126	1,445,866	16,998	2,695,433	1,232,569	473	289	92	.....	92	.....
Tennessee	33,463	.....	4,520	991	105,424	1,558	226,307	119,325	100	47	.....	.....	53	.....
Texas	38,548	.....	6,060	1,435	48,443	974	185,127	135,710	41	.....	.....	.....	41	.....
Utah	7,326	.....	1,335	72	10,100	196	25,940	15,644	4	.....	.....	.....	4	.....
Virginia	496,804	.....	1,305	20,086	1,197,235	7,088	2,420,881	1,216,558	955	911	12	.....	32	299
Washington	17,110	.....	6,070	400	30,048	280	82,896	52,568	9	.....	.....	.....	9	.....
Wisconsin	395,887	.....	8,829	22,159	1,163,461	16,178	2,240,996	1,061,357	1,087	1,039	.....	.....	48	880
All other states[3]	177,956	3,500	33,275	5,916	417,398	6,617	890,896	466,881	192	.....	27	.....	165	.....

[1] Same number reported for one or more other months.
[2] Same number reported throughout the year.
[3] All other states embrace: Arizona, 1 establishment; Arkansas, 2; Connecticut, 2; District of Columbia, 2; Florida, 2; Kentucky, 3; Minnesota, 17; Montana, 2; New Hampshire, 1; New Mexico, 1; North Dakota, 2; Oklahoma, 2; Oregon, 5; Rhode Island, 2; South Dakota, 1.
[4] Owned power only.
[5] Includes rented power, other than electric.

AUTOMOBILES, INCLUDING BODIES AND PARTS.

By HARRY B. COHEN.

SUMMARY AND ANALYSIS.

Summary for the industry.—The figures covering the operations of the automobile industry as shown in this report are derived from a consolidation of the reports made (1) by establishments manufacturing complete automobiles as their product of chief value and (2) by those engaged chiefly in the production of automobile bodies and parts. (The term "bodies and parts," as here used, signifies all automobile parts other than tires, engines, lamps, springs, and electric motors and starting and lighting systems.)

Statistics are also shown for the repairing of automobiles and the vulcanizing of tires.

Table 1 summarizes the more important figures relative to the combined industry and to each of the branches, for 1914.

Table 1

	Total.[1]	Automobiles.	Automobile bodies and parts.[2]
Number of establishments	1,271	300	971
Persons engaged	145,951	91,997	53,954
Proprietors and firm members	760	60	700
Salaried employees	18,099	12,630	5,469
Wage earners (average number)	127,092	79,307	47,785
Primary horsepower	173,684	104,983	68,701
Capital	$407,729,915	$312,875,884	$94,854,031
Salaries and wages	$139,452,553	$84,900,520	$54,552,033
Salaries	$37,525,679	$17,966,161	$19,559,518
Wages	$101,926,874	$66,934,359	$34,992,515
Paid for contract work	$3,954,924	$3,768,809	$186,115
Rent and taxes (including internal revenue)	$5,152,314	$3,331,311	$1,821,003
Cost of materials	$356,207,930	$292,597,565	$63,610,365
Value of products	[2]$632,831,474	$503,230,137	$129,601,337
Value added by manufacture (value of products less cost of materials)	$276,623,544	$210,632,572	$65,990,972
Automobiles made:			
Number	569,054	568,781	273
Value	$458,957,843	$458,760,916	$196,927

[1] In addition, 3,985 automobiles, valued at $6,099,631, and bodies and parts, to the value of $11,045,205, were manufactured by establishments engaged primarily in other industries.

[2] Does not include tires, engines, lamps, springs, and electric motors and starting and lighting systems.

Reports were received from 1,271 establishments engaged in the manufacture of automobiles, including bodies and parts, in 1914. Of this number, only 300 made complete automobiles as their product of chief value; but these establishments employed about two-thirds of the average number of wage earners engaged in the industry and reported nearly five-sixths of the total value of products.

The value of products shown for the combined industry includes a large amount of duplication, due to the fact that most of the bodies and parts made by establishments engaged primarily in the manufacture of these products are utilized as materials by other establishments.

On the other hand, the figures for value of product do not cover the output of automobiles, bodies and parts, and accessories made by establishments classified under other industries. Establishments of this character reported, for 1914, the manufacture of 3,985 complete automobiles, valued at $6,099,631; bodies and parts, valued at $11,045,205; rubber tires, valued at $139,515,716; engines, to the value of $11,622,961; lamps, to the value of $5,812,439; springs, to the value of $6,527,854, and electric motors and starting and lighting systems, valued at $7,284,715.

The net value of products of the automobile industry as a whole is probably most nearly represented by the total value of the complete machines manufactured, $458,957,843. This figure, however, excludes the value of bodies, parts, and accessories made for sale as such to garages and dealers.

Of the 569,054 automobiles turned out by the establishments in this industry in 1914, all but 273 were made in those reporting complete automobiles as their product of chief value. The total number of machines manufactured in that year, including those reported as subsidiary products by other industries, was 573,039, and their total value amounted to $465,057,474.

Comparison with earlier censuses.—Table 2 summarizes the more important statistics relative to the automobile industry (both branches combined) for the censuses of 1914, 1909, 1904, and 1899, and gives the percentages of increase from census to census.

At the census of 1899 the manufacture of automobiles was reported as a part of the carriage and wagon industry, but the returns of establishments engaged exclusively or primarily in the manufacture of automobiles have since been tabulated separately, and are presented in the comparative table as the statistics for the industry in 1899. The totals for that year do not include statistics for establishments whose chief products were automobile bodies and parts, but it is doubtful whether there were any such establishments at that time.

Since in 1899 the industry was largely in the experimental stage, a comparison of the figures for that year with those derived from succeeding censuses would possess little significance. Statistics for 1904, 1909, and 1914, however, are fairly comparable and show a remarkable growth for the industry.

Between 1909 and 1914 the manufacture of automobiles, including bodies and parts, advanced in rank among the manufacturing industries of the country from twenty-first to sixth place with respect to value of products and from twentieth to fourteenth with respect to average number of wage earners. The much greater advance in rank of value of products than of average number of wage earners is due in part to the increasing use of highly specialized automatic machinery, requiring comparatively few operatives.

Table 2

	NUMBER OR AMOUNT.				PER CENT OF INCREASE.[1]		
	1914	1909	1904	1899[2]	1909–1914	1904–1909	1899–1904
Number of establishments	1,271	743	178	57	71.1	317.4	212.3
Persons engaged	145,951	85,359	13,333	(3)	71.0	540.2	.....
Proprietors and firm members	760	405	103	(3)	87.7	293.2	.....
Salaried employees	18,099	9,233	1,181	268	96.0	681.8	340.7
Wage earners (average number)	127,092	75,721	12,049	2,241	67.8	528.4	437.7
Primary horsepower	173,684	75,550	10,109	3,164	.....	647.4	219.5
Capital	$407,729,915	$173,837,111	$23,083,860	$5,768,857	134.5	653.1	300.1
Salaries and wages	$139,452,553	$58,173,291	$8,416,217	$1,615,428	139.7	591.2	421.0
Salaries	$37,525,679	$9,479,424	$1,257,259	$294,770	295.9	654.0	326.5
Wages	$101,926,874	$48,693,867	$7,158,958	$1,320,658	109.3	580.2	442.1
Paid for contract work	$3,954,924	$550,329	$1,060,576	(3)	618.6	48.1	.....
Rent and taxes (including internal revenue)	$5,152,314	$1,483,432	[4] $209,656	(3)	247.3	.....	.....
Cost of materials	$356,207,930	$131,645,736	$13,151,365	$1,804,287	170.6	901.0	628.9
Value of products	$632,831,474	$249,202,075	$30,633,536	$4,748,011	153.9	729.7	532.5
Value added by manufacture (value of products less cost of materials)	$276,623,544	$117,556,339	$16,882,171	$2,943,724	135.3	596.3	473.5
Automobiles made[5]	569,054	126,593	21,692	3,723	349.5	483.6	482.6

[1] A minus sign (—) denotes decrease.
[2] Establishments whose chief products were automobile bodies and parts were not included as a part of the industry until 1904.
[3] Figures not available.
[4] Exclusive of internal revenue.
[5] In addition, 3,985 automobiles in 1914, 694 automobiles in 1909, and 1,138 automobiles in 1904 were reported by establishments engaged primarily in other industries.

Table 3 gives separate statistics for the two branches of the industry for 1914, 1909, and 1904, with percentages of increase.

Both branches of the industry showed very great increases during the period 1909–1914. The percentages of increase for this period are not so large as those for the preceding five years, but the actual amounts of the increases are much greater for the later period than for the earlier. The large relative gains made between 1904 and 1909 were due chiefly to the fact that in 1904 the industry was still in its infancy. This is particularly the case with reference to the manufacture of bodies and parts in establishments not making the complete machine.

Table 3

	AUTOMOBILES.			PER CENT OF INCREASE.[1]		AUTOMOBILE BODIES AND PARTS.			PER CENT OF INCREASE.	
	1914	1909	1904	1909–1914	1904–1909	1914	1909	1904	1909–1914	1904–1909
Number of establishments	300	265	121	13.2	119.0	971	478	57	103.1	.....
Persons engaged	91,997	58,142	11,246	58.2	417.0	53,954	27,217	2,087	98.2	1,204.1
Proprietors and firm members	60	83	53	.....	.....	700	322	50	117.4	.....
Salaried employees	12,630	6,765	954	86.7	609.1	5,469	2,468	227	121.6	987.2
Wage earners (average number)	79,307	51,294	10,239	54.6	401.0	47,785	24,427	1,810	95.6	1,249.6
Primary horsepower	104,983	50,641	7,624	107.3	564.2	68,701	24,909	2,485	175.8	902.4
Capital	$312,875,884	$134,592,965	$20,555,247	132.5	554.8	$94,854,031	$39,244,146	$2,528,613	141.7	1,452.0
Salaries and wages	$84,900,520	$39,854,578	$7,255,375	113.0	449.3	$54,552,033	$18,318,713	$1,160,842	197.8	1,478.1
Salaries	$17,966,161	$6,674,104	$1,076,425	169.2	520.0	$19,559,518	$2,805,320	$180,834	597.2	1,451.3
Wages	$66,934,359	$33,180,474	$6,178,950	101.7	437.0	$34,992,515	$15,513,393	$980,008	125.6	1,483.0
Paid for contract work	$3,768,309	$454,350	$1,034,646	728.6	—56.0	$186,115	$95,479	$25,930	94.9	268.2
Rent and taxes (including internal revenue)	$3,331,311	$798,954	[2] $166,122	317.0	.....	$1,821,003	$684,478	[2] $43,534	166.0	.....
Cost of materials	$292,597,565	$107,731,446	$11,658,138	171.6	824.1	$63,610,365	$23,914,290	$1,493,227	166.0	1,501.5
Value of products	$503,230,137	$193,823,108	$26,645,064	159.6	627.4	$129,601,337	$55,378,967	$3,388,472	134.0	1,534.3
Value added by manufacture (value of products less cost of materials)	$210,632,572	$86,091,662	$14,986,926	144.7	474.4	$65,990,972	$31,464,677	$1,895,245	109.7	1,560.2
Number of automobiles made	568,781	126,570	21,692	349.4	483.5	273	23	.....	.....	.....

[1] A minus sign (—) denotes decrease; percentages are omitted where base is less than 100.
[2] Exclusive of internal revenue.

During the period 1909–1914 the average number of wage earners employed in establishments engaged primarily in making complete automobiles increased 54.6 per cent, while the average number employed in the manufacture of bodies and parts increased 95.6 per cent. The gains in primary horsepower—107.3 per cent and 175.8 per cent, respectively, for the two branches of the industry—give some indication of the extent to which the amount of machinery in use has increased. The value of products for the automobile branch of the industry, however, increased more rapidly during this period than the corresponding item for the manufacture of bodies and parts.

It will be noted that, whereas during the period 1904–1909, the percentage of increase in value of products of the automobile branch of the industry was considerably greater than that in number of machines made, for the following five-year period the number of machines shows a greater proportionate increase than value of products. This marked change during the later period is due to two causes: First, a general lowering of prices, affecting all or nearly all classes of machines; and second, the production of a larger proportion of the low-priced classes in the later year than in the earlier.

A comparison, for the branch of the industry manufacturing complete automobiles, of the average number of machines produced per wage earner during the last three census years is of interest. During the period 1904-1909, when the increase in value of products for the industry was considerably greater than that in number of automobiles made, the output of machines per wage earner showed a small increase, from 2.12 to 2.47; but during the following five-year period, when the rate of increase in number of automobiles made was more than twice as great as that in value of products, the output of machines per wage earner advanced from 2.47 to 7.17.

The decrease in the number of proprietors and firm members engaged in the automobile branch of the industry is due to the change of some establishments from individual or firm to corporate ownership, when the proprietors and firm members often become salaried officials.

Summary, by states.—Table 4 summarizes the more important statistics of the combined industry, by states, the states being listed according to the value of products reported for 1914, and gives the ranking of the states in 1914 and 1909 in respect to the several items shown, together with the percentages of increase for the two five-year periods from 1904 to 1914.

Table 4 AUTOMOBILES, INCLUDING BODIES AND PARTS: 1914.

STATE.	Number of establishments.	Wage earners.				Value of products.				Value added by manufacture.				PER CENT OF INCREASE.[1]					
		Average number.	Per cent of total.	Rank.		Amount.	Per cent of total.	Rank.		Amount.	Per cent of total.	Rank.		Wage earners (average number).		Value of products.		Value added by manufacture.	
				1914	1909			1914	1909			1914	1909	1909–1914	1904–1909	1909–1914	1904–1909	1909–1914	1904–1909
United States..	1,271	127,092	100.0	.....	.....	$632,831,474	100.0	.....	.....	$276,623,544	100.0	.....	.....	67.8	528.4	153.9	729.7	135.3	596.3
Michigan.....	205	67,538	53.1	1	1	398,289,022	62.9	1	1	179,073,627	64.7	1	1	165.4	830.3	312.1	1,108.6	318.6	839.2
Ohio.....	102	18,752	14.8	2	2	85,710,585	13.5	2	2	30,380,088	11.0	2	2	54.6	345.6	120.7	510.9	49.5	434.0
New York.....	247	12,122	9.5	3	3	42,115,276	6.7	3	3	20,139,486	7.3	3	3	22.9	433.3	36.0	627.2	25.3	583.0
Indiana.....	86	7,210	5.7	4	4	29,380,088	4.6	4	4	10,558,484	3.8	4	4	6.2	733.0	23.6	1,349.9	20.4	976.0
Wisconsin.....	43	4,880	3.8	5	5	18,478,196	2.9	5	6	8,012,053	2.9	5	6	13.8	.....	61.5	.....	31.3	.....
Massachusetts.....	60	3,439	2.7	6	6	11,198,790	1.8	6	7	5,556,358	2.0	6	7	−16.9	276.2	−1.4	326.5	−5.3	320.6
Illinois.....	91	2,545	2.0	8	9	11,018,162	1.7	7	8	4,729,729	1.7	7	8	6.8	1,326.3	54.0	1,903.9	48.9	1,195.9
Pennsylvania.....	80	3,083	2.4	7	8	10,084,083	1.7	8	9	4,525,602	1.6	8	9	−3.6	465.2	54.4	432.8	82.4	297.0
New Jersey.....	53	2,520	2.0	9	10	8,237,416	1.3	9	11	4,471,539	1.6	9	11	146.1	.....	310.2	.....	301.8	.....
Connecticut.....	28	2,223	1.7	10	7	8,050,692	1.3	10	5	4,281,581	1.6	10	5	−41.7	.....	−31.0	.....	−37.1	.....
California.....	98	731	0.6	11	12	2,458,843	0.4	11	13	1,225,074	0.4	11	12	52.9	.....	67.2	.....	59.0	.....
Missouri.....	26	504	0.4	12	13	2,182,911	0.3	12	12	976,087	0.4	12	13	37.0	.....	30.2	.....	49.7	.....
Minnesota.....	24	486	0.4	13	16	1,230,338	0.2	13	16	595,348	0.2	13	17	273.8	.....	186.6	.....	238.2	.....
Tennessee.....	4	56	(2)	21	.....	344,504	0.1	19	.....	272,485	0.1	15	.....	.....	.....	.....	.....	.....	.....
Kentucky.....	4	34	(2)	23	.....	181,739	(2)	21	.....	89,382	(2)	21	.....	.....	.....	.....	.....	.....	.....
Nebraska.....	7	34	(2)	24	21	156,000	(2)	22	22	61,814	(2)	25	23	.....	.....	.....	.....	.....	.....
District of Columbia.	3	57	(2)	20	.....	125,865	(2)	23	.....	71,682	(2)	22	.....	.....	.....	.....	.....	.....	.....
North Carolina.....	3	31	(2)	25	.....	116,811	(2)	25	.....	42,638	(2)	26	.....	.....	.....	.....	.....	.....	.....
Oregon.....	6	35	(2)	22	.....	115,261	(2)	26	.....	64,855	(2)	23	.....	.....	.....	.....	.....	.....	.....
Virginia.....	4	6	(2)	33	.....	26,585	(2)	29	.....	16,347	(2)	30	.....	.....	.....	.....	.....	.....	.....
All other states.....	92	788	0.6	.....	.....	3,321,307	0.5	.....	.....	1,478,435	0.5	.....	.....	.....	.....	.....	.....	.....	.....

[1] Percentages are based on figures in Table 21; a minus sign (−) denotes decrease. Percentages are omitted where comparable figures can not be given, or where base is less than 100 for wage earners or less than $100,000 for value of products or value added by manufacture.
[2] Less than one-tenth of 1 per cent.

Separate figures are given for 20 states, the statistics for the 20 other states in which the industry was carried on in 1914 being combined under the heading "all other states" in order to avoid disclosing the operations of individual establishments. For some of these 20 states the values of products were greater than for certain of the states for which separate figures are given in the table.

Michigan is by far the leading state in the industry, holding first rank at the censuses of 1914, 1909, and 1904. For 1914 the establishments in Michigan reported 53.1 per cent of the average number of wage earners employed in the industry throughout the United States, 62.9 per cent of the value of products, and 64.7 per cent of the value added by manufacture. The average number of wage earners reported for this state was two and two-thirds as great in 1914 as in 1909, while the value of products and the value added by manufacture were more than four times as great in the later as in the earlier year.

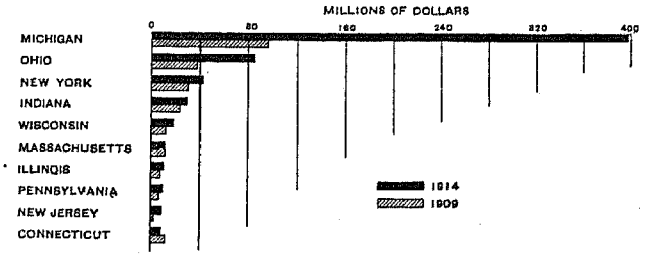
For 1914, 83.1 per cent of the wage earners, 87.7 per cent of the value of products, and 86.8 per cent of the value added by manufacture were reported from four states, namely, Michigan, Ohio, New York, and Indiana. In the cases of all but two of the states—Massachusetts and Connecticut—for which separate figures are given in the table, increases for the period 1909–1914 are shown with reference to value of products and value added by manufacture; and in the case of all but three states—the two just named, together with Pennsylvania—increases appear for average number of wage earners. In each of the states for which decreases in value of products and value added by manufacture were reported, one or more large establishments went out of business during the five-year period.

Between 1909 and 1914 numerous changes took place in the rank of the several states as determined by value of products. The leading four states—Michigan, Ohio, New York, and Indiana—held the same rank at

both censuses; but Wisconsin advanced from sixth to fifth place, displacing Connecticut, which dropped to tenth, and changes also appear for all the remaining states except Missouri and Nebraska.

The following diagram shows graphically the values of products for the most important states in the industry in 1914 and 1909:

DIAGRAM SHOWING VALUE OF AUTOMOBILES, INCLUDING BODIES AND PARTS, PRODUCED IN THE MOST IMPORTANT STATES IN 1914 AND 1909.



Persons engaged in the industry.—Table 5 shows, for 1914 and 1909, for the combined industry and for its two branches separately, the number of persons engaged, distributed by sex, the average number of wage earners being distributed also by age periods. The sex and age classification of the average number of wage earners in this and other tables is an estimate obtained by the method described in the "Explanation of terms." Corresponding figures for individual states will be found in Table 22.

Table 6 gives the percentages of increase from 1909 to 1914, and per cent distribution at the two censuses, for the combined industry.

In 1914, of the total number of persons engaged in the combined industry, a little more than 3 per cent were proprietors and officials, nearly one-tenth were clerks and other subordinate salaried employees, and about seven-eighths were wage earners.

Table 5

INDUSTRY AND CLASS.	Census year.	PERSONS ENGAGED IN THE INDUSTRY. Total.	Male.	Female.	Per cent of total. Male.	Female.
Automobiles, including bodies and parts.	1914	145,951	139,967	5,984	95.9	4.1
	1909	85,359	82,918	2,441	97.1	2.9
Proprietors and officials	1914	4,483	4,445	38	99.2	0.8
	1909	2,564	2,543	21	99.2	0.8
Proprietors and firm members	1914	760	749	11	98.6	1.4
	1909	405	397	8	98.0	2.0
Salaried officers of corporations	1914	1,150	1,128	22	98.1	1.9
	1909	758	748	10	98.7	1.3
Superintendents and managers	1914	2,573	2,568	5	99.8	0.2
	1909	1,401	1,398	3	99.8	0.2
Clerks and other subordinate salaried employees.	1914	14,376	10,679	3,697	74.3	25.7
	1909	7,074	5,422	1,652	76.6	23.4
Wage earners (average number)	1914	127,092	124,843	2,249	98.2	1.8
	1909	75,721	74,953	768	99.0	1.0
16 years of age and over	1914	126,899	124,659	2,240	98.2	1.8
	1909	75,559	74,794	765	99.0	1.0
Under 16 years of age	1914	193	184	9	95.3	4.7
	1909	162	159	3	98.1	1.9
Automobiles	1914	91,997	88,207	3,790	95.9	4.1
	1909	58,142	56,541	1,601	97.2	2.8
Proprietors and officials	1914	2,178	2,172	6	99.7	0.3
	1909	1,350	1,344	6	99.6	0.4
Proprietors and firm members	1914	60	60	.....	100.0	.....
	1909	83	81	2	97.6	2.4
Salaried officers of corporations	1914	491	485	6	98.8	1.2
	1909	371	369	2	99.5	0.5
Superintendents and managers	1914	1,627	1,627	.....	100.0	.....
	1909	896	894	2	99.8	0.2
Clerks and other subordinate salaried employees.	1914	10,512	7,935	2,577	75.5	24.5
	1909	5,498	4,275	1,223	77.8	22.2
Wage earners (average number)	1914	79,307	78,100	1,207	98.5	1.5
	1909	51,294	50,922	372	99.3	0.7
16 years of age and over	1914	79,216	78,012	1,204	98.5	1.5
	1909	51,187	50,818	369	99.3	0.7
Under 16 years of age	1914	91	88	3	96.7	3.3
	1909	107	104	3	97.2	2.8
Automobile bodies and parts	1914	53,954	51,760	2,194	95.9	4.1
	1909	27,217	26,377	840	96.9	3.1
Proprietors and officials	1914	2,305	2,273	32	98.6	1.4
	1909	1,214	1,199	15	98.8	1.2
Proprietors and firm members	1914	700	689	11	98.4	1.6
	1909	322	316	6	98.1	1.9
Salaried officers of corporations	1914	659	643	16	97.6	2.4
	1909	387	379	8	97.9	2.1
Superintendents and managers	1914	946	941	5	99.5	0.5
	1909	505	504	1	99.8	0.2
Clerks and other subordinate salaried employees.	1914	3,864	2,744	1,120	71.0	29.0
	1909	1,576	1,147	429	72.8	27.2
Wage earners (average number)	1914	47,785	46,743	1,042	97.8	2.2
	1909	24,427	24,031	396	98.4	1.6
16 years of age and over	1914	47,683	46,647	1,036	97.8	2.2
	1909	24,372	23,976	396	98.4	1.6
Under 16 years of age	1914	102	96	6	94.1	5.9
	1909	55	55	.....	100.0	.....

Table 6

CLASS.	PERSONS ENGAGED IN THE INDUSTRY. Per cent of increase,[1] 1909–1914. Total.	Male.	Female.	Per cent distribution. Total. 1914	Total. 1909	Male. 1914	Male. 1909	Female. 1914	Female. 1909
All classes	71.0	68.8	145.1	100.0	100.0	100.0	100.0	100.0	100.0
Proprietors and officials	74.8	74.8	.....	3.1	3.0	3.2	3.1	0.6	0.9
Proprietors and firm members	87.7	88.7	.....	0.5	0.5	0.5	0.5	0.2	0.3
Salaried officers of corporations	51.7	50.8	.....	0.8	0.9	0.8	0.9	0.4	0.4
Superintendents and managers	83.7	83.7	.....	1.8	1.6	1.8	1.7	0.1	0.1
Clerks and other subordinate salaried employees	103.2	97.0	123.8	9.8	8.3	7.6	6.5	61.8	67.7
Wage earners (average number)	67.8	66.6	192.8	87.1	88.7	89.2	90.4	37.6	31.5
16 years of age and over	67.9	66.7	192.8	86.9	88.5	89.1	90.2	37.4	31.3
Under 16 years of age	19.1	15.7	.....	0.1	0.2	0.1	0.2	0.2	0.1

[1] Percentages are omitted where base is less than 100.

For the industry as a whole, the increase during the period 1909–1914 in every class of persons engaged, with the exception of wage earners under 16 years of age, was more than 50 per cent, the greatest rate, 103.2 per cent, being that shown for clerks and other subordinate salaried employees. In the automobile branch of the industry increases appear for all except the two very small classes comprising proprietors and firm members and wage earners under 16; and in the manufacture of bodies and parts increases are shown for all classes.

Wage earners employed, by months.—Table 7 presents, for the combined industry, the number of wage earners employed on the 15th of each month, or the nearest representative day, for 1914 and 1909, and the average number employed during each month in 1904, together with the percentage which the number reported for each month forms of the greatest number reported for any month.

The tendency toward greater regularity of employment in the industry is indicated by the fact that in 1914 the minimum number of wage earners represented 85.5 per cent of the maximum, as compared with 69.8 and 66.1 per cent, respectively, for 1909 and 1904.

Table 7

MONTH.	WAGE EARNERS IN THE INDUSTRY. Number.[1]			Per cent of maximum.		
	1914	1909	1904	1914	1909	1904
January	126,974	62,724	10,788	92.0	69.8	73.1
February	131,142	66,806	11,755	95.1	74.3	79.7
March	135,773	71,142	13,179	98.4	79.1	89.3
April	137,954	73,752	14,461	100.0	82.1	98.0
May	132,641	75,481	14,642	96.1	84.0	99.2
June	122,706	76,176	14,753	88.9	84.7	100.0
July	119,548	76,549	12,537	86.7	85.2	85.0
August	125,692	78,468	10,523	91.1	87.3	71.3
September	127,525	77,445	9,755	92.4	86.2	66.1
October	128,109	77,280	9,891	92.9	86.0	67.0
November	117,990	82,956	10,587	85.5	99.3	71.8
December	119,050	89,886	11,717	86.3	100.0	79.4

[1] The figures for 1914 and 1909 represent the number employed on the 15th of each month, or the nearest representative day; those for 1904, the average number employed during the month.

Table 8 gives the total average number of wage earners employed during 1914 in the manufacture of automobiles, including bodies and parts, together with the total number employed on the 15th of each month, or the nearest representative day, for the United States as a whole and for each state in which the average number of wage earners was 500 or more.

Table 8

WAGE EARNERS: 1914.
[Month of maximum employment for each industry is indicated by **boldface** figures and that of minimum by *italic* figures.]

STATE.	Average number employed during year.	Number employed on 15th day of the month or nearest representative day.												Per cent minimum is of maximum.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
United States	127,092	126,974	131,142	135,773	**137,954**	132,641	122,706	119,548	125,692	127,525	128,109	*117,990*	119,050	85.5
California	731	722	712	735	**774**	763	751	771	767	707	709	*680*	681	87.9
Connecticut	2,223	2,022	2,220	2,320	2,531	2,502	**2,599**	2,471	2,322	2,064	1,910	*1,835*	1,880	70.6
Illinois	2,545	***2,259***	2,337	2,552	2,795	**2,942**	2,815	2,535	2,487	2,472	2,461	2,538	2,347	76.8
Indiana	7,219	6,500	7,076	7,608	8,031	**8,390**	8,042	7,344	7,200	7,177	6,748	*6,280*	6,282	74.3
Massachusetts	3,439	3,730	3,791	3,908	4,167	**4,198**	3,752	3,187	3,047	3,068	3,049	2,898	*2,473*	58.9
Michigan	67,538	70,793	72,026	**74,423**	73,785	69,085	60,926	*59,982*	67,164	69,521	69,020	61,111	62,020	80.6
Missouri	504	489	507	508	549	**564**	543	522	530	492	497	473	*374*	66.3
New Jersey	2,520	2,463	2,569	2,683	**2,909**	2,826	2,716	2,627	2,341	2,272	2,305	*2,264*	2,265	77.8
New York	12,122	11,559	11,724	12,114	12,746	**12,935**	12,914	12,848	12,324	11,800	11,751	11,408	*11,341*	87.7
Ohio	18,752	17,294	17,944	18,766	19,188	18,460	17,640	*17,232*	18,209	18,745	20,529	20,188	**20,829**	82.7
Pennsylvania	3,083	***2,703***	2,837	2,966	3,145	3,170	3,512	3,657	3,104	3,002	2,828	2,916	3,157	73.9
Wisconsin	4,889	5,096	5,417	5,794	**5,820**	5,289	5,044	4,357	4,465	4,513	4,672	*4,095*	4,106	70.4

The stability of employment for the country as a whole was greater than that shown for any state, except California and New York; in a number of states the variation was decidedly greater than in the United States. This condition is due to the fact that the months of maximum and of minimum employment varied greatly in the several states, with the result that the irregularities to some extent offset one another. For only 3 of the 12 states shown was the maximum reported for April, the maximum month for the entire country; and for only 5 states was the minimum reported for November, the minimum month for the United States. The percentage which the minimum represented of the maximum ranged from 58.9 per cent for Massachusetts to 87.9 for California.

Prevailing hours of labor.—In Table 9 the average number of wage earners reported for 1914 and 1909 for the combined industry has been classified according to the number of hours of labor per week prevailing in the establishments in which they were employed. The number employed in each establishment is classified as a total, even though a few enployees worked a greater or a smaller number of hours.

A marked tendency toward a shorter working day is shown for the United States as a whole and for most of the states in which the industry is carried on. In 1914 less than one-tenth of the total average number were employed in establishments with prevailing hours of 60 or more per week, as compared with nearly one-third in 1909. Taking the country as a whole, the

largest group of wage earners—more than one-third of the total in 1909 and more than two-fifths in 1914—was made up of those employed in establishments in which the prevailing hours were more than 54 but fewer than 60 per week.

Table 9

STATE.	Census year.	AVERAGE NUMBER OF WAGE EARNERS.							
		Total.	In establishments where the prevailing hours of labor per week were—						
			48 and under.	Between 48 and 54.	54.	Between 54 and 60.	60.	Between 60 and 72.	72.
United States.	1914	127,092	14,317	27,993	17,791	54,344	12,614	33	.....
	1909	75,721	330	2,253	22,734	26,669	22,280	48	1,407
California	1914	731	371	87	270	2	.....	1	.....
	1909	478	42	8	261	.....	166	1	.....
Connecticut	1914	2,223	122	293	248	1,535	25	.....	.....
	1909	3,815	.....	72	1,398	884	1,461	.....	.....
Illinois	1914	2,545	183	539	833	897	93	.....	.....
	1909	2,382	46	250	994	363	713	16	.....
Indiana	1914	7,219	312	1,174	195	3,439	2,099	.....	.....
	1909	6,797	18	19	1,505	3,488	1,767	.....	.....
Massachusetts	1914	3,439	18	363	1,984	1,004	70	.....	.....
	1909	4,138	3	232	2,645	1,242	16	.....	.....
Michigan	1914	67,538	12,464	9,359	3,528	33,648	8,539	.....	.....
	1909	25,444	2	17	4,775	7,036	13,564	.....	.....
Missouri	1914	504	14	184	268	7	31	.....	.....
	1909	368	25	3	289	27	24	.....	.....
New Jersey	1914	2,520	18	1,037	774	677	14	.....	.....
	1909	1,024	.....	51	680	144	149	.....	.....
New York	1914	12,122	128	3,937	6,189	1,151	715	2	.....
	1909	9,861	86	1,525	4,068	2,248	1,932	.....	2
Ohio	1914	18,752	476	10,138	2,674	4,963	501	.....	.....
	1909	12,130	2	64	4,469	6,055	1,051	.....	489
Pennsylvania	1914	3,083	15	654	295	1,961	135	23	.....
	1909	3,199	1	.....	746	2,257	195	.....	.....
Wisconsin	1914	4,889	83	128	55	4,431	192	.....	.....
	1909	4,298	4	.....	273	2,121	985	.....	915

In Michigan the reduction in hours of labor was especially pronounced. In this state the proportion which the wage earners in establishments whose prevailing hours were 60 per week represented of the total diminished from more than one-half in 1909 to about one-eighth in 1914; whereas during the same period the proportion in establishments with prevailing hours below 54 per week increased from less than one-tenth of 1 per cent to more than 32 per cent. Ohio and Wisconsin also show marked decreases in the length of the working day.

Character of ownership.—Table 10 presents statistics concerning the character of ownership, or legal organization, of establishments engaged in the industry for 1914 and 1909, and for 1914 for each state reporting an average of 500 wage earners or more.

In both 1914 and 1909 considerably more than one-half of the total number of establishments were under corporate ownership, but the proportion was somewhat smaller in 1914 than in 1909—57.9 per cent in the later year, as compared with 64.3 per cent in the earlier. The decline in this proportion is no doubt due to the large number of new establishments under individual or firm ownership in the automobile-bodies-and-parts branch of the industry. The establishments under corporate ownership, however, reported, for 1914, 98.3 per cent of the total value of products and 97.4 per cent of the total average number of wage earners, as against 94.6 per cent and 94.5 per cent, respectively, for 1909.

In 10 of the 12 states for which separate figures are given in the table, establishments under corporate ownership constituted more than one-half of the total number in 1914; in all except California such establishments employed the majority of the wage earners; and in all, the corporations reported more than half the total value of products.

Table 10

STATE.	NUMBER OF ESTABLISHMENTS OWNED BY—			AVERAGE NUMBER OF WAGE EARNERS.									VALUE OF PRODUCTS.								
				Total.	In establishments owned by—			Per cent of total.					Total.	Of establishments owned by—			Per cent of total.				
	Individuals.	Corporations.	All others.		Individuals.	Corporation. tions.	All others.	Individuals.	Corporations.	All others.				Individuals.	Corporations.	All others.			Individuals.	Corporations.	All others.
United States:																					
1914	357	736	178	127,092	1,851	123,759	1,482	1.5	97.4	1.2			$632,831,474	$5,730,714	$622,299,324	$4,801,436	0.9	98.3	0.8		
1909	162	478	103	75,721	1,641	71,568	2,512	2.2	94.5	3.3			249,202,075	4,184,686	235,802,964	9,214,425	1.7	94.6	3.7		
California	61	18	19	731	215	364	152	29.4	49.8	20.8			2,458,843	634,683	1,457,262	366,898	25.8	59.3	14.9		
Connecticut	7	18	3	2,223	8	2,206	9	0.4	99.2	0.4			8,050,692	23,542	7,990,154	36,996	0.3	99.2	0.5		
Illinois	18	54	19	2,545	130	2,198	217	5.1	88.4	8.5			11,018,162	441,607	9,994,802	581,753	4.0	90.7	5.3		
Indiana	13	69	4	7,219	42	7,165	12	0.6	99.3	0.2			29,389,088	92,030	29,269,556	27,502	0.3	99.6	0.1		
Massachusetts	19	35	12	3,439	206	3,019	214	6.0	87.8	6.2			11,198,790	657,088	9,942,047	599,655	5.9	88.8	5.4		
Michigan	32	166	7	67,538	151	67,252	135	0.2	99.6	0.2			398,289,022	520,618	397,394,128	374,276	0.1	99.8	0.1		
Missouri	5	15	5	504	22	462	20	4.4	91.7	4.0			2,182,911	50,414	2,087,688	44,809	2.3	95.6	2.1		
New Jersey	15	29	9	2,520	35	2 399	86	1.4	95.2	3.4			8,237,416	91,366	7,971,181	174,869	1.1	96.8	2.1		
New York	79	135	33	12,122	513	11,379	230	4.2	93.9	1.9			42,115,276	1,338,142	39,388,156	1,388,978	3.2	93.5	3.3		
Ohio	18	77	7	18,752	188	18,521	43	1.0	98.8	0.2			85,710,585	846,119	84,747,333	117,033	1.0	98.9	0.1		
Pennsylvania	26	37	17	3,083	125	2,804	154	4.1	91.0	5.0			10,084,083	298,423	9,352,988	432,672	3.0	92.7	4.3		
Wisconsin	10	31	2	4,889	[1] 39	4,850	.....	[1] 0.8	99.2	.....			18,478,196	[1] 118,750	18,359,446	.....	[1] 0.6	99.4	.....		

[1] Includes "all others."

Size of establishments.—The tendency of the industry to become concentrated in large establishments, or the reverse, is indicated by the statistics given in Table 11.

Table 11

VALUE OF PRODUCT.

	Census year.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
All classes	1914	1,271	127,092	$632,831,474	$270,623,544
	1909	743	75,721	249,202,075	117,556,339
Less than $5,000	1914	218	285	615,026	398,063
	1909	89	117	240,866	137,971
$5,000 to $20,000	1914	356	1,641	3,814,757	2,351,440
	1909	170	841	1,937,965	1,098,508
$20,000 to $100,000	1914	337	5,910	15,948,577	8,675,055
	1909	228	4,831	10,760,970	5,886,751
$100,000 to $1,000,000	1914	261	26,735	87,263,770	39,059,028
	1909	200	21,340	65,875,412	32,057,814
$1,000,000 and over	1914	99	92,512	525,189,344	226,139,958
	1909	56	45,592	170,386,802	78,375,295
Per cent distribution:					
Less than $5,000	1914	17.2	0.2	0.1	0.1
	1909	12.0	0.2	0.1	0.1
$5,000 to $20,000	1914	28.0	1.3	0.6	0.9
	1909	22.9	1.1	0.8	0.9
$20,000 to $100,000	1914	26.5	4.7	2.5	3.1
	1909	30.7	6.4	4.3	5.0
$100,000 to $1,000,000	1914	20.5	21.0	13.8	14.1
	1909	26.9	32.1	26.4	27.3
$1,000,000 and over	1914	7.8	72.8	83.0	81.8
	1909	7.5	60.2	68.4	66.7

Of the establishments engaged in the industry in 1914 those reporting products valued at $1,000,000 or more numbered 99, or 7.8 per cent of the total, as against 56, or 7.5 per cent, in 1909. Although these establishments were relatively unimportant numerically, they reported large proportions of the total wage earners, value of products, and value added by manufacture—72-8 per cent, 83 per cent, and 81.8 per cent, respectively, for 1914, as compared with 60.2 per cent, 68.4 per cent, and 66.7 per cent, respectively, for 1909. For the establishments in this group the number of wage earners more than doubled between 1909 and 1914, while during the same period the value of products more than trebled and the value added by manufacture nearly trebled. Great increases also appear for the establishments with products valued at less than $20,000, and for these the proportion which they formed of the total increased between the two census years with reference to number of establishments, but showed no great changes in other respects; while for the establishments in which the output per establishment was $20,000 to $1,000,000 the gains were less pronounced, and the proportions of the total declined to a marked extent.

Table 12 shows the size of establishments in 1914 and 1909 as measured by the number of wage earners employed for the combined industry and for the 12 leading states.

Table 12

STATE.	Census year.	TOTAL.		ESTABLISHMENTS EMPLOYING—															
				No wage earners.	1 to 5 wage earners.		6 to 20 wage earners.		21 to 50 wage earners.		51 to 100 wage earners.		101 to 250 wage earners.		251 to 500 wage earners.		501 to 1,000 wage earners.		Over 1,000 wage earners.	
		Establishments.	Wage earners (average number).	Establishments.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.	Establishments.	Wage earners.
United States	1914	1,271	127,092	51	457	1,156	321	3,745	161	5,369	88	6,083	103	16,180	49	18,377	21	15,607	20	60,575
	1909	743	75,721	12	220	597	173	2,119	122	4,146	73	5,337	77	12,477	31	11,291	20	15,047	15	24,707
California	1914	98	731	0	55	126	20	309	3	106	1	60	1	130	.....	.....	.....	.....	.....	.....
	1909	41	478	2	26	62	9	111	2	68	1	84	1	153	.....	.....	.....	.....	.....	.....
Connecticut	1914	28	2,223	1	8	10	6	69	5	159	4	304	2	253	1	283	.....	.....	1	1,145
	1909	28	3,815	1	4	9	4	38	6	188	5	354	6	1,009	.....	.....	1	957	1	1,260
Illinois	1914	91	2,545	3	31	92	25	312	23	760	3	235	4	529	2	617	.....	.....	.....	.....
	1909	65	2,382	.....	28	65	13	156	12	402	6	466	4	737	2	556	.....	.....	.....	.....
Indiana	1914	80	7,219	2	20	57	20	232	8	273	16	1,126	13	2,063	4	1,366	3	2,102	.....	.....
	1909	67	6,707	.....	22	57	13	173	11	401	4	300	10	1,846	4	1,424	2	1,219	1	1,377
Massachusetts	1914	66	3,430	3	18	61	14	156	22	723	3	215	3	525	1	305	2	1,454	.....	.....
	1909	62	4,138	2	13	40	17	214	17	588	5	390	4	567	2	744	2	1,595	.....	.....
Michigan	1914	205	67,538	3	36	91	37	444	29	1,010	24	1,731	33	5,184	20	7,727	11	8,061	12	43,290
	1909	113	25,444	.....	19	61	21	241	19	604	14	1,044	23	3,637	5	2,025	7	5,212	5	12,620
Missouri	1914	25	504	.....	9	22	11	137	2	50	1	52	2	243	.....	.....	.....	.....	.....	.....
	1909	17	368	.....	7	27	4	51	4	118	2	172	.....	.....	.....	.....	.....	.....	.....	.....
New Jersey	1914	53	2,520	3	23	48	8	93	6	206	5	320	7	1,464	1	389	.....	.....	.....	.....
	1909	24	1,024	.....	8	29	6	90	3	91	4	270	2	264	1	280	.....	.....	.....	.....
New York	1914	247	12,122	8	107	252	67	735	27	908	15	961	13	1,998	6	2,332	2	1,517	2	3,419
	1909	113	9,861	2	27	75	29	380	24	773	13	934	10	1,672	3	984	2	1,520	3	3,523
Ohio	1914	102	18,752	2	20	53	31	371	14	487	8	505	14	2,170	7	2,576	3	2,473	3	10,117
	1909	75	12,130	1	14	36	17	204	9	386	9	586	10	1,421	9	3,248	2	1,351	4	4,898
Pennsylvania	1914	80	3,083	3	32	93	26	304	6	183	4	336	5	718	4	1,449	.....	.....	.....	.....
	1909	44	3,199	3	9	24	13	134	8	271	2	163	5	771	3	1,192	1	644	.....	.....
Wisconsin	1914	43	4,889	.....	16	28	12	154	5	181	1	72	4	517	3	1,333	.....	.....	2	2,604
	1909	30	4,208	.....	12	30	9	114	2	92	1	84	2	400	.....	.....	3	2,549	1	1,029

Nearly one-half of all the wage earners in the industry in 1914 were employed in establishments having over 1,000 wage earners, as compared with about one-third in 1909. Only 193 establishments in 1914, or about 15 per cent of the total, had more than 100 wage earners each, yet these establishments employed more than 85 per cent of the total average number of wage earners. In 1909 the establishments of corresponding size represented nearly 20 per cent of the total number of establishments and employed nearly 85 per cent of the total average number of wage earners.

The 51 establishments for which no wage earners were employed were engaged in the manufacture of bodies and parts of automobiles, and were, as a rule, small concerns where the work was done by the proprietors or firm members. Some of them employed a few wage earners, but the term of employment was so short that in computing the average (see "Explanation of terms") they were classed as having "no wage earners."

Engines and power.—Table 13 shows for 1914, 1909, and 1904, for the industry, the number and horsepower of engines or motors employed in generating power (including electric motors operated by purchased current). It also shows separately the number and horsepower of electric motors operated by current generated in the establishments reporting.

Table 13

POWER.	NUMBER OF ENGINES OR MOTORS.			HORSEPOWER. Amount.			Per cent distribution.		
	1914	1909	1904	1914	1909	1904	1914	1909	1904
Primary power, total	9,314	2,548	153	173,684	75,550	10,109	100.0	100.0	100.0
Owned	469	473	153	70,719	46,612	8,915	40.7	61.7	88.2
Steam engines and turbines	317	273	74	60,233	39,325	7,376	34.7	52.1	73.0
Internal-combustion engines	146	192	77	10,075	7,000	1,459	5.8	9.3	14.4
Water wheels, turbines, and motors	6	8	2	411	287	80	0.2	0.4	0.8
Rented	8,845	2,075	(1)	102,965	28,938	1,194	59.3	38.3	11.8
Electric	8,845	2,075	(1)	102,156	27,641	1,051	58.8	36.6	10.4
Other				809	1,297	143	0.5	1.7	1.4
Electric	11,218	2,932		135,818	41,829	4,229	100.0	100.0	100.0
Rented	8,845	2,075	(1)	102,156	27,641	1,051	75.2	66.1	24.9
Generated by establishments reporting	2,373	857	108	33,662	14,188	3,178	24.8	33.9	75.1

[1] Not reported.

The total horsepower used in the industry in 1914 was more than twice as great as in 1909 and more than seventeen times as great as in 1904. Nearly three-fifths of the total primary power in 1914 was derived from rented electric current, whereas in 1909 more than half and in 1904 nearly three-fourths of the power used was obtained directly from steam engines and turbines. Not only has the use of rented electric power increased enormously, but a growing proportion of the owned power is transformed into electric current for transmission to the machinery which it drives. The proportion which electric power—both rented and generated in the establishments reporting—represented of the total increased from 41.8 per cent in 1904 to 55.4 per cent in 1909 and to 77.6 per cent in 1914.

Fuel.—Closely related to the subject of power employed in manufactures is that of the fuel consumed in generating this power or otherwise used in the manufacturing processes.

Table 14 shows, for 1914, the quantity of each kind of fuel used, for which data were obtained, for the industry as a whole, and for 11 leading states.

Table 14

STATE.	COAL. Anthracite (tons, 2,240 lbs.).	COAL. Bituminous (tons, 2,000 lbs.).	Coke (tons, 2,000 lbs.).	Oil, including gasoline (barrels).	Gas (1,000 cubic feet).
United States	31,393	662,224	23,560	384,248	2,038,860
Connecticut	873	9,561	2	1,515	10,980
Illinois	375	13,632	199	655	7,118
Indiana	2	84,498	850	18,469	20,294
Kentucky		18	1		27,900
Massachusetts	1,814	7,751	1	1,339	2,895
Michigan	3,188	304,003	16,297	245,415	1,322,789
New Jersey	3,264	7,367	25	866	5,711
New York	11,241	58,634	2,604	13,351	47,233
Ohio	7,640	97,177	1,411	71,411	522,727
Pennsylvania	1,133	24,568	529	12,930	14,939
Wisconsin	1,561	41,790	1,462	16,875	33,527
All other states	302	13,225	179	1,422	22,747

The industry being largely centralized in a region where oil and natural gas are in plentiful supply, quantities of these fuels are consumed in the various "heat-treating" processes employed, for which purpose they have almost entirely displaced coal. This change, together with the increase in the use of rented electric power, has caused a decline in the importance of coal as a fuel in the industry.

SPECIAL STATISTICS RELATING TO PRODUCTS.

Automobiles made, classified according to kind of propelling power.—Table 15 shows the total number and value of the automobiles reported for the industry for 1914, 1909, and 1904, classified according to motive power and the percentages of increase in each class from census to census.

Table 15	1914	1909	1904	PER CENT OF INCREASE. 1909–1914	PER CENT OF INCREASE. 1904–1909
Number of establishments	300	265	121	13.2	119.0
Automobiles:[1]					
Number	569,054	126,593	21,692	349.5	483.6
Value	$458,957,843	$164,269,324	$23,751,234	179.4	591.6
Gasoline[2]—					
Number	564,385	120,393	18,699	368.8	543.8
Value	$448,909,247	$153,529,053	$19,506,941	192.4	684.6
Steam[2]—					
Number		2,374	1,568		51.4
Value		$3,480,241	$1,688,038		106.2
Electric—					
Number	4,669	3,826	1,425	22.0	168.5
Value	$10,048,596	$7,259,430	$2,496,255	38.4	190.8

[1] Statistics for 1914 include 273 automobiles (gasoline and steam), valued at $196,927, made in establishments whose principal products were automobile bodies and parts, but do not include 3,985 automobiles, valued at $6,099,631, of which 3,939 were gasoline and steam and 46 were electric, reported by establishments engaged primarily in other industries. Statistics for 1909 include 23 automobiles, valued at $65,800, of which 1 was gasoline and 22 were electric, made in establishments whose principal products were automobile bodies and parts, but do not include 694 automobiles, valued at $830,080, reported by establishments in other industries.

[2] For 1914 the statistics for steam and gasoline automobiles were combined in order to avoid disclosure of operations of individual establishments.

The percentage of increase during the period 1909–1914 in number of automobiles made was nearly twice as great as that in their value, whereas during the preceding five-year period the increase in value was greater than that in number. As pointed out in the discussion of Table 3, the pronounced change between 1909 and 1914 in the relationship between number and value of machines made is due, first, to a general lowering of prices for all or nearly all classes of machines, and, second, to the production of a larger proportion of the low-priced classes in the later year.

There were only two establishments reporting the manufacture of steam automobiles in 1914, therefore the statistics can not be shown separately and are grouped with those for gasoline automobiles. The production of electrics increased by only 22 per cent between 1909 and 1914, while that of all classes of automobiles increased by nearly 350 per cent. This relatively very low rate of growth in the manufature of electrics is due, in part, no doubt, to the development of the electric starter for the gasoline automobile, which has made it a more powerful rival of the electric than formerly.

Table 16 shows, by states, for 1914, 1909, and 1904, the number and value of automobiles using the several kinds of motive power, made in establishments engaged in the industry.

Table 16	AUTOMOBILES.					
KIND OF POWER AND STATE.	Number.			Value.		
	1914	1909	1904	1914	1909	1904
All kinds: Gasoline, steam, and electric	569,054	126,593	21,692	$458,957,843	$164,269,324	$23,751,234
California	372	578	12	922,253	815,157	13,606
Illinois	4,251	3,442	205	6,186,430	4,475,642	262,691
Indiana	15,448	17,253	1,020	20,449,406	17,604,936	1,428,463
Massachusetts	7,278	3,466	2,365	6,611,730	6,229,438	2,052,943
Michigan	443,072	64,800	9,125	303,774,254	70,359,749	6 552 804
Minnesota	346	138	.....	625,463	217,250	.....
Missouri	898	701	.....	1,553,772	1,011,346	.....
New Jersey	1,173	96	51	2,506,268	187,339	71 400
New York	11,056	8,064	1,808	21,759,117	17,509,582	3,071,093
Ohio	67,483	14,299	2,808	69,465,370	23,550,112	5,197,360
Pennsylvania	4,279	1,999	963	5,245,636	4,148,661	1,134,776
Wisconsin	10,030	5,591	2,390	12,751,616	7,085,562	1,856,694
Gasoline and steam	564,385	122,767	20,267	448,909,247	157,009,894	21,254,979
Michigan	441,411	64,262	9,114	300,844,536	69,130,223	6,537,404
Minnesota	346	138	.....	625,463	217,250	.....
Missouri	898	701	.....	1,553,772	1,011,346	.....
New Jersey	1,173	.....	.....	2,506,268	.....	.....
Ohio	65,857	10,947	1,811	65,834,740	20,817,532	5,001,360
Wisconsin	10,030	5,591	2,388	12,751,616	7,085,562	1,856,694
Electric	4,669	3,826	1,425	10,048,596	7,259,430	2,496,255
Michigan	1,661	538	11	2,929,718	1,229,526	15,400
Ohio	1,626	1,641	200	3,630,630	2,732,580	196,000

The manufacture of automobiles in establishments whose products of chief value were either the completed vehicles or bodies and parts was carried on in 1914 in 26 states. The bulk of the output, however, was confined to a few states. The establishments in Michigan, Ohio, Indiana, and New York together reported 548,115 automobiles, valued at $437,207,264, or 96.3 per cent of the total number and 95.3 per cent of the total value shown for the automobile industry for 1914, as compared with 104,416, or 82.5 per cent of the total number and $129,024,379, or 78.5 per cent of the total value, for 1909. Michigan and Ohio alone produced nearly nine-tenths of the total number and more than four-fifths of the total value of machines made in 1914.

Michigan was the leading state at each census in respect to both number and value of automobiles manufactured. The extent to which the industry has become centralized in this state is brought out strikingly by comparison of the proportions which its output represented of the total number and value of machines made during the last three census years. In 1904 Michigan produced 42.1 per cent of the total number and 27.6 per cent of the total value of automobiles manufactured in the United States; in 1909 the corresponding percentages were 51.2 and 42.8, respectively; and in 1914 they had increased to 77.8 and 66.2, respectively.

Ohio ranked second in 1914 both in the number of automobiles made and in value of output. Indiana

and New York ranked third and fourth, respectively, in number, and fourth and third, respectively, in value.

More than 70 per cent of the electric automobiles reported by the industry for 1914 were produced in Michigan and Ohio. Michigan held a slight lead in number of machines, but was outranked by Ohio in value of output. At the 1909 census Ohio led in both number and value.

Automobiles made, classified according to use and type.—Table 17 shows, for the leading states, for 1914, 1909, and 1904, the number and value of the several types of automobiles made in the establishments engaged in the industry.

Table 17

CLASS AND STATE.	AUTOMOBILES. Number.			Value.		
	1914	1909	1904	1914	1909	1904
All classes	569,054	126,593	21,692	$458,957,843	$164,269,324	$23,751,234
Pleasure and family vehicles	543,679	121,868	20,261	413,859,379	155,821,331	21,651,331
Touring cars	451,267	76,114	7,220	346,134,147	113,403,188	11,781,521
Illinois	2,686	2,059	52	3,350,538	2,746,214	75,838
Indiana	13,034	6,838	387	16,574,132	10,710,289	736,869
Michigan	367,092	43,855	2,561	251,609,056	51,365,984	2,402,125
New York	5,945	5,440	397	9,499,111	12,296,292	995,982
Ohio	49,421	6,479	2,521	44,800,434	14,307,360	4,967,731
Wisconsin	8,825	.....	.....	10,831,327	.....	.....
Runabouts	81,603	36,204	12,131	45,892,696	28,030,479	8,831,504
Illinois	151	433	54	142,979	292,908	35,800
Indiana	1,431	8,139	230	1,946,792	5,055,208	173,084
Michigan	63,381	18,173	6,432	33,307,852	13,399,937	4,057,439
New York	1,037	1,097	1,082	1,434,925	1,539,659	1,163,554
Ohio	7,117	2,900	186	4,783,840	2,948,588	124,629
All other varieties	10,809	9,550	910	21,832,536	14,387,664	1,038,306
Illinois	282	470	47	785,152	969,580	70,297
Indiana	503	2,104	372	1,071,392	1,445,357	476,050
Michigan	6,610	1,855	30	10,636,264	3,990,988	21,600
New York	792	507	60	2,811,947	1,480,735	79,600
Ohio	2,010	4,114	100	4,251,172	5,374,914	100,000
Business vehicles	25,375	4,725	1,431	45,098,464	8,447,993	2,099,903
Delivery wagons	4,391	1,862	251	4,749,889	1,918,856	455,457
Illinois	23	447	.....	19,834	406,410	.....
Indiana	17	107	18	18,993	157,358	20,160
Michigan	1,295	401	51	970,589	319,071	35,250
New York	511	139	77	846,639	282,989	191,457
Ohio	1,025	469	.....	706,010	242,105	.....
Pennsylvania	1,275	242	.....	1,780,652	406,325	.....
Trucks	19,551	1,366	160	34,774,336	3,165,512	491,490
Illinois	1,072	28	.....	1,810,824	46,955	.....
Indiana	445	43	.....	788,107	109,492	.....
Michigan	4,684	372	51	7,220,321	994,311	36,390
New York	2,250	475	81	4,670,608	889,724	349,500
Ohio	7,598	202	1	13,611,631	386,945	5,000
Pennsylvania	771	.....	.....	1,772,095	.....	.....
Wisconsin	677	.....	.....	1,168,598	.....	.....
All other varieties	1,433	1,497	1,020	5,574,239	3,363,625	1,152,956
Illinois	37	.....	.....	77,103	.....	.....
Indiana	18	22	13	49,990	127,232	22,300
Michigan	10	144	.....	30,192	289,458	.....
New York	521	406	111	2,495,887	1,020,183	291,000
Ohio	312	135	.....	1,312,283	290,200	.....
Pennsylvania	93	127	5	327,101	323,026	13,300

Of the various classes of automobiles distinguished in this table, by far the most important is that of touring cars. This class represented 79.3 per cent of the total number and 75.4 per cent of the total value of machines produced in 1914, as compared with 60.1 per cent and 69 per cent, respectively, in 1909, and 35.6 per cent and 49.6 per cent, respectively, in 1904.

The production of business vehicles has grown rapidly from census to census, and during the period 1909–1914 the increase in number of these machines was somewhat greater, and that in their value very much greater, relatively, than the corresponding increases in the output of pleasure and family vehicles. Business vehicles represented less than one-twentieth of the total number and less than one-tenth of the total value of all machines made in 1914. It should be borne in mind, however, that many automobiles manufactured as pleasure cars have been converted to business uses by their purchasers. The rates of increase in number and value of business vehicles were approximately the same for the period 1909–1914, whereas during that period the increase in number of pleasure and family vehicles made was much greater than that in their value.

In the production of the various types of pleasure and family vehicles Michigan was the leading state in 1914, reporting 80.4 per cent and 71.4 per cent, respectively, of the total number and value of these machines made, as compared with 52.4 per cent and 44.1 per cent, respectively, in 1909. Ohio ranked second in the manufacture of the various types of family and pleasure vehicles in 1914, with Indiana third in the output of touring cars and runabouts and New York third in the production of "all other varieties."

In the manufacture of business vehicles in 1914 Ohio was the leading state in both number and value of trucks, Michigan in number and Pennsylvania in value of delivery wagons, and New York in both number and value of "all other varieties." Of the total production of business vehicles Ohio reported 35.2 per cent of the number and 34.7 per cent of the value; Michigan, 23.6 per cent and 18.3 per cent, respectively; and New York, 12.9 per cent and 17.8 per cent, respectively.

All the states for which comparative figures are given show large increases in the total number and value of automobiles manufactured. The decreases in the production of some types of automobiles in a few states are due mainly to standardization of types and to changes in the popular demand.

Automobiles made, classified according to motive power and type.—Table 18 shows the number and value of the several kinds of automobiles, classified according to motive power, as reported for 1914, 1909, and 1904.

Table 18 AUTOMOBILES.

CLASS.	Total.		Gasoline and steam.[1]		Electric.	
	Number.	Value.	Number.	Value.	Number.	Value.
Total:[2]						
1914	569,054	$458,957,843	564,385	$448,909,247	4,669	$10,048,596
1909	126,593	164,269,324	122,767	157,009,894	3,826	7,259,430
1904	21,692	23,751,234	20,267	21,254,979	1,425	2,496,255
Touring cars:						
1914	451,267	346,134,147	451,264	346,126,947	3	7,200
1909	76,114	113,403,188	75,871	113,015,662	243	387,526
1904	7,220	11,781,521	7,181	11,726,483	39	55,038
Runabouts:						
1914	81,603	45,892,090	81,460	45,663,787	143	228,909
1909	36,204	28,030,479	35,708	27,381,849	496	648,630
1904	12,131	8,831,504	11,676	8,378,200	455	453,304
Delivery wagons:						
1914	4,391	4,749,889	4,163	4,294,915	228	454,974
1909	1,862	1,918,850	1,645	1,474,063	217	444,703
1904	251	455,457	142	219,897	109	235,560
Trucks:						
1914	19,551	34,774,336	18,430	32,436,278	1,121	2,338,058
1909	1,366	3,165,512	1,090	2,384,703	276	780,809
1904	160	491,490	55	50,390	105	441,100
All other:						
1914	12,242	27,406,775	9,068	20,387,320	3,174	[3] 7,019,455
1909	11,047	17,751,289	8,453	12,753,617	2,594	4,997,672
1904	1,930	2,191,262	1,213	880,009	717	1,311,253

[1] Figures for steam automobiles combined with those for gasoline automobiles, to avoid disclosure of individual operations.
[2] In addition, 3,985 automobiles in 1914, 694 in 1909, and 1,138 in 1904 were reported by establishments engaged primarily in other industries.
[3] Includes 3,102 closed electric automobiles, valued at $6,889,191.

Remarkable increases in number and value, for both five-year periods, are shown for gasoline touring cars, of which there were made in 1914 nearly six times as many as in 1909 and more than sixty times as many as in 1904. The steam automobiles formed only a negligible proportion of the total output, and the figures for them have been combined with those for gasoline vehicles in order to avoid disclosing the operations of individual establishments. The increasing popularity of the touring car as opposed to the runabout and other types is indicated by the fact that nearly four-fifths of the gasoline automobiles made in 1914 were touring cars, as compared with three-fifths in 1909. The increasing demand for the enclosed type of electric automobile—included under "all other varieties" in this table—resulted in a very great decrease in the production of the open type of electric touring car and runabout.

The greatest proportional increases in both number and value are shown for trucks, of which the output in 1914 was more than fourteen times as great in number and nearly eleven times as great in value as that in 1909. Nearly seventeen times as many gasoline trucks and more than four times as many electric trucks were made in the later year as in the earlier.

Automobiles made, classified according to horsepower rating.—Table 19 shows the numbers of the various kinds of machines made in 1914 and 1909, classified according to horsepower ratings.

Table 19 NUMBER OF AUTOMOBILES MANUFACTURED: 1914 AND 1909.

CLASS.	Total.	Classified according to horsepower rating.					
		Less than 10.	10 to 19	20 to 29	30 to 49	50 to 89	90 or more.
All classes:							
1914	569,054	4,952	45,022	344,336	161,722	12,843	179
1909	126,593	7,539	29,353	35,257	51,218	3,197	29
Passenger vehicles (pleasure, family, and public conveyances), total:							
1914	544,850	3,539	40,395	336,760	151,329	12,648	179
1909	123,338	7,220	28,154	34,346	50,510	3,079	29
Runabouts—							
1914	81,603	430	9,851	57,610	13,519	180	13
1909	40,786	5,014	21,253	11,270	3,085	157	7
Touring cars—							
1914	451,267	3	29,584	276,565	133,323	11,661	131
1909	76,114	177	5,415	21,773	45,926	2,802	21
Closed—							
1914	10,809	3,102	781	2,406	4,128	389	3
1909	4,002	1,589	847	729	774	62	1
All other (taxicabs, omnibuses, sightseeing wagons, ambulances, patrol wagons, fire department vehicles, etc.)—							
1914	1,171	4	179	179	359	418	32
1909	2,436	440	639	574	725	58	.....
Business vehicles, merchandise, total:							
1914	24,204	1,413	4,627	7,576	10,393	195	.....
1909	3,255	319	1,199	911	708	118	.....
Delivery wagons—							
1914	4,391	228	2,125	747	1,278	13	.....
1909	1,862	263	878	624	97	.....	.....
Trucks—							
1914	19,551	1,122	2,502	6,802	8,959	166	.....
1909	1,366	56	317	286	606	101	.....
All other—							
1914	262	63	.....	27	156	16	.....
1909	27	.....	4	1	5	17	.....

Of the total number of automobiles manufactured by establishments engaged in the industry in 1914, 8.8 per cent were rated as having less than 20 horsepower; 60.5 per cent, as having 20 to 29 horsepower; and 30.7 per cent, as having 30 horsepower or more. The corresponding percentages for 1909 were 29.1, 27.8, and 43. The output of machines of less than 10 horsepower actually decreased during the five-year period, despite the enormous increase in the total number manufactured.

Of the passenger automobiles turned out by the factories of the industry in 1914, 82.8 per cent were touring cars and 15 per cent were runabouts, as against 61.7 per cent and 29.4 per cent, respectively, in 1909. Of the passenger vehicles with 10 to 19 horsepower, made in 1914, nearly three-fourths were touring cars, as against less than one-fifth in 1909. The great majority of the higher powered machines in both years, and especially of those with more than 30 horsepower, were touring cars. Of the runabouts manufactured in 1914, more than two-thirds were of 20 to 29 horsepower, whereas of those reported for 1909, almost as great a proportion were of less than 20 horsepower.

Imports and exports.—Table 20, compiled from the reports of the Bureau of Foreign and Domestic Commerce, Department of Commerce, shows, for the years 1906 to 1915, inclusive, the number and value of automobiles and the value of parts imported and exported.

Table 20

YEAR ENDING JUNE 30—	AUTOMOBILES.				PARTS (NOT INCLUDING ENGINES AND TIRES).	
	Imports.		Exports.			
	Number.	Value.	Number.	Value.	Imports.	Exports.
1915	322	$525,303	37,876	$60,254,035	$847,109	$7,853,183
1914	300	620,493	29,090	26,574,574	812,083	6,624,232
1913	748	1,759,380	25,286	26,012,934	263,827	5,240,599
1912	963	2,134,181	21,757	21,550,139	304,144	4,107,155
1911	888	1,898,843	11,803	12,905,049	351,916	2,544,180
1910	1,473	2,851,446	6,926	9,548,700	985,638	1,641,520
1909	1,624	2,905,391	3,184	5,387,021	773,743	605,179
1908	1,045	2,500,134	2,477	4,656,991	490,905	620,856
1907	1,176	4,041,025	2,862	4,890,886	801,254	611,355
1906	1,106	3,844,505	(1)	3,497,016	400,514	(2)

[1] Figures not available. [2] Included with "automobiles."

Data as to imports and exports are not available for years prior to 1906, and the earliest separate figures for exports of parts relate to 1907. The value of imports of automobiles and parts in the fiscal year ended June 30, 1906, was greater than that of exports, but thereafter there was an almost uninterrupted and, after 1908, very rapid increase in exports, accompanied by a marked falling off in imports, until in the fiscal year 1915 the exports comprised 37,876 machines, valued at more than $60,000,000, and parts (not including engines and tires) to the value of nearly $8,000,000, while only 322 machines, valued at about $525,000, and approximately $847,000 worth of parts were imported. During the fiscal year 1914, which terminated just prior to the outbreak of the European war, the machines exported outnumbered those imported at the rate of nearly 100 to 1, while the total value of exports, including parts, was about fifty-three times as great as that of imports. The number and value of automobiles and the total value of automobiles and parts exported during the fiscal year 1914 were equal to a little more than 5 per cent each of the respective totals for the output of the industry during the calendar year 1914.

DETAIL STATE TABLES.

The principal statistics secured from the census inquiry concerning the combined industry and for each of the two branches separately are presented, by states, in Tables 21 and 22. Table 21 shows, for 1914, 1909, and 1904, by states, the number of establishments, average number of wage earners, primary horsepower, wages, cost of materials, and value of products as reported for the combined industry.

Table 22 presents, for 1914, by states, the more detailed statistics for the combined industry, for the automobile branch of the industry, and for automobile bodies and parts.

TABLE 21.—COMPARATIVE SUMMARY, BY STATES, FOR 1914, 1909, AND 1904.

STATE.	Census year.	Number of establishments.	Wage earners (average number).	Primary horsepower.	Wages.	Cost of materials.	Value of products.
					Expressed in thousands.		
United States	1914	1,271	127,092	173,684	$101,927	$356,208	$632,831
	1909	743	75,721	75,550	48,694	131,646	249,202
	1904	178	12,049	10,109	7,159	13,151	30,034
California	1914	98	731	1,457	600	1,234	2,459
	1909	41	478	305	368	700	1,470
	1904	6	14	32	10	13	36
Connecticut	1914	28	2,223	3,656	1,698	3,769	8,051
	1909	28	3,815	3,937	2,878	4,856	11,668
	1904	7	1,065	1,283	784	1,163	2,644
Illinois	1914	91	2,545	3,421	1,946	6,288	11,018
	1909	65	2,382	1,786	1,653	3,979	7,154
	1904	12	167	136	107	112	357
Indiana	1914	86	7,219	12,137	5,027	18,831	29,389
	1909	67	6,797	5,813	4,131	14,995	23,764
	1904	11	816	760	496	824	1,639
Massachusetts	1914	66	3,439	4,298	3,016	5,642	11,199
	1909	62	4,138	2,896	2,793	5,491	11,359
	1904	18	1,100	909	709	1,268	2,663
Michigan	1914	205	67,538	79,379	57,792	219,215	398,289
	1909	113	25,444	25,938	15,491	53,882	96,651
	1904	33	2,735	1,800	1,268	3,443	7,997
Minnesota	1914	24	486	446	335	635	1,230
	1909	11	130	331	75	253	429
	1904	.....	.....	.....	.....	.....	.....
Missouri	1914	25	504	626	$389	$1,207	$2,183
	1909	17	368	184	252	1,025	1,677
	1904	3	21	20	16	31	63
New Jersey	1914	53	2,520	3,177	1,832	3,766	8,237
	1909	24	1,024	1,311	615	892	2,008
	1904	5	60	367	40	44	119
New York	1914	247	12,122	17,938	8,988	21,976	42,115
	1909	113	9,861	9,398	7,016	14,908	30,980
	1904	35	1,849	1,254	1,227	1,907	4,260
Ohio	1914	102	18,752	30,249	13,411	55,330	85,711
	1909	75	12,130	14,433	7,746	18,522	38,839
	1904	22	2,722	1,877	1,617	2,553	6,358
Pennsylvania	1914	80	3,083	5,130	2,137	5,558	10,084
	1909	44	3,199	2,746	1,808	4,051	6,532
	1904	6	566	423	352	601	1,226
Wisconsin	1914	43	4,889	9,827	3,908	10,465	18,478
	1909	30	4,298	3,153	2,733	5,340	11,440
	1904	6	520	645	300	845	1,875
All other states	1914	123	1,041	1,943	850	2,292	4,388
	1909	53	1,657	3,319	1,135	2,752	5,231
	1904	14	414	603	233	347	797

TABLE 22.—DETAIL STATISTICS FOR

STATE.	Number of establishments.	PERSONS ENGAGED IN THE INDUSTRY. Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks, etc. Male.	Clerks, etc. Female.	Wage earners. Average number.	Wage earners. Number, 15th day of— Maximum month.	Wage earners. Number, 15th day of— Minimum month.	WAGE EARNERS DEC. 15, OR NEAREST REPRESENTATIVE DAY. Total.	16 and over. Male.	16 and over. Female.	Under 16. Male.	Under 16. Female.	Capital.
AUTOMOBILES, INCLUDING BODIES AND PARTS.															
1 United States	1,271	145,951	760	3,723	10,679	3,697	127,092	Ap 137,954	No 117,990	129,038	126,574	2,269	186	9	$407,729,915
2 California	98	985	99	60	62	33	731	Ja 822	No 680	714	696	16	2	.....	2,015,507
3 Connecticut	28	2,566	13	87	149	94	2,223	Je 2,599	No 1,835	2,195	2,162	11	22	.....	8,920,951
4 District of Columbia	3	69	4	5	2	1	57	Ap 69	Ja 46	55	55	.....	.....	.....	160,295
5 Illinois	91	3,227	62	156	338	126	2,545	My 2,942	Ja 2,259	2,577	2,543	33	1	.....	9,933,643
6 Indiana	86	8,578	23	257	767	312	7,219	My 8,390	No 6,230	7,630	7,523	100	7	.....	22,088,003
7 Kentucky	4	56	3	8	9	2	34	Oc 42	Fe 29	39	38	1	.....	.....	198,679
8 Massachusetts	66	3,970	45	99	212	175	3,439	My 4,198	De 2,473	3,986	3,948	28	10	.....	9,774,929
9 Michigan	205	75,423	49	1,417	4,797	1,622	67,538	Mh 74,423	Jy 59,982	66,103	64,645	1,375	76	7	202,407,057
10 Minnesota	24	596	30	29	35	16	486	Je 573	Ja 439	496	495	1	.....	.....	1,620,573
11 Missouri	25	640	16	37	64	19	504	My 564	De 374	451	439	12	.....	.....	1,872,098
12 Nebraska	7	50	9	3	1	3	34	Ap[2] 44	Ja 25	26	23	3	.....	.....	92,898
13 New Jersey	53	2,973	34	84	264	71	2,520	Ap 2,909	No 2,264	2,133	2,078	49	6	.....	6,481,461
14 New York	247	14,877	148	628	1,519	460	12,122	My 12,935	De 11,341	12,138	12,010	113	13	2	41,677,428
15 North Carolina	3	40	1	4	3	1	31	Au 40	Oc 24	25	25	.....	.....	.....	89,323
16 Ohio	102	21,156	34	386	1,508	476	18,752	De 20,829	Jy 17,232	21,280	20,827	440	13	.....	67,154,398
17 Oregon	6	46	6	3	1	1	35	Ap[2] 44	Ja 25	32	32	.....	.....	.....	47,965
18 Pennsylvania	80	3,671	63	131	311	83	3,083	Jy 3,657	Ja 2,702	3,183	3,146	16	21	.....	10,517,516
19 Tennessee	4	102	3	5	33	5	56	My 129	Je[2] 11	130	129	1	.....	.....	656,315
20 Virginia	4	15	5	2	1	1	6	Ja[2] 8	No[2] 4	11	10	.....	1	.....	53,935
21 Wisconsin	43	5,817	14	260	513	141	4,889	Ap 5,820	No 4,095	4,873	4,807	57	9	.....	18,287,273
22 All other states *	92	1,094	99	62	90	55	788	.....	.....	961	943	13	5	.....	3,679,638

* All other states embrace: Alabama, 1 establishment; Colorado, 10; Delaware, 1; Florida, 1; Georgia, 1; Idaho, 1; Iowa, 13; Kansas, 7; Maine, 2;

AUTOMOBILES.

1 United States	300	91,997	60	2,118	7,935	2,577	79,307	Ap 85,271	Jy 72,737	81,298	79,971	1,234	90	3	$312,875,884
2 California	9	384	3	31	45	13	292	Ap[2] 324	No 239	272	268	3	1	.....	1,379,496
3 Illinois	25	1,652	8	65	202	68	1,309	My 1,560	De 1,104	1,293	1,287	6	.....	.....	7,463,988
4 Indiana	38	5,396	5	172	581	236	4,402	My 5,278	De 3,403	4,636	4,570	66	.....	.....	14,931,934
5 Massachusetts	12	2,427	5	29	167	128	2,098	My 2,859	De 1,284	2,525	2,518	.....	7	.....	7,429,964
6 Michigan	65	48,565	6	871	3,682	1,204	42,802	Mh 46,689	Jy 36,804	41,695	40,802	852	38	3	160,472,589
7 Minnesota	11	417	10	18	32	12	345	Je 431	De 297	344	344	.....	.....	.....	1,433,630
8 Missouri	5	409	.....	18	54	10	327	My 368	De 210	270	267	3	.....	.....	1,660,988
9 New Jersey	8	618	.....	12	55	20	531	My 618	Se 452	453	452	1	.....	.....	1,920,792
10 New York	32	7,421	4	307	1,086	242	5,782	Jy 6,393	Ja 5,282	5,782	5,770	10	2	.....	25,736,133
11 Ohio	39	16,521	3	270	1,226	398	14,624	De 16,751	Jy 12,990	17,155	16,864	280	11	.....	60,002,615
12 Pennsylvania	22	1,983	5	59	220	56	1,643	Jy 2,075	Oc 1,468	1,557	1,542	5	10	.....	7,368,899
13 Wisconsin	12	3,794	4	177	354	92	3,167	Ap 3,837	Jy 2,640	3,005	3,000	4	1	.....	12,449,823
14 All other states *	22	2,410	7	89	231	98	1,985	.....	.....	2,311	2,287	4	20	.....	10,625,033

* All other states embrace: Colorado, 1 establishment; Connecticut, 4; District of Columbia, 1; Iowa, 3; Kansas, 2; Kentucky, 2;

AUTOMOBILE BODIES AND PARTS.

1 United States	971	53,954	700	1,605	2,744	1,120	47,785	Ap 52,683	No 43,829	47,740	46,603	1,035	96	6	$94,854,031
2 California	89	601	96	29	17	20	439	Au 459	Fe 414	442	428	13	1	.....	636,011
3 Colorado	9	104	8	9	7	20	60	Ap[2] 66	Se[2] 55	60	59	1	.....	.....	112,822
4 Illinois	66	1,575	54	91	136	58	1,236	No 1,403	Ja 1,081	1,284	1,256	27	1	.....	2,469,655
5 Indiana	48	3,182	18	85	186	76	2,817	My 3,112	Ja 2,479	2,994	2,953	34	7	.....	7,156,069
6 Iowa	10	49	15	1	2	2	29	Au[2] 33	Fe 25	34	27	7	.....	.....	59,035
7 Kansas	5	16	9	.....	.....	1	6	My[2] 10	Ja[2] 4	6	6	.....	.....	.....	44,110
8 Maryland	10	86	12	7	9	4	54	Jy 59	Fe 47	58	58	.....	.....	.....	156,614
9 Massachusetts	54	1,543	40	70	45	47	1,341	Oc 1,475	De 1,189	1,461	1,430	28	3	.....	2,344,965
10 Michigan	140	26,858	43	546	1,115	418	24,736	Ap 27,735	De 22,164	24,408	23,843	523	38	4	41,934,468
11 Minnesota	13	179	20	11	3	4	141	De 157	Ja 127	152	151	1	.....	.....	186,943
12 Missouri	20	231	16	19	10	9	177	My 196	Ja 148	181	172	9	.....	.....	211,110
13 Nebraska	7	50	9	3	1	3	34	My[2] 44	Ja 25	26	23	3	.....	.....	92,898
14 New Jersey	45	2,355	34	72	209	51	1,989	Ap 2,294	De 1,694	1,680	1,626	48	6	.....	4,560,669
15 New York	215	7,456	144	321	433	218	6,340	Ap 6,960	De 5,780	6,356	6,240	103	11	2	15,941,295
16 Ohio	63	4,635	31	116	282	78	4,128	Oc 4,670	Ja 3,319	4,125	3,963	160	2	.....	7,151,783
17 Oregon	6	46	6	3	1	1	35	Au[2] 38	Ja 31	32	32	.....	.....	.....	47,965
18 Pennsylvania	58	1,688	58	72	91	27	1,440	De 1,593	Ja 1,204	1,626	1,604	11	11	.....	3,148,617
19 Rhode Island	5	23	3	3	1	1	15	Jy[2] 17	De[2] 14	15	15	.....	.....	.....	24,035
20 Texas	9	52	14	3	.....	.....	35	Je 38	Se 32	35	34	1	.....	.....	32,966
21 Washington	13	80	13	5	1	3	58	Je 69	Ja 49	50	47	2	1	.....	148,251
22 Wisconsin	31	2,023	10	83	159	49	1,722	Je 1,990	No 1,197	1,868	1,807	53	8	.....	5,837,450
23 All other states*	55	1,122	47	56	36	30	953	.....	.....	847	829	11	7	.....	2,556,300

[1] Owned power only.

[2] Includes rented power, other than electric.

* All other states embrace: Alabama, 1 establishment; Connecticut, 24; Delaware, 1; District of Columbia, 2; Florida, 1; Georgia, 1; Idaho, 1; Kentucky, 2;

THE INDUSTRY, BY STATES: 1914.

EXPENSES.								Value of products.	Value added by manufacture.	POWER.						
Salaries and wages.			For contract work.	Rent and taxes.		For materials.				Primary horsepower.					Electric horsepower generated in establishments reporting.	
Officials.	Clerks, etc.	Wage earners.		Rent of factory.	Taxes, including internal revenue and corporation income.	Principal materials.	Fuel and rent of power.			Total.	Steam engines.[1]	Internal-combustion engines.[2]	Water wheels and motors.[1]	Electric (rented).		
AUTOMOBILES, INCLUDING BODIES AND PARTS.																
$11,076,271	$20,449,408	$101,926,874	$3,954,924	$2,128,049	$3,024,265	$351,551,828	$4,656,102	$632,831,474	$276,623,544	173,684	60,233	10,884	411	102,156	33,662	1
100,117	88,111	600,435	23,918	93,787	12,221	1,208,413	25,356	2,458,843	1,225,074	1,457	.....	28	.....	1,429	4	2
261,845	203,441	1,696,006	1,795	31,774	61,615	3,702,435	66,726	8,050,692	4,281,531	3,656	3,024	170	.....	462	1,644	3
6,800	1,007	47,832	100	1,350	601	53,196	987	125,805	71,682	30	.....	.....	.....	30	.....	4
387,625	543,007	1,946,112	2,863	154,273	35,723	6,188,074	99,459	11,018,162	4,729,729	3,421	527	178	.....	2,716	20	3
672,147	1,155,302	5,020,876	17,974	75,703	125,978	18,555,863	274,741	20,389,088	10,558,484	12,137	5,706	955	.....	5,476	3,235	6
9,316	10,853	31,340	.....	4,920	611	91,093	1,264	181,739	89,382	30	.....	2	.....	28	.....	7
255,823	366,031	3,010,276	13,814	75,935	60,170	5,549,596	92,836	11,198,790	5,556,358	4,298	1,915	179	410	1,794	355	8
5,020,965	18,588,028	57,702,469	3,580,330	895,233	1,884,705	216,827,348	2,388,047	398,289,022	179,073,627	79,379	23,120	3,829	.....	52,430	12,483	9
70,525	52,363	334,803	4,307	30,020	6,119	620,251	14,739	1,230,338	595,348	446	160	23	.....	263	.....	10
83,226	111,860	388,842	50	29,759	7,670	1,190,289	16,535	2,182,911	976,087	626	150	17	.....	459	.....	11
6,000	2,825	24,067	765	4,701	517	92,993	1,193	156,000	61,814	37	.....	.....	.....	37	.....	12
267,505	256,644	1,832,370	77,401	66,509	26,099	3,689,020	76,857	8,237,416	4,471,539	3,177	1,615	143	1	1,418	1,308	13
1,463,992	1,837,886	8,987,808	163,608	343,747	206,227	21,485,152	490,638	42,115,276	20,139,486	17,938	5,756	919	.....	11,263	3,301	14
3,408	2,442	20,807	1,795	1,500	614	73,151	1,022	116,811	42,638	22	.....	10	.....	12	16	15
1,345,850	2,056,639	13,410,939	20,733	88,487	407,832	54,597,780	732,717	85,710,585	30,380,088	30,249	9,168	1,702	.....	19,379	4,570	16
4,920	2,340	32,042	.....	7,260	158	49,485	921	115,261	64,855	42	.....	.....	.....	42	.....	17
289,333	325,246	2,136,773	23,912	128,204	27,183	5,437,696	120,785	10,084,083	4,525,602	5,130	2,693	302	.....	2,135	2,188	18
5,750	11,400	87,110	.....	1,500	2,036	71,273	746	344,504	272,485	128	.....	.....	.....	128	.....	19
1,650	360	4,012	.....	770	168	10,105	133	26,585	16,347	22	.....	.....	.....	22	.....	20
682,943	591,315	3,908,012	13,359	41,492	123,574	10,251,422	213,821	18,478,196	8,012,953	9,827	5,559	2,354	.....	1,914	3,671	21
130,531	150,628	592,943	7,900	51,125	33,544	1,806,293	36,579	3,321,307	1,478,435	1,632	840	73	.....	719	867	22

Maryland, 12; Montana, 1; New Hampshire, 2; North Dakota, 1; Oklahoma, 3; Rhode Island, 6; South Dakota, 3; Texas, 11; Utah, 1; Vermont, 1; Washington, 14.

AUTOMOBILES.

$6,932,623	$11,033,538	$66,934,359	$3,768,809	$1,000,455	$2,321,856	$289,724,622	$2,872,943	$503,230,137	$210,632,572	104,983	42,731	6,288	410	55,554	23,364	1
53,214	61,330	231,146	15,116	23,374	8,402	806,646	10,886	1,253,183	435,651	761	.....	.....	.....	761	.....	2
173,409	334,886	1,076,542	600	49,420	19,084	4,960,681	47,929	7,633,420	2,624,810	1,559	210	.....	.....	1,349	.....	3
499,875	905,619	3,147,044	17,974	37,003	95,008	16,234,770	149,720	23,038,500	7,254,010	7,461	3,916	417	.....	3,128	1,993	4
118,008	300,131	1,910,793	.....	11,272	43,272	4,231,295	50,806	7,812,160	3,530,059	3,006	1,505	59	410	1,032	155	5
3,372,901	5,217,331	38,380,041	3,560,709	705,270	1,536,088	179,288,363	1,533,773	326,748,945	145,926,809	48,556	15,025	3,490	.....	30,041	8,227	6
49,525	47,680	229,317	.....	13,486	4,527	522,498	9,530	901,590	369,562	368	160	23	.....	185	.....	7
53,200	97,384	246,058	.....	7,303	6,745	1,027,849	10,957	1,762,831	724,025	366	.....	.....	.....	366	.....	8
35,300	77,443	382,065	.....	9,170	3,787	1,870,964	15,164	2,882,126	995,998	613	550	5	.....	58	595	9
665,600	1,206,171	4,499,982	143,222	37,569	106,360	13,275,279	211,179	24,675,695	11,189,237	9,261	4,456	8	.....	4,797	2,300	10
1,058,020	1,695,265	11,485,765	15,262	26,820	324,700	50,304,905	566,417	76,154,488	25,283,166	19,277	6,952	1,356	.....	10,960	3,857	11
143,883	212,978	1,150,604	3,024	48,714	17,025	4,124,102	79,675	6,872,035	2,668,858	3,105	1,865	153	.....	1,087	1,635	12
467,708	415,410	2,620,310	1,507	13,124	74,580	8,609,246	125,145	14,152,432	5,418,041	6,803	4,878	737	.....	1,188	2,402	13
241,800	371,001	1,556,002	1,795	20,780	82,278	4,408,024	61,762	8,742,132	4,212,346	3,847	3,214	40	.....	593	2,200	14

Maryland, 2; North Carolina, 1; Rhode Island, 1; Tennessee, 1; Texas, 2; Virginia, 1; Washington, 1.

AUTOMOBILE BODIES AND PARTS.

$4,143,648	$15,415,870	$34,992,515	$186,115	$1,118,594	$702,409	$61,827,206	$1,783,159	$129,601,337	$65,990,972	68,701	17,502	4,596	1	46,602	10,208	1
46,903	26,781	309,289	8,802	70,413	3,819	401,767	14,470	1,205,660	789,423	696	.....	28	.....	668	4	2
14,624	16,884	41,509	.....	6,529	559	145,026	1,681	344,891	198,184	35	.....	.....	.....	35	.....	3
214,216	209,021	809,570	2,263	104,853	16,639	1,228,293	51,530	3,384,742	2,104,919	1,862	317	178	.....	1,367	20	4
172,272	249,773	1,879,832	.....	38,610	30,070	2,321,003	125,021	5,750,588	3,304,474	4,676	1,790	538	.....	2,348	1,242	5
1,825	1,480	20,093	.....	2,002	300	20,491	1,826	67,852	45,535	34	.....	6	.....	28	.....	6
.....	600	2,665	.....	635	371	10,805	619	25,160	13,676	29	.....	.....	.....	29	.....	7
11,004	8,596	35,041	7,800	3,857	601	60,301	1,561	209,919	148,057	83	.....	35	.....	48	.....	8
137,725	66,500	1,105,483	13,814	64,663	16,898	1,318,301	42,030	3,386,630	2,026,299	1,292	410	120	.....	762	200	9
1,654,064	13,370,097	10,412,428	10,921	189,963	348,617	37,538,985	854,274	71,540,077	33,146,818	30,823	8,095	339	.....	22,389	4,256	10
21,000	4,674	105,486	4,307	16,534	1,592	97,753	5,209	328,748	225,786	78	.....	.....	.....	78	.....	11
20,936	14,476	142,784	50	22,396	925	162,440	5,578	420,080	252,062	260	150	17	.....	93	.....	12
6,000	2,825	24,067	765	4,701	517	92,993	1,193	156,000	61,814	37	.....	.....	.....	37	.....	13
232,205	170,201	1,450,805	77,401	57,339	22,312	1,818,056	61,693	5,355,290	3,475,541	2,564	1,065	138	1	1,360	713	14
798,302	541,715	4,487,826	20,386	300,178	99,867	8,209,878	279,459	17,439,581	8,950,249	8,677	1,300	911	.....	6,466	1,001	15
287,330	361,374	1,925,174	5,471	61,667	83,132	4,292,875	166,300	9,556,097	5,096,922	10,972	2,216	346	.....	8,410	713	16
4,920	2,340	32,042	.....	7,260	158	49,485	921	115,261	64,855	42	.....	.....	.....	42	.....	17
145,450	112,268	977,079	20,288	70,490	10,158	1,313,594	41,110	3,211,448	1,856,744	2,025	828	149	.....	1,048	553	18
4,000	1,025	8,285	.....	1,350	175	17,715	705	45,340	26,920	6	.....	2	.....	4	25	19
1,650	.....	33,059	.....	6,510	210	38,163	1,168	105,022	65,691	34	.....	.....	.....	34	.....	20
7,140	2,970	56,618	.....	10,195	471	55,816	1,558	160,999	112,625	48	.....	.....	.....	48	.....	21
215,235	175,905	1,278,702	11,852	28,368	48,994	1,642,176	88,676	4,325,764	2,594,912	3,024	681	1,617	.....	726	1,269	22
137,257	66,765	735,118	2,495	34,121	15,124	991,145	36,577	2,457,188	1,429,466	1,404	650	172	.....	582	302	23

[3] Same number reported for one or more other months.

Maine 2; Montana, 1; New Hampshire, 2; North Carolina, 2; North Dakota, 1; Oklahoma, 3; South Dakota, 3; Tennessee, 3; Utah, 1; Vermont, 1; Virginia, 3.

AUTOMOBILE REPAIRING

Data relating to the repairing of automobiles and the vulcanizing of automobile tires were first collected at the census of 1914. At previous censuses the figures for automobile repairing had been included with those for the foundry and machine-shop industry. The statistics shown for the industry do not cover the repair of automobiles in establishments engaged chiefly in the manufacture of automobiles, bodies, and parts, nor the vulcanizing of tires and other rubber goods in factories classified as in the rubber-goods industry.

Automobile repairing.—Reports were secured only from those establishments which were equipped with the power-driven machinery necessary for extensive automobile repair work, partaking somewhat of the character of a machine shop. Garages and establishments which made only minor repairs with hand tools were, therefore, not canvassed. Allowance must be made for the fact that many of the establishments from which reports were received included items covering the sale of accessories, etc., which could not be segregated because of the lack of necessary data.

TABLE 23.—DETAIL STATISTICS FOR THE AUTOMOBILE

	STATE.	Number of establishments.	PERSONS ENGAGED IN THE INDUSTRY.								WAGE EARNERS DEC. 15, OR NEAREST REPRESENTATIVE DAY.					Capital.
			Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks, etc.		Wage earners.			Total.	16 and over.		Under 16.		
						Male.	Female.	Average number.	Number, 15th day of—			Male.	Female.	Male.	Female.	
									Maximum month.	Minimum month.						
1	Automobile repairing	3,273	17,673	3,427	614	675	395	12,562	Jy 13,200	Ja 11,455	12,618	12,563	30	25	.....	$17,098,052
2	Repair work only	3,178	17,328	3,323	589	645	386	12,385	Au 12,992	Ja 11,307	12,438	12,384	29	25	.....	16,795,309
3	Vulcanizing tires	95	345	104	25	30	9	177	Jy 211	Ja 148	180	179	1	.....	.....	302,743
4	Alabama	34	192	23	23	6	4	136	Jy 143	Ja 126	138	137	.....	1	.....	242,028
5	Arizona	3	24	3	.....	.....	1	20	(4) 20	(4) 20	20	20	.....	.....	.....	32,228
6	Arkansas	11	39	11	1	3	1	23	(4) 23	(4) 23	23	23	.....	.....	.....	33,749
7	California	479	2,362	621	63	94	52	1,532	Au 1,605	Ja 1,411	1,585	1,580	4	1	.....	2,065,988
8	Colorado	12	82	11	6	1	1	63	Au 70	Ja 58	60	60	.....	.....	.....	63,661
9	Connecticut	11	54	11	.....	2	1	40	Au 43	De 5 39	41	40	1	.....	.....	28,979
10	Delaware	11	52	11	3	.....	2	36	Je 39	De 31	37	37	.....	.....	.....	30,274
11	District of Columbia	4	115	3	3	4	.....	105	Je 5 109	De 5 103	103	103	.....	.....	.....	87,727
12	Florida	28	133	35	3	2	2	91	No 97	Se 5 87	98	98	.....	.....	.....	245,414
13	Georgia	17	117	23	5	1	.....	88	Se 5 90	Ja 5 87	90	90	.....	.....	.....	58,581
14	Illinois	235	1,118	266	41	20	32	759	Au 813	Ja 668	772	765	4	3	.....	938,707
15	Indiana	70	321	82	15	5	8	211	Jy 260	Ja 169	210	207	.....	3	.....	334,989
16	Iowa	66	313	79	16	8	10	200	Au 228	Fe 172	209	209	.....	.....	.....	328,171
17	Kansas	6	18	8	.....	.....	.....	10	(4) 10	(4) 10	10	10	.....	.....	.....	39,200
18	Kentucky	8	45	9	1	1	2	32	Au 37	Mh 5 29	31	31	.....	.....	.....	66,896
19	Louisiana	5	24	5	1	.....	1	17	Au 23	Fe 5 13	16	16	.....	.....	.....	22,241
20	Maine	85	345	86	12	1	7	239	Au 297	Ja 189	229	228	.....	1	.....	381,077
21	Maryland	18	139	17	10	11	6	95	Je 107	Ja 85	99	98	.....	1	.....	217,867
22	Massachusetts	86	476	84	19	6	19	348	Jy 371	Ja 327	345	338	3	4	.....	463,848
23	Michigan	65	244	70	9	9	5	151	Jy 5 165	Ja 126	169	167	2	.....	.....	313,894
24	Minnesota	150	697	190	19	13	19	456	Jy 491	Ja 379	472	470	1	1	.....	831,319
25	Missouri	19	91	20	1	1	2	67	Jy 79	Ja 58	67	66	.....	1	.....	83,916
26	Montana	8	29	9	1	1	.....	18	Jy 5 20	Ja 5 14	16	16	.....	.....	.....	29,594
27	Nebraska	4	13	5	.....	.....	.....	8	Ja 5 10	De 5 6	6	6	.....	.....	.....	11,625
28	New Hampshire	3	15	3	.....	.....	.....	12	Se 19	De 7	18	18	.....	.....	.....	19,150
29	New Jersey	252	1,115	252	30	34	22	777	Au 826	Ja 745	774	771	2	1	.....	1,127,149
30	New York	962	5,769	840	196	313	110	4,310	My 4,508	Ja 4,014	4,268	4,261	3	4	.....	4,913,417
31	North Carolina	18	77	18	7	1	2	49	Je 51	Se 47	50	49	1	.....	.....	105,729
32	North Dakota	6	23	7	2	1	.....	13	Se 14	Jy 12	14	14	.....	.....	.....	49,943
33	Ohio	85	346	97	18	5	11	215	Jy 228	Ja 187	234	233	1	.....	.....	392,638
34	Oklahoma	16	71	21	3	1	2	44	Au 53	Ja 35	51	51	.....	.....	.....	84,303
35	Oregon	55	273	46	20	13	9	185	Jy 212	Ja 164	187	186	.....	1	.....	220,048
36	Pennsylvania	270	2,099	304	56	93	43	1,603	Au 1,700	Ja 1,416	1,578	1,574	2	2	.....	2,323,948
37	Rhode Island	28	167	21	4	3	7	132	Jy 142	De 113	121	121	.....	.....	.....	138,998
38	Tennessee	13	64	14	.....	3	1	46	Jy 5 47	Ja 44	46	46	.....	.....	.....	69,861
39	Texas	22	122	27	4	2	1	88	Mh 99	Je 83	86	84	2	.....	.....	99,469
40	Utah	7	43	5	3	2	2	31	Au 5 33	De 27	28	28	.....	.....	.....	74,660
41	Virginia	3	6	1	.....	.....	.....	5	(4) 5	(4) 5	5	5	.....	.....	.....	10,967
42	Washington	26	99	24	4	3	1	67	Au 5 74	Ja 5 62	65	65	.....	.....	.....	124,044
43	West Virginia	34	151	27	13	4	3	104	Au 113	Fe 88	116	115	1	.....	.....	124,180
44	Wisconsin	26	146	26	2	8	6	104	My 115	Oc 95	99	96	3	.....	.....	222,548
45	Wyoming	6	24	5	.....	.....	.....	19	Jy 22	Ja 5 18	18	18	.....	.....	.....	26,577
46	All other states *	6	20	7	.....	.....	.....	13	.....	.....	14	13	.....	1	.....	18,450

[1] Owned power only.
[2] Includes rented power, other than electric.
[3] In addition, custom and repair work, valued at $5,742,530, was reported by establishments engaged chiefly in the manufacture of automobiles, and automobile repairing to the value of $610,735 was reported by establishments assigned to other classifications, principally automobile bodies and parts, carriages and wagons, and machine-shop products.

AND TIRE VULCANIZING.

Vulcanizing.—This branch of the industry, as here presented, includes establishments engaged in repairing damaged rubber goods by the employment of a process whose essential features are the use of new rubber and fabric and the application of heat. Although this process is applied chiefly to automobile tires, considerable work is done on motorcycle and bicycle tires and other rubber articles, and the statistics given, therefore, include figures for a certain amount of repair work on other than automobiles.

In addition to the products shown in the table, custom and repair work, valued at $5,742,530, was reported for 1914 by establishments engaged chiefly in the manufacture of automobiles, and automobile repairing to the value of $610,735 was reported by establishments assigned to other classifications, principally automobile bodies and parts, carriages and wagons, and machine-shop products. Table 23 gives, for 1914, detailed statistics for the automobile repairing industry, by states, while the two branches—"repair work only" and "vulcanizing tires"—are shown separately for the United States as a whole.

REPAIRING INDUSTRY, BY STATES: 1914.

EXPENSES.								Amount received for work done.	Value added by manufacture.	POWER.					
Salaries and wages.			For contract work.	Rent and taxes.		For materials.				Primary horsepower.					Electric horsepower generated in establishments reporting.
Officials.	Clerks, etc.	Wage earners.		Rent of factory.	Taxes, including internal revenue and corporation income.	Principal materials.	Fuel and rent of power.			Total.	Steam engines.[1]	Internal-combustion engines.[2]	Water wheels and motors.[1]	Electric (rented).	
$823,459	$654,863	$10,613,693	$156,587	$1,783,058	$128,620	$8,644,575	$509,242	[3]$29,920,151	$20,766,334	16,380	422	3,404	30	12,524	192
804,468	631,300	10,484,846	156,268	1,749,476	127,310	8,460,587	496,251	29,348,798	20,391,960	16,120	368	3,386	30	12,336	192
18,991	23,563	128,847	319	34,182	1,310	183,988	12,991	571,353	374,374	260	54	18	.....	188	.....
23,721	6,080	115,549	.....	19,340	1,884	69,686	8,201	310,066	232,179	260	.....	34	.....	226	.....
.....	600	19,910	49	744	406	2,900	604	32,691	29,187	9	.....	4	.....	5	.....
1,380	1,280	14,040	225	3,250	167	13,177	729	50,013	36,107	32	.....	2	.....	30	.....
73,666	70,051	1,446,836	23,288	249,159	16,032	952,707	56,918	3,871,794	2,862,169	2,496	.....	277	.....	2,219	.....
8,036	2,125	59,350	50	10,464	950	10,978	2,272	134,806	115,556	60	.....	7	.....	53	.....
.....	962	24,667	.....	2,020	87	6,727	752	69,648	62,169	21	.....	.....	.....	21	.....
3,060	858	23,109	.....	4,526	215	15,801	943	69,331	52,587	57	.....	7	.....	50	.....
4,450	2,904	69,527	.....	4,040	242	100,447	2,564	213,267	110,256	45	.....	.....	.....	45	.....
1,800	2,030	72,501	.....	5,854	2,262	76,338	3,161	213,382	134,383	136	.....	52	.....	84	.....
6,000	600	62,848	1,025	7,590	943	65,843	2,304	180,295	112,148	138	.....	69	.....	69	.....
49,501	33,812	628,536	6,752	84,775	7,956	511,964	42,425	1,861,981	1,307,592	853	55	324	.....	474	17
16,400	6,064	143,706	712	17,329	2,421	146,034	8,195	456,747	302,518	352	26	77	.....	249	.....
21,392	10,366	161,630	520	27,301	2,202	166,854	10,773	536,348	358,721	277	5	85	.....	187	49
.....	.....	5,348	.....	300	331	7,095	1,446	24,890	16,349	40	.....	18	.....	22	.....
1,300	614	23,128	24	5,750	1,206	19,428	1,206	57,210	36,516	61	.....	31	.....	30	.....
1,080	760	13,090	.....	1,615	85	9,750	321	34,900	24,829	33	.....	13	.....	20	.....
12,480	3,787	169,170	2,442	20,138	2,708	129,352	8,044	457,920	319,924	381	8	75	20	278	4
10,083	8,200	57,527	.....	6,583	2,013	95,398	3,206	230,403	131,709	86	.....	18	.....	68	.....
26,580	13,996	209,218	3,000	43,745	4,108	204,389	12,441	788,975	572,145	391	.....	111	.....	280	3
10,907	7,013	111,750	732	15,142	3,074	82,548	7,099	358,225	267,978	254	5	88	.....	161	9
19,660	14,403	367,082	5,500	63,052	7,054	341,195	29,657	1,076,221	705,369	695	48	157	.....	490	5
1,500	1,780	42,390	.....	13,963	636	60,169	3,161	172,256	108,926	85	.....	38	.....	47	.....
1,800	390	18,492	.....	2,464	158	2,710	1,023	35,505	31,772	35	.....	.....	.....	35	.....
.....	.....	6,020	27	1,787	87	2,442	539	14,670	11,089	28	.....	20	.....	8	.....
.....	.....	5,075	.....	125	132	870	300	11,750	10,580	7	.....	7	.....	.....	.....
45,133	27,140	655,314	2,959	117,116	25,180	541,107	28,025	1,922,559	1,353,427	1,052	22	271	.....	759	12
306,057	280,881	3,887,215	37,858	704,923	19,714	3,146,748	179,116	10,601,067	7,275,203	4,946	41	536	.....	4,369	9
7,075	1,100	25,436	.....	3,005	812	28,092	1,332	92,140	62,746	101	3	33	.....	65	5
1,872	600	8,376	200	504	272	13,204	1,463	36,651	21,984	33	.....	31	.....	2	.....
20,300	6,822	151,557	1,318	23,808	3,066	113,870	7,747	471,360	349,743	548	98	322	.....	128	20
3,700	1,180	29,285	200	7,502	1,602	36,919	2,036	119,746	80,791	70	.....	9	.....	70	.....
29,570	19,006	178,288	.....	44,816	2,268	135,219	10,756	533,961	387,986	293	.....	8	.....	285	.....
80,855	94,256	1,285,035	67,596	150,215	11,213	1,183,300	44,367	3,661,276	2,433,609	1,561	29	439	10	1,083	31
4,691	5,080	91,663	2,066	9,508	1,038	77,994	5,171	252,031	168,866	118	.....	24	.....	94	.....
.....	2,476	34,794	.....	7,707	540	18,177	2,459	94,619	73,983	119	32	4	.....	83	.....
6,600	1,572	58,900	.....	9,487	575	50,657	2,987	164,766	111,122	133	.....	36	.....	97	.....
2,350	1,300	22,974	.....	4,705	411	4,508	1,365	47,722	41,849	32	.....	.....	.....	32	.....
.....	.....	3,802	.....	354	120	1,130	212	8,854	7,512	17	.....	12	.....	5	.....
4,500	2,484	49,084	44	5,844	651	35,047	2,471	149,183	111,655	94	.....	18	.....	76	.....
11,911	2,738	64,477	.....	10,380	645	80,241	4,059	234,924	144,624	206	50	74	.....	82	28
1,880	0,878	77,027	.....	7,750	2,203	62,645	4,430	207,096	140,021	157	.....	50	.....	107	.....
.....	.....	17,177	.....	2,180	282	3,125	1,253	30,002	25,624	29	.....	.....	.....	29	.....
.....	.....	10,624	.....	2,000	183	5,820	359	28,400	22,221	30	.....	23	.....	7	.....

[1] Same number reported throughout the year.
[2] Same number reported for two or more other months.
[3] All other states embrace: Mississippi, 2 establishments; Nevada, 1; New Mexico, 1; South Carolina, 1; South Dakota, 1.

MOTORCYCLES, BICYCLES, AND PARTS.

By HARRY B. COHEN.

SUMMARY AND ANALYSIS.

Scope of the industry.—This report presents statistics for establishments making complete motorcycles and bicycles, and also those producing parts for use in the manufacture of these machines. The report, however, does not include establishments engaged primarily in the manufacture of tires, engines, lamps, or electrical supplies.

Comparison with earlier censuses.—Table 1 summarizes the statistics for the industry for each census from 1889 to 1914, and gives percentages of increase.

Table 1

	NUMBER OR AMOUNT.					PER CENT OF INCREASE.[1]			
	1914	1909	1904	1899	1889	1909–1914	1904–1909	1899–1904	1889–1899
Number of establishments	78	95	101	312	27	.....	−5.9	−67.6	.....
Persons engaged	7,753	5,017	3,761	19,708	(2)	54.5	33.4	−81.0	.....
Proprietors and firm members	47	78	81	209	(2)	[2]	.....	−61.2	.....
Salaried employees	1,026	502	361	2,034	(2)	104.4	39.1	−82.3	.....
Wage earners (average number)	6,680	4,437	3,319	17,525	1,797	50.6	33.7	−81.1	875.2
Primary horsepower	8,753	5,932	5,730	19,847	1,558	47.6	3.5	−71.1	1,173.9
Capital	$18,134,950	$9,780,102	$5,883,458	$20,783,659	$2,058,072	85.4	66.2	−80.2	1,347.2
Salaries and wages	5,913,270	3,490,561	2,322,201	9,943,052	1,105,728	69.4	50.3	−76.6	799.2
Salaries	1,174,520	582,362	350,798	1,753,235	(2)	101.7	66.0	−80.0	.....
Wages	4,738,750	2,908,199	1,971,403	8,189,817	(2)	62.9	47.5	−75.9	.....
Paid for contract work	60,127	48,414	78,195	41,517	(2)	24.2	−38.1	88.3	.....
Rent and taxes (including internal revenue)	270,577	72,303	[3] 88,416	[3] 329,090	(2)	286.7	.....	−73.1	.....
Cost of materials	10,927,654	5,082,569	2,628,146	16,792,051	718,848	115.0	93.4	−84.3	2,236.0
Value of products	22,234,262	10,698,567	5,153,240	31,915,908	2,568,326	107.8	107.6	−83.9	1,142.7
Value added by manufacture (value of products less cost of materials)	11,306,608	5,615,998	2,525,094	15,123,857	1,849,478	101.3	122.4	−83.3	717.7

[1] A minus sign (−) denotes decrease. Percentages are omitted where base is less than 100. [2] Figures not available. [3] Exclusive of internal revenue.

In 1889 there were 27 establishments engaged in the industry, which gave employment to an average of 1,797 wage earners and reported products valued at $2,568,326. By 1899, the number of establishments had increased to 312, the average number of wage earners to 17,525, and the value of products to $31,915,908. The products consisted almost entirely of bicycles, there being only 160 motorcycles reported as manufactured during the year. During the five-year period ending with 1904 the industry as a whole declined very rapidly, but the production of motorcycles increased greatly.

During the five years ending with 1909 the value of products for the industry more than doubled, and an even greater increase is shown for the period ending with 1914. The number of establishments reported for 1909 shows a decrease from the number in 1904, but the average number of wage earners increased 33.7 per cent. In 1914 there was also a decrease in the number of establishments from the number reported in 1909, but the average number of wage earners increased 50.6 per cent, and the value of products 107.8 per cent. The most important factor in the renewal of activity in the industry has been the increasing demand for motorcycles.

Few, if any, of the establishments engaged in the industry manufacture all of the parts and from them make complete motorcycles and bicycles. The majority of them purchase saddles, rims, hangers, seat posts, handlebars, coaster brakes, and other equipment, manufacture certain parts, and assemble them to produce the complete machine. The value of products shown for the industry, therefore, includes considerable duplication, due to the fact that most of the parts made by establishments engaged primarily in their manufacture are used as materials by other establishments.

On the other hand, the figures shown for value of products do not cover the output of the motorcycles, bicycles, parts and accessories made by establishments classified under other industries. Establishments of this character reported for 1914 the manufacture of 639 motorcycles, valued at $144,672; 99,870 bicycles, valued at $1,603,912; parts and repairs, valued at $2,899,214; and pneumatic motorcycle and bicycle tires, including aeroplane tires, valued at $6,905,853. A considerable production of lamps, engines, electrical equipment, and other accessories was reported by establishments engaged primarily in other industries, but their value was not shown separately.

The net value of products for the industry is probably most nearly represented by the total value of the complete machines manufactured, $15,919,093. This figure, however, excludes a considerable value of parts made for sale to dealers. The total number of machines manufactured in 1914, including those reported as subsidiary products in other industries, was motorcycles, 62,793, valued at $12,306,447; and bicycles, 398,899, valued at $5,361,230.

At the censuses of 1899 and 1904, the industry designation was "Bicycles and tricycles" and the reports for these years include the statistics for establishments manufacturing children's tricycles and velocipedes, but such establishments were included with "Toys and games" at the censuses of 1909 and 1914. The totals, however, were comparatively small and the change did not seriously affect the comparability of the general data for the industry.

Summary, by states.—Table 2 summarizes the more important statistics for the industry, by states, the states being arranged according to the value of products reported for 1914. The table also gives the rank of the states in 1914 and 1909 in respect to the several items, together with percentages of increase for the three five-year periods from 1899 to 1914. Three of the states (Connecticut, Michigan, and Wisconsin), for which data can not be shown separately without disclosing the operations of individual establishments, ranked higher than some of those named in the table.

Table 2

STATE.	CENSUS OF 1914. Number of establishments	Wage earners. Average number.	Wage earners. Per cent distribution.	Wage earners. Rank. 1914	Wage earners. Rank. 1909	Value of products. Amount.	Value of products. Per cent distribution.	Value of products. Rank. 1914	Value of products. Rank. 1909	Value added by manufacture. Amount.	Value added by manufacture. Per cent distribution.	Value added by manufacture. Rank. 1914	Value added by manufacture. Rank. 1909
United States	78	6,680	100.0	...	...	$22,234,262	100.0	...	...	$11,306,608	100.0	...	...
Massachusetts	6	2,135	32.0	1	3	7,021,312	31.6	1	1	3,827,348	33.8	1	1
Illinois	13	911	13.6	3	2	4,064,739	18.3	2	3	1,804,407	16.0	3	3
Ohio	9	752	11.3	4	1	2,931,383	13.2	4	2	1,297,217	11.5	4	2
New York	16	653	9.8	5	5	1,649,744	7.4	5	5	809,857	7.2	5	5
Indiana	4	203	3.0	7	8	675,321	3.0	8	7	316,582	2.8	7	7
Pennsylvania	8	156	2.3	8	6	351,593	1.6	9	6	165,607	1.5	9	6
All other states	22	1,870	28.0	...	...	5,540,170	24.9	...	...	3,085,590	27.3	...	...

PER CENT OF INCREASE.[1]

STATE.	Wage earners (average number). 1909–1914	1904–1909	1899–1904	Value of products. 1909–1914	1904–1909	1899–1904	Value added by manufacture. 1909–1914	1904–1909	1899–1904
United States	50.6	33.7	−81.1	107.8	107.6	−83.9	101.3	122.4	−83.3
Massachusetts	153.3	145.1	−78.2	159.4	365.0	−78.6	188.1	353.3	−79.2
Illinois	0.1	−6.1	−77.9	128.7	53.1	−87.0	124.3	24.2	−86.3
Ohio	−20.2	111.2	−81.3	27.0	121.7	−74.6	4.4	112.7	−68.5
New York	17.0	36.1	−80.5	41.6	53.5	−80.3	25.9	56.1	−79.3
Indiana	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pennsylvania	−54.3	.....	−90.1	−41.1	138.8	−86.5	−35.9	114.2	−84.8
All other states	.....	.....	.....	.....	.....	.....	.....	.....	.....

[1] Percentages are based on figures in Table 15; a minus sign (−) denotes decrease. Percentages are omitted where base is less than 100 for wage earners, or where comparable figures can not be given.

Separate totals are given for six states, the statistics for the eight other states in which the industry was carried on in 1914 being combined under the heading "all other states" in order to avoid disclosing the operations of individual establishments. Massachusetts was the leading state in the industry, holding first rank at the censuses of 1914 and 1909. For 1914 the establishments in Massachusetts reported 32 per cent of the total average number of wage earners employed in the industry throughout the United States, 31.6 per cent of the value of products and 33.8 per cent of the value added by manufacture. This state showed the largest increases for the period from 1909 to 1914 of any of the states shown separately in the table, the average number of wage earners and value of products being two and one-half times as great in 1914 as in 1909, while the value added by manufacture was nearly three times as great in the later as in the earlier year.

In the case of all but two of the states—Ohio and Pennsylvania—for which separate figures are given in the table, increases for the period 1909–1914 are shown with reference to average number of wage earners employed, and in the case of all but one state—Pennsylvania—increases appear for value of products and value added by manufacture.

Between 1909 and 1914 several changes took place in the rank of the several states as determined by value of products. The leading state—Massachusetts—held the same rank at both censuses, but Illinois advanced from third to second place, displacing Ohio, which dropped to fourth. Indiana rose from eighth to seventh place, but New York remained stationary and Pennsylvania dropped from sixth to ninth.

Persons engaged in the industry.—Table 3 shows, for 1914 and 1909, the number of persons engaged in the industry, distributed by sex, the average number of wage earners being distributed also by age. The sex and age classification of the average number of wage earners in this and other tables is an estimate obtained by the method described in the "Explanation of terms."

Table 3

CLASS.	Census year.	PERSONS ENGAGED IN THE INDUSTRY. Total.	Male.	Female.	Per cent of total. Male.	Female.
All classes	1914	7,753	7,346	407	94.8	5.2
	1909	5,017	4,853	164	96.7	3.3
Proprietors and officials	1914	273	268	5	98.2	1.8
	1909	206	204	2	99.0	1.0
Proprietors and firm members	1914	47	44	3	93.6	6.4
	1909	78	77	1	98.7	1.3
Salaried officers of corporations	1914	66	64	2	97.0	3.0
	1909	50	50	.....	100.0	.....
Superintendents and managers	1914	160	160	.....	100.0	.....
	1909	78	77	1	98.7	1.3
Clerks and other subordinate salaried employees	1914	800	534	266	66.8	33.2
	1909	374	256	118	68.4	31.6
Wage earners (average number)	1914	6,680	6,544	136	98.0	2.0
	1909	4,437	4,393	44	99.0	1.0
16 years of age and over	1914	6,640	6,506	134	98.0	2.0
	1909	4,353	4,315	38	99.1	0.9
Under 16 years of age	1914	40	38	2	95.0	5.0
	1909	84	78	6	92.9	7.1

Table 4 gives, for the several classes of persons engaged in the industry, the percentages of increase from 1909 to 1914 and the per cent distribution at the two censuses.

Table 4

CLASS.	PERSONS ENGAGED IN THE INDUSTRY.									
	Per cent of increase,[1] 1909–1914.			Per cent distribution.					
	Total.	Male.	Female.	Total.		Male.		Female.	
				1914	1909	1914	1909	1914	1909
All classes	54.5	51.4	148.2	100.0	100.0	100.0	100.0	100.0	100.0
Proprietors and officials	32.5	31.4	.....	3.5	4.1	3.6	4.2	1.2	1.2
Proprietors and firm members	.....	.....	.....	0.6	1.6	0.6	1.6	0.7	0.6
Salaried officers of corporations	.....	.....	.....	0.8	1.0	0.9	1.0	0.5	.....
Superintendents and managers	.....	.....	.....	2.1	1.6	2.2	1.6	.....	0.6
Clerks and other subordinate salaried employees	113.9	108.6	125.4	10.3	7.5	7.3	5.3	65.4	72.0
Wage earners (average number)	50.6	49.0	.....	86.2	88.4	89.1	90.5	33.4	26.8
16 years of age and over	52.5	50.8	.....	85.6	86.8	88.6	88.9	32.9	23.2
Under 16 years of age	.....	.....	.....	0.5	1.7	0.5	1.6	0.5	3.6

[1] Percentages are omitted where base is less than 100.

In 1914, of the total number of persons engaged in the motorcycle and bicycle industry, 3.5 per cent were proprietors and officials, 10.3 per cent were clerks and other subordinate salaried employees, and 86.2 per cent, or nearly seven-eighths, were wage earners.

Increases appear for all classes of persons engaged in the industry during the period, 1909 to 1914, except the two very small classes of proprietors and firm members and wage earners under 16 years of age. The greatest rate of increase, 113.9 per cent, is shown for clerks and other subordinate salaried employees.

Wage earners employed, by months.—The following table gives for the industry the total number of wage earners employed on the 15th day of each month, or the nearest representative day, for 1914 and 1909, the average number employed during each month in 1904, together with the percentage which the number reported for each month forms of the greatest number reported for any month.

Table 5

MONTH.	WAGE EARNERS IN THE INDUSTRY.					
	Number.[1]			Per cent of maximum.		
	1914	1909	1904	1914	1909	1904
January	8,843	3,991	4,096	90.4	79.9	95.7
February	9,177	4,134	4,281	100.0	82.7	100.0
March	8,840	4,428	4,227	96.3	88.6	98.7
April	8,300	4,638	3,743	90.4	92.8	87.4
May	7,872	4,808	3,699	85.8	97.4	86.4
June	6,270	4,996	3,344	68.3	100.0	78.1
July	5,351	4,318	2,571	58.3	86.4	60.1
August	4,792	4,223	2,170	52.2	84.5	50.7
September	4,333	4,214	2,328	47.2	84.3	54.4
October	4,608	4,245	2,598	50.2	85.0	60.7
November	5,360	4,465	3,066	58.4	89.4	71.6
December	6,414	4,738	3,705	69.9	94.8	86.5

[1] The figures for 1914 and 1909 represent the number employed on the 15th of each month, or the nearest representative day; those for 1904, the average number employed during the month.

Contrary to the tendency shown by many industries toward increased regularity of employment, a greater degree of fluctuation in employment was shown for the motorcycle and bicycle industry at the 1914 census than at the earlier censuses, as will be seen by a comparison of the percentages which the minimum number employed formed of the maximum—50.7 in 1904, 79.9 in 1909, and 47.2 in 1914.

Prevailing hours of labor.—In Table 6 the average number of wage earners reported for 1914 and 1909 for the industry has been classified according to the number of hours of labor per week prevailing in the establishments in which they were employed. The number employed in each establishment was classified as a total, even though a few employees worked a greater or smaller number of hours.

Table 6

PREVAILING HOURS OF LABOR PER WEEK.	WAGE EARNERS IN ESTABLISHMENTS WITH SPECIFIED NUMBER OF HOURS.			
	Average number.		Per cent of total.	
	1914	1909	1914	1909
Total	6,680	4,437	100.0	100.0
48 and under	42	12	0.6	0.3
Between 48 and 54	444	11	6.6	0.2
54	1,722	1,262	25.8	28.4
Between 54 and 60	4,404	1,473	65.9	33.2
60	66	1,677	1.0	37.8
Between 60 and 72	2	2	(1)	(1)

[1] Less than one-tenth of 1 per cent.

A marked tendency toward a shorter working day is shown for the industry. In 1914 nearly two-thirds of the total average number were employed in establishments with prevailing hours of more than 54 but less than 60 per week, as compared with only about one-third in 1909. The number working 60 hours per week decreased from 37.8 per cent of the total average number at the earlier census to 1 per cent at the later.

Character of ownership.—Table 7 presents statistics concerning the character of ownership, or legal organization, of establishments in the industry for 1914 and 1909.

In 1914 corporations controlled more than one-half of the total number of establishments as compared with slightly over one-third in 1909. These establishments reported, for 1914, 96 per cent of the average number of wage earners and 96.3 per cent of the total value of products and value added by manufacture. These proportions in each case are somewhat larger than the corresponding ones for 1909.

Table 7

CHARACTER OF OWNERSHIP.	Census year.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
All classes	1914	78	6,680	$22,234,262	$11,306,608
	1909	95	4,437	10,698,567	5,615,998
Individuals	1914	24	55	204,314	93,293
	1909	47	122	536,206	242,775
Corporations	1914	42	6,413	21,416,617	10,893,235
	1909	34	4,250	9,934,599	5,274,956
All others	1914	12	212	613,331	320,080
	1909	14	65	227,762	98,267
Per cent distribution:					
Individuals	1914	30.8	0.8	0.9	0.8
	1909	49.5	2.7	5.0	4.3
Corporations	1914	53.8	96.0	96.3	96.3
	1909	35.8	95.8	92.9	93.9
All others	1914	15.4	3.2	2.8	2.8
	1909	14.7	1.5	2.1	1.8

Size of establishments.—The tendency of the industry to become concentrated in large establishments is indicated by the statistics given in Table 8.

Table 8

VALUE OF PRODUCT.	Census year.	Number of establishments.	Average number of wage earners.	Value of products.	Value added by manufacture.
All classes	1914	78	6,680	$22,234,262	$11,306,608
	1909	95	4,437	10,698,567	5,615,998
Less than $5,000	1914	23	16	54,377	31,801
	1909	34	39	94,688	61,807
$5,000 to $20,000	1914	17	84	197,649	117,578
	1909	22	80	225,737	135,866
$20,000 to $100,000	1914	16	349	876,139	453,565
	1909	17	251	681,434	358,631
$100,000 to $1,000,000	1914	16	1,899	5,864,579	2,515,344
	[1] 1909	22	4,067	9,696,708	5,059,694
$1,000,000 and over	1914	6	4,332	15,241,518	8,188,320
Per cent distribution:					
Less than $5,000	1914	29.5	0.2	0.2	0.3
	1909	35.8	0.9	0.9	1.1
$5,000 to $20,000	1914	21.8	1.3	0.9	1.0
	1909	23.2	1.8	2.1	2.4
$20,000 to $100,000	1914	20.5	5.2	3.9	4.0
	1909	17.9	5.7	6.4	6.4
$100,000 to $1,000,000	1914	20.5	28.4	26.4	22.2
	[1] 1909	23.2	91.7	90.6	90.1
$1,000,000 and over	1914	7.7	64.9	68.5	72.4

[1] Includes the group "$1,000,000 and over."

Of the establishments engaged in the industry in 1914, those having a value of product of $1,000,000 and over numbered six—7.7 per cent of the total number of establishments—but although these establishments were relatively unimportant numerically, they reported 64.9 per cent of the total number of wage earners, 68.5 per cent of the value of products, and 72.4 per cent of the value added by manufacture. Comparisons with 1909 can not be made for this group of establishments, nor for that of $100,000 to $1,000,000, the two having been combined at the earlier census in order to avoid disclosing the data for individual establishments. Each of the three groups of establishments having products valued at less than $100,000 shows smaller proportions of the total average number of wage earners, value of products, and value added by manufacture for 1914 than for 1909.

Table 9 shows the size of establishments in 1914 and 1909 as measured by number of wage earners employed.

Table 9

WAGE EARNERS PER ESTABLISHMENT.	Number of establishments.		Average number of wage earners.		Per cent of total. Establishments.		Per cent of total. Wage earners.	
	1914	1909	1914	1909	1914	1909	1914	1909
Total	78	95	6,680	4,437	100.0	100.0	100.0	100.0
No wage earners	6	6	.....	.....	7.7	6.3	.....	.....
1 to 5 wage earners	30	49	59	105	38.5	51.6	0.9	2.4
6 to 20 wage earners	12	14	137	143	15.4	14.7	2.1	3.2
21 to 50 wage earners	10	5	288	141	12.8	5.3	4.3	3.2
51 to 100 wage earners	7	6	557	409	9.0	6.3	8.3	9.2
101 to 250 wage earners	5	10	740	1,485	6.4	10.5	11.1	33.5
251 to 500 wage earners	6	3	2,200	1,109	7.7	3.2	32.9	25.0
501 to 1,000 wage earners	.....	2	.....	1,045	.....	2.1	.....	23.6
Over 1,000 wage earners	2	.....	2,699	.....	2.6	.....	40.4	.....

More than one-third of the total number of establishments in 1914 were included in the group having 1 to 5 wage earners, but they reported less than 1 per cent of the total average number employed.

Engines and power.—Table 10 shows, for 1914, 1909, and 1904 for the industry, the number and horsepower of engines or motors employed in generating power (including electric motors operated by purchased current). It also shows separately the number and horsepower of electric motors operated by current generated in the establishments reporting.

Table 10

POWER.	Number of engines or motors.			Horsepower. Amount.			Per cent distribution.		
	1914	1909	1904	1914	1909	1904	1914	1909	1904
Primary power, total	551	144	127	8,753	5,932	5,730	100.0	100.0	100.0
Owned	38	56	85	2,979	5,006	5,172	34.0	84.4	90.3
Steam engines and turbines	22	26	49	2,560	3,628	4,906	29.2	61.2	85.6
Internal-combustion engines	14	27	34	319	1,261	231	3.6	21.3	4.0
Water wheels, turbines, and motors	2	3	2	100	117	35	1.1	1.9	0.6
Rented	513	88	42	5,774	926	558	66.0	15.6	9.7
Electric	513	88	42	5,739	810	336	65.6	13.7	5.9
Other	.....	.....	.....	35	116	222	0.4	2.0	3.9
Electric	555	146	92	6,256	2,534	1,737	100.0	100.0	100.0
Rented	513	88	42	5,739	810	336	91.7	32.0	19.3
Generated by establishments reporting	42	58	50	517	1,724	1,401	8.3	68.0	80.7

The total horsepower used in the industry in 1914 was nearly one and one-half times as great as in 1909. The use of rented power (wholly electric in 1914) has greatly increased since 1904, when 558 horsepower of this character, representing 9.7 per cent of the total primary power, was reported. In 1914 the amount of such power had increased to 5,774 horsepower, or 66 per cent of the total. Nearly all of the electric power used was rented, the amount of electric power generated in establishments reporting being less than one-third as great in 1914 as in 1909.

Fuel.—Closely related to the subject of power employed in manufactures is that of fuel consumed in generating this power or otherwise used in the manufacturing processes.

Table 11 shows, for 1914, the quantity of each kind of fuel used, for which data were obtained, for the industry as a whole and for five leading states.

Table 11

STATE.	COAL. Anthracite, tons (2,240 lbs.).	COAL. Bituminous, tons (2,000 lbs.).	Coke, tons (2,000 lbs.).	Oil, including gasoline (barrels).	Gas (1,000 cubic feet).
United States	2,497	21,467	924	8,113	111,108
Illinois	17	2,492	.....	687	2,706
Indiana	.....	2,600	.....	800	73,561
Massachusetts	578	4,048	39	.....	560
New York	218	3,356	885	10	18,787
Ohio	.....	5,734	.....	3,555	12,336
All other states	1,684	3,237	.....	3,061	3,158

Products.—Table 12 gives a detailed statement of the number and value of the motorcycles and bicycles manufactured for 1914, 1909, 1904, and 1899.

Table 12

PRODUCT.	1914	1909	1904	1899
All products,[1] value	$22,234,262	$10,698,567	$5,153,240	$31,915,908
Motorcycles:				
Number	62,154	18,628	2,300	160
Value	$12,161,775	$3,015,988	$354,980	$33,674
Bicycles:				
Number	299,029	168,824	225,309	1,112,880
Value	$3,757,318	$2,436,996	$3,203,505	$22,127,310
All other products, including parts and repairs	$6,315,169	$5,245,583	$1,594,755	$9,754,924

[1] In addition, the following products were made by establishments engaged primarily in the manufacture of products other than those covered by the industry designation: In 1914, 639 motorcycles, valued at $144,672; 99,870 bicycles, valued at $1,603,912; and other products, including parts, etc., valued at $2,089,329; in 1909, 64,883 bicycles, valued at $791,193; and other products, including parts, etc., valued at $579,927; in 1904, 25,178 bicycles, valued at $537,418; 28 motorcycles, valued at $4,200; and other products, including parts, etc., valued at $34,341; and in 1899, 69,811 bicycles, valued at $1,529,177, and other products, valued at $24,000.

The production of motorcycles has shown great increase at each census beginning with 1899, when it was still in the experimental state. In 1914 there were manufactured in the establishments engaged in the industry nearly three and one-half times as many motorcycles as in 1909, with a value more than four times as great.

The manufacture of bicycles declined steadily from 1899 to 1909, but during the period 1909–1914 the output increased considerably, the number of machines produced being nearly twice as great in 1914 as in 1909, and the value being half again as large in the later year as in the earlier. In 1909 the value of the motorcycle output was only a little larger than the corresponding figure for the output of bicycles, but in 1914 the value of the motorcycles produced was considerably more than three times that of the bicycle output.

The value of "all other products, including parts and repairs," which represented nearly one-third of the total value of products of the industry in 1914, shows an increase of 20.4 per cent since 1909. These consist of side cars, delivery vans, motorcycle engine parts, bicycle frames, rims, hardware, steel stampings, etc.

Imports and exports.—Tables 13 and 14 were compiled from the reports of the Bureau of Foreign and Domestic Commerce, Department of Commerce. Table 13 shows, for the years 1905 to 1915, inclusive, the value of exports of motorcycles, bicycles, and parts, and for the years 1912 to 1915, inclusive, the value of the imports.

Table 13

YEAR ENDING JUNE 30—	Exports (value).	Imports[1] (value).	YEAR ENDING JUNE 30—	Exports (value).	Imports[1] (value).
1915	$1,919,068	$81,142	1909	$723,893	.....
1914	1,842,225	256,281	1908	796,277	.....
1913	1,458,508	186,980	1907	1,182,914	.....
1912	1,126,723	144,336	1906	1,370,765	.....
1911	883,300	.....	1905	1,378,428	.....
1910	620,760	.....			

[1] Not shown separately before 1912.

Table 14 shows separately for the years 1913, 1914, and 1915 the number and value of the exports of motorcycles and the value of the exports of bicycles, tricycles, etc., for these years.

Table 14

YEAR ENDING JUNE 30—	EXPORTS. Motorcycles.[1] Number.	Motorcycles.[1] Value.	Bicycles, tricycles, etc., value.
1915	8,166	$1,494,176	$424,892
1914	6,410	1,234,194	608,031
1913	3,983	749,072	709,436

[1] Not reported separately before 1913.

Figures for exports of motorcycles, as distinct from those of bicycles, tricycles, etc., were not shown separately before 1913. It will be noted that while the value of motorcycles exported was twice as great in 1915 as in 1913, that of bicycles, tricycles, etc., was only about one-half as large in 1915 as in 1913.

DETAIL STATE TABLES.

Table 15 shows, for 1914, 1909, and 1904, by states, the number of establishments, average number of wage earners, primary horsepower, wages, cost of materials, and value of products for the industry. Table 16 presents for 1914, by states, the more detailed statistics of the industry.

TABLE 15.—COMPARATIVE STATISTICS FOR 1914, 1909, AND 1904.

STATE.	Census year.	Number of establishments.	Wage-earners (average number).	Primary horsepower.	Wages.	Cost of materials.	Value of products.
					Expressed in thousands.		
United States	1914	78	6,680	8,753	$4,739	$10,928	$22,234
	1909	95	4,437	5,932	2,908	5,083	10,699
	1904	101	3,319	5,730	1,971	2,628	5,153
Illinois	1914	13	911	1,041	751	2,260	4,065
	1909	14	910	775	600	972	1,777
	1904	13	969	2,234	594	513	1,161
Massachusetts	1914	6	2,135	2,104	1,567	3,194	7,021
	1909	10	843	899	580	1,378	2,706
	1904	8	344	645	180	289	582
New York	1914	16	653	991	454	840	1,650
	1909	20	558	406	345	522	1,165
	1904	32	410	612	206	347	759
Ohio	1914	9	752	1,951	$518	$1,634	$2,931
	1909	6	942	1,895	686	1,066	2,306
	1904	3	446	547	293	457	1,041
Pennsylvania	1914	8	156	122	111	186	352
	1909	11	341	205	193	339	597
	1904	12	94	128	52	130	250
All other states	1914	26	2,073	2,544	1,338	2,814	6,215
	1909	34	843	1,752	504	806	2,146
	1904	33	1,056	1,564	646	892	1,360

TABLE 16.—DETAIL STATISTICS FOR THE INDUSTRY, BY STATES: 1914.

STATE.	Number of establishments.	PERSONS ENGAGED IN THE INDUSTRY.								WAGE EARNERS DEC. 15, OR NEAREST REPRESENTATIVE DAY.					Capital.	EXPENSES.	
		Total.	Proprietors and firm members.	Salaried officers, superintendents, and managers.	Clerks, etc.		Wage earners.			Total.	16 and over.		Under 16.			Salaries and wages.	
					Male.	Female.	Average number.	Number, 15th day of— Maximum month.	Number, 15th day of— Minimum month.		Male.	Female.	Male	Female		Officials.	Clerks, etc.
United States	78	7,753	47	226	534	266	6,680	Fe 9,177	Se 4,333	6,706	6,531	135	38	2	$18,134,950	$539,187	$635,333
Illinois	13	1,015	7	19	58	20	911	Ap 1,405	Se 420	634	625	9	.....	.....	1,584,178	85,235	101,334
Indiana	4	241	3	10	18	7	203	Ap 314	Au 76	194	192	.....	2	.....	910,978	26,380	20,641
Massachusetts	6	2,484	1	69	187	92	2,135	Ja 3,511	Se 1,072	2,517	2,478	26	13	.....	7,183,011	152,800	163,778
New York	16	757	9	42	32	21	653	Ja 861	Se 445	590	590	.....	.....	.....	1,704,343	68,658	41,607
Ohio	9	891	4	29	72	34	752	Ap 1,007	Se 511	759	729	30	.....	.....	2,719,392	84,788	114,207
Pennsylvania	8	202	10	13	15	8	156	Ap 250	Au 77	126	125	1	.....	.....	340,292	13,760	13,583
All other states[1]	22	2,163	13	44	152	84	1,870	.....	.....	1,886	1,792	69	23	2	3,692,756	107,566	180,183

STATE.	EXPENSES—continued.						Value of products.	Value added by manufacture.	POWER.					
	Salaries and wages—Continued.		Rent and taxes.		For materials.				Primary horsepower.					Electric horsepower generated in establishments reporting.
	Wage earners.	For contract work.	Rent of factory.	Taxes, including internal revenue and corporation income.	Principal materials.	Fuel and rent of power.			Total.	Steam engines.[2]	Internal-combustion engines.[2]	Water wheels and motors.[2]	Electric (rented).	
United States	$4,738,750	$60,127	$100,413	$179,164	$10,678,434	$249,220	$22,234,262	$11,306,608	8,753	2,560	354	100	5,739	517
Illinois	750,977	243	60,852	9,425	2,225,313	35,019	4,064,739	1,804,407	1,041	100	2	.....	939	.....
Indiana	117,200	.....	.....	3,125	350,846	7,893	675,321	316,582	485	375	.....	.....	110	.....
Massachusetts	1,566,698	57,884	1,940	90,450	3,138,695	55,269	7,021,312	3,827,348	2,104	690	.....	100	1,314	195
New York	453,908	.....	8,716	6,302	808,133	31,754	1,649,744	809,857	991	275	121	.....	595	48
Ohio	517,741	.....	8,180	19,246	1,590,224	43,942	2,931,383	1,297,217	1,951	470	210	.....	1,271	40
Pennsylvania	110,524	.....	2,280	644	180,181	5,805	351,593	165,607	122	65	15	.....	42	.....
All other states[1]	1,221,702	2,000	18,445	49,972	2,385,042	69,538	5,540,170	3,085,590	2,059	585	6	.....	1,468	234

[1] All other states embrace: California, 3 establishments; Colorado, 2; Connecticut, 2; Iowa, 1; Michigan, 4; Minnesota, 3; New Jersey, 1; Wisconsin, 6.
[2] Owned power only.
[3] Includes rented power, other than electric.