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# CARRIAGES AND WAGONS

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## CARRIAGES AND WAGONS.

This report embraces establishments conducted on the factory system engaged in the manufacture of every variety of vehicle propelled by animal power for land transportation. It does not include statistics for children's carriages and sleds, bicycles and tricycles, automobiles and other horseless conveyances—except when made as subsidiary products—or for steam and street railroad cars.

The census of 1890 was the first at which establishments engaged in the manufacture of the factory product were segregated from those engaged chiefly in custom and repair work and shown in a separate table, distinct from the totals for the regular classification.

In order that the statistics for the census of 1900 might be strictly comparable with those for 1890 and 1905, a revision was made by which reports for 1,428 establishments, representing capital of \$8,311,953 and products of \$8,302,686, were eliminated. These reports represented practically all the carriage and wagon custom work and repairing plants, classified under "carriages and wagons" in 1900, and all the plants showing an entire or preponderating product of automobiles. The schedules for the latter were separately compiled to show elsewhere comparative figures for the classification of "automobiles," used for the first time at the census of 1905.

Table 1 is a comparative summary of the statistics for carriages and wagons, factory product, as returned at the censuses of 1890, 1900, and 1905, with percentages of increase.

The figures given for the census of 1905 show a substantial increase over those for 1900, with the single exception of number of establishments; this item is diminished by 1,248, or 20.1 per cent. The decrease is due in part to the fact that it was impossible to eliminate from the statistics for 1900 all the reports for establishments of the character excluded from the factory census of 1905.

The average number of wage-earners increased only 3.4 per cent from 1890 to 1900, while the total wages paid actually decreased 4.8 per cent, but at the census of 1905 these items showed increases of 3.9 per cent and 12 per cent, respectively. The cost of materials used increased 13.9 per cent from 1900 to 1905, and

the increase shown in total value of products was 10.7 per cent.

TABLE 1.—Comparative summary, with per cent of increase: 1890 to 1905.

	CENSUS.			PER CENT OF INCREASE.	
	1905 <sup>1</sup>	1900	1890	1900 to 1905	1890 to 1900
Number of establishments	4,956	6,204	4,572	20.1	35.7
Capital	\$126,320,604	\$109,875,885	\$93,455,257	15.0	17.6
Salaried officials, clerks, etc., number	5,058	4,003	<sup>3</sup> 6,069	26.4	<sup>2</sup> 34.0
Salaries	\$5,239,043	\$3,756,915	<sup>3</sup> \$5,715,426	39.5	<sup>2</sup> 34.3
Wage-earners, average number	60,722	58,425	56,525	3.9	3.4
Total wages	\$30,878,229	\$27,578,046	\$28,972,401	12.0	<sup>2</sup> 4.8
Men 16 years and over	53,411	57,209	55,403	3.8	3.3
Wages	\$30,525,515	\$27,264,021	\$28,702,169	12.0	<sup>2</sup> 5.0
Women 16 years and over	870	840	615	3.6	36.6
Wages	\$266,674	\$248,071	\$180,195	7.5	37.7
Children under 16 years	441	376	507	17.3	<sup>2</sup> 25.8
Wages	\$86,040	\$65,954	\$90,037	30.5	<sup>2</sup> 26.7
Miscellaneous expenses	\$10,182,614	\$5,800,687	\$5,405,271	75.5	5.6
Cost of materials used	\$61,215,228	\$53,723,311	\$46,022,769	13.9	16.7
Value of products, including amount received for repair work	\$125,332,976	\$113,234,590	\$102,680,941	10.7	10.3

<sup>1</sup> Exclusive of the statistics of 35 establishments engaged primarily in the manufacture of other products. These establishments made carriages and wagons to the value of \$612,173.

<sup>2</sup> Decrease.

<sup>3</sup> Includes proprietors and firm members and their salaries; number only reported in 1900 and 1905, but not included in this table.

*The industry, by states and territories.*—Table 2 is a comparative summary for the industry, by states and territories and geographic divisions, 1900 and 1905.

By far the larger part of the carriage and wagon industry was concentrated in the North Central division. At the census of 1905 this division contained 60 per cent of the total capital invested, 51.5 per cent of the wage-earners, 50.2 per cent of the wages, and 58 per cent of the value of products. Indiana and Illinois were the only states showing important increases.

The North Atlantic division ranked next to the North Central, with 26.3 per cent of the capital for the whole country, 30.9 per cent of the wage-earners, 33.8 per cent of the wages, and 25.6 per cent of the value of products. Of the separate states all reported a general decline except Maine, New York, and Pennsylvania.

## MANUFACTURES.

TABLE 2.—COMPARATIVE SUMMARY, BY STATES, TERRITORIES, AND GEOGRAPHIC DIVISIONS: 1905 AND 1900.

STATE OR TERRITORY.	Census.	Number of establishments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		WAGE-EARNERS AND WAGES.		Miscellaneous expenses.	Cost of materials used.	Value of products, including amount received for repair work.
				Number.	Salaries.	Average number.	Wages.			
United States.....	1905 1900	4,950 6,204	\$126,320,604 109,875,885	5,058 4,003	\$5,239,043 3,756,915	60,722 58,425	\$30,878,229 27,578,046	\$10,182,614 5,800,687	\$61,215,228 53,723,311	\$125,332,076 113,234,560
North Atlantic division.....	1905 1900	2,022 2,453	33,258,486 33,877,100	1,117 965	1,228,223 917,560	18,760 18,375	10,421,971 9,850,301	2,657,271 1,793,829	12,683,572 12,913,510	32,133,860 32,744,207
Maine.....	1905 1900	154 147	600,704 575,350	14 16	11,409 10,100	451 331	243,578 168,899	44,061 23,996	392,280 264,076	937,644 600,009
New Hampshire.....	1905 1900	39 53	814,372 1,049,245	16 24	20,650 22,458	382 496	229,024 260,111	36,146 268,192	195,851 268,192	565,944 722,118
Vermont.....	1905 1900	32 57	214,301 315,663	1 3	1,000 1,275	108 186	58,825 91,364	8,353 12,836	54,816 98,442	163,756 284,525
Massachusetts.....	1905 1900	280 310	3,813,839 4,912,227	120 120	109,140 89,816	2,232 2,691	1,367,349 1,411,282	336,954 280,740	1,656,271 2,173,458	4,179,724 5,031,804
Rhode Island.....	1905 1900	39 49	328,684 361,311	8 12	6,756 8,612	228 260	140,218 170,490	10,086 25,553	110,627 186,887	369,870 520,734
Connecticut.....	1905 1900	96 114	2,087,840 2,726,836	82 57	110,508 66,010	1,372 1,289	690,185 841,986	104,042 96,718	666,068 831,970	1,969,483 2,302,881
New York.....	1905 1900	590 745	13,962,721 13,253,897	460 428	604,819 461,819	6,789 6,548	3,936,624 3,652,432	1,313,204 829,785	5,008,143 4,888,694	12,573,148 12,261,863
New Jersey.....	1905 1900	200 238	2,545,445 2,567,853	76 74	86,541 68,460	1,638 1,599	960,903 875,259	101,970 139,769	1,036,002 1,100,936	2,813,534 2,972,212
Pennsylvania.....	1905 1900	601 740	8,830,520 8,160,688	310 231	277,310 189,020	5,509 4,945	2,794,365 2,378,478	603,455 345,121	3,557,514 3,100,855	8,620,787 7,958,061
South Atlantic division.....	1905 1900	533 677	7,356,888 4,508,229	304 154	285,291 123,364	5,260 3,945	2,055,181 1,414,332	489,003 209,030	4,717,249 2,510,719	9,303,867 5,861,649
Delaware.....	1905 1900	21 22	264,783 397,163	8 11	5,260 9,506	137 205	68,992 96,263	15,504 17,155	102,352 101,847	228,830 281,896
Maryland.....	1905 1900	111 160	898,874 589,208	31 17	17,966 11,256	774 624	347,236 249,954	63,496 30,766	487,231 281,701	1,143,463 791,571
District of Columbia.....	1905 1900	6 5	50,117 42,350	1 1	1,560 780	52 42	25,249 19,050	4,873 1,963	21,776 16,567	75,265 54,200
Virginia.....	1905 1900	92 144	1,615,715 1,098,037	70 33	61,226 30,805	1,046 756	372,490 304,075	81,938 61,581	1,029,976 591,336	1,913,530 1,370,824
West Virginia.....	1905 1900	34 49	313,614 311,290	18 7	16,375 6,576	221 240	113,032 105,345	20,826 10,745	210,452 166,703	443,291 379,098
North Carolina.....	1905 1900	125 157	2,010,457 860,683	64 29	59,628 19,257	1,373 799	481,528 286,230	109,190 30,042	1,229,396 520,814	2,304,065 1,055,292
South Carolina.....	1905 1900	35 56	502,243 313,698	16 14	20,480 12,060	346 340	118,280 90,655	28,441 15,414	289,740 206,414	548,226 414,052
Georgia.....	1905 1900	75 104	1,508,958 824,933	87 39	96,786 31,024	1,115 808	426,484 256,511	137,456 44,341	1,222,149 533,931	2,363,196 1,316,967
Florida.....	1905 1900	31 31	222,127 130,927	9 3	6,010 2,100	196 131	101,860 56,240	27,279 91,346	124,177 91,346	344,481 198,219
North Central division.....	1905 1900	1,831 2,371	75,836,912 64,283,824	3,232 2,596	3,315,467 2,453,645	31,292 31,229	15,511,413 14,139,433	6,181,307 3,398,375	38,740,019 34,572,658	72,614,891 66,174,777
Ohio.....	1905 1900	348 449	12,980,183 11,983,270	741 670	707,490 570,537	6,708 7,129	3,335,551 3,290,195	1,481,585 793,896	8,437,352 8,153,691	16,096,125 15,616,926
Indiana.....	1905 1900	188 262	22,276,315 17,664,364	796 596	808,928 580,862	7,156 6,425	3,254,027 2,727,020	1,173,980 671,743	8,598,170 6,957,203	15,228,337 12,661,217
Illinois.....	1905 1900	290 335	10,838,860 8,463,226	401 302	466,781 317,505	4,186 3,979	2,320,141 1,954,910	844,469 467,048	4,885,773 4,002,145	9,798,965 8,275,639
Michigan.....	1905 1900	183 247	9,264,693 7,876,005	514 401	493,523 352,498	4,688 4,859	2,246,493 2,014,892	933,855 491,740	7,005,109 6,589,442	12,101,170 11,119,836
Wisconsin.....	1905 1900	311 371	9,751,420 8,271,091	246 217	276,385 246,400	3,506 3,360	1,724,017 1,604,743	644,000 363,032	3,725,358 3,309,766	7,511,362 6,839,963
Minnesota.....	1905 1900	134 176	2,159,885 1,822,926	74 50	179,516 49,724	872 1,055	424,777 456,447	135,948 102,110	781,727 867,193	1,715,858 1,630,745
Iowa.....	1905 1900	97 110	3,107,725 3,888,225	175 140	176,050 112,704	1,103 1,584	528,016 666,450	424,778 234,336	1,479,085 1,792,935	2,674,043 3,728,027
Missouri.....	1905 1900	222 346	4,876,917 3,937,371	260 186	285,791 207,065	2,636 2,524	1,477,540 1,274,012	490,140 244,890	3,587,478 2,686,598	6,551,150 5,477,151
North Dakota <sup>1</sup> .....	1900	11	38,510	.....	.....	22	11,336	1,511	17,207	39,289
South Dakota.....	1905 1900	3 9	54,415 43,750	2	2,000	19	12,528 13,532	2,010 1,606	9,903 20,491	31,119 48,895
Nebraska.....	1905 1900	17 24	262,933 121,859	11 7	8,823 6,370	144 165	83,155 58,034	24,252 11,559	113,340 66,802	285,984 194,557
Kansas.....	1905 1900	38 31	324,166 173,227	12 18	9,280 9,980	214 161	105,168 67,862	26,290 14,904	116,724 99,095	320,768 242,532

<sup>1</sup> Included in "not distributed by states or divisions" in 1905.

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TABLE 2.—COMPARATIVE SUMMARY, BY STATES, TERRITORIES, AND GEOGRAPHIC DIVISIONS: 1905 AND 1900—Continued.

STATE OR TERRITORY.	Census.	Number of establishments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		WAGE-EARNERS AND WAGES.		Miscellaneous expenses.	Cost of materials used.	Value of products, including amount received for repair work.
				Number.	Salaries.	Average number.	Wages.			
South Central division.....	1905 1900	294 407	\$7,422,971 5,138,868	324 219	\$330,966 198,521	3,951 3,520	\$1,821,069 1,380,067	\$625,231 269,809	\$3,831,851 2,687,992	\$7,854,827 5,711,824
Kentucky.....	1905 1900	102 143	4,225,145 3,075,823	163 122	163,350 116,935	1,812 1,669	800,331 621,904	354,043 143,736	2,080,687 1,496,001	4,050,438 2,840,713
Tennessee.....	1905 1900	59 71	1,445,350 759,057	83 43	94,346 44,462	917 607	416,682 253,336	122,837 42,030	898,447 508,378	1,774,725 1,093,782
Alabama.....	1905 1900	23 41	558,163 380,966	28 24	28,021 15,985	370 401	161,399 126,917	77,199 40,417	369,470 226,680	720,282 544,602
Mississippi.....	1905 1900	12 20	303,120 91,175	17 4	17,244 3,500	171 107	74,953 41,897	16,045 3,132	96,491 42,804	230,566 129,610
Louisiana.....	1905 1900	40 41	236,770 260,012	11 13	10,576 8,359	293 285	159,317 119,386	17,862 12,360	151,365 128,350	436,434 359,506
Arkansas.....	1905 1900	16 26	314,919 160,873	12 5	8,373 2,300	134 134	60,898 48,847	12,872 7,150	70,219 94,495	189,914 197,423
Oklahoma.....	1905 1900	8 7	53,090 24,500	1	520	43 27	23,407 9,142	3,140 685	26,008 10,771	66,921 37,445
Texas.....	1905 1900	34 58	285,514 386,462	9 8	8,536 6,989	211 200	124,082 158,668	21,224 20,290	130,164 180,313	367,547 505,743
Western division.....	1905 1900	271 263	2,387,317 2,004,699	80 69	77,296 63,793	1,425 1,353	1,054,390 791,359	225,577 129,372	1,225,184 1,053,117	3,381,756 2,730,688
Montana.....	1905 1900	6 7	60,258 63,890	6 4	6,090 4,080	23 30	10,900 31,118	5,530 5,719	37,369 32,433	107,060 100,560
Wyoming <sup>1</sup> .....	1900	7	22,890	1	1,800	18	10,260	1,366	29,227	65,485
Colorado.....	1905 1900	35 40	262,888 292,871	9 11	8,900 10,960	177 174	129,557 120,205	21,262 18,044	132,648 138,825	370,368 384,994
New Mexico.....	1905 1900	4 3	61,050 21,750	2	1,920	26 11	19,947 6,200	1,201 1,193	27,364 5,830	65,850 19,100
Arizona <sup>1</sup> .....	1900	4	47,350	4	1,180	22	14,848	1,257	11,438	40,210
Utah.....	1905 1900	3 4	2,950 28,674	7	1,000	8 34	5,675 13,950	702 1,525	4,315 21,978	12,300 53,693
Washington.....	1905 1900	25 25	230,418 97,860	12 8	10,768 8,800	201 132	158,200 88,901	21,503 9,400	188,314 110,219	482,263 283,218
Oregon.....	1905 1900	14 19	93,595 70,451	4 2	1,033 200	52 56	36,209 35,286	5,940 4,972	45,761 43,039	114,429 112,699
California.....	1905 1900	184 184	1,676,158 1,358,854	47 32	48,673 35,775	938 876	684,812 470,591	169,439 85,896	789,413 642,130	2,220,486 1,670,729
Not distributed by states or divisions.....	<sup>2</sup> 1905 <sup>3</sup> 1900	5 3	28,030 3,265	1	1,800	25 3	14,295 2,524	4,225 272	17,353 3,315	43,745 11,445

<sup>1</sup> Included in "not distributed by states or divisions" in 1905.

<sup>2</sup> Includes establishments distributed as follows: Arizona, 1; Indian Territory, 1; Nevada, 1; North Dakota, 1; Wyoming, 1.

<sup>3</sup> Includes establishments distributed as follows: Indian Territory, 1; Nevada, 2.

The Southern states, though still forming relatively small proportions of the total, showed substantial increases. The two divisions into which they were grouped were nearly equal in importance. The South Atlantic was in the lead with 7.4 per cent of the total value of products against 6.3 per cent for the South Central. The gain in the South Atlantic division was mainly due to the large increase in North Carolina, while more than half the increase in the South Central division was credited to Kentucky.

The figures for the Western division are relatively small, and the substantial gains in the various items are not sufficient to cause any material change in the percentages of the totals compared with 1900. California, Oregon, Washington, Montana, and New Mexico show a gain in value of products, the other states showing losses.

In value of products, Ohio was the leading state at

the censuses of both 1900 and 1905. At the later census this value was 12.8 per cent of the total output, as against 13.8 per cent of the total for 1900. Indiana, New York, Michigan, and Illinois came next, in the order named, at both censuses, with 11.2, 10.8, 9.8, and 7.3 per cent, respectively, of the total value in 1900; and 12.2, 10, 9.7, and 7.8 per cent at the census of 1905. Relatively, Indiana and Illinois alone advanced, Michigan about holding its own and New York losing ground.

Five states showed an increase of over \$1,000,000 between 1900 and 1905, Indiana, Illinois, North Carolina, Kentucky, and Missouri, in the order named. Wisconsin reported an increase of less than \$700,000. Georgia ranked next to the 5 states mentioned with \$986,199, or more than double the increase for Ohio, the state first in rank according to total value. The percentages of increase in these states were also nota-

ble—20.3 for Indiana, 18.4 for Illinois, 118.3 for North Carolina, 42.5 for Kentucky, 19.6 for Missouri, and 74.9 for Georgia. Ohio's increase was only 3.1 per cent.

An examination of the figures for wage-earners and wages shows that of the 15 leading states, according to value of products, 4 reported fewer wage-earners at the census of 1905 than in 1900. The states showing these losses were: Iowa, 481, or 30.4 per cent; Massachusetts, 459, or 17.1 per cent; Ohio, 361, or 5.1 per cent; and Michigan, 171, or 3.5 per cent. Of the states showing gains, Indiana reported the largest, 731, or 11.4 per cent, rising from third to first place; Pennsylvania was second with 624, or 12.6 per cent; North Carolina and Georgia were next with 574 and 307, or 71.8 and 38 per cent, respectively.

*The industry in cities.*—Of the total number of establishments in the United States reported at the census of 1905 as engaged in the manufacture of carriages and wagons, 1,914, or 38.6 per cent, were located in 195 of the 213 cities having a population in 1900 of at least 20,000. The capital invested in these establishments was \$73,925,124, or 58.5 per cent; the salaries, \$3,143,805, or 60 per cent; the wages, \$18,466,168, or 59.8 per cent; the cost of materials used, \$33,563,701, or 54.8 per cent; and the value of products, \$70,212,541, or 56 per cent of the corresponding totals for the United States.

There are 16 cities with a population of 20,000 and over in 1900, in each of which carriages and wagons valued at more than \$1,000,000 were manufactured as reported at the census of 1905. These in order of rank were: Cincinnati, Ohio; St. Louis, Mo.; South Bend, Ind.; New York, N. Y.; Chicago, Ill.; Racine, Wis.; Columbus, Ohio; Indianapolis, Ind.; Philadelphia, Pa.; Louisville, Ky.; Jackson, Mich.; Rochester, N. Y.; Kalamazoo, Mich.; Toledo, Ohio; Watertown, N. Y.; and Detroit, Mich. Products valued at \$42,598,640, or 34 per cent of the total, were manufactured in these 16 cities. There were also a number of smaller cities in which a product in excess of \$1,000,000 was reported. These are Flint and Pontiac, Mich.; Moline, Ill.; Connersville, Ind.; Owensboro, Ky.; and Stoughton, Wis.

*Materials used.*—Table 3 gives separately the cost, and, for some items, the quantity of the principal materials used at the last two censuses, together with percentages of increase.

Perhaps the most striking feature of the table is the decrease in the cost of iron and steel, but the extent of the decrease is more apparent than real, for in 1900 gears were not reported separately, being included with iron and steel. For 1905 there was also a closer segregation from iron and steel, of carriage hardware, lamps, and mountings, which assisted in the large gain in cost for the latter group of 52.6 per cent. The cost of lumber, which ranked with iron and steel as the most important material used in the industry, in-

creased \$1,650,187, or 19 per cent. The increase of \$558,094, or 27 per cent, in the cost of rubber tires indicates the steadily increasing demand for those parts.

TABLE 3.—Materials used, by kind, quantity, and cost, with per cent of increase: 1905 and 1900.

KIND.	CENSUS.		Per cent of increase.
	1905	1900	
Total cost .....	\$61,215,228	\$53,723,311	13.9
Lumber .....	\$10,338,003	\$8,037,810	19.0
Iron and steel .....	\$9,864,548	\$11,335,085	13.1
Carriage hardware, lamps, and mountings .....	\$5,219,968	\$3,420,671	52.6
Paints, oils, turpentine, and varnish .....	\$3,900,273	\$3,387,399	0.3
Enamel, rubber, and other carriage cloth .....	\$3,398,921	\$3,001,613	11.0
Leather .....	\$3,867,480	\$3,443,639	12.3
Rubber tires .....	\$2,626,889	\$2,068,795	27.0
Carriage bodies, purchased:			
Number .....	485,879	441,396	10.1
Cost .....	\$2,059,426	\$1,635,601	25.9
Gears, purchased:			
Number .....	126,082	( <sup>2</sup> )	.....
Cost .....	\$502,489	( <sup>2</sup> )	.....
Wagon bodies, purchased:			
Number .....	32,319	24,915	29.7
Cost .....	\$208,068	\$159,706	30.2
Tops, purchased:			
Number .....	22,426	38,483	141.7
Cost .....	\$168,922	\$270,266	137.5
Wheels, purchased:			
Number .....	3,628,880	3,594,573	1.0
Cost .....	\$5,863,931	\$5,205,729	12.6
Axles and springs, purchased .....	\$4,400,769	\$4,400,955	1.4
Fuel .....	\$1,175,635	\$918,810	27.9
Rent of power and heat .....	\$180,470	\$83,493	116.1
All other materials, including mill supplies and freight .....	\$7,330,066	\$5,142,713	42.5

<sup>1</sup> Decrease.

<sup>2</sup> Not reported separately.

*Products.*—Table 4 shows separately the kind, quantity, and value of the different products as reported at the censuses of 1900 and 1905, with percentages of increase. The classification is based on the character of the vehicle and its proposed use. The item "all other products" includes the value of parts manufactured other than those that were components of the finished vehicles; the value of all subsidiary products, except that of automobiles, which is given separately; and the amount received for repair work.

TABLE 4.—Products, by kind, quantity, and value, with per cent of increase: 1905 and 1900.

KIND.	CENSUS.		Per cent of increase.
	1905	1900	
Total value .....	\$125,332,976	\$113,234,590	10.7
Family and pleasure carriages:			
Number .....	937,409	904,638	3.6
Value .....	\$55,760,276	\$51,295,393	8.7
Public conveyances:			
Number .....	2,711	2,218	22.2
Value .....	\$1,314,952	\$1,114,000	18.0
Wagons (business, farm, government, municipal, etc.):			
Number .....	643,755	570,428	12.9
Value .....	\$37,195,230	\$31,080,738	19.7
Sleighs and sleds:			
Number .....	127,455	117,006	8.9
Value .....	\$2,694,560	\$2,290,903	17.6
Automobiles:			
Number .....	199	174	14.4
Value .....	\$235,675	\$129,053	82.6
All other products .....	\$28,142,283	\$27,324,413	3.0
Carriage bodies, number <sup>1</sup> .....	8,676	12,735	31.9
Wagon bodies, number <sup>1</sup> .....	8,855	8,909	0.5
Wheels, number <sup>1</sup> .....	389,266	148,158	162.7

<sup>1</sup> Value included in "all other products."

<sup>2</sup> Decrease.

For family and pleasure carriages an increase of 32,770, or 3.6 per cent, is shown in number, and of

# CARRIAGES AND WAGONS.

\$4,454,883, or 8.7 per cent, in value. The value reported for 1905 was 44.5 per cent of the total, a falling off of eight-tenths of 1 per cent. The average value was \$57 for 1900 and \$59 at the census of 1905. Wagons, which were the second largest class of products at both censuses, increased 73,327, or 12.9 per cent in number and \$6,114,492, or 19.7 per cent, in value. The average value rose from \$54 for 1900 to \$58 for 1905. The automobiles shown are the few that were manufactured as a subsidiary product. The number of carriage bodies reported as manufactured for sale at the census of 1905 decreased 31.9 per cent and the

number of wagon bodies five-tenths of 1 per cent. The number of wheels, however, increased 241,108, or 162.7 per cent. Deducting the value of "all other products" from the gross value for each of the two censuses, as shown in Table 4, a value of \$97,190,693 results for 1905 and \$85,910,177 for 1900. These figures represent the value of the finished vehicles reported at the two censuses and show an increase of \$11,280,516, or 13.1 per cent.

Table 5 is a comparative summary of products for 1900 and 1905, by kind, quantity, and value, arranged by states and territories.

TABLE 5.—PRODUCTS, BY KIND, QUANTITY, AND VALUE—COMPARATIVE SUMMARY, BY STATES AND TERRITORIES: 1905 AND 1900.

STATE OR TERRITORY.	Census.	Total value.	FAMILY AND PLEASURE CARRIAGES.		PUBLIC CONVEYANCES.		WAGONS (BUSINESS, FARM, ETC.).		SLEIGHS AND SLEDS.		All other products, including amount received for repair work (value).
			Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	
United States.....	1905	\$125,332,976	937,409	\$55,750,276	2,711	\$1,314,952	643,755	\$37,195,230	127,455	\$2,694,560	\$28,377,958
	1900	113,234,590	904,630	51,295,393	2,218	1,114,090	570,428	31,080,738	117,006	2,290,903	27,453,466
Alabama.....	1905	720,282	504	36,657	2	490	12,512	527,987			155,148
	1900	644,602	924	49,513	5	1,140	9,523	368,115			125,834
Arizona.....	1900	40,210	17	2,300			47	6,575			31,335
Arkansas.....	1905	189,914	35	2,045			1,625	102,736			85,133
	1900	197,423	800	55,828			1,149	71,355			70,240
California.....	1905	2,220,486	2,160	216,250	42	18,454	3,045	502,503	13	431	1,482,848
	1900	1,670,729	2,418	284,073	61	21,046	2,325	311,694	21	501	1,053,415
Colorado.....	1905	379,368	203	25,100			750	113,354	43	1,990	238,924
	1900	384,994	153	22,190			1,001	107,550	22	1,618	253,636
Connecticut.....	1905	1,909,483	2,381	753,306	179	153,875	1,944	224,365	383	18,643	759,294
	1900	2,302,881	2,940	1,013,179	170	115,450	1,427	142,074	207	12,016	1,019,262
Delaware.....	1905	228,350	1,219	104,663	1	200	695	57,312	3	38	66,137
	1900	281,396	1,150	138,131	3	450	1,224	78,656	3	85	69,074
District of Columbia.....	1905	75,265					99	22,165			53,100
	1900	54,200	3	725			74	14,950			38,525
Florida.....	1905	344,481	415	29,200	12	2,350	2,652	125,810			187,121
	1900	198,219	362	20,074	42	9,115	1,602	72,100			90,930
Georgia.....	1905	2,303,196	20,919	1,210,122	39	4,825	18,848	794,491			293,758
	1900	1,316,997	7,509	522,960	29	7,575	11,443	467,426			319,036
Illinois.....	1905	9,798,965	56,075	3,730,173	70	19,705	72,033	4,027,545	5,007	48,293	1,973,249
	1900	8,275,639	50,979	3,101,224	40	30,640	56,364	3,138,928	1,890	21,330	1,083,517
Indiana.....	1905	15,228,337	178,962	9,694,829	63	11,180	92,893	4,288,664	1,378	27,149	1,204,515
	1900	12,061,217	141,734	6,959,897	64	13,065	94,224	4,359,603	3,834	52,554	1,275,558
Iowa.....	1905	2,974,043	16,498	1,113,064	98	8,250	22,815	1,420,015	2,766	46,187	380,527
	1900	3,728,027	20,593	1,423,128	80	28,800	31,473	1,635,798	4,020	68,247	572,056
Kansas.....	1905	320,768	533	29,446	16	3,805	1,004	117,878			169,639
	1900	242,532	1,001	66,041	26	4,070	995	58,405	20	300	113,716
Kentucky.....	1905	4,059,438	27,195	1,302,914	1	225	40,266	2,332,327	4	41	423,031
	1900	2,840,713	11,784	654,024	25	2,295	39,362	1,661,307	87	1,188	536,839
Louisiana.....	1905	436,434	89	12,514	4	600	1,246	148,484			274,836
	1900	359,506	283	28,205	2	800	1,377	121,046	40	400	209,055
Maine.....	1905	937,644	2,802	272,244			1,764	154,989	2,802	117,075	393,336
	1900	696,009	2,294	268,094	3	1,360	1,172	87,015	2,315	93,944	239,606
Maryland.....	1905	1,143,463	2,945	291,881	8	2,025	1,840	225,360	62	1,909	622,288
	1900	791,571	3,091	256,292	11	3,120	1,144	173,187	80	1,385	357,617
Massachusetts.....	1905	4,179,724	8,106	1,480,339	142	113,760	3,278	665,678	1,062	79,824	1,900,123
	1900	5,031,804	11,883	1,886,987	310	210,700	3,944	623,303	870	80,206	2,230,608
Michigan.....	1905	12,101,170	174,889	7,784,444	120	116,026	52,273	2,352,958	53,180	977,822	869,920
	1900	11,119,836	193,254	7,425,754			49,903	2,049,460	51,149	846,765	797,857
Minnesota.....	1905	1,715,858	3,662	232,282	4	615	15,059	790,200	10,063	169,830	522,841
	1900	1,030,745	6,361	349,340	12	3,322	16,924	825,777	7,530	137,552	614,754
Mississippi.....	1905	239,566					2,012	171,535			68,031
	1900	123,610	195	8,650	3	400	883	45,685			68,875
Missouri.....	1905	6,551,130	74,650	3,826,342	58	4,445	25,281	1,507,225	6	153	1,212,965
	1900	5,477,151	52,823	2,707,118	88	24,550	24,621	1,392,102	170	3,204	1,260,177
Montana.....	1905	107,060	17	2,350			37	9,710			95,000
	1900	100,500	10	1,005	1	500	129	19,883	2	75	79,097

<sup>1</sup>Included in "all other states" in 1905.

## MANUFACTURES.

TABLE 5.—PRODUCTS, BY KIND, QUANTITY, AND VALUE—COMPARATIVE SUMMARY, BY STATES AND TERRITORIES: 1905 AND 1900—Continued.

STATE OR TERRITORY.	Census.	Total value.	FAMILY AND PLEASURE CARRIAGES.		PUBLIC CONVEYANCES.		WAGONS (BUSINESS, FARM, ETC.).		SLEIGHS AND SLEDS.		All other products, including amount received for repair work (value).
			Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	
Nebraska.....	1905	\$285,984	103	\$18,637	6	\$1,900	916	\$72,644	2	\$60	\$192,743
	1900	194,557	449	41,770	3	1,150	203	19,889	4	125	131,623
New Hampshire.....	1905	595,944	1,943	103,657	3	600	1,188	219,923	694	33,141	149,223
	1900	722,118	2,240	217,551	3	600	2,394	288,306	924	37,197	178,464
New Jersey.....	1905	2,813,534	3,341	492,810	127	25,365	5,647	779,351	228	10,466	1,505,542
	1900	2,972,212	6,944	806,297	28	16,430	7,589	800,243	600	11,101	1,338,141
New Mexico.....	1905	65,850	38	3,500	21	2,350	140	12,480	.....	.....	47,520
	1900	19,100	18	1,820	.....	.....	88	6,280	.....	.....	11,000
New York.....	1905	12,573,148	42,249	4,550,893	742	518,469	19,879	2,448,670	19,433	592,768	4,462,348
	1900	12,261,863	58,176	4,939,609	656	489,142	22,775	2,186,935	14,500	412,075	4,234,102
North Carolina.....	1905	2,304,065	25,157	1,302,259	67	7,390	23,553	773,302	5	45	221,129
	1900	1,055,292	9,447	498,953	26	4,615	12,316	362,186	13	748	188,790
North Dakota <sup>1</sup> .....	1900	39,289	60	3,870	.....	.....	30	2,000	65	1,538	31,881
Ohio.....	1905	16,096,125	199,428	11,373,346	217	107,141	40,905	2,703,566	8,479	52,166	1,850,906
	1900	15,616,926	213,692	11,257,362	41	16,000	44,315	2,556,063	3,555	25,761	1,761,740
Oklahoma.....	1905	66,921	65	6,430	1	120	68	8,236	.....	.....	52,135
	1900	37,445	79	5,765	6	1,000	29	2,775	1	10	27,895
Oregon.....	1905	114,429	56	3,480	31	2,775	142	35,655	16	320	72,199
	1900	112,699	148	16,994	4	425	146	15,050	4	90	80,230
Pennsylvania.....	1905	8,626,787	33,467	2,355,043	333	117,693	35,395	2,839,372	5,551	150,461	3,158,818
	1900	7,958,061	41,400	2,816,780	141	27,645	27,138	2,161,435	5,509	118,449	2,833,752
Rhode Island.....	1905	369,870	40	4,690	1	177	481	59,682	163	5,695	290,656
	1900	529,734	339	51,385	6	600	942	101,835	146	7,335	359,579
South Carolina.....	1905	548,226	7,440	353,509	2	300	1,569	55,707	.....	.....	138,658
	1900	414,052	5,035	236,058	4	500	1,804	63,593	.....	.....	111,901
South Dakota.....	1905	31,119	15	1,555	1	150	47	5,830	9	184	23,400
	1900	48,865	52	4,255	3	1,200	70	8,190	12	170	35,060
Tennessee.....	1905	1,774,725	5,374	356,469	168	27,212	20,241	969,913	.....	.....	430,131
	1900	1,093,782	1,820	162,305	124	17,530	11,600	584,693	.....	.....	329,254
Texas.....	1905	367,547	100	11,425	.....	.....	718	76,349	.....	.....	279,773
	1900	505,743	750	56,915	22	9,475	1,050	90,330	.....	.....	349,023
Utah.....	1905	12,300	2	70	1	130	26	3,565	2	50	8,485
	1900	53,693	57	4,170	21	2,250	246	18,060	150	4,050	25,163
Vermont.....	1905	163,756	169	14,180	.....	.....	652	49,750	278	11,771	88,055
	1900	284,525	487	40,519	.....	.....	1,157	71,867	772	19,103	153,036
Virginia.....	1905	1,913,530	19,366	970,502	28	3,690	19,195	652,567	6	90	286,681
	1900	1,370,824	12,941	640,182	39	11,100	9,638	364,099	12	230	355,213
Washington.....	1905	482,263	125	13,575	.....	.....	804	159,505	501	4,225	304,958
	1900	283,218	367	27,785	3	1,300	446	61,155	956	6,060	186,918
West Virginia.....	1905	443,291	1,180	80,550	3	200	5,117	231,784	10	182	130,575
	1900	379,098	1,238	99,335	12	2,300	3,702	150,945	22	385	126,133
Wisconsin.....	1905	7,511,392	23,466	1,520,841	103	39,720	83,916	4,396,693	15,365	343,500	1,210,629
	1900	6,839,963	36,323	2,022,608	101	31,900	70,210	3,308,455	17,461	325,106	1,151,894
Wyoming <sup>1</sup> .....	1900	65,485	29	4,200	.....	.....	139	26,050	.....	.....	35,235
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
All other states.....	1905	43,745	26	2,660	.....	.....	170	20,305	1	42	20,738
	1900	11,445	47	4,295	.....	.....	5	350	.....	.....	6,800

<sup>1</sup> Included in "all other states" in 1905.<sup>2</sup> Includes states as follows: Arizona, Indian Territory, Nevada, North Dakota, Wyoming.<sup>3</sup> Includes states as follows: Indian Territory, Nevada.

In family and pleasure carriages, Ohio ranked first at the census of 1900, having produced 23.6 per cent of the number and 21.9 per cent of the value for the whole country. At the census of 1905, although still ranking first, the state produced only 21.3 per cent of the number and 20.4 per cent of the value. There was an absolute decline in number of 14,264, or 6.7 per cent, but an absolute increase in value of \$115,984, or 1 per cent. Indiana reported a marked gain, advancing from third place in 1900 to second at the cen-

sus of 1905, with an increase of 37,228, or 26.3 per cent, in number and of \$2,734,932, or 39.3 per cent, in value.

Michigan ranked next to Indiana, with which it exchanged places during the intercensal period, but, like Ohio, showed a decrease in number, this decrease being 18,365, or 9.5 per cent, although there was a gain of \$358,690, or 4.8 per cent, in value. Approximately three-fifths of the number and one-half of the value of family and pleasure carriages made were reported from these states at both censuses.

New York led in the number of public conveyances manufactured, with 27.4 per cent of the entire number reported at the census of 1905 and 29.6 per cent of that reported for 1900. The value for 1905 was \$518,469, or 39.4 per cent of the total. Massachusetts was second for 1900, but Connecticut took its place at the census of 1905, with a value of \$153,875. Michigan, which reported no public conveyances for 1900, reported 120, with a value of \$116,026, at the census of 1905. Ohio and Pennsylvania showed large gains.

At each census the greatest number of wagons was manufactured in Indiana—14.4 per cent of the total at the census of 1905 and 16.5 per cent at the census of 1900. The reduced output reported for 1905 was due to a loss of 38.7 per cent in number of business wagons built, which more than counterbalanced the increase in farm wagons and in government and municipal wagons. The state also held first rank in farm wagons, with 15.5 per cent at the census of 1905 and 16.6 per cent for 1900.

Wisconsin was second at both censuses, the number reported for 1905 being a gain of 13,706, or 19.5 per cent. The value increased \$1,088,238, or 32.9 per cent.

Two other states that occupied important positions in the manufacture of wagons were Illinois and Michigan. The total number built in the former state increased 15,669, or 27.8 per cent; in the latter state, 2,370, or 4.8 per cent. The increases in value were \$888,617, or 28.3 per cent, in Illinois, and \$303,498, or 14.8 per cent, in Michigan.

At the census of 1905 Michigan ranked first in the manufacture of sleighs and sleds, with an output of 41.7 per cent of the total number and 36.3 per cent of the total value. The increase in number was 2,031, or 4 per cent; and in value \$131,057, or 15.5 per cent. New York ranked second at the census of 1905 with 15.2 per cent of the number and 22 per cent of the value. The increase was 4,933, or 34 per cent, in quantity and \$180,693, or 43.8 per cent, in value.

*Exports and imports.*—The value of exports of carriages and wagons, and parts thereof, and the value of imports entered for consumption for each year ending June 30, from 1900 to 1905, are shown by the following tabular statement:

*Exports and imports of carriages and wagons, and parts thereof: 1900 to 1905.<sup>1</sup>*

YEAR ENDING JUNE 30—	Exports (value).	Imports entered for consumption (value).
1905.....	\$3,320,641	\$9,660
1904.....	3,354,801	18,337
1903.....	3,556,325	26,086
1902.....	2,490,063	19,640
1901.....	2,790,178	18,523
1900.....	2,809,784	29,662

There was a loss in exports from 1900 to 1902, followed by a gain for 1903, when the maximum was reached, yet the total value for 1905 was \$510,857 more than that for 1900, an increase of 18.2 per cent. The proportion of the total output exported was about the same for 1905 as for 1900, the percentages being 2.7 for the former year and 2.5 for the latter, a very slight gain.

For 1905, 17.8 per cent of the total exports went to the United Kingdom; this was a decrease of \$231,888, or 28.2 per cent from 1900. The decrease in the exports to the other European countries, however, was 55.6 per cent. For 1900 the greatest amount exported to the North American continent was to Mexico, but for 1905 the predominant exportation was to the Dominion of Canada, although the trade with Mexico showed a healthy growth. Argentina afforded the best South American market for both 1900 and 1905, 83.1 per cent of the value of exports to South America for 1905 and 76.9 per cent for 1900 going to that country. These exports to Argentina increased from \$178,621 for 1900 to \$457,587 for 1905, a gain of \$278,966, or 156.2 per cent. The East Indies outranked all other countries of Asia for 1900 as well as 1905, but Japan showed the largest value for any single country for 1905. British Australasia was the leading country of Oceania in both years, and British Africa, the principal subdivision of Africa to which carriages and wagons were exported.

The imports are insignificant, and the decrease since 1900 has been \$20,002, or 67.4 per cent.

*Carriage and wagon materials.*—In the report for the census of 1900 the statement was made that in the earliest stages of the carriage and wagon industry almost the entire work of manufacturing was done at the establishment, but that in 1900 there were very few, if any, manufacturers who produced all the parts. The manufacture of carriage and wagon materials as a separate industry has been steadily growing. Table 6 is a comparative summary of the general statistics for this industry at the censuses of 1890, 1900, and 1905.

TABLE 6.—*Carriage and wagon materials—comparative summary: 1890 to 1905.*

	1905	1900	1890
Number of establishments.....	632	588	539
Capital.....	\$26,024,053	\$19,085,775	\$13,025,161
Wage-earners, average number.....	17,160	15,387	9,986
Total wages.....	\$7,484,450	\$5,987,267	\$4,366,233
Miscellaneous expenses.....	\$1,930,469	\$1,202,666	\$821,743
Cost of materials used.....	\$16,312,683	\$13,048,608	\$7,387,904
Value of products.....	\$30,535,873	\$25,027,173	\$16,262,293

Every item of the table shows a substantial increase at each census. The increase in total wages was \$1,621,034, or 37 per cent, from 1890 to 1900 and \$1,497,183, or 25 per cent, from 1900 to 1905. The increase in value of products was \$8,764,880, or 53.9 per cent, from 1890 to 1900 and \$5,508,700, or 22 per cent, from 1900 to 1905.

<sup>1</sup>Bureau of Statistics, Department of Commerce and Labor, "Commerce and Navigation of the United States."

A comparison of gains in carriage and wagon materials from census to census with those shown in Table 1 for carriages and wagons shows that the value of products increased more rapidly in the former than in the latter industry. In 1890 the combined products were valued at \$118,942,634, of which the value of carriage and wagon materials constituted 13.7 per cent; for 1900 the combined products were valued at \$138,261,763, and carriage and wagon materials formed 18.1 per cent thereof, and for 1905 the com-

combined products were valued at \$155,868,849, to which carriage and wagon materials contributed 19.6 per cent. The entire product of the carriage and wagon material factories, however, is not disposed of to carriage and wagon manufacturers; blacksmiths and wheelwrights use a part of the products in their custom and repair work.

The detailed statistics for the carriage and wagon industry as reported at the census of 1905 are shown, by states and territories, in Table 7.

TABLE 7.—CARRIAGES AND WAGONS—DETAILED

	United States.	Alabama.	Arkansas.	California.	Colorado.	
1	Number of establishments.....	4,956	23	16	184	35
2	Capital, total.....	\$126,320,604	\$558,163	\$314,919	\$1,676,158	\$262,888
3	Land.....	\$10,867,701	\$30,025	\$37,800	\$354,140	\$70,806
4	Buildings.....	\$23,186,108	\$75,103	\$43,804	\$232,150	\$57,000
5	Machinery, tools, and implements.....	\$11,785,633	\$80,952	\$42,914	\$268,598	\$35,965
6	Cash and sundries.....	\$80,481,162	\$372,083	\$190,401	\$821,270	\$108,523
7	Proprietors and firm members.....	6,022	27	15	236	39
8	Salaried officials, clerks, etc.:.....					
9	Total number.....	5,058	28	12	47	9
10	Total salaries.....	\$5,239,043	\$28,021	\$8,373	\$48,675	\$8,900
11	Officers of corporations—.....					
12	Number.....	866	6	1	12	2
13	Salaries.....	\$1,598,251	\$10,780	\$900	\$20,794	\$2,500
14	General superintendents, managers, clerks, etc.—.....					
15	Total number.....	4,192	22	11	35	7
16	Total salaries.....	\$3,640,792	\$17,241	\$7,473	\$27,881	\$6,400
17	Men—.....					
18	Number.....	3,443	21	9	28	6
19	Salaries.....	\$3,306,893	\$16,041	\$6,745	\$25,148	\$6,900
20	Women—.....					
21	Number.....	749	1	2	7	1
22	Salaries.....	\$333,890	\$600	\$728	\$2,733	\$100
23	Wage-earners, including pieceworkers, and total wages:.....					
24	Greatest number employed at any one time during the year.....	74,698	459	170	1,168	200
25	Least number employed at any one time during the year.....	48,436	207	115	810	157
26	Average number.....	60,722	370	134	938	177
27	Total wages.....	\$30,878,229	\$161,399	\$60,898	\$684,812	\$129,557
28	Men 16 years and over—.....					
29	Average number.....	59,411	350	132	932	171
30	Wages.....	\$30,625,515	\$157,828	\$60,598	\$683,157	\$128,300
31	Women 16 years and over—.....					
32	Average number.....	870			1	
33	Wages.....	\$266,674			\$100	
34	Children under 16 years—.....					
35	Average number.....	441	20	2	5	6
36	Wages.....	\$86,040	\$3,571	\$300	\$1,555	\$1,248
37	Average number of wage-earners, including pieceworkers, employed during each month:.....					
38	Men 16 years and over—.....					
39	January.....	56,908	303	118	843	155
40	February.....	58,931	347	117	856	155
41	March.....	62,282	346	119	893	165
42	April.....	64,026	297	124	932	171
43	May.....	64,022	274	129	998	182
44	June.....	63,366	341	132	1,033	185
45	July.....	60,943	341	145	1,044	183
46	August.....	57,980	388	150	1,023	178
47	September.....	57,403	388	149	970	179
48	October.....	55,918	403	139	900	175
49	November.....	55,191	379	134	855	167
50	December.....	55,943	365	127	825	157
51	Women 16 years and over—.....					
52	January.....	930			1	
53	February.....	985			1	
54	March.....	1,012			1	
55	April.....	1,005			1	
56	May.....	979			1	
57	June.....	942			1	
58	July.....	833			1	
59	August.....	746			1	
60	September.....	748			1	
61	October.....	722			1	
62	November.....	736			1	
63	December.....	802			1	
64	Children under 16 years—.....					
65	January.....	409	18	2	5	6
66	February.....	414	19	2	4	6
67	March.....	440	20	2	4	6
68	April.....	450	17	2	5	6
69	May.....	452	13	2	6	6
70	June.....	474	20	2	6	6
71	July.....	466	21	2	6	6
72	August.....	474	24	2	5	6
73	September.....	446	24	2	5	6
74	October.....	434	22	2	5	6
75	November.....	416	22	2	4	6
76	December.....	417	20	2	5	6
77	Miscellaneous expenses, total.....	\$10,182,614	\$77,199	\$12,872	\$169,439	\$21,262
78	Rent of works.....	\$1,144,392	\$6,100	\$1,093	\$58,357	\$8,174
79	Taxes.....	\$703,752	\$3,090	\$2,271	\$9,750	\$2,529
80	Rent of offices, interest, insurance, and all other sundry expenses not hitherto included.....	\$8,150,715	\$68,009	\$9,023	\$87,281	\$9,719
81	Contract work.....	\$183,755		\$485	\$14,042	\$800
82	Materials used, total cost.....	\$61,215,228	\$369,470	\$70,219	\$789,413	\$122,648
83	Lumber.....	\$10,338,003	\$96,076	\$18,139	\$140,153	\$20,935
84	Iron and steel.....	\$9,854,548	\$61,478	\$15,905	\$188,810	\$32,763
85	Carriage hardware, lamps, and mountings.....	\$5,219,958	\$8,373	\$7,080	\$59,309	\$4,680
86	Paints, oils, turpentine, and varnish.....	\$3,900,273	\$31,202	\$4,370	\$42,317	\$12,265
87	Enamel, rubber, and other carriage cloth.....	\$3,398,921	\$3,223	\$2,202	\$17,783	\$2,670
88	Leather.....	\$3,867,480	\$2,659	\$1,378	\$12,038	\$1,545
89	Rubber tires.....	\$2,026,889	\$11,350	\$5,389	\$39,495	\$7,204
90	Carriage bodies, purchased—.....					
91	Number.....	485,879	451	26	203	64
92	Cost.....	\$2,059,426	\$1,835	\$101	\$3,151	\$1,229
93	Gears, purchased—.....					
94	Number.....	126,082	458	14	577	123
95	Cost.....	\$592,480	\$2,027	\$200	\$14,926	\$1,392
96	Wagon bodies, purchased—.....					
97	Number.....	32,319	7		176	50
98	Cost.....	\$208,058	\$70		\$3,321	\$665
99	Tops, purchased—.....					
100	Number.....	22,426	219	49	498	84
101	Cost.....	\$108,922	\$1,802	\$508	\$5,700	\$861
102	Wheels, purchased—.....					
103	Number.....	3,028,889	5,622	1,507	22,208	5,627
104	Cost.....	\$5,893,931	\$13,090	\$3,323	\$80,741	\$14,743
105	Axles and springs, purchased.....	\$4,460,789	\$11,250	\$2,549	\$77,823	\$10,503

# CARRIAGES AND WAGONS.

SUMMARY, BY STATES AND TERRITORIES: 1905.

Connecticut.	Delaware.	District of Columbia.	Florida.	Georgia.	Illinois.	Indiana.	Iowa.	Kansas.	Kentucky.	
66	21	6	31	75	290	188	97	38	102	1
\$2,087,840	\$264,783	\$50,117	\$222,127	\$1,508,958	\$10,838,860	\$22,276,315	\$3,107,725	\$324,166	\$4,225,145	2
\$239,655	\$46,315	\$22,500	\$55,775	\$133,532	\$1,063,686	\$674,900	\$171,276	\$32,100	\$266,341	3
\$423,400	\$75,085	\$12,700	\$38,150	\$206,093	\$2,140,279	\$4,571,858	\$257,560	\$72,625	\$735,835	4
\$196,512	\$25,930	\$6,800	\$32,758	\$185,897	\$976,613	\$1,602,747	\$241,323	\$31,105	\$301,518	5
\$1,228,133	\$117,453	\$8,117	\$95,444	\$983,436	\$6,658,282	\$15,426,750	\$2,337,566	\$188,336	\$2,901,451	6
108	28	6	42	91	338	198	120	53	120	7
82	8	1	9	87	401	796	175	12	163	8
\$110,508	\$5,260	\$1,560	\$6,010	\$96,786	\$464,781	\$808,928	\$176,950	\$9,280	\$163,350	9
24				23	81	100	26	3	20	10
\$44,407				\$40,842	\$160,670	\$217,647	\$46,200	\$3,600	\$47,422	11
58	8	1	9	64	320	696	149	9	143	12
\$66,011	\$5,260	\$1,560	\$6,010	\$55,944	\$306,111	\$591,281	\$130,750	\$5,680	\$115,928	13
49	8	1	9	56	258	558	128	7	118	14
\$61,973	\$5,260	\$1,560	\$6,010	\$51,864	\$276,724	\$529,699	\$120,211	\$4,680	\$105,568	15
9				8	62	138	21	2	25	16
\$4,038				\$4,038	\$29,387	\$61,582	\$10,539	\$1,000	\$10,369	17
1,649	186	72	247	1,350	5,125	8,788	1,458	260	2,117	18
1,205	117	36	167	863	3,014	5,544	850	184	1,481	19
1,372	137	52	196	1,115	4,186	7,156	1,103	214	1,812	20
\$690,185	\$68,992	\$25,240	\$101,890	\$426,484	\$2,320,141	\$3,254,027	\$525,016	\$105,168	\$800,331	21
1,370	136	51	193	1,094	4,123	6,854	1,088	212	1,750	22
\$689,655	\$68,885	\$24,937	\$101,418	\$421,160	\$2,300,365	\$3,172,498	\$522,503	\$104,794	\$787,598	23
2				5	50	225	14	1	23	24
\$530				\$2,050	\$16,206	\$63,106	\$5,213	\$150	\$5,024	25
1	1	1	3	16	13	77	1	1	39	26
	\$107	\$312	\$472	\$3,274	\$3,570	\$18,423	\$200	\$224	\$7,709	27
1,314	124	38	190	1,035	3,787	7,056	981	183	1,698	28
1,315	131	39	190	1,029	3,903	7,427	1,071	187	1,688	29
1,356	141	41	192	1,058	4,385	7,719	1,140	211	1,771	30
1,419	150	46	187	1,088	4,485	7,633	1,208	231	1,826	31
1,455	152	60	186	1,004	4,507	7,509	1,188	230	1,831	32
1,463	150	67	193	1,031	4,418	7,201	1,184	230	1,877	33
1,385	144	69	196	1,119	4,334	6,646	1,170	238	1,791	34
1,327	136	68	197	1,162	4,222	6,171	1,150	234	1,815	35
1,377	132	64	190	1,186	4,036	6,124	1,055	218	1,775	36
1,371	126	45	192	1,146	3,876	6,059	1,002	202	1,658	37
1,329	122	38	200	1,133	3,617	6,167	964	193	1,626	38
1,389	124	37	203	1,137	3,906	6,536	943	187	1,644	39
3				4	51	260	13	1	24	40
2				5	52	271	15	1	20	41
3				5	56	274	16	1	20	42
2				5	55	264	18	1	28	43
3				3	56	240	18	1	25	44
2				3	53	244	14	1	25	45
2				4	52	208	14	1	24	46
1				6	53	180	12	1	23	47
2				7	47	180	12	1	24	48
1				6	42	176	12	1	19	49
2				6	43	182	13	1	13	50
1				6	40	212	11	1	19	51
		1	3	14	15	72		1	38	52
		1	3	14	17	76		1	38	53
		1	3	17	17	83		1	43	54
		1	3	16	15	80		1	44	55
		1	3	10	15	80		1	46	56
		2	3	12	10	78	1	1	41	57
		2	3	12	15	75	6	1	36	58
		2	3	17	15	74		1	36	59
		1	3	17	15	77	4	1	36	60
		1	3	20	10	75		1	36	61
		1	3	18	5	76		1	37	62
		1	3	20	6	75		1	37	63
		1	3	14	15	72		1	38	64
\$104,642	\$15,504	\$4,873	\$27,279	\$137,456	\$844,460	\$1,173,080	\$424,778	\$26,280	\$354,043	65
\$23,085	\$3,883	\$2,100	\$9,539	\$9,868	\$119,376	\$36,198	\$18,874	\$2,688	\$8,723	66
\$12,635	\$1,319	\$610	\$1,797	\$10,469	\$56,795	\$93,138	\$15,677	\$2,408	\$22,141	67
\$94,740	\$10,102	\$2,163	\$13,443	\$117,119	\$659,122	\$1,039,175	\$389,062	\$21,030	\$316,526	68
\$3,582	\$200		\$5,500		\$9,176	\$5,469	\$1,165	\$155	\$6,653	69
\$96,088	\$102,352	\$21,776	\$124,177	\$1,292,149	\$4,685,773	\$8,598,170	\$1,479,085	\$116,724	\$2,089,687	70
\$86,062	\$13,577	\$2,400	\$15,032	\$122,593	\$1,255,071	\$1,642,259	\$357,802	\$18,222	\$648,939	71
\$108,636	\$13,262	\$9,750	\$17,985	\$227,410	\$1,069,724	\$1,245,521	\$233,632	\$21,656	\$449,247	72
\$50,375	\$10,344	\$180	\$94,367	\$79,468	\$309,234	\$749,775	\$105,356	\$7,461	\$188,010	73
\$50,674	\$8,365	\$3,000	\$9,757	\$274,608	\$274,608	\$494,442	\$73,296	\$9,619	\$145,451	74
\$34,980	\$14,258	\$435	\$40,270	\$40,270	\$233,085	\$521,713	\$88,178	\$5,558	\$47,236	75
\$36,860	\$4,114	\$350	\$117,212	\$117,212	\$235,174	\$672,989	\$113,300	\$4,455	\$54,057	76
\$44,084	\$4,613	\$250	\$7,320	\$30,712	\$153,023	\$365,381	\$31,682	\$7,097	\$128,351	76
936	82		490	8,771	24,465	95,960	12,372	123	12,039	77
\$12,582	\$2,187		\$2,177	\$33,216	\$118,718	\$362,035	\$46,514	\$701	\$43,952	78
1,246	34		549	303	13,735	7,781	269	53	225	79
\$9,681	\$403		\$3,448	\$2,041	\$19,773	\$45,612	\$1,940	\$984	\$1,172	80
120	12		6	95	249	2,740	65	1	69	81
\$1,050	\$540		\$27	\$628	\$3,892	\$14,955	\$616	\$25	\$637	82
86	4	3	155	581	514	1,880	663	151	102	83
\$1,092	\$60	\$36	\$1,451	\$4,851	\$4,886	\$14,606	\$4,887	\$1,336	\$1,111	84
17,250	8,008	455	13,192	125,862	215,131	495,848	62,693	7,609	74,977	85
\$3,700	\$11,675	\$2,525	\$26,042	\$230,532	\$379,238	\$678,899	\$104,586	\$15,285	\$129,680	86
\$47,673	\$13,773	\$850	\$11,949	\$111,609	\$248,834	\$577,250	\$74,317	\$13,800	\$94,199	87

## MANUFACTURES.

TABLE 7.—CARRIAGES AND WAGONS—DETAILED

	United States.	Alabama.	Arkansas.	California.	Colorado.
Materials used—Continued.					
88 Fuel.....	\$1,175,035	\$4,206	\$2,057	\$35,383	\$7,003
89 Rent of power and heat.....	\$180,470	\$570	\$300	\$13,255	\$1,271
90 Mill supplies.....	\$225,007	\$2,061	\$313	\$3,145	\$442
91 All other materials.....	\$6,146,106	\$85,574	\$6,020	\$32,203	\$10,192
92 Freight.....	\$958,233	\$32,564	\$145	\$10,845	\$1,325
93 Products, total value.....	\$125,332,976	\$720,282	\$189,914	\$2,220,486	\$379,368
Family and pleasure carriages—					
94 Number.....	937,409	504	35	2,160	203
95 Value.....	\$59,750,276	\$36,657	\$2,045	\$216,250	\$25,100
Public conveyances—					
96 Number.....	2,711	2		42	
97 Value.....	\$1,314,952	\$400		\$18,454	
Wagons (business, farm, government, municipal, etc.)—					
98 Number.....	643,755	12,512	1,625	3,045	750
99 Value.....	\$37,105,230	\$527,987	\$102,736	\$502,503	\$113,354
Sleighs and sleds—					
100 Number.....	127,455			13	43
101 Value.....	\$2,094,560			\$431	\$1,660
Automobiles—					
102 Number.....	199				
103 Value.....	\$235,675				
104 Parts manufactured, not elsewhere included.....	\$708,176	\$2,343	\$3,453	\$21,695	\$660
105 All other products.....	\$3,285,678	\$4,576	\$1,645	\$68,340	\$5,360
106 Amount received for repair work.....	\$24,148,429	\$148,229	\$80,035	\$1,392,813	\$232,004
Kind and quantity of products:					
Family and pleasure carriages, aggregate number.....					
107 Two-wheeled, total number.....	937,409	504	35	2,160	203
108 Carts.....	29,544	2		1,057	53
109 Cabs.....	456	2		21	
110 Gigs.....	27,743			1,021	42
111 Sulkies.....	83			2	
112 Tandems.....	1,139			13	11
113 Other.....	43				
114 Four-wheeled, for one or two persons, total number.....	769,635	417	27	896	144
115 Buggies.....	575,880	343	22	470	71
116 Buckboards.....	6,732			59	
117 Driving wagons.....	47,118		5	21	49
118 Park wagons.....	1,933			5	
119 Phaetons.....	12,982	33		17	
120 Pony wagons.....	4,637			3	
121 Road wagons.....	50,527	20		80	4
122 Runabouts.....	53,815	15		231	20
123 Spiders.....	405				
124 Stanhopes.....	9,585	6		7	
125 Traps.....	1,516			2	
126 Other.....	4,504			1	
127 Four-wheeled, for three or more persons, total number.....	138,230	85	8	207	6
128 Broughams.....	103			3	
129 Buggyboards.....	933			10	
130 Cabriolets.....	2,068			9	
131 Coupes.....	1,394				
132 Landaus.....	222			5	
133 Mountain wagons.....	480			46	2
134 Park wagons.....	3,462	30	8	1	
135 Phaetons.....	2,872			1	
136 Road wagons.....	1,091	25		4	
137 Rockaways.....	14,325			51	
138 Spiders.....	2,324			1	
139 Surreys.....	63				
140 Tallyhos.....	87,404	30		56	2
141 Traps.....	30			4	2
142 Victorias.....	1,412				
143 Vis-a-vis.....	327				
144 Other.....	71				
145 Public conveyances, total number.....	10,496			17	
146 Cabs.....	2,711	2		42	
147 Hacks.....	174			3	
148 Hansoms.....	1,619	1		7	
149 Hotel coaches.....	95				
150 Omnibuses.....	352			2	
151 Other.....	260	1		5	
152 Business wagons, total number.....	202			25	
153 Baggage transfer wagons.....	133,422	593	544	2,080	722
154 Caravans.....	2,455		5	106	12
155 Coal wagons and carts.....	304			1	
156 Delivery wagons.....	3,253	21	10	42	66
157 Drays.....	60,376	408	64	1,470	350
158 Dump dirt wagons and carts.....	2,856	79	1	42	7
159 Express wagons.....	6,417	5	2	109	2
160 Furniture vans.....	7,853		46	224	220
161 Furniture wagons.....	419	8		11	5
162 Garbage wagons and carts.....	1,049	14	14	44	
163 Handcarts.....	348	5		33	
164 Hearses.....	6,059	3	8	55	
165 Ice wagons.....	642		1	2	
166 Log wagons.....	1,123	8	4	30	19
167 Ore wagons.....	4,644	33	212	1	3
168 Street sprinklers.....	129				15
169 Street sweepers.....	109			6	
170 Trucks.....	48				
171 Other.....	12,403	1	120	181	1
172 Wagons (government, municipal, etc.), total number.....	22,845	8	57	323	20
173 Ambulances.....	5,308	2	3	13	2
174 Fire patrol wagons.....	245			5	
175 Hose wagons.....	51			1	
176 Mail and mail carriers' wagons and carts.....	251		2	2	1
177 Police patrol wagons.....	4,703	2	1	3	1
178 Prison vans.....	55			2	
179 Farm wagons, total number.....	3				
180 Two-horse.....	505,025	11,917	1,078	352	26
181 One-horse.....	82,619	4,473	31	52	
182 Mountain.....	379,441	7,431	1,042	178	26
183 Dump carts or farm trucks.....	22,104			33	
184 Total.....	20,861	13	5	89	

# CARRIAGES AND WAGONS.

SUMMARY, BY STATES AND TERRITORIES: 1905—Continued.

Connecticut.	Delaware.	District of Columbia.	Florida.	Georgia.	Illinois.	Indiana.	Iowa.	Kansas.	Kentucky.	
\$27,610	\$1,036	\$850	\$2,014	\$12,391	\$89,367	\$158,819	\$25,050	\$4,162	\$28,006	88
\$1,874	\$525	\$75	\$566	\$9,710	\$20,478	\$13,608	\$2,978		\$2,480	89
\$2,179	\$27	\$40	\$67	\$4,376	\$24,980	\$27,078	\$3,618		\$18,313	90
\$87,931	\$2,528	\$950	\$10,077	\$96,671	\$973,685	\$940,371	\$178,558	\$4,557	\$102,156	91
\$8,908	\$1,115	\$75	\$1,185	\$40,092	\$74,003	\$82,857	\$32,775	\$955	\$5,700	92
\$1,909,483	\$228,350	\$75,265	\$344,481	\$2,303,195	\$9,798,965	\$15,228,337	\$2,974,043	\$320,768	\$4,059,438	93
2,381	1,219		415	20,919	56,075	178,962	16,498	533	27,195	94
\$753,306	\$104,063		\$29,200	\$1,210,122	\$3,739,173	\$9,694,829	\$1,113,064	\$29,446	\$1,302,914	95
179	1		12	39	70	63	98	16		96
\$153,875	\$200		\$2,350	\$4,825	\$19,705	\$11,180	\$8,250	\$3,805	\$225	97
1,944	695	99	2,652	18,848	72,033	92,893	22,815	1,004	49,266	98
\$224,365	\$57,312	\$22,165	\$125,810	\$794,491	\$4,027,545	\$4,288,664	\$1,426,015	\$117,878	\$2,332,327	99
383	3				5,097	1,378	2,766			100
\$18,643	\$38				\$48,293	\$27,149	\$46,187		\$41	101
				1	1	92	1			102
				\$600	\$1,000	\$117,516	\$1,300			103
\$63,564	\$202	\$200	\$2,955	\$2,832	\$28,499	\$111,643	\$40,397	\$588	\$6,599	104
\$72,623	\$1,706	\$25	\$17,990	\$21,550	\$330,734	\$378,862	\$34,065	\$9,550	\$17,549	105
\$623,107	\$64,229	\$62,875	\$166,176	\$268,776	\$1,613,016	\$598,494	\$304,765	\$159,501	\$339,783	106
2,381	1,219		415	20,919	56,075	178,962	16,498	533	27,195	107
46				2	7,224	3,830	37	27	450	108
31				2	10	40				109
14					7,038	3,788	17	26	450	110
1					171		20	1		111
					4					112
					1		2			113
1,300	655		376	20,857	49,702	143,164	14,031	154	24,926	114
516	763		369	19,840	34,230	109,890	12,232	92	18,052	115
82			2	29	286	467	5		72	116
191	19		3	80	1,377	13,767	839	8	2,614	117
25	1				92	50	5		5	118
54	12				355	2,845	67	7	408	119
				3	90	296	8		18	120
11	6			160	1,843	8,893	575	16	2,500	121
264	146		2	604	1,531	4,607	170	27	1,037	122
17				1	13	75	1		8	123
75	3			30	439	1,451	114	4	211	124
17				11	279	152				125
147	5			20	167	671	15		1	126
996	264		39	60	8,149	31,968	2,430	352	1,819	127
33					17		6			128
173				1	62	2	10		1	129
			3		2	143		10		130
130					27	200		1		131
72					37					132
73					164		28			133
5					124	1,360		200		134
4					507	404	11	20	6	135
157	0			7	1	30		25	101	136
2	15			4	306	5,045	323		19	137
79	82			10	33	59	11		25	138
18						5				139
109	137		35	34	6,343	22,202	1,710	89	1,598	140
10					2		5			141
13	2		1		78	289			22	142
15				4	42	14				143
17					2					144
26	19				402	2,215	325	7	47	145
179	1		12	39	70	63	98	16	1	146
25					5					147
107	1		2	28	19	35	40			148
14				11	10					149
17					32		25	6		150
15			10		3		33			151
1					1			8	1	152
1,756	614	97	1,147	1,241	6,195	12,554	787	934	2,123	153
52	1		27	39	150	178	98	145	16	154
					1		3	1		155
77	2	6	14	51	131	145	34	28	206	156
822	583	23	760	299	2,735	9,078	216	566	388	157
48			80	217	37	100	161	32	154	158
219	13		77	9	161	48	20		59	159
254	11	3	18	53	766	173	66	59	23	160
1	1		7	18	8	20	9		5	161
26	1		6	16	83	57	9		6	162
16		60	13	13	7			17		163
4	1		2	36	265	527		2		164
					5	2		1		165
18			5	18	72	50	17	10	14	166
22			125	87	136	151		2	1,177	167
5					65					168
5			1		26					169
							1			170
152			25	46	220	160		1	35	171
35	1			339	1,318	1,859	127	70	39	172
3		3	5	18	493	1,999	32	12	16	173
		2			10		6	3		174
2					2		2		5	175
1			1		8		3		3	176
			3		9	468	1,985	14	9	177
		2		2	6		3	6	8	178
										179
185	81		1,500	17,589	65,345	78,340	21,996	58	47,127	180
56	50		1,065	10,032	4,488	8,236	624	5	7,477	181
99	27		380	7,501	51,401	64,453	14,032	51	39,051	182
10				15	3,920	4,210	6,044		341	183
20	4		25	41	5,536	1,441	1,296	2	258	184

## MANUFACTURES.

TABLE 7.—CARRIAGES AND WAGONS—DETAILED

	United States.	Alabama.	Arkansas.	California.	Colorado.
Kind and quantity of products—Continued.					
186	Sleighs, total number.....	127,455		13	43
187	One-seated.....	67,048		2	
188	Two-seated.....	6,972			22
189	Speeding or racing.....	1,438			
190	Sleds, horse, including "hobs".....	51,997		11	21
191	Automobiles, total number.....	199			
192	Runabout.....	101			
193	Touring.....	58			
194	Surrey.....	14			
195	Phaeton.....	1			
196	Doctor's wagon or car.....	2			
197	Delivery, light.....	5			
198	Delivery, heavy.....	6			
199	Other.....	12			
Parts manufactured, not elsewhere included—					
200	Carriage bodies.....	8,676		0	15
201	Wagon bodies.....	8,855		94	3
202	Tops.....	14,555		56	4
203	Wheels.....	389,266		369	200
Power:					
204	Number of establishments reporting.....	2,235	8	11	16
205	Total horsepower.....	68,495	459	321	84
Owned—					
Engines—					
Steam—					
206	Number.....	932	7	11	1
207	Horsepower.....	44,447	406	296	10
Gas and gasoline—					
208	Number.....	790	4	1	2
209	Horsepower.....	7,549	33	5	8
Water wheels—					
210	Number.....	89			4
211	Horsepower.....	2,337			22
Water motors—					
212	Number.....	20			4
213	Horsepower.....	80			2
Electric motors—					
214	Number.....	359			
215	Horsepower.....	5,471			
216	Other power, horsepower.....	47			
Rented—					
Electric motors—					
217	Number.....	1,115	2	2	94
218	Horsepower.....	7,883	20	20	420
219	Other kind, horsepower.....	681			66
220	Furnished to other establishments, horsepower.....	217			

CARRIAGES AND WAGONS.

SUMMARY, BY STATES AND TERRITORIES: 1905—Continued.

Connecticut.	Delaware.	District of Columbia.	Florida.	Georgia.	Illinois.	Indiana.	Iowa.	Kansas.	Kentucky.	
383	3				5,007	1,378	2,766		4	186
77					18	329	1,043		4	187
165					8	1	7			188
28						4	10			189
113	3				4,981	1,044	1,706			190
				1	1	32	1			191
					1	70				192
						17				193
							1			194
				1						195
										196
										197
										198
						5				199
71	3		11	5	25	32	156		183	200
64	8	8	35	121	713	196	973	18	84	201
	5	10	12	74	592	101	1,549	20	502	202
13,637		80	2,200	606	746	81,020	58		277	203
44	9	2	10	35	157	103	52	10	37	204
903	104	57	169	1,251	5,752	9,708	1,513	96	3,255	205
21	2	1	3	22	52	70	21	3	31	206
465	20	25	125	916	3,805	6,050	1,170	55	2,586	207
16	4	1	4	5	48	42	25	4	10	208
145	34	25	14	29	413	602	177	23	68	209
7				1	4					210
167				8	270					211
1									1	212
3									16	213
				11	16	116	1		19	214
				141	341	2,440	50		468	215
										216
8	4	2	4	14	154	62	23	3	12	217
103	50	7	30	117	916	604	116	18	117	218
20				40	7	12				219
10				21	10			8		220

TABLE 7.—CARRIAGES AND WAGONS—DETAILED

	Louisiana.	Maine.	Maryland.	Massachusetts.	Michigan.	Minnesota.
1 Number of establishments.....	40	154	111	280	183	134
2 Capital, total.....	\$236,770	\$660,764	\$898,874	\$3,813,839	\$9,264,093	\$2,159,885
3 Land.....	\$53,610	\$52,275	\$60,650	\$381,254	\$500,475	\$107,040
4 Buildings.....	\$44,410	\$170,800	\$276,333	\$334,159	\$1,382,093	\$414,244
5 Machinery, tools, and implements.....	\$45,155	\$92,736	\$103,970	\$445,535	\$644,356	\$267,577
6 Cash and sundries.....	\$93,595	\$344,953	\$457,921	\$2,452,891	\$6,737,169	\$1,281,024
7 Proprietors and firm members.....	46	181	148	343	204	171
8 Salaried officials, clerks, etc.: Total number.....	11	14	31	120	514	74
Total salaries.....	\$10,376	\$11,409	\$17,965	\$109,140	\$493,523	\$79,516
9 Officers of corporations— Number.....	5	5	0	17	75	15
Salaries.....	\$7,140	\$6,720	\$6,772	\$32,020	\$160,196	\$29,700
10 General superintendents, managers, clerks, etc.— Total number.....	6	9	22	103	439	59
Total salaries.....	\$3,436	\$4,779	\$11,194	\$76,520	\$333,327	\$40,816
11 Men— Number.....	6	6	20	70	348	54
Salaries.....	\$3,436	\$3,815	\$10,700	\$64,285	\$291,983	\$47,446
12 Women— Number.....		3	2	33	91	5
Salaries.....		\$964	\$404	\$12,235	\$41,344	\$2,370
13 Wage-earners, including pieceworkers, and total wages: Greatest number employed at any one time during the year.....	350	613	934	2,873	6,085	1,153
Least number employed at any one time during the year.....	251	376	641	1,764	3,446	751
Average number.....	293	451	774	2,232	4,688	872
Total wages.....	\$159,317	\$243,378	\$347,236	\$1,367,349	\$2,246,493	\$424,772
14 Men 16 years and over— Average number.....	291	450	770	2,211	4,570	869
Wages.....	\$159,011	\$243,110	\$346,688	\$1,358,970	\$2,206,708	\$423,977
15 Women 16 years and over— Average number.....		1		20	114	2
Wages.....		\$468		\$8,120	\$38,425	\$642
16 Children under 16 years— Average number.....	2		4	1	4	1
Wages.....	\$306		\$548	\$250	\$1,360	\$158
17 Average number of wage-earners, including pieceworkers, employed during each month: Men 16 years and over— January.....	291	420	646	2,023	4,695	909
February.....	277	431	657	2,072	4,924	914
March.....	285	462	711	2,288	5,254	911
April.....	281	498	800	2,548	5,354	871
May.....	277	494	863	2,590	5,157	859
June.....	284	485	888	2,542	4,850	874
July.....	289	449	876	2,313	4,103	873
August.....	298	426	844	2,134	3,858	859
September.....	304	440	812	2,069	4,000	823
October.....	303	437	750	1,966	4,040	864
November.....	304	430	705	1,960	4,180	839
December.....	290	428	679	2,027	4,425	832
18 Women 16 years and over— January.....		1		20	131	1
February.....		1		20	138	1
March.....		1		24	138	1
April.....		1		24	135	1
May.....		1		22	135	2
June.....		1		21	114	2
July.....		1		20	84	2
August.....		1		17	87	3
September.....		1		19	96	3
October.....		1		18	106	3
November.....		1		17	114	3
December.....		1		18	114	3
19 Children under 16 years— January.....	2		4	1	5	
February.....	2		4	1	5	
March.....	2		4	1	5	1
April.....	2		4	1	5	1
May.....	2		4	1	5	1
June.....	2		4	1	4	2
July.....	2		4	1	2	2
August.....	2		4	1	2	2
September.....	2		4	1	3	
October.....	2		4	1	4	1
November.....	2		4	1	4	1
December.....	2		4	1	4	1
20 Miscellaneous expenses, total.....	\$17,862	\$44,061	\$63,496	\$336,964	\$933,835	\$135,948
21 Rent of works.....	\$5,398	\$7,101	\$17,801	\$90,749	\$18,598	\$14,123
22 Taxes.....	\$981	\$4,995	\$6,358	\$24,865	\$75,494	\$11,551
23 Rent of offices, interest, insurance, and all other sundry expenses not hitherto included.....	\$11,483	\$33,364	\$39,337	\$209,621	\$817,252	\$109,274
24 Contract work.....		\$8,601	\$2,955	\$17,719	\$22,541	\$2,024
25 Materials used, total cost.....	\$151,365	\$392,280	\$487,231	\$1,656,271	\$7,005,109	\$781,727
26 Lumber.....	\$25,342	\$58,858	\$65,925	\$145,432	\$693,870	\$300,583
27 Iron and steel.....	\$27,068	\$100,026	\$85,304	\$258,505	\$787,344	\$223,533
28 Carriage hardware, lumps, and mountings.....	\$16,173	\$32,429	\$50,402	\$160,961	\$589,038	\$14,401
29 Paints, oils, turpentine, and varnish.....	\$10,421	\$22,853	\$41,647	\$132,833	\$385,998	\$45,466
30 Enamel, rubber, and other carriage cloth.....	\$4,944	\$10,112	\$27,311	\$159,989	\$432,033	\$5,588
31 Leather.....	\$4,074	\$16,052	\$16,627	\$113,380	\$326,248	\$19,559
32 Rubber tires.....	\$4,333	\$14,871	\$21,351	\$128,393	\$290,532	\$10,576
33 Carriage bodies, purchased— Number.....	95	366	1,507	2,999	105,840	179
Cost.....	\$429	\$3,918	\$11,170	\$38,028	\$412,966	\$1,116
34 Gears, purchased— Number.....	98	317	1,064	6,410	14,167	500
Cost.....	\$1,072	\$1,161	\$12,684	\$36,540	\$52,459	\$4,468
35 Wagon bodies, purchased— Number.....	20	176	212	708	13,698	17
Cost.....	\$200	\$1,155	\$3,034	\$11,286	\$59,021	\$221
36 Tops, purchased— Number.....	132	131	141	116	1,560	225
Cost.....	\$957	\$886	\$1,902	\$2,034	\$8,902	\$1,461
37 Wheels, purchased— Number.....	5,410	19,871	16,757	41,457	640,634	19,683
Cost.....	\$18,870	\$49,240	\$48,336	\$139,232	\$808,256	\$33,657
38 Axles and springs, purchased.....	\$19,126	\$33,569	\$36,062	\$113,377	\$574,228	\$21,148

# CARRIAGES AND WAGONS.

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SUMMARY, BY STATES AND TERRITORIES: 1905—Continued.

Mississippi.	Missouri.	Montana.	Nebraska.	New Hampshire.	New Jersey.	New Mexico.	New York.	North Carolina.	Ohio.
12	222	6	17	39	200	4	590	125	348
\$303,120	\$4,576,917	\$60,258	\$202,933	\$814,372	\$2,545,445	\$61,050	\$13,962,721	\$2,010,457	\$12,980,183
396,674	\$344,262	\$9,000	\$55,700	\$90,460	\$458,570	\$0,050	\$1,724,141	\$95,835	\$885,563
\$30,721	\$955,176	\$3,100	\$42,800	\$209,295	\$955,088	\$9,500	\$2,612,456	\$243,575	\$2,130,062
\$40,990	\$301,796	\$17,422	\$26,281	\$87,256	\$284,523	\$5,500	\$1,378,520	\$195,275	\$1,032,288
\$183,835	\$3,485,483	\$30,736	\$78,152	\$418,361	\$1,135,264	\$37,000	\$8,247,595	\$1,455,772	\$8,932,240
11	274	8	22	45	229	6	718	160	430
17	260	6	11	16	76	2	490	64	741
\$17,244	\$285,791	\$6,000	\$8,823	\$20,650	\$89,541	\$1,920	\$604,819	\$59,628	\$707,490
3	77	2	1	3	17	-----	72	24	108
\$4,590	\$113,393	\$2,100	\$1,500	\$8,000	\$29,646	-----	\$156,358	\$21,760	\$196,462
14	183	4	10	13	59	2	418	40	633
\$12,744	\$172,398	\$3,900	\$7,323	\$12,650	\$56,895	\$1,920	\$448,401	\$37,868	\$511,028
14	155	3	7	10	55	2	365	36	484
\$12,744	\$157,301	\$3,600	\$5,903	\$11,010	\$55,419	\$1,920	\$423,476	\$36,496	\$449,905
28	1	1	3	3	4	-----	53	4	149
\$15,007	\$300	\$1,420	\$1,640	\$1,640	\$1,476	-----	\$24,985	\$1,402	\$61,123
104	3,356	30	191	433	1,916	32	8,079	1,658	8,865
150	2,014	19	106	343	1,404	21	5,321	1,176	5,234
171	2,636	23	144	382	1,638	26	6,789	1,373	6,708
\$74,953	\$1,477,540	\$19,900	\$83,155	\$229,624	\$960,903	\$19,947	\$3,936,924	\$481,528	\$3,335,551
169	2,582	22	142	381	1,634	26	6,719	1,292	6,548
\$74,693	\$1,459,470	\$19,750	\$82,789	\$229,174	\$960,175	\$19,947	\$3,918,222	\$466,607	\$3,267,028
47	1	-----	-----	1	-----	-----	57	11	218
\$16,654	\$16,654	-----	-----	\$450	\$260	-----	\$16,201	\$2,476	\$68,067
2	7	1	2	-----	3	-----	13	70	2
\$290	\$1,416	\$150	\$366	-----	\$468	-----	\$2,501	\$12,445	\$456
176	2,327	20	123	377	1,406	25	6,330	1,192	6,394
166	2,490	20	136	383	1,519	27	6,637	1,211	6,738
167	2,774	20	142	399	1,601	27	6,951	1,242	7,106
172	2,878	21	164	412	1,712	27	7,147	1,292	7,362
174	2,960	23	176	415	1,712	27	6,900	1,324	7,529
174	2,982	23	160	402	1,771	23	6,880	1,310	7,308
172	2,862	24	150	388	1,780	27	6,761	1,312	6,871
165	2,499	24	149	367	1,716	27	6,478	1,327	6,209
167	2,501	24	138	358	1,665	28	6,765	1,336	5,906
158	2,358	23	128	347	1,600	28	6,877	1,346	5,047
164	2,186	21	113	359	1,530	25	6,617	1,327	5,671
173	2,158	21	116	365	1,506	21	6,585	1,285	5,735
46	-----	-----	-----	1	-----	-----	59	13	222
49	-----	-----	-----	1	-----	-----	62	13	244
50	-----	-----	-----	1	-----	-----	65	13	254
50	-----	-----	-----	1	-----	-----	61	12	262
51	-----	-----	-----	1	-----	-----	59	11	262
51	-----	-----	-----	1	-----	-----	59	10	261
49	-----	-----	-----	1	-----	-----	54	10	224
41	-----	-----	-----	1	-----	-----	47	10	153
45	-----	-----	-----	1	-----	-----	42	10	183
42	-----	-----	-----	1	-----	-----	40	10	169
44	-----	-----	-----	1	-----	-----	59	10	158
46	-----	-----	-----	1	-----	-----	58	10	184
2	6	1	2	-----	3	-----	12	63	2
2	6	1	2	-----	3	-----	12	62	2
2	6	1	2	-----	3	-----	12	62	2
2	6	1	2	-----	3	-----	12	67	2
2	6	1	2	-----	3	-----	12	74	2
2	6	1	2	-----	3	-----	15	76	2
2	7	1	2	-----	3	-----	14	77	2
2	7	1	2	-----	3	-----	15	76	2
2	0	1	2	-----	3	-----	12	77	2
2	9	1	2	-----	3	-----	14	71	2
2	8	1	2	-----	3	-----	14	68	2
2	8	1	2	-----	3	-----	12	67	2
\$16,045	\$400,140	\$5,530	\$24,282	\$36,146	\$191,970	\$1,201	\$1,313,204	\$109,190	\$1,481,685
\$240	\$98,867	\$1,020	\$6,362	\$2,270	\$29,829	-----	\$263,014	\$8,420	\$112,329
\$1,189	\$23,880	\$415	\$5,514	\$5,514	\$16,844	\$485	\$96,210	\$12,162	\$75,445
\$14,616	\$360,377	\$2,795	\$16,216	\$27,372	\$136,497	\$716	\$938,079	\$86,856	\$1,278,679
7	\$7,016	\$400	-----	\$900	\$8,800	-----	\$21,001	\$1,722	\$15,132
\$96,491	\$3,587,478	\$37,369	\$113,340	\$195,851	\$1,036,002	\$27,364	\$5,008,143	\$1,229,396	\$8,437,352
\$24,214	\$350,931	\$6,200	\$19,012	\$30,795	\$182,598	\$5,350	\$660,881	\$145,405	\$781,451
\$51,765	\$403,227	\$7,800	\$20,982	\$50,096	\$204,312	\$6,500	\$760,917	\$191,585	\$782,680
\$225	\$491,504	\$1,800	\$5,787	\$9,798	\$63,298	\$2,400	\$554,902	\$97,332	\$369,211
\$4,270	\$205,429	\$2,100	\$13,504	\$14,470	\$82,656	\$1,250	\$351,503	\$100,814	\$501,678
\$200	\$200,450	\$660	\$4,853	\$16,370	\$38,672	\$700	\$354,611	\$59,712	\$100,814
\$250	\$365,321	\$150	\$2,388	\$12,316	\$22,005	\$1,075	\$415,063	\$65,395	\$804,141
-----	\$123,426	\$5,392	\$11,270	\$4,194	\$72,258	\$200	\$248,923	\$30,605	\$515,464
37,622	\$204,714	\$23	\$621	\$97	\$1,678	6	1,691	7,546	147,537
8,100	\$91,078	\$925	\$500	\$2,288	\$6,604	\$300	\$35,322	\$18,918	\$116,982
60	4,348	-----	375	87	\$1,405	\$400	\$6,928	\$5,120	\$20,688
\$300	\$38,307	-----	\$3,000	\$629	-----	-----	-----	-----	-----
4	416	10	30	12	356	26	2,438	309	7,786
\$50	\$3,285	\$150	\$292	\$165	\$3,436	\$340	\$22,133	\$2,338	\$38,263
250	321,951	692	3,060	11,230	30,780	820	215,495	109,066	719,553
\$565	\$394,060	\$2,056	\$8,302	\$24,668	\$104,612	\$2,050	\$473,592	\$193,358	\$966,127
\$1,635	\$280,284	\$2,200	\$6,400	\$12,652	\$100,183	\$3,420	\$417,928	\$95,396	\$767,032

MANUFACTURES.

TABLE 7.—CARRIAGES AND WAGONS—DETAILED

	Louisiana.	Maine.	Maryland.	Massachu- setts.	Michigan.	Minnesota.
<b>Materials used—Continued.</b>						
88 Fuel.....	\$5,513	\$12,006	\$10,840	\$42,575	\$113,319	\$27,385
89 Rent of power and heat.....	\$1,551	\$1,525	\$2,424	\$16,914	\$4,972	\$2,843
90 Mill supplies.....	\$879	\$753	\$1,496	\$3,920	\$18,757	\$2,606
91 All other materials.....	\$10,009	\$21,418	\$48,724	\$141,688	\$1,305,791	\$37,122
92 Freight.....	\$1,404	\$2,448	\$1,983	\$14,184	\$140,433	\$25,555
93 Products, total value.....	\$436,434	\$937,644	\$1,143,463	\$4,170,724	\$12,101,170	\$1,715,858
<b>Family and pleasure carriages—</b>						
94 Number.....	89	2,802	2,945	8,106	174,889	3,662
95 Value.....	\$12,514	\$272,244	\$291,881	\$1,480,339	\$7,784,444	\$232,282
<b>Public conveyances—</b>						
96 Number.....	4		8	142	120	4
97 Value.....	\$600		\$2,025	\$113,760	\$116,026	\$615
<b>Wagons (business, farm, government, municipal, etc.)—</b>						
98 Number.....	1,246	1,704	1,840	3,278	52,273	15,059
99 Value.....	\$148,484	\$154,989	\$225,360	\$605,678	\$2,352,958	\$790,290
<b>Sleighs and sleds—</b>						
100 Number.....		2,802	62	1,062	53,180	10,003
101 Value.....		\$117,075	\$1,909	\$79,824	\$977,822	\$169,830
<b>Automobiles—</b>						
102 Number.....				49		3
103 Value.....				\$26,100		\$1,400
104 Parts manufactured, not elsewhere included.....	\$4,460	\$7,010	\$4,090	\$8,401	\$11,797	\$21,470
105 All other products.....	\$1,183	\$11,775	\$57,579	\$132,274	\$360,511	\$64,013
106 Amount received for repair work.....	\$269,193	\$374,551	\$560,619	\$1,733,348	\$497,672	\$435,958
<b>Kind and quantity of products:</b>						
<b>Family and pleasure carriages, aggregate number.....</b>						
107 Two-wheeled, total number.....	89	2,802	2,945	8,106	174,889	3,662
108 Cars.....	21	5	117	374	6,440	504
109 Carts.....	3		104	342	300	503
110 Gigs.....	18			25	85	
111 Sulkies.....				4	25	
112 Tandems.....				1	25	1
113 Other.....	56	2,347	2,366	4,830	139,945	2,033
114 Four-wheeled, for one or two persons, total number.....	45	301	1,393	1,263	88,107	1,518
115 Buggies.....		125	97		16,414	464
116 Buckboards.....		1,161	25	280	158	
117 Driving wagons.....		190	8	180	754	
118 Park wagons.....	9	56	97	67	1,353	1
119 Phaetons.....		1	3	700	18,755	5
120 Pony wagons.....		235	225	303	9,662	26
121 Road wagons.....		67	459	634		
122 Runabouts.....			1	43		
123 Spiders.....		57	26	655	2,302	4
124 Stanhopes.....	2		18	20	212	
125 Traps.....		64	14	376	1,185	3
126 Other.....	12	450	402	2,002	29,104	1,135
127 Four-wheeled, for three or more persons, total number.....		4	24	32	1	
128 Brakes.....		2	6	212	3	15
129 Broughams.....		63	32	10	76	
130 Buckboards.....		12	6	196	100	
131 Cabriolets.....			3	25	1	
132 Coupes.....	4			44		
133 Landaus.....			30	64	773	
134 Mountain wagons.....			13	222	460	3
135 Park wagons.....			10	20	16	
136 Phaetons.....		212	131	409	3,010	1,013
137 Road wagons.....		10	10	432		
138 Rockaways.....			15	1		
139 Spiders.....	6	45	148	440	16,680	104
140 Surreys.....	2			1		
141 Tallyhos.....				38		
142 Traps.....				4	2	
143 Victorias.....				7		
144 Vis-a-vis.....		102	11	718	7,982	
145 Other.....	4		8	142	120	4
146 Public conveyances, total number.....				65	115	
147 Cabs.....	4			1		
148 Hackes.....				55		
149 Horsebuses.....			7		2	2
150 Hotel coaches.....			1	16	2	1
151 Omnibuses.....				5	1	
152 Other.....	991	886	1,626	2,914	20,283	833
153 Business wagons, total number.....	18	10	105	58	272	47
154 Baggage transfer wagons.....		3	10	110		23
155 Caravans.....	36	35	66	237	114	23
156 Coal wagons and carts.....	408	187	617	901	8,061	426
157 Delivery wagons.....		30	10	28	481	7
158 Drays.....	36	334	249	268	31	38
159 Dump dirt wagons and carts.....	164	194	147	614	177	2
160 Express wagons.....			2	5		9
161 Furniture vans.....	26	6	23	51	35	
162 Furniture wagons.....	8		7	12		
163 Garbage wagons and carts.....		1	22	10	119	26
164 Handcarts.....				19		2
165 Hearses.....	36	4	13	54	30	11
166 Ice wagons.....	244	27	20	35	133	8
167 Log wagons.....					27	10
168 Ore wagons.....			1			
169 Street sprinklers.....						3
170 Street sweepers.....	4	12	158	26	1,818	71
171 Trucks.....	11	33	168	477	8,360	44
172 Other.....	4	4	55	47	1,469	9
173 Wagons (government, municipal, etc.), total number.....				13	2	2
174 Ambulances.....				1		
175 Fire patrol wagons.....	3	3		11	1	2
176 Hose wagons.....				20		5
177 Mail and mail carriers' wagons and carts.....		1	1	47		
178 Police patrol wagons.....	1			3	1,466	
179 Prison vans.....				1		
180 Farm wagons, total number.....	251	874	168	317	30,521	14,197
181 One-horse.....	25	174	50	148	3,525	791
182 Two-horse.....	98	671	60	117	26,410	6,883
183 Mountain.....				2	150	3,008
184 Dump carts or farm trucks.....	128	29	58	50	436	515



TABLE 7.—CARRIAGES AND WAGONS—DETAILED

	Louisiana.	Maine.	Maryland.	Massachu- setts.	Michigan.	Minnesota.
Kind and quantity of products—Continued.						
186						
187		2,862	62	1,062	53,180	10,033
188		1,112	27	113	41,943	651
189		360	21	49	1,972	149
190		211	10	31	593	
191		1,119	4	869	8,672	9,293
192				49		3
193				22		2
194				25		
195						
196						
197						1
198				2		
199						
Parts manufactured, not elsewhere included—						
200		46	2	78	617	405
201		93	70	132	1,789	248
202		54	2	33	7,707	16
203				37	94,366	413
Power:						
204						
205		16	57	112	101	73
		220	702	1,770	5,796	1,712
Owned—						
Engines—						
Steam—						
206		8	19	33	63	29
207		126	256	758	4,661	1,214
Gas and gasoline—						
208		3	30	6	34	39
209		20	199	48	417	299
Water wheels—						
210						
211			6	5	2	2
Water motors—						
212			157	132	20	123
Electric motors—						
213						
214						
215				2	30	17
216				12	299	60
Rented—						
Electric motors—						
217		5	10		42	19
218		65	90	86	477	138
219				2	25	1
220				291		50
Furnished to other establishments, horsepower.						



TABLE 7.—CARRIAGES AND WAGONS—DETAILED

	Oklahoma.	Oregon.	Pennsylvania.	Rhode Island.	South Carolina.
1 Number of establishments.....	8	14	601	30	38
2 Capital, total.....	\$54,960	\$93,595	\$8,830,530	\$328,684	\$502,243
3 Land.....	\$7,025	\$3,300	\$1,275,394	\$62,000	\$38,410
4 Buildings.....	\$15,750	\$11,480	\$2,078,435	\$66,100	\$53,234
5 Machinery, tools, and implements.....	\$6,300	\$22,308	\$1,071,523	\$52,828	\$54,266
6 Cash and sundries.....	\$24,915	\$56,498	\$4,405,168	\$147,756	\$356,209
7 Proprietors and firm members.....	8	15	758	33	42
8 Salaried officials, clerks, etc.:.....					
9 Total number.....	1	4	310	8	16
10 Total salaries.....	\$520	\$1,033	\$277,310	\$6,756	\$20,480
11 Officers of corporations—.....					
12 Number.....			48	1	4
13 Salaries.....			\$73,188	\$1,200	\$6,300
14 General superintendents, managers, clerks, etc.—.....					
15 Total number.....	1	4	262	7	12
16 Total salaries.....	\$520	\$1,033	\$204,122	\$5,556	\$14,180
17 Men—.....					
18 Number.....	1	3	235	6	9
19 Salaries.....	\$520	\$818	\$190,946	\$5,156	\$13,040
20 Women—.....					
21 Number.....		1	27	1	3
22 Salaries.....		\$215	\$13,176	\$400	\$1,140
23 Wage-earners, including pieceworkers, and total wages:.....					
24 Greatest number employed at any one time during the year.....	61	81	6,643	289	422
25 Least number employed at any one time during the year.....	37	40	4,687	183	301
26 Average number.....	43	52	5,569	228	346
27 Total wages.....	\$23,407	\$36,209	\$2,794,365	\$140,218	\$118,280
28 Men 16 years and over—.....					
29 Average number.....	43	52	5,488	225	329
30 Wages.....	\$23,407	\$36,209	\$2,778,910	\$139,263	\$115,010
31 Women 16 years and over—.....					
32 Average number.....			25	3	6
33 Wages.....			\$5,973	\$955	\$1,036
34 Children under 16 years—.....					
35 Average number.....			56		11
36 Wages.....			\$9,482		\$1,334
37 Average number of wage-earners, including pieceworkers, employed during each month:.....					
38 Men 16 years and over—.....					
39 January.....	38	41	5,196	195	304
40 February.....	42	38	5,323	203	304
41 March.....	41	38	5,589	213	303
42 April.....	45	65	5,702	247	368
43 May.....	49	57	5,927	260	369
44 June.....	50	65	5,962	269	326
45 July.....	48	58	5,901	254	332
46 August.....	44	54	5,536	239	348
47 September.....	44	52	5,392	224	365
48 October.....	40	52	5,175	205	363
49 November.....	38	56	5,098	198	352
50 December.....	37	48	5,055	193	334
51 Women 16 years and over—.....					
52 January.....			24	3	6
53 February.....			26	3	6
54 March.....			26	3	6
55 April.....			26	3	6
56 May.....			25	3	6
57 June.....			26	3	6
58 July.....			26	3	6
59 August.....			26	3	6
60 September.....			26	3	6
61 October.....			24	3	6
62 November.....			25	3	6
63 December.....			24	3	6
64 Children under 16 years—.....					
65 January.....			55		10
66 February.....			55		10
67 March.....			55		10
68 April.....			57		10
69 May.....			62		10
70 June.....			63		14
71 July.....			58		11
72 August.....			69		11
73 September.....			51		12
74 October.....			49		12
75 November.....			48		10
76 December.....			50		12
77 Miscellaneous expenses, total.....	\$3,149	\$5,940	\$603,455	\$19,086	\$28,441
78 Rent of works.....	\$800	\$4,046	\$84,468	\$6,916	\$1,932
79 Taxes.....	\$416	\$365	\$36,999	\$1,641	\$2,556
80 Rent of offices, interest, insurance, and all other sundry expenses not hitherto included.....	\$1,933	\$1,529	\$471,483	\$9,829	\$23,953
81 Contract work.....			\$10,505	\$700	
82 Materials used, total cost.....	\$26,008	\$45,761	\$3,557,514	\$116,627	\$289,740
83 Lumber.....	\$2,735	\$9,747	\$550,539	\$18,955	\$23,695
84 Iron and steel.....	\$4,875	\$14,423	\$617,804	\$38,878	\$33,922
85 Carriage hardware, lamps, and mountings.....	\$2,810	\$3,245	\$404,306	\$8,007	\$20,334
86 Paints, oils, turpentine, and varnish.....	\$2,220	\$2,275	\$317,882	\$10,308	\$14,502
87 Enamel, rubber, and other carriage cloth.....	\$2,074	\$350	\$223,506	\$2,016	\$14,252
88 Leather.....	\$1,135	\$775	\$116,380	\$811	\$29,562
89 Rubber tires.....	\$1,495	\$1,297	\$154,085	\$4,440	\$3,757
90 Carriage bodies, purchased—.....					
91 Number.....	64	5	6,171	2	662
92 Cost.....	\$476	\$28	\$50,541	\$30	\$2,165
93 Gears, purchased—.....					
94 Number.....	67	6	2,369	246	558
95 Cost.....	\$427	\$150	\$37,511	\$1,798	\$1,228
96 Wagon bodies, purchased—.....					
97 Number.....			1,448	28	28
98 Cost.....			\$24,279	\$355	\$134
99 Tops, purchased—.....					
100 Number.....	75	21	717	14	221
101 Cost.....	\$486	\$554	\$5,699	\$265	\$1,825
102 Wheels, purchased—.....					
103 Number.....	816	796	143,926	2,996	34,362
104 Cost.....	\$1,777	\$3,019	\$353,030	\$9,268	\$42,013
105 Axles and springs, purchased.....	\$1,304	\$2,438	\$304,312	\$6,716	\$23,105

<sup>1</sup> Includes establishments distributed as follows: Arizona, 1; Indian Territory, 1; Nevada, 1; North Dakota, 1; Wyoming, 1.

# CARRIAGES AND WAGONS.

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SUMMARY, BY STATES AND TERRITORIES: 1905—Continued.

South Dakota.	Tennessee.	Texas.	Utah.	Vermont.	Virginia.	Washington.	West Virginia.	Wisconsin.	All other states. <sup>1</sup>	
3	59	34	3	32	92	25	34	311	5	1
\$54,415	\$1,445,350	\$285,514	\$2,950	\$214,301	\$1,615,715	\$230,418	\$313,614	\$9,751,420	\$28,630	2
\$0,500	\$133,182	\$53,348	\$200	\$23,420	\$130,560	\$52,800	\$50,175	\$849,643	\$1,350	3
\$23,000	\$195,179	\$68,403	\$750	\$68,200	\$244,630	\$37,650	\$53,004	\$1,780,170	\$4,000	4
\$3,000	\$212,784	\$51,719	\$900	\$29,005	\$115,125	\$53,000	\$39,766	\$900,928	\$11,650	5
\$18,915	\$899,205	\$112,044	\$1,100	\$33,676	\$1,124,900	\$86,968	\$170,609	\$6,160,679	\$11,030	6
2	73	41	4	46	111	36	43	387	6	7
2	83	9	.....	1	70	12	18	246	1	8
\$2,000	\$94,346	\$8,536	.....	\$1,000	\$61,226	\$10,768	\$16,375	\$276,385	\$1,800	9
2	21	3	.....	.....	16	1	2	36	1	10
\$2,000	\$43,606	\$5,400	.....	.....	\$21,100	\$1,500	\$3,300	\$66,138	\$1,800	11
.....	62	6	.....	1	54	11	16	210	.....	12
.....	\$50,740	\$3,136	.....	\$1,000	\$40,126	\$9,268	\$13,075	\$210,247	.....	13
.....	48	6	.....	1	46	9	13	175	.....	14
.....	\$43,938	\$3,136	.....	\$1,000	\$37,946	\$8,548	\$11,400	\$193,163	.....	15
.....	14	.....	.....	.....	8	2	3	35	.....	16
.....	\$6,802	.....	.....	.....	\$2,780	\$720	\$1,675	\$17,084	.....	17
20	1,083	251	11	130	1,203	257	249	3,955	32	18
18	790	180	6	94	940	164	190	3,014	28	19
19	917	211	8	108	1,046	201	221	3,506	25	20
\$12,528	\$416,682	\$124,082	\$5,075	\$58,825	\$372,490	\$158,200	\$113,032	\$1,724,017	\$14,295	21
19	904	211	8	108	997	200	210	3,451	25	22
\$12,528	\$414,080	\$124,082	\$5,075	\$58,825	\$363,388	\$157,960	\$112,715	\$1,709,135	\$14,295	23
.....	5	.....	.....	.....	2	1	1	34	.....	24
.....	\$1,265	.....	.....	.....	\$750	\$240	\$135	\$11,278	.....	25
.....	8	.....	.....	.....	47	.....	1	21	.....	26
.....	\$1,337	.....	.....	.....	\$8,352	.....	\$182	\$3,004	.....	27
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18	875	181	7	101	916	173	214	3,363	17	28
18	877	185	7	106	941	175	224	3,405	17	29
18	928	195	6	115	989	181	228	3,543	18	30
18	899	209	7	116	999	194	229	3,513	30	31
20	898	227	8	116	1,016	215	224	3,501	30	32
20	900	229	9	120	1,009	214	211	3,489	31	33
20	899	232	10	112	1,018	236	208	3,490	31	34
20	903	232	10	103	1,018	232	214	3,411	31	35
20	914	229	9	104	1,046	219	219	3,398	31	36
20	944	215	9	103	1,051	199	220	3,417	30	37
18	907	205	7	102	1,001	186	220	3,431	17	38
18	904	193	7	98	960	176	217	3,451	17	39
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	.....	.....	.....	.....	2	1	3	35	.....	40
5	.....	.....	.....	.....	2	1	3	36	.....	41
5	.....	.....	.....	.....	2	1	3	36	.....	42
6	.....	.....	.....	.....	2	1	3	36	.....	43
5	.....	.....	.....	.....	2	1	.....	36	.....	44
5	.....	.....	.....	.....	2	1	.....	35	.....	45
5	.....	.....	.....	.....	2	1	.....	32	.....	46
5	.....	.....	.....	.....	2	1	.....	29	.....	47
5	.....	.....	.....	.....	2	1	.....	31	.....	48
5	.....	.....	.....	.....	2	1	.....	32	.....	49
5	.....	.....	.....	.....	2	1	.....	34	.....	50
5	.....	.....	.....	.....	2	1	.....	36	.....	51
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	.....	.....	.....	.....	39	.....	1	20	.....	52
6	.....	.....	.....	.....	39	.....	1	20	.....	53
8	.....	.....	.....	.....	45	.....	1	20	.....	54
8	.....	.....	.....	.....	48	.....	1	22	.....	55
8	.....	.....	.....	.....	49	.....	1	22	.....	56
8	.....	.....	.....	.....	55	.....	1	22	.....	57
8	.....	.....	.....	.....	57	.....	1	21	.....	58
9	.....	.....	.....	.....	55	.....	1	20	.....	59
9	.....	.....	.....	.....	51	.....	1	20	.....	60
8	.....	.....	.....	.....	46	.....	1	20	.....	61
8	.....	.....	.....	.....	41	.....	1	20	.....	62
8	.....	.....	.....	.....	39	.....	1	21	.....	63
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
\$2,010	\$122,837	\$21,224	\$702	\$8,353	\$31,938	\$21,503	\$20,826	\$144,000	\$4,225	64
.....	\$23,204	\$6,840	\$222	\$632	\$8,583	\$9,203	\$1,775	\$12,177	\$1,545	65
.....	\$8,690	\$2,393	\$18	\$1,716	\$8,568	\$2,253	\$1,521	\$48,939	\$358	66
\$1,370	\$90,909	\$10,091	\$212	\$5,805	\$94,384	\$8,997	\$17,530	\$571,290	\$2,322	67
.....	\$125	\$1,900	\$250	\$200	\$403	\$1,050	.....	\$11,594	.....	68
\$9,903	\$898,447	\$130,164	\$4,315	\$54,816	\$1,029,976	\$188,314	\$210,452	\$3,725,358	\$17,353	69
\$2,800	\$227,509	\$17,541	\$750	\$8,041	\$175,038	\$33,460	\$42,456	\$1,270,721	\$3,600	70
\$3,000	\$206,320	\$32,027	\$1,850	\$12,798	\$176,213	\$62,289	\$43,567	\$938,794	\$4,156	71
\$800	\$53,098	\$13,183	\$393	\$5,604	\$123,701	\$7,140	\$7,880	\$178,337	\$345	72
\$950	\$55,939	\$8,501	\$50	\$6,500	\$79,905	\$10,396	\$16,243	\$227,012	\$1,746	73
\$440	\$19,167	\$4,720	\$90	\$1,924	\$61,905	\$4,124	\$5,624	\$96,160	\$1,144	74
\$60	\$26,959	\$3,805	\$10	\$1,600	\$85,606	\$2,145	\$4,302	\$134,745	\$1,045	75
\$300	\$33,649	\$16,945	\$25	\$690	\$22,747	\$5,094	\$7,521	\$56,548	\$150	76
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	2,008	10	.....	6	9,958	160	365	3,006	2	77
.....	\$9,295	\$75	.....	\$48	\$21,581	\$1,250	\$2,325	\$20,370	\$9	78
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	244	168	110	15	2,953	44	139	1,316	34	79
.....	\$2,154	\$1,555	\$575	\$382	\$12,422	\$300	\$1,441	\$15,064	\$1,992	80
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	3	20	.....	.....	74	.....	200	139	.....	81
\$58	\$100	\$377	.....	.....	\$202	.....	\$2,000	\$1,543	.....	82
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13	233	86	10	36	171	84	588	1,471	5	83
\$200	\$1,745	\$953	\$65	\$340	\$1,450	\$957	\$5,743	\$18,328	\$35	84
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
120	50,539	3,026	40	1,604	68,404	5,790	12,724	91,115	222	85
\$300	\$101,032	\$7,177	\$120	\$5,668	\$101,626	\$21,605	\$21,720	\$186,413	\$590	86
\$185	\$61,294	\$7,276	\$210	\$4,137	\$65,537	\$19,478	\$22,948	\$170,430	\$310	87

MANUFACTURES.

TABLE 7.—CARRIAGES AND WAGONS—DETAILED

	Oklahoma.	Oregon.	Pennsyl- vania.	Rhode Island.	South Carolina.
Materials used—(continued.)					
88 Fuel.....	\$961	\$2,016	\$85,230	\$4,426	\$4,493
89 Rent of power and heat.....	\$528	\$1,104	\$9,592	\$2,138	\$350
90 Mill supplies.....	\$154	\$190	\$11,130	\$405	\$1,069
91 All other materials.....	\$633	\$3,093	\$250,488	\$6,413	\$72,538
92 Freight.....	\$1,058	\$157	\$41,110	\$1,398	\$506
93 Products, total value.....	\$66,921	\$114,429	\$8,620,787	\$369,870	\$548,226
Family and pleasure carriages—					
94 Number.....	65	56	33,467	40	7,440
95 Value.....	\$6,430	\$3,480	\$2,355,043	\$4,660	\$353,569
Public conveyances—					
96 Number.....	1	31	333	1	2
97 Value.....	\$120	\$2,775	\$117,093	\$177	\$300
Wagons (business, government, municipal, etc.)—					
98 Number.....	68	142	35,395	481	1,569
99 Value.....	\$8,236	\$35,655	\$2,839,372	\$50,682	\$56,707
Sleighs and sleds—					
100 Number.....		16	5,551	163	
101 Value.....		\$320	\$150,461	\$5,695	
Automobiles—					
102 Number.....			18		
103 Value.....			\$21,100		
104 Parts manufactured, not elsewhere included.....	\$200	\$908	\$50,819	\$2,768	\$2,607
105 All other products.....	\$1,000	\$5,100	\$120,929	\$2,869	\$4,557
106 Amount received for repair work.....	\$50,335	\$66,191	\$2,965,970	\$294,010	\$131,125
Kind and quantity of products:					
107 Family and pleasure carriages, aggregate number.....	65	56	33,467	40	7,440
108 Two-wheeled, total number.....	2		733	20	11
109 Cars.....					
110 Carts.....	2		656	20	11
111 Gigs.....					
112 Sulkies.....			37		
113 Tandems.....					
114 Other.....			40		
115 Four-wheeled, for one or two persons, total number.....	56	55	27,019	18	7,422
116 Buggies.....	50	53	18,525	3	7,420
117 Buckboards.....	2	2	1,368		2
118 Driving wagons.....			527	1	
119 Park wagons.....			26		
120 Phaetons.....			421		
121 Pony wagons.....			100		
122 Road wagons.....			1,770	8	
123 Runabouts.....			3,499	5	
124 Spiders.....	1		1		
125 Stanhopes.....	3		316		
126 Traps.....			168		
127 Other.....			1,200	1	
128 Four-wheeled, for three or more persons, total number.....	7	1	4,815	2	7
129 Brakes.....			18		
130 Broughams.....			135		
131 Buckboards.....		1	50		
132 Cabriolets.....			60		
133 Coupes.....			1		
134 Landaus.....			1		
135 Mountain wagons.....			15		
136 Park wagons.....			27		
137 Phaetons.....	1		22		
138 Road wagons.....			721		
139 Rockaways.....			830		
140 Spiders.....			1		
141 Surreys.....	5		2,050	1	7
142 Tallyhos.....			3		
143 Traps.....			288		
144 Victorias.....			4		
145 Vis-a-vis.....			2		
146 Other.....	1		587	1	
147 Public conveyances, total number.....	1	31	333	1	2
148 Cabs.....			114		
149 Hacks.....	1	28	115		
150 Hansoms.....					
151 Hotel coaches.....		3	84		2
152 Omnibuses.....			14		
153 Other.....			6	1	
154 Business wagons, total number.....	63	129	21,722	396	108
155 Baggage transfer wagons.....	1		233		
156 Caravans.....			18		
157 Coal wagons and carts.....	1		488	45	
158 Delivery wagons.....	41	121	11,244	125	36
159 Drays.....	5		271	4	4
160 Dump dirt wagons and carts.....			633	30	19
161 Express wagons.....	4	2	1,227	136	
162 Furniture vans.....	1		38		
163 Furniture wagons.....			127	1	1
164 Garbage wagons and carts.....			23	11	1
165 Handcarts.....			378	10	6
166 Horses.....	3	1	40		
167 Ice wagons.....			164	2	
168 Log wagons.....	1		94	2	8
169 Ore wagons.....			8		
170 Street sprinklers.....			1		
171 Street sweepers.....		1	3		
172 Trucks.....	2			19	3
173 Other.....	4	3	4,945	5	30
174 Wagons (government, municipal, etc.), total number.....	2	3	352	5	
175 Ambulances.....			58	1	
176 Fire patrol wagons.....			12		
177 Hose wagons.....			16	4	
178 Mail and mail carriers' wagons and carts.....	1	3	264		
179 Police patrol wagons.....	1		2		
180 Prison vans.....					
181 Farm wagons, total number.....	3	10	13,321	80	1,461
182 One-horse.....		5	2,078	16	1,142
183 Two-horse.....		1	6,204	27	247
184 Mountain.....	3		3		
185 Dump carts or farm trucks.....		1	4,702	37	72

# CARRIAGES AND WAGONS.

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SUMMARY, BY STATES AND TERRITORIES: 1905—Continued.

South Dakota.	Tennessee.	Texas.	Utah.	Vermont.	Virginia.	Washington.	West Virginia.	Wisconsin.	All other states.	
\$730	\$14,982	\$3,844	\$175	\$3,206	\$10,702	\$6,454	\$4,721	\$77,155	\$871	88
\$1001	\$1,802	\$2,498		\$720	\$1,270	\$3,605	\$181	\$3,027	\$722	89
\$80	\$5,153	\$414	\$2	\$320	\$2,627	\$498	\$1,187	\$13,672	\$138	90
	\$52,003	\$8,090		\$1,943	\$9,663	\$4,785	\$9,536	\$22,771	\$290	91
	\$35,256	\$1,174		\$805	\$26,721	\$4,524	\$11,057	\$94,408	\$240	92
\$31,119	\$1,774,725	\$307,547	\$12,300	\$163,756	\$1,913,530	\$482,263	\$443,291	\$7,511,392	\$43,745	93
15	5,374	100	2	169	19,366	125	1,180	23,466	26	94
\$1,555	\$356,499	\$11,425	\$70	\$14,180	\$970,562	\$13,575	\$80,550	\$1,520,841	\$2,660	95
1	108		1		28		3	103		96
\$150	\$27,212		\$130		\$3,680		\$200	\$39,720		97
47	20,241	718	26	652	19,195	804	5,117	83,916	170	98
\$5,830	\$960,913	\$76,349	\$3,565	\$49,750	\$652,567	\$159,505	\$231,784	\$4,396,693	\$20,305	99
9			2	278	6	501	10	15,365	1	100
\$184			\$50	\$11,771	\$90	\$4,225	\$182	\$343,500	\$42	101
					1					102
					\$1,800					103
	\$2,910	\$1,240		\$100	\$5,564	\$1,000	\$125	\$5,382	\$160	104
\$1,600	\$60,722	\$16,644	\$700	\$3,800	\$15,404	\$14,540	\$2,100	\$353,191	\$5,152	105
\$21,900	\$366,400	\$261,889	\$7,785	\$84,155	\$263,913	\$289,418	\$128,350	\$852,056	\$15,426	106
15	5,374	100	2	169	19,366	125	1,180	23,466	26	107
	16	6	2	2	32	31	2	23		108
								2		109
	16	6		2	32	29	2	17		110
								2		111
								2		112
			2					2		113
								2		114
14	5,032	80		140	18,293	71	948	17,175	21	115
12	4,045	45		95	16,588	52	254	11,728	3	116
	16	2		13	165	8	568	156		117
	14			12	18	3	36	1,775	12	118
				11				337	1	119
	85	6		367	7	1	11	127		120
				7		1		47	4	121
2	200	25		19	800	2	28	2,292	1	122
	588	9		246	2	2	55	348		123
										124
	17	2		34	1	1	6	359		125
				54				4		126
	66			10	3			2		127
1	326	5		18	1,041	23	230	6,268	5	128
								1		129
	1							6		130
	1	4		10			181	13	2	131
								37		132
								1		133
		1			10	2	13	5		134
					3			366	1	135
					3			308		136
	10				4			8		137
	25				4			8		138
	8			5	200	2		1,729		139
	1				11		3	2		140
1	261			3	867	18	31	2,455	2	141
										142
	9				1	1		94		143
	1									144
					2		1	1,244		145
1	9		1		28		3	163		146
	168									147
1	151				27		3	18		148
										149
	10				1			53		150
								2		151
	7		1					30		152
26	2,749	550	26	114	1,504	780	508	12,910	60	153
	36	9	5	4	130	17	32	108	3	154
					18	6	1	11		155
					4			10		156
	26	20	5	4	31		10	206		157
16	1,372	358	4	53	411	440	209	5,022	17	158
10	67	12		83	12	12	117	93	2	159
	63	19	2	12	81	15	120	418		160
	72	7		18	56	59	93	45	1	161
	24	10				22	2	62	1	162
	23	9			24	13	3	7		163
						2	2	2		164
	2	5			30	22	1	2,054		165
	2		2		3	2	5	5		166
	132	8			14	5	5	72	2	167
	428	40		6	300	2		47		168
										169
								11		170
								38		171
	52	3		10	237	152	2	1,321	2	172
1	450	50	8	7	100	14	11	3,275	32	173
	22	3		1	3	5	2	192	1	174
		1			1			10		175
								2		176
		1		1	1		2	22		177
	22					5		151		178
		1			1			7		179
										180
21	17,470	165		537	17,688	19	4,607	70,814	109	181
	5,228	3		55	11,604	2	1,837	3,798		182
21	11,971	156		411	5,524	17	2,498	61,322	107	183
							60	2,292	2	184
	135							3,402		185
	136	6		71	500		212			

## MANUFACTURES.

TABLE 7.—CARRIAGES AND WAGONS—DETAILED

Kind and quantity of products—Continued.		Oklahoma.	Oregon.	Pennsyl- vania.	Rhode Island.	South Carolina.
186	Sleighs, total number.....		16	5,551	163	
187	One-seated.....		1	3,784	4	
188	Two-seated.....			485		
189	Speeding or racing.....			219		
190	Sleds, horse, including "hobs".....		15	1,063	150	
191	Automobiles.....			18		
192	Runabout.....			2		
193	Touring.....			14		
194	Surrey.....					
195	Phaeton.....					
196	Doctor's wagon or car.....					
197	Delivery, light.....					
198	Delivery, heavy.....			2		
199	Other.....					
	Parts manufactured, not elsewhere included—					
200	Carriage bodies.....	6	30	370		10
201	Wagon bodies.....	14	40	619	70	119
202	Tops.....	13		784	4	12
203	Wheels.....			1,293		662
	Power:					
204	Number of establishments reporting.....	5	8	247	14	10
205	Total horsepower.....	15	95	4,908	158	420
	Owned—					
	Engines—					
	Steam—					
206	Number.....		1	106	4	6
207	Horsepower.....		60	3,079	60	208
	Gas and gasoline—					
208	Number.....	5	1	108	4	2
209	Horsepower.....	5	8	1,242	47	13
	Water wheels—					
210	Number.....			8		1
211	Horsepower.....			143		9
	Water motors—					
212	Number.....		1	2		
213	Horsepower.....		2	4		
	Electric motors—					
214	Number.....			3		33
215	Horsepower.....			38		100
216	Other power, horsepower.....					
	Rented—					
	Electric motors—					
217	Number.....	5	5	53	10	2
218	Horsepower.....	10	25	325	51	90
219	Other kind, horsepower.....			77		
220	Furnished to other establishments, horsepower.....			18	10	

# CARRIAGES AND WAGONS.

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SUMMARY, BY STATES AND TERRITORIES: 1905—Continued.

South Dakota.	Tennessee.	Texas.	Utah.	Vermont.	Virginia.	Washington.	West Virginia.	Wisconsin.	All other states.
9				278	6	501	10	15,365	1
1			2	37	2		3	3,084	187
			2	10	4		7	1,840	188
								38	189
8				231		501		10,403	190
					1				191
									192
									193
									194
									195
					1				196
									197
									198
									199
	63	12			31				
	37	30			78			39	200
		20		5	151		6	183	15
	400	10			766	50	4	34	202
						100		116	10
2	26	12		23	35	29		149	3
16	1,107	118		324	778	130	14	5,736	50
							365		204
									205
	14	1		3	18			73	
	918	35		33	491		7	3,869	1
1	9	2		9	10		237		15
8	108	30		68	162		7	77	1
				8	3		108	601	10
				195	117			2	208
								55	209
									210
					1				211
					1				212
									213
	1				1				
	25				3				
								70	214
								1,014	215
								25	216
1	9	10		3	9	24			
8	51	53		28	64	130	1	22	217
	5						20	168	25
								4	218
								10	219
									220

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# SHIPBUILDING

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## SHIPBUILDING.

The statistics for shipbuilding at the census of 1905 cover the calendar year 1904. Frequently comparisons are made with the Twelfth and prior censuses in the form of "1905," "1900," etc.

In the general tables of this report the value of products is confined to the value of the work done during the census year. In order to show the numerical output and value of ships launched during the census year, detailed tables are added which give the number of each class of vessels launched during the year with their tonnage and contract value.

In cases where engine construction and shipbuilding work were combined in the same plant, and shipbuilding operations were secondary to the foundry and machine shop or other products reported, the statistics relating to capital invested, labor, cost of materials, etc., were not included in the general tables for the shipbuilding industry, although the vessels launched

by such establishments appear in connection with certain detailed tables of this report. On the other hand, whenever the value of the shipbuilding operations predominated, statistics for such establishments appear in the following tables, products other than shipbuilding being classified as "all other products." Statistics of the production of marine engines, marine boilers, anchors, chains, masts, and other shipbuilding supplies by establishments not engaged in shipbuilding are not included in this report.

### THE COMBINED INDUSTRY.

Table 1 is a comparative summary, giving the general statistics of the combined industry—iron and steel shipbuilding, and wooden shipbuilding—exclusive of governmental establishments, from 1850 to 1905, with the per cent of increase for each census period.

TABLE 1.—COMPARATIVE SUMMARY, WITH PER CENT OF INCREASE: 1850 TO 1905.

	CENSUS.							PER CENT OF INCREASE.					
	1905 <sup>1</sup>	1900	1890	1880	1870	1860	1850	1900 to 1905	1890 to 1900	1880 to 1890	1870 to 1880	1860 to 1870	1850 to 1860
Number of establishments.....	1,097	1,107	1,006	2,188	964	675	953	0.0	10.0	54.0	127.0	42.8	29.2
Capital.....	\$121,623,700	\$77,341,001	\$27,202,892	\$20,979,874	\$11,463,076	\$5,952,665	\$5,373,139	57.3	183.7	29.9	83.0	92.6	10.8
Salaries officials, clerks, etc., number.....	2,480	1,405	31,123	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	76.5	25.1	.....	.....	.....	.....
Salaries.....	\$3,339,741	\$2,007,237	\$1,194,870	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	66.4	68.0	.....	.....	.....	.....
Wage-earners, average number.....	60,754	46,747	22,143	21,345	13,915	10,071	12,976	8.6	111.1	3.7	53.4	38.2	222.4
Total wages.....	\$20,241,087	\$24,824,738	\$13,083,940	\$12,713,813	\$7,073,400	\$4,539,313	\$6,055,884	17.8	89.8	2.9	79.7	55.8	25.0
Men 16 years and over.....	40,915	45,711	21,960	21,338	13,814	10,070	12,962	9.2	108.1	2.9	54.5	37.2	223.3
Wages.....	\$20,067,884	\$24,022,453	\$13,055,083	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	18.1	88.6	.....	.....	.....	.....
Women 16 years and over.....	65	34	9	.....	6	1	14	91.2	277.8	.....	2100.0	500.0	192.9
Wages.....	\$28,454	\$11,424	\$2,522	.....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	149.1	353.0	.....	.....	.....	.....
Children under 16 years.....	774	1,002	174	7	95	( <sup>2</sup> )	( <sup>2</sup> )	222.8	475.9	2,385.7	292.6	.....	.....
Wages.....	\$144,749	\$100,961	\$26,344	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	224.2	624.9	.....	.....	.....	.....
Miscellaneous expenses.....	\$5,255,506	\$3,684,811	\$1,392,551	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	42.6	164.6	.....	.....	.....	.....
Cost of materials used.....	\$37,463,179	\$33,474,896	\$16,521,246	\$19,736,358	\$9,379,980	\$5,788,676	\$7,420,496	11.9	102.6	216.3	110.4	62.0	222.0
Value of products, including repair work.....	\$82,769,239	\$74,532,277	\$38,065,410	\$36,800,327	\$21,483,967	\$13,424,037	\$16,937,525	11.1	95.8	3.4	71.3	66.0	29.7

<sup>1</sup> Exclusive of the statistics of 20 establishments engaged primarily in the manufacture of other products. These establishments reported shipbuilding products to the value of \$657,342.

<sup>2</sup> Decrease.

<sup>3</sup> Includes proprietors and firm members with their salaries; number only reported in 1900 and 1905, but not included in this table.

<sup>4</sup> Not reported separately.

<sup>5</sup> Not reported.

For the shipbuilding industry the period covered by the table is particularly interesting, marking as it does the half century of progress during which the transition from wood to iron and steel in the construction of ships radically altered conditions in the industry. In a limited manner the table reflects these changes. While the number of establishments engaged in the construction of ships did not increase

materially during the fifty-five years, the capital invested in the industry increased twenty-one fold and the value of the product nearly fourfold. These changes indicate that, as the construction of iron and steel ships has grown in importance, capital has become far more essential to the development of the industry than was the case when ships were constructed of wood only.

Since 1900 the number of shipbuilding plants has apparently decreased, notwithstanding that in the other statistical items of importance there were substantial gains. In a measure this is explained by the fact that at the census of 1900 a number of small boat builders and repairers were included that did not prove of sufficient importance to be included in the factory census of 1905. The operations of the establishments omitted on this account, however, were inconsiderable and consequently their omission does not affect materially the other statistical items shown in the table. At the census of 1880 there were practically twice as many establishments engaged in the industry as at the census of 1905. This fact, taken in conjunction with the increase in capital and products, shows the progressive concentration of shipbuilding in large establishments made necessary by the altered conditions in the industry, to which reference has already been made.

The capital invested in the industry increased during the years between 1900 and 1905 at a far greater rate than the value of the products. This condition was more marked than that which characterized the industry during the previous intercensal period, and it is explained by the extremely unsatisfactory state of the shipbuilding industry during 1904, which was especially marked in the shipbuilding operations on the Great Lakes. Owing to this depression it is probable that the increase in the capital invested is a truer index to the progress of the industry since 1900 than the value of the products.

*Branches of the industry.*—In Table 2 are shown separately the operations of private establishments engaged primarily in the construction of iron and steel vessels, and those building principally wooden ships and boats, at the censuses of 1900 and 1905.

TABLE 2.—COMPARATIVE SUMMARY, BY BRANCHES: 1905 AND 1900.

	1905					1900					PER CENT OF INCREASE.	
	Total.	Iron and steel.	Per cent of total.	Wooden.	Per cent of total.	Total.	Iron and steel.	Per cent of total.	Wooden.	Per cent of total.	Iron and steel.	Wooden.
Number of establishments.....	1,097	54	4.9	1,043	95.1	1,107	44	4.0	1,063	96.0	22.7	11.9
Capital.....	\$121,623,700	\$101,528,251	83.5	\$20,095,449	16.5	\$77,341,001	\$59,839,555	77.4	\$17,501,446	22.6	69.7	14.8
Salaried officials, clerks, etc., number.....	2,480	1,770	71.4	710	28.6	1,405	857	61.0	548	39.0	106.5	29.6
Salaries.....	\$3,339,741	\$2,544,297	76.2	\$795,444	23.8	\$2,007,237	\$1,411,863	70.3	\$595,374	29.7	80.2	33.6
Wage-earners, average number.....	50,754	36,742	72.4	14,012	27.6	46,747	30,906	66.1	15,841	33.9	18.9	11.5
Total wages.....	\$29,241,087	\$20,809,908	71.2	\$8,431,179	28.8	\$24,824,738	\$16,231,311	65.4	\$8,593,427	34.6	28.2	11.9
Miscellaneous expenses.....	\$5,255,506	\$3,767,620	71.7	\$1,487,886	28.3	\$3,684,811	\$2,642,090	71.7	\$1,042,721	28.3	42.6	42.8
Cost of materials used.....	\$37,463,179	\$27,601,824	73.7	\$9,861,355	26.3	\$33,474,896	\$23,585,549	70.5	\$9,889,347	29.5	17.0	18.3
Value of products, including repair work.....	\$82,769,239	\$58,433,314	70.6	\$24,335,925	29.4	\$74,532,277	\$50,367,739	67.6	\$24,164,538	32.4	16.0	0.7

<sup>1</sup> Decrease.

The notable feature of the table is the increase in the capital invested in iron and steel shipbuilding. This increase amounted to \$41,688,696, which was more than twice the amount invested in wooden shipbuilding at the census of 1905. It is not surprising, therefore, that at the later census the capital invested in the iron and steel branch of the industry constituted 83.5 per cent of the total capital invested in shipbuilding.

The division of the number of establishments engaged in shipbuilding between the two branches of the industry is more disproportionate than the division of capital, the establishments engaged in wooden construction work constituting 95.1 per cent of the total number. This fact, taken in conjunction with the division of the capital, indicates clearly the dissimilar character of the operations of each. The great majority of the establishments engaged in the construction of iron and steel vessels are of great size, requiring the most costly and extensive equipment; whereas a large proportion of the establishments engaged in wooden construction work are small yards

which perform minor repairs on small vessels and turn out wooden vessels of comparatively small tonnage.

It is evident that the depression which characterized the industry in 1904 fell more heavily upon the establishments engaged in iron and steel construction work than upon those engaged in wooden construction work. The following tabular statement, which presents the average capital and average value of the product per establishment for both branches of the industry at the last two censuses, illustrates this fact more clearly than Table 2:

	AVERAGE PER ESTABLISHMENT.			
	1905		1900	
	Capital.	Value of products.	Capital.	Value of products.
Iron and steel.....	\$1,880,153	\$1,082,068	\$1,359,990	\$1,144,721
Wooden.....	19,297	23,333	16,464	22,772

The statement shows that the productivity of the capital invested in the average establishment engaged

in wooden shipbuilding at the census of 1900, when conditions were fairly normal, continued practically unaffected by the depression at the census of 1905; whereas in the case of the average establishment in the iron and steel branch of the industry the decline in the productivity of the capital plainly reflects the unnatural conditions at the later census, indicating that a large proportion of the capital was idle.

*Materials used.*—Table 3 shows the cost of materials used at the censuses of 1890, 1900, and 1905, distributed according to kind.

The growth in importance of iron and steel as materials in shipbuilding is well illustrated by the table. At the census of 1890 the cost of iron and steel constituted a less important item in the expenditure for materials than the cost of lumber, but at the census of 1905, the cost of the former item constituted 41.2 per cent and the cost of the latter only 17.9 per cent of the amount paid out for materials.

The decrease in wooden shipbuilding is further indicated by the decrease since 1900 in the amount of money expended for cordage, masts and spars, blocks, oakum and pitch—materials which belong particularly to that branch.

TABLE 3.—Materials used, by kind and cost, with per cent of total: 1890 to 1905.

KIND.	1905		1900		1890	
	Amount.	Per cent of total.	Amount.	Per cent of total.	Amount.	Per cent of total.
Total.....	\$37,463,179	100.0	\$33,474,896	100.0	\$16,925,109	100.0
Iron and steel materials <sup>1</sup> .....	15,417,500	41.2	14,112,436	42.1	4,872,074	28.8
Lumber, all kinds.....	6,700,087	17.9	6,224,974	18.6	5,995,894	35.4
Machinery and boilers, purchased.....	4,548,482	12.1	3,082,677	9.2	2,913,856	17.2
Cordage—wire, manilla, and hemp.....	490,130	1.3	531,497	1.6	309,270	1.8
Masts and spars, purchased.....	174,047	0.4	223,353	0.7	204,365	1.2
Calking materials, oakum, pitch, etc.....	251,671	0.7	275,236	0.8	227,994	1.4
Blocks, purchased.....	82,316	0.2	85,214	0.3	74,927	0.4
All other materials <sup>2</sup> .....	9,798,946	26.2	8,939,509	26.7	2,326,729	13.8

<sup>1</sup> Includes \$403,863 reported by governmental establishments.

<sup>2</sup> Includes plates, beams, angles, forgings, rivets, castings, nails, spikes, bolts, etc.; pig and scrap iron; yellow metal; copper, sheets and pipes; and anchors and chains, purchased.

<sup>3</sup> Includes fittings and furniture; paints, oils, and other materials not specified; fuel; rent of power and heat; mill supplies; and freight.

*Products.*—In Table 4 is presented the value of products distributed by kind for each census from 1880 to 1905.

TABLE 4.—PRODUCTS, BY KIND AND VALUE, WITH PER CENT OF TOTAL: 1880 TO 1905.

KIND.	1905		1900		1890		1880	
	Amount.	Per cent of total.	Amount.	Per cent of total.	Amount.	Per cent of total.	Amount.	Per cent of total.
Total.....	\$82,769,239	100.0	\$74,532,277	100.0	\$38,065,410	100.0	\$36,800,327	100.0
Vessels of 5 tons and over:								
Iron and steel construction.....	43,395,704	52.4	25,454,943	34.2	11,550,846	30.3	5,696,293	13.8
Wooden construction.....	9,724,231	11.8	10,395,530	13.8	12,933,149	34.0	14,129,421	38.4
Small boats under 5 tons.....	3,001,292	3.6	1,368,835	2.6	1,332,084	3.7	876,999	2.4
Repair work.....	22,829,040	27.6	23,134,436	31.0	10,012,389	26.3	16,697,014	45.4
All other products.....	3,818,972	4.6	13,678,533	18.4	2,176,942	5.7	( <sup>1</sup> )	.....

<sup>1</sup> Not reported separately.

Table 4 shows the rapid growth in iron and steel construction during the past twenty-five years. In marked contrast is the decrease in wooden construction during the period. At the census of 1880 the value of the work done upon wooden vessels of 5 tons and over was nearly three times as great as the value of work done upon iron and steel vessels of the same class, but a quarter of a century later conditions were reversed and the value of work done on vessels constructed of iron and steel was over four times that of work done on vessels built of wood.

The increase since 1900 of \$1,032,457, or 52.4 per cent, in the production of boats under 5 tons is a notable feature of the table. This increase is due to the demand for small boats, both for business and pleasure, driven by internal combustion engines, and has resulted naturally from marked improvements in

engines of this type which have made them most adaptable and efficient sources of power for the propulsion of small boats.

The noticeable falling off in the value of "all other products" is due largely to the increasing tendency among shipbuilders to eliminate minor products and to confine themselves to the principal products of the industry. Many of the minor materials necessary in ship construction are now manufactured in large quantities by establishments specializing in their production, and it is cheaper for the shipbuilder to buy them in the open market than to produce them himself.

Table 5 presents the states which led in the shipbuilding industry at the census of 1905, ranked according to capital and value of products reported at each census during the past twenty-five years.

## MANUFACTURES.

TABLE 5.—Rank, according to capital and value of products, of states having products valued at one million dollars and over for 1905: 1880 to 1905.

STATE.	RANK ACCORDING TO—							
	Capital.				Value of products.			
	1905	1900	1890	1880	1905	1900	1890	1880
California.....	9	4	6	3	5	3	5	7
Connecticut.....	15	16	12	12	7	16	11	13
Delaware.....	11	11	7	7	13	11	9	5
Maine.....	14	9	10	8	9	8	6	3
Maryland.....	7	6	8	5	8	7	10	8
Massachusetts.....	6	12	9	4	6	10	8	4
Michigan.....	8	7	2	9	11	5	7	10
New Jersey.....	5	8	5	6	4	2	5	1
New York.....	4	3	1	2	10	9	3	9
Ohio.....	2	5	3	11	1	2	1	2
Pennsylvania.....	3	2	4	1	3	4	18	22
Virginia.....	1	1	18	17	4	4	18	21
Washington.....	10	14	21	23	12	13	21	22

Of the leading states shown in the table, New York and Pennsylvania appear to have undergone the least marked variations in rank, and in both capital and value of product each has held the first rank or has

been very close to the leader throughout the quarter of a century. The leadership of these two states has been most marked in the value of the product, New York having been first at three of the four censuses and second in 1900, when Pennsylvania led. The most marked progress appears to have been made by Virginia, which during the twenty-five years rose from twenty-second to third rank in value of products and from seventeenth to first rank in capital invested.

The Pacific Coast district is represented by California and Washington, of which the former has held an important position in the industry throughout the period shown, while the latter is evidently making rapid progress. Of the states on the Great Lakes, Ohio and Michigan are the leaders, the former being second in capital and tenth in value of the product at the census of 1905.

*The industry by watershed districts.*—Table 6 shows the distribution of the totals for the United States, by watershed districts, at the census of 1905.

TABLE 6.—SUMMARY, BY WATERSHED DISTRICTS, WITH PER CENT OF TOTAL: 1905.

	Aggregate.	ATLANTIC AND GULF.		GREAT LAKES.		MISSISSIPPI VALLEY.		PACIFIC COAST.	
		Total.	Per cent of aggregate.	Total.	Per cent of aggregate.	Total.	Per cent of aggregate.	Total.	Per cent of aggregate.
Number of establishments.....	1,097	717	65.4	178	16.2	107	9.7	95	8.7
Capital.....	\$121,623,709	\$80,592,683	66.3	\$31,790,403	26.1	\$2,019,344	1.7	\$7,231,270	5.9
Salariat officials, clerks, etc., number.....	2,480	1,728	69.7	404	16.3	108	4.3	240	9.7
Salaries.....	\$3,339,741	\$2,395,951	71.8	\$415,150	12.4	\$124,449	3.7	\$404,191	12.1
Wage-earners, average number.....	50,754	37,919	74.7	5,743	11.3	1,610	3.2	5,482	10.8
Total wages.....	\$29,241,087	\$21,179,407	72.4	\$3,221,290	11.0	\$946,945	3.3	\$3,893,385	13.3
Miscellaneous expenses.....	\$5,255,506	\$3,870,709	73.6	\$845,717	16.1	\$151,475	2.9	\$387,005	7.4
Cost of materials used.....	\$37,463,179	\$28,535,838	76.1	\$3,682,340	9.6	\$998,242	2.7	\$4,346,759	11.6
Products, total value.....	\$82,769,239	\$61,019,911	73.7	\$9,376,940	11.3	\$2,606,466	3.2	\$9,765,922	11.8
Vessels of 5 tons and over.....	\$53,119,935	\$41,327,309	77.8	\$4,870,104	9.2	\$895,537	1.7	\$6,026,983	11.3
Small boats under 5 tons.....	\$3,091,292	\$1,654,599	55.1	\$832,753	27.8	\$311,958	10.4	\$292,072	6.7
Repair work.....	\$22,829,040	\$15,287,355	67.0	\$3,293,215	14.4	\$1,168,251	5.1	\$3,689,219	13.5
All other products.....	\$3,818,972	\$2,750,738	72.0	\$880,868	10.0	\$230,720	6.0	\$450,646	12.0

At the census of 1905 nearly three-fourths of the aggregate value of the products of the shipbuilding industry was produced by the establishments located in the Atlantic and Gulf district. The number of establishments engaged in the industry in the Great Lakes district was nearly double the number of shipbuilding plants in the Pacific Coast district, but the value of the output of the latter was slightly greater than that of the former district. In the Great Lakes district a much greater number of small vessels of less than 5 tons are built than is the case in the Pacific Coast district, and it is natural, therefore, that there should be a larger number of small establishments the products of which are in no way comparable from the standpoint of value to those of the great shipyards on the western coast, which in two cases at least build war ships of the largest size.

It would appear from the table that for the products aggregating approximately the same value, over four times as much capital is required in the Great Lakes district as in the Pacific Coast district. This

is explained in part by the fact that the returns of capital for the establishments in the Great Lakes district included numerous dry docks aggregating a far greater value than was reported for this item of fixed capital by establishments in the Pacific Coast district, and in part by the inclusion of a class of assets by one of the largest establishments on the Lakes, amounting to several millions of dollars, which did not appear in the capital of any of the large shipbuilding plants on the Pacific Coast. Finally, it is probable that owing to the depression which characterized the industry during the census year, a larger percentage of the capital employed in shipbuilding on the Great Lakes was unproductive than was the case on the Pacific Coast, where the construction of Government war ships formed at that time the greater proportion of the work performed by the largest shipbuilders on the coast. One large company on the Lakes was practically without construction work during August, 1904, and the entire year in this district up to the closing months was one of unusual depression in the industry.

The unsatisfactory conditions prevailing in the shipbuilding industry on the Great Lakes during the census year is further disclosed in Table 7, which compares

the returns made by establishments in the two branches of the industry on the Great Lakes at the censuses of 1900 and 1905.

TABLE 7.—COMPARATIVE SUMMARY FOR THE GREAT LAKES DISTRICT, BY BRANCHES, WITH PER CENT OF INCREASE: 1905 AND 1900.

	IRON AND STEEL.			WOODEN.		
	1905	1900	Per cent of increase.	1905	1900	Per cent of increase.
Number of establishments.....	11	8	37.5	167	114	46.5
Capital.....	\$28,556,593	\$12,509,788	128.3	\$3,233,810	\$2,675,385	20.9
Salaries officials, clerks, etc., number.....	286	140	104.3	118	77	53.2
Salaries.....	\$307,030	\$230,330	33.3	\$108,120	\$76,657	41.0
Wage-earners, average number.....	3,910	6,388	138.8	1,833	2,129	113.9
Total wages.....	\$2,279,704	\$3,130,005	127.2	\$941,520	\$1,201,060	121.6
Miscellaneous expenses.....	\$137,574	\$403,446	52.3	\$228,143	\$151,020	51.1
Cost of materials used.....	\$2,655,073	\$4,003,854	133.7	\$929,287	\$962,396	13.4
Products, total value.....	\$6,815,291	\$9,247,305	126.3	\$2,561,679	\$2,706,549	15.4
Vessels of 5 tons and over.....	\$4,382,476	\$5,183,028	115.5	\$487,648	\$679,804	128.3
Small boats under 5 tons.....	\$80,000			\$752,753	\$333,034	126.0
Repair work.....	\$2,196,987	\$2,028,639	8.3	\$1,066,228	\$1,617,307	132.2
All other products.....	\$155,818	\$2,037,038	102.3	\$225,050	\$76,404	194.6

<sup>1</sup> Decrease.

Both the number of establishments and the capital invested in them increased during the intercensal period, but with respect to all the remaining items of importance shown in the table marked decreases appear for both iron and steel and wooden shipbuilding. The decreases were particularly marked in the iron and steel branch of the industry, the value of the product falling off over one-fourth of the value of the output for 1900. Some idea of the depression in the industry which marked the census year 1904 may be obtained from the report of the Commissioner of Navigation for the fiscal year ending June 30, 1904, from which it appears that on July 1, 1904, practically no construction work was in progress in the lake region. When this condition is contrasted with 26 steel ships with an aggregate tonnage of 103,667 tons reported to the Commissioner of Navigation as under construction in shipbuilding plants on the Great Lakes, July 1, 1905, conditions in the industry during 1904 are brought plainly into view. The losses disclosed by Table 7, then, were due to a temporary derangement of the industry which unfortunately occurred in the census year. As a matter of fact the increases in the number of establishments and capital invested in the industry may properly be taken to indicate that shipbuilding on the Great Lakes is increasing instead of decreasing.

GOVERNMENTAL ESTABLISHMENTS.

Government navy yards engaged in shipbuilding and repair work during the census year, listed in the order of the magnitude of their operations, were as follows:

Brooklyn navy yard.....	New York, N. Y.
Boston navy yard.....	Boston, Mass. (Charlestown).
Navy yard and station.....	Norfolk, Va.
Mare Island navy yard.....	Vallejo, Cal.
Puget Sound navy yard.....	Bremerton, Wash.
League Island navy yard.....	Philadelphia, Pa.
Portsmouth navy yard.....	Portsmouth, N. H. (Kittery, Me.).
Navy yard.....	Pensacola, Fla.
Naval station.....	Port Royal, S. C.

Table 8 is a comparative summary of the operations of these 9 navy yards for 1905 and the operations of the 8 yards reported as engaged in the industry at the census for 1900.

TABLE 8.—Governmental establishments—comparative summary, with per cent of increase: 1905 and 1900.

	1905	1900	Per cent of increase.
Number of establishments.....	9	8	12.5
Capital.....	\$56,921,404	\$54,280,511	4.9
Salaries officials, clerks, etc., number.....	567	539	5.2
Salaries.....	\$609,062	\$464,997	59.3
Wage-earners, average number.....	12,204	7,084	58.8
Total wages.....	\$9,723,764	\$6,217,955	56.4
Miscellaneous expenses.....	\$111,712	\$29,064	284.4
Cost of materials used.....	\$6,731,931	\$3,802,345	77.0
Value of products, including repair work..	\$17,265,469	\$11,022,312	56.6

An increasing navy has compelled the Government to equip the navy yards adequately for the repair work necessarily resulting from the larger number of new vessels now continually in commission. In addition Government yards are also undertaking the construction of the largest types of war ships, one of which was completed during 1904, and the increase in value of products revealed by the table reflects these conditions.

VESSELS LAUNCHED, SMALL BOATS, AND REPAIR WORK.

In the preceding sections of this report the statistics presented for the shipbuilding industry include only the value of work done during the census year. In the following tables statistics are presented concerning vessels launched during the year, irrespective of the time taken in their construction.

In explanation of a number of the tables which follow, wherein tonnage is shown, it should be said that gross and net tonnage is the gross and net load capacity of a vessel in tons. By methods prescribed by law, now practically uniform for the leading maritime countries, the hull of a vessel is carefully measured and the total capacity in cubic feet is ascertained. This quantity is

then divided by 100, which gives the gross tonnage of the vessel. In order to obtain the net tonnage the space occupied by the quarters of the crew and officers, by the machinery—boilers, engines, etc.—by the gear used in navigation, and by the double bottom, when not available for cargo, stores, or fuel, is deducted from the total capacity of the hull in cubic feet and the result divided by 100. Differing from these two measures is the displacement tonnage of a vessel. Displacement tonnage is merely the weight of the volume of water displaced, which is equal to the weight of the floating vessel and its load. It is necessary, therefore, in referring to the displacement of a vessel to specify under what conditions, whether with or without load, the displacement is calculated. The tonnage of war vessels of the United States Navy is always given in displacement tonnage, which is the weight of the vessel in ordinary cruising condition. While gross tonnage and displacement tonnage are thus not by any means

the same, it is necessary to combine the two in order to obtain a total which will approximately represent the total tonnage launched during the year. This method has been followed in this report wherever Government vessels are shown with merchant vessels.

In the tables which follow tonnage shown for 1905 is gross unless otherwise specified. It is impossible to indicate for previous censuses the quantity of displacement tonnage included in the figures, but owing to the fact that the building of Government war ships has only recently become prominent in the industry, it is probable that for censuses prior to the census of 1900 displacement tonnage formed a comparatively small proportion of the totals shown in the tables.

*Vessels of 5 tons and over.*—In Table 9 is presented the number of iron and steel vessels and the number of wooden vessels launched by private yards, together with their tonnage and value, as reported at each census from 1880 to 1905.

TABLE 9.—NUMBER, TONNAGE, AND VALUE OF VESSELS OF FIVE TONS AND OVER LAUNCHED BY PRIVATE SHIPYARDS, WITH PER CENT OF INCREASE: 1880 TO 1905.

CLASS.	CENSUS.				PER CENT OF INCREASE.		
	1905	1900	1890	1880	1900 to 1905	1890 to 1900	1880 to 1890
All classes:							
Number of vessels.....	12,248	2,081	1,353	2,415	8.0	53.8	44.0
Tonnage.....	*700,852	687,150	484,040	493,878	2.0	41.8	22.9
Value.....	\$73,471,026	\$35,750,473	\$24,463,993	\$10,225,714	105.5	46.0	27.4
Iron and steel:							
Number.....	155	134	88	67	15.7	52.3	31.3
Tonnage.....	*328,819	262,516	123,973	31,347	25.3	111.8	295.5
Value.....	\$63,682,960	\$25,454,043	\$11,550,846	\$5,006,293	150.2	120.4	126.7
Wooden:							
Number.....	2,093	1,947	1,265	2,348	7.5	53.0	46.1
Tonnage.....	*372,033	424,634	360,067	467,531	*12.4	17.7	22.9
Value.....	\$9,788,066	\$10,295,530	\$12,933,149	\$14,129,421	*4.0	*20.4	*8.5

<sup>1</sup> Includes 134 vessels of 22,327 gross tonnage, valued at \$463,018, which were launched by establishments engaged primarily in the manufacture of other products.

<sup>2</sup> Decrease.

<sup>3</sup> Includes 174,505 tons displacement—Government vessels.

<sup>4</sup> Includes 169,803 tons displacement—Government vessels.

<sup>5</sup> Includes 4,702 tons displacement—Government vessels.

Comparison of tonnage and value of vessels launched, as reported for 1905, can not be made with the statistics for prior censuses without important reservations. As previously stated, the value (\$53,119,935) reported for 1905 for vessels of 5 tons and over, in the general tables, represents only the value of the work done during the census year, while the value (\$73,471,026) in Tables 9 and 14 represents the total value or contract price of the vessels launched during that time. The difference (\$20,351,091) is occasioned largely by the great amount of construction work on war vessels for the Government, which required more than one year to complete. At prior censuses the value of the year's work was not reported separately, and although Government construction was not so prominent a

feature, it is impossible to say to what extent the totals at those censuses are not strictly comparable with those for the census of 1905.

Although the number of ships launched as reported at the census of 1905 was less by 167 than the number launched twenty-five years before, yet the tonnage increased 40.5 per cent during the period, and the average tonnage of the vessels launched, 50.9 per cent. In this connection it is interesting to note that the average value of the vessels launched in 1880 was only \$7,961, whereas in 1905 the average was \$32,683.

Since 1900 the increases in tonnage and in number have been slight but the value of the ships launched more than doubled. Tables 10 and 11 throw some light on the unusual increase in this item.

# SHIPBUILDING.

TABLE 10.—Number, tonnage, and value of vessels of five tons and over launched during 1904 by all establishments, classified according to service.

CLASS.	Aggregate.	Merchant service.	GOVERNMENT SERVICE.		
			Total.	By private shipyards.	By Government shipyards.
All classes:					
Number ..	12,279	2,195	84	53	31
Tonnage ..	728,104	526,347	2201,757	174,505	27,272
Value .....	\$79,918,035	\$31,172,592	\$48,745,443	\$42,298,434	\$6,447,009
Iron and steel:					
Number .....	172	121	51	34	17
Tonnage .....	352,069	159,016	2 193,653	169,803	23,850
Value .....	\$69,944,092	\$21,978,001	\$47,966,091	\$41,704,959	\$6,261,132
Wooden:					
Number .....	2,107	2,074	33	19	14
Tonnage .....	375,435	367,331	2 8,104	4,702	3,402
Value .....	\$9,973,943	\$9,194,591	\$779,352	\$593,475	\$185,877

<sup>1</sup>Includes 134 vessels of 22,327 gross tonnage, valued at \$463,018, which were launched by establishments engaged primarily in the manufacture of other products.  
<sup>2</sup>Displacement tonnage.

Table 10 shows that although only 3.7 per cent of the total number of vessels launched during 1904 were destined for Government service, yet these vessels represented 27.7 per cent of the tonnage and 61 per cent of the aggregate value of all vessels launched.

Of the 53 ships launched for the Government by private yards, 13 were war ships of 1,000 tons and over, as shown in Table 11, aggregating 154,170 tons displacement and a contract value of \$39,513,600. Referring to Table 10, it will be seen that the value of these war ships constituted over one-half of the value of vessels of 5 tons and over of all descriptions launched by private establishments during 1904, and that this value was greater by \$3,763,127 than the value of vessels of 5 tons and over of all descriptions launched by private yards at the census of 1900. It is evident, therefore, that the great increase in value since 1900 has resulted largely from the unusual activity in construction work for the Navy.

TABLE 11.—STEEL VESSELS OF 1,000 TONS AND OVER FOR THE UNITED STATES NAVY LAUNCHED DURING 1904 BY PRIVATE SHIPYARDS.<sup>1</sup>

NAME OF VESSEL.	Type.	Builder.	Place of construction.	Normal displacement (tons).	Contract price.
Total .....				154,170	\$39,513,600
Georgia .....	First-class battle ship .....	Bath Iron Works .....	Bath, Me. ....	14,948	3,590,000
Louisiana .....	First-class battle ship .....	Newport News Shipbuilding Co. ....	Newport News, Va. ....	16,000	3,990,000
Nebraska .....	First-class battle ship .....	Moran Bros. ....	Seattle, Wash. ....	14,948	3,733,600
New Jersey .....	First-class battle ship .....	Fore River Shipbuilding Co. ....	Quincy, Mass. ....	14,948	3,405,000
Rhode Island .....	First-class battle ship .....	Fore River Shipbuilding Co. ....	Quincy, Mass. ....	14,948	3,405,000
Virginia .....	First-class battle ship .....	Newport News Shipbuilding Co. ....	Newport News, Va. ....	14,948	3,590,000
California .....	Armored cruiser .....	Union Iron Works .....	San Francisco, Cal. ....	13,680	3,800,000
South Dakota .....	Armored cruiser .....	Union Iron Works .....	San Francisco, Cal. ....	13,680	3,750,000
Tennessee .....	Armored cruiser .....	Wm. Cramp & Sons .....	Philadelphia, Pa. ....	14,500	4,035,000
Charleston .....	Protected cruiser .....	Newport News Shipbuilding Co. ....	Newport News, Va. ....	9,700	2,740,000
Milwaukee .....	Protected cruiser .....	Union Iron Works .....	San Francisco, Cal. ....	9,700	2,825,000
Dubuque .....	Gunboat .....	Gas Engine and Power Co. and Chas. L. Seabury Co. Cons. ....	Morris Heights, N. Y. ....	1,085	295,000
Paducah .....	Gunboat .....	Gas Engine and Power Co. and Chas. L. Seabury Co. Cons. ....	Morris Heights, N. Y. ....	1,085	355,000

<sup>1</sup>Annual Report of the Chief of the Bureau of Construction and Repair, United States Navy Department, 1905.

To supplement the information in Table 11, the displacement tonnage of vessels of 1,000 tons and over launched during 1904 from Government yards is shown in Table 12.

TABLE 12.—Steel vessels of 1,000 tons and over launched during 1904 by Government shipyards.<sup>1</sup>

NAME.	Type.	Place of construction.	Normal displacement (tons).	Value.
Total .....			19,600	\$4,952,000
Connecticut .....	First-class battle ship .....	Brooklyn navy yard .....	16,000	4,212,000
Cumberland .....	Steel training bark .....	Boston .....	1,800	370,000
Intrepid .....	Steel training bark .....	Mare Island navy yard .....	1,800	370,000

<sup>1</sup>Annual Report of the Chief of the Bureau of Construction and Repair, United States Navy Department, 1905.

If the displacement tonnage of the war ships in Table 11 be added to the displacement of the battle ship *Connecticut* shown in Table 12, the aggregate, 170,170 tons (displacement), will represent the tonnage output of war ships of 1,000 tons and over for the year.

Table 13 shows the net tonnage of the vessels launched for the merchant marine of the United States, at the census of 1905.

TABLE 13.—Net tonnage of merchant vessels of five tons and over launched during 1904 by private shipyards, classified according to kind of trade, by geographic divisions.

DIVISION.	Total net tonnage.	NET TONNAGE OF VESSELS BUILT FOR—			
		Foreign trade.	Coast-wise trade.	Lake and river trade.	Canal trade.
United States .....	450,614	23,504	115,699	306,003	5,408
North Atlantic .....	292,121	22,140	90,887	174,018	5,076
South Atlantic .....	45,463	840	9,274	35,005	234
North Central .....	70,130	19	.....	70,111	.....
South Central .....	20,250	195	2,000	17,957	98
Western .....	22,600	310	13,538	8,812	.....

The table plainly indicates the importance of lake and river traffic to the shipbuilding of this country. Of the total net tonnage launched for the merchant marine of the United States during the census year, 67.9 per cent was destined for this trade. Vessels for

coastwise and lake and river service are required by law to be American built. This fact has made it possible for shipbuilding to maintain a firm footing in this country.

Of the total net tonnage of merchant vessels launched during the census year 64.8 per cent was built in shipyards of the North Atlantic division, which comprises the New England states, and New York, New Jersey, and Pennsylvania. Of the total net tonnage launched by shipyards in this division, 59.6 per cent was intended for the lake and river trade.

The comparative unimportance of shipbuilding for foreign trade in the United States is indicated by the fact that of the total net tonnage launched for merchant service, only 5.2 per cent was destined for this trade, nearly the whole of which was built in the shipyards of the North Atlantic division.

In Table 14 is presented the number, tonnage, and value of vessels of 5 tons and over launched by private shipyards classified according to motive power, as reported at each census from 1880 to 1905, with percentages of increase.

TABLE 14.—NUMBER, TONNAGE, AND VALUE OF VESSELS OF FIVE TONS AND OVER LAUNCHED BY PRIVATE SHIPYARDS, CLASSIFIED ACCORDING TO MOTIVE POWER, WITH PER CENT OF INCREASE: 1880 TO 1905.

CLASS.	CENSUS.				PER CENT OF INCREASE.		
	1905	1900	1890	1880	1900 to 1905	1890 to 1900	1880 to 1890
All classes:							
Number.....	12,248	2,081	1,353	2,415	8.0	53.8	<sup>2</sup> 44.0
Tonnage.....	<sup>3</sup> 700,852	687,159	484,640	498,878	2.0	41.8	2.9
Value.....	\$73,471,026	\$35,750,473	\$24,483,995	\$19,225,714	105.5	46.0	27.4
Steam and other power vessels:							
Number.....	625	519	369	( <sup>4</sup> )	20.4	40.7	.....
Tonnage.....	<sup>3</sup> 353,314	286,311	217,185	( <sup>4</sup> )	23.4	31.8	.....
Value.....	\$66,029,538	\$27,305,701	\$16,866,008	( <sup>4</sup> )	141.8	61.9	.....
Barges:							
Number.....	1,244	844	400	( <sup>4</sup> )	47.4	111.0	.....
Tonnage.....	277,310	299,560	123,436	( <sup>4</sup> )	<sup>2</sup> 7.4	142.7	.....
Value.....	\$3,722,069	\$4,009,170	\$1,773,186	( <sup>4</sup> )	<sup>2</sup> 7.2	126.1	.....
Sail vessels:							
Number.....	349	648	314	( <sup>4</sup> )	<sup>2</sup> 46.1	106.4	.....
Tonnage.....	64,615	80,294	103,710	( <sup>4</sup> )	<sup>2</sup> 19.5	<sup>2</sup> 22.6	.....
Value.....	\$3,620,119	\$4,210,228	\$5,340,941	( <sup>4</sup> )	<sup>2</sup> 14.0	<sup>2</sup> 21.2	.....
Canal boats:							
Number.....	30	70	270	643	<sup>2</sup> 57.1	<sup>2</sup> 74.1	<sup>2</sup> 58.0
Tonnage.....	5,613	20,994	40,309	66,707	<sup>2</sup> 73.3	<sup>2</sup> 47.9	<sup>2</sup> 39.6
Value.....	\$99,300	\$225,374	\$503,800	\$1,739,975	<sup>2</sup> 55.9	<sup>2</sup> 55.3	<sup>2</sup> 71.0

<sup>1</sup> Includes 134 vessels of 22,327 gross tonnage, valued at \$463,018, which were launched by establishments engaged primarily in the manufacture of other products.

<sup>2</sup> Decrease.

<sup>3</sup> Includes 174,505 tons displacement—Government vessels.

<sup>4</sup> Not reported separately.

The decrease since 1890 in tonnage and value of sail vessels is a marked feature of the table. The decreases in these items, taken in conjunction with a slight increase during the fifteen years in the number of vessels launched, indicate a falling off in the average size and value of vessels of this class.

In Table 15 the activity in shipbuilding of the watershed districts of the United States at the census of 1905 is indicated by the number, tonnage, and value of vessels launched from the private shipyards in each district, classified according to motive power.

In every class of vessels shown in the table the shipyards in the Atlantic and Gulf district launched vessels aggregating a greater tonnage and value than the combined totals for the shipyards in the other districts. Although the Great Lakes district out-ranked the Pacific Coast in tonnage the value of the vessels launched from the shipyards in the latter district was over three times as great as the value of the vessels launched in the former. This difference was due to the fact that 65.8 per cent of the tonnage launched in the Pacific Coast district was displacement tonnage of war vessels, the value of which per

ton was much greater than the average tonnage value of the vessels launched in the Great Lakes district, which were practically all freight and passenger steamers for lake traffic. In fact, the tonnage of ships built for the merchant marine by shipyards on the Great Lakes was nearly three times as great as that built for merchant service on the Pacific Coast. In the same way the ascendancy of the Atlantic and Gulf district over the Great Lakes in the tonnage of steam vessels launched is due largely to the inclusion of the displacement tonnage of war ships built on the Atlantic Coast. If the displacement tonnage were eliminated from the figures for the Atlantic and Gulf district, the remaining gross tonnage would be only 17,477 tons in excess of the gross tonnage of the steam vessels launched in the Great Lakes district. As has already been pointed out in this report, shipbuilding on the Great Lakes was at a very low ebb during the census year, and thus the table does not show a normal year's output. There is no doubt, therefore, that under normal conditions the tonnage output of steam vessels for the merchant marine is much greater in the Great Lakes district than for any of the other watershed districts.

TABLE 15.—Number, tonnage, and value of vessels of five tons and over launched during 1904 by private shipyards, classified according to motive power, by watershed districts.<sup>1</sup>

CLASS.	Atlantic and Gulf.	Great Lakes.	Mississippi Valley.	Pacific Coast.
All classes:				
Number.....	1,238	160	612	228
Tonnage.....	2 449,041	3 81,370	90,104	479,638
Value.....	\$52,256,195	\$4,557,067	\$875,843	\$15,781,921
Steam vessels:				
Number.....	208	31	26	49
Tonnage.....	2 206,813	3 68,684	9,300	4 65,180
Value.....	\$45,789,186	\$4,112,630	\$403,800	\$15,244,745
Barges and canal boats:				
Number.....	591	28	570	85
Tonnage.....	185,646	6,085	80,628	10,564
Value.....	\$3,048,104	\$136,953	\$460,149	\$176,163
Sail vessels:				
Number.....	202	30	( <sup>2</sup> )	21
Tonnage.....	55,523	5,712	( <sup>2</sup> )	3,380
Value.....	\$3,150,497	\$225,245	( <sup>2</sup> )	\$244,377
Power vessels, other than steam:				
Number.....	147	65	10	83
Tonnage.....	1,659	898	176	514
Value.....	\$268,408	\$82,230	\$11,894	\$116,636

<sup>1</sup> Includes 134 vessels of 22,327 gross tonnage, valued at \$463,018, which were launched by establishments engaged primarily in the manufacture of other products.

<sup>2</sup> Includes 121,367 tons displacement—Government vessels.

<sup>3</sup> Includes 715 tons displacement—Government vessels.

<sup>4</sup> Includes 52,423 tons displacement—Government vessels.

<sup>5</sup> Two sail vessels included in figures for Pacific Coast district, to avoid disclosing individual operations.

Table 16 shows the output of the Great Lakes in steel and wooden vessels at the censuses of 1900 and 1905.

TABLE 16.—Number, tonnage, and value of steel and wooden vessels of five tons and over launched by private shipyards on the Great Lakes, with per cent of increase: 1905 and 1900.

CLASS.	1905	1900	Per cent of increase.
All classes:			
Number.....	160	128	25.0
Gross tonnage.....	181,379	111,241	226.8
Net tonnage.....	62,869	36,942	227.7
Value.....	\$4,557,067	\$5,863,432	222.3
Steel vessels:			
Number.....	24	24	.....
Gross tonnage.....	60,400	66,328	228.0
Net tonnage.....	51,479	74,229	230.6
Value.....	\$4,100,782	\$5,183,628	220.9
Wooden vessels:			
Number.....	136	104	30.8
Gross tonnage.....	11,970	14,913	219.7
Net tonnage.....	11,360	12,713	210.4
Value.....	\$456,285	\$679,804	232.0

<sup>1</sup> Includes 715 tons displacement—Government vessels.

<sup>2</sup> Decrease.

In view of what has already been said it will be understood that the losses which the table appears to indicate were due to a temporary depression in the industry and not to an actual decrease during the intercensal period.

In Table 17 the states from whose shores vessels valued at a million dollars or over were launched at the census of 1905, are ranked according to the value of vessels launched, for the censuses of 1900 and 1905.

At the census of 1900 the first four places were held by states on the Atlantic coast—Pennsylvania, Maine, Virginia, and New York, in the order named—the fifth by Michigan, on the Great Lakes, and the sixth by California, on the Pacific Coast. Five years later the rank of each of the 6 leading states underwent a change,

with the exceptions of Pennsylvania and Virginia, which held first and third places, respectively, at both censuses; California rising to second place; Massachusetts supplanting New York in fourth place; Maine dropping to fifth place; and the state of Washington rising from eleventh to sixth place.

In the majority of cases the rank for steel vessels coincides or closely approximates the rank for all classes, indicating that the production of this class of vessels controls in general the rank of the state in shipbuilding. An exception in this respect exists in the case of Maine. At both censuses this state held the primacy in the building of wooden vessels, and at the census of 1900 the high rank of the state in the shipbuilding industry was due evidently to this fact.

In the launching of steel vessels Washington shows a truly remarkable rise in importance. From a position of insignificance in 1900 the state reached fifth place in this important branch of the industry at the census of 1905. The rise of Massachusetts in the production of steel vessels during the intercensal period was also notable.

TABLE 17.—Rank of principal states according to value of vessels of five tons and over launched by private shipyards: 1905 and 1900.

STATE.	ALL CLASSES.		STEEL VESSELS.		WOODEN VESSELS.	
	1905	1900	1905	1900	1905	1900
California.....	2	6	3	7	5	3
Connecticut.....	8	15	8	.....	3	5
Delaware.....	13	7	13	4	8	12
Maine.....	5	2	7	11	1	1
Maryland.....	11	8	12	5	6	11
Massachusetts.....	4	12	4	12	7	6
Michigan.....	10	5	9	3	12	8
New Jersey.....	7	10	6	10	10	7
New York.....	9	4	10	8	2	2
Ohio.....	12	9	11	6	17	14
Pennsylvania.....	1	1	1	1	9	15
Virginia.....	3	3	2	2	16	28
Washington.....	6	11	5	16	4	4

Table 18 presents the states shown in Table 17, ranked according to the value of vessels launched at the census of 1905, distributed according to the motive power used.

TABLE 18.—Rank of principal states according to value of each class of vessels of five tons and over launched during 1904 by private shipyards.

STATE.	All classes.	Steam vessels.	Barges.	Sail vessels.	Power vessels other than steam.	Canal boats.
California.....	2	2	12	8	2	.....
Connecticut.....	8	8	2	5	17	.....
Delaware.....	13	13	6	9	.....	.....
Maine.....	5	6	10	1	9	.....
Maryland.....	11	12	3	12	4	3
Massachusetts.....	4	4	8	2	6	.....
Michigan.....	10	9	.....	4	8	.....
New Jersey.....	7	7	4	7	13	.....
New York.....	9	10	1	3	1	1
Ohio.....	12	11	9	.....	21	.....
Pennsylvania.....	1	1	5	.....	12	.....
Virginia.....	3	3	15	14	7	.....
Washington.....	6	5	11	6	14	.....

*Steam and other power vessels.*—The construction of steam vessels now constitutes a large proportion of the shipbuilding operations of the United States. At the censuses prior to 1905 power vessels other than steam were included in the statistics for steam vessels, and therefore for purposes of comparison power vessels of 5 tons and over are combined with steam vessels in the statistics presented in Table 14. In Table 19 is shown the total value of steam and other power vessels launched, of iron and steel and of wooden construction, as reported at the last three censuses, with the per cent each class is of the total.

TABLE 19.—Value of iron and steel and wooden steam and other power vessels of five tons and over launched by private shipyards, with per cent of total: 1890 to 1905.

CLASS.	1905		1900		1890	
	Value.	Per cent of total.	Value.	Per cent of total.	Value.	Per cent of total.
Total.....	\$66,029,538	100.0	\$27,305,701	100.0	\$18,836,068	100.0
Iron and steel vessels.....	62,632,880	95.3	24,311,343	89.0	11,014,646	65.3
Wooden vessels...	3,096,658	4.7	2,994,358	11.0	5,851,422	34.7

During the fifteen years covered by the table there has been more than a fourfold increase in the value of power driven steel vessels launched, whereas the value of power driven wooden vessels launched has decreased during the period, and as a result the value of the latter class of vessels formed an insignificant proportion of the total value at the census of 1905.

Table 20 shows, by states, the number, tonnage, and value of vessels of 5 tons or over driven by power other than steam, launched during 1904.

TABLE 20.—Number, gross and net tonnage, and value of power vessels other than steam, of five tons and over, launched during 1904 by private shipyards, by states.

STATE.	Number.	TONNAGE.		Value.
		Gross.	Net.	
United States.....	1311	3,247	2,383	\$479,168
California.....	76	464	362	111,600
Massachusetts.....	13	110	90	22,628
Minnesota.....	13	485	263	29,044
Mississippi.....	5	72	49	10,400
New Jersey.....	6	41	34	5,550
New York.....	64	706	532	147,075
Virginia.....	26	190	146	19,075
Wisconsin.....	49	347	313	33,170
All other states <sup>2</sup> .....	59	832	594	100,626

<sup>1</sup>Includes 4 vessels of 90 gross tonnage and 50 net tonnage, valued at \$5,750, which were launched by establishments engaged primarily in the manufacture of other products.

<sup>2</sup>Includes states as follows: Alabama, Connecticut, Kentucky, Louisiana, Maine, Maryland, Michigan, New Hampshire, North Carolina, Ohio, Pennsylvania, Rhode Island, Texas, Washington.

The 311 vessels of 5 tons or over, with motive power other than steam, launched in the United States at the census of 1905, had an average gross tonnage of not quite 10½ tons and an average value of about \$1,541. In the construction of these vessels New York led in

tonnage and value, but California launched the greatest number.

The wide variation in the average value per gross ton of the vessels in the different states is due to the different character and uses to which such vessels are now applied. Pleasure boats, built for high speed and luxuriously fitted, have become a feature of motor boat building, while boats for fishing and freighting are also being constructed with internal combustion engines. The clumsy and unreliable engines of this type built by individual mechanics or small boat building concerns a few years ago have now given place to the reliable and compact motors built by large establishments devoted entirely to their construction. The evolution of the high speed motor boat has resulted naturally from the improvements in hydrocarbon engines, and the standardization of the parts of this class of motors has done much to increase the use of larger boats of this type.

*Barges.*—Table 21 gives the value of barges as reported at the last three censuses, divided according to iron and steel or wooden construction, with the per cent each is of the total at each census period.

TABLE 21.—Value of iron and steel and wooden barges, with per cent of total: 1890 to 1905.

CLASS.	1905		1900		1899	
	Value.	Per cent of total.	Value.	Per cent of total.	Value.	Per cent of total.
Total.....	\$3,722,009	100.0	\$4,009,170	100.0	\$1,773,186	100.0
Iron and steel barges.....	528,180	14.2	181,000	4.5	325,000	18.3
Wooden barges...	3,193,829	85.8	3,828,170	95.5	1,448,186	81.7

There was an increase in steel barge construction at the census of 1905 over both the previous censuses, but the per cent of the total remains comparatively small. Wooden barges still form the larger proportion of this product. The decrease shown for 1905 as compared with 1900 may be attributed to the depression in the shipbuilding industry rather than a decline in the use of barges.

Floating dry docks, floating coal docks, and such minor products as rafts and scows constructed for a single trip at the end of which they were broken up and sold as lumber, were not included in this presentation. There are, however, a considerable number of sand and mud scows, coal boats and lighters, dredges, pile drivers, house boats, etc., included in the statistics for 1900 and 1905. At the census of 1905 there were 577 of these craft, built chiefly in Pennsylvania, with a total tonnage of 55,596 and value of \$303,357. The total value of these is comparatively small, but in number and tonnage they form a considerable part of the products of this class.

Table 22 shows, by states, the number, tonnage, and value of barges of all classes as reported at the last two censuses.

TABLE 22.—Number, gross and net tonnage, and value of barges, by states: 1905 and 1900.

STATE.	Census.	Number.	TONNAGE.		Value.
			Gross.	Net.	
United States.....	1905	11,244	277,310	266,853	\$3,722,069
	1900	844	209,560	255,537	4,009,170
California.....	1905	48	5,777	5,562	78,423
	1900	35	6,726	5,890	141,750
Florida.....	1905	43	2,065	2,063	14,650
	1900	26	1,888	1,708	41,751
Illinois.....	1905	9	2,251	2,211	19,900
	1900	2	60	52	250
Kentucky.....	1905	17	4,898	4,898	18,500
	1900	2	560	500	2,800
Louisiana.....	1905	72	11,538	10,097	141,048
	1900	20	3,210	2,686	56,425
Maryland.....	1905	48	19,899	18,870	383,565
	1900	29	12,027	10,911	169,820
Mississippi.....	1905	13	1,955	1,570	34,500
	1900	8	1,150	940	22,310
New Jersey.....	1905	35	19,605	19,481	379,841
	1900	41	42,987	37,778	386,006
New York.....	1905	185	79,094	75,618	941,066
	1900	175	65,602	51,196	1,008,664
Ohio.....	1905	41	3,434	3,245	114,025
	1900	36	9,640	8,610	120,000
Pennsylvania.....	1905	573	76,102	75,750	340,807
	1900	174	65,880	65,328	125,060
Virginia.....	1905	12	2,280	2,215	31,350
	1900	4	400	360	4,000
Washington.....	1905	34	4,437	3,816	92,740
	1900	116	2,478	2,188	75,916
All other states.....	<sup>1</sup> 1905	114	43,975	41,457	1,131,054
	<sup>2</sup> 1900	176	86,952	67,389	1,853,818

<sup>1</sup> Includes 124 barges of 21,770 gross tonnage and 21,600 net tonnage, valued at \$323,468, built by establishments engaged primarily in the manufacture of other products.

<sup>2</sup> Includes states as follows: Alabama, Connecticut, Delaware, District of Columbia, Indiana, Iowa, Maine, Massachusetts, Minnesota, Missouri, New Hampshire, North Carolina, Oregon, Rhode Island, South Carolina, Texas, West Virginia, Wisconsin.

<sup>3</sup> Includes states as follows: Alabama, Arkansas, Connecticut, Delaware, District of Columbia, Georgia, Indiana, Iowa, Maine, Massachusetts, Michigan, Minnesota, Missouri, Oregon, Texas, West Virginia, Wisconsin.

The principal state in barge construction at the census of 1905 was New York, with Maryland second. Although Pennsylvania reported the greatest number of this kind of craft, the major proportion was scows, coal boats, etc. New Jersey, the third state in the building of barges for 1905, was second to New York for 1900.

*Sail vessels.*—The building of sail vessels of 5 tons and over is decreasing, as is evident from Tables 23 and 24. The first of these presents the statistics of sail vessels launched for the last three censuses according to iron and steel or wooden construction, with the per cent each is of the total.

TABLE 23.—Value of iron and steel and wooden sail vessels of five tons and over launched by private shipyards, with per cent of total: 1890 to 1905.

CLASS.	1905		1900		1890	
	Value.	Per cent.	Value.	Per cent.	Value.	Per cent.
Total.....	\$3,620,119	100.0	\$4,210,228	100.0	\$5,340,941	100.0
Iron and steel vessels.....	221,900	6.1	962,600	22.9	211,200	4.0
Wooden vessels.....	3,398,219	93.9	3,247,628	77.1	5,129,741	96.0

The above statistics show less steel vessel building for 1905 than for 1900. In the latter year one establishment on Lake Michigan built 3 steel sail vessels, aggregating 15,117 tons and valued at over \$500,000, whereas the same establishment did not report any sail vessels launched in 1904. The value reported for wooden sail vessels of 5 tons and over launched during 1904 was slightly in advance of that for 1900, but considerably less than for 1890. The following table presents the number, tonnage, and value of sail vessels, by states, as reported at the last two censuses:

TABLE 24.—Number, gross and net tonnage and value of sail vessels of five tons and over launched by private shipyards, by states: 1905 and 1900.

STATE.	Census.	Number.	TONNAGE.		Value.
			Gross.	Net.	
United States.....	1905	349	64,615	55,074	\$3,620,119
	1900	648	80,294	70,120	4,210,228
California.....	1905	16	1,116	1,021	65,277
	1900	22	8,256	7,530	560,860
Connecticut.....	1905	9	3,106	2,589	204,762
	1900	14	188	180	18,500
Maine.....	1905	77	38,692	32,461	2,050,783
	1900	76	32,651	28,100	1,500,301
Maryland.....	1905	4	384	268	29,000
	1900	20	374	220	20,450
Massachusetts.....	1905	49	4,280	2,664	297,875
	1900	128	3,889	2,910	384,000
Mississippi.....	1905	14	280	197	29,150
	1900	14	193	140	12,800
New Jersey.....	1905	29	880	761	86,800
	1900	80	357	240	25,695
New York.....	1905	34	5,146	4,924	287,900
	1900	85	1,400	1,150	139,697
North Carolina.....	1905	4	70	55	4,125
	1900	9	142	109	6,225
All other states.....	<sup>1</sup> 1905	116	10,661	9,804	564,447
	<sup>2</sup> 1900	200	32,844	29,541	1,541,700

<sup>1</sup> Includes states as follows: Alabama, Delaware, Florida, Illinois, Louisiana, Michigan, Missouri, Rhode Island, Virginia, Washington, Wisconsin.

<sup>2</sup> Includes states as follows: Alabama, Delaware, Florida, Georgia, Illinois, Kentucky, Louisiana, Michigan, Minnesota, Missouri, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, Texas, Virginia, Washington.

The state of Maine reported considerably more than one-half the total tonnage and value of sail vessels launched in the United States during 1904. A noteworthy increase is shown both in tonnage and value of sail vessels built in this state. Massachusetts, the second state in rank, shows an increased tonnage, but a decrease in value reported for sail vessels.

The falling off in the tonnage and value of the sail vessels included in "all other states" was caused by the decrease in the building of vessels of this type on the Great Lakes. As explained in the paragraph above in connection with Table 23, one establishment on Lake Michigan accounted for about one-half of the decrease.

*Canal boats.*—Canal boat building has fallen off materially, as is shown in Table 14. The decrease since 1880 in both the number and value of canal boats built is there seen to have been over 50 per cent at each census period. All of the canal boats reported during 1904 were constructed of wood, although 6 steel canal

boats were built in the year following. In Table 25 the number, tonnage, and value of canal boats built are given by states as reported in 1900 and 1905.

TABLE 25.—Number, gross and net tonnage, and value of canal boats, by states: 1905 and 1900.

STATE.	CENSUS.	Number.	TONNAGE.		Value.
			Gross.	Net.	
United States.....	1905 1900	30 70	5,613 20,094	5,408 19,509	\$99,300 225,374
New York.....	1905 1900	26 32	5,217 6,909	5,076 5,499	83,100 82,850
All other states.....	<sup>1</sup> 1905 <sup>2</sup> 1900	4 38	396 14,085	332 14,010	16,200 142,524

<sup>1</sup> Includes states as follows: Louisiana, Maryland.

<sup>2</sup> Includes states as follows: Connecticut, Illinois, Maryland, New Jersey, Ohio, Pennsylvania.

Inasmuch as there were but 4 small canal boats reported by other states during the census year, New York is the only state that can be separately reported for the census of 1905. In addition to these, a few may have been built by boat builders or by canal transportation companies.

The canal boat is built to carry the greatest possible cargo with a minimum draft. Although intended primarily for use on canals, some of them appear on rivers and lakes, as in the case of the canal boats of the Erie canal, which often receive their cargo at New York city, and are towed up the Hudson river, through the canal to their destination, which may be Buffalo or some other lake port.

*Small boats.*—Included under this head are all vessels of less than 5 gross tons built by establishments reporting a product of \$500 or over during the census year. All classes of small power and sailboats, rowboats, and canoes are represented in the statistics given; but, as this class of construction is often done by carpenters or other individuals who are not regularly engaged in the work, it is probable that there was actually a considerably greater aggregate than is shown. However, as may be deduced from Table 4, there was an increase of 52.4 per cent in the value reported for 1905 over that shown for 1900, an increase of 41.4 per cent from 1890 to 1900, and an increase of 58.7 per cent from 1880 to 1890, which shows the steady advance in this manufacture. Table 26 shows for 1900 and 1905, by states, the number and value of small boats manufactured, under two heads, namely, "small power boats" and "rowboats, canoes, and small sailboats."

The difference between the total value as reported in Table 26 for 1905 and the amount shown in Table 4, \$147,542, represents the value of small boats reported by establishments engaged primarily in the manufacture of other products. An increase is shown in 1905, as compared with 1900, in the manufacture of small power boats and in the aggregate reported for row-

boats, canoes, and small sailboats, both as to total number and total value.

TABLE 26.—Number and value of boats under five tons, by states: 1905 and 1900.

STATE.	CENSUS.	Total value.	SMALL POWER BOATS.		ROWBOATS, CANOES, AND SMALL SAILBOATS.	
			Number.	Value.	Number.	Value.
United States...	1905 1900	\$3,148,834 1,968,835	13,771 1,087	\$1,981,815 1,059,365	23,248 13,739	\$1,167,019 909,470
California.....	1905 1900	122,907 100,015	83 14	56,980 9,800	600 583	75,987 90,215
Connecticut.....	1905 1900	126,579 72,107	156 159	74,935 56,855	324 159	51,644 15,232
Florida.....	1905 1900	26,905 20,671	45 1	23,893 1,000	72 96	3,012 19,671
Illinois.....	1905 1900	54,875 20,898	116 5	40,570 5,950	442 356	14,305 14,948
Iowa.....	1905 1900	73,598 4,249	139 2	67,730 1,404	109 38	5,868 2,845
Louisiana.....	1905 1900	8,338 1,935	23 -----	7,375 -----	24 38	963 1,935
Maine.....	1905 1900	228,050 93,571	289 8	88,094 5,895	3,976 1,892	139,556 87,676
Maryland.....	1905 1900	44,170 31,364	39 15	32,030 11,500	144 237	12,140 19,864
Massachusetts.....	1905 1900	383,814 208,064	342 41	181,380 49,383	3,817 3,760	262,434 159,581
Michigan.....	1905 1900	414,583 241,010	771 327	263,440 171,405	4,447 669	146,134 69,605
Minnesota.....	1905 1900	172,492 33,975	308 37	103,940 17,485	1,604 488	68,553 16,490
New Hampshire.....	1905 1900	8,698 2,943	20 -----	8,200 -----	13 63	498 2,943
New Jersey.....	1905 1900	279,947 69,777	237 82	220,558 48,857	499 219	59,389 20,920
New York.....	1905 1900	629,658 654,702	544 552	433,606 454,643	2,302 2,093	196,052 200,039
Ohio.....	1905 1900	111,655 47,205	214 78	100,400 34,400	382 292	11,255 13,805
Pennsylvania.....	1905 1900	49,928 47,036	39 15	22,835 11,000	544 380	27,063 36,036
Rhode Island.....	1905 1900	39,365 21,904	15 2	20,740 3,000	192 131	18,625 18,994
Virginia.....	1905 1900	48,966 10,387	77 1	43,039 4,000	191 76	5,627 6,357
Washington.....	1905 1900	48,535 61,289	30 10	17,770 26,900	653 384	39,755 34,389
Wisconsin.....	1905 1900	105,897 117,801	137 241	66,097 89,780	1,163 639	39,890 28,021
All other states.....	<sup>3</sup> 1905 <sup>4</sup> 1900	159,813 107,032	147 97	103,194 56,168	1,745 1,146	56,619 59,924

<sup>1</sup> Includes 272 boats, valued at \$102,527, made by establishments engaged primarily in the manufacture of other products.

<sup>2</sup> Includes 474 boats, valued at \$45,015, made by establishments engaged primarily in the manufacture of other products.

<sup>3</sup> Includes states as follows: Alabama, Delaware, District of Columbia, Georgia, Idaho, Indiana, Kentucky, Mississippi, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas.

<sup>4</sup> Includes states as follows: Arkansas, Delaware, District of Columbia, Idaho, Indiana, Kentucky, Mississippi, Missouri, North Carolina, Oregon, Tennessee, Texas, Vermont.

New York was the leading state in this construction at both censuses, reporting about one-fifth of the total value of small boats in 1905 and about one-third in 1900. A slight decrease is seen to have taken place during the five-year period in the value reported for both classes of small boats constructed in this state. Michigan and Massachusetts, the second and third

states, respectively, in small boat building, as reported for both 1905 and 1900, show a considerable increase for the intervening period. Maine, Minnesota, New Jersey, California, Connecticut, and Ohio rank from fourth to ninth, in the order named, all outranking Wisconsin, which has dropped from fourth place in 1900 to tenth in 1905.

*Repair work.*—The statistics concerning the value of repair work done by shipbuilding establishments show that such work is a prominent feature in the industry. As may be seen from Table 4, 27.6 per cent of the total value of products reported by the private shipyards of the United States during 1904 was for repairs. Table 27 gives the value of repair operations reported by iron and steel and wooden shipbuilding plants, including Government establishments, at the censuses of 1900 and 1905, with the per cent the repairs done in each kind of establishment were of the total and the per cent of increase during the five-year period.

TABLE 27.—Value of repair work reported by private and Government shipyards, with per cent of total and per cent of increase: 1905 and 1900.

	1905		1900		Per cent of increase.
	Value.	Per cent of total.	Value.	Per cent of total.	
Total.....	\$32,466,751	100.0	\$29,604,674	100.0	9.7
Private shipyards:					
Iron and steel.....	12,191,854	37.5	12,302,900	41.6	10.9
Wooden.....	10,637,186	32.8	10,831,476	36.6	11.8
Government shipyards:					
.....	9,637,711	29.7	6,470,238	21.8	49.0

<sup>1</sup> Decrease.

The value of repairs reported by private shipyards decreased somewhat in the five years intervening between the two censuses, but the value of repairs reported by Government establishments is seen to have increased materially during the same period. These conditions indicate that an increasingly large proportion of repairs on naval vessels, which is now a considerable item in the aggregate value of repair work, is done in Government yards. Taken together, the amount of repairs reported by private shipyards and Government establishments shows an increase of \$2,862,077 during the period. In Table 28 the value of repair operations by private shipyards is shown by states, as reported at the last three censuses.

New York was the leading state in this class of work at the three censuses shown in Table 28, and in 1905 reported nearly three times the value shown for New Jersey, the second state in rank at this census. New York shows an increase of 38.5 per cent from 1900 to 1905, while New Jersey reports an increase of but 1.1 per cent during the same period. California,

the third state in rank in this class of work, shows a decrease of 7.1 per cent in 1905 as compared with 1900. Pennsylvania was second in 1900, but on account of a decrease of 35.1 per cent was passed in 1905 by both New Jersey and California, and occupied fourth place at the latter census. Ohio, Virginia, and Maryland were respectively fifth, sixth, and seventh in rank in the value of repairs reported at the census of 1905.

TABLE 28.—Value of repair work reported by private shipyards, by states: 1890 to 1905.

STATE.	1905	1900	1890 <sup>1</sup>
United States.....	\$22,829,040	\$23,134,436	\$10,513,237
California.....	2,180,542	2,348,017	434,791
Connecticut.....	356,032	310,616	239,952
Delaware.....	454,780	386,841	328,132
Florida.....	116,360	208,984	30,610
Illinois.....	439,509	484,541	273,498
Iowa.....	31,075	23,366	46,569
Maine.....	207,855	642,195	133,181
Maryland.....	1,010,622	1,138,420	557,198
Massachusetts.....	854,036	1,003,716	653,959
Michigan.....	688,482	1,027,923	519,022
Minnesota.....	55,900	78,597	34,835
Mississippi.....	125,951	42,417	17,230
New Jersey.....	2,254,794	2,229,481	1,315,546
New York.....	6,726,959	4,857,916	3,042,505
North Carolina.....	63,309	65,935	55,227
Ohio.....	1,229,123	1,241,122	323,965
Oregon.....	184,276	382,662	35,060
Pennsylvania.....	1,702,243	2,716,209	329,806
Rhode Island.....	600,303	874,065	80,727
Virginia.....	1,157,535	752,971	351,220
Washington.....	712,851	534,759	14,825
West Virginia.....	86,505	45,679	20,060
Wisconsin.....	571,746	531,792	189,077
All other states <sup>2</sup> .....	808,111	606,221	870,512

<sup>1</sup> Includes \$500,848 reported by governmental establishments not reported separately by states.

<sup>2</sup> Includes states as follows: 1905—Alabama, District of Columbia, Georgia, Idaho, Indiana, Kentucky, Louisiana, Missouri, New Hampshire, South Carolina, Tennessee, Texas. 1900—Alabama, Arkansas, District of Columbia, Idaho, Indiana, Kentucky, Louisiana, Missouri, New Hampshire, South Carolina, Tennessee, Texas, Vermont, West Virginia. 1890—Alabama, Arkansas, District of Columbia, Georgia, Indiana, Kentucky, Louisiana, Missouri, New Hampshire, South Carolina, Tennessee, Texas.

#### EQUIPMENT OF SHIPYARDS.

Intimately connected with the repair work of a shipyard is the dry dock and marine railway equipment. Table 29 shows, by states, for 1905 the number of establishments thus equipped in comparison with the total number for continental United States, and the value of repair operations in establishments having dry dock or marine railway equipment in comparison with the total for repair work in each state.

The 388 private yards in the United States which have dry dock or marine railway equipment form only 35.4 per cent of the total number of shipbuilding and repair establishments, but they are credited with 77.3 per cent of the total value of ship repairs reported by all establishments. New York, the leading state in ship repair operations, shows the largest number of establishments having dry dock or marine railway equipment. Establishments having these facilities, therefore, do the bulk of the repair work.

TABLE 29.—Number of private shipyards and value of repair work, together with number of private shipyards reporting dry dock or marine railway equipment and value of their repair work: 1905.

STATE.	PRIVATE SHIPYARDS.		VALUE OF REPAIR WORK.	
	Total number.	Number reporting dry dock or marine railway.	Total.	Reported by establishments equipped with dry dock or marine railway.
United States.....	1,097	388	\$22,829,040	\$17,635,653
California.....	41	13	2,180,542	1,880,392
Connecticut.....	46	21	356,032	220,305
Delaware.....	10	5	454,780	440,143
Florida.....	14	11	116,360	112,360
Illinois.....	22	6	439,509	384,986
Iowa.....	9	3	31,075	11,080
Maine.....	139	16	297,855	226,029
Maryland.....	35	25	1,010,622	733,781
Massachusetts.....	125	25	854,036	473,068
Michigan.....	57	11	688,482	488,238
Minnesota.....	28	8	55,900	37,512
Mississippi.....	13	7	125,951	121,600
New Jersey.....	78	29	2,254,794	1,448,693
New York.....	210	100	6,726,939	5,253,451
North Carolina.....	12	4	63,300	43,200
Ohio.....	22	8	1,224,123	1,151,840
Oregon.....	11	4	184,276	65,300
Pennsylvania.....	33	12	1,762,248	1,402,747
Rhode Island.....	16	14	660,303	133,519
Virginia.....	24	15	1,157,505	1,074,688
Washington.....	41	10	712,851	630,181
West Virginia.....	3	3	86,595	86,595
Wisconsin.....	33	4	571,746	437,215
All other states.....	76	34	808,111	674,140

Includes establishments distributed as follows: Alabama, 7; District of Columbia, 3; Georgia, 2; Idaho, 3; Indiana, 10; Kentucky, 6; Louisiana, 20; Missouri, 6; New Hampshire, 5; South Carolina, 1; Tennessee, 2; Texas, 8.

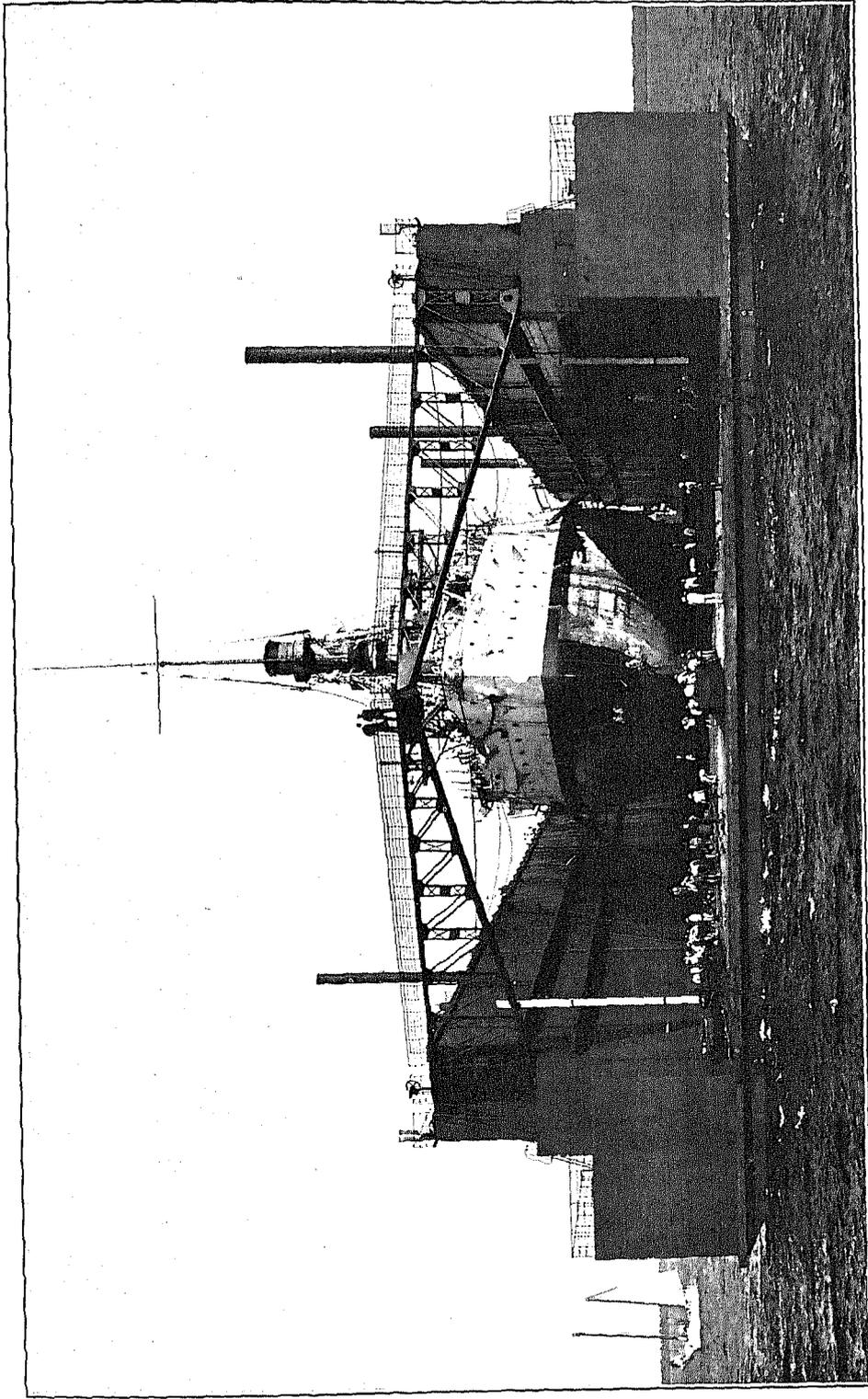
Dry docks.—In Table 30 is shown the number of dry docks, both private and Government, classified according to kind and dimensions—length of floor, width at entrance, and depth on sill—by states and geographic divisions.

As shown in Table 30, about two-thirds of the dry docks of the United States are in the North Atlantic states, New York alone reporting over one-third of the total number. Of the 62 dry docks reported in New York state, 57 are over 100 feet long in floor measurement, and 14 of these measure over 300 feet; 26 measure over 50 feet in width at entrance, 7 of these over 75 feet in width and over 20 feet in depth of sill, dimensions sufficient to accommodate the largest vessels.

New Jersey, the second state in importance with respect to dry dock equipment, shows as many dry docks as the entire North Central division. All of the 23 are over 100 feet in floor length, and 2 of them measure over 300 feet. Twelve of the dry docks in this state have a width at entrance of over 50 feet, and 20 have a depth on the sill of more than 10 feet. The remaining states in the North Atlantic group report 17 dry docks, 13 of which are over 100 feet in floor length and 5 are over 20 feet in depth of sill, while only 2 have a width at entrance exceeding 75 feet.

TABLE 30.—NUMBER AND KIND OF DRY DOCKS IN PRIVATE AND GOVERNMENT SHIPYARDS, CLASSIFIED ACCORDING TO DIMENSIONS, BY STATES AND GEOGRAPHIC DIVISIONS: 1905.

STATE.	NUMBER OF DRY DOCKS.													
	Total.	Stationary.	Floating.	With floor length of—				With entrance width of—				With sill depth of—		
				Over 300 feet.	201 to 300 feet.	101 to 200 feet.	100 feet or less.	Over 75 feet.	51 to 75 feet.	26 to 50 feet.	25 feet or less.	Over 20 feet.	10 to 20 feet.	Less than 10 feet.
United States.....	160	74	86	53	18	75	14	22	53	62	23	25	101	34
North Atlantic division.....	102	41	61	25	12	50	9	10	35	40	17	13	65	24
Maine.....	3	2	1	2	1	1	1	1	1	1	1	2	1	1
Massachusetts.....	5	5	1	3	1	1	1	1	2	2	1	2	1	1
Rhode Island.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1
New York.....	62	27	35	14	6	37	5	7	19	22	14	7	39	16
New Jersey.....	23	3	20	2	5	16	1	11	11	11	3	1	19	3
Pennsylvania.....	8	4	4	4	1	4	4	1	1	4	3	1	2	5
South Atlantic division.....	18	8	10	8	2	8	1	5	6	5	2	7	7	4
Delaware.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Maryland.....	6	2	4	2	1	3	1	1	3	1	1	2	4	1
Virginia.....	4	4	1	4	1	1	1	3	1	1	1	4	1	3
West Virginia.....	3	1	3	1	1	2	1	1	1	3	1	1	2	1
Florida.....	4	1	3	1	1	3	1	1	1	1	1	1	2	1
North Central division.....	23	17	6	14	1	6	2	2	9	12	1	1	23	1
Ohio.....	6	6	1	6	1	1	1	1	3	3	1	1	6	1
Illinois.....	4	4	1	2	1	1	1	1	2	2	1	1	4	1
Michigan.....	2	2	1	2	1	1	1	1	1	1	1	1	2	1
Wisconsin.....	9	4	5	4	1	4	1	2	7	7	1	1	9	1
Minnesota.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Missouri.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1
South Central division.....	10	3	7	2	3	3	2	1	2	4	3	1	4	5
Kentucky.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Alabama.....	2	1	2	1	1	1	1	1	1	1	1	1	2	1
Mississippi.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Louisiana.....	5	1	4	1	1	1	2	1	1	2	1	1	1	4
Texas.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Western division.....	7	5	2	4	1	2	1	4	1	1	1	4	2	1
Washington.....	5	3	2	2	1	2	1	2	1	1	1	3	1	1
California.....	2	2	1	2	1	1	1	2	1	1	1	1	1	1



FLOATING DRY DOCK, DEWEY.

Of the 18 dry docks reported in the South Atlantic division, 8 were stationary; 4 of these, all in the state of Virginia, had a length of floor of over 300 feet, a width at entrance of more than 50 feet, and a depth on the sill of over 20 feet. Maryland has 2 large stationary dry docks, Delaware 1, and Florida 1. Four of the floating dry docks in the South Atlantic division were in Maryland, 3 in West Virginia, and 3 in Florida.

Of the 23 docks reported in the North Central division, only 2 have a width at entrance of more than 75 feet, and none exceed 20 feet in depth of sill, but 14 are over 300 feet in length of floor. Wisconsin has 4 stationary and 5 floating docks, but Ohio reports 6 large stationary dry docks, all of which are over 300 feet in length of floor. Illinois and Michigan each have 2 stationary dry docks with a floor length of over 300 feet.

The Western division has 4 dry docks with floor length of over 300 feet, a width at entrance of over 75 feet, and a depth on the sill of over 20 feet. Two of these are in Washington and 2 in California. The South Central division has 2 floating dry docks of more than 300 feet of floor length, 1 of which is in Alabama and the other in Louisiana.

The statistics presented in Table 30 are for the year 1904 and include 15 Government dry docks reported by the naval stations, shown in the following tabular statement:

Number and kind of dry docks at each naval station in the United States: 1905.

NAVAL STATION.	Stationary.	Floating.
Total.....	11	4
Mare Island.....	1	
Pensacola.....	2	2
Portsmouth.....	1	1
Boston.....	2	
Brooklyn.....	3	
League Island.....	1	
Norfolk.....	2	
Puget Sound.....	1	
New Orleans.....		1

In addition to the dry docks included in the above statement, graving docks were under construction during 1904 at the naval stations at League Island, Pa.; Norfolk, Va.; Charleston, S. C.; and Mare Island, California.

The building of a floating dry dock is an extensive piece of work, and, while this work is not designated as vessel construction, its value for 1905 appears in this report under the head of "all other products."

The most important construction of this kind during 1903 and 1904 was the building of the self-docking steel floating dry dock *Dewey* for the naval station in the Philippine Islands.

The *Dewey* is capable of lifting about 20,000 tons, which is considerably more than the weight of any vessel now in the United States Navy. The difficult feat of towing this enormous dry dock 14,000 miles from the shipyard to Subig bay, Philippine Islands, has been safely accomplished since the compilation of these statistics, and it may now be added to the list of available docks of the United States Government.

*Marine railways.*—Table 31 presents the number and total lifting capacity of the marine railways of the United States, by states and geographic divisions, and also the number of railways, classified by dimensions and lifting capacity. There was 1 Government marine railway at the Norfolk navy yard which is included in the table. There were also 5 Government railways, 1 of which was situated at Washington, D. C., 1 at San Juan, Porto Rico, and 3 at Cavite, Philippine Islands, which are not included in this list, as these stations were not reported as being engaged in ship construction and repairs.

Table 31 shows that more than one-half the total number of marine railways of the United States are located in the North Atlantic states. New York alone reported about one-fourth of the total number. Of the New York marine railways, 31 have a cradle length exceeding 100 feet, 33 a cradle breadth exceeding 25 feet, and 11 have a lifting capacity exceeding 500 tons. New Jersey is the second state in rank of the North Atlantic states according to the total lifting capacity represented by marine railways, although Connecticut and Massachusetts both report a greater number. Of the 24 marine railways reported in New Jersey, 12 have a cradle length of more than 100 feet and 10 have a cradle breadth exceeding 25 feet, while 5 have a lifting capacity of 500 tons. Eight of the marine railways reported in Connecticut have a cradle length of more than 100 feet, 9 a cradle breadth exceeding 25 feet, and 7 a lifting capacity of 500 tons or over.

Following the 3 states above mentioned, in the order of their importance among the North Atlantic states in tons of lifting capacity represented in marine railway equipment, are Maine, Massachusetts, Pennsylvania, and Rhode Island. In these states there are 6 railways with cradles more than 200 feet in length, 36 railways with cradles exceeding 25 feet in breadth, and 16 railways with a lifting capacity of 500 tons and over.

MANUFACTURES.

TABLE 31.—NUMBER AND LIFTING CAPACITY OF MARINE RAILWAYS, CLASSIFIED ACCORDING TO DIMENSIONS AND LIFTING CAPACITY, BY STATES AND GEOGRAPHIC DIVISIONS: 1905.

STATE.	Total number.	Total lifting capacity (tons).	NUMBER OF MARINE RAILWAYS.																	
			With cradle length of—				With cradle breadth of—			With cradle draft submerged—							With lifting capacity of—			
										Forward.			Aft.							
			Over 200 feet.	101 to 200 feet.	50 to 100 feet.	Less than 50 feet.	Over 50 feet.	25 to 50 feet.	Less than 25 feet.	Over 10 feet.	5 to 10 feet.	Less than 5 feet.	Over 15 feet.	11 to 15 feet.	5 to 10 feet.	Less than 5 feet.	Over 1,000 tons.	501 to 1,000 tons.	100 to 500 tons.	Less than 100 tons.
United States .....	413	147,947	44	133	107	129	16	140	257	35	234	144	51	99	221	42	34	54	141	184
North Atlantic division .....	216	71,901	19	62	55	80	9	79	128	22	124	70	22	48	121	25	18	21	68	109
Maine .....	19	9,610	1	13	3	2		15	4	3	15	1	3	8	8		2	5	8	4
Massachusetts .....	25	7,055	1	7	3	17	2	8	18	4	19	5	4	8	11	5	1	3	8	16
Rhode Island .....	17	2,137		2	7	8		5	12	1	13	3	1	3	11	2			7	10
Connecticut .....	26	10,358	2	6	6	12	1	8	17	4	13	9	3	5	17	1	3	4	4	15
New York .....	93	25,516	7	24	30	32	2	31	60	6	46	41	9	16	55	13	7	4	31	51
New Jersey .....	24	12,680	4	8	4	8	4	6	14	4	10	10	2	5	14	3	4	1	8	11
Pennsylvania .....	9	4,545	4	2	2	1		6	3		8	1		3	5	1	1	4	2	2
South Atlantic division .....	80	29,678	13	31	18	18	1	31	48	3	37	40	10	26	36	8	6	17	29	28
Delaware .....	5	2,035		3	1	1		2	3		3	2	1	1	2	1		2	2	2
Maryland .....	30	10,470	4	16	8	2		14	16	2	14	14	3	13	13	1	2	5	14	9
District of Columbia .....	2	115			2			2	2		2	2								2
Virginia .....	25	10,114	6	6	5	8		9	16		12	13	4	5	12	4	3	4	9	9
North Carolina .....	5	2,700	2	2	1			2	3		3	2	2	2	1			3	2	
South Carolina .....	1	1,000		1				1	4		1	7		1				1	2	
Florida .....	12	3,244	1	3	1	7		4	8	1	4	7		4	6	2	1	2	2	7
North Central division .....	41	8,839	3	4	11	23	1	7	33	1	26	14	1	11	23	6	3	1	6	31
Ohio .....	4	2,975		2	1	1		1	3		2	2			4		1	1	1	1
Indiana .....	1	1,300						1			1				1		1			
Illinois .....	4	2,770	2					2	2		3	1			2	2	1		2	1
Michigan .....	9	572		1	2	6		1	8	1	5	3	1	1	6	1			1	8
Wisconsin .....	1	100						1			1				1				1	
Minnesota .....	11	292				11			11		4	7			9	2			1	10
Iowa .....	3	120				3			3		2	1		2		1				3
Missouri .....	8	600			8			2	6		8			8						8
South Central division .....	33	11,150	4	16	12	1	1	4	28	4	15	14	5	10	18		3	1	22	7
Kentucky .....	1	1,500	1					1	1		1			1			1			
Alabama .....	5	2,240	1	2	2		1	3	1	1	2	2	1	1	3		1		3	1
Mississippi .....	7	1,825	1	6					7	2	5		1	4	2				7	
Louisiana .....	19	5,510	1	8	9	1			10	1	7	11	3	4	12		1	1	12	5
Texas .....	1	75			1				1					1						1
Western division .....	43	25,479	5	20	11	7	4	19	20	5	32	6	13	4	23	3	4	14	16	9
Idaho .....	1	200			1			1			1				1				1	
Washington .....	8	6,452	1	3	2	2	2	4	2	2	3		2	2	4		2		3	3
Oregon .....	7	1,825	1	4	1	1		5	2	1	5	1		1	6				5	1
California .....	27	17,002	3	13	7	4	2	11	14	2	23	2	11	1	12	3	2	13	7	5

## POWER.

The statistics regarding power used by private iron and steel and wooden shipbuilding establishments reported at the last two censuses are presented in Table 32.

TABLE 32.—Number of private establishments reporting power owned or rented, and amount of each kind of power available for use, by branches: 1905 and 1900.

	TOTAL.		IRON AND STEEL.		WOODEN.	
	1905	1900	1905	1900	1905	1900
Number of establishments reporting.....	611	423	54	43	557	380
Total horsepower.....	93,390	67,049	66,186	44,090	27,204	23,853
Owned—						
Engines—						
Steam—						
Number.....	1,015	802	439	308	576	494
Horsepower..	69,253	55,849	45,142	35,902	24,111	19,947
Gas and gasoline—						
Number.....	182	48	7	3	175	45
Horsepower..	1,785	645	88	28	1,697	617
Water wheels—						
Number.....	4	10	.....	.....	4	10
Horsepower..	67	1,700	.....	.....	67	1,700
Water motors—						
Number.....	5	.....	2	.....	3	.....
Horsepower..	20	.....	3	.....	17	.....
Electric motors—						
Number.....	1,137	428	1,121	395	16	33
Horsepower..	15,263	6,202	15,157	5,234	106	968
Other power, horsepower.....	4,404	2,275	4,103	2,220	301	55
Rented—						
Electric—						
Number.....	153	.....	100	.....	53	.....
Horsepower..	2,367	975	1,563	692	804	283
Other kind, horsepower.....	231	303	130	20	101	283
Furnished to other establishments, horsepower.....	170	127	145	.....	25	127

Of the total number of shipbuilding establishments in the United States, 55.7 per cent reported the use of power in 1905 as compared with 38.2 per cent in 1900. All the iron and steel shipbuilding establishments and over one-half the wooden shipbuilding establishments reported power used, at the census of 1905. There was an absolute increase of 25,441 horsepower over the amount reported in 1900, which represents an increase of 50.1 per cent reported by iron and steel shipbuilding and repair plants, and of 14 per cent reported by wooden shipbuilding and repair establishments. There were 486 wooden shipbuilding and repair yards which were without power.

Of the total horsepower shown for the census of 1905 in Table 32, 74.2 per cent represents steam engines owned, an increase of 26.6 per cent in number and 24 per cent in horsepower over 1900. The use of gas engines is reported to have increased materially, while fewer water wheels are used. Electricity was reported to a much greater extent for 1905, as is shown in the increased number of electric motors reported, and by the heavy increase of 146.1 per cent in the electric horsepower reported. In fact, electricity has become essential to the equipment of a modern shipbuilding plant.

The detailed statistics of the shipbuilding industries are shown, by states, for 1905 in Tables 33 and 34. Table 33 is a summary of statistics for iron and steel shipbuilding, and Table 34 is a summary for wooden shipbuilding.

TABLE 33.—IRON AND STEEL SHIPBUILDING—DETAILED SUMMARY, BY STATES: 1905.

	United States.	Connecticut.	Maryland.	Michigan.	New Jersey.	New York.	Pennsylvania.	All other states. <sup>1</sup>
Number of establishments.....	54	4	3	5	6	10	5	21
Capital, total.....	\$101,528,251	\$704,500	\$3,068,356	\$3,126,832	\$8,006,700	\$6,988,521	\$17,436,700	\$62,196,512
Land.....	\$17,955,229	\$16,500	\$238,400	\$630,115	\$1,139,500	\$1,842,588	\$7,248,000	\$6,840,126
Buildings.....	\$19,592,761	\$71,000	\$432,026	\$753,774	\$2,981,341	\$895,576	\$1,979,650	\$12,508,494
Machinery, tools, and implements.....	\$21,985,882	\$274,000	\$1,630,284	\$888,621	\$2,205,933	\$1,852,437	\$4,659,772	\$11,384,835
Cash and sundries.....	\$41,994,429	\$343,000	\$706,756	\$854,322	\$1,589,936	\$2,428,026	\$4,549,338	\$31,463,057
Proprietors and firm members.....	18	4			6	5		3
Salaries of officials, clerks, etc.:.....								
Total number.....	1,770	46	98	102	292	164	207	801
Total salaries.....	\$2,544,297	\$73,600	\$118,462	\$99,402	\$406,548	\$274,071	\$450,106	\$1,122,108
Officers of corporations—								
Number.....	96	3	4	7	9	13	15	45
Salaries.....	\$567,045	\$20,000	\$8,108	\$26,300	\$67,056	\$74,425	\$128,167	\$242,989
General superintendents, managers, clerks, etc.—								
Total number.....	1,674	43	94	95	253	151	282	756
Total salaries.....	\$1,977,252	\$53,600	\$110,354	\$73,102	\$339,492	\$109,646	\$321,939	\$879,119
Men—								
Number.....	1,592	41	94	81	252	150	282	692
Salaries.....	\$1,920,797	\$52,000	\$110,354	\$71,403	\$338,742	\$109,135	\$321,939	\$827,224
Women—								
Number.....	82	2		14	1	1		64
Salaries.....	\$56,455	\$1,600		\$1,699	\$750	\$511		\$51,895
Wage-earners, including pieceworkers, and total wages:								
Greatest number employed at any one time during the year.....	48,303	1,664	2,306	2,972	3,085	6,506	7,270	23,891
Least number employed at any one time during the year.....	26,117	824	985	554	2,824	1,870	4,061	14,087
Average number.....	36,742	1,263	2,050	1,346	3,279	3,979	6,098	19,309
Total wages.....	\$20,809,908	\$655,000	\$1,015,653	\$770,953	\$1,990,543	\$2,384,565	\$3,187,699	\$10,805,495
Men 16 years and over—								
Average number.....	35,941	1,263	2,031	1,322	3,279	3,395	5,727	18,924
Wages.....	\$20,647,475	\$655,000	\$1,010,219	\$766,561	\$1,990,543	\$2,383,730	\$3,101,223	\$10,740,160
Women 16 years and over—								
Average number.....	44					2	5	57
Wages.....	\$21,552					\$805	\$2,006	\$18,741
Children under 16 years—								
Average number.....	757		19	24			366	348
Wages.....	\$140,881		\$5,434	\$4,392			\$84,470	\$46,585
Average number of wage-earners, including pieceworkers, employed during each month: <sup>2</sup>								
Men 16 years and over—								
January.....	35,793	1,548	2,265	908	3,550	3,562	5,333	18,027
February.....	35,443	1,530	2,106	979	3,469	2,980	5,599	18,771
March.....	35,928	1,493	2,192	1,006	3,366	2,965	5,896	19,019
April.....	37,455	1,428	1,993	940	3,324	4,808	5,993	18,909
May.....	36,264	1,441	1,856	642	3,307	4,750	6,057	18,211
June.....	36,033	1,418	2,024	413	3,113	4,610	6,011	18,444
July.....	35,491	1,302	2,050	2,483	3,061	2,981	5,656	17,958
August.....	35,508	1,177	2,094	1,684	2,991	2,950	5,760	18,572
September.....	35,674	1,016	2,018	2,060	3,325	2,678	5,086	18,891
October.....	35,903	952	1,994	2,008	3,340	2,757	5,770	19,682
November.....	35,822	971	1,940	1,796	3,249	2,862	5,548	19,466
December.....	35,938	880	1,740	945	3,253	2,788	5,418	20,814
Miscellaneous expenses, total.....	\$3,767,620	\$61,575	\$179,841	\$207,450	\$170,608	\$645,271	\$857,721	\$1,645,864
Rent of works.....	\$111,695	\$7,000		\$7,500	\$7,500	\$31,000	\$40,200	\$11,345
Taxes.....	\$229,874	\$1,300	\$7,368	\$23,344	\$8,138	\$47,207	\$82,154	\$110,333
Rent of offices, interest, insurance, and all other sundry expenses not hitherto included.....	\$3,444,270	\$40,075	\$171,073	\$59,722	\$119,907	\$566,164	\$779,337	\$1,497,311
Contract work.....	\$112,772	\$13,200		\$117,084	\$34,613			\$116,875
Materials used, total cost.....	\$27,601,824	\$2,164,695	\$1,361,416	\$684,099	\$2,587,626	\$2,088,158	\$4,856,021	\$13,829,809
Pig and scrap iron.....	\$191,573	\$2,000		\$24,569	\$5,000	\$7,760	\$29,065	\$191,630
Iron and steel, plates, beams, angles, forgings, rivets, bolts and spikes, castings, etc.....	\$12,451,583	\$139,100	\$663,972	\$308,704	\$1,880,492	\$688,798	\$2,079,901	\$6,100,046
Yellow metal, including bolts and spikes.....	\$377,666	\$525	\$198	\$33,408	\$100,586	\$36,022	\$109,631	\$97,256
Copper, sheets and pipes.....	\$78,282	\$38,000	\$27,420	\$1,130	\$24,445	\$24,655	\$427,821	\$214,811
Lumber, all kinds (including logs, timber, and knees).....	\$1,815,470	\$118,200	\$94,720	\$35,373	\$147,670	\$249,811	\$204,993	\$904,703
Cordage—								
Wire.....	\$80,026	\$5,500	\$975	\$5,060	\$3,496	\$21,717	\$19,884	\$23,394
Manila and hemp.....	\$112,129	\$10,100	\$1,320	\$5,230	\$19,654	\$17,727	\$10,574	\$47,524
Oakum and pitch.....	\$37,668	\$1,000	\$370	\$542	\$1,850	\$15,326	\$4,251	\$14,299
Machinery and boilers, purchased.....	\$3,636,088	\$465,000	\$118,186	\$73,450	\$141,089	\$97,126	\$673,786	\$2,067,431
Anchors and chains, purchased.....	\$110,217	\$15,000	\$2,553	\$15,824	\$3,165	\$16,371	\$21,121	\$36,183
Masts and spars, purchased.....	\$33,241	\$3,000	\$2,462	\$700	\$1,044	\$18,578	\$4,827	\$2,330
Blocks, purchased.....	\$27,505	\$6,500	\$1,355	\$875	\$3,930	\$7,771	\$2,581	\$4,553
Fuel.....	\$965,548	\$51,930	\$71,031	\$39,850	\$108,549	\$88,758	\$142,131	\$463,259
Rent of power and heat.....	\$29,813			\$2,400	\$2,817	\$6,187		\$18,409
Mill supplies.....	\$237,474	\$7,725	\$26,260	\$5,919	\$17,287	\$13,566	\$11,955	\$154,762
All other materials.....	\$6,611,295	\$800,615	\$350,594	\$20,215	\$126,047	\$755,934	\$1,069,748	\$3,459,142
Freight.....	\$126,206	\$500		\$11,850	\$505	\$22,072	\$2,212	\$89,067
Products, total value.....	\$58,433,314	\$3,187,670	\$3,516,314	\$2,029,835	\$5,271,327	\$5,927,721	\$9,543,164	\$28,957,283
Vessels of 5 tons and over.....	\$43,395,704	\$3,018,000	\$2,253,020	\$1,386,868	\$4,500,378	\$1,993,085	\$7,594,876	\$22,649,477
Small boats under 5 tons.....	\$295,551			\$80,000	\$8,000	\$171,217		\$34,334
Repair work, including rigging, caulking, etc.....	\$12,191,854	\$160,520	\$530,244	\$467,173	\$897,949	\$3,704,640	\$1,288,073	\$5,425,246
All other products.....	\$2,552,205	\$150	\$724,050	\$85,794	\$75,000	\$58,770	\$750,215	\$348,226
Power:								
Number of establishments reporting.....	54	4	3	5	6	10	5	21
Total horsepower.....	66,186	925	4,329	3,466	7,919	7,213	10,904	31,430
Owned—								
Engines—								
Steam—								
Number.....	439	6	41	20	15	62	115	189
Horsepower.....	45,142	780	3,286	2,100	5,083	5,730	6,100	22,063
Gas and gasoline—								
Number.....	7	1				2	1	3
Horsepower.....	88	10				13	20	45
Water motors—								
Number.....	2					1		1
Horsepower.....	3					1		2
Electric motors—								
Number.....	1,121	4	76	41	312	7	172	539
Horsepower.....	15,157	60	1,043	1,216	2,736	305	2,736	7,061
Other power, horsepower.....	4,103	75				480	2,048	1,500
Rented—								
Electric motors—								
Number.....	100				12		40	39
Horsepower.....	1,563				150		684	729
Other kind, horsepower.....	130							30
Furnished to other establishments, horsepower.....	145						145	

<sup>1</sup> Includes establishments distributed as follows: California, 3; Delaware, 3; Florida, 1; Illinois, 1; Louisiana, 2; Maine, 1; Massachusetts, 3; Ohio, 3; Rhode Island, 1; Virginia, 1; Washington, 1; Wisconsin, 1.  
<sup>2</sup> The average numbers of women and children employed during each month, being small, are not shown in this table.

TABLE 34.—WOODEN SHIPBUILDING, INCLUDING BOAT

	United States.	Alabama.	California.	Connecticut.	Delaware.	
1	Number of establishments	1,043	7	38	42	7
2	Capital, total	\$20,005,449	\$309,406	\$693,268	\$1,000,143	\$77,530
3	Land	\$3,024,313	\$36,260	\$62,810	\$130,010	\$6,450
4	Buildings	\$3,140,518	\$2,150	\$68,540	\$38,050	\$4,510
5	Machinery, tools, and implements	\$5,007,590	\$171,722	\$251,140	\$321,132	\$28,230
6	Cash and sundries	\$8,023,028	\$90,274	\$310,778	\$479,751	\$38,340
7	Proprietors and firm members	1,172	7	39	41	8
	Salaried officials, clerks, etc.:					
8	Total number	710	6	31	34	3
9	Total salaries	\$795,444	\$12,240	\$47,840	\$30,979	\$2,400
	Officers of corporations—					
10	Number	137	2	3	6	
11	Salaries	\$242,114	\$4,800	\$10,800	\$9,700	
	General superintendents, managers, clerks, etc.—					
12	Total number	573	4	28	28	3
13	Total salaries	\$553,330	\$7,440	\$37,040	\$21,279	\$2,400
	Men—					
14	Number	517	4	24	25	3
15	Salaries	\$532,598	\$7,440	\$34,460	\$20,275	\$2,400
	Women—					
16	Number	50		4	3	
17	Salaries	\$20,732		\$2,580	\$1,004	
	Wage-earners, including pieceworkers, and total wages:					
18	Greatest number employed at any one time during the year	23,880	243	1,013	938	105
19	Least number employed at any one time during the year	8,160	129	364	535	31
20	Average number	14,012	174	639	735	61
21	Total wages	\$8,431,179	\$92,100	\$537,046	\$332,253	\$23,892
	Men 16 years and over—					
22	Average number	13,974	174	637	735	59
23	Wages	\$8,420,409	\$92,100	\$536,740	\$332,253	\$23,567
	Women 16 years and over—					
24	Average number	21				
25	Wages	\$6,002				
	Children under 16 years—					
26	Average number	17		2		2
27	Wages	\$3,868		\$306		\$295
	Average number of wage-earners, including pieceworkers, employed during each month: <sup>1</sup>					
	Men 16 years and over—					
28	January	10,896	181	625	559	31
29	February	11,552	169	602	562	32
30	March	13,260	166	673	651	47
31	April	15,676	164	696	723	70
32	May	16,846	171	656	818	85
33	June	16,719	187	643	817	85
34	July	15,750	184	664	831	80
35	August	15,218	177	633	857	73
36	September	14,652	181	598	762	68
37	October	13,463	175	530	750	56
38	November	12,295	151	666	740	53
39	December	11,361	182	658	750	28
40	Miscellaneous expenses, total	\$1,487,886	\$10,892	\$37,913	\$25,342	\$19,875
41	Rent of works	\$203,244	\$2,370	\$10,250	\$3,920	\$650
42	Taxes	\$95,706	\$1,161	\$2,772	\$1,577	\$213
43	Rent of offices, interest, insurance, and all other sundry expenses not hitherto included	\$798,290	\$7,361	\$23,683	\$19,845	\$1,912
44	Contract work	\$392,646		\$1,208		\$17,100
45	Materials used, total cost	\$9,861,355	\$96,395	\$500,349	\$641,995	\$39,885
46	Pig and scrap iron	\$37,917		\$1,495		
47	Iron and steel plates, beams, angles, forgings, rivets, bolts and spikes, castings, etc.	\$1,080,841	\$4,116	\$72,887	\$80,300	\$5,627
48	Copper, sheets and pipes	\$165,088	\$2,770	\$15,231	\$1,941	\$1,054
49	Lumber, all kinds (including logs, timber, and knees)	\$104,203		\$21,215	\$1,715	\$208
50	Cordage	\$4,884,617	\$44,650	\$248,795	\$348,946	\$20,796
51	Wire	\$98,841	\$600	\$4,781	\$955	
52	Manila and hemp	\$199,634	\$1,618	\$19,097	\$8,543	\$124
53	Oakum and pitch	\$214,003	\$3,181	\$12,035	\$10,429	\$394
54	Machinery and boilers, purchased	\$912,414	\$100	\$28,366	\$50,743	\$8,000
55	Anchor and chains, purchased	\$140,130	\$500	\$0,131	\$9,260	\$116
56	Masts and spars, purchased	\$140,806	\$1,780	\$3,999	\$11,200	\$88
57	Blocks, purchased	\$54,751	\$200	\$2,921	\$1,840	\$51
58	Fuel	\$162,865	\$1,950	\$13,410	\$7,823	\$412
59	Rent of power and heat	\$30,729	\$72	\$795	\$440	
60	Mill supplies	\$52,517	\$276	\$3,540	\$1,008	
61	All other materials	\$1,502,488	\$4,582	\$41,407	\$95,943	\$1,030
62	Freight	\$80,011		\$4,244	\$4,487	\$1,673
63	Products, total value	\$24,335,925	\$218,355	\$1,414,193	\$1,372,734	\$99,015
64	Vessels of 5 tons and over	\$9,724,231	\$32,350	\$906,000	\$1,075,928	\$62,820
65	Small boats under 5 tons	\$2,707,741	\$813	\$120,082	\$95,744	\$20,419
66	Repair work, including rigging, calking, etc.	\$10,637,186	\$182,292	\$644,956	\$189,512	\$9,309
67	All other products	\$1,266,767	\$3,100	\$43,155	\$16,150	\$467
	Power:					
68	Number of establishments reporting	557	4	27	23	4
69	Total horsepower	27,204	250	4,367	1,085	187
	Owned—					
	Engines—					
	Steam—					
70	Number	576	5	33	19	7
71	Horsepower	24,111	230	4,125	935	187
	Gas and gasoline—					
72	Number	175		4	13	
73	Horsepower	1,697		16	117	
	Water wheels—					
74	Number	4				
75	Horsepower	67				
	Water motors—					
76	Number	3			1	
77	Horsepower	17			10	
	Electric motors—					
78	Number	16		10		
79	Horsepower	106		70		
80	Other power, horsepower	301		120		
	Rented—					
	Electric motors—					
81	Number	53	1	3	2	
82	Horsepower	804	20	31	23	
83	Other kind, horsepower	101		5		
84	Furnished to other establishments, horsepower	25				

<sup>1</sup> The average numbers of women and children employed during each month, being small, are not shown in this table.

SHIPBUILDING.

BUILDING--DETAILED SUMMARY, BY STATES: 1905.

District of Columbia.	Florida.	Illinois.	Indiana.	Iowa.	Kentucky.	Louisiana.	Maine.	Maryland.	Massachusetts.	Michigan.	Minnesota.	
3	13	21	10	9	9	18	138	32	122	52	28	1
\$990	\$63,050	\$1,004,307	\$254,471	\$100,507	\$72,830	\$82,907	\$1,221,091	\$1,157,254	\$1,067,843	\$784,715	\$419,370	2
	\$17,700	\$617,825	\$105,930	\$10,150	\$8,700	\$6,450	\$120,715	\$200,033	\$215,565	\$79,872	\$27,875	3
	\$16,400	\$252,550	\$40,900	\$20,035	\$5,700	\$10,250	\$171,780	\$146,697	\$125,437	\$126,853	\$65,530	4
\$100	\$15,500	\$112,707	\$42,500	\$60,031	\$12,730	\$22,450	\$251,312	\$90,853	\$165,045	\$136,003	\$77,253	5
\$800	\$14,030	\$111,165	\$65,121	\$72,781	\$45,700	\$43,817	\$677,884	\$710,102	\$541,736	\$441,367	\$148,000	6
4	14	20	7	8	9	22	173	47	135	39	30	7
	5	14	17	19	7	8	33	42	50	48	16	8
	\$4,780	\$17,409	\$17,864	\$12,836	\$8,580	\$10,670	\$34,076	\$54,613	\$45,183	\$35,500	\$14,670	9
	2	7	6	1	4	3	8	7	15	5		10
	\$1,300	\$10,545	\$8,500	\$1,000	\$3,150	\$4,200	\$14,800	\$9,495	\$21,742	\$8,680		11
	3	7	11	18	3	5	25	35	35	43	16	12
	\$3,480	\$6,864	\$9,364	\$11,836	\$3,400	\$6,470	\$19,270	\$45,118	\$23,441	\$26,910	\$14,670	13
	3	7	10	16	3	5	17	34	28	32	14	14
	\$3,480	\$6,864	\$9,000	\$11,141	\$3,400	\$6,470	\$17,127	\$45,014	\$21,157	\$23,575	\$13,470	15
			1	2			8	1	7	11	2	16
			\$364	\$695			\$2,149	\$104	\$2,284	\$3,335	\$1,200	17
20	198	565	405	188	231	572	2,320	1,204	1,580	1,334	382	18
4	47	89	166	74	60	104	558	461	422	407	158	19
7	62	288	302	109	115	211	1,322	722	708	652	224	20
\$4,185	\$39,803	\$179,385	\$124,253	\$57,520	\$71,394	\$122,564	\$759,288	\$324,839	\$533,803	\$297,300	\$132,957	21
7	92	287	302	109	115	210	1,320	722	706	648	224	22
\$4,185	\$39,803	\$179,055	\$124,253	\$57,520	\$71,394	\$122,314	\$758,738	\$324,839	\$533,421	\$296,037	\$132,957	23
		1					2		1	4		24
		\$330					\$550		\$304	\$1,203		25
						1			1			26
						\$160			\$78			27
3	81	300	122	71	120	182	808	534	636	525	163	28
4	72	318	141	88	108	161	929	487	606	652	107	29
5	95	375	208	109	82	192	1,113	603	790	664	257	30
14	82	413	232	149	74	109	1,391	705	840	628	297	31
14	94	339	374	162	131	251	1,528	823	1,007	631	323	32
9	97	298	384	138	133	209	1,640	840	944	680	272	33
9	111	227	382	112	124	230	1,600	775	873	609	208	34
7	90	100	378	68	127	203	1,683	841	811	535	240	35
7	93	241	381	86	127	207	1,706	777	756	723	183	36
0	93	347	378	112	148	207	1,507	731	824	749	168	37
0	94	178	313	105	147	147	1,108	721	677	741	171	38
5	87	200	336	92	103	150	707	559	638	623	152	39
\$740	\$3,004	\$45,658	\$41,415	\$24,428	\$5,487	\$8,120	\$170,130	\$66,187	\$110,050	\$101,398	\$16,608	40
\$320	\$736	\$2,055	\$100	\$400	\$90	\$1,181	\$4,644	\$10,812	\$22,313	\$2,706	\$1,751	41
	\$405	\$4,213	\$1,730	\$132	\$658	\$788	\$7,946	\$10,334	\$6,826	\$5,599	\$1,594	42
\$220	\$2,017	\$34,556	\$39,585	\$23,926	\$4,709	\$6,153	\$44,008	\$42,691	\$51,652	\$61,556	\$12,198	43
	\$746	\$4,834					\$113,532	\$2,350	\$35,259	\$1,562	\$1,125	44
\$9,455	\$36,085	\$117,095	\$218,065	\$62,960	\$47,657	\$94,254	\$1,715,117	\$423,445	\$668,810	\$394,065	\$101,058	45
	\$112	\$602	\$11,620	\$30		\$15	\$6,899		\$70	\$3,475	\$2,225	46
\$415	\$2,727	\$10,216	\$28,110	\$7,396	\$2,326	\$13,300	\$95,508	\$39,774	\$70,401	\$58,648	\$14,545	47
	\$893	\$2,095	\$6,050	\$1,016	\$550	\$2,162	\$22,985	\$10,549	\$8,151	\$12,150	\$3,180	48
\$50	\$2,200	\$450	\$440	\$1,021		\$1,422	\$4,842	\$959	\$9,492	\$3,305	\$3,488	49
\$2,670	\$10,761	\$62,000	\$135,040	\$15,357	\$33,486	\$51,783	\$765,150	\$257,105	\$331,215	\$148,880	\$44,964	50
	\$79	\$999	\$805	\$10	\$50	\$115	\$31,518	\$1,922	\$12,482	\$2,113	\$1,911	51
\$40	\$853	\$817	\$1,010	\$33	\$50	\$225	\$51,768	\$5,184	\$10,922	\$9,553	\$644	52
\$72	\$1,000	\$4,249	\$5,787	\$145	\$3,497	\$2,314	\$26,683	\$11,205	\$7,517	\$3,365	\$749	53
	\$3,200	\$8,775	\$1,750	\$1,670	\$500	\$11,150	\$183,967	\$40,635	\$69,041	\$35,305	\$10,600	54
	\$200	\$712	\$770	\$64	\$25	\$25	\$71,036	\$3,274	\$2,672	\$7,016	\$1,318	55
	\$158	\$550	\$205			\$190	\$48,069	\$6,803	\$22,185	\$4,430	\$197	56
	\$116	\$602	\$220	\$13	\$40	\$10	\$21,631	\$1,960	\$1,825	\$2,233	\$258	57
\$8	\$268	\$4,682	\$6,260	\$3,122	\$290	\$2,309	\$6,015	\$6,084	\$7,304	\$7,164	\$4,252	58
	\$60						\$3,493		\$3,201	\$90	\$440	59
	\$135	\$1,127	\$2,718	\$2,452	\$703	\$607	\$2,735	\$1,669	\$1,823	\$2,272	\$1,130	60
\$200	\$7,994	\$17,418	\$15,680	\$25,333	\$5,914	\$7,901	\$300,368	\$35,426	\$96,810	\$94,527	\$11,300	61
	\$2,347	\$1,500	\$4,204	\$136	\$567	\$19,551	\$340		\$4,409	\$6,230	\$497	62
\$9,244	\$115,401	\$414,085	\$477,726	\$170,689	\$150,996	\$322,601	\$3,038,016	\$1,024,851	\$1,581,847	\$943,630	\$342,113	63
\$2,000	\$34,596	\$45,670	\$321,760	\$22,570	\$20,000	\$182,812	\$2,459,622	\$478,283	\$321,967	\$273,608	\$79,924	64
\$894	\$23,905	\$46,115	\$50,940	\$78,698	\$3,280	\$7,638	\$228,050	\$44,170	\$357,365	\$318,958	\$172,403	65
\$5,450	\$56,300	\$319,310	\$50,705	\$31,075	\$127,716	\$131,893	\$297,855	\$471,378	\$635,717	\$221,309	\$55,990	66
	\$900	\$2,990	\$48,315	\$48,340		\$257	\$52,489	\$31,020	\$266,798	\$129,155	\$33,706	67
	4	11	7	7	4	8	55	22	53	25	23	68
	52	1,191	649	248	108	492	1,719	1,629	862	1,914	308	69
	3	17	16	8	5	12	44	28	35	25	15	70
	45	1,142	620	167	108	417	1,162	1,781	621	1,719	177	71
	2	4	3	3		1	14	8	15	9	12	72
	7	44	29	11		10	199	118	139	147	105	73
										2		74
										22		75
												76
							1					77
							5					78
									3			79
				70		5		30	20			80
												81
		1					11		11			82
		5					353		82			83
										20		84

TABLE 34.—WOODEN SHIPBUILDING, INCLUDING BOAT

	Mississippi.	Missouri.	New Hamp- shire.	New Jersey.	New York.
1 Number of establishments.....	13	6	5	72	200
2 Capital, total.....	\$39,750	\$23,733	\$5,065	\$2,883,014	\$4,755,836
3 Land.....	\$6,000	\$500	\$400	\$356,850	\$1,134,407
4 Buildings.....	\$11,375	\$350	\$900	\$281,250	\$1,125,317
5 Machinery, tools, and implements.....	\$16,300	\$8,273	\$2,075	\$1,062,860	\$379,338
6 Cash and sundries.....	\$6,075	\$14,610	\$2,200	\$1,162,924	\$1,676,724
7 Proprietors and firm members Salaried officials, clerks, etc.:	14	5	6	73	231
8 Total number.....		2		54	173
9 Total salaries.....		\$2,880		\$81,718	\$196,672
10 Officers of corporations— Number.....				13	29
11 Salaries.....				\$37,836	\$51,100
12 General superintendents, managers, clerks, etc.— Total number.....		2		41	144
13 Total salaries.....		\$2,880		\$43,882	\$145,572
14 Men— Number.....		2		40	137
15 Salaries.....		\$2,880		\$43,570	\$142,423
16 Women— Number.....				1	7
17 Salaries.....				\$312	\$3,140
18 Wage-earners, including pieceworkers, and total wages: Greatest number employed at any one time during the year.....	168	150	8	2,213	5,321
19 Least number employed at any one time during the year.....	118	108	5	1,045	1,627
20 Average number.....	125	133	5	1,584	3,031
21 Total wages.....	\$85,069	\$90,489	\$2,612	\$1,042,159	\$2,002,468
22 Men 16 years and over— Average number.....	124	133	4	1,584	3,020
23 Wages.....	\$84,949	\$90,489	\$2,512	\$1,042,159	\$1,999,127
24 Women 16 years and over— Average number.....			1		0
25 Wages.....			\$100		\$3,100
26 Children under 16 years— Average number.....	1				2
27 Wages.....	\$120				\$241
28 Average number of wage-earners, including pieceworkers, employed during each month: Men 16 years and over—					
29 January.....	120	147	3	1,162	2,388
30 February.....	121	147	3	1,247	2,628
31 March.....	129	147	4	1,456	2,908
32 April.....	135	140	7	1,702	3,679
33 May.....	136	140	7	1,943	3,778
34 June.....	144	135	3	1,914	3,862
35 July.....	141	135	3	1,906	3,472
36 August.....	117	132	3	1,827	3,332
37 September.....	116	113	3	1,652	3,096
38 October.....	104	119	4	1,405	2,516
39 November.....	103	117	4	1,445	2,384
40 December.....	103	117	4	1,259	2,187
41 Miscellaneous expenses, total.....	\$4,643	\$7,007	\$270	\$211,480	\$375,939
42 Rent of works.....	\$241	\$3,520	\$103	\$22,011	\$71,171
43 Taxes.....	\$903	\$60	\$32	\$9,225	\$19,090
44 Rent of offices, interest, insurance, and all other sundry expenses not hitherto included.....	\$3,799	\$3,517	\$144	\$80,118	\$176,160
45 Contract work.....				\$90,223	\$80,470
46 Materials used, total cost.....	\$98,875	\$44,272	\$4,104	\$874,177	\$1,900,767
47 Pig and scrap iron.....					\$6,154
48 Iron and steel, plates, beams, angles, forgings, rivets, bolts and spikes, castings, etc.....	\$20,540	\$3,184	\$115	\$98,759	\$208,490
49 Yellow metal, including bolts and spikes.....	\$8,610	\$874		\$6,457	\$31,489
50 Copper, sheets and pipes.....		\$683	\$25	\$3,450	\$37,639
51 Lumber, all kinds (including logs, timber, and knees).....	\$42,975	\$24,588	\$2,270	\$411,853	\$1,040,134
52 Cordage.....					
53 Wire.....	\$2,120		\$10	\$2,426	\$21,864
54 Manila and hemp.....	\$2,270	\$40	\$25	\$38,966	\$19,647
55 Oakum and pitch.....	\$1,695	\$1,110	\$25	\$24,209	\$45,469
56 Machinery and boilers, purchased.....	\$12,000	\$5,974	\$544	\$40,639	\$100,309
57 Anchors and chains, purchased.....	\$935	\$60	\$10	\$4,014	\$11,630
58 Musts and spars, purchased.....	\$480	\$110		\$6,993	\$14,735
59 Blocks, purchased.....	\$495	\$45	\$3	\$3,953	\$9,727
60 Fuel.....	\$675	\$543	\$280	\$13,697	\$34,884
61 Rent of power and heat.....		\$225		\$15,800	\$4,730
62 Mill supplies.....	\$428	\$156	\$20	\$3,010	\$10,307
63 All other materials.....	\$5,602	\$6,562	\$752	\$194,498	\$235,151
64 Freight.....	\$50	\$118	\$25	\$4,759	\$8,117
65 Products, total value.....	\$243,747	\$158,964	\$11,898	\$2,464,003	\$5,337,582
66 Vessels of 5 tons and over.....	\$114,800	\$5,125	\$1,450	\$428,211	\$1,614,000
67 Small boats under 5 tons.....	\$2,996	\$11,479	\$8,698	\$271,947	\$403,470
68 Repair work, including rigging, calking, etc.....	\$125,951	\$142,360	\$225	\$1,056,845	\$3,022,310
69 All other products.....			\$1,525	\$107,000	\$297,802
70 Power:					
71 Number of establishments reporting.....	10	4	1	37	115
72 Total horsepower.....	289	109	17	2,578	4,080
73 Owned— Engines— Steam— Number.....	11	3	2	60	101
74 Horsepower.....	289	155	17	2,471	3,469
75 Gas and gasoline— Number.....				10	37
76 Horsepower.....		6		85	279
77 Water wheels— Number.....					2
78 Horsepower.....					45
79 Water motors— Number.....					1
80 Horsepower.....					2
81 Electric motors— Number.....					1
82 Horsepower.....					10
83 Other power, horsepower.....					10
84 Rented— Electric motors— Number.....					16
85 Horsepower.....		1			252
86 Other kind, horsepower.....		8			45
87 Furnished to other establishments, horsepower.....					
88	20				

<sup>1</sup> Includes establishments distributed as follows: Georgia, 2; Idaho, 3; South Carolina, 1; Tennessee, 2.



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THE STEAM AND STREET  
RAILROAD CAR INDUSTRY

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# THE STEAM AND STREET RAILROAD CAR INDUSTRY.

Previous to the present census, statistics for the construction and repair of street railroad cars have not been presented in a special report, although the operations of steam car manufacturers and the repair shops of steam railroads were treated in a special report entitled "Cars, Steam Railroad," which appeared in Part IV of the report on manufactures for the census of 1900. Since 1900 the growth in the building and repairing of street cars has been so remarkable that the industry has assumed proportions which entitle it to special treatment. Accordingly this report presents statistics for the manufacture and repair of street railroad cars as well as for the allied industries—the building of steam railroad cars and the work of steam railroad repair shops.

In connection with the statistics of repair work done by both street and steam railroad companies, it should be remembered that not all the value of products results from repairs upon cars. In the case of steam railroad repair shops this is especially true, since the value of repairs upon locomotives forms an item upon the reports of the railroads which nearly, if not quite, in many instances, equals the value of repairs performed upon cars. Thus the magnitude of the operations of steam railroad repair shops, which is indicated by the figures in the following pages, is due in part to the construction of and repairs on locomotives.

## STEAM RAILROAD CARS AND REPAIRS.

The statistics presented for steam railroad cars and repairs show the operations of establishments classified under the heading "cars, steam railroad, not including operations of railroad companies," and "cars and general shop construction and repairs by steam railroad companies." For the sake of brevity these classifications will be denoted, respectively, as "cars, steam railroad" and "steam railroad repair shops."

In the following tables wherever horse, cable, or electric street cars are shown, they are products of secondary importance produced by plants engaged largely, and almost exclusively, in the manufacture of steam railroad cars. The figures for establishments engaged chiefly in the manufacture of street cars have been segregated and are shown in Table 17. Likewise the locomotives built in the motive power and machinery department of the railroad repair shops were secondary products, and they are included in the following

tables. The report of the bridge and building department includes shop work only.

In the majority of cases the reports for the repair shops of steam railroad companies were expected to balance, namely, the value of products was to equal the expenses enumerated upon the schedules, and the few cases where this condition did not obtain were of minor importance and do not affect the value of the results.

Table 1 presents a comparative summary for the combined industry—cars, steam railroad, and steam railroad repair shops—for each census from 1890 to 1905.

TABLE 1.—Cars, steam railroad, and steam railroad repair shops—comparative summary, with per cent of increase: 1890 to 1905.

	CENSUS.			PER CENT OF INCREASE.	
	1905	1900	1890	1900 to 1905	1890 to 1900
Number of establishments.	1,214	1,358	787	10.6	72.6
Capital.	\$235,122,776	\$207,904,125	\$119,833,087	13.1	73.5
Salaried officials, clerks, etc., number.	15,640	8,462	32,661	84.8	218.0
Salaries.	\$14,786,686	\$7,748,379	\$2,343,944	90.8	230.6
Wage-earners, average number.	270,958	207,105	137,986	30.8	50.1
Total wages.	\$162,436,157	\$113,049,623	\$76,200,262	43.7	48.2
Men 16 years and over.	270,200	206,345	137,352	30.9	50.2
Wages.	\$162,170,325	\$112,842,153	\$76,127,321	43.7	48.2
Women 16 years and over.	629	471	382	33.5	23.3
Wages.	\$236,766	\$138,878	\$114,939	70.5	20.8
Children under 16 years.	129	289	252	55.4	14.7
Wages.	\$20,066	\$68,592	\$47,802	57.6	43.5
Miscellaneous expenses.	\$10,020,541	\$9,131,216	\$1,820,167	9.7	401.7
Cost of materials used.	\$226,797,376	\$171,281,760	\$111,230,012	32.4	54.0
Value of products.	\$421,038,809	\$308,748,437	\$199,545,435	36.4	54.7

<sup>1</sup> Reduced from 1,361 to correct error in tabulation.

<sup>2</sup> Decrease.

<sup>3</sup> Includes proprietors and firm members with their salaries; number only reported in 1900 and 1905, but not included in this table.

At the census of 1890 the value of products of the combined industry was \$199,545,435, which at the census of 1900 was increased by \$109,203,022, or 54.7 per cent. At the census of 1905 the value of products was \$421,038,809, which was an absolute increase over the total for 1900 of \$112,290,352. These industries are large employers of labor and at the census of 1905 employed an average of 270,958 wage-earners during the census year, of which only 629 were women 16 years and over, and 129 were children under 16 years. For the entire period shown by the table the capital invested in the two industries practically doubled,

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while the number of establishments increased only 54.3 per cent. The latter increase was not the result of uniformly progressive increases since 1890, but represents the net gain resulting from a large increase in

number between 1890 and 1900 and a decrease from 1900 to 1905.

Table 2 presents statistics for the two industries separately for each census from 1890 to 1905.

TABLE 2.—CARS, STEAM RAILROAD, AND STEAM RAILROAD REPAIR SHOPS—COMPARATIVE SUMMARY, BY INDUSTRIES, WITH PER CENT OF INCREASE: 1890 TO 1905.

	CARS, STEAM RAILROAD.			PER CENT OF INCREASE.		STEAM RAILROAD REPAIR SHOPS.			PER CENT OF INCREASE.	
	1905	1900	1890	1900 to 1905	1890 to 1900	1905	1900	1890	1900 to 1905	1890 to 1900
Number of establishments	73	65	71	12.3	18.5	1,141	1,293	716	111.8	80.6
Capital	\$88,179,647	\$88,329,852	\$43,641,210	10.2	102.4	\$146,943,729	\$119,580,273	\$76,192,477	22.0	56.9
Salaries of officials, clerks, etc., number	2,303	1,366	3,708	68.6	92.9	13,337	7,096	21,953	88.0	263.7
Salaries	\$2,854,690	\$1,538,132	\$769,702	85.6	102.5	\$11,931,996	\$6,210,247	\$1,584,242	92.1	292.0
Wage-earners, average number	34,058	33,453	31,354	1.8	6.7	236,900	173,632	106,632	36.4	62.9
Total wages	\$20,247,821	\$16,987,294	\$16,076,829	19.2	5.7	\$142,188,336	\$96,002,329	\$60,213,433	48.0	59.5
Men 16 years and over	33,896	33,136	30,004	2.3	7.2	236,364	173,200	109,448	38.4	62.7
Wages	\$20,191,342	\$16,902,543	\$15,966,188	19.5	5.9	\$141,978,983	\$95,939,610	\$60,161,333	48.0	59.5
Women 16 years and over	135	107	254	26.2	157.9	494	364	128	35.7	184.4
Wages	\$50,875	\$32,492	\$75,691	56.8	157.1	\$185,891	\$106,420	\$30,248	74.7	171.2
Children under 16 years	27	210	196	187.1	7.1	102	79	56	29.1	41.1
Wages	\$5,904	\$52,299	\$34,050	189.3	49.0	\$23,462	\$16,292	\$12,852	44.0	26.8
Miscellaneous expenses	\$5,198,831	\$2,837,229	\$1,725,113	83.2	64.5	\$4,821,719	\$6,293,987	( <sup>1</sup> )	123.4	.....
Cost of materials used	\$75,657,126	\$61,742,747	\$44,674,486	22.5	38.2	\$151,140,250	\$109,539,013	\$66,561,526	38.0	64.6
Value of products	\$111,175,310	\$90,510,180	\$70,083,737	22.8	29.1	\$309,803,499	\$218,238,277	\$129,461,098	42.0	68.6

<sup>1</sup> Decrease.

<sup>2</sup> Reduced from 1,296 to correct an error in tabulation.

<sup>3</sup> Includes proprietors and firm members with their salaries; number only reported in 1900 and 1905, but not included in this table.

<sup>4</sup> Not reported in full.

The table shows that for every statistical item presented the construction and repair work by steam railroad repair shops far exceeded in magnitude the operations of the manufacturers of steam railroad cars. At the census of 1905, 1,141, or 94 per cent, of the establishments in the combined industry were operated by steam railroad companies as repair shops, which represented an investment of \$146,943,729, or 62.5 per cent of the total capital devoted to both industries. Of the wage-earners employed at this census, 236,900, or 87.4 per cent, were employed by steam railroads in construction and repair work.

Between 1900 and 1905 the number of repair shops decreased from 1,293 to 1,141, or 11.8 per cent; while the establishments engaged primarily in the manufacture of steam railroad cars increased from 65 to 73, or 12.3 per cent. The decrease in the number of repair shops is attributable largely to the introduction by the railroads of more economical methods of effecting repairs, which have resulted in the concentration of repair work in large repair shops. This concentrating movement is indicated by the figures, which show that at the census of 1905 the average investment in repair shops was \$128,785, and the value of the average output was \$271,571; whereas at the census of 1900 the averages for these items were, respectively, \$92,483 and \$168,784.

In the manufacture of steam railroad cars by establishments devoted principally to their construction, it is significant that the increase in the number of wage-earners for the entire period covered by the table was very much less than the increases in the cost of

materials and value of products. Between 1900 and 1905 the last two items increased 22.5 and 22.8 per cent, respectively, or in nearly the same ratio, while the number of wage-earners increased only 1.8 per cent. This is due in part to the increased cost of materials, and to the fact that the average number of wage-earners was determined with more exactness at the census of 1905 and possibly resulted in a proportionately smaller number.

The table shows a slight decrease in the capital invested in the industry between 1900 and 1905, notwithstanding there was an increase in the number of establishments. This decrease in capital was due to the fact that during the census year 1904 one of the largest establishments in the country was practically idle, operating, on a limited scale only, the department producing steel forgings. According to the method of classification adopted by the Bureau of the Census, the nature of the products placed the entire establishment under the classification "iron and steel forgings," and the capital of several millions of dollars invested in the establishment was thus diverted from the class of cars, steam railroad, under which it was classified in 1900, when the establishment was operating normally. Thus, if this company had been operating upon a normal basis in 1904, there would have been a substantial gain instead of a slight loss in the capital invested in the industry at the census of 1905.

*Products.*—Table 3 shows the number and kind of steam railroad cars built at the censuses of 1900 and 1905, distributed according to the character of establishment in which they were constructed.

# THE STEAM AND STREET RAILROAD CAR INDUSTRY.

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TABLE 3.—NUMBER, KIND, AND VALUE OF STEAM RAILROAD CARS BUILT BY ALL ESTABLISHMENTS:  
1905 AND 1900.

	Census.	TOTAL.		PASSENGER.		FREIGHT.		OTHER.	
		Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.
Total.....	1905	119,940	\$100,346,912	2,446	\$20,486,260	115,494	\$79,215,260	2,000	\$645,392
	1900	145,437	87,141,518	1,369	8,810,032	143,133	77,240,632		
In steam car manufacturing establishments.....	1905	102,646	87,289,248	2,030	18,140,233	100,616	69,148,955		
	1900	117,599	69,529,312	979	7,368,290	116,590	62,161,013		
In steam railroad repair shops.....	1905	17,158	12,908,001	416	2,345,967	14,742	10,006,642	2,000	645,392
	1900	26,933	16,521,352	390	1,441,733	26,543	15,079,619		
In street car manufacturing establishments.....	1905	136	59,663			136	59,663		
	1900	(1)	(1)						

<sup>1</sup> Not reported separately.

At the census of 1905 there were 119,940 steam railroad cars, valued at \$100,346,912, reported as completed during the census year, which represents a decrease of 25,497 in number and an increase of \$13,205,394 in value, compared with the output reported at the census of 1900. The decrease in number was due to a marked falling off in the number of freight cars produced at the census of 1905, which was 27,639 less than the number reported in 1900. It is significant, however, that notwithstanding this decrease of 19.3 per cent in the number of freight cars, the value increased \$1,974,628, indicating a remarkable increase in the average value per car. The production of passenger cars increased 1,077, or 78.7 per cent, in number and \$11,676,228, or 132.6 per cent, in value, which also indicates a decided increase in the average value per car.

At the census of 1905 the steam railroad car manufacturing establishments reported 102,646 cars, valued at \$87,289,248. These figures represent a decrease since 1900 of 14,923, or 12.7 per cent, in the number of cars built and a gain of \$17,759,936, or 25.5 per cent, in the value of the output. In the case of the railroad repair shops there was also a decrease in the number of cars built amounting to 9,775, or 36.3 per cent, but this loss was accompanied by a decrease in value amounting to \$3,523,351, or 21.3 per cent.

Of the total number of cars built in steam car manufacturing establishments at the census of 1905, 2,030 were passenger and 100,616 were freight cars. In the case of the former class of cars there was a gain since 1900 of 1,051, or 107.3 per cent, in number and \$10,771,994, or 146.2 per cent, in value; while in the case of freight cars there was a loss of 15,974, or 13.7 per cent, in number and a gain of \$6,987,942, or 11.2 per cent, in value. The steam railroad repair shops built 416 passenger and 14,742 freight cars during the census year 1905. The increases shown in the number and value of passenger cars produced by this class of establishments were comparatively small, whereas there were marked decreases in both the number and value of freight cars produced.

Since 1900 the production of steel railroad cars for both passenger and freight service has increased rapidly, and the substitution of steel freight cars of large tonnage and of distinct types for smaller wooden cars of rather nondescript type is progressing on the majority of the railroads as fast as conditions permit. The changes in carrying capacity are shown by the reports of the Interstate Commerce Commission on the equipment of steam railroads. As recently as 1902 there were no freight cars reported by the railroads with a capacity of 200,000 pounds, but in 1905, 200 such cars were reported. The average capacity of the 1,727,620 freight cars reported by the railroads in 1905 was 62,000 pounds, whereas the same average for the 1,505,992 freight cars reported in 1902 was 56,000 pounds. Moreover, in 1902, 1,275,742, or 84.7 per cent of the total number of freight cars reported, had a capacity of 60,000 pounds or less; whereas for 1905, 1,271,154, or only 73.6 per cent of the total number of freight cars reported, had a capacity of 60,000 pounds or less.<sup>1</sup> These figures indicate the cause of the decrease in number and increase in value of freight cars shown in Table 3. The greater the capacity of the car the heavier and more substantial must be the construction, and consequently fewer cars are built, while the cost is increased. The extensive and growing use of steel in the construction of the cars has contributed to the same result. Thus the average value of the freight cars produced at the census of 1905 was \$686, or \$147 more than the average value per car in 1900. In accepting the average value per car it must be remembered that it is based upon the total of all kinds and sizes of cars. In the case of passenger cars changes of a similar nature have resulted in an increase since 1900 of \$1,940, or 30.1 per cent, in the average value per car.

At the census of 1905 the average value of the passenger cars produced in railroad car manufacturing establishments was \$8,936, or \$3,297 more than the

<sup>1</sup> Interstate Commerce Commission, "Statistics of Railroads in the United States," 1902, page 29; *ibid.*, 1905, page 29.

average value of the same class of cars produced in railroad repair shops. This difference is due in part to the fact that the value of the cars as reported by the railroad companies was not the selling price, but represented only the sum of the building expenses as they appeared upon the report, and in part to the fact that the railroads for the most part built only the lighter coaches intended for suburban traffic, whereas the costly diners, sleeping cars, and Pullman day coaches were constructed in steam car manufacturing establishments. The average value of the freight cars built in the latter class of establishments was \$687, which was \$8 higher than the average value per car built by

the repair shops. The lowest average value, \$439, for freight cars resulted from the building operations of the street car manufacturing establishments, and was due to the fact that among the 136 cars produced by them were a number of gondolas, or ore cars, and narrow gauge freight cars.

In Table 4 is presented in detail the value, and, wherever possible, the quantity of products of the combined industries at the censuses of 1900 and 1905, for the United States, for the 10 leading states, and for the remaining states and territories combined as "all other states."

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TABLE 4.—CARS, STEAM RAILROAD, AND STEAM RAILROAD REPAIR SHOPS—COMPARATIVE SUMMARY OF

STATE.	Cen- sus.	Aggregate value.	MOTIVE POWER AND MACHINERY DEPARTMENT.					
			Total value.	Locomotives.		Work for other corpo- rations (value).	All other products (value).	
				Bult.				Repaired (value).
				Number.	Value.			
1 United States.....	1905	\$421,038,809	\$149,675,261	148	\$1,853,939	\$101,351,907	\$5,681,307	\$40,788,108
2	1900	308,748,457	94,447,260	272	3,276,393	57,383,143	3,338,589	30,449,135
3 California.....	1905	9,836,332	5,668,192	( <sup>1</sup> )	( <sup>2</sup> )	4,345,755	243,557	*1,078,880
4	1900	7,553,626	1,783,739			1,630,941	20,167	132,631
5 Illinois.....	1905	56,417,673	10,345,610	( <sup>3</sup> )	( <sup>3</sup> )	7,733,945	159,942	*2,461,723
6	1900	41,426,030	7,402,600	27	335,826	4,497,144	301,048	2,175,582
7 Indiana.....	1905	24,551,201	7,514,661			5,716,881	211,448	1,586,332
8	1900	19,248,999	4,363,977	1	5,709	2,983,445	143,509	1,231,314
9 Kansas.....	1905	11,529,394	4,759,790	( <sup>3</sup> )	( <sup>3</sup> )	3,834,826	49,535	4875,429
10	1900	6,816,816	2,519,320	12	142,800	1,801,317	36,003	539,200
11 Michigan.....	1905	18,837,142	2,726,829	( <sup>3</sup> )	( <sup>3</sup> )	1,926,803	50,292	*740,734
12	1900	14,253,707	1,506,804	16	107,011	1,137,222	20,783	241,878
13 Missouri.....	1905	20,789,659	4,342,986	( <sup>3</sup> )	( <sup>3</sup> )	3,157,967	142,038	*1,042,081
14	1900	14,246,889	2,482,874	2	13,545	1,559,718	229,877	679,734
15 New York.....	1905	22,136,636	8,266,776	( <sup>3</sup> )	( <sup>3</sup> )	6,093,988	117,155	*2,055,633
16	1900	21,423,201	6,864,940	2	25,114	4,218,942	324,100	2,296,094
17 Ohio.....	1905	26,967,635	9,763,306			6,221,964	150,606	3,390,646
18	1900	16,917,554	4,726,651			3,175,272	52,023	1,499,356
19 Pennsylvania.....	1905	80,449,604	32,462,711	( <sup>3</sup> )	( <sup>3</sup> )	14,602,875	2,824,800	*15,035,027
20	1900	62,326,081	20,409,988	106	2,303,712	8,878,878	521,698	8,705,700
21 Texas.....	1905	10,472,742	5,861,213	( <sup>3</sup> )	( <sup>3</sup> )	3,806,290	233,674	*1,821,249
22	1900	8,314,691	4,046,335	9	59,842	2,239,853	270,132	1,476,508
23 All other states.....	1905	139,650,631	57,963,187	( <sup>3</sup> )	( <sup>3</sup> )	43,910,613	1,498,161	*12,554,413
24	1900	96,220,863	38,339,942	37	279,834	25,260,411	1,329,159	11,470,538

<sup>1</sup> In addition to the miscellaneous products this total includes the value of street cars and value of repairs to steam cars reported by establishments classified as "cars, steam railroad."

<sup>2</sup> Distributed among "all other products" of the different classes in 1900.

# THE STEAM AND STREET RAILROAD CAR INDUSTRY.

PRODUCTS, BY KIND, QUANTITY, AND VALUE, FOR THE UNITED STATES AND TEN LEADING STATES: 1905 AND 1900.

CAR DEPARTMENT.										BRIDGE AND BUILDING DEPARTMENT (SHOPWORK).					All other products not classified (value). <sup>2</sup>
Total value.	Cars built.						Passenger and freight cars repaired (value).	Work for other corporations (value).	All other products (value). <sup>1</sup>	Total value.	Repairs and renewals (value).	Work for other corporations (value).	All other products (value).		
	Passenger.		Freight.		Other.										
	Number.	Value.	Number.	Value.	Number.	Value.									
\$260,056,745 206,880,732	2,446 1,371	\$20,486,200 8,810,032	115,358 143,134	\$79,155,597 77,240,632	2,000	\$645,392	\$105,341,599 74,665,500	\$6,946,990 7,084,857	\$48,380,907 41,085,711	\$5,103,186 5,414,465	\$4,358,532 3,937,170	\$40,581 241,626	\$704,073 1,235,669	\$5,303,617	1
2,919,304 5,745,358	(3) 4	(3) 11,777	141 607	84,138 329,577	74	129,234	2,500,725 1,576,111	36,958 334,609	108,249 3,463,284	18,842 24,529	17,637 13,015	7,868	1,205 3,646	1,229,994	2
45,811,429 33,017,555	775 381	8,292,518 3,722,715	27,137 32,889	18,606,910 17,234,323	9	38,783	9,769,563 5,641,067	687,302 460,931	8,416,353 6,558,519	171,634 405,875	171,634 369,133	5,072	31,670	80,000	3
16,420,072 14,696,545	102 69	1,592,782 350,234	11,493 17,111	7,492,306 9,185,928	14	13,291	4,872,548 3,584,005	201,051 493,631	2,248,094 1,082,747	556,737 188,477	556,737 156,665	1,856	29,956	59,831	4
6,599,004 3,955,303	(3) 6	(3) 21,300	52 662	36,050 353,037	-----	-----	4,065,455 3,170,853	94,479 196,257	2,492,820 213,856	342,193	122,155	10,728	200,310	170,600	5
15,092,175 12,473,201	(3) 3	(3) 10,055	18,591 22,460	11,876,323 9,496,779	66	38,024	1,775,964 1,855,941	28,317 86,269	2,273,547 1,024,157	118,138 273,612	103,121 247,373	307	14,710 26,239	-----	6
16,306,021 11,466,623	218 117	1,622,353 557,001	10,498 9,802	7,923,758 5,803,760	61	30,783	2,921,257 2,595,377	444,478 693,548	3,363,392 1,816,937	124,430 297,392	124,166 82,660	264 159,536	55,196	16,222	7
12,800,828 14,205,007	83 80	1,078,457 451,887	1,767 5,195	1,392,722 3,114,212	23	58,718	7,122,289 6,319,501	461,780 737,088	2,746,862 3,582,229	773,989 353,254	730,264 310,265	-----	43,725 42,989	235,103	8
16,608,791 11,974,609	382 207	3,154,191 1,266,346	6,451 5,994	2,252,410 2,750,343	104	68,278	8,938,906 5,819,411	209,176 391,324	1,895,890 1,747,185	477,666 216,294	477,556 208,038	110	8,256	117,872	9
47,216,130 41,382,083	171 153	1,148,886 643,113	21,347 29,002	18,397,474 18,524,347	1,434	84,313	19,004,285 12,876,887	1,329,053 611,351	7,252,089 8,726,385	713,966 534,010	704,682 394,779	200 5,947	9,084 133,284	56,797	10
4,240,649 4,159,970	37 11	182,237 55,564	226 425	124,084 191,945	8	15,337	3,243,445 3,033,077	508,864 344,021	166,682 535,363	71,133 108,386	68,562 73,776	42 23,495	2,529 11,115	209,747	11
75,982,342 53,210,478	575 331	3,364,071 1,720,040	17,655 18,867	10,939,422 10,256,381	207	168,631	41,067,162 28,193,180	2,855,302 2,735,828	17,557,754 12,305,049	2,076,651 2,670,443	1,404,173 1,959,311	39,658 27,124	632,820 684,008	3,028,451	12
															13
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<sup>1</sup>Number and value can not be shown separately.

<sup>2</sup>Includes value of locomotives.

<sup>3</sup>Includes value of passenger cars.

Three classes of products are distinguished in the table: First, those produced by the motive power and machinery department, consisting principally of the repairing and building of locomotives; second, those derived from the car department, for the most part cars built and repaired; and third, those resulting from the operations of the bridge and building department, consisting of shopwork only.

At the census of 1905 the value of the product of the car department of the combined industries was \$260,956,745, which constituted 62 per cent of the aggregate value of the products of the three departments. Only 148 locomotives, valued at \$1,853,939, were built in the motive power and machinery department, which, when compared with the 272 locomotives, valued at \$3,276,393, reported as completed by this department at the census of 1900, indicates a decrease of 45.6 per cent in number and 43.4 in value for this class of products during the five years. The value of the repair work upon locomotives was \$101,351,907, or \$3,989,692 less than the value of the same class of work done in the car department upon passenger and freight cars. At the census of 1900 the value of repairs upon locomotives was \$57,383,143, and the value of repair work upon passenger and freight cars was \$74,665,500, so that the totals for 1905 for these items represent increases over the same items in 1900 of 76.6 and 41.1 per cent, respectively. The repair work shown in the table was all reported by railroad repair shops, and thus, at the census of 1905, the aggregate value of the repairs performed by steam railroads upon their rolling stock was \$206,693,506, which, since the expenses and the value of product as returned upon the reports of the railroad companies balanced in the great majority of cases, is equivalent to stating that this amount represents approximately the total cost to the railroad companies of repairs of this nature. The value of products of the bridge and building department was of comparatively small importance, amounting to but \$5,103,186, or only 1.2 per cent of the value of all products.

Of the 10 leading states, Pennsylvania, with a product valued at \$80,449,604 at the census of 1905 and \$62,326,081 at the census of 1900, stood considerably in the lead in the combined industries at both periods, while at the census of 1905 Illinois was second, Ohio, third, and Indiana fourth. At the census of 1905

the aggregate value of products for these 4 states constituted 44.7 per cent of the total value of products for the combined industries for the United States. In the motive power and machinery department the value of the output for the state of Pennsylvania was by far the greatest, amounting to \$32,462,711, or three times the value of products of the state of Illinois, which ranked next in this respect. These 2 states also led with respect to the value of products resulting from the operations of the car department of the combined industries, Pennsylvania again taking first place, with products valued at \$47,216,130, and Illinois second, with products valued at \$45,811,429. With respect to the number of cars built, both passenger and freight, however, Illinois was considerably ahead of any state. In the manufacture of passenger cars Ohio ranked second, building 382 cars, or about one-half the number turned out in Illinois. In the manufacture of freight cars Pennsylvania came next to the leading state, producing 21,347 freight cars, or 5,790 fewer than Illinois. The average value of the freight cars built in Pennsylvania, however, was \$862, whereas in Illinois those built during the census year had, on the average, a value of only \$686.

This difference between the 2 states in the average value per car is explained by the fact that in Pennsylvania the production of steel freight cars of great capacity is increasing rapidly, and in no other state has this modern class of freight cars been built in such numbers. Thus the average value per freight car built in Pennsylvania was considerably greater than that for cars of the kind produced in any of the states in which freight car building operations were at all extensive. Of the 10 states shown in the table, 6 produced over 5,000 freight cars, and the average value per car produced by each of these states was as follows: Pennsylvania, \$862; Missouri, \$755; Illinois, \$686; Indiana, \$652; Michigan, \$639; and Ohio, \$349. The average value, then, at the census of 1905 of the freight cars built in Pennsylvania was \$107 more than the average value of cars built in Missouri, the state which returned the second largest average.

## CARS, STEAM RAILROAD.

Table 5 is a summary, by geographic divisions, of the statistics returned in 1905 for cars, steam railroad.

TABLE 5.—CARS, STEAM RAILROAD—SUMMARY, BY GEOGRAPHIC DIVISIONS: 1905.

DIVISION.	Number of establishments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		WAGE-EARNERS AND WAGES.		Miscellaneous expenses.	Cost of materials used.	Value of products.
			Number.	Salaries.	Average number.	Wages.			
United States.....	73	\$88,179,047	2,303	\$2,854,690	34,058	\$20,247,821	\$5,198,831	\$75,657,126	\$111,175,310
North Atlantic <sup>1</sup> .....	20	41,657,506	846	1,107,613	8,472	4,827,879	1,763,698	19,631,217	28,443,177
South Atlantic <sup>2</sup> .....	7	5,800,732	184	214,240	3,180	1,703,222	303,754	4,947,458	7,889,356
North Central <sup>3</sup> .....	40	39,583,640	1,177	1,363,249	21,658	13,269,534	3,067,728	49,048,942	72,724,460
South Central <sup>4</sup> .....	6	1,047,169	96	79,588	748	447,186	63,651	1,420,569	2,108,317

<sup>1</sup> Includes New Hampshire, Massachusetts, New York, New Jersey, Pennsylvania.

<sup>2</sup> Includes Delaware, Maryland, West Virginia, Georgia.

<sup>3</sup> Includes Ohio, Indiana, Illinois, Michigan, Wisconsin, Iowa, Missouri, Kansas.

<sup>4</sup> Includes Kentucky, Tennessee, Alabama, and 1 establishment for Colorado in the Western division.

The table shows that the North Central division led in every statistical item with the exception of capital. In fact, this division reported 65.4 per cent of the value of products of the industry and employed 63.6 per cent of the total number of wage-earners. The North Atlantic division, with one-half as many establishments and \$2,073,866 more capital than the leading division, shows a product valued at only slightly over one-third as much as that of the latter. This inconsistency in the capital invested and value of products

is explained in connection with Table 6, in which the returns for Pennsylvania and Illinois will be found to be responsible for this discrepancy in the statistics of the two leading geographic divisions.

Table 6 is a comparative summary showing the statistics for the manufacture of steam railroad cars exclusive of the operations of steam railroad companies, distributed according to the leading states in this branch of the industry, for each census from 1890 to 1905.

TABLE 6.—CARS, STEAM RAILROAD—COMPARATIVE SUMMARY, BY STATES: 1890 TO 1905.

STATE.	Census.	Number of establishments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		WAGE-EARNERS AND WAGES.		Miscellaneous expenses.	Cost of materials used.	Value of products.
				Number.	Salaries.	Average number.	Wages.			
United States.....	1905	73	\$88,179,047	2,303	\$2,854,690	34,058	\$20,247,821	\$5,198,831	\$75,657,126	\$111,175,310
	1900	65	88,323,852	1,366	1,538,132	33,453	16,987,294	2,837,229	61,742,747	90,510,180
	1890	71	43,041,210	1,798	1,759,702	31,354	16,076,829	1,725,113	44,674,486	70,083,737
Delaware.....	1905	3	2,707,101	102	112,424	1,559	1,031,334	169,888	1,941,642	3,599,736
	1900	3	2,429,007	73	83,528	2,032	1,041,088	121,819	1,876,435	3,274,922
	1890	3	2,839,733	46	66,459	2,301	1,329,739	87,677	1,528,528	3,291,263
Illinois.....	1905	16	15,467,326	628	718,968	9,036	5,930,761	1,204,095	21,172,758	30,926,464
	1900	17	18,732,466	279	330,409	9,314	5,360,756	493,271	17,075,461	24,645,606
	1890	9	10,070,784	176	128,712	6,879	4,234,407	217,384	10,033,125	17,117,223
Indiana.....	1905	6	5,304,214	80	108,163	3,252	1,927,573	244,382	6,844,047	10,035,971
	1900	4	6,062,000	96	111,858	3,337	1,550,764	224,099	6,287,256	8,006,577
	1890	4	5,199,706	34	50,880	3,310	1,536,141	159,782	4,924,342	7,073,329
Massachusetts.....	1905	4	1,499,210	26	40,978	892	513,787	73,056	1,266,763	1,956,353
Michigan.....	1905	4	7,783,077	156	150,027	3,831	2,200,977	602,778	9,517,495	13,467,751
	1900	4	6,693,299	107	145,795	3,187	1,409,580	227,774	7,272,761	9,920,780
	1890	5	3,709,483	85	115,868	3,723	1,565,557	245,560	8,097,974	11,078,281
Missouri.....	1905	5	6,686,534	197	210,607	3,185	1,843,384	713,692	8,378,555	12,069,226
	1900	4	4,530,982	117	125,561	2,772	1,373,353	198,160	5,101,335	7,722,768
	1890	5	1,442,927	50	52,247	1,854	1,147,604	75,773	2,655,320	3,974,173
New York.....	1905	4	2,890,856	136	142,273	1,602	984,028	93,095	2,755,043	4,250,812
	1900	4	4,299,251	92	75,920	2,091	1,038,948	81,996	3,744,911	5,228,351
	1890	5	1,835,321	53	63,342	1,961	1,100,062	92,779	2,382,777	3,160,771
Ohio.....	1905	5	3,297,777	83	134,910	2,065	1,197,537	195,475	3,358,171	5,539,408
	1900	5	2,581,894	61	75,616	1,805	862,011	45,450	2,791,908	3,942,372
	1890	5	2,843,166	21	38,890	2,140	991,895	92,007	2,817,578	4,784,135
Pennsylvania.....	1905	9	31,523,686	546	842,445	5,461	3,090,905	1,458,804	13,821,410	19,428,230
	1900	11	33,828,723	414	426,389	5,840	3,111,556	1,265,456	12,188,811	19,260,910
	1890	15	7,060,460	128	141,866	4,535	1,833,407	465,900	6,496,258	10,080,722
All other states.....	1905	17	11,019,266	340	393,886	3,175	1,557,515	443,566	6,661,242	9,901,359
	1900	13	9,166,320	127	163,046	3,075	1,239,238	189,294	5,493,869	7,307,894
	1890	20	8,579,624	115	101,438	4,651	2,338,017	297,251	5,768,584	9,517,810

<sup>1</sup> Includes proprietors and firm members with their salaries; number only reported in 1900 and 1905, but not included in this table.  
<sup>2</sup> Included in "all other states" in 1900 and 1890.  
<sup>3</sup> Includes establishments distributed as follows: Alabama, 2; Colorado, 1; Georgia, 2; Iowa, 1; Kansas, 1; Kentucky, 1; Maryland, 1; New Hampshire, 1; New Jersey, 2; Tennessee, 2; West Virginia, 1; Wisconsin, 2.  
<sup>4</sup> Includes establishments distributed as follows: Alabama, 2; Georgia, 2; Kentucky, 1; Maryland, 1; Massachusetts, 2; New Hampshire, 1; New Jersey, 2; Tennessee, 1; West Virginia, 1.  
<sup>5</sup> Includes establishments distributed as follows: Alabama, 3; California, 1; Florida, 1; Kansas, 2; Kentucky, 2; Massachusetts, 3; Minnesota, 2; New Hampshire, 1; North Carolina, 1; Tennessee, 2; Virginia, 1; West Virginia, 1.

Illinois held first rank in the manufacture of steam railroad cars by establishments not operated by railroad companies during the entire period covered by the table. The value of products for this state in 1905 was \$30,926,464, which represented a gain since 1890 of \$13,809,241, or 80.7 per cent, and constituted 27.8 per cent of the total value of the products of the industry in the United States. Michigan ranked next to Illinois in 1890, but relinquished this position to Pennsylvania in 1900, and has since occupied third place. In 1905 these 3 states reported aggregate products of a value of \$63,822,445, or 57.4 per cent of the total for the country.

There was no material change in the total number of establishments engaged in this branch of the industry in the United States at the three census periods, although Illinois increased from 9 establishments in 1890 to 16 in 1905, and Pennsylvania decreased from 15 in 1890 to 9 in 1905. These were the only states showing a change of more than 3 establishments in 1905 as compared with 1890.

The industry has been practically at a standstill in the state of Delaware since 1890, the increase in value of products amounting to but 9.4 per cent for the fifteen years. Measured by the same standard, Pennsylvania has made slight progress in the industry during

the past five years, and in New York the industry has not even held its own, the value of the output falling off \$977,539, or 18.7 per cent since 1900. Illinois is the only state which shows an increase of more than \$5,000,000 for 1905, as compared with 1900, while increases of less than \$5,000,000 and more than \$1,000,000 are shown for Missouri, Michigan, Ohio, and Indiana. For 1900, as compared with 1890, increases of more than \$5,000,000 each are shown for Pennsylvania and Illinois, and increases between \$1,000,000 and \$4,000,000 each for Missouri, New York, and Indiana.

Although at the census of 1905 Illinois produced an output valued at about half again as much as that of the state of Pennsylvania, yet the capital invested in the industry in the former state was not one-half as great as that invested in the industry in the latter state. This discrepancy was due in part to the inclusion of a class of assets in the capital of one of the large establishments in the state of Pennsylvania which were not included in the reports on capital of the large establishments located in Illinois. Owing to this difference in the returns of capital the relative importance of the 2 states in this industry is indicated more accurately perhaps by the number of persons employed and the value of the product. In this connection, however, it should be remembered that in the case of Illinois in the neighborhood of a third of the value of products was made up of the value of passenger cars, whereas comparatively few cars of this character were produced by establishments located in Pennsylvania, the principal production of which consists of freight cars. The prosperous condition of the manufacture of passenger cars, which is indicated by the increase in this class of cars, compared with the rather depressed condition of the freight car industry, which is indicated by the decrease in number and comparatively slight increase in value shown in Table 7 for this class of cars, gives to Illinois an apparent lead in the industry, which probably would not be so marked if the conditions for the manufacture of freight cars in Pennsylvania had been more favorable, or even upon a normal basis. In fact, it has already been pointed out that one of the largest establishments in the country, located in Pennsylvania, devoted normally to the production of this class of cars, produced none during the census year. In weighing the relative ranks of the 2 states, therefore, these conditions should be taken into account. In this case at least it is probable that the value of products fails to reflect accurately the true importance in this industry which belongs to the state of Pennsylvania under normal trade conditions.

*Products.*—In Table 7 is presented the total number and value of cars built by establishments classified under the industry, distributed according to kind, at the censuses of 1900 and 1905.

TABLE 7.—Cars, steam railroad—number and value of cars built, distributed according to kind: 1905 and 1900.

KIND.	1905	1900
Total number of cars built.....	103,064	118,504
Total value.....	\$88,283,902	\$70,620,166
Passenger service:		
Total number.....	2,030	979
Total value.....	\$18,140,293	\$7,368,299
Baggage and express—		
Number.....	109	72
Value.....	\$896,185	\$238,554
Chair and coach—		
Number.....	769	181
Value.....	\$5,819,034	\$957,526
Dining and buffet—		
Number.....	58	37
Value.....	\$886,305	\$404,593
Mail—		
Number.....	95	42
Value.....	\$576,230	\$197,465
Parlor—		
Number.....	114	37
Value.....	\$1,686,417	\$272,403
Passenger—		
Number.....	428	331
Value.....	\$2,955,517	\$1,975,469
Private—		
Number.....	13	11
Value.....	\$211,658	\$154,709
Sleeping—		
Number.....	304	194
Value.....	\$4,775,624	\$2,767,061
Other varieties—		
Number.....	50	74
Value.....	\$333,323	\$400,609
Freight service:		
Total number.....	100,616	116,500
Total value.....	\$69,148,955	\$62,161,013
Box—		
Number.....	38,184	47,838
Value.....	\$28,508,632	\$26,562,893
Coal and coke—		
Number.....	27,998	28,857
Value.....	\$21,367,218	\$18,414,718
Flat—		
Number.....	5,412	4,525
Value.....	\$2,893,154	\$1,923,525
Fruit—		
Number.....	2,840	1,620
Value.....	\$1,727,771	\$665,354
Furniture—		
Number.....	801	1,717
Value.....	\$505,000	\$1,148,265
Gondola—		
Number.....	9,518	11,821
Value.....	\$5,518,084	\$6,873,145
Refrigerator—		
Number.....	3,353	2,354
Value.....	\$3,042,835	\$1,956,097
Stock—		
Number.....	4,235	2,760
Value.....	\$2,453,123	\$1,426,890
Caboose—		
Number.....	160	193
Value.....	\$150,977	\$184,865
Other varieties—		
Number.....	8,115	74,995
Value.....	\$2,932,161	\$3,005,351
Street cars:		
Total number.....	418	935
Total value.....	\$994,654	\$1,090,854
Electric—		
Number.....	414	602
Value.....	\$991,149	\$1,062,172
Closed—		
Number.....	308	487
Value.....	\$875,008	\$693,143
Combination—		
Number.....	15	44
Value.....	\$48,164	\$68,329
Open—		
Number.....	8	371
Value.....	\$7,019	\$300,709
Other—		
Number.....	83	.....
Value.....	\$60,358	.....
Horse—		
Number.....	4	133
Value.....	\$3,505	\$28,682

<sup>1</sup> Includes 25 cable cars, valued at \$21,232.

Of the passenger service cars produced by this industry at the census of 1905, 769, or 38 per cent, were chair and coach cars, whose value constituted 32.1 per cent of the total value of all passenger service cars constructed. At the census of 1900 the number of ordinary passenger cars built formed the largest proportion of the total number, but during the succeed-

ing five years the production of chair and coach cars quadrupled, outstripping the production of ordinary passenger cars. The average value of each variety of passenger cars shown has increased since 1900.

At both censuses the most important varieties of freight service cars, from the standpoint of number and value, were the common box cars and the coal and coke cars. Both these classes showed decreases in number and increases in value, which resulted in an average value in the case of box cars of \$747 at the census of 1905, compared with an average value of \$555 at the census of 1900, and an average value in the case of coal and coke cars of \$763 for 1905 and \$638 for 1900.

The growth in construction of freight cars for special purposes is shown by the table. At the census of 1900, 1,620 fruit cars, valued at \$665,354, were built, which increased to 2,840 cars, valued at \$1,727,771, at the census of 1905. The output of refrigerator cars increased 999 in number and \$1,086,738 in value, and stock cars 1,475 in number and \$1,026,323 in value.

The production of street cars in establishments engaged primarily in the construction of steam railroad cars is apparently decreasing, as the number of street cars produced by them fell off more than one-half during the five years between 1900 and 1905, and the value also decreased, although not to so marked an extent as the number.

*Exports.*—Table 8 shows by countries the value of exports of passenger and freight cars, and parts of cars, for steam railroads, at each census period from 1880 to 1905.

TABLE 8.—Value of exports of steam railroad passenger and freight cars, and parts of same, by countries: 1880 to 1905.<sup>1</sup>

COUNTRY.	1905	1900	1890	1880
Total.....	\$1,934,352	\$2,558,323	\$2,689,098	\$583,723
Asia:				
Chinese Empire.....	10,103	16,838		
East Indies—British.....		2,947		
Hongkong.....	300			
Japan.....	220,152	12,589		48,532
Russia—Asiatic.....		878		
Turkey in Asia.....		220		
Oceania:				
British Australasia.....	21,000	50,754	9,000	10,204
Hawaii.....		18,100	5,900	
Philippine Islands.....	10,780			
Africa:				
British Africa.....	11,887	4,744		18,100
Turkey in Africa—Egypt.....		401,151		

<sup>1</sup> Bureau of Statistics, Department of Commerce and Labor, "Commerce and Navigation of the United States."

TABLE 9.—STEAM RAILROAD REPAIR SHOPS—SUMMARY, BY GEOGRAPHIC DIVISIONS: 1905.

DIVISION.	Number of establishments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		WAGE-EARNERS AND WAGES.		Miscellaneous expenses.	Cost of materials used.	Value of products.
			Number.	Salaries.	Average number.	Wages.			
United States.....	1,141	\$146,943,729	13,337	\$11,931,993	235,900	\$142,188,333	\$4,821,710	\$151,140,250	\$309,853,499
North Atlantic <sup>1</sup> .....	270	54,272,332	4,073	3,357,478	70,616	42,199,050	1,800,116	51,056,924	98,519,747
South Atlantic <sup>2</sup> .....	135	11,008,834	1,370	1,175,305	27,558	14,373,331	381,841	14,240,540	30,202,383
North Central <sup>3</sup> .....	441	54,794,034	5,342	4,607,657	86,018	51,853,930	1,441,768	55,069,521	113,403,073
South Central <sup>4</sup> .....	153	14,661,078	1,532	1,580,033	31,765	18,190,402	513,979	18,037,823	38,331,404
Western <sup>5</sup> .....	142	12,207,351	1,020	1,211,320	20,043	15,571,593	684,006	12,135,433	29,601,892

<sup>1</sup> Includes Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania.

<sup>2</sup> Includes Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida.

<sup>3</sup> Includes Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas.

<sup>4</sup> Includes Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Arkansas, Indian Territory, Oklahoma, Texas.

<sup>5</sup> Includes Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Washington, Oregon, California, Alaska.

TABLE 8.—Value of exports of steam railroad passenger and freight cars, and parts of same, by countries: 1880 to 1905—Continued.

COUNTRY.	1905	1900	1890	1880
Europe:				
Austria-Hungary.....	\$80			
Belgium.....	1,166	\$30,713		
Denmark.....	1,538	125		
France.....	7,324	280,939	\$33,000	
Germany.....	1,832	62,319		\$26,800
Gibraltar.....				500
Italy.....	2,558	52,507		
Netherlands.....		1,925		
Portugal.....	2,385	1,583	16,792	1,565
Russia—Baltic and White seas.....	8,610	1,300		
Spain.....	27,615		43,920	
Sweden and Norway.....		3,788		
Switzerland.....		4,848		
United Kingdom.....	65,301	124,585	190,773	61,467
North America:				
British Honduras.....	2,105			
Nova Scotia, New Brunswick, etc.....	11,572	15,464		
Quebec, Ontario, Manitoba, etc.....	290,516	349,078	49,600	2,100
British Columbia.....	44,086	12,070		4,716
Newfoundland and Labrador.....	165	232		
Costa Rica.....	686	6,149		
Guatemala.....	10,363	1,271	3,500	
Honduras.....	4,106	2,664		223,613
Nicaragua.....	688	4,704	26,365	
Panama.....	2,690			
Salvador.....	144	1,707	4,000	
Mexico.....	482,242	714,329	492,326	28,743
West Indies:				
British.....	1,064	253	1,747	7,400
Cuba.....	83,532	79,723	163,455	39,450
Porto Rico.....		8,763		1,803
Haiti.....	11,263			
Santo Domingo.....		12,862	1,710	
South America:				
Argentina.....	536,337	105,147	1,063,319	21,162
Brazil.....	9,518	133,373	347,222	276,683
Chile.....		8,067	169,879	
Colombia.....	6,805	13,107	9,300	4,800
Ecuador.....	785	1,936		
Guiana—British.....		12,500	700	4,485
Peru.....	40,630	2,692	2,893	1,510
Uruguay.....		2,150	47,500	
Venezuela.....	1,594	210	7,490	

<sup>2</sup> Not reported separately.

The value of the exports of steam cars decreased \$623,971, or 24.4 per cent, from 1900 to 1905. There was a decided decrease in exports to the United Kingdom, France, and Germany, and to Canada and Mexico. On the other hand, the export trade in this class of commodities to certain countries shows substantial increases for the half decade: That to Japan increased \$207,563; that to Argentina, \$431,190; and that to Peru, \$38,238. The Philippine Islands appear in the table for the first time in 1905.

STEAM RAILROAD REPAIR SHOPS.

Table 9 is a summary, by geographic divisions, of the statistics for steam railroad repair shops at the census of 1905.

The North Central division ranked first in this branch of the industry as regards all the principal items except miscellaneous expenses. Of the totals for the United States, this division reported 38.7 per cent of the establishments, 37.3 per cent of the capital, and 36.6 per cent of the products. The North Atlantic division ranked second in all the principal items, except miscellaneous expenses, in which item it was first. The two leading divisions were of much greater importance than the remaining three shown in the table, the total value of the output of both being \$211,722,820, or 68.3 per cent of the aggregate for the United States in this industry. Although the North Central division produced a product valued at \$113,403,073, or

\$15,083,326 more than the North Atlantic division, yet the operations of the average establishment in the latter division were conducted on a much larger scale than those of the average repair shop in the former division. This greater concentration in the latter division is shown by the fact that the capital invested in and the value of the output of the establishments in this division were, respectively, \$201,009 and \$364,147, whereas the same averages for the leading division were only \$124,249 and \$257,150, respectively.

Table 10 is a comparative summary of the statistics of the industry, by states and territories, for each census from 1890 to 1905.

TABLE 10.—STEAM RAILROAD REPAIR SHOPS—COMPARATIVE SUMMARY, BY STATES AND TERRITORIES: 1890 TO 1905.

STATE OR TERRITORY.	Census.	Number of establishments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		WAGE-EARNERS AND WAGES.		Miscellaneous expenses.	Cost of materials used.	Value of products.
				Number.	Salaries.	Average number.	Wages.			
United States.....	1905	1,141	\$146,943,729	13,337	\$11,031,996	236,900	\$142,188,336	\$4,821,710	\$151,140,250	\$300,863,499
	1900	1,293	119,880,273	7,096	6,210,247	173,652	96,062,329	6,293,987	109,630,013	218,238,277
	1890	716	76,102,477	1,953	1,584,242	106,632	60,213,433	( <sup>1</sup> )	66,561,526	129,461,638
Alabama.....	1905	16	2,104,291	239	235,123	5,501	2,092,577	134,703	3,305,735	6,681,074
	1900	19	2,919,434	118	112,795	4,030	1,941,031	86,045	2,032,166	4,172,162
	1890	12	909,911	4	2,820	1,373	761,134	( <sup>2</sup> )	784,304	1,581,207
Arizona.....	1905	7	523,427	39	54,200	1,159	961,296	21,504	292,308	1,329,308
	1900	7	430,119	14	21,300	576	437,238	16,454	412,490	887,482
	1890	3	72,724	2	1,414	140	112,900	( <sup>2</sup> )	74,985	189,390
Arkansas.....	1905	13	561,317	135	152,378	2,508	1,544,917	18,977	1,360,037	3,077,537
	1900	21	720,907	103	97,935	1,927	1,203,761	27,124	765,003	2,035,447
	1890	8	355,747	22	20,028	847	563,187	( <sup>2</sup> )	715,340	1,299,568
California.....	1905	28	4,040,888	271	313,456	8,251	6,067,789	203,762	3,251,325	9,836,332
	1900	29	4,429,951	119	141,798	4,920	3,507,028	76,590	3,825,340	7,553,626
	1890	10	3,139,514	29	23,840	2,858	2,151,594	( <sup>2</sup> )	2,777,306	4,923,071
Colorado.....	1905	34	1,646,279	215	252,850	3,052	2,264,859	78,389	2,663,085	5,239,183
	1900	29	1,681,860	137	148,040	2,687	1,676,500	38,863	1,278,209	3,141,602
	1890	10	1,551,311	26	47,700	1,366	1,023,809	( <sup>2</sup> )	894,000	1,965,606
Connecticut.....	1905	5	1,330,619	133	86,643	1,975	1,256,308	27,480	922,818	2,154,831
	1900	6	1,633,134	100	78,392	1,557	943,503	41,879	1,366,281	2,430,056
	1890	8	690,265	9	5,920	682	418,317	( <sup>2</sup> )	274,237	698,474
Delaware.....	1905	5	1,009,916	89	82,255	1,341	814,945	12,255	648,872	1,558,327
	1900	5	751,213	17	20,824	880	529,025	2,315	460,519	1,012,683
	1890	3	707,875	29	19,178	821	489,690	( <sup>2</sup> )	748,559	1,280,455
District of Columbia.....	1905	3	201,518	27	22,599	648	367,025	6,524	226,350	622,498
	1900	3	470,387	14	13,160	384	205,475	1,100	157,255	370,990
	1890	3	44,700	37	33,810	263	126,360	1,878	140,582	370,154
Florida.....	1905	6	439,845	45	45,408	1,111	561,334	5,768	543,931	1,156,441
	1900	13	414,390	33	26,663	958	486,488	19,224	379,870	1,112,245
	1890	10	158,990	7	7,160	280	144,997	1,800	201,514	354,043
Georgia.....	1905	28	2,102,313	223	224,935	4,777	2,415,744	77,261	2,057,660	4,775,169
	1900	32	1,408,592	97	98,003	3,175	1,602,208	89,380	1,272,692	3,062,283
	1890	11	450,512	23	19,140	966	522,657	( <sup>2</sup> )	349,844	892,610
Idaho.....	1905	8	183,141	40	45,900	713	539,313	2,676	325,781	913,670
	1900	4	177,912	12	13,326	399	293,396	2,743	214,166	523,631
Illinois.....	1905	99	13,241,626	1,137	1,061,599	19,095	12,104,522	246,687	12,267,971	25,491,209
	1900	98	11,726,424	618	568,702	13,803	7,422,527	267,497	8,286,776	16,580,424
	1890	70	7,791,234	264	198,680	10,277	5,855,481	5,629	5,009,493	12,208,617
Indian Territory.....	1905	4	88,360	22	22,430	274	184,023	15	321,663	528,131
	1900	"	8,080	3	2,820	64	35,504	87	18,224	56,535
Indiana.....	1905	44	5,147,248	672	589,477	11,348	6,064,212	254,893	7,006,028	14,515,330
	1900	54	4,730,251	348	290,197	8,081	4,325,101	171,355	5,454,676	10,242,422
	1890	48	3,929,805	116	93,963	6,613	3,274,288	( <sup>2</sup> )	3,904,281	7,289,882
Iowa.....	1905	40	3,627,822	409	371,099	6,372	3,859,893	73,245	3,302,944	7,618,721
	1900	58	3,277,617	278	249,948	5,497	2,948,947	124,453	2,596,269	6,221,378
	1890	41	2,404,648	81	65,312	3,812	2,121,824	300	2,244,274	4,453,069
Kansas.....	1905	23	3,041,533	253	229,502	6,196	3,929,831	102,668	7,240,670	11,521,144
	1900	37	2,631,669	175	167,780	5,592	3,476,400	101,457	3,071,173	6,816,816
	1890	26	1,683,210	60	46,949	2,819	1,722,326	( <sup>2</sup> )	1,874,046	3,644,038

<sup>1</sup> Not reported in full.

<sup>2</sup> Not reported.

<sup>3</sup> Includes 1 establishment in Alaska.

<sup>4</sup> No establishments reported in 1890.

<sup>5</sup> Included in "all other states" in 1890.

THE STEAM AND STREET RAILROAD CAR INDUSTRY.

TABLE 10.—STEAM RAILROAD REPAIR SHOPS—COMPARATIVE SUMMARY, BY STATES AND TERRITORIES: 1890 TO 1905—Continued.

STATE OR TERRITORY.	Census.	Number of establishments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		WAGE-EARNERS AND WAGES.		Miscellaneous expenses.	Cost of materials used.	Value of products.
				Number.	Salaries.	Average number.	Wages.			
Kentucky.....	1905	24	\$2,412,681	185	\$170,305	4,588	\$2,524,795	\$88,154	\$2,955,817	\$5,739,071
	1900	25	1,761,958	96	82,689	3,572	1,841,778	55,984	2,267,578	4,248,029
	1890	9	305,229	11	10,240	623	353,200	(1)	225,485	588,925
Louisiana.....	1905	16	1,471,097	211	188,017	2,454	1,284,599	48,494	1,114,180	2,635,290
	1900	19	782,588	43	46,344	1,378	800,398	19,689	562,658	1,429,009
	1890	6	156,136	10	7,235	61	43,421	101	61,592	112,847
Maine.....	1905	15	1,024,172	28	26,676	863	457,594	21,075	694,571	1,189,916
	1900	19	921,905	37	31,332	571	300,755	35,435	487,604	857,136
	1890	10	150,672	5	4,500	239	135,275	(1)	82,536	224,113
Maryland.....	1905	21	2,303,354	226	204,016	4,977	2,836,848	99,915	2,610,228	5,751,908
	1900	19	2,877,954	134	100,843	3,620	1,849,737	55,163	2,567,486	4,573,229
	1890	10	2,904,677	35	52,806	2,978	1,457,658	(1)	3,588,572	5,079,035
Massachusetts.....	1905	22	4,494,294	198	168,226	4,004	2,521,509	58,959	3,600,110	6,348,804
	1900	16	3,050,043	111	103,062	3,031	1,822,959	32,544	1,752,564	3,712,620
	1890	14	1,988,676	25	18,711	2,264	1,279,517	(1)	1,300,705	2,712,763
Michigan.....	1905	34	2,462,881	201	190,932	4,435	2,496,947	82,129	2,599,383	5,369,391
	1900	42	2,527,256	182	147,119	3,938	2,026,000	39,642	2,120,166	4,332,927
	1890	17	1,226,163	32	33,340	2,098	1,119,487	(1)	1,492,487	2,645,314
Minnesota.....	1905	24	6,961,326	372	339,762	5,767	3,300,180	25,445	3,715,730	7,379,627
	1900	39	4,933,805	264	243,448	4,700	2,699,387	95,501	3,380,441	6,319,876
	1890	18	2,926,880	60	56,706	1,951	1,219,825	(1)	1,305,136	2,628,174
Mississippi.....	1905	15	1,337,132	102	107,967	2,653	1,420,876	25,082	1,332,467	2,886,422
	1900	9	741,753	45	40,754	1,534	807,899	18,336	464,034	1,331,401
	1890	5	182,744	18	19,580	1,076	677,093	(1)	632,576	1,329,549
Missouri.....	1905	34	2,672,946	414	365,714	6,760	4,164,684	75,148	4,111,887	8,720,493
	1900	43	3,645,260	242	219,292	5,581	3,182,753	102,500	3,019,574	6,524,121
	1890	27	1,394,974	77	67,945	2,859	1,737,771	1,637	2,082,326	3,890,542
Montana.....	1905	10	1,055,108	76	98,165	1,039	799,468	4,668	870,177	1,572,478
	1900	7	524,725	49	50,382	621	397,532	5,138	301,338	754,410
	1890	4	317,765	12	10,354	301	226,013	(1)	199,201	429,568
Nebraska.....	1905	30	5,975,358	381	189,419	3,245	2,108,816	178,008	1,917,442	4,394,685
	1900	23	3,635,267	114	100,401	2,458	1,421,284	92,946	1,009,830	2,624,461
	1890	9	1,245,519	28	20,877	2,041	1,146,266	(1)	900,825	2,067,908
Nevada.....	1905	6	250,888	25	26,224	315	279,887	3,785	221,893	531,789
	1900	6	404,577	8	9,890	214	168,192	7,446	110,637	295,985
	1890	6	428,999	6	8,490	269	194,643	(1)	231,893	435,084
New Hampshire.....	1905	7	1,044,979	43	34,065	1,007	570,229	21,114	975,051	1,600,459
	1900	9	850,873	36	24,201	966	516,990	36,763	523,347	1,101,301
	1890	4	205,465	2	2,120	141	86,804	(1)	30,612	119,555
New Jersey.....	1905	21	3,510,337	355	307,827	5,556	3,220,032	200,700	3,234,238	6,898,821
	1900	18	2,819,759	179	137,161	4,594	2,399,675	195,707	2,301,669	5,034,267
	1890	18	2,706,937	99	63,775	5,134	2,813,713	800	3,172,891	6,051,179
New Mexico.....	1905	10	936,953	60	61,263	1,667	1,228,641	64,123	1,125,278	2,569,845
	1900	7	396,721	19	18,784	1,061	585,401	1,913	403,182	1,069,280
	1890	5	137,389	4	2,525	254	174,038	(1)	177,503	354,066
New York.....	1905	65	11,651,993	991	836,065	14,172	7,996,695	236,162	8,777,967	17,885,884
	1900	82	11,244,747	443	344,596	13,062	6,762,594	203,221	8,579,813	16,154,850
	1890	46	4,213,630	91	75,535	8,585	4,420,441	(1)	4,527,381	9,046,025
North Carolina.....	1905	11	857,566	96	78,894	1,973	1,022,970	7,673	1,334,399	2,443,925
	1900	12	539,513	47	38,463	1,141	550,504	29,259	808,150	1,611,376
	1890	9	210,468	8	6,640	434	186,262	(1)	206,335	393,576
North Dakota <sup>2</sup> .....	1905	3	137,110	20	19,283	146	101,785	1,400	86,314	201,682
	1900	3	171,043	7	6,725	126	67,922		64,847	140,894
Ohio.....	1905	74	7,503,053	1,169	968,618	17,026	9,889,812	358,137	10,225,136	21,428,227
	1900	91	5,701,129	576	456,971	11,534	6,087,032	391,581	5,963,808	12,975,182
	1890	64	3,907,278	150	107,675	7,397	3,968,797	(1)	3,930,052	8,096,905
Oklahoma <sup>3</sup> .....	1900	3	9,350	3	2,405	22	13,333	117	6,736	22,591
Oregon.....	1905	12	390,235	49	61,983	930	677,312	140,518	380,326	1,265,139
	1900	14	725,935	29	31,678	751	495,159	15,688	483,644	1,026,169
	1890	5	2,815,997	28	26,700	1,101	907,739	(1)	781,217	1,750,926
Pennsylvania.....	1905	128	30,417,607	2,271	1,852,768	41,838	25,516,964	1,221,323	32,360,972	61,021,374
	1900	144	19,182,001	1,065	810,857	28,554	15,825,640	3,280,079	23,147,574	43,065,171
	1890	61	17,476,056	346	230,894	22,649	12,301,884	82,909	15,822,637	28,769,728
Rhode Island <sup>4</sup> .....	1900	3	120,900	17	14,490	215	133,300	1,770	48,596	203,326
South Carolina.....	1905	8	299,923	91	64,392	1,131	577,191	5,462	432,945	1,080,990
	1900	6	354,842	27	21,379	776	363,041	12,555	294,334	691,361
	1890	5	420,859	7	5,500	828	394,411	(1)	287,582	688,191
South Dakota <sup>2</sup> .....	1905	6	107,116	13	14,520	184	105,684	50	130,639	250,893
	1900	7	68,079	9	8,354	117	79,661	3,049	86,567	177,631
Tennessee.....	1905	16	2,028,041	179	173,436	4,760	2,616,984	70,685	2,978,340	5,839,445
	1900	16	1,319,628	65	58,606	2,817	1,459,319	66,765	1,528,363	3,113,053
	1890	10	1,198,940	15	16,672	1,772	995,287	(1)	593,819	1,695,778

<sup>1</sup> Not reported.

<sup>2</sup> Included in "all other states" in 1890.

<sup>3</sup> Included in "all other states" in 1905. No establishments reported in 1890.

<sup>4</sup> Included in "all other states" in 1905 and 1890.

## MANUFACTURES.

TABLE 10.—STEAM RAILROAD REPAIR SHOPS—COMPARATIVE SUMMARY, BY STATES AND TERRITORIES: 1890 TO 1905—Continued.

STATE OR TERRITORY.	Census.	Number of establishments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		WAGE-EARNERS AND WAGES.		Miscellaneous expenses.	Cost of materials used.	Value of products.
				Number.	Salaries.	Average number.	Wages.			
Texas.....	1905	47	\$4,598,912	432	\$499,426	8,593	\$5,369,960	\$127,844	\$4,475,512	\$10,472,742
	1900	56	3,730,792	263	292,398	6,633	4,004,769	138,838	3,878,536	8,314,691
	1890	31	1,140,049	58	61,775	2,354	1,574,786	(1)	1,223,674	2,860,235
Utah <sup>2</sup> .....	1905	7	522,140	89	93,424	1,248	964,391	2,158	826,678	1,886,651
	1900	10	496,149	46	49,389	908	636,076	16,219	604,907	1,306,591
Vermont.....	1905	6	623,879	29	20,982	833	450,024	11,944	377,364	800,314
	1900	7	711,261	32	23,744	779	446,017	4,614	350,401	824,776
	1890	8	534,729	.....	.....	200	157,573	(1)	153,976	311,549
Virginia.....	1905	29	2,740,078	401	323,351	7,345	3,663,208	98,271	4,577,393	8,693,048
	1900	28	1,733,389	283	248,425	4,922	2,452,195	45,406	3,531,283	6,277,279
	1890	8	583,022	22	13,730	1,643	833,254	(1)	658,011	1,504,985
Washington.....	1905	10	1,694,364	63	70,035	1,327	869,044	25,131	1,804,516	2,768,726
	1900	16	944,800	55	51,353	956	653,205	14,264	760,858	1,479,689
	1890	4	272,195	9	7,440	342	278,928	(1)	175,492	461,561
West Virginia.....	1905	24	1,054,421	172	128,565	4,255	2,114,096	68,712	1,808,762	4,120,136
	1900	23	1,040,311	90	67,646	2,605	1,256,640	32,355	1,586,916	2,943,557
	1890	7	533,305	14	9,217	1,022	433,335	(1)	467,841	910,393
Wisconsin.....	1905	30	3,916,005	301	267,732	5,444	3,127,564	45,358	3,071,077	6,511,731
	1900	46	4,206,285	272	245,163	4,502	2,398,144	138,270	3,525,144	6,306,823
	1890	22	1,681,255	50	44,778	2,148	1,217,632	(1)	898,673	2,221,152
Wyoming <sup>2</sup> .....	1905	9	900,678	76	91,382	1,212	884,005	132,357	532,617	1,640,361
	1900	7	591,725	28	29,374	853	623,046	37,194	480,199	1,169,813
All other states.....	<sup>3</sup> 1905	4	290,039	60	67,848	852	496,954	6,310	353,334	924,446
	<sup>4</sup> 1890	11	487,054	15	12,598	731	610,586	(1)	379,064	1,002,248

<sup>1</sup> Not reported.<sup>2</sup> Included in "all other states" in 1890.<sup>3</sup> Includes establishments distributed as follows: Alaska, 1; Oklahoma, 2; Rhode Island, 1.<sup>4</sup> Includes establishments distributed as follows: Indian Territory, 2; North Dakota, 2; Rhode Island, 2; South Dakota, 2; Utah, 2; Wyoming, 1.

There were 7 states in 1905 that reported a value of products greater than \$10,000,000. These states, arranged in order of value of products reported, are: Pennsylvania, Illinois, Ohio, New York, Indiana, Kansas, and Texas. Their total value of products amounted to \$162,335,910, or 52.4 per cent of the total for the United States. The repair shops located in Pennsylvania performed repairs and construction work valued at \$61,021,374, which was more than double the value of the work done by the repair shops located in the second state, Illinois.

Decided gains in output were reported in 1905 by all of the states except Connecticut, the products of which declined \$275,225 in value during the five years. Pennsylvania reported the largest absolute increase in value of products during this period, \$17,956,203, or 41.7 per cent; Illinois reported the next largest gain, \$8,910,785, or 53.7 per cent; and

Ohio the third largest, \$8,453,045, or 65.1 per cent. These were the only states that reported a gain of more than \$5,000,000 in value of products in 1905.

In 1900 the order of the states in regard to increase in value of products during the preceding period differed greatly from that shown for 1905. Pennsylvania led as in 1905, but New York and Texas were second and third, respectively, each reporting an increase of more than \$5,000,000.

Several of the states reported a decreased production in 1900, but in each case they reported an increase in 1905 over the 1900 returns, the increases of 2, namely, New Jersey and Maryland, being more than \$1,000,000.

Tables 11 and 12 present statistics in detail, distributed by states and territories, for each branch of the industry at the census of 1905.

THE STEAM AND STREET RAILROAD CAR INDUSTRY.

TABLE 11.—CARS, STEAM RAILROAD, NOT INCLUDING OPERATIONS OF RAILROAD COMPANIES—DETAILED SUMMARY, BY STATES: 1905.

	United States.	Delaware.	Illinois.	Indiana.	Massachusetts.	Michigan.	Missouri.	New York.	Ohio.	Pennsylvania.	All other states. <sup>1</sup>
Number of establishments.....	73	3	16	6	4	4	5	4	5	0	17
Capital, total.....	\$88,179,047	\$2,707,101	\$15,467,326	\$5,304,214	\$1,499,210	\$7,783,077	\$6,686,534	\$2,800,856	\$3,297,777	\$31,523,686	\$11,019,266
Land.....	\$3,691,364	\$227,600	\$497,041	\$212,000	\$45,408	\$710,500	\$415,634	\$372,306	\$61,275	\$708,953	\$440,687
Buildings.....	\$11,581,648	\$565,641	\$3,783,670	\$810,000	\$198,262	\$1,019,024	\$845,486	\$567,330	\$292,795	\$2,623,709	\$915,641
Machinery, tools, and implements.....	\$11,850,405	\$557,448	\$2,332,697	\$726,054	\$198,000	\$1,585,820	\$738,853	\$528,013	\$107,704	\$3,604,677	\$1,471,083
Cash and sundries.....	\$61,065,630	\$1,356,512	\$8,853,918	\$3,556,160	\$1,057,480	\$4,407,733	\$4,686,561	\$1,423,207	\$2,875,947	\$24,586,257	\$8,101,855
Proprietors and firm members.....	6	0	0	0	0	0	0	0	0	0	0
Salaried officials, clerks, etc.:											
Total number.....	2,303	102	628	89	26	156	197	136	83	546	340
Total salaries.....	\$2,854,090	\$112,424	\$718,968	\$108,163	\$40,978	\$150,027	\$210,607	\$142,273	\$134,919	\$842,445	\$393,880
Officers of corporations—											
Number.....	177	4	38	7	5	4	14	6	10	58	31
Salaries.....	\$794,739	\$18,725	\$183,276	\$22,800	\$16,300	\$18,800	\$43,916	\$26,861	\$47,100	\$303,530	\$113,431
General superintendents, managers, clerks, etc.—											
Total number.....	2,126	98	590	82	21	152	183	130	73	488	309
Total salaries.....	\$2,059,951	\$93,699	\$535,692	\$85,363	\$24,678	\$131,227	\$166,691	\$115,412	\$87,819	\$538,915	\$280,455
Men—											
Number.....	2,052	94	573	77	19	143	174	129	69	471	303
Salaries.....	\$2,016,874	\$91,575	\$526,070	\$80,983	\$23,274	\$128,081	\$161,711	\$114,634	\$86,290	\$528,855	\$275,401
Women—											
Number.....	74	4	17	5	2	9	9	1	4	17	6
Salaries.....	\$43,077	\$2,124	\$9,922	\$4,380	\$1,404	\$3,146	\$4,950	\$778	\$1,529	\$10,060	\$5,054
Wage-earners, including pieceworkers, and total wages:											
Greatest number employed at any one time during the year.....	55,167	2,067	13,676	4,973	1,061	7,288	5,379	2,642	2,438	10,404	5,239
Least number employed at any one time during the year.....	15,843	1,027	2,975	2,025	881	536	2,232	421	1,421	1,979	2,316
Average number.....	34,058	1,533	9,936	3,252	892	3,841	3,185	1,692	2,065	5,461	3,175
Total wages.....	\$20,247,821	\$1,031,334	\$5,930,761	\$1,927,573	\$513,787	\$2,200,977	\$1,843,384	\$984,028	\$1,197,557	\$3,090,905	\$1,557,515
Men 16 years and over—											
Average number.....	33,896	1,540	8,986	3,252	892	3,825	3,174	1,575	2,058	5,443	3,145
Wages.....	\$20,191,342	\$1,027,488	\$5,909,759	\$1,927,573	\$513,787	\$2,199,157	\$1,839,369	\$974,732	\$1,195,399	\$3,056,690	\$1,547,388
Women 16 years and over—											
Average number.....	135	12	50	5	2	6	11	27	7	1	21
Wages.....	\$50,875	\$3,690	\$21,002	.....	.....	\$1,820	\$4,015	\$9,296	\$2,158	\$152	\$8,742
Children under 16 years—											
Average number.....	27	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wages.....	\$5,604	\$156	.....	.....	.....	.....	.....	.....	.....	\$4,063	\$1,385
Average number of wage-earners, including pieceworkers, employed during each month:											
Men 16 years and over—											
January.....	33,009	1,661	9,214	3,542	938	1,835	2,569	2,150	1,720	5,713	3,667
February.....	28,540	1,619	9,203	3,256	848	1,780	2,667	2,089	1,682	3,033	3,363
March.....	28,040	1,659	9,866	2,636	840	1,408	2,957	1,768	1,564	2,021	3,321
April.....	29,715	1,667	10,180	2,317	825	2,015	2,692	1,671	2,188	3,092	3,068
May.....	37,197	1,817	11,222	2,927	822	5,574	2,908	1,845	2,236	4,559	3,287
June.....	37,885	1,593	9,704	3,024	791	6,226	2,926	1,697	2,370	6,474	3,080
July.....	36,436	1,233	10,395	2,821	808	5,440	3,457	1,121	2,263	6,345	2,423
August.....	38,632	1,202	9,404	3,724	941	6,054	4,980	822	2,288	6,749	2,458
September.....	32,267	1,259	6,422	3,244	947	4,667	3,397	648	2,216	6,584	2,883
October.....	34,640	1,286	6,468	3,612	938	5,332	3,593	1,117	2,174	6,958	3,168
November.....	34,253	1,614	7,204	3,889	996	3,822	2,960	1,803	2,041	6,331	3,503
December.....	26,132	1,942	8,559	4,032	1,010	2,747	2,952	2,079	1,844	7,457	3,519
Women 16 years and over—											
January.....	175	18	64	.....	.....	6	12	40	5	1	26
February.....	157	18	60	.....	.....	6	12	20	5	1	26
March.....	157	15	59	.....	.....	5	12	34	5	1	26
April.....	158	15	61	.....	.....	5	12	32	7	1	25
May.....	165	15	65	.....	.....	6	12	31	10	1	25
June.....	152	10	63	.....	.....	7	11	30	9	1	21
July.....	117	5	56	.....	.....	6	10	15	10	1	14
August.....	118	5	57	.....	.....	7	10	20	7	1	11
September.....	56	2	12	.....	.....	6	10	7	8	1	10
October.....	73	5	13	.....	.....	6	9	18	7	1	14
November.....	122	16	36	.....	.....	6	11	25	6	1	21
December.....	170	20	54	.....	.....	6	11	43	5	1	30
Children under 16 years—											
January.....	35	1	.....	.....	.....	.....	.....	.....	.....	.....	24
February.....	23	1	.....	.....	.....	.....	.....	.....	.....	.....	10
March.....	15	1	.....	.....	.....	.....	.....	.....	.....	.....	4
April.....	25	1	.....	.....	.....	.....	.....	.....	.....	.....	10
May.....	26	1	.....	.....	.....	.....	.....	.....	.....	.....	10
June.....	25	1	.....	.....	.....	.....	.....	.....	.....	.....	9
July.....	24	1	.....	.....	.....	.....	.....	.....	.....	.....	8
August.....	24	1	.....	.....	.....	.....	.....	.....	.....	.....	7
September.....	22	1	.....	.....	.....	.....	.....	.....	.....	.....	7
October.....	24	1	.....	.....	.....	.....	.....	.....	.....	.....	8
November.....	34	1	.....	.....	.....	.....	.....	.....	.....	.....	9
December.....	47	1	.....	.....	.....	.....	.....	.....	.....	.....	10
Miscellaneous expenses, total.....	\$5,198,831	\$169,888	\$1,204,095	\$244,382	\$73,056	\$602,778	\$713,692	\$93,095	\$195,475	\$1,458,804	\$443,566
Rent of works.....	\$147,575	.....	\$78,610	\$1,200	\$16,000	.....	\$23,967	\$144	\$2,301	\$4,024	\$26,329
Taxes.....	\$261,059	\$7,958	\$72,909	\$23,963	\$7,472	\$30,113	\$15,350	\$16,448	\$24,011	\$22,338	\$30,497
Rent of offices, interest, insurance, and all other sundry expenses not hitherto included.....	\$4,788,748	\$161,776	\$1,032,329	\$218,210	\$49,584	\$572,665	\$672,040	\$76,563	\$169,163	\$1,419,484	\$386,085
Contract work.....	\$31,449	\$154	\$25,247	\$1,000	.....	.....	\$1,435	.....	.....	\$2,958	\$655
Materials used, aggregate cost.....	\$75,657,126	\$1,041,642	\$21,172,758	\$6,844,047	\$1,200,763	\$9,517,405	\$8,378,555	\$2,755,043	\$3,358,171	\$13,821,410	\$6,661,242
Principal materials, total cost.....	\$42,499,775	\$671,704	\$9,321,798	\$3,607,000	\$1,179,014	\$8,751,639	\$2,173,719	\$1,447,038	\$3,035,013	\$7,741,360	\$4,570,830
Purchased in raw state.....	\$157,577	.....	\$6,030	\$57,595	.....	.....	\$12,592	.....	\$1,348	.....	\$63,048
Purchased in partially manufactured form.....	\$42,342,198	\$671,704	\$9,315,768	\$3,550,005	\$1,179,014	\$8,739,077	\$2,167,037	\$1,445,690	\$3,035,013	\$7,731,648	\$4,507,182
Fuel.....	\$1,447,703	\$49,645	\$330,810	\$130,618	\$12,776	\$219,894	\$174,627	\$44,281	\$48,853	\$321,120	\$115,079
Rent of power and heat.....	\$8,034	.....	\$700	.....	.....	\$3,060	.....	.....	.....	.....	\$4,059
Mill supplies.....	\$206,068	\$3,084	\$42,376	\$5,956	\$1,497	\$60,916	\$5,367	\$12,884	\$2,921	\$67,204	\$13,863
All other materials.....	\$30,804,987	\$1,217,139	\$11,336,888	\$2,664,873	\$440,859	\$4,440,859	\$6,024,364	\$1,250,340	\$271,384	\$5,701,726	\$1,897,374
Freight.....	\$690,559	.....	\$140,189	\$435,060	\$13,476	\$41,157	.....	\$200	.....	.....	\$60,040
Products, total value.....	\$11,175,310	\$3,599,736	\$30,926,464	\$10,035,971	\$1,956,353	\$13,467,751	\$12,069,226	\$4,250,812	\$5,599,408	\$10,428,230	\$9,001,359

<sup>1</sup>Includes establishments distributed as follows: Alabama, 2; Colorado, 1; Georgia, 2; Iowa, 1; Kansas, 1; Kentucky, 1; Maryland, 1; New Hampshire, 1; New Jersey, 2; Tennessee, 2; West Virginia, 1; Wisconsin, 2.



TABLE 12.—CARS AND GENERAL SHOP CONSTRUCTION AND REPAIRS BY STEAM

	United States.	Alabama.	Arizona.	Arkansas.	California.	Colorado.
1 Number of establishments.....	1,141	16	7	13	28	34
2 Capital, total.....	\$146,043,729	\$2,104,291	\$523,427	\$561,317	\$4,046,888	\$1,646,279
3 Land.....	\$20,235,247	\$181,975	\$31,800	\$79,239	\$853,056	\$183,846
4 Buildings.....	\$51,803,520	\$514,575	\$272,285	\$162,813	\$2,055,440	\$676,810
5 Machinery, tools, and implement.....	\$38,735,146	\$664,563	\$183,996	\$174,710	\$963,184	\$507,243
6 Cash and sundries.....	\$36,169,816	\$743,178	\$35,346	\$144,555	\$144,568	\$278,380
Salaried officials, clerks, etc.:						
7 General superintendents, managers, clerks, etc.—						
8 Total number.....	13,337	239	39	135	271	215
9 Total salaries.....	\$11,931,996	\$235,123	\$54,200	\$152,378	\$313,456	\$252,850
Men—						
10 Number.....	13,135	232	39	133	268	211
11 Salaries.....	\$11,829,974	\$231,497	\$54,200	\$151,623	\$311,387	\$250,390
Women—						
12 Number.....	202	7		2	3	4
13 Salaries.....	\$102,022	\$3,626		\$755	\$2,069	\$2,460
Wage-earners, including pieceworkers, and total wages:						
14 Greatest number employed at any one time during the year.....	272,638	6,052	1,326	2,843	9,345	3,623
15 Least number employed at any one time during the year.....	209,546	4,948	1,007	2,178	7,074	3,525
16 Average number.....	236,900	5,501	1,159	2,508	8,251	3,052
17 Total wages.....	\$142,188,336	\$2,992,577	\$961,296	\$1,544,917	\$6,067,789	\$2,264,850
Men 16 years and over—						
18 Average number.....	236,304	5,489	1,159	2,508	8,249	3,049
19 Wages.....	\$141,978,983	\$2,989,693	\$961,296	\$1,544,917	\$6,067,230	\$2,263,248
Women 16 years and over—						
20 Average number.....	494	7				3
21 Wages.....	\$185,891	\$1,343				\$1,591
Children under 16 years—						
22 Average number.....	102	5			2	
23 Wages.....	\$23,462	\$1,541			\$550	
Average number of wage-earners, including pieceworkers, employed during each month:						
Men 16 years and over—						
24 January.....	239,096	5,677	1,153	2,536	8,147	3,015
25 February.....	241,518	5,707	1,145	2,461	7,820	3,028
26 March.....	244,683	5,749	1,067	2,573	8,206	3,062
27 April.....	241,946	5,661	1,146	2,521	8,130	2,913
28 May.....	235,127	5,337	1,164	2,446	8,414	2,920
29 June.....	224,035	5,164	1,069	2,374	8,408	2,781
30 July.....	223,406	5,157	1,145	2,310	7,656	2,879
31 August.....	226,917	5,240	1,173	2,481	7,987	3,012
32 September.....	232,073	5,487	1,196	2,506	8,092	3,082
33 October.....	238,178	5,598	1,174	2,579	8,538	3,261
34 November.....	242,110	5,633	1,201	2,625	8,698	3,253
December.....	247,159	5,458	1,275	2,684	8,832	3,372
Women 16 years and over—						
35 January.....	492	7				3
36 February.....	494	7				3
37 March.....	497	7				3
38 April.....	497	7				3
39 May.....	497	7				3
40 June.....	484	7				3
41 July.....	490	7				3
42 August.....	491	7				3
43 September.....	494	7				3
44 October.....	498	7				3
45 November.....	496	7				3
46 December.....	498	7				3
Children under 16 years—						
47 January.....	99	5				
48 February.....	102	5				
49 March.....	93	5				
50 April.....	97	5				
51 May.....	99	5				
52 June.....	101	5				
53 July.....	102	5			3	
54 August.....	101	5			4	
55 September.....	103	5			3	
56 October.....	103	5			3	
57 November.....	107	5			3	
58 December.....	110	5			3	
59 Miscellaneous expenses, total.....	110	5			5	
60 Rent of works.....	\$4,821,710	\$134,703	\$21,504	\$18,977	\$203,762	\$78,359
61 Taxes.....	\$325					\$75
62 Rent of offices, interest, insurance, and all other sundry expenses not hitherto included.....	\$711,592	\$10,685	\$2,201	\$3,397	\$31,754	\$14,910
63 Contract work.....	\$3,946,043	\$123,693	\$19,303	\$15,580	\$167,147	\$63,398
64 Materials used, total cost.....	\$52,728				\$4,861	
65 Principal materials.....	\$151,140,250	\$3,305,735	\$292,308	\$1,360,037	\$3,251,325	\$2,063,085
66 Fuel.....	\$98,681,551	\$1,802,070	\$267,133	\$445,484	\$2,806,293	\$1,094,017
67 Rent of power and heat.....	\$5,035,506	\$61,340	\$14,310	\$45,660	\$96,550	\$65,437
68 Mill supplies.....	\$74,216				\$30,190	\$150
69 All other materials.....	\$2,499,503	\$57,562	\$3,522	\$2,116	\$9,634	\$165,004
70 Freight.....	\$44,628,036	\$1,332,251	\$7,343	\$866,777	\$247,748	\$738,477
71 Products, aggregate value of all shopwork.....	\$221,438				\$1,000	
72 Motive power and machinery department, total value.....	\$309,863,499	\$6,681,074	\$1,320,308	\$3,077,537	\$9,836,332	\$5,259,183
73 Locomotives built <sup>1</sup> —	\$149,675,261	\$2,379,334	\$623,600	\$1,757,088	\$5,668,192	\$2,265,436
74 Number.....	148					
75 Value.....	\$1,853,939					
76 Locomotives repaired.....	\$101,351,907	\$1,749,069	\$480,981	\$1,296,134	\$4,345,755	\$1,935,346
77 Work for other corporations.....	\$5,681,307	\$81,063	\$24,168	\$106,465	\$243,557	\$45,487
78 All other products.....	\$40,785,108	\$549,197	\$118,448	\$354,489	\$1,067,188	\$294,603
79 Car department, total value.....	\$149,781,435	\$3,906,706	\$301,326	\$1,303,871	\$2,919,304	\$2,807,949
Cars built—						
Passenger <sup>2</sup> —						
80 Number.....	416					
81 Value.....	\$2,345,967					
Freight—						
82 Number.....	14,742	2,272		( <sup>c</sup> )	141	( <sup>c</sup> )
83 Value.....	\$10,006,642	\$1,385,977		( <sup>c</sup> )	\$84,138	( <sup>c</sup> )
Other—						
84 Number.....	2,000		4	16	74	
85 Value.....	\$645,392		\$1,778	\$8,800	\$129,234	
86 Passenger and freight cars repaired.....	\$105,341,599	\$2,078,821	\$296,037	\$949,399	\$2,560,725	\$1,544,881
87 Work done for other corporations.....	\$6,046,990	\$253,657	\$2,776	\$238,337	\$30,958	\$221,229
All other products.....	\$24,494,845	\$188,251	\$735	\$103,635	\$66,148	\$1,626,069

<sup>1</sup> The number and value of locomotives can not be shown by states.

<sup>2</sup> The number and value of passenger cars can not be shown by states.



## MANUFACTURES.

TABLE 12.—CARS AND GENERAL SHOP CONSTRUCTION AND REPAIRS BY STEAM RAILROAD

	United States.	Alabama.	Arizona.	Arkansas.	California.	Colorado.
<i>Products—Continued.</i>						
88	Bridge and building department (shopwork), total value.....	\$5,103,186	\$101,703	\$404,382	\$16,578	\$18,842
89	Repairs and renewals.....	\$1,358,532	\$34,814	\$2,260	\$16,578	\$17,637
90	Work done for other corporations.....	\$40,581	\$7,490	8575		
91	All other products.....	\$704,073	\$9,300	\$401,238		\$1,205
92	All other products not classified.....	\$5,303,617	\$293,331			\$1,220,904
<i>Power:</i>						
93	Number of establishments reporting.....	963	16	7	12	25
94	Total horsepower.....	214,719	3,630	516	1,861	5,152
<i>Owned—</i>						
<i>Engines—</i>						
<i>Steam—</i>						
95	Number.....	1,768	33	9	16	32
96	Horsepower.....	143,295	3,040	267	1,117	1,316
<i>Gas and gasoline—</i>						
97	Number.....	100		2	2	5
98	Horsepower.....	1,877		129	44	66
<i>Water wheels—</i>						
99	Number.....	9				2
100	Horsepower.....	202				34
<i>Water motors—</i>						
101	Number.....	1				
102	Horsepower.....	1				
<i>Electric motors—</i>						
103	Number.....	3,028	14	2	28	12
104	Horsepower.....	46,561	505	35	700	399
105	Other power, horsepower.....	16,636	85	85		676
<i>Rented—</i>						
<i>Electric motors—</i>						
106	Number.....	255				89
107	Horsepower.....	6,074				2,661
108	Other kind, horsepower.....	73				

THE STEAM AND STREET RAILROAD CAR INDUSTRY.

COMPANIES—DETAILED SUMMARY, BY STATES AND TERRITORIES: 1905—Continued.

Connecticut.	Delaware.	District of Columbia.	Florida.	Georgia.	Idaho.	Illinois.	Indian Territory.	Indiana.	Iowa.	Kansas.	Kentucky.	
\$92,217			\$18,865	\$104,301		\$171,634		\$550,737	\$21,200		\$12,180	88
\$92,217			\$18,865	\$104,280		\$171,634		\$550,737	\$21,024		\$12,180	89
				\$21								90
									\$176			91
\$16,905			\$73,091	\$236,796		\$80,000		\$50,831	\$158,275	\$170,000	\$18,033	92
4	3	3	5	26	3	75	2	38	32	18	17	93
810	3,116	612	545	2,200	2,015	21,213	130	10,524	6,062	2,788	2,658	94
5	11	7	7	33	12	156	2	90	68	29	27	95
465	1,345	445	545	2,135	965	13,361	130	8,229	4,150	2,643	2,530	96
				1		8		1	3	1		97
				6		177		6	46	19		98
												99
												100
												101
												102
	122	10		1	68	388		83	54	2	2	103
	1,771	119		65	1,600	5,480		1,368	870	46	34	104
275		48				2,115		861	487	80	85	105
												106
3						3						107
40						70						108
						10						109

TABLE 12.—CARS AND GENERAL SHOP CONSTRUCTION AND REPAIRS BY STEAM RAILROAD

	Louisiana.	Maine.	Maryland.	Massachu- setts.	Michigan.
1 Number of establishments.....	16	15	21	22	34
2 Capital, total.....	\$1,471,067	\$1,024,172	\$2,303,354	\$4,494,294	\$2,462,881
3 Land.....	\$232,900	\$60,850	\$333,196	\$1,220,550	\$165,200
4 Buildings.....	\$364,850	\$441,728	\$668,989	\$1,363,100	\$631,678
5 Machinery, tools, and implements.....	\$280,534	\$259,587	\$657,936	\$785,722	\$943,487
6 Cash and sundries.....	\$592,813	\$261,997	\$148,233	\$1,124,922	\$722,616
Salaried officials, clerks, etc.:					
7 General superintendents, managers, clerks, etc.—					
8 Total number.....	211	28	226	198	201
Total salaries.....	\$188,017	\$26,676	\$204,916	\$168,220	\$100,032
9 Men—					
10 Number.....	211	27	224	195	199
Salaries.....	\$188,017	\$26,172	\$204,451	\$166,476	\$100,014
11 Women—					
12 Number.....		1	2	3	3
Salaries.....		\$504	\$465	\$1,750	\$918
Wage-earners, including pieceworkers, and total wages:					
13 Greatest number employed at any one time during the year.....	2,946	1,015	5,414	4,520	4,947
14 Least number employed at any one time during the year.....	2,105	727	4,574	3,024	3,977
15 Average number.....	2,434	863	4,977	4,004	4,435
16 Total wages.....	\$1,284,599	\$457,594	\$2,836,848	\$2,521,509	\$2,406,947
17 Men 16 years and over—					
18 Average number.....	2,434	863	4,969	3,998	4,431
Wages.....	\$1,284,599	\$457,594	\$2,833,874	\$2,519,189	\$2,405,782
19 Women 16 years and over—					
20 Average number.....			8	6	4
Wages.....			\$2,974	\$2,320	\$1,165
21 Children under 16 years—					
22 Average number.....					
Wages.....					
Average number of wage-earners, including pieceworkers, employed during each month:					
Men 16 years and over—					
23 January.....	2,376	800	5,148	3,749	4,482
24 February.....	2,377	891	5,213	4,040	4,511
25 March.....	2,251	855	5,172	4,124	4,552
26 April.....	2,270	800	5,240	4,136	4,440
27 May.....	2,299	800	4,896	4,140	4,336
28 June.....	2,266	792	4,756	4,019	4,361
29 July.....	2,367	817	4,720	3,870	4,300
30 August.....	2,476	822	4,698	3,725	4,356
31 September.....	2,636	857	4,616	3,787	4,369
32 October.....	2,633	922	4,908	4,034	4,534
33 November.....	2,588	924	5,038	4,152	4,444
34 December.....	2,669	956	5,223	4,199	4,487
Women 16 years and over—					
35 January.....			8	4	4
36 February.....			8	4	4
37 March.....			8	7	4
38 April.....			8	7	4
39 May.....			8	7	4
40 June.....			8	8	4
41 July.....			8	7	4
42 August.....			8	5	4
43 September.....			8	4	4
44 October.....			8	5	4
45 November.....			8	6	4
46 December.....			8	7	4
Children under 16 years—					
47 January.....					
48 February.....					
49 March.....					
50 April.....					
51 May.....					
52 June.....					
53 July.....					
54 August.....					
55 September.....					
56 October.....					
57 November.....					
58 December.....					
Miscellaneous expenses, total.....					
59 Rent of works.....	\$48,494	\$21,075	\$99,915	\$58,959	\$82,129
60 Taxes.....			\$500		\$1,000
61 Rent of offices, interest, insurance, and all other sundry expenses not hitherto included.....	\$11,235	\$5,904	\$2,596	\$28,184	\$19,435
62 Contract work.....	\$37,269	\$15,171	\$96,819	\$30,775	\$61,694
Materials used, total cost.....					
63 Principal materials.....	\$1,114,180	\$684,571	\$2,610,228	\$3,600,110	\$2,599,383
64 Fuel.....	\$443,537	\$611,323	\$2,110,463	\$2,244,816	\$2,212,896
65 Rent of power and heat.....	\$27,947	\$34,028	\$90,654	\$98,356	\$171,211
66 Mill supplies.....		\$246			
67 All other materials.....	\$8,040	\$2,178	\$9,311	\$21,395	\$28,151
68 Freight.....	\$634,656	\$36,076	\$399,800	\$1,235,543	\$183,694
69 Products, aggregate value of all shopwork.....	\$720				\$3,182
Motive power and machinery department, total value.....					
70 Locomotives built—	\$2,635,290	\$1,180,916	\$5,751,908	\$6,348,804	\$5,369,391
71 Locomotives repaired.....	\$1,010,958	\$591,853	\$2,917,555	\$2,283,470	\$2,726,829
72 Work for other corporations.....	\$779,077	\$486,383	\$2,317,574	\$1,921,134	\$1,926,800
73 All other products.....	\$18,454	\$2,431	\$14,395	\$95,819	\$50,292
74 Car department, total value.....	\$213,397	\$103,039	\$985,580	\$323,517	\$564,626
75 Cars built—	\$1,554,589	\$594,744	\$2,777,884	\$4,045,847	\$2,524,424
76 Passenger—					
77 Number.....					
78 Value.....					
79 Freight—					
80 Number.....					
81 Value.....					
82 Other—					
83 Number.....	33	(1)	(1)	79	620
84 Value.....	\$16,180	(1)	(1)	\$54,587	\$314,966
85 Passenger and freight cars repaired.....		4	40	5	66
86 Work done for other corporations.....	\$825,478	\$459,312	\$2,444,661	\$2,500,196	\$1,775,964
87 All other products.....	\$36,276	\$30,965	\$197,766	\$28,317	\$28,317
	\$654,105	\$54,612	\$261,280	\$1,186,864	\$365,452

<sup>1</sup>Included in "all other states."



## MANUFACTURES.

TABLE 12.—CARS AND GENERAL SHOP CONSTRUCTION AND REPAIRS BY STEAM RAILROAD

	Louisiana.	Maine.	Maryland.	Massachusetts.	Michigan.	
Products—Continued.						
88	Bridge and building department (shopwork), total value.....	\$1,735	\$1,855	\$13,840	\$17,113	\$118,138
89	Repairs and renewals.....	\$1,735	\$1,755	\$7,840	\$17,113	\$103,121
90	Work for other corporations.....		\$100			\$307
91	All other products.....			\$6,000		\$14,710
92	All other products not classified.....	\$68,008	\$1,464	\$42,629	\$2,374	
Power:						
93	Number of establishments reporting.....	14	14	15	20	27
94	Total horsepower.....	799	1,363	5,162	2,626	4,693
Owned—						
Engines—						
Steam—						
95	Number.....	18	10	26	21	57
96	Horsepower.....	795	702	2,080	2,385	4,138
Gas and gasoline—						
97	Number.....	1	2	1	2	1
98	Horsepower.....	4	9	15	41	15
Water wheels—						
99	Number.....		1			
100	Horsepower.....		25			
Water motors—						
101	Number.....					
102	Horsepower.....					
Electric motors—						
103	Number.....		20	60	2	48
104	Horsepower.....		534	917	50	540
105	Other power, horsepower.....		55	2,150	150	
Rented—						
Electric motors—						
106	Number.....		3			
107	Horsepower.....		38			
108	Other kind, horsepower.....					

THE STEAM AND STREET RAILROAD CAR INDUSTRY.

COMPANIES—DETAILED SUMMARY, BY STATES AND TERRITORIES: 1905—Continued.

Minnesota.	Mississippi.	Missouri.	Montana.	Nebraska.	Nevada.	New Hampshire.	New Jersey.	New Mexico.	New York.	North Carolina.	North Dakota.	
\$42,005	\$3,002	\$124,430	\$4,287	\$40,828	\$7,178	\$118,354	\$420,153	\$3,192	\$773,989	\$43,043		88
\$35,715	\$3,002	\$124,166	\$4,287	\$40,828	\$7,173	\$118,354	\$420,153	\$3,192	\$730,264	\$42,425		89
\$6,200		\$264										90
\$68,993		\$16,222			\$5		\$413,147	\$272	\$43,725	\$618		91
22	11	28	9	16	6				\$235,103	\$79,916		92
6,357	1,019	6,005	2,136	6,143	212	7	6,664	7	59	9	3	93
						1,465		852	9,142	988	128	94
43	18	41	12	42	5	6	55	8	113	15	3	95
4,094	1,004	4,828	1,525	3,550	102	640	3,824	645	7,018	973	92	96
		5	2	3								97
		70	16	79					15		1	98
									209		6	99
						2						100
						110						101
				1								102
				1								103
131		93	35	76					29		7	104
1,760		1,012	475	1,033			221	1	926		30	105
503	15	45	10	580			1,631	30	105			106
							880	177				107
												108
		1	5		1	21	1		57			
		50	110		20	635	15		884			
										15		

MANUFACTURES.

TABLE 12.—CARS AND GENERAL SHOP CONSTRUCTION AND REPAIRS BY STEAM RAILROAD

	Ohio.	Oregon.	Pennsylvania.	South Carolina.	South Dakota.
1 Number of establishments.....	74	12	128	8	6
2 Capital, total.....	\$7,503,053	\$390,235	\$30,417,607	\$299,923	\$107,116
3 Land.....	\$717,488	\$55,500	\$3,785,045	\$30,700	\$4,840
4 Buildings.....	\$3,260,740	\$43,597	\$10,047,801	\$79,575	\$35,225
5 Machinery, tools, and implements.....	\$1,883,126	\$108,882	\$8,288,739	\$117,965	\$38,170
6 Cash and sundries.....	\$1,641,699	\$182,250	\$8,205,932	\$71,683	\$28,881
7 Salaried officials, clerks, etc.—					
8 Total number.....	1,169	49	2,271	91	13
9 Total salaries.....	\$968,618	\$61,983	\$1,852,768	\$64,392	\$14,520
10 Men—					
11 Number.....	1,149	40	2,238	90	13
12 Salaries.....	\$958,430	\$61,983	\$1,835,856	\$64,032	\$14,520
13 Women—					
14 Number.....	20		33	1	
15 Salaries.....	\$10,188		\$16,912	\$360	
16 Wage-earners, including pieceworkers, and total wages:					
17 Greatest number employed at any one time during the year.....	19,569	1,045	47,540	1,252	251
18 Least number employed at any one time during the year.....	14,707	825	36,450	1,017	154
19 Average number.....	17,026	930	41,838	1,131	184
20 Total wages.....	\$9,889,812	\$677,312	\$25,516,964	\$577,191	\$105,684
21 Men 16 years and over—					
22 Average number.....	16,096	930	41,573	1,122	184
23 Wages.....	\$9,877,960	\$677,312	\$25,416,961	\$575,624	\$105,684
24 Women 16 years and over—					
25 Average number.....	30		213	8	
26 Wages.....	\$11,852		\$88,339	\$1,387	
27 Children under 16 years—					
28 Average number.....			52	1	
29 Wages.....			\$11,664	\$180	
30 Average number of wage-earners, including pieceworkers, employed during each month:					
31 Men 16 years and over—					
32 January.....	17,725	927	42,656	1,146	179
33 February.....	18,096	948	43,693	1,156	181
34 March.....	18,575	951	44,397	1,179	183
35 April.....	18,192	952	44,306	1,158	181
36 May.....	16,064	923	43,171	1,158	183
37 June.....	15,666	877	38,391	1,133	165
38 July.....	15,530	923	37,135	1,142	163
39 August.....	15,762	902	38,012	1,151	188
40 September.....	16,132	950	39,471	1,095	200
41 October.....	16,749	928	41,107	1,039	191
42 November.....	17,064	923	42,691	1,022	194
43 December.....	17,788	956	43,846	1,085	200
44 Women 16 years and over—					
45 January.....	30		217	8	
46 February.....	30		217	8	
47 March.....	30		220	8	
48 April.....	30		219	8	
49 May.....	30		217	8	
50 June.....	31		203	8	
51 July.....	30		203	8	
52 August.....	29		206	8	
53 September.....	29		211	8	
54 October.....	30		214	8	
55 November.....	30		212	8	
56 December.....	31		217	8	
57 Children under 16 years—					
58 January.....			52	1	
59 February.....			53	1	
60 March.....			48	1	
61 April.....			52	1	
62 May.....			52	1	
63 June.....			52	1	
64 July.....			50	1	
65 August.....			49	1	
66 September.....			50	1	
67 October.....			55	1	
68 November.....			56	1	
69 December.....			55	1	
70 Miscellaneous expenses, total.....	\$358,137	\$140,518	\$1,221,323	\$5,462	\$50
71 Rent of works.....	\$1	\$90,000		\$5	
72 Taxes.....	\$81,849	\$9,883	\$97,016	\$3,477	\$50
73 Rent of offices, interest, insurance, and all other sundry expenses not hitherto included.....	\$276,287	\$37,643	\$1,124,307	\$1,980	
74 Contract work.....		\$12,692			
75 Materials used, total cost.....	\$10,225,136	\$386,326	\$32,360,072	\$432,945	\$130,639
76 Principal materials.....	\$6,087,161	\$328,606	\$16,982,035	\$158,824	\$114,584
77 Fuel.....	\$349,259	\$14,701	\$749,769	\$12,162	\$3,006
78 Rent of power and heat.....	\$222	\$4,758	\$5,741		
79 Mill supplies.....	\$153,420	\$2,420	\$109,534	\$7,264	\$97
80 All other materials.....	\$3,615,717	\$35,832	\$14,412,391	\$254,695	\$12,452
81 Freight.....	\$19,357		\$11,502		
82 Products, aggregate value of all shopwork.....	\$21,428,227	\$1,265,139	\$61,021,374	\$1,080,990	\$250,893
83 Motive power and machinery department, total value.....	\$9,763,306	\$272,507	\$32,462,711	\$565,240	\$176,950
84 Locomotives built—					
85 Number.....					
86 Value.....					
87 Locomotives repaired.....	\$6,221,964	\$258,940	\$14,602,875	\$513,597	\$176,950
88 Work for other corporations.....	\$150,606	\$3,544	\$2,824,809	\$1,831	
89 All other products.....	\$3,390,646		\$14,272,715	\$49,812	
90 Car department, total value.....	\$11,069,383	\$753,749	\$27,787,900	\$309,738	\$72,864
91 Cars built—					
92 Passenger—					
93 Number.....					
94 Value.....					
95 Freight—					
96 Number.....	349	( <sup>9</sup> )	1,554		
97 Value.....	\$184,447	( <sup>9</sup> )	\$1,703,419		
98 Other—					
99 Number.....	104		1,434		
100 Value.....	\$68,278		\$84,313		
101 Passenger and freight cars repaired.....	\$8,938,906	\$288,742	\$19,004,285	\$374,098	\$72,864
102 Work done for other corporations.....	\$299,176	\$428,325	\$1,329,083	\$2,526	
103 All other products.....	\$1,354,044	\$9,184	\$4,527,055	\$23,114	

<sup>1</sup> Includes establishments distributed as follows: Alaska, 1; Oklahoma, 2; Rhode Island, 1.  
<sup>2</sup> Included in "all other states."

<sup>3</sup> Represents product for all states.

THE STEAM AND STREET RAILROAD CAR INDUSTRY.

COMPANIES—DETAILED SUMMARY, BY STATES AND TERRITORIES: 1905—Continued.

Tennessee.	Texas.	Utah.	Vermont.	Virginia.	Washington.	West Virginia.	Wisconsin.	Wyoming.	All other states. <sup>1</sup>	
16	47	7	6	29	10	24	30	9	4	1
\$2,028,941	\$4,598,912	\$522,140	\$623,879	\$2,740,078	\$1,694,364	\$1,054,421	\$3,916,005	\$900,678	\$290,039	2
\$174,330	\$362,129	\$138,370	\$61,900	\$112,260	\$256,500	\$68,325	\$476,101	\$27,940	\$30,000	3
\$875,403	\$1,239,338	\$109,506	\$270,200	\$840,175	\$1,039,512	\$327,795	\$1,620,103	\$271,375	\$120,200	4
\$515,490	\$1,285,044	\$100,149	\$172,029	\$800,819	\$350,773	\$202,270	\$804,437	\$339,781	\$42,500	5
\$463,718	\$1,712,401	\$24,115	\$119,150	\$896,794	\$47,579	\$366,031	\$925,364	\$211,582	\$97,339	6
179	432	89	29	401	63	172	361	76	60	7
\$173,436	\$409,420	\$93,424	\$20,982	\$323,351	\$70,035	\$128,565	\$267,732	\$91,382	\$67,848	8
175	420	88	23	401	63	172	267	75	58	9
\$171,156	\$497,206	\$92,584	\$19,482	\$323,351	\$70,035	\$128,565	\$265,032	\$91,230	\$66,708	10
4	3	1	6				4	1	2	11
\$2,280	\$2,220	\$840	\$1,500				\$2,700	\$152	\$1,140	12
5,222	9,622	1,543	886	12,192	1,403	4,940	5,955	1,492	974	13
4,367	7,543	1,378	784	6,861	1,175	3,711	4,041	1,073	714	14
4,760	8,593	1,248	833	7,345	1,327	4,255	5,444	1,212	852	15
\$2,616,984	\$5,369,960	\$664,391	\$450,024	\$3,663,208	\$869,044	\$2,114,096	\$3,127,564	\$884,005	\$496,954	16
4,736	8,593	1,247	833	7,334	1,326	4,232	5,441	1,212	852	17
\$2,612,389	\$5,369,960	\$663,781	\$450,024	\$3,659,591	\$868,624	\$2,107,987	\$3,126,414	\$884,005	\$496,954	18
24		1		10	1	8		3		19
\$4,595		\$610		\$9,377	\$420	\$3,139	\$1,150			20
				1		15				21
				\$240		\$2,970				22
4,851	8,579	765	861	7,361	1,283	4,428	5,295	1,339	952	23
4,884	8,581	745	845	7,418	1,247	4,407	5,453	1,293	922	24
4,974	8,571	738	876	7,429	1,254	4,453	5,369	1,195	926	25
4,789	8,426	1,440	842	7,372	1,317	4,430	5,434	1,128	910	26
4,759	8,335	1,438	819	7,340	1,319	4,415	5,290	1,115	841	27
4,620	8,059	1,392	817	7,264	1,312	4,355	5,313	1,113	818	28
4,467	8,421	1,409	794	7,189	1,298	4,064	5,426	1,153	804	29
4,552	8,564	1,409	823	7,271	1,307	4,123	5,497	1,182	724	30
4,540	8,782	1,384	811	7,251	1,379	4,105	5,603	1,231	764	31
4,707	8,904	1,363	837	7,385	1,410	4,315	5,468	1,235	744	32
4,837	8,874	1,417	833	7,305	1,360	4,458	5,546	1,265	895	33
4,884	9,020	1,464	838	7,423	1,366	4,531	5,617	1,295	924	34
22		1		10	1	8		3		35
24		1		10	1	8		3		36
23		1		10	1	7		3		37
24		1		10	1	8		3		38
23		1		10	1	8		3		39
26		1		10	1	8		3		40
25		1		10	1	8		3		41
26		1		10	1	8		3		42
26		1		10	1	8		3		43
24		1		10	1	8		3		44
22		1		10	1	9		3		45
24		1		10	1	8		3		46
				1		16				47
				1		18				48
				1		15				49
				1		15				50
				1		14				51
				1		12				52
				1		13				53
				1		15				54
				1		17				55
				1		14				56
				1		16				57
				1		15				58
\$70,685	\$127,844	\$2,158	\$11,944	\$98,271	\$25,131	\$68,712	\$45,358	\$132,337	\$6,310	59
				\$100						60
\$8,045	\$26,553	\$1,958	\$2,992	\$19,829	\$19,053	\$10,376	\$1,380	\$8,228	\$1,593	61
\$57,269	\$101,291	\$200	\$8,052	\$78,342	\$6,078	\$58,336	\$43,668	\$124,129	\$4,717	62
\$5,371							\$310			63
\$2,678,340	\$4,475,512	\$826,078	\$377,364	\$4,577,368	\$1,504,516	\$1,808,762	\$3,071,077	\$332,617	\$353,334	64
\$1,962,381	\$3,043,219	\$654,960	\$269,803	\$3,370,212	\$694,200	\$1,180,990	\$2,025,266	\$466,416	\$285,509	65
\$90,410	\$197,364	\$111,322	\$10,595	\$95,332	\$38,574	\$38,838	\$132,865	\$38,336	\$28,568	66
			\$2,000		\$8,505		\$130			67
\$18,075	\$46,069	\$9,202	\$6,473	\$17,176	\$92,598	\$19,417	\$25,440	\$11,813	\$3,693	68
\$936,574	\$1,170,227	\$51,194	\$88,228	\$1,088,073	\$92,714	\$569,517	\$887,356	\$16,052	\$34,594	69
	\$18,033	\$265			\$7,055					70
\$5,839,445	\$10,472,742	\$1,886,651	\$800,314	\$8,093,048	\$2,768,726	\$4,120,136	\$6,511,731	\$1,640,361	\$924,446	71
\$1,981,970	\$5,861,213	\$1,017,616	\$467,063	\$2,657,925	\$1,599,777	\$1,981,510	\$2,416,629	\$1,173,642	\$505,345	72
										73
									\$148	74
\$1,367,080	\$3,806,290	\$822,579	\$340,988	\$2,422,784	\$614,705	\$1,671,810	\$1,009,712	\$1,150,632	\$1,853,939	75
\$49,685	\$238,674	\$57,350	\$18,672	\$52,645	\$50,036	\$105	\$48,994	\$15,276	\$214	76
\$573,296	\$1,799,798	\$137,657	\$101,403	\$404,496	\$545,036	\$309,595	\$433,790	\$7,734	\$218,048	77
\$3,054,493	\$4,240,649	\$857,725	\$382,239	\$5,218,275	\$1,209,370	\$2,034,711	\$3,959,379	\$462,095	\$394,614	78
										79
									\$2,416	80
									\$1157	81
\$402,737	\$124,084			\$344	\$260,845	\$181,967	\$1,555,154		\$111,200	82
										83
5	8			12	8	1	17			84
\$2,062	\$15,337			\$8,228	\$4,913	\$247	\$22,336		\$238,167	85
\$2,228,425	\$3,243,445	\$500,015	\$202,586	\$2,833,756	\$528,399	\$1,604,352	\$1,778,163	\$305,030	\$250	86
\$171,493	\$508,864	\$33,190	\$117,991	\$85,563	\$8,230	\$786	\$109,270	\$24,060	\$148,207	87
\$207,510	\$166,682	\$93,620	\$53,278	\$2,002,085	\$485,852	\$412,535	\$394,807			

<sup>1</sup>Includes product for Arkansas, Colorado, Idaho, Maine, Maryland, Missouri, Nebraska, Nevada, New Hampshire, Oregon, Vermont, West Virginia.

TABLE 12.—CARS AND GENERAL SHOP CONSTRUCTION AND REPAIRS BY STEAM RAILROAD

	Ohio.	Oregon.	Pennsylvania.	South Caro- lina.	South Dakota.	
Products—Continued.						
88	Bridge and building department (shopwork), total value.....	\$477,666	\$11,894	\$713,966	\$16,429	\$1,079
89	Repairs and renewals.....	\$477,556	\$9,203	\$704,682	\$16,429	\$1,079
90	Work for other corporations.....	\$110	\$2,151	\$200		
91	All other products.....		\$540	\$9,084		
92	All other products not classified.....	\$117,872	\$226,989	\$56,797	\$99,583	
Power:						
93	Number of establishments reporting.....	68	11	114	7	4
94	Total horsepower.....	18,827	955	46,812	510	285
Owned—						
Engines—						
Steam—						
95	Number.....	146	9	283	9	5
96	Horsepower.....	12,886	752	26,918	500	270
Gas and gasoline—						
97	Number.....	6	1	18	1	
98	Horsepower.....	57	30	423	10	
Water wheels—						
99	Number.....			4		
100	Horsepower.....			33		
Water motors—						
101	Number.....					
102	Horsepower.....					
Electric motors—						
103	Number.....	305		958		1
104	Horsepower.....	4,873		14,655		15
105	Other power, horsepower.....	988		4,382		
Rented—						
Electric motors—						
106	Number.....	2	8	26		
107	Horsepower.....	23	173	361		
108	Other kind, horsepower.....			40		



STREET RAILROAD CARS AND REPAIRS.

The census of manufactures of 1890 was the first to distinguish between the production of street railroad cars in establishments devoted principally to their construction and the building of cars in the repair shops of street railroad companies incidental to large repair operations which far exceeded in cost the few cars turned out. At the census of 1880 the statistics of the production of street cars and steam railroad cars were merged in one classification, so that no comparative figures prior to 1890 can be given. At the latter census the classification adopted to indicate the two branches of the manufacture of street cars were "cars, street railroad, not including operations of railroad companies," and "cars and general shop construction and repairs by street railroad companies," and they have been retained for this purpose since 1890. These classifications will be denoted, respectively, as "cars, street railroad," and "street railroad repair shops."

In Table 13 the statistics for both branches of the industry are combined, for each census from 1890 to 1905.

The extraordinary growth of the combined industries since 1890 is the logical result of the great development of street railroads which has taken place during the past fifteen years. During the decade between 1890 and 1900 the value of products increased \$10,407,717, or 166 per cent, and for the entire period covered by the table the products nearly quadrupled in value. In marked contrast to this increase and to that in all the other items is the comparatively slight increase in the number of establishments from 1890 to

1900 and the decrease in this item which occurred from 1900 to 1905. As will appear from succeeding tables, this decrease characterized the operations of both branches of the industry and was due principally to combinations of street railroads, which has resulted in the construction of central repair shops that have taken the place of many small ones, and to the concentration of car building in large establishments devoted entirely to the construction of street railroad cars.

TABLE 13.—Cars, street railroad, and street railroad repair shops—comparative summary, with per cent of increase: 1890 to 1905.

	CENSUS.			PER CENT OF INCREASE.	
	1905	1900	1890	1900 to 1905	1890 to 1900
Number of establishments.....	100	128	95	121.9	34.7
Capital.....	\$25,881,556	\$18,397,336	\$4,819,477	40.7	281.7
Salaries officials, clerks, etc., number.....	703	345	73	121.2	372.6
Salaries.....	\$940,933	\$428,178	\$100,692	119.8	501.3
Wage-earners, average number.....	15,782	10,610	3,794	48.7	179.7
Total wages.....	\$9,852,377	\$6,355,409	\$2,502,475	55.0	154.0
Men 16 years and over.....	15,076	10,574	3,785	48.3	179.4
Wages.....	\$9,819,033	\$6,347,454	\$2,499,805	54.7	153.9
Women 16 years and over.....	47	8	2	487.5	300.0
Wages.....	\$21,341	\$2,945	\$780	624.6	277.6
Children under 16 years.....	59	28	7	110.7	300.0
Wages.....	\$12,003	\$5,070	\$1,800	136.7	181.7
Miscellaneous expenses.....	\$1,309,246	\$553,693	\$219,223	152.7	152.6
Cost of materials used.....	\$10,804,804	\$8,303,607	\$2,854,075	30.1	190.9
Value of products.....	\$24,281,317	\$16,676,179	\$6,268,462	45.6	168.0

<sup>1</sup> Decrease.

In Table 14 the extent of the operations and the growth since 1890 of the two industries which build and keep in repair the rolling stock of street railroads may be compared.

TABLE 14.—CARS, STREET RAILROAD, AND STREET RAILROAD REPAIR SHOPS—COMPARATIVE SUMMARY, BY INDUSTRIES, WITH PER CENT OF INCREASE: 1890 TO 1905.

	CARS, STREET RAILROAD.			PER CENT OF INCREASE.		STREET RAILROAD REPAIR SHOPS.			PER CENT OF INCREASE.	
	1905	1900	1890	1900 to 1905	1890 to 1900	1905	1900	1890	1900 to 1905	1890 to 1900
Number of establishments.....	14	20	17	130.0	17.6	86	108	78	120.4	58.5
Capital.....	\$12,975,703	\$7,615,397	\$2,468,315	70.4	208.5	\$12,905,853	\$10,781,939	\$2,351,102	19.7	358.6
Salaries officials, clerks, etc., number.....	264	144	48	83.3	200.0	499	201	25	148.3	704.0
Salaries.....	\$398,246	\$234,503	\$53,520	69.8	180.8	\$542,687	\$193,675	\$23,172	180.2	735.8
Wage-earners, average number.....	4,730	3,585	1,785	31.9	100.8	11,052	7,025	2,009	57.3	249.7
Total wages.....	\$2,829,579	\$1,950,876	\$1,091,270	45.6	78.8	\$7,012,798	\$4,404,593	\$1,411,205	59.2	212.1
Men 16 years and over.....	4,667	3,553	1,777	31.4	99.9	11,009	7,021	2,008	56.8	249.7
Wages.....	\$2,823,966	\$1,944,061	\$1,088,930	45.3	78.5	\$6,995,067	\$4,403,393	\$1,410,965	58.9	212.1
Women 16 years and over.....	9	4	2	125.0	100.0	38	4	.....	850.0	.....
Wages.....	\$4,619	\$1,745	\$780	164.7	123.7	\$16,722	\$1,200	.....	1,293.5	.....
Children under 16 years.....	54	28	6	92.9	366.7	5	.....	1	.....	.....
Wages.....	\$10,994	\$5,070	\$1,500	116.8	225.0	\$1,009	.....	\$240	.....	253.2
Miscellaneous expenses.....	\$980,970	\$267,612	\$140,402	266.6	90.5	\$418,276	\$286,081	\$78,761	46.2	275.5
Cost of materials used.....	\$5,341,444	\$3,965,863	\$1,690,235	34.7	133.4	\$5,463,360	\$4,336,744	\$1,154,840	26.0	275.5
Value of products.....	\$10,844,196	\$7,305,368	\$3,302,115	48.4	121.2	\$13,437,121	\$9,370,811	\$2,966,347	43.4	215.9

<sup>1</sup> Decrease.

Of the total of 100 establishments engaged in the combined industry at the census of 1905, 86 were street railroad repair shops. Notwithstanding the fact that there were six times as many repair shops as establish-

ments engaged primarily in the manufacture of street railroad cars, the latter represented an investment of \$12,975,703, or 50.1 per cent of the capital employed in the combined industry, and produced a

product valued at \$10,844,196, or 44.7 per cent of the value of the combined products of the two branches of the industry. The repair shops, however, employed 11,052 wage-earners and paid in wages \$7,012,798, which constituted 70 and 71.2 per cent, respectively, of the total for the combined industries.

Indications of the difference in the nature of the work performed by the two classes of establishments are developed by a comparison of the statistics of the number of wage-earners employed, the cost of materials, and the value of the products resulting from their operations. The repair work of the street railroad repair shops in general consists largely of labor unassisted, or assisted but little, by machinery, operating upon materials often already in position; whereas in the construction of street cars on a large scale labor is augmented by machinery wherever possible, and the comparatively large quantity of new work resulting necessarily involves the expenditure of a larger sum for materials in proportion to the value of the products than is the case with the repair shops. Thus, at the census of 1905 the cost of labor and the cost of materials constituted 26.2 per cent and 49.2 per cent, respectively, of the value of the products produced by the manufacturers of street cars, and 52.2 per cent and 40.6 per cent, respectively, of the value of the products of street railroad repair shops.

*Products.*—Table 15 shows the number and value of all street cars manufactured, as reported at the census of 1905, distributed according to character of establishments and kind of cars. With respect to this information no effort previous to the present census has been made to obtain complete data, so that no comparative figures are available.

TABLE 15.—*Number, kind, and value of street railroad cars built by all establishments: 1905.*

	Number.	Value.
Total.....	4,694	\$9,902,310
In street car manufacturing establishments.....	3,966	8,302,512
In street railroad repair shops.....	310	605,144
In steam car manufacturing establishments.....	418	994,654
Kind:		
Electric—		
Closed.....	3,217	7,253,534
Combination.....	517	1,289,028
Open.....	562	867,368
Other.....	356	479,693
Horse.....	42	32,687

<sup>1</sup> Includes 288 cars, valued at \$580,669, enumerated only as "passenger cars."

At the census of 1905, 4,694 street cars were produced, of which 3,966, or 84.5 per cent, were built in establishments devoted primarily to the construction of street cars. Only 310 cars, or 6.6 per cent of the total number produced, were built in street railroad repair shops, which was 108 cars less than the number constructed in establishments engaged primarily in the production of steam railroad cars.

The value of the cars manufactured during the census year in street car manufacturing establishments and in street railroad repair shops was \$8,907,656,

which constituted only 36.7 per cent of the aggregate value of the products of the combined industries. Thus the value of the new cars built amounted to about one-third, and the value of the repair work to about two-thirds, of the combined value of products of the two industries which build and keep in repair the rolling stock of street railroads. The value of street cars manufactured in establishments devoted to their construction was \$8,302,512, or 76.5 per cent of the value of products of this branch of the combined industries; while in the case of the repair shops the value of the cars produced, \$605,144, formed only 4.5 per cent of the total value of products.

The average value per car of all cars built during the census year was \$2,110. Of the three classes, as distinguished in the table, of establishments producing street cars, the lowest average value per car resulted from the building operations of the railroad repair shops, and the cars of the greatest average value were constructed by establishments producing primarily steam railroad cars. The low average value of the cars built in street railroad repair shops was caused by the fact that a large number were freight and work cars constructed in many cases of old trucks and other portions of passenger cars which had been condemned for passenger traffic. Moreover, many of the passenger cars reported as built were old passenger cars reconstructed and newly equipped with up to date motors and brakes. It is natural, therefore, that the average value per car should be less than that for the other two classes of establishments shown in the table which produced for the most part new work.

Since 1900 considerable improvement in the rolling stock of street railroads has taken place. In general the size of cars has been increased and they have been made more comfortable and more suitable to the demands of a rapidly increasing traveling public. On the interurban lines, which are usually in direct competition with the steam railroads, it is essential that the comfort of the car should approach as nearly as possible that of the steam railroad coach. It follows that each year more costly cars are being produced by the street car manufacturers. Evidence of the fact can be found in the reports of 3 large establishments that at the census of 1900 reported 1,603 cars built during the census year with an average value of \$1,387, while the same 3 companies at the census of 1905 reported the construction of 1,597 cars during the census year with an average value per car of \$2,393.

Further evidence of the progressive changes in this respect which have taken place since 1900 is obtainable from a comparison of the number and value of street cars produced during that census year by establishments engaged primarily in the manufacture of steam railroad cars, with the number and value of the cars produced by the same class of establishments at the present census. According to the special report on cars, steam railroad, for 1900, 935 street railroad

cars of an average value of \$1,167 were finished during the census year by manufacturers of steam railroad cars, while for 1905 this class of establishments reported the construction of 418 cars with an average value of \$2,380.

Table 15 shows that practically all the cars produced were for electrified street railroads. No cable cars were reported and only 42 for horsepower. Over two-thirds of the electric cars turned out were closed cars. The perfection of the combination car, namely, a car which is devoted in part to freight and in part to passenger traffic, is a matter of comparatively

recent date, but now they are much used on the interurban lines of the middle West, and during the census year nearly as many cars of this character as open cars were built. The average value of the combination car was \$2,493, or \$244 more than that of the closed, and \$950 more than that of the open cars.

#### STREET RAILROAD REPAIR SHOPS.

Table 16 is a summary of the statistics of the street railroad repair shops, distributed according to geographic divisions.

TABLE 16.—STREET RAILROAD REPAIR SHOPS—SUMMARY, BY GEOGRAPHIC DIVISIONS: 1905.

DIVISION.	Number of establishments.	Capital.	SALARIED OFFICIALS, CLERKS, ETC.		WAGE-EARNERS AND WAGES.		Miscellaneous expenses.	Cost of materials used.	Value of products.
			Number.	Salaries.	Average number.	Wages.			
United States.....	86	\$12,905,853	499	\$542,687	11,052	\$7,012,798	\$418,276	\$5,403,360	\$13,437,121
North Atlantic <sup>1</sup> .....	37	8,017,711	242	248,978	6,372	3,926,403	231,257	2,775,103	7,181,741
South Atlantic <sup>2</sup> .....	5	278,942	23	21,667	240	119,895	6,782	124,932	273,276
North Central <sup>3</sup> .....	31	3,921,481	119	151,107	3,077	1,944,808	162,549	1,767,383	4,025,847
South Central <sup>4</sup> .....	4	117,050	6	6,449	124	63,560	5,438	71,743	147,190
Western <sup>5</sup> .....	9	570,669	109	114,486	1,239	958,132	12,250	724,199	1,809,067

<sup>1</sup> Includes Maine, Massachusetts, Connecticut, New York, New Jersey, Pennsylvania.

<sup>2</sup> Includes Delaware, District of Columbia, Virginia.

<sup>3</sup> Includes Ohio, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, Nebraska, Kansas.

<sup>4</sup> Includes Kentucky, Texas.

<sup>5</sup> Includes Colorado, Utah, Washington, Oregon, California.

The number of repair shops in each division is indicative of the development of the street railroad in the different sections of the country. It is natural that the North Atlantic division, embracing states for the most part far more densely settled than those of the other divisions, should exceed them in every statistical item shown in the table. The second division in this respect was the North Central, which had 31 establishments, as compared with 37 in the North Atlantic division; but the latter gave employment to twice as many wage-earners as the former and accomplished construction and repair work valued at nearly twice as many dollars. Thus, while the North Central reported nearly as many establishments as the leading

division, yet when measured by the average number of wage-earners employed and the value of product, the operations of the average establishment in the North Atlantic division were nearly twice as extensive as those of the average establishment of the North Central division.

Tables 17 and 18 show statistics in detail for cars, street railroad, not including operations of railroad companies, and cars and general shop construction and repairs by street railroad companies, respectively, distributed according to states, as far as it is possible to show the states separately without disclosing the operations of single establishments.

THE STEAM AND STREET RAILROAD CAR INDUSTRY.

TABLE 17.—CARS, STREET RAILROAD, NOT INCLUDING OPERATIONS OF RAILROAD COMPANIES—DETAILED SUMMARY, BY STATES: 1905.

	United States.	Ohio.	All other states. <sup>1</sup>		United States.	Ohio.	All other states.
Number of establishments.....	14	4	10	Average number of wage-earners, including pieceworkers, employed during each month—Continued.			
Capital, total.....	\$12,975,703	\$1,748,965	\$11,227,638	Children under 16 years—Continued.			
Land.....	\$972,804	\$61,294	\$911,510	August.....	48	1	47
Buildings.....	\$1,823,271	\$297,942	\$1,525,329	September.....	42	1	41
Machinery, tools, and implements.....	\$1,912,299	\$318,322	\$1,593,977	October.....	42	1	41
Cash and sundries.....	\$8,267,329	\$1,070,307	\$7,196,822	November.....	40	1	39
Proprietors and firm members.....	3		3	December.....	40	1	39
Salaries of officials, clerks, etc.:				Miscellaneous expenses, total.....	\$980,370	\$133,570	\$847,391
Total number.....	264	70	194	Rent of works.....	\$7,300	\$1,300	\$6,000
Total salaries.....	\$308,246	\$92,609	\$305,637	Taxes.....	\$32,877	\$7,229	\$25,648
Officers of corporations—				Rent of offices, interest, insurance, and all other sundry expenses not hitherto included.....	\$940,793	\$125,050	\$815,743
Number.....	29	9	20	Materials used, total cost.....	\$5,341,444	\$1,069,383	\$4,272,061
Salaries.....	\$119,915	\$26,000	\$93,915	Principal materials.....	\$3,327,061	\$1,026,868	\$2,300,193
General superintendents, managers, clerks, etc.—				Fuel.....	\$130,767	\$23,988	\$106,779
Total number.....	235	61	174	Rent of power and heat.....	\$2,150		\$2,150
Total salaries.....	\$278,331	\$66,609	\$211,722	Mill supplies.....	\$34,659	\$11,464	\$23,195
Men—				All other materials.....	\$1,741,012	\$5,527	\$1,735,485
Number.....	214	53	161	Freight.....	\$105,804	\$1,536	\$104,268
Salaries.....	\$268,525	\$63,435	\$205,090	Products, total value.....	\$10,844,196	\$1,828,326	\$9,015,870
Women—				Street railroad cars—			
Number.....	21	8	13	Electric—			
Salaries.....	\$9,806	\$3,174	\$6,632	Closed—			
Wage-earners, including pieceworkers, and total wages:				Number.....	2,621	485	2,136
Greatest number employed at any one time during the year.....	6,175	1,089	5,086	Value.....	\$5,777,257	\$1,135,595	\$4,641,662
Least number employed at any one time during the year.....	2,092	502	2,490	Combination—			
Average number.....	4,730	765	3,965	Number.....	502	22	480
Total wages.....	\$2,830,579	\$474,738	\$2,355,841	Value.....	\$1,240,804	\$137,406	\$1,103,398
Men 16 years and over—				Open—			
Average number.....	4,667	764	3,903	Number.....	554	102	452
Wages.....	\$2,823,966	\$474,438	\$2,349,528	Value.....	\$860,349	\$240,182	\$620,167
Women 16 years and over—				Other—			
Average number.....	9		9	Number.....	251	96	155
Wages.....	\$4,619		\$4,619	Value.....	\$304,860	\$271,492	\$123,368
Children under 16 years—				Horse—			
Average number.....	54	1	53	Number.....	28	10	28
Wages.....	\$10,994	\$300	\$10,694	Value.....	\$29,182	\$11,448	\$17,734
Average number of wage-earners, including pieceworkers, employed during each month:				Steam railroad cars—			
Men 16 years and over—				Freight service—			
January.....	5,313	905	4,408	Box—			
February.....	5,218	824	4,394	Number.....	68		68
March.....	4,928	784	4,144	Value.....	\$31,515		\$31,515
April.....	5,028	768	4,260	Flat—			
May.....	5,080	742	4,338	Number.....	35		35
June.....	5,044	718	4,326	Value.....	\$13,688		\$13,688
July.....	4,916	807	4,109	Gondola or ore—			
August.....	4,711	819	3,892	Number.....	3		3
September.....	4,523	925	3,598	Value.....	\$690		\$690
October.....	4,171	825	3,346	Refrigerator—			
November.....	3,713	555	3,158	Number.....	2		2
December.....	3,359	496	2,863	Value.....	\$2,250		\$2,250
Women 16 years and over—				Stock—			
January.....	11		11	Number.....	16		16
February.....	11		11	Value.....	\$9,965		\$9,965
March.....	11		11	Other—			
April.....	9		9	Number.....	12		12
May.....	9		9	Value.....	\$1,555		\$1,555
June.....	9		9	All other products.....	\$2,482,021	\$32,203	\$2,449,818
July.....	8		8	Power:			
August.....	8		8	Number of establishments reporting.....	14	4	10
September.....	7		7	Total horsepower.....	9,763	2,375	7,388
October.....	7		7	Owned—			
November.....	8		8	Engines—			
December.....	10		10	Steam—			
Children under 16 years—				Number.....	35	8	27
January.....	70	1	69	Horsepower.....	6,775	1,850	4,925
February.....	68	1	67	Electric motors—			
March.....	66	1	65	Number.....	157	6	151
April.....	66	1	65	Horsepower.....	2,709	325	2,184
May.....	61	1	60	Other power, horsepower.....	50		50
June.....	56	1	55	Rented—			
July.....	49	1	48	Electric motors—			
				Number.....	11		11
				Horsepower.....	229		229

<sup>1</sup>Includes establishments distributed as follows: California, 2; Colorado, 1; Missouri, 2; New Jersey, 1; New York, 2; North Carolina, 1; Pennsylvania, 1.

TABLE 18.—CARS AND GENERAL SHOP CONSTRUCTION AND REPAIRS BY

	United States.	California.	Illinois.	Iowa.	Kentucky.
1 Number of establishments.....	86	3	10	3	3
2 Capital, total.....	\$12,905,853	\$144,146	\$1,081,939	\$192,892	\$94,050
3 Land.....	\$3,108,685	\$35,000	\$193,448	\$10,000	\$22,750
4 Buildings.....	\$5,836,686	\$55,000	\$605,580	\$31,000	\$48,000
5 Machinery, tools, and implements.....	\$2,171,221	\$46,646	\$204,602	\$36,251	\$17,000
6 Cash and sundries.....	\$1,749,261	\$7,500	\$78,300	\$115,641	\$5,100
7 Salaried officials, clerks, etc.:					
8 Total number.....	499	91	29	5	6
9 Total salaries.....	\$542,687	\$93,841	\$31,107	\$5,340	\$6,449
10 Officers of corporations—					
11 Number.....	25	1	2		2
12 Salaries.....	\$45,566	\$100	\$2,700		\$2,220
13 General superintendents, managers, clerks, etc.—					
14 Total number.....	474	90	27	5	4
15 Total salaries.....	\$497,121	\$93,741	\$28,407	\$5,340	\$4,220
16 Men—					
17 Number.....	408	90	27	5	4
18 Salaries.....	\$493,923	\$93,741	\$28,407	\$5,340	\$4,220
19 Women—					
20 Number.....	6				
21 Salaries.....	\$3,198				
22 Wage-earners, including pieceworkers, and total wages:					
23 Greatest number employed at any one time during the year.....	12,576	941	1,131	150	132
24 Least number employed at any one time during the year.....	9,477	718	852	99	95
25 Average number.....	11,052	852	1,006	120	103
26 Total wages.....	\$7,012,798	\$671,866	\$654,486	\$64,073	\$48,560
27 Men 16 years and over—					
28 Average number.....	11,009	852	1,003	120	102
29 Total wages.....	\$6,995,067	\$671,866	\$653,280	\$64,073	\$48,267
30 Women 16 years and over—					
31 Average number.....	38		3		
32 Wages.....	\$16,722		\$1,200		
33 Children under 16 years—					
34 Average number.....	5				1
35 Wages.....	\$1,009				\$293
36 Average number of wage-earners, including pieceworkers, employed during each month:					
37 Men 16 years and over—					
38 January.....	10,720	796	975	120	100
39 February.....	11,017	853	1,030	130	103
40 March.....	11,142	797	1,057	123	101
41 April.....	11,418	846	1,089	126	99
42 May.....	11,294	854	1,074	124	100
43 June.....	10,533	854	1,064	111	97
44 July.....	10,815	854	908	113	106
45 August.....	10,900	908	1,016	111	104
46 September.....	11,206	926	1,013	100	103
47 October.....	11,072	869	908	132	103
48 November.....	10,642	768	872	119	104
49 December.....				122	104
50 Women 16 years and over—					
51 January.....	38		3		
52 February.....	38		3		
53 March.....	38		3		
54 April.....	40		3		
55 May.....	40		3		
56 June.....	40		3		
57 July.....	36		3		
58 August.....	38		3		
59 September.....	39		3		
60 October.....	36		3		
61 November.....	36		3		
62 December.....	37		3		
63 Children under 16 years—					
64 January.....	4				1
65 February.....	5				1
66 March.....	5				1
67 April.....	5				1
68 May.....	5				1
69 June.....	5				1
70 July.....	5				1
71 August.....	5				1
72 September.....	5				1
73 October.....	5				1
74 November.....	5				1
75 December.....	5				1
76 Miscellaneous expenses, total.....	\$418,276	\$1,635	\$30,424	\$6,062	\$5,438
77 Rent of works.....	\$4,296		\$1,800		
78 Taxes.....	\$115,302	\$585	\$20,974	\$2,917	\$1,570
79 Rent of offices, interest, insurance, and all other sundry expenses not hitherto included.....	\$285,483	\$1,050	\$16,650	\$3,145	\$3,868
80 Contract work.....	\$13,195				
81 Materials used, total cost.....	\$5,483,360	\$461,101	\$417,545	\$74,032	\$63,493
82 Principal materials.....	\$5,040,911	\$415,784	\$370,076	\$41,139	\$52,788
83 Fuel.....	\$153,208	\$10,446	\$23,415	\$25	\$75
84 Rent of power and heat.....	\$10,154		\$300		\$68
85 Mill supplies.....	\$45,031	\$1,855	\$11,756	\$364	\$120
86 All other materials.....	\$209,816	\$90,371	\$11,798	\$33,404	\$10,250
87 Freight.....	\$3,340		\$200		
88 Products, aggregate value of all shopwork.....	\$13,437,121	\$1,228,443	\$1,142,562	\$150,407	\$123,940
89 Motive power and machinery department, total value.....	\$510,046				
90 Work for other corporations.....	\$2,626				
91 All other products.....	\$508,320				
92 Car department, total value:					
93 Cars built.....	\$12,581,365	\$1,228,443	\$1,008,380	\$150,407	\$123,940
94 Passenger—					
95 Number.....	288				
96 Value.....	\$590,669				
97 Freight.....					
98 Number.....	13				
99 Value.....	\$11,366				
100 Other—					
101 Number.....	9				
102 Value.....	\$13,109				
103 Passenger and freight cars repaired.....	\$11,254,505	\$1,221,869	\$887,091	\$92,146	\$94,193
104 Work for other corporations.....	\$36,714				
105 All other products.....	\$685,002		\$120,073		

<sup>1</sup>Includes establishments distributed as follows: Colorado, 2; Connecticut, 2; Delaware, 1; District of Columbia, 2; Kansas, 1; Maine, 2; Minnesota, 2; Nebraska, 1; Oregon, 1; Texas, 1; Utah, 1; Virginia, 2; Washington, 2; Wisconsin, 1.



## MANUFACTURES.

TABLE 18.—CARS AND GENERAL SHOP CONSTRUCTION AND REPAIRS BY

	United States.	California.	Illinois.	Iowa.	Kentucky.
Products—Continued.					
89	Bridge and building department (shopwork), total value.....	\$327,855		\$74,182	
90	Repairs and renewals.....	\$253,133			
91	All other products.....	\$74,722		\$74,182	
92	All other products not classified.....	\$16,955			
Power:					
93	Number of establishments reporting.....	75	3	9	2
94	Total horsepower.....	12,353	475	1,585	115
Owned—					
Engines—					
Steam—					
95	Number.....	17	2	2	
96	Horsepower.....	1,355	50	400	
Gas and gasoline—					
97	Number.....	1			
98	Horsepower.....	40			
Water wheels—					
99	Number.....	6			
100	Horsepower.....	600			
Electric motors—					
101	Number.....	360	12	25	4
102	Horsepower.....	9,199	240	1,173	115
Rented—					
Electric motors—					
103	Number.....	52	11	2	
104	Horsepower.....	1,159	185	12	

THE STEAM AND STREET RAILROAD CAR INDUSTRY.

STREET RAILROAD COMPANIES—DETAILED SUMMARY, BY STATES: 1905—Continued.

Massachusetts.	Michigan.	Missouri.	New Jersey.	New York.	Ohio.	Pennsylvania.	All other states.	
	\$19,712			\$228,686			\$5,275	89
	\$19,712			\$228,686			\$4,735	90
							\$540	91
							\$16,955	92
5	3	4	3	12	4	6	21	93
430	245	1,720	445	3,200	169	1,744	1,835	94
	1			7	1		4	95
	50			485	20		350	96
						1		97
						40		98
				6				99
				600				100
23	4	57		78	9	94	40	101
430	20	1,720		2,030	149	1,704	1,248	102
	12		12	4			11	103
	175		445	85			257	104