

Chapter XI.—CONSUMPTION OF FUEL IN MANUFACTURING INDUSTRIES.

Methods of consumption of fuel.—Fuel is used in manufacturing in three different ways. First, and most important, it is employed for generating power by means of steam engines or internal-combustion engines; second, to produce heat which is applied directly to materials to transform them or to facilitate their manipulation; and third, as a material which enters into the actual composition of the product.

The important industries using fuel in the manner last described are the charcoal industry, where by a process of slow partial combustion wood is transformed into charcoal; the coke industry, where coal is transformed into coke by the combustion or distillation of the lighter hydrocarbons; and the gas industry, in which coal and oil form important constituent materials. Besides these, there are the manufactured fuel industry, and the manufacture of bone, carbon, and lamp black, both of which are minor industries.

Quantity of different kinds of fuel consumed in all manufacturing industries combined.—The census inquiry in regard to fuel was designed to ascertain the quantity used in manufacturing processes or for the development of power. However, when fuel was used for lighting or heating and also for the development of power or in the process of manufacture, no attempt was made to separate the quantities used for the different purposes, but the total consumption was reported.

Table 220 shows the quantity of the principal kinds of fuel reported by all manufacturing establishments in 1919, 1914, and 1909.

TABLE 220.—FUEL USED IN MANUFACTURING INDUSTRIES: 1919, 1914, AND 1909.

| KIND. | QUANTITY. | | |
|--|-----------------|-----------------|-----------------|
| | 1919 | 1914 | 1909 |
| Anthracite coal, tons of 2,240 pounds..... | 14, 334, 402 | 14, 041, 123 | 14, 339, 220 |
| Bituminous coal, tons of 2,000 pounds..... | 1 203, 463, 622 | 1 166, 589, 372 | 1 161, 793, 058 |
| Coke, tons of 2,000 pounds..... | 42, 595, 019 | 32, 530, 325 | 37, 925, 338 |
| Fuel oils, barrels..... | 89, 685, 223 | 48, 680, 232 | 34, 331, 632 |
| Gasoline and other volatile oils, barrels..... | 2, 344, 460 | | |
| Gas (excluding blast-furnace gas), 1,000 cubic feet..... | 341, 921, 022 | 284, 047, 880 | 260, 640, 535 |

1 Includes bituminous coal used as material in the manufacture of coke.

In 1919, of the bituminous coal shown in the table, 64,245,629 tons were consumed in the manufacture of coke. Under "coke" are reported both oven and gas-house coke. The greater part of the oil used as fuel was crude petroleum. There were, however, large quantities of the products of petroleum refining—gasoline, naphtha, gas oil, fuel oil, and illuminating oil—reported. Natural gas formed by far the larger proportion of the total quantity of gas reported. A great many concerns use coal for power or other purposes by converting it into "producer" gas. In such cases the quantity of coal consumed, rather than that of gas made and consumed, was reported. The blast-furnace gas used as fuel is not included in the table.

The census schedule for manufactures for 1919 called specifically for the six kinds of fuel named in the above table. Charcoal is of some importance as a fuel in manufacturing. In the blast-furnace industry, the leading consumer of charcoal, 31,931,134 bushels, equivalent to 351,242 tons, assuming the average weight of a bushel to be 22 pounds, were used in 1919. A large part of the charcoal manufactured is made in wood-distillation plants.

Fuel consumed in individual industries.—Statistics as to the amount of the different kinds of fuel consumed in 1919 are shown in Table 222 for each of the industries for which separate statistics can be given. Table 221 shows, for 1919, 1914, and 1909, the total cost of fuel, including rent of power, and the quantities of the different kinds of fuel reported by each of the 47 industries showing the largest expenditures for fuel and rent of power.

The quantity of wood consumed as fuel was not called for in the census inquiry for 1919 and 1914. Many establishments, especially those in the tanning and wood-

working industries, use large quantities of spent tanbark slabs, sawdust, etc., of which no account is kept as to quantity or value. In the bakery, clay-working, lime, wood distillation, and other industries that use large quantities of purchased wood for fuel, the cost is included, although the quantity is not shown.

The blast-furnace industry leads in cost of fuel consumed in 1919. Coke is the principal fuel used in this industry, the consumption for 1919 being 32,424,625 tons, or 76.1 per cent of the total quantity used in all industries. In the consumption of other kinds of fuel this industry holds a subordinate place. The statistics for gas used in this industry, as shown in the table, do not include blast-furnace gas.

In 1919, blast-furnace establishments reported the utilization of blast-furnace gas of 7,259,875 tons, coal equivalent, of which 2,282,872 tons were used in other departments of the plants for steam and power purposes.

The coke industry was second in importance in the amount expended for fuel. The principal material of this industry is bituminous coal, of which 64,245,629 tons were used in 1919, or 31.6 per cent of the total for all industries. Most of this is simply transformed into coke, as very little power is required in the manufacture of coke.

The steel works and rolling mills ranked third in fuel consumption in 1919, as measured by expenditures for fuel. Much fuel is required in this industry, both for smelting and heating the materials and for generating power for the operation of heavy machinery required for all branches of the industry.

Fuel consumed, by divisions and states.—Table 224 (p. 577) presents statistics of the quantity of fuel consumed in each of the states, and also for the geographic divisions.

TABLE 221.—CONSUMPTION OF FUEL IN 47 LEADING FUEL-CONSUMING INDUSTRIES: 1919, 1914, AND 1909.

| INDUSTRY | Census year. | Cost of fuel and rent of power. | FUEL CONSUMED. | | | | |
|---|--------------|---------------------------------|---------------------------------------|---------------------------------------|----------------------------|------------------------------------|-------------------------|
| | | | Anthracite coal (tons of 2,240 lbs.). | Bituminous coal (tons of 2,000 lbs.). | Coke (tons of 2,000 lbs.). | Oil, including gasoline (barrels). | Gas (1,000 cubic feet). |
| All industries..... | 1919 | \$1,645,086,556 | 14,334,402 | 203,403,622 | 42,595,019 | 92,020,692 | 341,921,022 |
| | 1914 | 666,406,709 | 14,041,123 | 166,589,372 | 32,530,325 | 48,689,232 | 284,947,889 |
| | 1909 | 570,067,824 | 14,339,220 | 161,793,058 | 37,025,338 | 34,331,632 | 260,640,535 |
| Agricultural implements.. | 1919 | 5,038,512 | 13,497 | 549,557 | 115,368 | 372,201 | 435,393 |
| | 1914 | 2,507,394 | 8,863 | 555,271 | 104,386 | 240,060 | 234,349 |
| | 1909 | 2,042,974 | 15,114 | 550,085 | 98,819 | 244,759 | 313,412 |
| Automobiles, including bodies and parts. | 1919 | 21,785,066 | 49,169 | 1,748,680 | 101,548 | 1,445,406 | 2,828,203 |
| | 1914 | 4,656,102 | 31,393 | 662,224 | 23,560 | 384,248 | 2,038,860 |
| | 1909 | 1,661,724 | 17,346 | 319,497 | 14,282 | 86,873 | 385,468 |
| Boots and shoes, including cutstock and findings. | 1919 | 6,945,277 | 52,455 | 441,447 | 3,127 | 27,873 | 756,801 |
| | 1914 | 2,310,903 | 30,618 | 302,766 | 3,119 | 4,371 | 201,892 |
| | 1909 | 1,847,885 | 45,089 | 285,545 | 2,124 | 4,324 | 125,314 |
| Brass, bronze, and copper products. | 1919 | 12,686,801 | 200,719 | 655,947 | 131,113 | 914,591 | 812,673 |
| | 1914 | 3,831,780 | 127,828 | 378,306 | 75,812 | 310,910 | 464,259 |
| | 1909 | 3,005,514 | 206,396 | 589,309 | 59,152 | 260,852 | 248,798 |
| Bread and other bakery products. | 1919 | 19,474,881 | 596,980 | 554,982 | 309,706 | 349,121 | 5,476,396 |
| | 1914 | 9,591,187 | 470,311 | 382,882 | 254,313 | 220,141 | 4,619,113 |
| | 1909 | 7,375,847 | 383,300 | 280,165 | 195,971 | 151,371 | 2,732,911 |
| Brick, tile, pottery, and other clay products. | 1919 | 39,931,963 | 164,410 | 7,526,980 | 35,555 | 1,353,055 | 18,654,909 |
| | 1914 | 26,601,525 | 291,360 | 9,170,010 | 66,872 | 1,921,256 | 23,821,023 |
| | 1909 | 25,348,623 | 334,684 | 8,799,778 | 45,347 | 1,410,740 | 26,368,992 |
| Butter, cheese, and condensed milk. | 1919 | 11,125,649 | 73,812 | 1,379,270 | 6,407 | 344,675 | 233,553 |
| | 1914 | 3,909,540 | 36,069 | 831,649 | 7,146 | 213,359 | 213,373 |
| | 1909 | 2,771,983 | 47,344 | 588,169 | 1,069 | 94,325 | 215,318 |
| Canning and preserving.... | 1919 | 5,832,733 | 33,431 | 538,868 | 6,207 | 739,922 | 287,588 |
| | 1914 | 2,166,400 | 48,705 | 415,732 | 2,092 | 344,764 | 224,643 |
| | 1909 | 1,551,363 | 37,613 | 287,294 | 2,156 | 165,042 | 130,434 |
| Cars and general shop construction and repairs by steam-railroad companies. | 1919 | 31,400,634 | 609,078 | 6,964,403 | 260,960 | 3,124,953 | 2,530,494 |
| | 1914 | 12,482,370 | 506,696 | 5,486,405 | 79,897 | 2,508,703 | 1,829,902 |
| | 1909 | 8,465,983 | 438,349 | 5,255,477 | 54,827 | 982,329 | 1,116,127 |
| Cars, steam-railroad, not including operations of railroad companies. | 1919 | 6,180,615 | 53,644 | 819,988 | 73,638 | 580,469 | 1,108,259 |
| | 1914 | 2,749,780 | 34,978 | 698,097 | 70,886 | 294,826 | 1,221,695 |
| | 1909 | 2,097,659 | 38,895 | 664,638 | 113,013 | 140,725 | 552,803 |

TABLE 221.—CONSUMPTION OF FUEL IN 47 LEADING FUEL-CONSUMING INDUSTRIES, 1919, 1914, AND 1909—Continued.

| INDUSTRY. | Census year. | Cost of fuel and rent of power. | FUEL CONSUMED. | | | | |
|---|--------------|---------------------------------|---------------------------------------|---------------------------------------|----------------------------|------------------------------------|-------------------------|
| | | | Anthracite coal (tons of 2,240 lbs.). | Bituminous coal (tons of 2,000 lbs.). | Coke (tons of 2,000 lbs.). | Oil, including gasoline (barrels). | Gas (1,000 cubic feet). |
| Cement..... | 1919 | 31,070,596 | 272,266 | 6,031,428 | 50,810 | 1,861,312 | 4,370,699 |
| | 1914 | 20,271,662 | 226,474 | 6,731,438 | 20,072 | 2,502,065 | 5,525,894 |
| | 1909 | 13,153,180 | 259,220 | 4,815,758 | 4,103 | 1,515,697 | 14,721,568 |
| Chemicals..... | 1919 | 32,742,310 | 389,350 | 3,844,667 | 457,250 | 807,774 | 1,836,998 |
| | 1914 | 11,203,672 | 491,603 | 2,667,218 | 275,410 | 500,068 | 2,744,939 |
| | 1909 | 8,047,443 | 650,482 | 2,161,783 | 63,522 | 110,276 | 1,300,770 |
| Coke, not including gas-house coke. | 1919 | 200,769,464 | 5,808 | 64,245,629 | 560,505 | 107,893 | 658,600 |
| | 1914 | 64,832,328 | | 50,457,471 | | | |
| | 1909 | 60,905,801 | | 59,030,005 | | | |
| Copper, tin, and sheet-iron products. | 1919 | 5,393,671 | 52,872 | 485,762 | 31,339 | 185,328 | 1,439,591 |
| | 1914 | 2,646,518 | 63,454 | 458,576 | 20,400 | 140,330 | 1,529,565 |
| | 1909 | 2,252,642 | 51,448 | 334,754 | 14,917 | 85,096 | 1,337,837 |
| Cotton goods, including cotton small wares. | 1919 | 38,263,431 | 368,595 | 3,663,302 | 32,466 | 507,919 | 134,581 |
| | 1914 | 17,860,740 | 313,531 | 3,634,223 | 15,537 | 241,755 | 42,846 |
| | 1909 | 13,985,806 | 415,604 | 3,327,802 | 20,605 | 38,792 | 68,106 |
| Dyeing and finishing textiles, exclusive of that done in textile mills. | 1919 | 10,428,294 | 442,855 | 1,071,156 | 13,624 | 400,258 | 516,218 |
| | 1914 | 4,771,987 | 490,587 | 899,539 | 97 | 31,869 | 143,953 |
| | 1909 | 4,451,077 | 593,093 | 893,216 | 2,576 | 10,037 | 64,657 |
| Electrical machinery, apparatus, and supplies. | 1919 | 13,739,110 | 175,800 | 1,091,704 | 61,617 | 505,060 | 2,786,382 |
| | 1914 | 4,007,861 | 66,841 | 700,230 | 26,378 | 155,523 | 2,767,856 |
| | 1909 | 3,056,066 | 87,096 | 632,870 | 20,123 | 104,467 | 1,761,999 |
| Flour-mill and gristmill products. | 1919 | 15,279,876 | 57,034 | 1,582,494 | 5,134 | 730,189 | 1,157,455 |
| | 1914 | 7,780,149 | 56,953 | 1,809,993 | 18,941 | 441,693 | 1,027,252 |
| | 1909 | 6,980,675 | 67,459 | 1,880,702 | 3,347 | 424,386 | 3,037,008 |
| Food preparations, not elsewhere specified. | 1919 | 5,563,505 | 65,048 | 456,951 | 10,422 | 113,137 | 976,218 |
| | 1914 | 2,236,975 | 45,276 | 387,200 | 12,987 | 72,064 | 991,297 |
| | 1909 | 1,333,497 | 31,712 | 272,392 | 9,092 | 35,832 | 368,195 |
| Foundry and machine-shop products. | 1919 | 82,411,421 | 534,185 | 5,937,355 | 2,069,855 | 3,225,507 | 26,112,351 |
| | 1914 | 28,880,719 | 519,813 | 4,300,009 | 1,473,656 | 935,125 | 12,558,076 |
| | 1909 | 23,750,838 | 624,958 | 4,220,640 | 1,919,916 | 677,828 | 13,637,341 |
| Furniture and refrigerators. | 1919 | 6,595,339 | 36,974 | 899,809 | 13,067 | 26,225 | 331,377 |
| | 1914 | 3,291,803 | 62,165 | 785,105 | 17,565 | 20,644 | 267,052 |
| | 1909 | 2,571,562 | 54,427 | 728,841 | 17,009 | 7,540 | 181,493 |
| Gas, illuminating and heating. | 1919 | 114,911,986 | 1,388,467 | 7,383,687 | 1,497,435 | 19,195,800 | 641,288 |
| | 1914 | 53,894,193 | 947,261 | 6,078,299 | 1,084,217 | 13,482,655 | 3,372,593 |
| | 1909 | 39,196,031 | 898,984 | 4,668,096 | 759,245 | 11,816,282 | 605,408 |
| Glass..... | 1919 | 24,357,862 | 16,268 | 2,683,654 | 131,998 | 910,119 | 38,500,857 |
| | 1914 | 10,934,928 | 41,372 | 2,252,268 | 16,770 | 867,836 | 43,336,322 |
| | 1909 | 7,523,937 | 17,906 | 1,859,001 | 17,303 | 468,894 | 43,711,510 |
| Ice, manufactured..... | 1919 | 25,006,264 | 205,875 | 3,309,636 | 32,827 | 1,693,549 | 6,170,964 |
| | 1914 | 11,840,469 | 213,541 | 3,386,275 | 30,493 | 1,262,008 | 7,592,093 |
| | 1909 | 7,780,397 | 244,306 | 2,450,454 | 6,872 | 905,952 | 4,348,020 |
| Iron and steel, blast furnaces. ¹ | 1919 | 235,023,053 | 42,770 | 2,261,315 | 32,424,025 | 51,324 | 1,184,958 |
| | 1914 | 88,586,692 | 47,030 | 1,892,367 | 26,335,234 | 80,474 | 242,218 |
| | 1909 | 108,536,921 | 273,543 | 1,166,136 | 31,649,865 | 19,446 | 274,699 |
| Iron and steel, steel works and rolling mills. | 1919 | 156,964,862 | 598,944 | 25,911,098 | 886,062 | 8,490,982 | 90,078,288 |
| | 1914 | 55,447,804 | 558,723 | 20,343,767 | 495,214 | 3,011,192 | 81,310,122 |
| | 1909 | 46,136,725 | 766,145 | 19,759,678 | 648,037 | 2,003,736 | 86,440,031 |
| Iron and steel, forgings, not made in steel works or rolling mills. | 1919 | 8,737,021 | 26,972 | 717,801 | 65,021 | 1,214,040 | 1,043,895 |
| | 1914 | 1,828,462 | 18,068 | 286,673 | 21,737 | 323,875 | 961,363 |
| | 1909 | 1,087,088 | 27,231 | 241,987 | 29,895 | 165,875 | 612,046 |
| Knit goods..... | 1919 | 5,465,202 | 102,024 | 584,787 | 1,654 | 7,526 | 73,008 |
| | 1914 | 2,686,957 | 118,071 | 484,268 | 2,840 | 2,476 | 40,705 |
| | 1909 | 1,970,277 | 124,420 | 441,187 | 1,080 | 2,182 | 33,801 |
| Leather, tanned, curried, and finished. | 1919 | 9,823,256 | 89,722 | 1,448,166 | 3,740 | 89,232 | 211,404 |
| | 1914 | 3,757,026 | 89,140 | 1,124,444 | 2,489 | 67,252 | 327,657 |
| | 1909 | 3,292,831 | 98,724 | 1,028,215 | 806 | 46,120 | 598,532 |

¹ Includes "ferroalloys" in 1914 and 1909.

TABLE 221.—CONSUMPTION OF FUEL IN 47 LEADING FUEL-CONSUMING INDUSTRIES: 1919, 1914, AND 1909—Continued.

| INDUSTRY. | Cen- sus year. | Cost of fuel and rent of power. | FUEL CONSUMED. | | | | |
|---|----------------------|---------------------------------------|--|--|----------------------------------|---|----------------------------------|
| | | | Anthra- cite coal (tons of 2,240 lbs.). | Bitumi- nous coal (tons of 2,000 lbs.). | Coke (tons of 2,000 lbs.). | Oil, including gasoline (barrels). | Gas (1,000 cubic feet). |
| Lime..... | 1919 | 6,027,446 | 57,112 | 872,910 | 102,788 | 26,820 | 53,835 |
| | 1914 | 3,534,377 | 76,141 | 677,071 | 60,159 | 82,447 | 673,853 |
| | 1909 | 3,439,986 | 109,929 | 674,304 | 71,471 | 33,147 | 1,424,724 |
| Liquors, malt..... | 1919 | 11,568,728 | 346,914 | 1,692,067 | 14,527 | 329,849 | 392,964 |
| | 1914 | 10,470,018 | 371,588 | 2,749,800 | 11,198 | 725,672 | 3,314,070 |
| | 1909 | 8,570,892 | 554,029 | 2,424,798 | 11,530 | 527,089 | 3,649,380 |
| Lumber and timber prod- ucts. | 1919 | 14,044,564 | 55,554 | 2,271,596 | 29,629 | 925,555 | 414,672 |
| | 1914 | 7,461,399 | 76,873 | 1,417,485 | 4,996 | 507,546 | 492,694 |
| | 1909 | 5,082,287 | 79,330 | 1,134,218 | 5,854 | 144,499 | 521,034 |
| Oil and cake, cottonseed.. | 1919 | 8,555,022 | 34,763 | 1,172,175 | 10,262 | 394,219 | 1,527,974 |
| | 1914 | 4,010,450 | 5,507 | 1,232,031 | 1,762 | 248,806 | 1,519,198 |
| | 1909 | 3,144,795 | 8,583 | 828,357 | 800 | 376,789 | 1,237,880 |
| Paper and wood pulp..... | 1919 | 54,990,955 | 869,948 | 7,863,150 | 63,384 | 2,120,114 | 286,660 |
| | 1914 | 24,261,348 | 741,177 | 6,268,853 | 15,455 | 635,329 | 2,260,562 |
| | 1909 | 18,320,266 | 558,677 | 5,460,314 | 500 | 584,536 | 6,485,293 |
| Petroleum, refining..... | 1919 | 53,505,109 | 1,105,503 | 3,619,534 | 319,563 | 23,716,521 | 26,919,052 |
| | 1914 | 13,567,284 | 1,367,429 | 2,045,485 | 157,621 | 7,455,918 | 10,993,746 |
| | 1909 | 8,376,383 | 1,347,519 | 1,264,841 | 99,595 | 3,473,758 | 7,519,859 |
| Printing and publishing... | 1919 | 13,492,954 | 179,403 | 370,398 | 7,048 | 101,954 | 2,567,301 |
| | 1914 | 8,065,057 | 163,903 | 351,395 | 4,830 | 52,849 | 2,270,571 |
| | 1909 | 7,601,152 | 154,932 | 348,698 | 2,895 | 41,265 | 1,633,886 |
| Rubber tires, tubes, and rubber goods, not else- where specified. | 1919 | 12,605,943 | 84,915 | 1,928,116 | 3,651 | 229,785 | 283,760 |
| | 1914 | 2,744,005 | 68,793 | 919,066 | 348 | 8,778 | 371,283 |
| | 1909 | 1,394,287 | 59,372 | 479,906 | 25 | 1,346 | 52,173 |
| Shipbuilding, including boat building. | 1919 | 15,604,092 | 50,234 | 868,713 | 97,690 | 1,133,851 | 701,461 |
| | 1914 | 1,418,368 | 13,441 | 251,820 | 10,548 | 122,929 | 404,785 |
| | 1909 | 1,191,654 | 12,080 | 301,561 | 10,725 | 89,916 | 274,071 |
| Silk goods, including throwsters. | 1919 | 6,201,447 | 306,165 | 269,717 | 1,002 | 46,506 | 44,724 |
| | 1914 | 2,322,684 | 307,607 | 202,514 | 48 | 2,962 | 148,252 |
| | 1909 | 1,687,981 | 242,771 | 155,256 | 3,601 | 3,072 | 49,673 |
| Slaughtering and meat packing. | 1919 | 24,619,455 | 227,360 | 3,822,531 | 33,831 | 1,915,501 | 1,357,411 |
| | 1914 | 8,584,177 | 226,995 | 2,802,845 | 14,340 | 1,203,412 | 2,083,407 |
| | 1909 | 6,700,834 | 193,935 | 2,612,864 | 976 | 1,102,550 | 1,091,164 |
| Smelting and refining, copper. | 1919 | 19,243,024 | 179,026 | 1,088,511 | 397,762 | 2,543,121 | 712,817 |
| | 1914 | 13,471,917 | 299,480 | 812,196 | 744,256 | 2,303,755 | 10,615 |
| | 1909 | 13,320,517 | 310,953 | 1,081,031 | 1,008,059 | 658,923 | 3,889 |
| Smelting and refining, lead. | 1919 | 5,676,483 | 7,276 | 292,806 | 321,442 | 202,088 | 20,940 |
| | 1914 | 3,883,589 | ----- | 358,484 | 389,826 | 186,556 | 90,656 |
| | 1909 | 3,508,126 | 31,958 | 427,479 | 351,908 | 99,157 | 47,393 |
| Smelting and refining, zinc. | 1919 | 9,446,601 | 835,129 | 1,123,590 | 238,432 | 6,646 | 24,343,653 |
| | 1914 | 4,115,854 | 655,766 | 1,060,525 | 92,595 | 145,811 | 22,336,089 |
| | 1909 | 2,218,876 | 432,161 | 634,932 | 52,172 | 41,595 | 11,676,995 |
| Sugar, beet..... | 1919 | 5,378,604 | ----- | 1,047,643 | 125,262 | 564,268 | 57,862 |
| | 1914 | 2,726,525 | 37,235 | 682,693 | 37,854 | 803,698 | 4,789 |
| | 1909 | 1,899,468 | 8,981 | 565,672 | 28,300 | 554,174 | 383 |
| Sugar, refining..... | 1919 | 9,769,121 | 406,248 | 987,690 | 430 | 1,705,513 | ----- |
| | 1914 | 3,985,160 | 451,310 | 875,882 | 1,624 | 748,533 | ----- |
| | 1909 | 2,896,371 | 511,640 | 542,148 | 362 | 578,683 | 453 |
| Wire..... | 1919 | 4,235,523 | 12,573 | 726,940 | 18,547 | 176,282 | 419,310 |
| | 1914 | 1,813,172 | 30,067 | 523,603 | 14,320 | 88,979 | 415,873 |
| | 1909 | 1,640,172 | 84,208 | 518,121 | 22,280 | 71,663 | 217,620 |
| Woolen, worsted, and felt goods, and wool hats. | 1919 | 16,128,813 | 233,634 | 1,617,424 | 3,581 | 899,068 | 62,269 |
| | 1914 | 7,525,349 | 257,433 | 1,008,872 | 1,524 | 43,207 | 64,577 |
| | 1909 | 6,489,190 | 277,755 | 1,525,988 | 6,985 | 26,611 | 104,746 |
| All other industries..... | 1919 | 170,793,218 | 2,624,597 | 17,077,588 | 1,413,569 | 5,725,961 | 71,804,961 |
| | 1914 | 74,238,157 | 2,681,588 | 14,114,489 | 422,253 | 2,926,903 | 37,042,112 |
| | 1909 | 60,432,052 | 2,513,339 | 13,453,757 | 471,477 | 3,037,122 | 29,218,403 |