

## THE MUSICAL INSTRUMENTS AND PHONOGRAPHS INDUSTRIES

[Preliminary reports for the musical-instrument industries and for phonographs were issued under date of December 11, 1928]

**Description of the industries.**—This report covers five industries, namely, (1) pianos, (2) organs, (3) piano and organ materials for sale as such, (4) other musical instruments, parts, and materials, not elsewhere classified, and (5) phonographs. The products of the third industry are used as materials in the first and second. As the values of these materials are included in the cost-of-materials figures for the industries in which they are used, they are covered by the values of products for these industries and consequently represent duplications in the total value of products for the group of industries. Moreover, some of the establishments engaged primarily in the manufacture of complete musical instruments or of phonographs also produce parts and materials for sale as such. For these reasons the combined value of products for the five industries, and to a smaller extent the values of products for some of the individual industries, exceed somewhat the value of the products in the form in which they reach the ultimate consumer (this being based, however, on f. o. b. factory prices, not on retail prices), and the total cost of materials as reported exceeds the amount actually expended for materials purchased from sources outside this group of industries.

**Detailed statistics of products.**—The differences between the values of the several classes of products as given in the unnumbered table "Musical Instruments—Products, by Class, Kind, Number, and Value, for the United States," on page 1207, and in the product tables for the several industries, and the corresponding figures in Tables 1 and 4 of each of the industry reports, are due to the fact that the detailed products statistics cover the entire output of the items, regardless of the industries reporting them, whereas the statistics in Tables 1 and 4 relate, respectively, to the establishments whose principal products are those from which the industries derive their titles. To illustrate: The total value of *organs* given in the product table, \$17,167,408, is made up of \$14,262,688, representing the value of organs made in the organ industry and \$2,904,720, representing the value of organs made as secondary products in the piano industry and other industries; whereas the value of products for the *organ industry*, \$15,438,623 (Tables 1 and 4), is made up of the value of organs made in the industry, \$14,262,688, and the value of secondary products normally belonging to other industries, \$1,175,935.

# MUSICAL INSTRUMENTS AND PHONOGRAPHS INDUSTRIES 1207

## SUMMARY FOR THE MUSICAL INSTRUMENTS AND PHONOGRAPHS INDUSTRIES: 1919 TO 1927

[Data for establishments with products under \$5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6]

| INDUSTRY AND CENSUS YEAR  | Number of establishments | Wage earners (average for the year) | Wages  | Cost of materials, supplies, fuel, and power | Value of products | Value added by manufacture <sup>1</sup> | Horse-power |
|---|--------------------------|-------------------------------------|--------|--|-------------------|---|-------------|
|   |                          |                                     |        |  |                   |   |             |
| <b>Total:</b>   |                          |                                     |        |  |                   |   |             |
| 1927-----   | 431                      | 42,985                              | 60,761 | 90,159                                       | 226,362           | 136,203                                 | 102,105     |
| 1925-----   | 461                      | 46,980                              | 62,502 | 98,760                                       | 231,687           | 132,926                                 | 97,318      |
| 1923-----   | 535                      | 58,329                              | 75,396 | 123,600                                      | 282,532           | 158,931                                 | 90,229      |
| 1921-----   | 600                      | 45,113                              | 54,495 | 94,988                                       | 212,989           | 118,001                                 | (3)         |
| 1919-----   | 778                      | 68,741                              | 75,868 | 137,460                                      | 320,905           | 183,445                                 | 91,040      |
| <b>Pianos:</b>  |                          |                                     |        |  |                   |   |             |
| 1927-----   | 124                      | 16,582                              | 23,891 | 33,890                                       | 75,491            | 41,592                                  | 29,725      |
| 1925-----   | 142                      | 20,079                              | 28,096 | 49,296                                       | 101,181           | 51,885                                  | 26,912      |
| 1923-----   | 160                      | 22,208                              | 30,679 | 54,179                                       | 111,169           | 56,981                                  | 26,859      |
| 1921-----   | 185                      | 15,836                              | 18,887 | 38,652                                       | 73,640            | 34,988                                  | (3)         |
| 1919-----   | 191                      | 22,957                              | 25,474 | 54,365                                       | 107,088           | 52,723                                  | 28,697      |
| <b>Organs:</b>  |                          |                                     |        |  |                   |   |             |
| 1927-----   | 63                       | 2,770                               | 4,364  | 4,494  | 15,439            | 10,944                                  | 4,332       |
| 1925-----   | 57                       | 2,460                               | 3,610  | 3,749  | 12,283            | 8,534                                   | 3,983       |
| 1923-----   | 59                       | 1,855                               | 2,662  | 2,803  | 9,603             | 6,800                                   | 2,902       |
| 1921-----   | 56                       | 2,346                               | 3,343  | 3,781  | 10,185            | 6,454                                   | (3)         |
| 1919-----   | 68                       | 1,941                               | 1,979  | 2,217  | 5,973             | 3,756                                   | 3,245       |
| <b>Piano and organ materials:</b>   |                          |                                     |        |  |                   |   |             |
| 1927-----   | 85                       | 5,399                               | 6,594  | 9,657  | 22,245            | 12,587                                  | 14,185      |
| 1925-----   | 94                       | 8,618                               | 10,131 | 15,294                                       | 36,836            | 21,543                                  | 15,734      |
| 1923-----   | 99                       | 9,672                               | 11,243 | 17,019                                       | 38,839            | 21,819                                  | 15,478      |
| 1921-----   | 89                       | 5,569                               | 5,970  | 8,222  | 18,597            | 10,376                                  | (3)         |
| 1919-----   | 113                      | 11,009                              | 10,467 | 16,693                                       | 36,790            | 20,096                                  | 15,716      |
| <b>Musical instruments and parts and materials, not elsewhere classified:</b> |                          |                                     |        |  |                   |   |             |
| 1927-----   | 99                       | 4,018                               | 5,737  | 4,641  | 17,892            | 13,251                                  | 5,356       |
| 1925-----   | 100                      | 4,556                               | 6,520  | 5,575  | 20,329            | 14,754                                  | 4,907       |
| 1923-----   | 106                      | 4,103                               | 5,842  | 4,349  | 15,619            | 11,271                                  | 3,830       |
| 1921-----   | 116                      | 3,424                               | 4,520  | 3,325  | 12,354            | 9,028                                   | (3)         |
| 1919-----   | 240                      | 4,113                               | 3,985  | 4,445  | 12,506            | 8,062                                   | 3,219       |
| <b>Phonographs:</b>   |                          |                                     |        |  |                   |   |             |
| 1927-----   | 60                       | 14,216                              | 20,176 | 37,468                                       | 95,296            | 57,828                                  | 48,507      |
| 1925-----   | 68                       | 11,267                              | 14,145 | 24,847                                       | 61,057            | 36,210                                  | 45,782      |
| 1923-----   | 111                      | 20,491                              | 24,970 | 45,250                                       | 107,311           | 62,061                                  | 41,160      |
| 1921-----   | 154                      | 17,938                              | 21,774 | 41,058                                       | 98,213            | 57,155                                  | (3)         |
| 1919-----   | 166                      | 28,721                              | 33,963 | 59,740                                       | 158,548           | 98,808                                  | 40,163      |

<sup>1</sup> Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)  
<sup>2</sup> Each total is the sum, expressed to the nearest thousand, of the items expressed in units. For this reason the totals in some cases may differ slightly from the sums of the items as here given.  
<sup>3</sup> Not called for on schedule.

### MUSICAL INSTRUMENTS—PRODUCTION, BY CLASS, KIND, NUMBER, AND VALUE, FOR THE UNITED STATES: 1921 TO 1927

| CLASS AND KIND   | 1927          | 1925          | 1923          | 1921          |
|--|---------------|---------------|---------------|---------------|
| 1. The musical-instruments industries, all products, total value-----  | \$131,065,983 | \$170,629,405 | \$175,220,263 | \$114,973,770 |
| 2. Musical instruments, parts, and materials-----  | \$125,900,802 | \$164,819,338 | \$168,868,751 | \$114,973,770 |
| 3. Other products (not normally belonging to the musical-instruments industries) and receipts for custom work and repairing----- | \$5,165,181   | \$5,810,067   | \$6,351,512   |               |
| 4. Musical instruments, parts, and materials made as secondary products in other industries, value-----                          | \$1,450,185   | \$112,848     | \$57,982      | \$152,637     |
| Musical instruments, parts, and materials, all industries:<br>Aggregate value (sum of 2 and 4)1...                               | \$127,350,987 | \$164,932,186 | \$168,926,733 | \$115,126,407 |

<sup>1</sup> These aggregates are the sums of all items in the columns beneath except those which are underlined.

MUSICAL INSTRUMENTS—PRODUCTION, BY CLASS, KIND, NUMBER, AND VALUE,  
FOR THE UNITED STATES: 1921 TO 1927—Continued

| CLASS AND KIND   | 1927         | 1925         | 1923          | 1921         |
|--|--------------|--------------|---------------|--------------|
| Musical instruments, parts, and materials,<br>all industries—Continued.                      |              |              |               |              |
| Pianos—  |              |              |               |              |
| Total number.....  | 218,140      | 308,584      | 347,589       | 221,210      |
| Total value.....   | \$67,210,775 | \$93,676,977 | \$104,362,578 | \$66,267,751 |
| Upright—   |              |              |               |              |
| Number.....  | 69,864       | 87,285       | 105,748       | 88,656       |
| Value.....   | \$12,261,827 | \$16,873,982 | \$21,675,047  | \$17,557,337 |
| Upright, player—   |              |              |               |              |
| Number.....  | 76,447       | 143,831      | 170,540       | 107,534      |
| Value.....   | \$20,027,574 | \$38,166,755 | \$46,205,800  | \$29,850,973 |
| Upright, player, reproducing type—   |              |              |               |              |
| Number.....  | 4,096        | 5,476        | 12,658        | 5,309        |
| Value.....   | \$1,419,933  | \$2,193,001  | \$4,648,998   | \$2,836,637  |
| Grand—   |              |              |               |              |
| Baby—  |              |              |               |              |
| Number.....  | 43,772       | 40,357       | 38,024        | 15,613       |
| Value.....   | \$17,540,842 | \$16,244,241 | \$16,100,915  | \$7,750,868  |
| Baby, player—  |              |              |               |              |
| Number.....  | 490          | 5,287        | 1,397         | 348          |
| Value.....   | \$306,025    | \$2,042,350  | \$937,195     | \$279,927    |
| Baby, player, reproducing<br>type—   |              |              |               |              |
| Number.....  | 7,223        | 7,597        | 5,372         | 2,261        |
| Value.....   | \$5,550,097  | \$6,317,357  | \$4,492,002   | \$2,576,610  |
| Parlor—  |              |              |               |              |
| Number.....  | 8,757        | 9,170        | 5,899         | 2,562        |
| Value.....   | \$5,319,799  | \$5,433,129  | \$3,834,410   | \$1,600,190  |
| Parlor, player—  |              |              |               |              |
| Number.....  | 42           | 156          | 106           | 21           |
| Value.....   | \$30,422     | \$103,801    | \$107,776     | \$20,393     |
| Parlor, player, reproducing<br>type—   |              |              |               |              |
| Number.....  | 1,182        | 2,543        | 2,631         | 1,432        |
| Value.....   | \$1,695,631  | \$3,526,957  | \$2,957,420   | \$1,514,402  |
| Concert—   |              |              |               |              |
| Number.....  | 293          | 579          | 666           | 101          |
| Value.....   | \$290,034    | \$452,861    | \$932,422     | \$72,575     |
| Automatic and electric—  |              |              |               |              |
| Number.....  | 5,974        | 4,303        | 4,539         | 3,374        |
| Value.....   | \$2,768,591  | \$2,322,543  | \$2,380,497   | \$2,192,839  |
| Organs—  |              |              |               |              |
| Total number.....  | 5,562        | 6,315        | 9,484         | 9,828        |
| Total value.....   | \$17,167,408 | \$13,249,750 | \$10,192,304  | \$9,465,371  |
| Pipe—  |              |              |               |              |
| Number.....  | 2,471        | 1,955        | 1,712         | 1,949        |
| Value.....   | \$16,782,128 | \$12,808,220 | \$9,653,690   | \$8,717,057  |
| Reed—  |              |              |               |              |
| Number.....  | 3,091        | 4,360        | 7,772         | 7,879        |
| Value.....   | \$385,280    | \$441,530    | \$538,614     | \$748,314    |
| Band and orchestral instruments, total<br>value.....   | \$15,311,110 | \$18,223,150 | \$13,568,531  | \$10,750,004 |
| Wind instruments—  |              |              |               |              |
| Brass.....   | \$6,550,097  | \$8,846,386  | \$7,305,014   | \$5,973,722  |
| Wood.....  | \$1,844,688  | \$631,592    | \$506,967     | \$1,108,018  |
| Stringed instruments.....  | \$4,201,013  | \$5,858,714  | \$3,468,424   | \$1,954,067  |
| Percussion and other instruments<br>(chimes, xylophones, drums, bells,<br>traps, etc.).....  | \$2,715,312  | \$2,886,458  | \$2,288,126   | \$1,728,197  |
| Perforated music rolls, value.....   | \$3,216,960  | \$6,067,529  | \$5,261,014   | \$2,121,473  |
| Pneumatic-player actions for installa-<br>tion in player pianos, value.....                  | \$6,607,914  | \$14,782,477 | \$14,693,117  | \$1,091,000  |
| Cabinet player attachments, value <sup>1</sup> .....   |              |              |               | \$24,517     |
| Parts and materials for musical instru-<br>ments other than pianos and organs,<br>value..... | \$2,179,529  | \$1,867,131  | \$1,851,207   | \$1,713,278  |
| Orchestrons, value <sup>1</sup> .....  | \$1,810,024  | \$1,842,197  | \$38,215      | \$245,954    |
| Organ parts and materials for sale as<br>such, value.....                                    |              |              | \$1,264,367   |              |
| Piano parts and materials for sale as such,<br>value.....                                    | \$13,847,267 | \$15,222,975 | \$17,694,800  | \$23,438,059 |

<sup>1</sup> Not shown separately for 1927, 1925, and 1923, to avoid disclosing the output of individual establishments.<sup>2</sup> Not shown separately for 1927 and 1925 to avoid disclosing production of individual establishments.<sup>3</sup> Includes data for miscellaneous products and receipts for custom work and repairing.

## PIANOS

**Description of the industry.**—This industry embraces establishments whose principal products are complete pianos, with or without player attachments. Many of these establishments purchase certain parts and materials, such as strings, plates, keys, keyboards, actions, cases, hammers, sounding boards, etc., from manufacturers classified in the "Piano and organ materials" industry.

**TABLE 1.—SUMMARY FOR THE UNITED STATES: 1919 TO 1927**

[Data for establishments with products under \$5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6]

| YEAR OR PERIOD                       | Number of establishments | Wage earners (average for the year) | Wages        | Cost of materials, supplies, fuel, and power | Value of products | Value added by manufacture <sup>1</sup> | Horse-power |
|--------------------------------------|--------------------------|-------------------------------------|--------------|--|-------------------|---|-------------|
| 1927.....                            | 124                      | 16,582                              | \$23,890,846 | \$33,898,668                                 | \$75,490,681      | \$41,592,013                            | 29,725      |
| 1925.....                            | 142                      | 20,079                              | 28,096,207   | 49,295,643                                   | 101,180,777       | 51,885,134                              | 26,912      |
| 1923.....                            | 160                      | 22,208                              | 30,679,198   | 54,178,803                                   | 111,159,398       | 56,980,595                              | 26,859      |
| 1921.....                            | 185                      | 15,836                              | 18,887,126   | 38,651,996                                   | 73,639,912        | 34,987,916                              | (2)         |
| 1919.....                            | 191                      | 22,957                              | 25,474,200   | 54,364,656                                   | 107,088,050       | 52,723,394                              | 28,697      |
| PER CENT OF INCREASE OR DECREASE (—) |                          |                                     |              |  |                   |   |             |
| 1925-1927.....                       | -12.7                    | -17.4                               | -15.0        | -31.2  | -25.4             | -19.8                                   | 10.5        |
| 1923-1925.....                       | -11.2                    | -9.6                                | -8.4         | -9.0   | -9.0              | -8.9                                    | .2          |
| 1923-1927.....                       | -22.5                    | -25.3                               | -22.1        | -37.4  | -32.1             | -27.0                                   | 10.7        |
| 1919-1927.....                       | -35.1                    | -27.8                               | -6.2         | -37.6  | -29.5             | -21.1                                   | 3.6         |

<sup>1</sup> Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

<sup>2</sup> Not called for on schedule.

**TABLE 2.—PRIME MOVERS, MOTORS, AND GENERATORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1927, 1925, AND 1923**

| TYPE  | 1927   |                              | 1925   |                              | 1923   |                              |
|---|--------|------------------------------|--------|------------------------------|--------|------------------------------|
|   | Number | Capacity                     | Number | Capacity                     | Number | Capacity                     |
| Prime movers, total.....                                    | 2,812  | <i>Horse-power</i><br>29,725 | 1,942  | <i>Horse-power</i><br>26,912 | 1,868  | <i>Horse-power</i><br>26,859 |
| Steam engines.....  | 68     | 14,789                       | 83     | 14,224                       | } 93   | 15,724                       |
| Steam turbines.....   | 10     | 1,108                        | 9      | 740                          |        |                              |
| Internal-combustion engines.....                            | 1      | 175                          | 2      | 171                          | 2      | 195                          |
| Water wheels and turbines.....                              | 15     | 76                           |        |                              |        |                              |
| Electric motors driven by purchased current.....            | 2,718  | 13,577                       | 1,848  | 11,777                       | 1,773  | 10,940                       |
| Electric motors, total.....                                 | 4,486  | 26,333                       | 3,469  | 22,104                       | 2,854  | 17,636                       |
| Driven by purchased current.....                            | 2,718  | 13,577                       | 1,848  | 11,777                       | 1,773  | 10,940                       |
| Driven by current generated in establishment reporting..... | 1,768  | 12,756                       | 1,621  | 10,327                       | 1,081  | 6,696                        |
| Electric generators.....                                    | 54     | <i>Kilowatts</i><br>10,538   | 50     | <i>Kilowatts</i><br>6,619    | (1)    | <i>Kilowatts</i><br>(1)      |

<sup>1</sup> Not called for on schedule.

TABLE 3.—PIANOS—PRODUCTION, BY CLASS, NUMBER, AND VALUE, BY STATES: 1921 TO 1927

[This table presents statistics for all States for which separate figures can be given without disclosing the output of individual establishments. See "Detailed statistics of products," p. 1206]

| CLASS AND STATE                           | 1927     |                | 1925     |                | 1923     |                 | 1921     |                |
|---|----------|----------------|----------|----------------|----------|-----------------|----------|----------------|
|   | Number   | Value          | Number   | Value          | Number   | Value           | Number   | Value          |
| United States.....                        | 218, 140 | \$67, 210, 775 | 306, 584 | \$93, 676, 977 | 347, 589 | \$104, 362, 578 | 221, 210 | \$66, 267, 751 |
| Upright pianos, total.....                | 150, 407 | 33, 709, 334   | 236, 592 | 57, 233, 738   | 288, 955 | 72, 619, 941    | 195, 498 | 50, 244, 947   |
| Illinois.....                             | 47, 493  | 9, 513, 990    | 72, 324  | 15, 792, 708   | 90, 654  | 20, 646, 629    | 43, 429  | 11, 289, 288   |
| Indiana.....                              | 17, 263  | 3, 546, 704    | 31, 603  | 6, 650, 005    | 27, 931  | 7, 221, 834     | 18, 525  | 4, 287, 090    |
| Massachusetts.....                        | 4, 940   | 1, 356, 113    | 10, 391  | 2, 779, 638    | 15, 586  | 3, 698, 388     | 10, 752  | 3, 143, 457    |
| Michigan.....                             | 10, 631  | 2, 574, 123    | 18, 486  | 4, 644, 723    | 21, 364  | 5, 376, 102     | 12, 465  | 3, 445, 209    |
| New Jersey.....                           | 884      | 303, 115       | 2, 043   | 707, 413       | 2, 371   | 806, 585        | 1, 994   | 700, 278       |
| New York.....                             | 49, 507  | 12, 098, 410   | 69, 955  | 19, 003, 031   | 91, 962  | 25, 227, 115    | 79, 519  | 19, 502, 088   |
| Pennsylvania.....                         | 6, 465   | 1, 716, 551    | 8, 684   | 2, 414, 804    | 11, 623  | 3, 133, 626     | 7, 613   | 2, 397, 540    |
| Wisconsin.....                            | 4, 562   | 880, 039       | 10, 233  | 2, 439, 172    | 9, 072   | 1, 942, 054     | 5, 389   | 1, 139, 259    |
| Other States.....                         | 8, 662   | 1, 720, 289    | 12, 873  | 2, 802, 244    | 18, 392  | 4, 567, 608     | 15, 812  | 4, 340, 738    |
| Grand pianos, total.....                  | 61, 759  | 30, 732, 850   | 65, 689  | 34, 120, 696   | 54, 095  | 29, 362, 140    | 22, 338  | 13, 829, 965   |
| Illinois.....                             | 11, 043  | 4, 390, 626    | 11, 429  | 4, 917, 595    | 8, 759   | 4, 396, 085     | 2, 408   | 1, 455, 842    |
| Indiana.....                              | 6, 302   | 2, 004, 514    | 8, 032   | 2, 198, 370    | 4, 524   | 1, 418, 716     | 114      | 75, 110        |
| Massachusetts.....                        | 7, 689   | 4, 766, 367    | 7, 152   | 5, 624, 273    | 6, 104   | 4, 898, 797     | 2, 901   | 2, 230, 172    |
| Michigan.....                             | 3, 001   | 1, 263, 078    | 1, 450   | 699, 505       | 1, 135   | 545, 213        | 254      | 149, 808       |
| New Jersey.....                           | 1, 031   | 543, 080       | 423      | 257, 377       | 286      | 154, 225        | 328      | 228, 393       |
| New York.....                             | 23, 678  | 12, 684, 081   | 23, 902  | 15, 292, 927   | 26, 705  | 13, 383, 165    | 13, 401  | 7, 446, 297    |
| Pennsylvania.....                         | 1, 893   | 752, 592       | 1, 278   | 575, 435       | 814      | 311, 777        | 314      | 152, 880       |
| Wisconsin.....                            | 163      | 54, 854        | 57       | 19, 096        | 42       | 20, 955         | 20       | 8, 596         |
| Other States.....                         | 6, 954   | 4, 273, 658    | 6, 966   | 4, 536, 118    | 5, 726   | 4, 235, 207     | 2, 598   | 2, 083, 367    |
| Automatic and electric pianos, total..... | 5, 974   | 2, 768, 591    | 4, 303   | 2, 322, 543    | 4, 539   | 2, 380, 497     | 3, 374   | 2, 192, 839    |
| Illinois.....                             | 5, 417   | 2, 407, 596    | 2, 885   | 1, 527, 610    | (2)      | (2)             | (2)      | (2)            |
| New York.....                             | 424      | 293, 461       | 883      | 524, 542       | (2)      | (2)             | (2)      | (2)            |
| Other States.....                         | 133      | 62, 534        | 535      | 270, 391       | 4, 539   | 2, 380, 497     | 3, 374   | 2, 192, 839    |

<sup>1</sup> This State is outranked for 1927 by one or more of the "Other States."

<sup>2</sup> Data not available.

TABLE 4.—GENERAL STATISTICS, BY STATES: 1927

[This table presents statistics for all States for which separate figures can be given without disclosing data reported by individual establishments. Certain of the "Other States," however, reported larger values of products than some of the States shown separately]

| STATE                           | Number of establishments | PERSONS ENGAGED IN THE INDUSTRY |                              |                                 |                                     | Horse-power |
|---------------------------------|--------------------------|---------------------------------|------------------------------|---------------------------------|-------------------------------------|-------------|
|                                 |                          | Total                           | Proprietors and firm members | Salaried officers and employees | Wage earners (average for the year) |             |
| United States.....              | 124                      | 18,343                          | 18                           | 1,743                           | 16,582                              | 29,725      |
| Illinois.....                   | 22                       | 4,433                           | 2                            | 290                             | 4,141                               | 7,550       |
| Indiana.....                    | 8                        | 1,451                           | -----                        | 158                             | 1,293                               | 2,504       |
| Massachusetts.....              | 10                       | 1,456                           | -----                        | 130                             | 1,326                               | 2,294       |
| Michigan.....                   | 6                        | 950                             | -----                        | 85                              | 865                                 | 1,649       |
| New Jersey.....                 | 6                        | 436                             | -----                        | 82                              | 354                                 | 1,108       |
| New York.....                   | 53                       | 6,571                           | 11                           | 708                             | 5,862                               | 9,452       |
| Pennsylvania.....               | 5                        | 604                             | 3                            | 44                              | 567                                 | 1,489       |
| Wisconsin.....                  | 6                        | 260                             | -----                        | 56                              | 204                                 | 446         |
| Other States <sup>1</sup> ..... | 8                        | 2,182                           | 2                            | 190                             | 1,990                               | 3,233       |

| STATE                           | Salaries    | Wages        | Cost of materials, supplies, fuel, and power |                | Value of products | Value added by manufacture <sup>2</sup> |
|---------------------------------|-------------|--------------|--|----------------|-------------------|---|
|                                 |             |              | Materials and supplies                       | Fuel and power |                   |   |
| United States.....              | \$4,484,298 | \$23,890,846 | \$32,826,998                                 | \$1,071,670    | \$75,490,681      | \$41,592,013                            |
| Illinois.....                   | 869,197     | 5,802,742    | 7,494,522                                    | 301,939        | 17,668,781        | 9,872,320                               |
| Indiana.....                    | 334,904     | 1,661,754    | 2,858,412                                    | 107,437        | 5,578,914         | 2,613,065                               |
| Massachusetts.....              | 344,764     | 2,045,596    | 2,616,812                                    | 83,515         | 6,614,451         | 3,914,124                               |
| Michigan.....                   | 375,147     | 1,186,605    | 1,898,194                                    | 58,506         | 4,302,871         | 2,346,171                               |
| New Jersey.....                 | 183,149     | 592,209      | 893,827                                      | 18,939         | 1,744,711         | 831,945                                 |
| New York.....                   | 1,817,968   | 9,132,086    | 12,471,587                                   | 334,144        | 28,431,507        | 15,625,776                              |
| Pennsylvania.....               | 92,686      | 716,384      | 1,312,326                                    | 38,030         | 2,507,563         | 1,157,207                               |
| Wisconsin.....                  | 121,301     | 264,466      | 498,432                                      | 18,115         | 945,904           | 429,357                                 |
| Other States <sup>1</sup> ..... | 345,182     | 2,489,004    | 2,782,886                                    | 111,045        | 7,095,979         | 4,802,048                               |

<sup>1</sup> California, 1 establishment; Kentucky, 1; Maryland, 2; Minnesota, 1; Missouri, 1; Ohio, 2.

<sup>2</sup> Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

## ORGANS

**Description of the industry.**—This industry designation covers the manufacture of complete pipe organs and reed organs. Many organ manufacturers purchase certain parts and materials, such as pipes, reeds, stops, etc., from establishments in the "Piano and organ materials" industry.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1919 TO 1927

[Data for establishments with products under \$5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6]

| YEAR OR PERIOD       | Num-ber of estab-lish-ments | Wage earners (average for the year) | Wages       | Cost of ma-terials, sup-plies, fuel, and power | Value of products | Value added by manu-facture <sup>1</sup> | Horse-power |
|----------------------|-----------------------------|-------------------------------------|-------------|--|-------------------|--|-------------|
| 1927-----            | 63                          | 2,770                               | \$4,363,731 | \$4,494,440                                    | \$15,438,623      | \$10,944,174                             | 4,332       |
| 1925-----            | 57                          | 2,400                               | 3,609,536   | 3,748,942                                      | 12,383,039        | 8,534,147                                | 3,983       |
| 1923-----            | 59                          | 1,355                               | 2,661,804   | 2,802,566                                      | 9,602,692         | 6,800,126                                | 2,902       |
| 1921-----            | 56                          | 2,346                               | 3,342,795   | 3,730,917                                      | 10,134,854        | 6,453,937                                | (?)         |
| 1919-----            | 68                          | 1,941                               | 1,978,518   | 2,217,097                                      | 5,973,263         | 3,756,171                                | 3,245       |
| PER CENT OF INCREASE |                             |                                     |             |  |                   |  |             |
| 1925-1927-----       | (?)                         | 12.6                                | 20.9        | 19.0   | 25.7              | 28.2                                     | 8.8         |
| 1923-1925-----       | (?)                         | 32.6                                | 35.6        | 33.8   | 27.9              | 25.5                                     | 37.3        |
| 1923-1927-----       | (?)                         | 49.3                                | 63.9        | 60.4   | 60.8              | 60.9                                     | 49.3        |
| 1919-1927-----       | (?)                         | 42.7                                | 120.6       | 102.7  | 168.5             | 191.4                                    | 33.5        |

<sup>1</sup> Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Per cent not shown where base is less than 100.

TABLE 2.—PRIME MOVERS AND MOTORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1927, 1925, AND 1923

| TYPE  | 1927   |                             | 1925   |                             | 1923   |                             |
|---|--------|-----------------------------|--------|-----------------------------|--------|-----------------------------|
|   | Number | Capacity                    | Number | Capacity                    | Number | Capacity                    |
| Prime movers, total-----                                    | 1,112  | <i>Horse-power</i><br>4,332 | 934    | <i>Horse-power</i><br>3,983 | 700    | <i>Horse-power</i><br>2,902 |
| Steam engines-----  | 6      | 655                         | 22     | 740                         | 13     | 665                         |
| Internal-combustion engines-----                            | 3      | 49                          | 3      | 50                          | 7      | 52                          |
| Electric motors driven by purchased current-----            | 1,103  | 3,628                       | 909    | 3,193                       | 680    | 2,185                       |
| Electric motors, total-----                                 | 1,103  | 3,628                       | 909    | 3,193                       | 693    | 2,209                       |
| Driven by purchased current-----                            | 1,103  | 3,628                       | 909    | 3,193                       | 680    | 2,185                       |
| Driven by current generated in establishment reporting----- |        |                             |        |                             | 13     | 24                          |

TABLE 3.—ORGANS—PRODUCTION, BY CLASS, NUMBER, AND VALUE, BY STATES: 1921 TO 1927

[This table presents statistics for all States for which separate figures can be given without disclosing the output of individual establishments. See "Detailed statistics of products," p. 1206]

| CLASS AND STATE                  | 1927   |              | 1925   |              | 1923   |              | 1921             |                  |
|----------------------------------|--------|--------------|--------|--------------|--------|--------------|------------------|------------------|
|                                  | Number | Value        | Number | Value        | Number | Value        | Number           | Value            |
| United States.....               | 5,562  | \$17,167,408 | 6,315  | \$13,249,750 | 9,536  | \$10,230,519 | 10,066           | \$9,711,325      |
| Pipe organs, total.....          | 2,471  | 16,782,128   | 1,955  | 12,808,220   | 1,764  | 9,691,905    | 2,187            | 8,963,011        |
| California <sup>2</sup> .....    | 157    | 1,082,574    | 106    | 471,562      | 124    | 1,254,750    | ( <sup>3</sup> ) | ( <sup>3</sup> ) |
| Illinois <sup>2</sup> .....      | 401    | 1,575,026    | 318    | 1,367,575    | 218    | 1,134,047    | 776              | 1,247,236        |
| Massachusetts <sup>2</sup> ..... | 92     | 1,538,123    | 77     | 1,426,609    | 65     | 865,363      | 58               | 789,227          |
| New York.....                    | 463    | 2,822,880    | 413    | 2,651,859    | 288    | 1,247,196    | 315              | 1,274,017        |
| Ohio <sup>2</sup> .....          | 103    | 698,196      | 95     | 440,710      | 84     | 359,231      | 110              | 355,114          |
| Pennsylvania <sup>2</sup> .....  | 101    | 653,104      | 65     | 308,355      | 52     | 310,123      | 62               | 347,850          |
| Wisconsin <sup>2</sup> .....     | 107    | 990,145      | 113    | 637,592      | 75     | 445,027      | 118              | 456,045          |
| Other States.....                | 1,047  | 7,422,080    | 768    | 5,443,958    | 868    | 4,076,168    | 748              | 4,493,522        |
| Reed organs.....                 | 3,091  | 385,280      | 4,360  | 441,530      | 7,772  | 538,614      | 7,879            | 748,314          |

<sup>1</sup> Includes data for 52 orchestrions, valued at \$38,215, for 1923; and for 238 orchestrions, valued at \$245,954 for 1921.

<sup>2</sup> This State is outranked in value of products for 1927 by one or more of the "Other States."

<sup>3</sup> Included in figure for "Other States" to avoid disclosing the output of individual establishments.

TABLE 4.—GENERAL STATISTICS, BY STATES: 1927

[This table presents statistics for all States for which separate figures can be given without disclosing data reported by individual establishments. Certain of the "Other States," however, reported larger values of products than some of the States shown separately]

| STATE                           | Number of establishments | PERSONS ENGAGED IN THE INDUSTRY |                              |                                 |                                     | Horse-power |
|---------------------------------|--------------------------|---------------------------------|------------------------------|---------------------------------|-------------------------------------|-------------|
|                                 |                          | Total                           | Proprietors and firm members | Salaried officers and employees | Wage earners (average for the year) |             |
| United States.....              | 63                       | 3,138                           | 33                           | 335                             | 2,770                               | 4,332       |
| California.....                 | 6                        | 191                             | 4                            | 25                              | 162                                 | 410         |
| Illinois.....                   | 8                        | 224                             | 3                            | 24                              | 197                                 | 371         |
| Massachusetts.....              | 5                        | 333                             | 2                            | 47                              | 284                                 | 353         |
| New York.....                   | 13                       | 240                             | 14                           | 23                              | 203                                 | 233         |
| Ohio.....                       | 6                        | 145                             | 7                            | 13                              | 125                                 | 243         |
| Pennsylvania.....               | 6                        | 217                             | 1                            | 23                              | 193                                 | 149         |
| Wisconsin.....                  | 5                        | 176                             | —                            | 15                              | 161                                 | 229         |
| Other States <sup>1</sup> ..... | 14                       | 1,612                           | 2                            | 165                             | 1,445                               | 2,544       |

| STATE                           | Salaries  | Wages       | Cost of materials, supplies, fuel, and power |                | Value of products | Value added by manufacture <sup>2</sup> |
|---------------------------------|-----------|-------------|--|----------------|-------------------|---|
|                                 |           |             | Materials and supplies                       | Fuel and power |                   |   |
| United States.....              | \$919,796 | \$4,363,731 | \$4,382,025                                  | \$112,424      | \$15,438,623      | \$10,944,174                            |
| California.....                 | 55,119    | 244,654     | 199,271                                      | 4,554          | 1,086,525         | 882,700                                 |
| Illinois.....                   | 64,003    | 267,436     | 269,485                                      | 9,344          | 730,300           | 451,471                                 |
| Massachusetts.....              | 161,477   | 534,734     | 435,011                                      | 12,701         | 1,642,405         | 1,194,693                               |
| New York.....                   | 76,020    | 290,924     | 286,021                                      | 7,098          | 1,062,245         | 769,126                                 |
| Ohio.....                       | 38,722    | 168,548     | 244,221                                      | 5,142          | 722,095           | 472,732                                 |
| Pennsylvania.....               | 71,883    | 321,797     | 279,697                                      | 9,307          | 914,739           | 625,735                                 |
| Wisconsin.....                  | 59,843    | 221,657     | 493,556                                      | 7,184          | 1,009,566         | 508,826                                 |
| Other States <sup>1</sup> ..... | 392,729   | 2,313,981   | 2,174,763                                    | 57,094         | 8,270,748         | 6,038,891                               |

<sup>1</sup> Connecticut, 3 establishments; District of Columbia, 1; Iowa, 1; Kansas, 1; Kentucky, 2; Maryland, 1; Missouri, 2; New Jersey, 2; Vermont, 1.

<sup>2</sup> Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

## PIANO AND ORGAN MATERIALS

**Description of the industry.**—This industry classification is applied to establishments engaged primarily in the manufacture of piano and organ materials and parts for sale as such. The distinctive products include piano strings, plates, keys, actions, keyboards, cases, back frames, pedal attachments, hammers, sounding boards, legs, and bridges; organ reeds, pipes, stops, knobs, pedals, and reed boards; and perforated musical rolls for player pianos.

**TABLE 1.—SUMMARY FOR THE UNITED STATES: 1919 TO 1927**

[Data for establishments with products under \$5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6]

| YEAR OR PERIOD                       | Number of establishments | Wage earners (average for the year) | Wages       | Cost of materials, supplies, fuel, and power | Value of products | Value added by manufacture <sup>1</sup> | Horse-power |
|--------------------------------------|--------------------------|-------------------------------------|-------------|--|-------------------|---|-------------|
| 1927-----                            | 85                       | 5,399                               | \$6,593,645 | \$9,657,350                                  | \$22,244,731      | \$12,587,381                            | 14,185      |
| 1925-----                            | 94                       | 8,618                               | 10,131,137  | 15,293,635                                   | 36,836,238        | 21,542,603                              | 15,734      |
| 1923-----                            | 90                       | 9,672                               | 11,243,188  | 17,019,395                                   | 38,838,735        | 21,819,340                              | 15,478      |
| 1921-----                            | 89                       | 5,569                               | 5,969,804   | 8,221,840                                    | 18,597,436        | 10,375,596                              | (2)         |
| 1919-----                            | 113                      | 11,009                              | 10,467,137  | 16,693,140                                   | 36,789,627        | 20,096,487                              | 15,716      |
| PER CENT OF INCREASE OR DECREASE (-) |                          |                                     |             |  |                   |   |             |
| 1925-1927-----                       | (3)                      | -37.4                               | -34.9       | -36.9  | -39.6             | -41.6                                   | -9.8        |
| 1923-1925-----                       | (3)                      | -10.9                               | -9.9        | -10.1  | -5.2              | -1.3                                    | 1.7         |
| 1923-1927-----                       | (3)                      | -44.2                               | -41.4       | -43.3  | -42.7             | -42.3                                   | -8.4        |
| 1919-1927-----                       | -24.8                    | -51.0                               | -37.0       | -42.1  | -39.5             | -37.4                                   | -9.7        |

<sup>1</sup> Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Per cent not computed where base is less than 100.

**TABLE 2.—PRIME MOVERS, MOTORS, AND GENERATORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1927, 1925, AND 1923**

| TYPE  | 1927   |                              | 1925   |                              | 1923   |                              |
|---|--------|------------------------------|--------|------------------------------|--------|------------------------------|
|   | Number | Capacity                     | Number | Capacity                     | Number | Capacity                     |
| Prime movers, total-----                                    | 1,022  | <i>Horse-power</i><br>14,185 | 1,269  | <i>Horse-power</i><br>15,734 | 1,045  | <i>Horse-power</i><br>15,478 |
| Steam engines-----  | 39     | 6,650                        | 39     | 7,115                        | 38     | 9,060                        |
| Steam turbines-----   | 8      | 323                          | 6      | 180                          | 4      | 230                          |
| Internal-combustion engines-----                            | 6      | 470                          | 5      | 485                          | 3      | 45                           |
| Water wheels and turbines-----                              | 5      | 140                          | 3      | 95                           |        |                              |
| Electric motors driven by purchased current-----            | 964    | 6,597                        | 1,216  | 7,859                        | 1,000  | 6,093                        |
| Electric motors, total-----                                 | 2,473  | 13,655                       | 2,243  | 15,081                       | 1,588  | 11,679                       |
| Driven by purchased current-----                            | 964    | 6,597                        | 1,216  | 7,859                        | 1,000  | 6,093                        |
| Driven by current generated in establishment reporting----- | 1,509  | 7,058                        | 1,027  | 7,222                        | 588    | 5,586                        |
| Electric generators-----                                    | 35     | <i>Kilowatts</i><br>5,133    | 43     | <i>Kilowatts</i><br>5,118    | (4)    | <i>Kilowatts</i><br>(4)      |

<sup>1</sup> Not called for on schedule.

TABLE 3.—GENERAL STATISTICS, BY STATES: 1927

[This table presents statistics for all States for which separate figures can be given without disclosing data reported by individual establishments. Certain of the "Other States," however, reported larger values of products than some of the States shown separately]

| STATE                           | Number of establishments | PERSONS ENGAGED IN THE INDUSTRY |                              |                                 |                                     | Horse-power |
|---------------------------------|--------------------------|---------------------------------|------------------------------|---------------------------------|-------------------------------------|-------------|
|                                 |                          | Total                           | Proprietors and firm members | Salaried officers and employees | Wage earners (average for the year) |             |
| United States.....              | 85                       | 6,150                           | 31                           | 720                             | 5,399                               | 14,185      |
| California.....                 | 3                        | 24                              | 1                            | 7                               | 16                                  | 17          |
| Connecticut.....                | 7                        | 1,200                           | 4                            | 134                             | 1,062                               | 2,712       |
| Illinois.....                   | 11                       | 767                             | 2                            | 142                             | 623                                 | 1,906       |
| Massachusetts.....              | 13                       | 745                             | 4                            | 74                              | 667                                 | 1,682       |
| New Jersey.....                 | 7                        | 253                             | 4                            | 32                              | 217                                 | 795         |
| New York.....                   | 27                       | 2,316                           | 6                            | 258                             | 2,052                               | 4,359       |
| Ohio.....                       | 5                        | 523                             | 8                            | 27                              | 488                                 | 1,155       |
| Pennsylvania.....               | 4                        | 80                              | 1                            | 12                              | 67                                  | 67          |
| Other States <sup>1</sup> ..... | 8                        | 242                             | 1                            | 34                              | 207                                 | 1,492       |

  

| STATE                           | Salaries    | Wages       | Cost of materials, supplies, fuel, and power |                | Value of products | Value added by manufacture <sup>2</sup> |
|---------------------------------|-------------|-------------|--|----------------|-------------------|---|
|                                 |             |             | Materials and supplies                       | Fuel and power |                   |   |
| United States.....              | \$2,238,419 | \$6,593,645 | \$9,212,241                                  | \$445,109      | \$22,244,731      | \$12,587,381                            |
| California.....                 | 22,424      | 24,177      | 33,014                                       | 809            | 102,222           | 68,399                                  |
| Connecticut.....                | 462,964     | 1,089,933   | 1,690,633                                    | 110,479        | 3,918,305         | 2,117,193                               |
| Illinois.....                   | 402,166     | 1,008,374   | 1,657,191                                    | 78,271         | 3,564,327         | 1,828,865                               |
| Massachusetts.....              | 161,051     | 855,490     | 814,824                                      | 55,171         | 2,245,514         | 1,375,519                               |
| New Jersey.....                 | 89,287      | 308,851     | 309,898                                      | 33,013         | 883,178           | 540,267                                 |
| New York.....                   | 834,161     | 2,320,632   | 3,725,316                                    | 126,123        | 8,486,006         | 4,634,567                               |
| Ohio.....                       | 124,140     | 650,649     | 840,758                                      | 24,451         | 1,490,257         | 1,125,048                               |
| Pennsylvania.....               | 42,947      | 102,343     | 195,086                                      | 6,525          | 422,622           | 221,011                                 |
| Other States <sup>1</sup> ..... | 99,279      | 233,196     | 445,521                                      | 10,267         | 1,132,300         | 676,512                                 |

<sup>1</sup> Indiana, 1 establishment; Maryland, 2; Minnesota, 1; Missouri, 1; Washington, 1; Wisconsin, 2.

<sup>2</sup> Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

## MUSICAL INSTRUMENTS AND PARTS AND MATERIALS, NOT ELSEWHERE CLASSIFIED

**Description of the industry.**—The establishments in this industry are engaged primarily in the manufacture of musical instruments (other than pianos and organs) and of parts and materials for such instruments.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1919 TO 1927

[Data for establishments with products under \$5,000 in value included for 1919 but not for subsequent years. See secs. 10, p. 6]

| YEAR OR PERIOD                       | Num-ber of estab-lish-ments | Wage earners (average for the year) | Wages         | Cost of ma-terials, sup-plies, fuel, and power | Value of products | Value added by manu-facture <sup>1</sup> | Horse-power |
|--------------------------------------|-----------------------------|-------------------------------------|---------------|--|-------------------|--|-------------|
| 1927-----                            | 99                          | 4, 018                              | \$5, 737, 005 | \$4, 640, 553                                  | \$17, 891, 948    | \$13, 251, 395                           | 5, 356      |
| 1925-----                            | 100                         | 4, 556                              | 6, 519, 956   | 5, 575, 183                                    | 20, 329, 301      | 14, 764, 118                             | 4, 907      |
| 1923-----                            | 106                         | 4, 103                              | 5, 841, 976   | 4, 348, 938                                    | 15, 619, 438      | 11, 270, 500                             | 3, 830      |
| 1921-----                            | 116                         | 3, 424                              | 4, 520, 029   | 3, 325, 345                                    | 12, 353, 778      | 9, 028, 433                              | (1)         |
| 1919-----                            | 240                         | 4, 113                              | 3, 984, 656   | 4, 444, 729                                    | 12, 506, 334      | 8, 061, 605                              | 3, 219      |
| PER CENT OF INCREASE OR DECREASE (—) |                             |                                     |               |  |                   |  |             |
| 1925-1927-----                       | -1.0                        | -11.8                               | -12.0         | -16.8  | -12.0             | -10.2                                    | 9.2         |
| 1923-1925-----                       | -5.7                        | 11.0                                | 11.6          | 23.2   | 30.2              | 30.9                                     | 23.1        |
| 1923-1927-----                       | -6.6                        | -2.1                                | -1.8          | 6.7  | 14.5              | 17.6                                     | 39.8        |
| 1919-1927-----                       | -58.7                       | -2.3                                | 44.0          | 4.4  | 43.1              | 64.4                                     | 66.4        |

<sup>1</sup> Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

<sup>2</sup> Not called for on schedule.

TABLE 2.—PRIME MOVERS AND MOTORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1927, 1925, AND 1923

| TYPE   | 1927   |                       | 1925   |                       | 1923   |                       |
|--|--------|-----------------------|--------|-----------------------|--------|-----------------------|
|  | Number | Capacity              | Number | Capacity              | Number | Capacity              |
| Prime movers, total-----                                     | 2, 373 | Horse-power<br>5, 356 | 2, 028 | Horse-power<br>4, 907 | 1, 570 | Horse-power<br>3, 830 |
| Steam engines-----   | 2      | 100                   | 2      | 100                   | 6      | 153                   |
| Internal-combustion engines-----                             | 6      | 25                    | 6      | 26                    | 8      | 64                    |
| Electric motors driven by purchased current-----             | 2, 365 | 5, 231                | 2, 020 | 4, 781                | 1, 556 | 3, 613                |
| Electric motors, total-----                                  | 2, 365 | 5, 231                | 2, 020 | 4, 781                | 1, 654 | 3, 745                |
| Driven by purchased current-----                             | 2, 365 | 5, 231                | 2, 020 | 4, 781                | 1, 556 | 3, 613                |
| Driven by current generated in estab-lishment reporting----- |        |                       |        |                       | 98     | 132                   |

TABLE 3.—BAND AND ORCHESTRAL INSTRUMENTS—PRODUCTION, BY CLASS AND VALUE, BY STATES: 1927 AND 1925

[This table presents statistics for all States for which separate figures can be given without disclosing the output of individual establishments. See "Detailed statistics of products," p. 1206]

| CLASS AND STATE  | 1927         | 1925             |
|--|--------------|------------------|
|  | Value        | Value            |
| United States.....   | \$15,311,110 | \$18,223,150     |
| Wind instruments, total.....   | 8,394,785    | 9,477,978        |
| California <sup>1</sup> .....  | 112,150      | 115,907          |
| Illinois.....  | 85,981       | 104,113          |
| Indiana.....   | 5,592,595    | 6,874,980        |
| Massachusetts <sup>1</sup> .....   | 608,071      | ( <sup>2</sup> ) |
| New York <sup>1</sup> .....  | 197,369      | 253,720          |
| Other States.....  | 1,798,619    | 2,129,258        |
| Stringed instruments, total.....   | 4,201,013    | 5,858,714        |
| California <sup>1</sup> .....  | 51,513       | 117,374          |
| Illinois.....  | 1,790,777    | 3,021,211        |
| New York.....  | 448,406      | 722,757          |
| Pennsylvania <sup>1</sup> .....  | 242,157      | ( <sup>2</sup> ) |
| Other States.....  | 1,668,160    | 1,997,372        |
| Percussion and other instruments (chimes, xylophones, drums, bells, traps, etc.), total..... | 2,715,312    | 2,886,458        |
| Illinois.....  | 1,676,439    | ( <sup>2</sup> ) |
| Other States.....  | 1,038,873    | 2,886,458        |

<sup>1</sup> This State is outranked for 1927 by one or more of the "Other States."

<sup>2</sup> Included in figure for "Other States" to avoid disclosing the output of individual establishments.

TABLE 4.—GENERAL STATISTICS, BY STATES: 1927

[This table presents statistics for all States for which separate figures can be given without disclosing data reported by individual establishments. Certain of the "Other States," however, reported larger values of products than some of the States shown separately]

| STATE                           | Number of establishments | PERSONS ENGAGED IN THE INDUSTRY |                              |                                 |                                     | Horse-power |
|---------------------------------|--------------------------|---------------------------------|------------------------------|---------------------------------|-------------------------------------|-------------|
|                                 |                          | Total                           | Proprietors and firm members | Salaried officers and employees | Wage earners (average for the year) |             |
| United States.....              | 99                       | 4,796                           | 78                           | 700                             | 4,018                               | 5,356       |
| California.....                 | 9                        | 97                              | 28                           | 10                              | 59                                  | 78          |
| Illinois.....                   | 21                       | 913                             | 11                           | 122                             | 780                                 | 1,445       |
| Indiana.....                    | 13                       | 1,845                           | 12                           | 259                             | 1,574                               | 1,634       |
| Massachusetts.....              | 8                        | 284                             | 4                            | 51                              | 229                                 | 143         |
| Michigan.....                   | 5                        | 258                             | 1                            | 55                              | 202                                 | 347         |
| New Jersey.....                 | 4                        | 349                             | 2                            | 28                              | 319                                 | 489         |
| New York.....                   | 25                       | 352                             | 17                           | 53                              | 282                                 | 437         |
| Pennsylvania.....               | 7                        | 136                             | 1                            | 15                              | 120                                 | 177         |
| Other States <sup>1</sup> ..... | 7                        | 562                             | 2                            | 107                             | 453                                 | 656         |

| STATE                           | Salaries    | Wages       | Cost of materials, supplies, fuel, and power |                | Value of products | Value added by manufacture <sup>2</sup> |
|---------------------------------|-------------|-------------|--|----------------|-------------------|---|
|                                 |             |             | Materials and supplies                       | Fuel and power |                   |   |
| United States.....              | \$1,553,504 | \$5,737,005 | \$4,431,824                                  | \$208,729      | \$17,891,948      | \$13,251,395                            |
| California.....                 | 22,377      | 78,670      | 35,024                                       | 1,437          | 200,192           | 163,731                                 |
| Illinois.....                   | 410,135     | 1,132,515   | 1,239,408                                    | 50,186         | 3,741,068         | 2,425,374                               |
| Indiana.....                    | 521,714     | 2,272,332   | 1,271,131                                    | 68,150         | 7,221,737         | 5,882,456                               |
| Massachusetts.....              | 88,974      | 308,009     | 214,494                                      | 6,933          | 738,340           | 566,863                                 |
| Michigan.....                   | 112,444     | 286,717     | 309,748                                      | 17,482         | 1,072,744         | 694,544                                 |
| New Jersey.....                 | 46,153      | 337,003     | 390,396                                      | 16,153         | 1,391,322         | 984,773                                 |
| New York.....                   | 114,107     | 398,270     | 378,194                                      | 24,554         | 1,137,420         | 734,711                                 |
| Pennsylvania.....               | 36,117      | 154,255     | 94,901                                       | 6,766          | 1,383,762         | 282,095                                 |
| Other States <sup>1</sup> ..... | 201,483     | 789,169     | 420,558                                      | 17,048         | 1,954,454         | 1,516,348                               |

<sup>1</sup> Connecticut, 2 establishments; Missouri, 2; Ohio, 2; Wisconsin, 1.

<sup>2</sup> Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

## PHONOGRAPHS

**Description of the industry.**—This industry embraces establishments engaged primarily in the manufacture of machines for recording and reproducing speech, music, and other sounds, and of parts and accessories for such machines. The parts and accessories include records, blanks, and cabinets, as well as constituent parts of the machines themselves.

**TABLE 1.—SUMMARY FOR THE UNITED STATES: 1919 TO 1927**

(Data for establishments with products under \$5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6.)

| YEAR OR PERIOD                       | Number of establishments | Wage earners (average for the year) | Wages          | Cost of materials, supplies, fuel, and power | Value of products | Value added by manufacture <sup>1</sup> | Horse-power |
|--------------------------------------|--------------------------|-------------------------------------|----------------|--|-------------------|---|-------------|
| 1927                                 | 60                       | 14, 216                             | \$20, 176, 208 | \$37, 467, 711                               | \$95, 296, 137    | \$57, 828, 426                          | 48, 507     |
| 1925                                 | 68                       | 11, 267                             | 14, 144, 955   | 24, 847, 094                                 | 61, 057, 147      | 36, 210, 053                            | 45, 782     |
| 1923                                 | 111                      | 20, 491                             | 24, 969, 685   | 45, 250, 327                                 | 107, 311, 265     | 62, 060, 938                            | 41, 160     |
| 1921                                 | 154                      | 17, 983                             | 21, 773, 750   | 41, 057, 508                                 | 98, 212, 784      | 57, 155, 276                            | (?)         |
| 1919                                 | 166                      | 23, 721                             | 33, 963, 148   | 59, 740, 205                                 | 158, 547, 870     | 98, 807, 665                            | 40, 163     |
| PER CENT OF INCREASE OR DECREASE (—) |                          |                                     |                |  |                   |   |             |
| 1925-1927                            | (3)                      | 26. 2                               | 42. 6          | 50. 8  | 56. 1             | 50. 7                                   | 6. 0        |
| 1923-1925                            | -38. 7                   | -45. 0                              | -43. 4         | -45. 1                                       | -43. 1            | -41. 7                                  | 11. 2       |
| 1923-1927                            | -45. 9                   | -30. 6                              | -19. 2         | -17. 2                                       | -11. 2            | -6. 8                                   | 17. 8       |
| 1919-1927                            | -63. 9                   | -50. 5                              | -40. 6         | -37. 3                                       | -39. 9            | -41. 5                                  | 20. 8       |

<sup>1</sup> Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Per cent not computed where base is less than 100.

**TABLE 2.—PRIME MOVERS, MOTORS, AND GENERATORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1927, 1925, AND 1923**

| TYPE   | 1927   |                               | 1925   |                             | 1923   |                         |
|--|--------|-------------------------------|--------|-----------------------------|--------|-------------------------|
|  | Number | Capacity                      | Number | Capacity                    | Number | Capacity                |
| Prime movers, total                                    | 1, 272 | <i>Horse-power</i><br>48, 507 | 1, 196 | 45, 782                     | 1, 586 | 41, 160                 |
| Steam engines  | 22     | 9, 885                        | 28     | 12, 255                     | } 67   | 26, 934                 |
| Steam turbines   | 10     | 28, 365                       | 9      | 22, 335                     |        |                         |
| Internal-combustion engines                            | 2      | 9                             | 3      | 16                          |        |                         |
| Water turbines   | 1      | 150                           | 1      | 125                         | } 1    | 30                      |
| Electric motors driven by purchased current            | 1, 237 | 10, 098                       | 1, 155 | 11, 051                     | 1, 515 | 14, 044                 |
| Electric motors, total                                 | 4, 245 | 37, 138                       | 4, 183 | 43, 024                     | 3, 640 | 40, 684                 |
| Driven by purchased current                            | 1, 237 | 10, 098                       | 1, 155 | 11, 051                     | 1, 515 | 14, 044                 |
| Driven by current generated in establishment reporting | 3, 008 | 27, 040                       | 3, 028 | 31, 973                     | 2, 125 | 26, 640                 |
| Electric generators                                    | 26     | <i>Kilowatts</i><br>25, 595   | 28     | <i>Kilowatts</i><br>16, 790 | (1)    | <i>Kilowatts</i><br>(1) |

<sup>1</sup> Not called for on schedule.

TABLE 3.—PHONOGRAPHS—PRODUCTION, BY CLASS, NUMBER, AND VALUE, FOR THE UNITED STATES: 1921 TO 1927

| CLASS  | 1927         | 1925         | 1923          | 1921         |
|--|--------------|--------------|---------------|--------------|
| 1. Phonograph industry, all products, total value.....   | \$95,296,137 | \$61,057,147 | \$107,311,265 | \$98,212,784 |
| 2. Phonographs, including dictating machines, combination phonographs and radios, and parts and accessories.....   | 91,134,640   | 55,725,684   | 105,511,324   | 94,177,030   |
| 3. Other products (not normally belonging to the industry) and receipts for repair work.....   | 4,161,497    | 5,331,463    | 1,799,941     | 4,035,754    |
| 4. Phonographs and parts made as secondary products in other industries, value.....  | 3,089,298    | 3,603,378    | 1,301,787     | 1,404,394    |
| Phonographs, including dictating machines, combination phonographs and radios, and parts and accessories, all industries:<br>Aggregate value (sum of 2 and 4)..... | \$94,223,938 | \$59,329,062 | \$106,813,111 | \$95,581,424 |
| Phonographs—<br>Number.....  | 987,502      |              |               |              |
| Value.....   | \$39,814,510 |              |               |              |
| Combination phonographs and radios, and dictating machines—<br>Number.....   | 58,885       | 642,015      | 997,459       | 596,033      |
| Value.....   | \$9,427,060  | \$22,613,909 | \$57,037,060  | \$38,604,739 |
| Parts and accessories, for sale as such, total value.....  | \$41,892,470 | \$33,111,775 | \$48,474,264  | \$55,572,291 |
| Records and blanks—<br>Disk records—<br>Number.....  | 104,766,228  |              | 92,855,073    | 103,436,710  |
| Value.....   | \$31,480,279 | 82,125,060   | \$35,714,194  | \$47,322,954 |
| Cylinder records and blanks, value.....  | \$295,164    | \$26,790,847 | \$658,216     | \$520,902    |
| Needles, value.....  | \$1,321,729  | \$960,831    | \$1,494,964   | \$1,134,135  |
| Phonograph cabinets, value <sup>1</sup> .....  | \$2,016,039  | \$2,816,718  | \$2,544,208   | \$1,633,290  |
| Other parts and accessories, value.....  | \$6,773,259  | \$2,543,379  | \$8,092,682   | \$4,911,010  |
| Phonographs and parts, not distributed, value.....   | \$3,089,298  | \$3,603,378  | \$1,301,787   | \$1,404,394  |

<sup>1</sup> Phonograph cabinets are also made to some extent by establishments classified in the furniture industry. The figures here given relate only to cabinets made for sale as such by establishments engaged primarily in the manufacture of phonographs and phonograph cabinets.

TABLE 4.—GENERAL STATISTICS, BY STATES: 1927

[This table presents statistics for all States for which separate figures can be given without disclosing data reported by individual establishments. Certain of the "Other States," however, reported larger values of products than sums of the States shown separately]

| STATE                           | Number of establishments | PERSONS ENGAGED IN THE INDUSTRY |                              |                                 |                                     | Horse-power |
|---------------------------------|--------------------------|---------------------------------|------------------------------|---------------------------------|-------------------------------------|-------------|
|                                 |                          | Total                           | Proprietors and firm members | Salaried officers and employees | Wage earners (average for the year) |             |
| United States.....              | 60                       | 16,358                          | 14                           | 2,128                           | 14,216                              | 48,507      |
| Illinois.....                   | 12                       | 737                             | 4                            | 74                              | 659                                 | 1,169       |
| Indiana.....                    | 5                        | 631                             | —                            | 126                             | 505                                 | 2,748       |
| Massachusetts.....              | 3                        | 284                             | 1                            | 33                              | 250                                 | 512         |
| New York.....                   | 8                        | 602                             | 5                            | 89                              | 508                                 | 732         |
| Wisconsin.....                  | 3                        | 425                             | —                            | 86                              | 339                                 | 465         |
| Other States <sup>1</sup> ..... | 29                       | 13,679                          | 4                            | 1,720                           | 11,955                              | 42,881      |

  

| STATE                           | Salaries    | Wages        | Cost of materials, supplies, fuel, and power |                | Value of products | Value added by manufacture <sup>2</sup> |
|---------------------------------|-------------|--------------|--|----------------|-------------------|---|
|                                 |             |              | Materials and supplies                       | Fuel and power |                   |   |
| United States.....              | \$4,686,543 | \$20,176,208 | \$35,781,472                                 | \$1,686,239    | \$95,296,137      | \$57,828,426                            |
| Illinois.....                   | 171,915     | 1,030,962    | 1,397,665                                    | 46,437         | 3,538,463         | 2,094,361                               |
| Indiana.....                    | 164,998     | 420,693      | 893,964                                      | 36,804         | 2,511,291         | 1,580,523                               |
| Massachusetts.....              | 109,456     | 298,943      | 281,609                                      | 27,602         | 1,256,768         | 947,557                                 |
| New York.....                   | 246,235     | 590,371      | 1,206,081                                    | 60,479         | 3,027,670         | 1,761,110                               |
| Wisconsin.....                  | 191,575     | 398,793      | 1,823,020                                    | 27,406         | 3,195,838         | 1,345,412                               |
| Other States <sup>1</sup> ..... | 3,802,364   | 17,441,446   | 30,179,133                                   | 1,487,511      | 81,766,107        | 50,099,493                              |

<sup>1</sup> California, 2 establishments; Connecticut, 5; Iowa, 2; Maryland, 1; Michigan, 2; Minnesota, 1; Missouri, 1; New Jersey, 9; Ohio, 2; Pennsylvania, 4.

<sup>2</sup> Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

## OPTICAL GOODS

[A preliminary report for this industry was issued under date of April 1, 1929]

**Description of the industry.**—The establishments in this industry are engaged in the manufacture of spectacles, eyeglasses, goggles, frames, and mountings; lenses and prisms; microscopes, telescopes, field glasses, and opera glasses; ophthalmic instruments and apparatus; photomicro and microprojection apparatus; optical testing and measuring instruments; and artificial human eyes and glass eyes for the use of furriers and taxidermists.

**Detailed statistics of products.**—The census for 1927 was the first at which product data were supplied by the manufacturers in sufficient detail to permit the publication of separate value statistics for the several classes of products, therefore no comparable detailed product figures are available for earlier years.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1919 TO 1927

[Data for establishments with products under \$5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6]

| YEAR OR PERIOD                       | Number of establishments | Wage earners (average for the year) | Wages       | Cost of materials, supplies, fuel, and power | Value of products | Value added by manufacture <sup>1</sup> | Horse-power |
|--------------------------------------|--------------------------|-------------------------------------|-------------|--|-------------------|---|-------------|
| 1927-----                            | 96                       | 7,596                               | \$9,560,725 | \$8,865,025                                  | \$32,757,210      | \$23,892,185                            | 12,401      |
| 1925-----                            | 117                      | 8,642                               | 10,438,614  | 9,996,957                                    | 33,654,559        | 23,657,602                              | 11,017      |
| 1923-----                            | 487                      | 12,205                              | 14,338,192  | 19,111,997                                   | 54,462,161        | 35,550,164                              | 13,397      |
| 1921-----                            | 452                      | 11,120                              | 12,723,193  | 16,520,454                                   | 44,292,084        | 27,771,630                              | (3)         |
| 1919-----                            | 506                      | 14,723                              | 14,388,207  | 17,785,083                                   | 53,717,798        | 35,932,715                              | 15,649      |
| PER CENT OF INCREASE OR DECREASE (—) |                          |                                     |             |  |                   |   |             |
| 1925-1927-----                       | -17.9                    | -12.1                               | -8.4        | -11.3  | -2.7              | 1.0                                     | 12.6        |
| 1923-1925-----                       | -74.4                    | -29.2                               | -27.2       | -47.7  | -38.2             | -33.1                                   | -17.8       |
| 1923-1927-----                       | -79.0                    | -37.8                               | -33.3       | -53.6  | -39.9             | -32.4                                   | -7.4        |
| 1919-1927-----                       | -81.0                    | -48.4                               | -33.6       | -50.2  | -39.0             | -33.5                                   | -20.8       |

<sup>1</sup> Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

<sup>2</sup> Includes \$3,511,319, representing the value of surveyors', nautical, and similar instruments, which at the census for 1927 were treated as products of the "Instruments, professional and scientific" industry. (See footnote 1, summary for "Instruments, professional and scientific," p. 1244.)

<sup>3</sup> Not called for on schedule.

TABLE 2.—PRIME MOVERS, MOTORS, AND GENERATORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1927, 1925, AND 1923

| TYPE   | 1927   |                       | 1925   |                       | 1923   |                       |   |     |
|--|--------|-----------------------|--------|-----------------------|--------|-----------------------|---|-----|
|  | Number | Capacity              | Number | Capacity              | Number | Capacity              |   |     |
| Prime movers, total.....                                     | 2, 220 | Horsepower<br>12, 401 | 2, 468 | Horsepower<br>11, 017 | 3, 611 | Horsepower<br>13, 367 |   |     |
| Steam engines.....   | 3      | 590                   | 8      | 1, 275                | 6      | 4, 575                |   |     |
| Steam turbines.....  | 3      | 2, 308                | 3      | 3, 000                |        |                       |   |     |
| Internal-combustion engines.....                             | 2      | 14                    | 19     | 48                    |        |                       | 7 | 50  |
| Water wheels and turbines.....                               | 3      | 358                   | 1      | 175                   |        |                       | 8 | 553 |
| Electric motors driven by purchased current.....             | 2, 209 | 9, 131                | 2, 437 | 6, 519                | 3, 590 | 8, 219                |   |     |
| Electric motors, total.....                                  | 2, 520 | 11, 669               | 3, 103 | 10, 407               | 3, 890 | 10, 776               |   |     |
| Driven by purchased current.....                             | 2, 209 | 9, 131                | 2, 437 | 6, 519                | 3, 590 | 8, 219                |   |     |
| Driven by current generated in establishments reporting..... | 320    | 2, 538                | 666    | 3, 888                | 300    | 2, 557                |   |     |
| Electric generators.....                                     | 8      | Kilowatts<br>2, 625   | 23     | Kilowatts<br>8, 107   | (1)    | Kilowatts<br>(1)      |   |     |

<sup>1</sup> Not called for on schedule.

TABLE 3.—PRODUCTS, BY CLASS, KIND, AND VALUE: 1927

[No comparable statistics for earlier years]

| CLASS AND KIND  | 1927           |
|---|----------------|
| 1. Optical-goods industry, all products, total value.....                             | \$52, 757, 210 |
| 2. Optical goods.....   | 32, 150, 310   |
| 3. Other products (not normally belonging to the industry).....                       | 606, 900       |
| 4. Optical goods made as secondary products in other industries; value.....           | 257, 295       |
| Optical goods, all industries:<br>Aggregate value (sum of 2 and 4) <sup>1</sup> ..... | 32, 407, 605   |
| Ophthalmic products, total.....   | 28, 298, 825   |
| Spectacles, eyeglasses, and parts, total.....   | 13, 283, 980   |
| All-metal.....  | 3, 597, 739    |
| Metal and zylonite combined.....  | 5, 410, 088    |
| Zylonite and shell.....   | 4, 276, 153    |
| Lenses, total.....  | 10, 057, 395   |
| Single-vision.....  | 4, 388, 826    |
| Multi-vision (bifocals and trifocals).....  | 4, 635, 912    |
| Colored.....  | 1, 032, 957    |
| Goggles, eye protectors, mountings, and parts.....                                    | 2, 515, 455    |
| Other ophthalmic products <sup>2</sup> .....  | 2, 441, 495    |
| Optical instruments <sup>3</sup> .....  | 2, 766, 807    |
| Other optical goods <sup>4</sup> .....  | 1, 342, 473    |

<sup>1</sup> This aggregate is the sum of all items in the column beneath except those which are underscored.

<sup>2</sup> Readers and simple magnifiers; accessories (cases, holders, etc.); ophthalmic instruments and apparatus; artificial eyes; and other ophthalmic products not called for on schedule.

<sup>3</sup> Microscopes; telescopes; photographic and projection lenses and prisms; and other optical instruments, parts, and accessories.

<sup>4</sup> Optical machinery and tools.

TABLE 4.—GENERAL STATISTICS, BY STATES: 1927

[This table presents statistics for all States for which separate figures can be given without disclosing data reported by individual establishments. Certain of the "Other States," however, reported larger values of products than some of the States shown separately]

| STATE                           | Number of establishments | PERSONS ENGAGED IN THE INDUSTRY |                              |                                 |                                     | Horse-power |
|---------------------------------|--------------------------|---------------------------------|------------------------------|---------------------------------|-------------------------------------|-------------|
|                                 |                          | Total                           | Proprietors and firm members | Salaried officers and employees | Wage earners (average for the year) |             |
| United States.....              | 96                       | 9,508                           | 38                           | 1,874                           | 7,596                               | 12,401      |
| California.....                 | 4                        | 24                              | 3                            | 9                               | 12                                  | 18          |
| Illinois.....                   | 5                        | 150                             | -----                        | 28                              | 122                                 | 74          |
| New Jersey.....                 | 12                       | 330                             | 12                           | 51                              | 267                                 | 189         |
| New York.....                   | 37                       | 4,454                           | 10                           | 1,154                           | 3,290                               | 7,253       |
| Pennsylvania.....               | 9                        | 449                             | 5                            | 70                              | 374                                 | 506         |
| Rhode Island.....               | 5                        | 336                             | -----                        | 44                              | 292                                 | 98          |
| Other States <sup>1</sup> ..... | 24                       | 3,765                           | 8                            | 518                             | 3,239                               | 4,263       |

  

| STATE                           | Salaries    | Wages       | Cost of materials, supplies, fuel, and power |                | Value of products | Value added by manufacture <sup>2</sup> |
|---------------------------------|-------------|-------------|--|----------------|-------------------|---|
|                                 |             |             | Materials and supplies                       | Fuel and power |                   |   |
| United States.....              | \$3,091,845 | \$9,560,725 | \$8,257,067                                  | \$607,958      | \$32,757,210      | \$23,892,185                            |
| California.....                 | 10,700      | 19,702      | 48,170                                       | 1,449          | 93,640            | 44,021                                  |
| Illinois.....                   | 86,465      | 138,747     | 179,997                                      | 2,594          | 516,028           | 333,437                                 |
| New Jersey.....                 | 93,975      | 388,943     | 389,753                                      | 9,237          | 1,151,902         | 752,912                                 |
| New York.....                   | 2,278,351   | 4,649,792   | 3,392,127                                    | 399,146        | 13,021,225        | 9,229,952                               |
| Pennsylvania.....               | 198,558     | 368,929     | 865,367                                      | 22,346         | 1,980,566         | 1,092,853                               |
| Rhode Island.....               | 80,503      | 279,277     | 374,423                                      | 12,714         | 960,632           | 573,495                                 |
| Other States <sup>1</sup> ..... | 1,243,293   | 3,685,335   | 3,007,230                                    | 160,472        | 15,033,217        | 11,865,515                              |

<sup>1</sup> Colorado, 1 establishment; Connecticut, 1; Indiana, 2; Massachusetts, 14; Missouri, 1; Ohio, 3; Virginia, 1; Wisconsin, 1.

<sup>2</sup> Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

## SPORTING AND ATHLETIC GOODS, NOT INCLUDING FIREARMS OR AMMUNITION

**Description of the industry.**—This industry embraces establishments engaged primarily in the manufacture of a group of products which are not clearly defined in all respects but which are designated in general as sporting and athletic goods. These comprise not only such specific sporting equipment as that for fishing and hunting (except firearms and ammunition) and for athletic games and sports, such as golf, baseball, football, tennis, skating, etc., but also related commodities such as exercising machines and other gymnasium equipment and shooting-gallery equipment (not including firearms and ammunition). Clothing and footwear made specifically for sporting and athletic purposes, such as hunting coats and boots, bathing suits, sweaters, tennis shoes, leggings, etc., do not come within the scope of this industry classification but are assigned to the clothing industries, the knit-goods industry, the boot and shoe industry, etc.

**TABLE 1.—SUMMARY FOR THE UNITED STATES: 1919 TO 1927**

[Data for establishments with products under \$5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6]

| YEAR OR PERIOD                       | Number of establishments | Wage earners (average for the year) | Wages        | Cost of materials, supplies, fuel, and power | Value of products | Value added by manufacture <sup>1</sup> | Horse-power      |
|--------------------------------------|--------------------------|-------------------------------------|--------------|--|-------------------|---|------------------|
| 1927-----                            | 188                      | 9,689                               | \$11,595,480 | \$19,393,661                                 | \$44,942,778      | \$25,549,117                            | 13,484           |
| 1925-----                            | 181                      | 8,724                               | 10,262,208   | 17,874,604                                   | 42,629,278        | 24,754,674                              | 11,550           |
| 1923-----                            | 170                      | 9,683                               | 10,440,207   | 18,492,511                                   | 41,797,075        | 23,304,564                              | 11,091           |
| 1921-----                            | 152                      | 7,063                               | 7,400,470    | 15,401,261                                   | 31,811,174        | 16,409,913                              | ( <sup>2</sup> ) |
| 1919-----                            | 188                      | 6,412                               | 5,752,963    | 11,969,388                                   | 23,839,991        | 11,870,603                              | 6,780            |
| PER CENT OF INCREASE OR DECREASE (—) |                          |                                     |              |  |                   |   |                  |
| 1925-1927-----                       | 3.9                      | 11.1                                | 13.0         | 8.5  | 5.4               | 3.2                                     | 16.7             |
| 1923-1925-----                       | 6.5                      | -9.9                                | -1.7         | -3.3   | 2.0               | 6.2                                     | 4.1              |
| 1923-1927-----                       | 10.6                     | .1                                  | 11.1         | 4.9  | 7.5               | 9.6                                     | 21.6             |
| 1919-1927-----                       |                          | 51.1                                | 101.6        | 62.0   | 83.5              | 115.2                                   | 98.9             |

<sup>1</sup> Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

<sup>2</sup> Not called for on schedule.

TABLE 2.—PRIME MOVERS, MOTORS, AND GENERATORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1927, 1925, AND 1923

| TYPE  | 1927   |                               | 1925   |                               | 1923   |                               |
|---|--------|-------------------------------|--------|-------------------------------|--------|-------------------------------|
|   | Number | Capacity                      | Number | Capacity                      | Number | Capacity                      |
| Prime movers, total.....                                    | 2, 447 | <i>Horse-power</i><br>13, 484 | 1, 621 | <i>Horse-power</i><br>11, 550 | 1, 273 | <i>Horse-power</i><br>11, 091 |
| Steam engines.....  | 12     | 1, 395                        | 16     | 2, 050                        | 20     | 2, 580                        |
| Steam turbines.....   | 3      | 34                            |        |                               |        |                               |
| Internal-combustion engines.....                            | 7      | 321                           | 8      | 329                           | 8      | 287                           |
| Water wheels and turbines.....                              | 8      | 445                           | 12     | 400                           | 6      | 420                           |
| Electric motors driven by purchased current.....            | 2, 417 | 11, 289                       | 1, 585 | 8, 681                        | 1, 239 | 7, 804                        |
| Electric motors, total.....                                 | 2, 694 | 12, 799                       | 1, 752 | 9, 260                        | 1, 558 | 9, 663                        |
| Driven by purchased current.....                            | 2, 417 | 11, 289                       | 1, 585 | 8, 681                        | 1, 239 | 7, 804                        |
| Driven by current generated in establishment reporting..... | 277    | 1, 510                        | 167    | 579                           | 319    | 1, 859                        |
| Electric generators.....                                    | 2      | <i>Kilowatts</i><br>205       | 7      | <i>Kilowatts</i><br>547       | (1)    | <i>Kilowatts</i><br>(1)       |

<sup>1</sup> Not called for on schedule.

TABLE 3.—PRODUCTS, BY CLASS, AND VALUE, FOR THE UNITED STATES: 1927

[No comparable statistics are available for earlier years]

| CLASS   | Value          | CLASS  | Value          |
|---|----------------|--|----------------|
| 1. "Sporting and athletic goods, not including firearms and ammunition" industry, all products, total value.....                  | \$44, 942, 778 | Sporting and athletic goods, not including firearms and ammunition, all industries:<br>Total value (sum of 2 and 4)..... | \$42, 220, 568 |
| 2. Sporting and athletic goods, not including firearms and ammunition.....  | 30, 516, 476   | Golf goods:<br>Clubs, shafts, bags, tees, etc.....   | 6, 783, 039    |
| 3. Other products (not normally belonging to the industry), and receipts for repair work.....                                     | 5, 426, 302    | Golf balls.....  | 5, 480, 823    |
| 4. Sporting and athletic goods, not including firearms and ammunition, made as secondary products in other industries, value..... | 2, 713, 092    | Tennis balls, rackets, etc.....  | 3, 227, 552    |
|   |                | Fishing apparatus.....   | 7, 563, 276    |
|   |                | Roller and ice skates.....   | 4, 819, 226    |
|   |                | Other sporting goods, except firearms and ammunition.....  | 14, 355, 652   |

TABLE 4.—GENERAL STATISTICS, BY STATES: 1927

[This table presents statistics for all States for which separate figures can be given without disclosing data reported by individual establishments. Certain of the "Other States," however, reported larger values of products than some of the States shown separately]

| STATE                           | Number of establishments | PERSONS ENGAGED IN THE INDUSTRY |                              |                                 |                                     | Horse-power |
|---------------------------------|--------------------------|---------------------------------|------------------------------|---------------------------------|-------------------------------------|-------------|
|                                 |                          | Total                           | Proprietors and firm members | Salaried officers and employees | Wage earners (average for the year) |             |
| United States.....              | 188                      | 11,332                          | 90                           | 1,553                           | 9,689                               | 13,484      |
| California.....                 | 10                       | 107                             | 5                            | 21                              | 81                                  | 46          |
| Colorado.....                   | 5                        | 53                              | 6                            | 5                               | 42                                  | 40          |
| Illinois.....                   | 26                       | 1,315                           | 10                           | 146                             | 1,159                               | 1,613       |
| Indiana.....                    | 5                        | 274                             | 2                            | 51                              | 221                                 | 138         |
| Maine.....                      | 4                        | 88                              | 2                            | 8                               | 78                                  | 249         |
| Massachusetts.....              | 15                       | 2,183                           | 7                            | 214                             | 1,962                               | 4,205       |
| Michigan.....                   | 5                        | 560                             | —                            | 152                             | 408                                 | 436         |
| Minnesota.....                  | 5                        | 131                             | 2                            | 20                              | 109                                 | 243         |
| Missouri.....                   | 8                        | 425                             | 4                            | 76                              | 345                                 | 94          |
| New Jersey.....                 | 10                       | 235                             | 6                            | 64                              | 165                                 | 348         |
| New York.....                   | 41                       | 1,295                           | 26                           | 179                             | 1,090                               | 709         |
| Ohio.....                       | 15                       | 1,549                           | 6                            | 282                             | 1,261                               | 1,799       |
| Oregon.....                     | 3                        | 28                              | 2                            | 3                               | 23                                  | 5           |
| Tennessee.....                  | 4                        | 196                             | —                            | 15                              | 181                                 | 224         |
| Washington.....                 | 6                        | 55                              | 4                            | 15                              | 36                                  | 48          |
| Wisconsin.....                  | 5                        | 273                             | 4                            | 15                              | 254                                 | 80          |
| Other States <sup>1</sup> ..... | 21                       | 2,565                           | 4                            | 287                             | 2,274                               | 3,207       |

| STATE                           | Salaries    | Wages        | Cost of materials, supplies, fuel, and power |                | Value of products | Value added by manufacture <sup>2</sup> |
|---------------------------------|-------------|--------------|--|----------------|-------------------|---|
|                                 |             |              | Materials and supplies                       | Fuel and power |                   |   |
| United States.....              | \$3,516,550 | \$11,595,480 | \$18,886,683                                 | \$506,978      | \$44,942,778      | \$25,549,117                            |
| California.....                 | 44,465      | 94,263       | 184,439                                      | 2,132          | 381,858           | 195,287                                 |
| Colorado.....                   | 6,313       | 37,811       | 14,553                                       | 629            | 90,327            | 75,145                                  |
| Illinois.....                   | 417,253     | 1,644,921    | 2,905,889                                    | 63,160         | 6,987,823         | 4,018,774                               |
| Indiana.....                    | 130,995     | 232,663      | 261,037                                      | 5,582          | 753,405           | 486,786                                 |
| Maine.....                      | 13,554      | 77,799       | 104,372                                      | 3,599          | 236,371           | 128,400                                 |
| Massachusetts.....              | 491,563     | 2,697,788    | 3,822,955                                    | 145,242        | 8,188,547         | 4,220,350                               |
| Michigan.....                   | 250,329     | 484,979      | 460,691                                      | 17,136         | 1,756,648         | 1,278,821                               |
| Minnesota.....                  | 31,900      | 121,832      | 188,054                                      | 3,325          | 497,578           | 306,199                                 |
| Missouri.....                   | 117,606     | 288,602      | 612,969                                      | 8,109          | 1,273,183         | 652,105                                 |
| New Jersey.....                 | 224,179     | 198,762      | 462,835                                      | 13,388         | 1,108,550         | 632,336                                 |
| New York.....                   | 353,483     | 1,200,835    | 1,697,719                                    | 45,842         | 4,263,921         | 2,520,360                               |
| Ohio.....                       | 606,095     | 1,609,032    | 2,736,594                                    | 56,303         | 7,152,469         | 4,359,572                               |
| Oregon.....                     | 4,320       | 16,775       | 12,714                                       | 359            | 49,022            | 35,949                                  |
| Tennessee.....                  | 39,890      | 103,080      | 240,147                                      | 6,619          | 534,466           | 287,700                                 |
| Washington.....                 | 31,950      | 41,608       | 139,500                                      | 2,009          | 309,015           | 167,506                                 |
| Wisconsin.....                  | 42,258      | 182,431      | 202,786                                      | 5,519          | 592,221           | 383,916                                 |
| Other States <sup>1</sup> ..... | 710,397     | 2,562,299    | 4,839,429                                    | 128,025        | 10,767,365        | 5,799,911                               |

<sup>1</sup> Connecticut, 5 establishments; Kentucky, 2; Mississippi, 1; New Hampshire, 1; North Carolina, 1; Pennsylvania, 5; Rhode Island, 3; Texas, 2; Vermont, 1.

<sup>2</sup> Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

## TOBACCO MANUFACTURES

[Preliminary reports for these two tobacco industries were issued under date of March 14, 1929]

The tobacco industries, "Cigars and cigarettes" and "Tobacco, chewing and smoking, and snuff," embrace all establishments engaged primarily in the manufacture of the commodities from which the industries derive their titles.

**Number of establishments.**—The excess in the number of tobacco factories shown in the report of the Commissioner of Internal Revenue over the number shown in the census report is due to the following causes: (1) On the records of the Bureau of Internal Revenue the same establishment may appear two or more times—for example, as a manufacturer of cigars, as a manufacturer of chewing tobacco, and as a manufacturer of cigarettes—while for census purposes such an establishment might make only one report and would be classified according to its product of chief value; (2) a separate report is required by the Bureau of Internal Revenue for each plant or factory, regardless of whether operated under the same or under different ownerships, whereas in compiling the census returns two or more factories operated under the same ownership in the same city, town, or village are treated as a single establishment; (3) every dealer in scrap tobacco is required to register with the Bureau of Internal Revenue, whereas the census statistics do not include data for dealers; (4) all growers of perique tobacco are required by the Bureau of Internal Revenue to register as manufacturers of tobacco, but are not covered by the census of manufactures; (5) a large number of manufacturers registered for taxation purposes reported products valued at less than \$5,000, and therefore were not covered by the census of manufactures.

**Value of products and cost of materials.**—All branches of tobacco manufacture are subject to internal-revenue taxes. Tobacco manufacturers were requested, in preparing returns for the census, to report the total selling value of all products manufactured during the year, including the total internal-revenue taxes paid and due on these products. In reporting the cost of materials, however, they were requested to confine this to the cost of raw tobacco, fuel, power, containers for products, supplies, etc., and to omit the cost of revenue stamps purchased or used in connection with their products. The comparability of the value-of-products figures for different census years has been affected by changes in rates of taxation.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1919 TO 1927

[Data for establishments with products under \$5,000 in value included for 1919 but not for subsequent year  
See sec. 10, p. 6]

| YEAR OR PERIOD                                 | Number of establishments | Wage earners (average for the year) | Wages         | Cost of materials, supplies, containers for products, fuel, and power | Value of products | Value added by manufacture <sup>1</sup> | Horse power      |
|--|--------------------------|-------------------------------------|---------------|---|-------------------|---|------------------|
| <b>THE TOBACCO INDUSTRIES</b>                  |                          |                                     |               |   |                   |   |                  |
| 1927   | 2,116                    | 129,299                             | \$105,250,631 | \$420,666,513   | \$1,163,768,379   | \$743,101,866                           | 52,38            |
| 1925   | 2,613                    | 142,132                             | 111,558,170   | 425,769,266   | 1,091,000,981     | 665,231,715                             | 42,07            |
| 1923   | 3,672                    | 146,337                             | 120,462,233   | 515,864,980   | 1,044,192,405     | 528,327,425                             | 43,51            |
| 1921   | 4,372                    | 119,985                             | 120,603,492   | 608,683,363   | 1,048,489,597     | 439,801,234                             | ( <sup>2</sup> ) |
| 1919   | 10,291                   | 157,097                             | 123,688,084   | 483,567,754   | 1,012,933,213     | 529,365,459                             | 43,39            |
| Per cent of increase or decrease (—):          |                          |                                     |               |   |                   |   |                  |
| 1925-1927                                      | -17.8                    | -2.1                                | -5.7          | -1.2  | 6.7               | 11.7                                    | 24               |
| 1923-1925                                      | -28.6                    | -9.7                                | -7.4          | -17.5   | 4.5               | 25.9                                    | -3               |
| 1923-1927                                      | -41.3                    | -11.6                               | -12.6         | -18.5   | 11.5              | 40.7                                    | 20               |
| 1919-1927                                      | -79.0                    | -17.7                               | -15.1         | -13.0   | 14.9              | 40.4                                    | 20               |
| <b>CIGARS AND CIGARETTES</b>                   |                          |                                     |               |   |                   |   |                  |
| 1927   | 1,997                    | 116,174                             | \$94,589,211  | \$335,356,075   | \$965,523,702     | \$630,167,627                           | 35,81            |
| 1925   | 2,445                    | 117,108                             | 99,373,421    | 331,350,626   | 874,814,564       | 543,463,938                             | 24,53            |
| 1923   | 3,466                    | 130,016                             | 107,723,504   | 369,491,203   | 821,226,810       | 451,735,616                             | 24,89            |
| 1921   | 4,146                    | 133,367                             | 108,161,040   | 452,211,828   | 806,748,865       | 354,537,037                             | ( <sup>2</sup> ) |
| 1919   | 9,926                    | 138,773                             | 111,313,348   | 353,297,366   | 773,662,495       | 420,365,129                             | 24,49            |
| Per cent of increase or decrease (—):          |                          |                                     |               |   |                   |   |                  |
| 1925-1927                                      | -13.3                    | -0.1                                | -4.8          | 1.2   | 10.4              | 16.0                                    | 46.4             |
| 1923-1925                                      | -29.5                    | -9.0                                | -7.8          | -10.3   | 6.5               | 20.3                                    | -1.1             |
| 1923-1927                                      | -42.4                    | -9.7                                | -12.2         | -9.2  | 17.6              | 39.5                                    | 43.1             |
| 1919-1927                                      | -79.9                    | -11.3                               | -15.0         | -5.1  | 24.8              | 49.9                                    | 46.1             |
| <b>TOBACCO, CHEWING AND SMOKING, AND SNUFF</b> |                          |                                     |               |   |                   |   |                  |
| 1927   | 159                      | 13,125                              | \$10,661,420  | \$85,310,438  | \$198,244,677     | \$112,934,239                           | 16,566           |
| 1925   | 178                      | 15,004                              | 12,184,749    | 94,418,640  | 216,186,417       | 121,767,777                             | 17,643           |
| 1923   | 206                      | 16,301                              | 12,738,729    | 146,373,777   | 222,965,586       | 76,591,809                              | 18,621           |
| 1921   | 226                      | 16,628                              | 12,742,452    | 156,476,535   | 241,740,732       | 85,264,197                              | ( <sup>2</sup> ) |
| 1919   | 365                      | 18,324                              | 12,674,736    | 130,270,358   | 239,270,718       | 109,000,330                             | 18,892           |
| Per cent of increase or decrease (—):          |                          |                                     |               |   |                   |   |                  |
| 1925-1927                                      | -10.7                    | -12.6                               | -12.5         | -9.6  | -8.3              | -7.3                                    | -5.6             |
| 1923-1925                                      | -13.6                    | -7.8                                | -4.3          | -35.5   | -3.0              | 59.0                                    | -5.5             |
| 1923-1927                                      | -22.8                    | -19.5                               | -16.3         | -41.7   | -11.1             | 47.4                                    | -11.0            |
| 1919-1927                                      | -56.4                    | -28.4                               | -15.9         | -34.5   | -17.1             | 3.6                                     | -12.3            |

<sup>1</sup> Value of products less cost of materials, supplies, containers for products, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

<sup>2</sup> Not called for on schedule.

TABLE 2.—PRIME MOVERS, MOTORS, AND GENERATORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1927, 1925, AND 1923

| TYPE  | 1927   |                             | 1925   |                             | 1923             |                                      |
|---|--------|-----------------------------|--------|-----------------------------|------------------|--------------------------------------|
|   | Number | Capacity                    | Number | Capacity                    | Number           | Capacity                             |
| <b>THE TOBACCO INDUSTRIES</b>                               |        |                             |        |                             |                  |                                      |
| Prime movers, total.....                                    | 11,398 | <i>Horsepower</i><br>52,385 | 6,312  | <i>Horsepower</i><br>42,075 | 5,275            | <i>Horsepower</i><br>43,515          |
| Steam engines.....  | 127    | 18,690                      | 142    | 21,038                      | } 205            | 27,167                               |
| Steam turbines.....   | 8      | 6,401                       | 12     | 4,100                       |                  |                                      |
| Internal-combustion engines.....                            | 15     | 1,440                       | 11     | 73                          | 23               | 417                                  |
| Water wheels and turbines.....                              | 9      | 272                         | 6      | 207                         | -----            |                                      |
| Electric motors driven by purchased current.....            | 11,230 | 25,582                      | 6,141  | 16,657                      | 5,047            | 15,931                               |
| Electric motors, total.....                                 | 14,555 | 41,292                      | 9,303  | 31,631                      | 8,451            | 31,185                               |
| Driven by purchased current.....                            | 11,230 | 25,582                      | 6,141  | 16,657                      | 5,047            | 15,931                               |
| Driven by current generated in establishment reporting..... | 3,316  | 15,710                      | 3,162  | 14,974                      | 3,404            | 15,254                               |
| Electric generators.....                                    | 71     | <i>Kilowatts</i><br>15,799  | 85     | <i>Kilowatts</i><br>14,978  | ( <sup>1</sup> ) | <i>Kilowatts</i><br>( <sup>1</sup> ) |
| <b>CIGARS AND CIGARETTES</b>                                |        |                             |        |                             |                  |                                      |
| Prime movers, total.....                                    | 10,511 | <i>Horsepower</i><br>35,819 | 5,651  | <i>Horsepower</i><br>24,534 | 4,616            | <i>Horsepower</i><br>24,894          |
| Steam engines.....  | 27     | 7,887                       | 33     | 8,845                       | } 69             | 13,067                               |
| Steam turbines.....   | 8      | 6,401                       | 6      | 3,296                       |                  |                                      |
| Internal-combustion engines.....                            | 9      | 1,399                       | 7      | 55                          | 9                | 34                                   |
| Water wheels and turbines.....                              | 2      | 2                           | -----  |                             | -----            |                                      |
| Electric motors driven by purchased current.....            | 10,465 | 20,130                      | 5,605  | 12,338                      | 4,538            | 11,793                               |
| Electric motors, total.....                                 | 12,813 | 29,270                      | 7,913  | 20,901                      | 7,031            | 20,285                               |
| Driven by purchased current.....                            | 10,465 | 20,130                      | 5,605  | 12,338                      | 4,538            | 11,793                               |
| Driven by current generated in establishment reporting..... | 2,348  | 9,140                       | 2,308  | 8,563                       | 2,493            | 8,492                                |
| Electric generators.....                                    | 30     | <i>Kilowatts</i><br>10,960  | 33     | <i>Kilowatts</i><br>8,165   | ( <sup>1</sup> ) | <i>Kilowatts</i><br>( <sup>1</sup> ) |
| <b>TOBACCO, CHEWING AND SMOKING, AND SNUFF</b>              |        |                             |        |                             |                  |                                      |
| Prime movers, total.....                                    | 887    | <i>Horsepower</i><br>16,566 | 661    | <i>Horsepower</i><br>17,541 | 659              | <i>Horsepower</i><br>18,621          |
| Steam engines.....  | 100    | 10,803                      | 109    | 12,193                      | } 136            | 14,100                               |
| Steam turbines.....   | 6      | 41                          | 6      | 804                         |                  |                                      |
| Internal-combustion engines.....                            | 6      | 270                         | 4      | 18                          | 14               | 383                                  |
| Water wheels and turbines.....                              | 7      | 270                         | 6      | 207                         | -----            |                                      |
| Electric motors driven by purchased current.....            | 774    | 5,452                       | 536    | 4,319                       | 509              | 4,138                                |
| Electric motors, total.....                                 | 1,742  | 12,022                      | 1,390  | 10,730                      | 1,420            | 10,900                               |
| Driven by purchased current.....                            | 774    | 5,452                       | 536    | 4,319                       | 509              | 4,138                                |
| Driven by current generated in establishment reporting..... | 968    | 6,570                       | 854    | 6,411                       | 911              | 6,762                                |
| Electric generators.....                                    | 41     | <i>Kilowatts</i><br>4,839   | 52     | <i>Kilowatts</i><br>6,813   | ( <sup>1</sup> ) | <i>Kilowatts</i><br>( <sup>1</sup> ) |

<sup>1</sup> Not called for on schedule.

TABLE 3.—PRODUCTS—FOR THE TOBACCO INDUSTRIES AS A GROUP AND FOR EACH INDUSTRY SEPARATELY: 1927

|  | 1927            |
|--|-----------------|
| Tobacco industries, all products, aggregate value.....                           | \$1,163,768,379 |
| Cigars, total.....   | 336,080,516     |
| Cigarettes, total.....   | 557,715,047     |
| Chewing and smoking tobacco, total.....  | 238,508,515     |
| Snuff, total.....  | 29,150,915      |
| All other products, total.....   | 2,313,387       |
| Cigars and cigarettes industry, all products, total value.....                   | 965,523,702     |
| Cigars.....  | 336,026,301     |
| Cigarettes.....  | 551,870,928     |
| Chewing and smoking tobacco.....   | 75,361,417      |
| All other products.....  | 2,265,056       |
| Tobacco, chewing and smoking, and snuff industry, all products, total value..... | 198,244,677     |
| Cigars.....  | 54,214          |
| Cigarettes.....  | 5,844,119       |
| Chewing and smoking tobacco.....   | 163,147,098     |
| Snuff.....   | 29,150,915      |
| All other products.....  | 48,331          |

TABLE 4.—TOBACCO PRODUCTS—FOR THE TOBACCO INDUSTRIES AS A GROUP—BY KIND AND VALUE, BY STATES: 1927

[This table presents statistics for all States for which separate figures can be given without disclosing the output of individual establishments. In the cases of some of the products, however, certain of the "Other States" reported larger values of products than some of the States shown separately.]

| KIND                | Number of establishments <sup>1</sup> | Value         | KIND                                    | Number of establishments <sup>1</sup> | Value       |
|---------------------|---------------------------------------|---------------|---|---------------------------------------|-------------|
| Cigars, total.....  | 1,968                                 | \$336,080,515 | Cigars—Continued.....                   |                                       |             |
| Alabama.....        | 6                                     | 89,821        | Tennessee.....                          | 12                                    | \$4,369,327 |
| California.....     | 46                                    | 3,196,934     | Washington.....                         | 4                                     | 68,380      |
| Colorado.....       | 6                                     | 287,412       | Wisconsin.....                          | 121                                   | 2,423,789   |
| Connecticut.....    | 37                                    | 2,256,355     | Other States <sup>2</sup> .....         | 43                                    | 17,858,765  |
| Delaware.....       | 3                                     | 2,664,960     | Cigarettes, total.....                  | 67                                    | 557,715,047 |
| Florida.....        | 86                                    | 39,656,156    | North Carolina.....                     | 6                                     | 326,438,332 |
| Georgia.....        | 20                                    | 868,609       | Other States <sup>3</sup> .....         | 61                                    | 231,276,715 |
| Illinois.....       | 189                                   | 4,319,299     | Chewing and smoking tobacco, total..... | 411                                   | 238,508,515 |
| Indiana.....        | 40                                    | 9,244,860     | California.....                         | 5                                     | 54,886      |
| Iowa.....           | 29                                    | 985,775       | Indiana.....                            | 19                                    | 198,268     |
| Kansas.....         | 10                                    | 185,289       | Iowa.....                               | 16                                    | 121,015     |
| Kentucky.....       | 18                                    | 3,848,863     | Kansas.....                             | 3                                     | 6,127       |
| Louisiana.....      | 15                                    | 4,081,264     | Kentucky.....                           | 23                                    | 20,995,252  |
| Maine.....          | 11                                    | 471,601       | Massachusetts.....                      | 5                                     | 33,210      |
| Maryland.....       | 26                                    | 6,226,659     | Minnesota.....                          | 14                                    | 39,541      |
| Massachusetts.....  | 52                                    | 6,774,395     | Montana.....                            | 3                                     | 982         |
| Michigan.....       | 55                                    | 15,918,932    | Nebraska.....                           | 5                                     | 4,688       |
| Minnesota.....      | 31                                    | 1,104,982     | New Jersey.....                         | 5                                     | 270,625     |
| Missouri.....       | 38                                    | 1,207,852     | New York.....                           | 75                                    | 5,000,834   |
| Montana.....        | 5                                     | 74,574        | North Carolina.....                     | 8                                     | 84,982,032  |
| Nebraska.....       | 14                                    | 504,962       | Pennsylvania.....                       | 53                                    | 4,454,784   |
| New Jersey.....     | 68                                    | 58,873,397    | South Dakota.....                       | 5                                     | 3,004       |
| New York.....       | 378                                   | 28,137,200    | Virginia.....                           | 10                                    | 18,134,864  |
| North Carolina..... | 11                                    | 1,203,986     | Other States <sup>4</sup> .....         | 162                                   | 104,208,403 |
| Ohio.....           | 112                                   | 18,024,640    | Snuff <sup>5</sup> .....                | 17                                    | 29,150,915  |
| Oklahoma.....       | 3                                     | 42,903        |   |                                       |             |
| Oregon.....         | 3                                     | 52,880        |   |                                       |             |
| Pennsylvania.....   | 460                                   | 99,824,674    |   |                                       |             |
| Rhode Island.....   | 8                                     | 459,331       |   |                                       |             |
| South Dakota.....   | 8                                     | 150,680       |   |                                       |             |

<sup>1</sup> The difference between the sum of the numbers of establishments manufacturing the individual commodities given in this table and the total number of establishments given in other tables of this report, is due to the fact that some of the establishments made more than one of the commodities.

<sup>2</sup> Arkansas, Idaho, New Hampshire, South Carolina, Texas, Utah, Vermont, Virginia, West Virginia, and Wyoming.

<sup>3</sup> California, Florida, Illinois, Indiana, Kentucky, Louisiana, Massachusetts, Michigan, Missouri, New Jersey, New York, Ohio, Pennsylvania, Virginia, West Virginia, and Wisconsin.

<sup>4</sup> Alabama, Arkansas, Colorado, Connecticut, Florida, Illinois, Louisiana, Maryland, Michigan, Missouri, Ohio, Oregon, South Carolina, Tennessee, Texas, Utah, West Virginia, and Wisconsin.

<sup>5</sup> Statistics for States can not be shown without disclosing the output of individual establishments.

TABLE 5.—CIGARS AND CIGARETTES—GENERAL STATISTICS, BY STATES: 1927

[This table presents statistics for all States for which separate figures can be given without disclosing data reported by individual establishments. Certain of the "Other States," however, reported larger values of products than some of the States shown separately]

| STATE               | Number of establishments | PERSONS ENGAGED IN THE INDUSTRY |                              |                                 |                                     | Horse-power  | Salaries     | Wages         | Cost of materials, supplies, containers for products, fuel, and power | Value of products                                |                | Value added by manufacture <sup>1</sup> |
|---------------------|--------------------------|---------------------------------|------------------------------|---------------------------------|-------------------------------------|--------------|--------------|---------------|---|--|----------------|---|
|                     |                          | Total                           | Proprietors and firm members | Salaried officers and employees | Wage earners (average for the year) |              |              |               |   | Materials, supplies, and containers for products | Fuel and power |   |
|                     |                          |                                 |                              |                                 |                                     |              |              |               |   |  |                |   |
| United States.....  | 1,997                    | 123,345                         | 1,882                        | 10,289                          | 116,174                             | \$19,800,453 | \$94,589,211 | \$333,756,355 | \$1,599,720   | \$965,523,702                                    | \$630,167,627  |   |
| Alabama.....        | 6                        | 45                              | 6                            | 1                               | 38                                  | 4,200        | 28,147       | 31,236        | 55  | 68,872   | 62,883         |   |
| Colorado.....       | 6                        | 102                             | 6                            | 12                              | 84                                  | 11,000       | 51,670       | 96,207        | 23  | 292,739  | 196,303        |   |
| Connecticut.....    | 37                       | 732                             | 38                           | 67                              | 647                                 | 148,670      | 768,099      | 836,327       | 7,043   | 2,264,111  | 1,421,241      |   |
| Delaware.....       | 3                        | 609                             | 18                           | 41                              | 581                                 | 41,126       | 224,984      | 1,234,717     | 16,074  | 2,694,225  | 1,355,432      |   |
| Florida.....        | 87                       | 12,106                          | 66                           | 876                             | 11,164                              | 1,653,378    | 12,323,239   | 14,821,071    | 39,764  | 39,817,657                                       | 24,866,822     |   |
| Georgia.....        | 20                       | 704                             | 19                           | 8                               | 677                                 | 10,951       | 257,965      | 431,912       | 671   | 888,609  | 438,026        |   |
| Illinois.....       | 189                      | 1,523                           | 211                          | 144                             | 1,173                               | 266,552      | 1,301,023    | 1,793,636     | 13,102  | 4,449,812  | 2,733,074      |   |
| Indiana.....        | 40                       | 3,605                           | 34                           | 127                             | 3,445                               | 390,989      | 2,070,467    | 4,595,630     | 20,691  | 9,427,978  | 4,901,657      |   |
| Iowa.....           | 27                       | 483                             | 27                           | 22                              | 457                                 | 74,443       | 294,835      | 420,963       | 1,313   | 1,026,747  | 600,955        |   |
| Kansas.....         | 10                       | 101                             | 9                            | 6                               | 86                                  | 19,116       | 45,262       | 90,153        | 4,313   | 1,196,550  | 104,084        |   |
| Kentucky.....       | 19                       | 2,079                           | 14                           | 132                             | 1,933                               | 173,474      | 980,351      | 2,093,750     | 15,920  | 8,886,409  | 5,876,739      |   |
| Louisiana.....      | 15                       | 1,544                           | 9                            | 8                               | 1,440                               | 143,341      | 1,040,527    | 2,048,554     | 8,784   | 4,150,673  | 2,027,635      |   |
| Maine.....          | 1                        | 120                             | 12                           | 6                               | 108                                 | 10,099       | 144,563      | 213,451       | 1,268   | 4,473,891  | 2,355,142      |   |
| Maryland.....       | 20                       | 1,736                           | 31                           | 122                             | 1,583                               | 189,798      | 1,333,164    | 2,830,285     | 19,831  | 6,282,620  | 3,431,904      |   |
| Massachusetts.....  | 53                       | 1,781                           | 44                           | 118                             | 1,619                               | 327,980      | 1,896,292    | 3,050,073     | 13,572  | 6,912,319  | 3,848,674      |   |
| Michigan.....       | 55                       | 4,580                           | 46                           | 209                             | 4,325                               | 529,676      | 3,200,549    | 8,746,919     | 60,544  | 16,038,444                                       | 7,290,981      |   |
| Minnesota.....      | 31                       | 443                             | 34                           | 378                             | 45                                  | 45,233       | 231,110      | 458,826       | 4,560   | 1,190,740  | 663,954        |   |
| Missouri.....       | 38                       | 542                             | 35                           | 65                              | 442                                 | 136,000      | 583,734      | 447,318       | 3,689   | 1,314,255  | 763,243        |   |
| Montana.....        | 5                        | 28                              | 5                            | 1                               | 22                                  | 2,000        | 34,017       | 34,723        | 4   | 73,780   | 40,053         |   |
| Nebraska.....       | 14                       | 256                             | 14                           | 23                              | 219                                 | 40,012       | 140,198      | 249,988       | 2,223   | 569,660  | 257,431        |   |
| New Jersey.....     | 67                       | 11,147                          | 43                           | 788                             | 10,310                              | 1,443,076    | 8,157,087    | 23,994,714    | 187,819   | 59,581,620                                       | 35,489,087     |   |
| New York.....       | 398                      | 10,765                          | 430                          | 788                             | 9,537                               | 1,721,633    | 9,768,715    | 32,030,678    | 100,619   | 68,207,526                                       | 31,073,973     |   |
| North Carolina..... | 14                       | 18,190                          | 8                            | 4,101                           | 14,081                              | 7,643,686    | 11,582,743   | 17,212,338    | 340,875   | 892,060,130                                      | 274,484,963    |   |
| Ohio.....           | 112                      | 7,735                           | 99                           | 274                             | 7,362                               | 834,328      | 4,647,562    | 8,782,200     | 67,789  | 18,885,334                                       | 10,035,846     |   |

<sup>1</sup> See footnotes at end of table.

TABLE 5.—CIGARS AND CIGARETTES—GENERAL STATISTICS, BY STATES: 1927—Continued  
 [This table presents statistics for all States for which separate figures can be given without disclosing data reported by individual establishments. Certain of the "Other States," however, reported larger values of products than some of the States shown separately]

| STATE                     | Number of establishments | PERSONS ENGAGED IN THE INDUSTRY |                              |                                 |                                     | Horse-power | Salaries   | Wages      | Cost of materials, supplies, containers for products, fuel, and power |                | Value of products | Value added by manufacture <sup>1</sup> |
|---------------------------|--------------------------|---------------------------------|------------------------------|---------------------------------|-------------------------------------|-------------|------------|------------|---|----------------|-------------------|---|
|                           |                          | Total                           | Proprietors and firm members | Salaried officers and employees | Wage earners (average for the year) |             |            |            | Materials, supplies, and containers for products                      | Fuel and power |                   |   |
|                           |                          |                                 |                              |                                 |                                     |             |            |            |   |                |                   |   |
| Oklahoma                  | 3                        | 27                              | 3                            | 1                               | 23                                  | \$720       | \$11,500   | \$19,690   | \$300   | \$42,903       | \$22,913          |   |
| Oregon                    | 3                        | 30                              | 6                            | 6                               | 18                                  | 6,369       | 13,394     | 24,882     | 112   | 53,030         | 23,036            |   |
| Pennsylvania              | 460                      | 31,803                          | 379                          | 1,396                           | 30,028                              | 2,709,428   | 22,575,074 | 50,247,532 | 391,580   | 124,324,967    | 73,685,835        |   |
| South Dakota              | 8                        | 67                              | 6                            | 10                              | 51                                  | 13,200      | 37,432     | 60,762     | 787   | 153,956        | 92,407            |   |
| Virginia                  | 15                       | 6,998                           | 19                           | 217                             | 6,762                               | 567,568     | 4,812,071  | 41,515,432 | 103,072   | 126,888,241    | 85,209,717        |   |
| Washington                | 4                        | 23                              | 3                            | 3                               | 19                                  | 6,186       | 18,682     | 28,270     | 155   | 68,380         | 39,955            |   |
| Wisconsin                 | 119                      | 910                             | 124                          | 56                              | 730                                 | 115,616     | 690,814    | 1,003,332  | 10,083  | 2,439,537      | 1,426,062         |   |
| Other States <sup>2</sup> | 102                      | 7,483                           | 103                          | 536                             | 6,844                               | 961,341     | 5,194,365  | 13,483,576 | 42,158  | 40,958,334     | 27,432,600        |   |

<sup>1</sup> Value of products less cost of materials, supplies, containers for products, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

<sup>2</sup> Arkansas, 1 establishment; California, 49; Idaho, 2; New Hampshire, 4; Rhode Island, 8; South Carolina, 4; Tennessee, 12; Texas, 3; Utah, 3; Vermont, 1; West Virginia, 13; Wyoming, 2.

TABLE 6.—TOBACCO, CHEWING AND SMOKING, AND SNUFF—GENERAL STATISTICS, BY STATES: 1927

[This table presents statistics for all States for which separate figures can be given without disclosing data reported by individual establishments. Certain of the "Other States," however, reported larger values of products than some of the States shown separately]

| STATE                           | Number of establishments | PERSONS ENGAGED IN THE INDUSTRY |                              |                                 |                                     | Horse-power | Salaries     | Wages        | Cost of materials, supplies, containers for products, fuel, and power |                | Value of products | Value added by manufacture <sup>1</sup> |
|---------------------------------|--------------------------|---------------------------------|------------------------------|---------------------------------|-------------------------------------|-------------|--------------|--------------|---|----------------|-------------------|---|
|                                 |                          | Total                           | Proprietors and firm members | Salaried officers and employees | Wage earners (average for the year) |             |              |              | Materials, supplies, and containers for products                      | Fuel and power |                   |   |
|                                 |                          |                                 |                              |                                 |                                     |             |              |              |   |                |                   |   |
| United States.....              | 159                      | 14,543                          | 1,314                        | 13,125                          | 16,566                              | \$3,520,768 | \$10,661,420 | \$84,667,510 | \$642,928   | \$108,244,677  | \$112,934,239     |   |
| Indiana.....                    | 8                        | 44                              | 4                            | 30                              | 22                                  | 7,608       | 21,801       | 75,877       | 732   | 177,231        | 100,022           |   |
| Iowa.....                       | 3                        | 15                              | 2                            | 10                              | 6                                   | 3,820       | 8,084        | 38,125       | 426   | 85,954         | 47,403            |   |
| Kentucky.....                   | 19                       | 2,133                           | 171                          | 1,955                           | 2,040                               | 305,224     | 1,369,318    | 7,808,627    | 75,369  | 20,047,231     | 12,163,235        |   |
| New York.....                   | 18                       | 166                             | 27                           | 125                             | 147                                 | 59,194      | 119,676      | 573,971      | 8,347   | 1,377,579      | 793,261           |   |
| Pennsylvania.....               | 28                       | 477                             | 69                           | 376                             | 995                                 | 219,135     | 347,233      | 2,237,983    | 22,748  | 4,377,043      | 2,116,302         |   |
| Tennessee.....                  | 10                       | 1,068                           | 55                           | 978                             | 2,084                               | 286,991     | 726,543      | 9,163,440    | 55,106  | 16,207,652     | 2,083,346         |   |
| Virginia.....                   | 7                        | 1,993                           | 162                          | 1,831                           | 1,399                               | 783,020     | 1,115,286    | 9,197,497    | 61,616  | 17,978,456     | 8,714,343         |   |
| Other States <sup>2</sup> ..... | 66                       | 8,652                           | 794                          | 7,820                           | 9,873                               | 1,915,776   | 6,953,379    | 55,569,980   | 418,584   | 137,993,631    | 82,004,067        |   |

<sup>1</sup> Value of products less cost of materials, supplies, containers for products, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)  
<sup>2</sup> California, 1 establishment; Connecticut, 1; Delaware, 1; Illinois, 9; Louisiana, 1; Massachusetts, 4; Michigan, 2; Minnesota, 1; Missouri, 6; New Jersey, 3; North Carolina, 6; Ohio, 25; Texas, 1; West Virginia, 1; Wisconsin, 4.

## TOYS (NOT INCLUDING CHILDREN'S WHEEL GOODS OR SLEDS), GAMES, AND PLAYGROUND EQUIPMENT

[A preliminary report for this industry was issued under date of October 26, 1928]

**Description of the industry.**—This industry embraces establishments engaged in the manufacture of apparatus for games; both for adults and for children, except that classified under "Sporting and athletic goods, not including firearms and ammunition," and ordinary playing cards; playground equipment and lawn swings; toys of all kinds, such as dolls, doll parts, and doll clothes; toy furniture and utensils; mechanical toys and toy building blocks; toy drums; hobbyhorses and rockinghorses; kites; conjuring apparatus, tricks, and puzzles; masks; marbles; educational boards; toy pistols, air rifles, etc.

**Comparability of statistics for earlier years.**—At the censuses for 1925 and earlier years, establishments engaged primarily in manufacturing rubber toy balloons and other rubber toys were classified in the "Toys, games, and playground equipment" industry, but at the census for 1927 such establishments were classified in the "Rubber goods, not elsewhere classified" industry. The statistics for 1925 shown in Table 1, below, have been adjusted accordingly, but the statistics for earlier years could not be adjusted because separate data for establishments engaged in manufacturing toy balloons are not available for those years.

TABLE 1.—SUMMARY FOR THE UNITED STATES: 1919 TO 1927

[Data for establishments with products under \$5,000 in value included for 1919 but not for subsequent years. See sec. 10, p. 6]

| YEAR OR PERIOD                       | Number of establishments | Wage earners (average for the year) | Wages          | Cost of materials, supplies, fuel, and power | Value of products | Value added by manufacture <sup>1</sup> | Horse-power |
|--------------------------------------|--------------------------|-------------------------------------|----------------|--|-------------------|---|-------------|
| 1927-----                            | 397                      | 14, 738                             | \$15, 543, 383 | \$25, 805, 418                               | \$63, 955, 706    | \$38, 150, 288                          | 19, 028     |
| 1925 <sup>2</sup> -----              | 352                      | 13, 557                             | 13, 785, 048   | 22, 179, 472                                 | 55, 753, 760      | 33, 554, 294                            | 19, 038     |
| 1923-----                            | 411                      | 14, 484                             | 13, 900, 548   | 23, 829, 329                                 | 56, 066, 432      | 32, 237, 103                            | 16, 111     |
| 1921-----                            | 362                      | 9, 443                              | 8, 953, 034    | 14, 568, 517                                 | 35, 491, 345      | 20, 922, 828                            | (3)         |
| 1919-----                            | 541                      | 14, 201                             | 11, 847, 277   | 19, 841, 498                                 | 45, 656, 803      | 25, 815, 305                            | 14, 423     |
| PER CENT OF INCREASE OR DECREASE (—) |                          |                                     |                |  |                   |   |             |
| 1925-1927-----                       | 12.8                     | 8.7                                 | 12.8           | 16.3   | 14.8              | 13.7                                    | 0.1         |
| 1923-1925-----                       | -14.4                    | -6.4                                | -8             | -6.9   | -6                | 4.1                                     | 18.2        |
| 1923-1927-----                       | -3.4                     | 1.8                                 | 11.8           | 8.3  | 14.1              | 18.3                                    | 18.1        |
| 1919-1927-----                       | -26.6                    | 3.8                                 | 31.2           | 30.1   | 40.1              | 47.8                                    | 31.9        |

<sup>1</sup> Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 10.)

<sup>2</sup> Revised. See "Comparability of statistics for earlier years," above.

<sup>3</sup> Not called for on schedule.

TABLE 2.—PRIME MOVERS, MOTORS, AND GENERATORS, BY TYPE, NUMBER, AND RATED CAPACITY, FOR THE UNITED STATES: 1927, 1925, AND 1923

| TYPE  | 1927   |                       | 1925   |                       | 1923   |                       |
|---|--------|-----------------------|--------|-----------------------|--------|-----------------------|
|   | Number | Capacity              | Number | Capacity              | Number | Capacity              |
| Prime movers, total.....                                    | 3,241  | Horse-power<br>19,028 | 2,946  | Horse-power<br>19,038 | 2,371  | Horse-power<br>16,111 |
| Steam engines.....  | 33     | 5,158                 | 40     | 5,315                 | 44     | 3,995                 |
| Steam turbines.....   | 1      | 25                    | 1      | 25                    |        |                       |
| Internal-combustion engines.....                            | 12     | 715                   | 15     | 308                   |        |                       |
| Water wheels and turbines.....                              | 11     | 632                   | 19     | 1,123                 | 12     | 224                   |
| Electric motors driven by purchased current.....            | 3,184  | 12,498                | 2,871  | 12,267                | 2,303  | 11,328                |
| Electric motors, total.....                                 | 3,712  | 14,800                | 3,154  | 13,770                | 2,567  | 13,130                |
| Driven by purchased current.....                            | 3,184  | 12,498                | 2,871  | 12,267                | 2,303  | 11,328                |
| Driven by current generated in establishment reporting..... | 528    | 2,302                 | 283    | 1,503                 | 264    | 1,802                 |
| Electric generators.....                                    | 13     | Kilowatts<br>1,314    | 16     | Kilowatts<br>1,592    | (1)    | Kilowatts<br>(1)      |

1 Not called for on schedule.

TABLE 3.—GENERAL STATISTICS, BY STATES: 1927

[This table presents statistics for all States for which separate figures can be given without disclosing data reported by individual establishments. Certain of the "Other States," however, reported larger values of products than some of the States shown separately.]

| STATE               | Number of establishments | PERSONS ENGAGED IN THE INDUSTRY |                              |                                 |                                     | Horse-power |
|---------------------|--------------------------|---------------------------------|------------------------------|---------------------------------|-------------------------------------|-------------|
|                     |                          | Total                           | Proprietors and firm members | Salaried officers and employees | Wage earners (average for the year) |             |
| United States.....  | 397                      | 17,020                          | 222                          | 2,060                           | 14,738                              | 19,028      |
| California.....     | 8                        | 90                              | 9                            | 14                              | 67                                  | 123         |
| Colorado.....       | 3                        | 12                              | 1                            | 3                               | 8                                   | 3           |
| Connecticut.....    | 14                       | 1,091                           | 6                            | 128                             | 967                                 | 455         |
| Illinois.....       | 27                       | 1,483                           | 20                           | 219                             | 1,244                               | 1,463       |
| Indiana.....        | 8                        | 474                             | 2                            | 31                              | 441                                 | 1,148       |
| Iowa.....           | 3                        | 80                              | -----                        | 11                              | 69                                  | 118         |
| Kansas.....         | 3                        | 51                              | 2                            | 8                               | 41                                  | 72          |
| Maine.....          | 4                        | 373                             | -----                        | 34                              | 344                                 | 1,500       |
| Maryland.....       | 7                        | 205                             | 3                            | 28                              | 174                                 | 130         |
| Massachusetts.....  | 27                       | 2,061                           | 12                           | 288                             | 1,761                               | 2,975       |
| Michigan.....       | 12                       | 609                             | 6                            | 96                              | 507                                 | 1,463       |
| New Hampshire.....  | 6                        | 181                             | 5                            | 13                              | 163                                 | 367         |
| New Jersey.....     | 23                       | 1,503                           | 11                           | 186                             | 1,306                               | 1,555       |
| New York.....       | 140                      | 4,295                           | 86                           | 576                             | 3,633                               | 2,297       |
| Ohio.....           | 38                       | 1,411                           | 14                           | 175                             | 1,222                               | 1,539       |
| Pennsylvania.....   | 34                       | 1,754                           | 23                           | 144                             | 1,587                               | 1,941       |
| Vermont.....        | 5                        | 334                             | 3                            | 17                              | 314                                 | 1,283       |
| Washington.....     | 4                        | 33                              | 5                            | 2                               | 26                                  | 43          |
| Wisconsin.....      | 9                        | 159                             | 4                            | 32                              | 123                                 | 240         |
| Other States 1..... | 16                       | 816                             | 10                           | 55                              | 751                                 | 233         |

See footnotes at end of table.

TABLE 3.—GENERAL STATISTICS, BY STATES: 1927—Continued  
 [See note at head of this table p. 1235]

| STATE                           | Salaries    | Wages        | Cost of materials, supplies, fuel, and power |                | Value of products | Value added manu-<br>ture |
|---------------------------------|-------------|--------------|--|----------------|-------------------|---------------------------|
|                                 |             |              | Materials and supplies                       | Fuel and power |                   |                           |
| United States.....              | \$5,307,402 | \$15,543,383 | \$25,176,552                                 | \$628,866      | \$63,955,706      | \$38,150                  |
| California.....                 | 28,921      | 70,983       | 106,770                                      | 2,492          | 328,761           | 219                       |
| Colorado.....                   | 2,815       | 7,952        | 12,320                                       | 906            | 28,383            | 15                        |
| Connecticut.....                | 330,492     | 971,841      | 1,250,491                                    | 43,341         | 3,824,745         | 2,530                     |
| Illinois.....                   | 549,918     | 1,340,122    | 1,789,133                                    | 52,075         | 5,456,317         | 3,615                     |
| Indiana.....                    | 81,168      | 440,170      | 817,705                                      | 15,587         | 1,658,884         | 825                       |
| Iowa.....                       | 22,060      | 57,105       | 112,819                                      | 2,889          | 262,435           | 146                       |
| Kansas.....                     | 15,945      | 34,075       | 39,295                                       | 1,559          | 117,826           | 76                        |
| Maine.....                      | 108,310     | 299,154      | 372,061                                      | 11,500         | 1,090,424         | 706                       |
| Maryland.....                   | 73,457      | 148,541      | 326,892                                      | 6,490          | 749,381           | 415                       |
| Massachusetts.....              | 590,180     | 1,739,977    | 2,866,739                                    | 57,291         | 7,717,832         | 4,793                     |
| Michigan.....                   | 234,182     | 618,353      | 891,463                                      | 34,489         | 2,315,071         | 1,389                     |
| New Hampshire.....              | 30,090      | 148,154      | 171,742                                      | 6,115          | 567,840           | 389                       |
| New Jersey.....                 | 590,352     | 1,365,808    | 1,757,996                                    | 43,916         | 5,239,365         | 3,437                     |
| New York.....                   | 1,452,987   | 4,709,521    | 9,629,314                                    | 184,159        | 20,753,082        | 10,939                    |
| Ohio.....                       | 566,964     | 1,157,234    | 1,634,277                                    | 59,220         | 4,860,747         | 3,167                     |
| Pennsylvania.....               | 364,673     | 1,471,171    | 2,225,171                                    | 62,086         | 5,839,398         | 3,552                     |
| Vermont.....                    | 32,903      | 329,479      | 207,194                                      | 20,805         | 692,176           | 464                       |
| Washington.....                 | 3,300       | 16,315       | 26,519                                       | 368            | 55,521            | 28                        |
| Wisconsin.....                  | 71,426      | 118,074      | 224,818                                      | 9,215          | 529,312           | 295                       |
| Other States <sup>1</sup> ..... | 154,389     | 499,354      | 713,833                                      | 14,363         | 1,867,696         | 1,139                     |

<sup>1</sup> Georgia, 1 establishment; Kentucky, 2; Minnesota, 4; Missouri, 2; North Carolina, 1; Oklahoma, Oregon, 1; Rhode Island, 2; Texas, 2.

<sup>2</sup> Value of products less cost of materials, supplies, fuel, and power. (See secs. 18 and 21, pp. 9 and 11)

## SUMMARY FOR INDUSTRIES IN GROUP 16, MISCELLANEOUS INDUSTRIES, WHICH ARE NOT COVERED BY SEPARATE REPORTS, BY STATES

[This table presents summary statistics for the industries in Group 16 other than those for which separate reports are given on pp. 1183-1236. More detailed statistics for 1927 are given, for the United States as a whole, in Table II, p. 1316; and summaries for States and large cities, carrying statistics for these industries, in comparison with those for other industries, appear in Tables III and IV, pp. 1330 and 1416. See "General explanations," pp. 3-12; in particular, "Limitation of statistics to establishments reporting products valued at \$5,000 or more," p. 6, "Power equipment," p. 7, "Cost of materials," p. 8, "Value added by manufacture," p. 9, and "State and city statistics," p. 11.]

### ARTIFICIAL AND PRESERVED FLOWERS AND PLANTS

[Principal products: Artificial flowers, leaves, plants, palms, grasses, vines, buds, and fruit, made of textiles, wax, or paper; preserved flowers, plants, stems, and other parts, for use in the manufacture of artificial flowers and also for decorative purposes]

| YEAR AND STATE                  | Number of establishments | Wage earners (average for the year) | Wages         | Cost of materials, supplies, fuel, and power | Value of products | Value added by manufacture | Horse-power |
|---------------------------------|--------------------------|-------------------------------------|---------------|--|-------------------|----------------------------|-------------|
| <i>United States</i>            |                          |                                     |               |  |                   |                            |             |
| 1927-----                       | 190                      | 4, 715                              | \$5, 050, 438 | \$7, 888, 833                                | \$19, 576, 337    | \$11, 687, 504             | 541         |
| 1925-----                       | 187                      | 4, 305                              | 4, 286, 651   | 7, 264, 858                                  | 17, 823, 841      | 10, 558, 983               | 737         |
| 1923-----                       | 223                      | 4, 696                              | 4, 501, 701   | 8, 692, 238                                  | 19, 649, 862      | 10, 957, 624               | 847         |
| 1921-----                       | 201                      | 3, 883                              | 3, 820, 652   | 5, 849, 789                                  | 14, 188, 221      | 8, 338, 432                | (?)         |
| 1919-----                       | 224                      | 4, 138                              | 3, 740, 911   | 7, 004, 646                                  | 16, 143, 165      | 9, 138, 519                | 468         |
| <i>States, 1927</i>             |                          |                                     |               |  |                   |                            |             |
| California-----                 | 6                        | 56                                  | 61, 287       | 121, 457                                     | 300, 595          | 179, 138                   | 27          |
| Illinois-----                   | 22                       | 452                                 | 465, 702      | 916, 048                                     | 2, 348, 510       | 1, 432, 462                | 98          |
| Massachusetts-----              | 3                        | 40                                  | 31, 932       | 68, 028                                      | 133, 894          | 65, 866                    | 0           |
| Missouri-----                   | 4                        | 122                                 | 96, 176       | 146, 826                                     | 345, 337          | 198, 511                   | 5           |
| New Jersey-----                 | 7                        | 189                                 | 170, 867      | 148, 140                                     | 487, 550          | 339, 410                   | 69          |
| New York-----                   | 125                      | 3, 223                              | 3, 718, 002   | 5, 436, 712                                  | 13, 557, 234      | 8, 120, 522                | 215         |
| Ohio-----                       | 4                        | 29                                  | 31, 719       | 78, 415                                      | 220, 508          | 142, 093                   | 3           |
| Pennsylvania-----               | 7                        | 296                                 | 237, 162      | 332, 171                                     | 848, 297          | 516, 126                   | 36          |
| Other States <sup>1</sup> ----- | 12                       | 308                                 | 237, 591      | 641, 036                                     | 1, 334, 412       | 693, 376                   | 82          |

<sup>1</sup> Includes value of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of artificial and preserved flowers and plants: 1927, \$242,742; 1925, \$310,233; corresponding amounts for earlier years not available. Does not include the following values of artificial and preserved flowers and plants made as secondary products by establishments classified in other industries: 1927, \$185,150; 1925, \$898,727; corresponding amounts for earlier years not available.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Connecticut, 2 establishments; Florida, 2; Indiana, 3; Iowa, 1; Maryland, 1; Michigan, 1; Texas, 1; Utah, 1.

### ARTIFICIAL LIMBS

[Principal products: Artificial legs, arms, hands, and feet, orthopedic and deformity appliances and parts thereof, and crutches]

| YEAR AND STATE       | Number of establishments | Wage earners (average for the year) | Wages      | Cost of materials, supplies, fuel, and power | Value of products | Value added by manufacture | Horse-power |
|----------------------|--------------------------|-------------------------------------|------------|--|-------------------|----------------------------|-------------|
| <i>United States</i> |                          |                                     |            |  |                   |                            |             |
| 1927-----            | 130                      | 592                                 | \$908, 151 | \$720, 293                                   | \$3, 215, 591     | \$2, 495, 298              | 1, 001      |
| 1925-----            | 123                      | 562                                 | 794, 061   | 628, 854                                     | 3, 021, 300       | 2, 394, 446                | 955         |
| 1923-----            | 108                      | 493                                 | 711, 420   | 613, 180                                     | 2, 635, 162       | 2, 021, 982                | 692         |
| 1921-----            | 105                      | 500                                 | 724, 920   | 619, 290                                     | 2, 451, 275       | 1, 831, 085                | (?)         |
| 1919-----            | 177                      | 671                                 | 794, 525   | 774, 447                                     | 3, 271, 406       | 2, 496, 959                | 857         |

See footnotes at end of this industry.

## SUMMARY FOR INDUSTRIES IN THE MISCELLANEOUS GROUP WHICH ARE NOT COVERED BY SEPARATE REPORTS, 1919 TO 1927, AND BY STATES, 1927—Con.

[See note at head of this table, p. 1237]

## ARTIFICIAL LIMBS—Continued

[For principal products of this industry see note at head of this section]

| YEAR AND STATE                  | Number of establishments | Wage earners (average for the year) | Wages     | Cost of materials, supplies, fuel, and power | Value of products | Value added by manufacture | Horse-power |
|---------------------------------|--------------------------|-------------------------------------|-----------|--|-------------------|----------------------------|-------------|
| <i>States, 1927</i>             |                          |                                     |           |  |                   |                            |             |
| California.....                 | 13                       | 61                                  | \$108,819 | \$106,882                                    | \$323,281         | \$216,899                  | 61          |
| Illinois.....                   | 9                        | 53                                  | 75,105    | 58,233                                       | 297,323           | 239,090                    | 35          |
| Massachusetts.....              | 7                        | 18                                  | 31,508    | 24,626                                       | 122,426           | 97,800                     | 59          |
| Michigan.....                   | 3                        | 12                                  | 21,597    | 19,019                                       | 62,662            | 43,643                     | 13          |
| Minnesota.....                  | 9                        | 59                                  | 85,445    | 46,163                                       | 292,826           | 246,663                    | 84          |
| Missouri.....                   | 8                        | 41                                  | 53,500    | 53,445                                       | 289,150           | 235,705                    | 80          |
| New Hampshire.....              | 4                        | 23                                  | 24,223    | 24,906                                       | 81,974            | 57,068                     | 248         |
| New York.....                   | 16                       | 72                                  | 106,061   | 67,391                                       | 313,534           | 240,143                    | 105         |
| Ohio.....                       | 9                        | 24                                  | 39,096    | 32,827                                       | 166,191           | 133,364                    | 24          |
| Pennsylvania.....               | 16                       | 83                                  | 140,776   | 94,075                                       | 452,870           | 358,795                    | 94          |
| Texas.....                      | 5                        | 14                                  | 19,839    | 19,100                                       | 78,113            | 59,013                     | 47          |
| Washington.....                 | 3                        | 13                                  | 24,714    | 16,888                                       | 57,293            | 40,405                     | 6           |
| Other States <sup>1</sup> ..... | 28                       | 119                                 | 177,468   | 156,738                                      | 677,948           | 521,210                    | 145         |

<sup>1</sup> Includes value of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of artificial limbs: 1927, \$131,255; 1925, \$87,171; corresponding amounts for earlier years not available. Does not include the following values of artificial limbs made as secondary products by establishments classified in other industries: 1927, \$122,717; 1925, \$71,199; 1923, \$120,571; 1921, \$39,300; 1919, \$44,482.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Alabama, 1 establishment; Colorado, 2; District of Columbia, 2; Georgia, 3; Indiana, 2; Iowa, 2; Kentucky, 1; Louisiana, 2; Maryland, 2; Nebraska, 2; New Jersey, 1; North Carolina, 1; Oregon, 2; Tennessee, 1; Utah, 1; Wisconsin, 3.

## ARTISTS' AND DRAFTSMEN'S MATERIALS

[Principal products: Wax, chalk, and clay crayons; oil paints and water colors, ceramic paints, size, and drawing inks; artists' canvas, drawing boards, and palettes; air brushes, sprayers, and accessories; draftsmen's instruments and materials]

| <i>United States</i>            |    |       |             |             |                          |             |                  |
|---------------------------------|----|-------|-------------|-------------|--------------------------|-------------|------------------|
| 1927.....                       | 61 | 1,211 | \$1,429,983 | \$3,771,503 | <sup>1</sup> \$8,204,521 | \$4,433,018 | 3,250            |
| 1925.....                       | 62 | 1,317 | 1,567,746   | 3,802,420   | <sup>1</sup> 8,320,776   | 4,518,356   | 2,982            |
| 1923.....                       | 61 | 1,411 | 1,747,175   | 4,355,150   | <sup>1</sup> 8,638,744   | 4,283,594   | 4,902            |
| 1921.....                       | 55 | 1,008 | 1,198,814   | 3,989,642   | <sup>1</sup> 6,959,766   | 2,970,124   | ( <sup>2</sup> ) |
| 1919.....                       | 58 | 926   | 895,704     | 2,687,226   | <sup>1</sup> 5,507,656   | 2,820,430   | 3,205            |
| <i>States, 1927</i>             |    |       |             |             |                          |             |                  |
| Illinois.....                   | 11 | 137   | 191,036     | 940,596     | 1,496,597                | 556,001     | 175              |
| New Jersey.....                 | 5  | 100   | 116,253     | 394,244     | 635,021                  | 240,777     | 174              |
| New York.....                   | 20 | 212   | 265,739     | 599,698     | 1,602,590                | 1,002,892   | 373              |
| Pennsylvania.....               | 10 | 331   | 406,063     | 988,740     | 1,807,089                | 818,349     | 1,269            |
| Other States <sup>1</sup> ..... | 15 | 431   | 450,887     | 848,225     | 2,663,224                | 1,814,999   | 1,259            |

<sup>1</sup> Includes value of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of artists' and draftsmen's materials; 1927, \$777,998; 1925, \$244,370; corresponding amounts for earlier years not available. Does not include the following values of artists' and draftsmen's materials made as secondary products by establishments classified in other industries: 1927, \$1,275,087; 1925, \$3,657,497; 1923, \$166,651; 1921, \$100,277; 1919, \$999,633.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> California, 2 establishments; Connecticut, 2; District of Columbia, 1; Georgia, 1; Indiana, 2; Massachusetts, 3; Missouri, 2; Ohio, 2.

## SUMMARY FOR INDUSTRIES IN THE MISCELLANEOUS GROUP WHICH ARE NOT COVERED BY SEPARATE REPORTS, 1919 TO 1927, AND BY STATES, 1927—Con.

[See note at head of this table, p. 1237]

## COMBS AND HAIRPINS, NOT MADE FROM METAL OR RUBBER

[Principal products: Combs and hairpins; barrettes; ornaments and novelties used in women's headdress; made of fiber, bone, horn, tortoise shell, celluloid, and ivory]

| YEAR AND STATE            | Number of establishments | Wage earners (average for the year) | Wages       | Cost of materials, supplies, fuel, and power | Value of products | Value added by manufacture | Horse-power |
|---------------------------|--------------------------|-------------------------------------|-------------|--|-------------------|----------------------------|-------------|
| <i>United States</i>      |                          |                                     |             |  |                   |                            |             |
| 1927                      | 36                       | 1,250                               | \$1,249,064 | \$1,873,003                                  | 1 \$4,436,656     | \$2,563,653                | 1,591       |
| 1925                      | 44                       | 1,300                               | 1,292,923   | 2,333,755                                    | 5,270,208         | 2,936,453                  | 1,892       |
| 1923                      | 42                       | 2,144                               | 2,266,594   | 4,583,022                                    | 8,770,153         | 4,187,131                  | 1,919       |
| 1921                      | 38                       | 1,321                               | 1,276,799   | 2,172,287                                    | 4,580,368         | 2,408,081                  | (2)         |
| 1919                      | 45                       | 2,229                               | 1,809,453   | 3,168,818                                    | 6,566,365         | 3,397,547                  | 1,588       |
| <i>States, 1927</i>       |                          |                                     |             |  |                   |                            |             |
| Massachusetts             | 19                       | 960                                 | 903,199     | 1,205,226                                    | 2,937,860         | 1,732,634                  | 1,317       |
| New Jersey                | 3                        | 74                                  | 74,690      | 89,103                                       | 232,260           | 143,157                    | 75          |
| New York                  | 8                        | 173                                 | 214,377     | 482,757                                      | 1,045,534         | 562,777                    | 94          |
| Other States <sup>1</sup> | 6                        | 52                                  | 56,398      | 95,917                                       | 221,002           | 125,085                    | 105         |

<sup>1</sup> Includes value of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of combs and hairpins, other than those made from metal or rubber: 1927, \$631,197; 1925, \$492,699; corresponding amounts for earlier years not available. Does not include the following values of combs and hairpins, other than those made from metal or rubber, made as secondary products by establishments classified in other industries: 1927, \$36,610; 1925, \$134,764; 1923, \$348,313. No comparable figures for 1921 and 1919.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Illinois, 4 establishments; Ohio, 1; Oregon, 1.

## DAIRYMEN'S SUPPLIES; CREAMERY, CHEESE-FACTORY AND BUTTER-FACTORY EQUIPMENT; AND POULTRYMEN'S AND APIARISTS' SUPPLIES

[Principal products: This classification covers three classes of products, namely: (1) Milking machines, cream separators, and accessories; bottle sterilizers and fillers; milk testers and pasteurizers; churns, butter machines, and butter workers; and such supplies as vats, labels, molds, cheese presses and boxes, etc., as well as butter colors, rennet extract, and lactic ferment. (2) Incubators, brooders, coops, hovers, feeders, poultry fountains, feed cookers, egg testers, etc. (3) Beehives, sections, and honey boxes; comb foundation, smokers, bee veils, queen traps, etc. (Statistics on production and sales of many of these items will be found in the annual report on "Manufacture and Sale of Farm Equipment," p. 1039)]

| YEAR AND STATE            | Number of establishments | Wage earners (average for the year) | Wages       | Cost of materials, supplies, fuel, and power | Value of products | Value added by manufacture | Horse-power |
|---------------------------|--------------------------|-------------------------------------|-------------|--|-------------------|----------------------------|-------------|
| <i>United States</i>      |                          |                                     |             |  |                   |                            |             |
| 1927                      | 152                      | 5,091                               | \$6,373,561 | \$15,686,293                                 | 1 \$36,823,648    | \$21,137,355               | 13,576      |
| 1925                      | 180                      | 4,844                               | 5,863,844   | 15,421,233                                   | 37,263,376        | 21,842,143                 | 14,719      |
| 1923                      | 192                      | 5,783                               | 6,642,711   | 17,586,864                                   | 39,463,324        | 21,876,460                 | 14,308      |
| 1921                      | 180                      | 3,841                               | 4,414,031   | 13,084,780                                   | 27,644,471        | 14,559,691                 | (2)         |
| 1919                      | 244                      | 6,437                               | 7,078,433   | 18,526,743                                   | 37,397,448        | 18,870,705                 | 11,756      |
| <i>States, 1927</i>       |                          |                                     |             |  |                   |                            |             |
| California                | 12                       | 89                                  | 117,385     | 351,723                                      | 683,914           | 332,191                    | 277         |
| Illinois                  | 15                       | 722                                 | 817,842     | 1,800,101                                    | 4,366,674         | 2,566,573                  | 1,320       |
| Indiana                   | 8                        | 247                                 | 184,291     | 621,888                                      | 1,027,152         | 405,264                    | 305         |
| Iowa                      | 11                       | 347                                 | 387,940     | 1,287,686                                    | 2,818,143         | 1,530,457                  | 1,421       |
| Kansas                    | 4                        | 29                                  | 33,460      | 89,565                                       | 172,536           | 82,971                     | 37          |
| Michigan                  | 9                        | 105                                 | 150,345     | 468,975                                      | 1,023,161         | 554,186                    | 176         |
| Minnesota                 | 9                        | 99                                  | 125,286     | 319,585                                      | 778,481           | 458,896                    | 397         |
| New Jersey                | 3                        | 168                                 | 318,958     | 758,338                                      | 1,546,397         | 788,059                    | 233         |
| New York                  | 13                       | 1,308                               | 1,653,770   | 3,229,040                                    | 9,684,348         | 6,455,308                  | 3,638       |
| Ohio                      | 10                       | 649                                 | 904,294     | 2,892,152                                    | 5,956,280         | 3,064,128                  | 1,073       |
| Pennsylvania              | 7                        | 374                                 | 542,634     | 722,933                                      | 1,920,581         | 1,197,648                  | 1,243       |
| Wisconsin                 | 19                       | 437                                 | 577,746     | 1,586,095                                    | 3,409,903         | 1,913,808                  | 1,484       |
| Other States <sup>1</sup> | 32                       | 517                                 | 559,610     | 1,558,212                                    | 3,346,078         | 1,787,866                  | 1,972       |

<sup>1</sup> Includes value of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of dairymen's, poultrymen's, and apiarists' supplies: 1927, \$1,349,935; 1925, \$1,857,024; corresponding amounts for earlier years not available. Does not include the following values of dairymen's, poultrymen's, and apiarists' supplies made as secondary products by establishments classified in other industries: 1927, \$9,793,465; 1925, \$5,143,534; 1923, \$5,212,647; 1921, \$726,577; 1919, \$1,273,450.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Alabama, 1 establishment; Arkansas, 1; Connecticut, 2; Georgia, 1; Kentucky, 1; Louisiana, 1; Maryland, 2; Massachusetts, 1; Missouri, 3; Nebraska, 3; Oklahoma, 1; Oregon, 2; Texas, 2; Utah, 1; Vermont, 1; Virginia, 7; Washington, 2.

## SUMMARY FOR INDUSTRIES IN THE MISCELLANEOUS GROUP WHICH ARE NOT COVERED BY SEPARATE REPORTS, 1919 TO 1927, AND BY STATES, 1927—Con.

[See note at head of this table, p. 1237]

## ENAMELING AND JAPANING

[The establishments in this industry are those engaged primarily in enameling or in japanning such commodities as iron and steel sheets and castings, parts of motor vehicles, bicycles, sewing machines, typewriters, and other machines; bedsteads, bathroom fixtures, stove parts, lighting fixtures; signs and emblems; jewelry; wood turnings; paper, cloth, and canvas. Establishments engaged in these operations usually perform the work under contract on goods owned by others.]

| YEAR AND STATE                  | Number of establishments | Wage earners (average for the year) | Wages       | Cost of materials, supplies, fuel, and power | Value of products | Value added by manufacture | Horse-power |
|---------------------------------|--------------------------|-------------------------------------|-------------|--|-------------------|----------------------------|-------------|
| <i>United States</i>            |                          |                                     |             |  |                   |                            |             |
| 1927.....                       | 111                      | 2,259                               | \$3,017,200 | \$3,299,408                                  | 1 \$0,142,869     | \$5,843,461                | 6,893       |
| 1925.....                       | 95                       | 1,550                               | 2,170,262   | 2,249,746                                    | 1 6,895,603       | 4,645,857                  | 3,775       |
| 1923.....                       | 84                       | 1,315                               | 1,712,792   | 1,822,279                                    | 1 5,447,963       | 3,025,680                  | 2,727       |
| 1921.....                       | 63                       | 615                                 | 1,017,505   | 1,059,854                                    | 1 2,520,149       | 1,460,295                  | (?)         |
| 1919.....                       | 110                      | 989                                 | 1,050,948   | 1,171,457                                    | 1 3,415,906       | 2,244,490                  | 1,484       |
| <i>States, 1927</i>             |                          |                                     |             |  |                   |                            |             |
| California.....                 | 11                       | 199                                 | 260,932     | 215,428                                      | 770,221           | 554,793                    | 455         |
| Illinois.....                   | 20                       | 465                                 | 672,492     | 1,007,887                                    | 2,393,312         | 1,385,425                  | 1,504       |
| Massachusetts.....              | 11                       | 211                                 | 325,103     | 279,490                                      | 765,390           | 485,987                    | 367         |
| Michigan.....                   | 7                        | 188                                 | 320,825     | 265,094                                      | 897,108           | 635,044                    | 343         |
| New Jersey.....                 | 6                        | 191                                 | 256,485     | 312,429                                      | 732,429           | 420,000                    | 733         |
| New York.....                   | 15                       | 146                                 | 203,761     | 192,965                                      | 630,532           | 437,507                    | 448         |
| Ohio.....                       | 12                       | 298                                 | 392,682     | 255,219                                      | 900,444           | 645,215                    | 1,825       |
| Pennsylvania.....               | 10                       | 176                                 | 217,422     | 238,577                                      | 672,613           | 434,036                    | 799         |
| Rhode Island.....               | 8                        | 60                                  | 60,265      | 22,847                                       | 132,500           | 109,653                    | 81          |
| Other States <sup>1</sup> ..... | 11                       | 325                                 | 301,533     | 512,553                                      | 1,248,294         | 735,741                    | 84          |

<sup>1</sup> Includes value of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in enameling and japanning: 1927, \$32,975; 1925, \$38,583; corresponding amounts for earlier years not available. Does not include the following values of enameling and japanning done by establishments classified in other industries: 1927, \$1,689,276; 1925, \$2,812,071; 1923, \$458,522; 1921, \$81,170; 1919, \$51,723.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Indiana, 3 establishments; Iowa, 1; Kentucky, 1; Minnesota, 1; Missouri, 3; Tennessee, 1; Wisconsin, 1.

## FANCY AND MISCELLANEOUS ARTICLES, NOT ELSEWHERE CLASSIFIED

[Principal products: A great variety of articles which, in a general way, may be classed as beadwork; celluloid; metal, paper, and wood novelties; lamp shades, other than porcelain or glass; and other fancy articles which can not be specifically classified in any other industry.]

| YEAR AND STATE                  | Number of establishments | Wage earners (average for the year) | Wages        | Cost of materials, supplies, fuel, and power | Value of products | Value added by manufacture | Horse-power |
|---------------------------------|--------------------------|-------------------------------------|--------------|--|-------------------|----------------------------|-------------|
| <i>United States</i>            |                          |                                     |              |  |                   |                            |             |
| 1927.....                       | 595                      | 16,965                              | \$18,306,510 | \$34,673,611                                 | 1 \$83,006,431    | \$18,332,820               | 10,802      |
| 1925.....                       | 532                      | 14,552                              | 14,959,902   | 29,154,685                                   | 1 66,760,149      | 40,614,464                 | 9,071       |
| 1923.....                       | 542                      | 13,522                              | 13,713,306   | 28,531,483                                   | 1 63,208,279      | 34,676,796                 | 8,098       |
| 1921.....                       | 509                      | 11,534                              | 11,088,390   | 24,384,091                                   | 1 51,406,493      | 27,022,402                 | (?)         |
| 1919.....                       | 661                      | 13,961                              | 12,207,913   | 32,591,073                                   | 1 64,054,481      | 31,463,408                 | 8,657       |
| <i>States, 1927</i>             |                          |                                     |              |  |                   |                            |             |
| California.....                 | 42                       | 593                                 | 548,685      | 1,149,933                                    | 2,550,395         | 1,400,462                  | 219         |
| Connecticut.....                | 11                       | 508                                 | 520,902      | 677,149                                      | 1,659,104         | 981,955                    | 273         |
| Illinois.....                   | 76                       | 1,825                               | 1,833,724    | 3,998,415                                    | 9,194,540         | 5,199,125                  | 848         |
| Kentucky.....                   | 3                        | 37                                  | 35,009       | 54,831                                       | 142,413           | 87,782                     | 27          |
| Maine.....                      | 3                        | 13                                  | 14,060       | 10,904                                       | 30,507            | 16,603                     | 19          |
| Maryland.....                   | 5                        | 210                                 | 142,402      | 284,108                                      | 601,375           | 320,267                    | 103         |
| Massachusetts.....              | 48                       | 2,346                               | 2,518,869    | 4,280,139                                    | 9,078,376         | 4,798,237                  | 2,594       |
| Michigan.....                   | 9                        | 264                                 | 263,780      | 410,005                                      | 1,024,950         | 614,264                    | 215         |
| Missouri.....                   | 6                        | 168                                 | 91,435       | 189,982                                      | 479,348           | 268,366                    | 36          |
| Nebraska.....                   | 3                        | 77                                  | 44,700       | 81,966                                       | 257,003           | 175,037                    | 28          |
| New Jersey.....                 | 35                       | 1,467                               | 1,653,673    | 2,629,034                                    | 7,613,080         | 4,084,946                  | 1,206       |
| New York.....                   | 253                      | 5,306                               | 6,704,121    | 13,609,334                                   | 30,706,412        | 17,199,078                 | 2,806       |
| Ohio.....                       | 11                       | 965                                 | 1,215,213    | 2,013,394                                    | 6,126,011         | 4,112,617                  | 732         |
| Pennsylvania.....               | 37                       | 911                                 | 781,333      | 1,972,568                                    | 4,211,172         | 2,338,004                  | 428         |
| Rhode Island.....               | 20                       | 1,174                               | 906,212      | 1,456,126                                    | 3,504,676         | 2,048,550                  | 271         |
| Wisconsin.....                  | 9                        | 219                                 | 197,884      | 451,800                                      | 925,640           | 478,840                    | 283         |
| Other States <sup>1</sup> ..... | 24                       | 882                                 | 834,602      | 1,421,433                                    | 4,897,520         | 3,476,087                  | 714         |

<sup>1</sup> Includes value of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of fancy and miscellaneous articles, not elsewhere classified: 1927, \$6,700,842; 1925, \$5,661,767; corresponding amounts for earlier years not available. Does not include the following values of fancy and miscellaneous articles, not elsewhere classified, made as secondary products by establishments classified in other industries: 1927, \$10,109,139; 1925, \$8,477,206; 1923, \$6,930,310; 1921, \$6,240,447; 1919, \$5,765,665.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Colorado, 1 establishment; District of Columbia, 1; Indiana, 4; Iowa, 2; Louisiana, 1; Minnesota, 7; New Hampshire, 2; North Carolina, 1; Oregon, 1; Tennessee, 2; Texas, 1; Washington, 1.

## SUMMARY FOR INDUSTRIES IN THE MISCELLANEOUS GROUP WHICH ARE NOT COVERED BY SEPARATE REPORTS, 1919 TO 1927, AND BY STATES, 1927—Con.

[See note at head of this table, p. 1237]

## FEATHERS, PLUMES, AND MANUFACTURES THEREOF

[The preparation of fancy feathers, plumes, quills, and articles made principally from feathers and plumes, for the trade, including the dyeing, curling, and renovating of ostrich feathers]

| YEAR AND STATE            | Number of establishments | Wage earners (average for the year) | Wages     | Cost of materials, supplies, fuel, and power | Value of products        | Value added by manufacture | Horse-power      |
|---------------------------|--------------------------|-------------------------------------|-----------|--|--------------------------|----------------------------|------------------|
| <i>United States</i>      |                          |                                     |           |  |                          |                            |                  |
| 1927                      | 38                       | 322                                 | \$396,683 | \$534,149                                    | <sup>1</sup> \$1,438,441 | \$904,292                  | 103              |
| 1925                      | 70                       | 888                                 | 976,394   | 1,880,708                                    | <sup>1</sup> 4,179,063   | 2,298,355                  | 334              |
| 1923                      | 131                      | 1,712                               | 1,983,327 | 3,399,735                                    | <sup>1</sup> 7,866,492   | 4,466,757                  | 410              |
| 1921                      | 135                      | 2,064                               | 2,145,013 | 4,298,325                                    | <sup>1</sup> 8,886,540   | 4,588,215                  | ( <sup>2</sup> ) |
| 1919                      | 216                      | 3,504                               | 3,405,765 | 6,694,596                                    | <sup>1</sup> 15,377,953  | 8,683,357                  | 502              |
| <i>States, 1927</i>       |                          |                                     |           |  |                          |                            |                  |
| New York                  | 34                       | 300                                 | 377,865   | 503,678                                      | 1,327,514                | 823,836                    | 90               |
| Other States <sup>3</sup> | 4                        | 22                                  | 18,818    | 30,471                                       | 110,927                  | 80,456                     | 13               |

<sup>1</sup> Includes value of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the preparation of feathers, plumes, and manufactures thereof: 1925, \$139,138. No miscellaneous products, normally belonging to other industries, was reported for 1927; corresponding amounts for earlier years not available. Does not include the following values of feathers, plumes, and manufactures thereof, reported by establishments engaged primarily in other lines of manufacture: 1927, \$48,500; 1925, \$279,515; 1923, \$652,194; 1921, \$661,713; 1919, \$986,246.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> California, 2 establishments; Illinois, 1; Pennsylvania, 1.

## FOUNDRY SUPPLIES

[Principal products: Foundry facings, molding sand, cement for castings, core oils and compounds, chaplets, wax, flux, "parting" composition, flasks, sieves, pipe blacking, and plumbago. Facings and supplies made by foundries for their own use are not, as a rule, reported separately]

| YEAR AND STATE            | Number of establishments | Wage earners (average for the year) | Wages       | Cost of materials, supplies, fuel, and power | Value of products         | Value added by manufacture | Horse-power      |
|---------------------------|--------------------------|-------------------------------------|-------------|--|---------------------------|----------------------------|------------------|
| <i>United States</i>      |                          |                                     |             |  |                           |                            |                  |
| 1927                      | 65                       | 941                                 | \$1,200,141 | \$6,539,050                                  | <sup>1</sup> \$11,635,060 | \$5,096,010                | 11,133           |
| 1925                      | 66                       | 1,087                               | 1,360,219   | 6,903,678                                    | <sup>1</sup> 12,723,120   | 5,319,442                  | 10,733           |
| 1923                      | 64                       | 966                                 | 1,162,068   | 4,822,611                                    | <sup>1</sup> 10,247,864   | 5,425,253                  | 7,736            |
| 1921                      | 50                       | 567                                 | 676,241     | 2,775,014                                    | <sup>1</sup> 4,965,678    | 2,190,664                  | ( <sup>2</sup> ) |
| 1919                      | 76                       | 906                                 | 1,032,029   | 5,667,236                                    | <sup>1</sup> 9,954,676    | 4,287,440                  | 6,327            |
| <i>States, 1927</i>       |                          |                                     |             |  |                           |                            |                  |
| Illinois                  | 9                        | 119                                 | 180,226     | 1,184,408                                    | 2,207,672                 | 1,023,264                  | 951              |
| Michigan                  | 3                        | 89                                  | 142,425     | 576,944                                      | 1,148,612                 | 571,668                    | 481              |
| New York                  | 5                        | 40                                  | 53,563      | 116,439                                      | 269,844                   | 153,405                    | 160              |
| Ohio                      | 23                       | 373                                 | 470,622     | 2,219,527                                    | 3,927,980                 | 1,708,453                  | 4,299            |
| Pennsylvania              | 18                       | 244                                 | 260,413     | 2,075,097                                    | 3,193,532                 | 1,118,435                  | 3,135            |
| Other States <sup>3</sup> | 7                        | 76                                  | 92,892      | 366,635                                      | 887,420                   | 520,785                    | 2,107            |

<sup>1</sup> Includes values of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of foundry supplies: 1927, \$1,332,296; 1925, \$1,375,466; corresponding amounts for earlier years not available. Does not include the following values of foundry supplies made as secondary products by establishments classified in other industries: 1927, \$1,215,294; 1925, \$1,080,801; 1923, \$1,501,894; 1921, \$541,145; 1919, \$209,580.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Alabama, 2 establishments; Connecticut, 2; Indiana, 1; Massachusetts, 1; Virginia, 1.

## SUMMARY FOR INDUSTRIES IN THE MISCELLANEOUS GROUP WHICH ARE NOT COVERED BY SEPARATE REPORTS, 1919 TO 1927, AND BY STATES, 1927—Con.

[See note at head of this table, p. 1237]

## FURS, DRESSED

[Seraping, currying, tanning, bleaching, and dyeing pelts. In many cases the work is done for others on a contract basis]

| YEAR AND STATE                  | Number of establishments | Wage earners (average for the year) | Wages        | Cost of materials, supplies, fuel, and power | Value of products | Value added by manufacture | Horse-power      |
|---------------------------------|--------------------------|-------------------------------------|--------------|--|-------------------|----------------------------|------------------|
| <i>United States</i>            |                          |                                     |              |  |                   |                            |                  |
| 1927-----                       | 172                      | 5,540                               | \$10,360,987 | \$7,071,850                                  | \$27,680,635      | \$20,608,785               | 12,467           |
| 1925-----                       | 133                      | 5,056                               | 8,205,892    | 7,296,408                                    | 25,422,663        | 18,126,255                 | 8,858            |
| 1923-----                       | 162                      | 5,203                               | 8,381,453    | 7,241,783                                    | 25,466,841        | 18,225,058                 | 7,776            |
| 1921-----                       | 126                      | 4,429                               | 6,758,712    | 6,070,474                                    | 19,157,339        | 13,086,865                 | ( <sup>1</sup> ) |
| 1919-----                       | 141                      | 5,075                               | 7,098,286    | 6,338,835                                    | 20,384,569        | 14,045,734                 | 5,421            |
| <i>States, 1927</i>             |                          |                                     |              |  |                   |                            |                  |
| Illinois-----                   | 6                        | 150                                 | 193,780      | 439,583                                      | 913,820           | 474,237                    | 410              |
| New Jersey-----                 | 25                       | 1,434                               | 2,619,982    | 1,185,310                                    | 6,806,918         | 5,621,608                  | 4,057            |
| New York-----                   | 115                      | 3,443                               | 6,869,502    | 3,218,672                                    | 15,928,715        | 12,710,043                 | 6,020            |
| Other States <sup>2</sup> ----- | 26                       | 513                                 | 677,723      | 2,228,285                                    | 4,031,182         | 1,802,897                  | 1,980            |

<sup>1</sup> Includes value of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the dressing of furs: 1927, \$15,000; 1925, \$46,529; corresponding amounts for earlier years not available. Does not include the following values of dressed furs reported by establishments engaged primarily in other lines of manufacture: 1927, \$25,884; 1925, \$369,813; 1921, \$29,500; 1919, \$1,207,049. No comparable data for 1923.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> California, 2 establishments; Colorado, 2; Delaware, 1; Indiana, 1; Iowa, 2; Kentucky, 1; Massachusetts, 2; Michigan, 1; Minnesota, 3; Missouri, 2; Ohio, 3; Pennsylvania, 3; Washington, 1; Wisconsin, 2.

SUMMARY FOR INDUSTRIES IN THE MISCELLANEOUS GROUP WHICH ARE NOT COVERED BY SEPARATE REPORTS, 1919 TO 1927, AND BY STATES, 1927—CON.

[See note at head of this table, p. 1237]

HAIR WORK

[Principal products: Ornamental hair work, theatrical and other wigs, toupees, switches, transformations, and other articles made from human hair and from mohair and other animal hair]

| YEAR AND STATE            | Number of establishments | Wage earners (average for the year) | Wages     | Cost of materials, supplies, fuel, and power | Value of products | Value added by manufacture | Horse-power |
|---------------------------|--------------------------|-------------------------------------|-----------|--|-------------------|----------------------------|-------------|
| <i>United States</i>      |                          |                                     |           |  |                   |                            |             |
| 1927                      | 69                       | 515                                 | \$508,034 | \$820,891                                    | 1 \$2,279,226     | \$1,449,335                | 21          |
| 1925                      | 85                       | 364                                 | 974,932   | 3,046,276                                    | 1 0,089,756       | 3,043,480                  | 13          |
| 1923                      | 113                      | 1,317                               | 1,352,406 | 5,568,007                                    | 1 11,263,953      | 5,695,946                  | 17          |
| 1921                      | 128                      | 1,222                               | 1,256,193 | 6,734,183                                    | 1 10,951,844      | 4,217,656                  | (?)         |
| 1919                      | 198                      | 1,084                               | 1,064,630 | 3,829,197                                    | 1 6,963,033       | 3,133,836                  | 119         |
| <i>States, 1927</i>       |                          |                                     |           |  |                   |                            |             |
| California                | 4                        | 24                                  | 33,380    | 29,530                                       | 100,960           | 71,430                     |             |
| Illinois                  | 7                        | 61                                  | 73,022    | 150,900                                      | 311,565           | 160,965                    | 6           |
| Massachusetts             | 3                        | 34                                  | 33,196    | 32,738                                       | 95,063            | 65,325                     |             |
| New York                  | 36                       | 296                                 | 359,714   | 555,072                                      | 1,490,372         | 935,500                    | 13          |
| Pennsylvania              | 8                        | 31                                  | 31,393    | 20,753                                       | 93,346            | 72,588                     | 2           |
| Other States <sup>1</sup> | 11                       | 69                                  | 67,329    | 41,193                                       | 184,920           | 143,727                    |             |

<sup>1</sup> Includes value of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in hair work: 1927, \$40,446; 1925, \$29,989; corresponding amounts for earlier years not available. Does not include the following values of hair work reported by establishments engaged primarily in other lines of manufacture: 1927, \$13,500; 1925, \$263,006; 1923, \$41,822; 1921, \$86,760; 1919, \$91,762.

<sup>2</sup> Not called for on schedule.

<sup>1</sup> Maine, 1 establishment; Missouri, 1; Nebraska, 1; New Jersey, 1; Ohio, 1; Oregon, 1; Rhode Island, 1; Washington, 2; Wisconsin, 2.

HAND STAMPS AND STENCILS AND BRANDS

[Principal products: Rubber and metal stamps, such as date and time stamps, stamps for marking textiles, wall paper, etc., and steel shoe stamps; dies, seals, and seal presses; check protectors; addressing-machine plates and stencils; branding irons for marking casks, boxes, and articles of merchandise. Prior to 1923 the manufacture of hand stamps and that of stencils and brands were treated as separate industries]

| YEAR AND STATE            | Number of establishments | Wage earners (average for the year) | Wages       | Cost of materials, supplies, fuel, and power | Value of products | Value added by manufacture | Horse-power |
|---------------------------|--------------------------|-------------------------------------|-------------|--|-------------------|----------------------------|-------------|
| <i>United States</i>      |                          |                                     |             |  |                   |                            |             |
| 1927                      | 293                      | 2,668                               | \$3,841,771 | \$3,733,718                                  | 1 \$14,155,607    | \$10,421,889               | 3,159       |
| 1925                      | 323                      | 2,930                               | 4,015,323   | 4,070,322                                    | 1 15,320,554      | 11,250,232                 | 3,658       |
| 1923                      | 255                      | 2,312                               | 3,034,974   | 3,103,320                                    | 1 11,130,936      | 8,027,616                  | 2,571       |
| 1921                      | 234                      | 2,068                               | 2,657,418   | 2,785,615                                    | 1 9,079,097       | 6,293,482                  | (?)         |
| 1919                      | 382                      | 2,136                               | 2,261,287   | 3,148,667                                    | 1 9,336,558       | 6,187,891                  | 1,848       |
| <i>States, 1927</i>       |                          |                                     |             |  |                   |                            |             |
| California                | 25                       | 211                                 | 329,255     | 356,782                                      | 1,293,837         | 937,055                    | 504         |
| Connecticut               | 11                       | 65                                  | 96,052      | 80,398                                       | 307,975           | 227,577                    | 72          |
| District of Columbia      | 3                        | 19                                  | 34,518      | 35,484                                       | 120,615           | 85,131                     | 14          |
| Georgia                   | 5                        | 25                                  | 35,906      | 30,213                                       | 115,060           | 84,847                     | 21          |
| Illinois                  | 31                       | 380                                 | 588,717     | 564,794                                      | 2,223,927         | 1,659,133                  | 298         |
| Iowa                      | 3                        | 6                                   | 8,520       | 8,775  | 33,744            | 24,969                     | 3           |
| Louisiana                 | 4                        | 18                                  | 23,161      | 19,299                                       | 90,956            | 71,657                     | 10          |
| Maryland                  | 3                        | 7                                   | 7,932       | 13,307                                       | 44,917            | 31,610                     | 2           |
| Massachusetts             | 21                       | 131                                 | 171,271     | 262,749                                      | 768,390           | 505,641                    | 126         |
| Michigan                  | 12                       | 74                                  | 114,364     | 71,923                                       | 417,789           | 345,866                    | 117         |
| Minnesota                 | 7                        | 43                                  | 57,372      | 50,967                                       | 222,170           | 171,203                    | 33          |
| Missouri                  | 12                       | 61                                  | 86,953      | 115,381                                      | 365,599           | 250,218                    | 107         |
| New Jersey                | 7                        | 196                                 | 269,705     | 337,185                                      | 1,296,259         | 959,074                    | 262         |
| New York                  | 52                       | 532                                 | 736,116     | 665,182                                      | 2,433,421         | 1,768,239                  | 389         |
| Ohio                      | 22                       | 144                                 | 233,373     | 211,953                                      | 867,826           | 655,873                    | 138         |
| Oklahoma                  | 4                        | 18                                  | 21,506      | 35,618                                       | 96,540            | 60,922                     | 2           |
| Pennsylvania              | 22                       | 366                                 | 538,968     | 412,276                                      | 1,775,709         | 1,363,433                  | 665         |
| Rhode Island              | 4                        | 26                                  | 35,402      | 44,969                                       | 157,637           | 112,668                    | 16          |
| Tennessee                 | 4                        | 16                                  | 20,480      | 22,150                                       | 70,838            | 48,688                     | 21          |
| Texas                     | 7                        | 36                                  | 41,918      | 35,346                                       | 154,180           | 118,534                    | 17          |
| Virginia                  | 4                        | 23                                  | 23,952      | 18,406                                       | 89,487            | 71,081                     | 20          |
| Washington                | 8                        | 40                                  | 58,211      | 40,326                                       | 191,198           | 150,872                    | 42          |
| Other States <sup>1</sup> | 22                       | 231                                 | 308,119     | 300,235                                      | 1,017,533         | 717,298                    | 280         |

<sup>1</sup> Includes value of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of hand stamps and stencils and brands: 1927, \$1,359,140; 1925, \$337,929; corresponding amounts for earlier years not available. Does not include the following values of hand stamps and stencils and brands made as secondary products by establishments classified in other industries: 1927, \$335,252; 1925, \$515,450; 1923, \$305,298; 1921, \$834,351; 1919, \$425,051.

<sup>2</sup> Not called for on schedule.

<sup>1</sup> Arkansas, 1 establishment; Colorado, 3; Indiana, 5; Kansas, 2; Kentucky, 2; Maine, 1; Nebraska, 2; Oregon, 2; Utah, 1; Wisconsin, 3.

## SUMMARY FOR INDUSTRIES IN THE MISCELLANEOUS GROUP WHICH ARE NOT COVERED BY SEPARATE REPORTS, 1919 TO 1927, AND BY STATES, 1927—Con.

[See note at head of this table, p. 1237]

## INSTRUMENTS, PROFESSIONAL AND SCIENTIFIC

[Principal products: Surgical, dental, orthopedic, and veterinary instruments; physicians' diagnostic apparatus; surveyors', nautical, and similar instruments; auriphones and other aids to hearing; precision and measuring instruments; indicating and recording instruments; hypodermic syringes and needle gage dials; speedometers, barometers, thermometers, compasses, dental mirrors; and dental-engine equipment, etc.]

| YEAR AND STATE            | Number of establishments | Wage earners (average for the year) | Wages        | Cost of materials, supplies, fuel, and power | Value of products           | Value added by manufacture | Horse-power      |
|---------------------------|--------------------------|-------------------------------------|--------------|--|-----------------------------|----------------------------|------------------|
| <i>United States</i>      |                          |                                     |              |  |                             |                            |                  |
| 1927                      | 280                      | 16,414                              | \$22,288,973 | \$28,880,222                                 | <sup>1,2</sup> \$87,783,488 | \$58,903,266               | 25,587           |
| 1925                      | 233                      | 12,129                              | 16,166,202   | 20,428,088                                   | <sup>2</sup> 76,338,739     | 55,910,651                 | 17,596           |
| 1923                      | 258                      | 12,275                              | 15,502,679   | 18,039,523                                   | <sup>2</sup> 63,074,391     | 45,034,868                 | 16,208           |
| 1921                      | 266                      | 9,384                               | 11,699,950   | 13,326,311                                   | <sup>2</sup> 42,131,845     | 23,805,534                 | ( <sup>3</sup> ) |
| 1919                      | 351                      | 15,931                              | 17,499,888   | 19,494,634                                   | <sup>2</sup> 58,136,691     | 38,642,067                 | 12,981           |
| <i>States, 1927</i>       |                          |                                     |              |  |                             |                            |                  |
| California                | 7                        | 58                                  | 83,082       | 88,359                                       | 338,222                     | 240,863                    | 181              |
| Colorado                  | 3                        | 34                                  | 53,254       | 16,868                                       | 122,206                     | 105,428                    | 69               |
| Illinois                  | 43                       | 4,078                               | 5,873,368    | 6,920,540                                    | 22,121,743                  | 15,195,235                 | 6,857            |
| Massachusetts             | 23                       | 543                                 | 870,935      | 947,873                                      | 3,853,473                   | 2,905,600                  | 945              |
| Missouri                  | 7                        | 250                                 | 269,346      | 210,135                                      | 925,135                     | 709,000                    | 359              |
| New York                  | 90                       | 3,600                               | 5,263,873    | 6,535,396                                    | 25,010,251                  | 18,474,855                 | 7,073            |
| Ohio                      | 15                       | 431                                 | 523,993      | 555,887                                      | 1,952,394                   | 1,396,507                  | 580              |
| Pennsylvania              | 42                       | 1,942                               | 2,578,714    | 3,777,452                                    | 10,550,941                  | 6,773,489                  | 2,323            |
| Washington                | 3                        | 8                                   | 8,851        | 7,513  | 34,819                      | 27,306                     | 16               |
| Other States <sup>4</sup> | 44                       | 5,364                               | 6,763,557    | 9,805,199                                    | 22,871,214                  | 13,066,015                 | 7,478            |

<sup>1</sup> Includes \$3,437,311 specifically reported as value of surveyors', nautical, and similar instruments. Such instruments were treated as products of the "Optical goods" industry at the census for 1925, at which census their value, so far as separately reported, amounted to \$3,511,319. No comparable data are available for earlier years.

<sup>2</sup> Includes value of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged in the manufacture of professional and scientific instruments: 1927, \$5,013,636; 1925, \$3,900,319; corresponding amounts for earlier years not available. Does not include the following values of professional and scientific instruments made as secondary products by establishments classified in other industries: 1927, \$4,496,110; 1925, \$0,733,885 (revised); 1923, \$4,506,882; 1921, \$3,685,065; 1919, \$5,328,257.

<sup>3</sup> Not called for on schedule.

<sup>4</sup> Connecticut, 4 establishments; District of Columbia, 1; Indiana, 2; Iowa, 1; Kansas, 1; Maine, 1; Maryland, 3; Michigan, 3; Minnesota, 2; New Jersey, 9; Oregon, 1; Rhode Island, 3; Tennessee, 1; Wisconsin, 7.

## IVORY, SHELL, AND BONE WORK, NOT INCLUDING BUTTONS, COMBS, OR HAIRPINS

[Principal products: Articles made of ivory, shell, mother-of-pearl, horn, or bone, not elsewhere classified, such as mosaics, cutlery and toilet-article handles, jobs, buckles, fittings for jewelers' use, cane and umbrella handles, and inlay for musical instruments]

| YEAR AND STATE            | Number of establishments | Wage earners (average for the year) | Wages     | Cost of materials, supplies, fuel, and power | Value of products | Value added by manufacture | Horse-power      |
|---------------------------|--------------------------|-------------------------------------|-----------|--|-------------------|----------------------------|------------------|
| <i>United States</i>      |                          |                                     |           |  |                   |                            |                  |
| 1927                      | 22                       | 294                                 | \$320,752 | \$328,067                                    | 1,911,342         | \$583,275                  | 599              |
| 1925                      | 29                       | 488                                 | 554,972   | 727,505                                      | 1,879,469         | 1,151,964                  | 392              |
| 1923                      | 30                       | 603                                 | 662,953   | 1,120,833                                    | 1,241,127         | 1,320,294                  | 380              |
| 1921                      | 39                       | 674                                 | 680,818   | 1,143,711                                    | 1,239,375         | 1,251,604                  | ( <sup>3</sup> ) |
| 1919                      | 44                       | 842                                 | 734,932   | 1,293,876                                    | 1,816,530         | 1,522,054                  | 379              |
| <i>States, 1927</i>       |                          |                                     |           |  |                   |                            |                  |
| California                | 4                        | 55                                  | 71,782    | 78,957                                       | 228,397           | 149,440                    | 115              |
| New York                  | 8                        | 25                                  | 40,493    | 40,758                                       | 126,014           | 85,256                     | 57               |
| Other States <sup>4</sup> | 10                       | 214                                 | 217,477   | 208,352                                      | 556,931           | 348,579                    | 427              |

<sup>1</sup> Includes value of miscellaneous products, normally belonging to other industries, made as secondary products by establishments classified in this industry: 1927, \$177,708; 1925, \$179,894; corresponding amounts for earlier years not available. Does not include the following values of ivory, shell, and bone products made as secondary products by establishments classified in other industries: 1927, \$143,130; 1925, \$428,266; 1923, \$461,860; 1921, \$213,001; 1919, \$92,722.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Connecticut, 1 establishment; Iowa, 1; Massachusetts, 2; New Jersey, 3; Rhode Island, 2; Washington, 1.

SUMMARY FOR INDUSTRIES IN THE MISCELLANEOUS GROUP WHICH ARE NOT COVERED BY SEPARATE REPORTS, 1919 TO 1927, AND BY STATES, 1927—Con.

[See note at head of this table, p. 1237]

JEWELRY AND INSTRUMENT CASES

[Principal products: Cases, trays, and fancy boxes for jewelry, instruments, cutlery, eyeglasses, combs, compasses, cigarettes, pipes, toilet sets, etc.]

| YEAR AND STATE            | Number of establishments | Wage earners (average for the year) | Wages       | Cost of materials, supplies, fuel, and power | Value of products        | Value added by manufacture | Horse power      |
|---------------------------|--------------------------|-------------------------------------|-------------|--|--------------------------|----------------------------|------------------|
| <i>United States</i>      |                          |                                     |             |  |                          |                            |                  |
| 1927                      | 107                      | 2,406                               | \$2,597,056 | \$3,293,986                                  | <sup>1</sup> \$8,810,065 | \$5,516,079                | 1,440            |
| 1925                      | 125                      | 2,748                               | 2,750,209   | 3,832,577                                    | <sup>1</sup> 10,114,073  | 6,281,406                  | 2,460            |
| 1923                      | 111                      | 2,977                               | 2,904,430   | 4,417,256                                    | <sup>1</sup> 10,506,478  | 6,089,222                  | 1,662            |
| 1921                      | 107                      | 2,241                               | 2,087,501   | 2,712,684                                    | <sup>1</sup> 7,035,778   | 4,323,094                  | ( <sup>2</sup> ) |
| 1919                      | 142                      | 2,734                               | 2,147,648   | 3,505,840                                    | <sup>1</sup> 8,126,300   | 4,620,460                  | 1,075            |
| <i>States, 1927</i>       |                          |                                     |             |  |                          |                            |                  |
| California                | 4                        | 11                                  | 12,669      | 13,714                                       | 52,982                   | 39,268                     | 16               |
| Illinois                  | 6                        | 210                                 | 220,109     | 317,550                                      | 808,493                  | 490,943                    | 153              |
| Massachusetts             | 12                       | 458                                 | 495,542     | 671,528                                      | 1,624,418                | 952,890                    | 422              |
| New Jersey                | 9                        | 191                                 | 235,297     | 271,574                                      | 747,779                  | 476,205                    | 95               |
| New York                  | 51                       | 870                                 | 1,032,138   | 1,154,911                                    | 3,549,448                | 2,394,537                  | 494              |
| Pennsylvania              | 7                        | 108                                 | 93,248      | 168,091                                      | 386,514                  | 218,423                    | 30               |
| Rhode Island              | 8                        | 264                                 | 242,087     | 225,382                                      | 666,179                  | 440,797                    | 100              |
| Other States <sup>3</sup> | 10                       | 294                                 | 265,966     | 471,236                                      | 974,252                  | 503,016                    | 121              |

<sup>1</sup> Includes value of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of jewelry and instrument cases: 1927, \$261,531; 1925, \$373,393; corresponding amounts for earlier years not available. Does not include the following values of jewelry and instrument cases made as secondary products by establishments classified in other industries: 1927, \$1,000,731; 1925, \$1,368,189; 1923, \$628,908; 1921, \$420,521; 1919, \$726,394.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Connecticut, 3 establishments; Indiana, 1; Kentucky, 1; Maryland, 1; Michigan, 1; Missouri, 2; Ohio, 1.

LAPIDARY WORK

[The cutting, recutting, polishing, and setting of diamonds and other precious and semiprecious stones, and the drilling of pearls; the preparation of jewels for watches and chronometers and for surveyors' instruments; and the preparation of real and imitation stones for emblems. This work is done to a small extent on contract on materials owned by others. Some jewelry manufacturers cut stones for their own use, but do not report the value of such work separately; consequently some overlapping occurs between the "Jewelry" and "Lapidary work" industries.]

| YEAR AND STATE            | Number of establishments | Wage earners (average for the year) | Wages       | Cost of materials, supplies, fuel, and power | Value of products         | Value added by manufacture | Horse power      |
|---------------------------|--------------------------|-------------------------------------|-------------|--|---------------------------|----------------------------|------------------|
| <i>United States</i>      |                          |                                     |             |  |                           |                            |                  |
| 1927                      | 92                       | 547                                 | \$1,220,647 | \$9,133,059                                  | <sup>1</sup> \$12,351,503 | \$3,218,444                | 513              |
| 1925                      | 83                       | 589                                 | 1,284,991   | 7,272,868                                    | <sup>1</sup> 10,122,782   | 2,849,914                  | 515              |
| 1923                      | 87                       | 644                                 | 1,286,291   | 5,887,061                                    | <sup>1</sup> 9,126,842    | 3,242,781                  | 566              |
| 1921                      | 64                       | 399                                 | 737,922     | 2,840,309                                    | <sup>1</sup> 4,345,214    | 1,504,905                  | ( <sup>2</sup> ) |
| 1919                      | 124                      | 1,155                               | 2,837,811   | 19,363,004                                   | <sup>1</sup> 30,051,460   | 10,688,456                 | 630              |
| <i>States, 1927</i>       |                          |                                     |             |  |                           |                            |                  |
| California                | 9                        | 28                                  | 40,650      | 19,440                                       | 127,103                   | 107,663                    | 25               |
| Illinois                  | 3                        | 26                                  | 59,355      | 34,415                                       | 154,482                   | 120,037                    | 27               |
| Massachusetts             | 4                        | 23                                  | 35,439      | 24,089                                       | 93,334                    | 69,245                     | 23               |
| New York                  | 64                       | 344                                 | 904,721     | 7,452,686                                    | 9,844,004                 | 2,391,318                  | 351              |
| Other States <sup>3</sup> | 12                       | 126                                 | 180,482     | 1,602,429                                    | 2,132,580                 | 530,151                    | 87               |

<sup>1</sup> Includes value of miscellaneous products belonging to other industries, made as secondary products by establishments engaged primarily in lapidary work: 1927, \$29,200; 1925, \$138,555; corresponding amounts for earlier years not available. Does not include the following values of lapidary work reported by establishments engaged primarily in other lines of manufacture: 1925, \$5,924; 1921, \$30,642; 1919, \$21,124. No comparable data for 1927 and 1923.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Colorado, 2 establishments; Connecticut, 1; New Jersey, 4; Pennsylvania, 3; Rhode Island, 1; Washington, 1.

## SUMMARY FOR INDUSTRIES IN THE MISCELLANEOUS GROUP WHICH ARE NOT COVERED BY SEPARATE REPORTS, 1919 TO 1927, AND BY STATES, 1927—Con.

[See note at head of this table. p. 1237]

## MODELS AND PATTERNS, NOT INCLUDING PAPER PATTERNS

[Principal products: Patterns and models for use in making matrices or molds for casting metal or for making brick, glassware, etc.; hat blocks, wax figures, dress and show forms, and similar commodities]

| YEAR AND STATE            | Number of establishments | Wage earners (average for the year) | Wages        | Cost of materials, supplies, fuel, and power | Value of products | Value added by manufacture | Horse-power |
|---------------------------|--------------------------|-------------------------------------|--------------|--|-------------------|----------------------------|-------------|
| <i>United States</i>      |                          |                                     |              |  |                   |                            |             |
| 1927                      | 693                      | 5,584                               | \$10,544,694 | \$4,659,266                                  | 1 \$23,494,992    | \$18,835,726               | 11,465      |
| 1925                      | 689                      | 5,262                               | 9,419,777    | 4,927,270                                    | 1 22,484,585      | 17,557,355                 | 10,473      |
| 1923                      | 697                      | 5,813                               | 9,765,810    | 11,187,572                                   | 1 30,164,709      | 18,977,137                 | 12,072      |
| 1921                      | 656                      | 3,936                               | 6,026,634    | 4,042,100                                    | 1 15,742,112      | 11,700,012                 | (2)         |
| 1919                      | 928                      | 6,949                               | 10,318,104   | 6,395,834                                    | 1 25,300,389      | 18,904,555                 | 13,750      |
| <i>States, 1927</i>       |                          |                                     |              |  |                   |                            |             |
| California                | 41                       | 210                                 | 389,080      | 161,605                                      | 845,160           | 683,555                    | 494         |
| Colorado                  | 6                        | 14                                  | 22,854       | 12,259                                       | 61,805            | 49,540                     | 51          |
| Connecticut               | 21                       | 132                                 | 243,768      | 80,658                                       | 500,835           | 420,177                    | 236         |
| Illinois                  | 82                       | 532                                 | 1,086,074    | 413,770                                      | 2,226,618         | 1,812,848                  | 1,028       |
| Indiana                   | 16                       | 113                                 | 197,824      | 70,966                                       | 412,103           | 341,137                    | 269         |
| Iowa                      | 7                        | 25                                  | 36,918       | 13,604                                       | 79,983            | 66,379                     | 66          |
| Kentucky                  | 3                        | 5                                   | 7,756        | 12,227                                       | 35,849            | 23,622                     | 27          |
| Maryland                  | 8                        | 28                                  | 40,607       | 12,469                                       | 90,292            | 77,823                     | 84          |
| Massachusetts             | 60                       | 459                                 | 825,411      | 307,313                                      | 2,076,645         | 1,769,332                  | 610         |
| Michigan                  | 44                       | 824                                 | 2,069,106    | 680,030                                      | 3,856,321         | 3,176,291                  | 1,218       |
| Minnesota                 | 9                        | 41                                  | 60,584       | 18,551                                       | 129,787           | 111,216                    | 84          |
| Missouri                  | 25                       | 223                                 | 336,153      | 153,451                                      | 869,224           | 715,773                    | 269         |
| New Jersey                | 29                       | 159                                 | 268,364      | 116,643                                      | 660,715           | 544,072                    | 354         |
| New York                  | 98                       | 791                                 | 1,483,900    | 763,013                                      | 3,877,394         | 3,114,381                  | 1,303       |
| Ohio                      | 100                      | 912                                 | 1,722,252    | 677,654                                      | 3,652,058         | 2,974,404                  | 2,624       |
| Oregon                    | 7                        | 33                                  | 51,626       | 12,517                                       | 106,447           | 93,930                     | 118         |
| Pennsylvania              | 64                       | 549                                 | 830,363      | 871,709                                      | 2,315,833         | 1,444,124                  | 1,500       |
| Rhode Island              | 6                        | 50                                  | 73,623       | 27,309                                       | 131,149           | 103,840                    | 77          |
| Washington                | 13                       | 33                                  | 55,177       | 27,571                                       | 162,503           | 134,932                    | 222         |
| Wisconsin                 | 36                       | 375                                 | 610,170      | 167,981                                      | 1,090,588         | 922,607                    | 564         |
| Other States <sup>3</sup> | 18                       | 76                                  | 133,084      | 57,966                                       | 313,703           | 255,737                    | 247         |

<sup>1</sup> Includes value of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of models and patterns, not including paper patterns: 1927, \$424,450; 1925, \$438,368; corresponding amounts for earlier years not available. Does not include the following values of models and patterns, not including paper patterns, made as secondary products by establishments classified in other industries: 1927, \$762,165; 1925, \$816,809; 1923, \$1,247,026; 1921, \$432,206; 1919, \$1,105,565.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Alabama, 1 establishment; Delaware, 2; District of Columbia, 1; Georgia, 1; Louisiana, 1; Maine, 1; Nebraska, 2; New Hampshire, 2; Tennessee, 2; Texas, 3; Virginia, 1; West Virginia, 1.

## PAVING MATERIALS, OTHER THAN BRICK OR GRANITE

[Principal products: Asphalt paving blocks; mixed paving materials, including artificial asphalt, asphalt mixture for top coat and binder, bituminous and other cements, liquid asphalts, and tar concrete; un-mixed materials, including crushed furnace slag, granite, sandstone, and limestone, distillates, pitch, tar, coal tar, flux, screenings, macadam, riprap, and ballast]

| YEAR AND STATE       | Number of establishments | Wage earners (average for the year) | Wages        | Cost of materials, supplies, fuel, and power | Value of products | Value added by manufacture | Horse-power |
|----------------------|--------------------------|-------------------------------------|--------------|--|-------------------|----------------------------|-------------|
| <i>United States</i> |                          |                                     |              |  |                   |                            |             |
| 1927                 | 592                      | 19,250                              | \$25,003,093 | \$38,007,531                                 | 1 \$103,249,144   | \$65,241,613               | 263,760     |
| 1925                 | 604                      | 17,941                              | 22,367,954   | 33,434,660                                   | 1 90,630,056      | 57,195,396                 | 207,469     |
| 1923                 | 627                      | 19,442                              | 22,108,783   | 24,841,551                                   | 1 71,455,822      | 46,614,271                 | 197,290     |
| 1921                 | 653                      | 15,387                              | 17,284,903   | 24,473,607                                   | 1 61,128,969      | 36,655,362                 | (2)         |
| 1919                 | 889                      | 16,072                              | 17,169,154   | 10,019,811                                   | 1 45,740,606      | 29,720,795                 | 191,471     |
| <i>States, 1927</i>  |                          |                                     |              |  |                   |                            |             |
| Alabama              | 6                        | 469                                 | 683,645      | 2,330,869                                    | 4,811,394         | 2,480,525                  | 4,131       |
| California           | 37                       | 1,177                               | 1,685,158    | 1,741,377                                    | 7,152,310         | 5,410,933                  | 25,690      |
| Connecticut          | 11                       | 373                                 | 655,221      | 326,144                                      | 2,321,191         | 1,995,047                  | 4,420       |
| Florida              | 9                        | 324                                 | 336,035      | 910,116                                      | 1,949,262         | 1,039,262                  | 1,760       |

<sup>1</sup> Includes values of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of paving materials: 1927, \$4,538,661; 1925, \$9,839,546; corresponding amounts for earlier years not available. Does not include the following values of paving materials made as secondary products by establishments classified in other industries: 1927, \$3,426,805; 1925, \$4,190,280; 1923, \$2,297,924; 1921, \$2,797,639; 1919, \$534,842.

<sup>2</sup> Not called for on schedule.

## SUMMARY FOR INDUSTRIES IN THE MISCELLANEOUS GROUP WHICH ARE NOT COVERED BY SEPARATE REPORTS, 1919 TO 1927, AND BY STATES, 1927—Con.

[See note at head of this table, p. 1237]

## PAVING MATERIALS, OTHER THAN BRICK OR GRANITE—Continued

| YEAR AND STATE                  | Number of establishments | Wage earners (average for the year) | Wages       | Cost of materials, supplies, fuel, and power | Value of products | Value added by manufacture | Horse-power |
|---------------------------------|--------------------------|-------------------------------------|-------------|--|-------------------|----------------------------|-------------|
| <i>States, 1927—Continued</i>   |                          |                                     |             |  |                   |                            |             |
| Georgia.....                    | 6                        | 305                                 | \$207, 346  | \$92, 935                                    | \$477, 074        | \$384, 139                 | 2, 130      |
| Illinois.....                   | 34                       | 1, 491                              | 2, 356, 212 | 3, 321, 864                                  | 9, 699, 149       | 6, 177, 285                | 27, 713     |
| Indiana.....                    | 20                       | 545                                 | 777, 693    | 982, 146                                     | 2, 796, 471       | 1, 814, 825                | 7, 440      |
| Iowa.....                       | 10                       | 187                                 | 196, 407    | 174, 609                                     | 648, 331          | 473, 722                   | 2, 554      |
| Kansas.....                     | 8                        | 124                                 | 115, 773    | 83, 346                                      | 345, 038          | 261, 092                   | 1, 751      |
| Kentucky.....                   | 17                       | 963                                 | 837, 449    | 787, 233                                     | 3, 105, 483       | 2, 318, 250                | 4, 804      |
| Maryland.....                   | 16                       | 460                                 | 542, 931    | 640, 118                                     | 1, 071, 783       | 1, 031, 065                | 4, 843      |
| Massachusetts.....              | 18                       | 385                                 | 700, 415    | 898, 175                                     | 2, 536, 423       | 1, 638, 253                | 7, 071      |
| Michigan.....                   | 6                        | 457                                 | 737, 927    | 1, 166, 147                                  | 3, 140, 027       | 1, 979, 880                | 11, 138     |
| Minnesota.....                  | 4                        | 117                                 | 201, 510    | 310, 408                                     | 751, 753          | 441, 345                   | 3, 845      |
| Missouri.....                   | 30                       | 1, 084                              | 718, 211    | 733, 298                                     | 2, 093, 279       | 1, 359, 981                | 7, 134      |
| New Jersey.....                 | 28                       | 786                                 | 1, 303, 754 | 3, 998, 445                                  | 7, 153, 053       | 3, 154, 608                | 13, 141     |
| New York.....                   | 51                       | 1, 943                              | 3, 407, 640 | 5, 039, 599                                  | 14, 823, 954      | 9, 784, 355                | 38, 322     |
| North Carolina.....             | 11                       | 814                                 | 676, 088    | 923, 950                                     | 2, 055, 263       | 1, 131, 303                | 5, 924      |
| Ohio.....                       | 69                       | 2, 087                              | 2, 802, 486 | 6, 496, 985                                  | 15, 243, 642      | 8, 751, 657                | 26, 606     |
| Oklahoma.....                   | 9                        | 290                                 | 291, 886    | 343, 502                                     | 1, 282, 141       | 938, 639                   | 4, 949      |
| Oregon.....                     | 3                        | 42                                  | 64, 346     | 32, 549                                      | 185, 786          | 153, 237                   | 600         |
| Pennsylvania.....               | 114                      | 2, 300                              | 3, 166, 027 | 4, 205, 835                                  | 11, 365, 959      | 7, 160, 124                | 26, 382     |
| South Carolina.....             | 5                        | 579                                 | 802, 166    | 303, 070                                     | 1, 238, 071       | 935, 001                   | 5, 540      |
| South Dakota.....               | 3                        | 66                                  | 69, 528     | 49, 382                                      | 213, 695          | 164, 313                   | 1, 191      |
| Tennessee.....                  | 7                        | 215                                 | 182, 851    | 123, 606                                     | 522, 632          | 399, 026                   | 1, 937      |
| Texas.....                      | 11                       | 349                                 | 320, 160    | 399, 827                                     | 1, 164, 424       | 764, 597                   | 4, 115      |
| Virginia.....                   | 12                       | 441                                 | 427, 151    | 376, 198                                     | 1, 242, 663       | 866, 465                   | 5, 357      |
| Washington.....                 | 3                        | 60                                  | 49, 899     | 25, 723                                      | 119, 448          | 93, 725                    | 405         |
| West Virginia.....              | 4                        | 138                                 | 142, 023    | 97, 216                                      | 443, 249          | 340, 033                   | 1, 643      |
| Wisconsin.....                  | 15                       | 264                                 | 348, 733    | 372, 643                                     | 1, 218, 374       | 845, 731                   | 8, 169      |
| Other States <sup>3</sup> ..... | 15                       | 335                                 | 406, 440    | 520, 206                                     | 1, 466, 701       | 940, 495                   | 2, 955      |

<sup>3</sup> Arkansas, 2 establishments; Colorado, 1; Delaware, 2; Maine, 1; Mississippi, 1; Nebraska, 2; New Hampshire, 1; New Mexico, 1; Rhode Island, 3; Utah, 1.

## PENCILS, LEAD

[Principal products: Complete pencils made of graphite and wood, pencils with metal holders and removable leads, holders only, leads only, and colored and indelible pencils]

| <i>United States<sup>1</sup></i> |    |        |               |               |                |                |                  |
|----------------------------------|----|--------|---------------|---------------|----------------|----------------|------------------|
| 1927.....                        | 27 | 5, 301 | \$5, 942, 783 | \$9, 931, 493 | \$24, 499, 830 | \$14, 568, 346 | 9, 832           |
| 1925.....                        | 25 | 5, 636 | 6, 031, 305   | 9, 168, 525   | 25, 050, 757   | 15, 882, 232   | 8, 209           |
| 1923.....                        | 20 | 5, 826 | 5, 540, 474   | 8, 659, 173   | 24, 567, 504   | 15, 908, 331   | 7, 288           |
| 1921.....                        | 14 | 5, 134 | 5, 034, 890   | 7, 259, 861   | 21, 382, 050   | 14, 122, 189   | ( <sup>4</sup> ) |
| 1919.....                        | 12 | 5, 970 | 5, 290, 050   | 9, 073, 663   | 24, 134, 159   | 15, 060, 596   | 8, 099           |

<sup>1</sup> Statistics for States can not be given without disclosing data reported by individual establishments.

<sup>2</sup> California, 1 establishment; Georgia, 2; Illinois, 5; Minnesota, 2; Missouri, 1; New Jersey, 5; New York, 4; Pennsylvania, 3; Rhode Island, 2; Tennessee, 1; West Virginia, 1.

<sup>3</sup> Includes value of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of lead pencils: 1927, \$5,921,675; 1925, \$5,861,792; corresponding amounts for earlier years not available. Does not include the following values of lead pencils made as secondary products by establishments classified in other industries: 1927, \$2,861,558; 1925, \$1,329,872; 1923, \$927,761; 1921, \$149,027; 1919, \$9,769.

<sup>4</sup> Not called for on schedule.

## SUMMARY FOR INDUSTRIES IN THE MISCELLANEOUS GROUP WHICH ARE NOT COVERED BY SEPARATE REPORTS, 1919 TO 1927, AND BY STATES, 1927—CON.

[See note at head of this table, p. 1237]

## PENS, FOUNTAIN AND STYLOGRAPHIC

*Principal products:* Complete fountain pens, stylographic pens, and ink pencils; rubber holders and other parts, except gold pen points, which are products of the gold-pen industry]

| YEAR AND STATE                  | Number of establishments | Wage earners (average for the year) | Wages       | Cost of materials, supplies, fuel, and power | Value of products | Value added by manufacture | Horse-power |
|---------------------------------|--------------------------|-------------------------------------|-------------|--|-------------------|----------------------------|-------------|
| <i>United States</i>            |                          |                                     |             |  |                   |                            |             |
| 1927.....                       | 54                       | 3,360                               | \$3,042,992 | \$9,637,976                                  | 1 \$23,255,025    | \$13,617,049               | 3,334       |
| 1925.....                       | 60                       | 3,490                               | 4,054,878   | 7,740,706                                    | 1 24,035,321      | 16,294,615                 | 3,213       |
| 1923.....                       | 53                       | 3,398                               | 3,659,206   | 7,909,464                                    | 1 20,239,491      | 12,330,027                 | 2,710       |
| 1921.....                       | 51                       | 2,742                               | 3,043,920   | 5,619,854                                    | 1 12,794,514      | 7,174,660                  | (2)         |
| 1919.....                       | 56                       | 3,207                               | 2,980,663   | 5,811,419                                    | 1 15,996,808      | 10,185,359                 | 1,492       |
| <i>States, 1927</i>             |                          |                                     |             |  |                   |                            |             |
| Illinois.....                   | 5                        | 118                                 | 154,883     | 285,405                                      | 643,055           | 357,650                    | 123         |
| Massachusetts.....              | 4                        | 120                                 | 156,603     | 317,181                                      | 736,231           | 419,050                    | 79          |
| New York.....                   | 24                       | 442                                 | 613,250     | 1,150,995                                    | 2,452,402         | 1,301,407                  | 395         |
| Ohio.....                       | 6                        | 242                                 | 276,169     | 568,664                                      | 1,749,764         | 1,181,100                  | 220         |
| Other States <sup>1</sup> ..... | 15                       | 2,438                               | 2,742,087   | 7,315,731                                    | 17,673,573        | 10,357,842                 | 2,517       |

<sup>1</sup> Includes value of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of fountain and stylographic pens: 1927, \$5,350,292; 1925, \$1,850,910; corresponding amounts for earlier years not available. Does not include the following values of fountain and stylographic pens made as secondary products by establishments classified in other industries: 1927, \$1,348,082; 1925, \$1,807,862; 1923, \$1,900,905; 1921, \$1,129,761; 1919, \$868,039.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Alabama, 1 establishment; Connecticut, 1; Iowa, 1; Missouri, 1; New Jersey, 6; Pennsylvania, 1; Rhode Island, 1; Virginia, 1; Wisconsin, 2.

## PHOTOGRAPHIC APPARATUS AND MATERIALS

*Principal products:* Cameras, motion-picture machines, photostat machines, and blue-printing machines; flash-light apparatus and materials; tripods, plate holders, film rewinders and reels, and developing tanks; sensitized paper and cloth, dry plates and films; lantern and stereopticon slides; and sheet gelatin]

| YEAR AND STATE          | Number of establishments | Wage earners (average for the year) | Wages        | Cost of materials, supplies, fuel, and power | Value of products | Value added by manufacture | Horse-power |
|-------------------------|--------------------------|-------------------------------------|--------------|--|-------------------|----------------------------|-------------|
| <i>United States</i>    |                          |                                     |              |  |                   |                            |             |
| 1927.....               | 1 122                    | 12,120                              | \$18,310,992 | \$29,020,235                                 | 2 \$90,827,737    | \$61,807,502               | 24,838      |
| 1925.....               | 118                      | 9,154                               | 13,300,259   | 25,779,218                                   | 2 78,653,651      | 52,874,433                 | 22,866      |
| 1923.....               | 111                      | 9,905                               | 13,224,381   | 19,253,149                                   | 2 71,828,028      | 52,574,879                 | 34,791      |
| 1921.....               | 136                      | 10,690                              | 13,771,145   | 22,835,741                                   | 2 70,595,344      | 47,759,603                 | (3)         |
| 1919 <sup>4</sup> ..... | 187                      | 13,465                              | 14,900,237   | 33,806,708                                   | 2 88,393,022      | 54,586,314                 | 24,610      |

<sup>1</sup> California, 9 establishments; Colorado, 1; Illinois, 24; Indiana, 4; Iowa, 2; Massachusetts, 5; Michigan, 3; Minnesota, 4; Missouri, 10; New Jersey, 1; New York, 35; Ohio, 3; Pennsylvania, 16; Washington, 2; Wisconsin, 3. Statistics for California, Illinois, Indiana, Massachusetts, Minnesota, Missouri, Pennsylvania, and Wisconsin are given in Table III of "Statistics for Industries and States." In order to avoid disclosing data reported by individual establishments, no statistics are given for New York, the leading State in the industry, nor for other States with the exception of those named in the preceding sentence.

<sup>2</sup> Includes value of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of photographic apparatus: 1927, \$24,638; 1925, \$35,332; corresponding amounts for earlier years not available. Does not include the following values of photographic apparatus made as secondary products by establishments classified in other industries: 1927, \$623,082; 1925, \$85,379; 1923, \$977,522; 1921, \$1,368,347; 1919, \$1,173,791.

<sup>3</sup> Not called for on schedule.

<sup>4</sup> Not including data for 50 establishments engaged primarily in the development of exposed motion-picture films and the printing of projection films, which were included in the statistics for "Photographic materials" as published in the report for 1919.

## SUMMARY FOR INDUSTRIES IN THE MISCELLANEOUS GROUP WHICH ARE NOT COVERED BY SEPARATE REPORTS, 1919 TO 1927, AND BY STATES, 1927—Con.

[See note at head of this table, p. 1237]

## PIPES (TOBACCO)

[Principal products: Tobacco pipes of all kinds made of wood, corncobs, clay, meerschaum, and composition, with mouthpieces of amber, rubber, bone, celluloid, horn, ivory, etc.]

| YEAR AND STATE            | Number of establishments | Wage earners (average for the year) | Wages       | Cost of materials, supplies, fuel, and power | Value of products | Value added by manufacture | Horse-power |
|---------------------------|--------------------------|-------------------------------------|-------------|--|-------------------|----------------------------|-------------|
| <i>United States</i>      |                          |                                     |             |  |                   |                            |             |
| 1927                      | 23                       | 1,807                               | \$2,278,537 | \$2,722,706                                  | \$7,273,806       | \$4,551,100                | 1,928       |
| 1925                      | 28                       | 1,970                               | 2,290,769   | 2,718,135                                    | 7,298,595         | 4,580,460                  | 2,052       |
| 1923                      | 30                       | 2,402                               | 2,720,218   | 3,827,927                                    | 9,704,816         | 5,876,889                  | 2,354       |
| 1921                      | 36                       | 1,765                               | 1,937,097   | 2,825,856                                    | 7,123,810         | 4,297,954                  | (?)         |
| 1919                      | 56                       | 2,539                               | 2,555,291   | 3,497,414                                    | 11,553,777        | 8,056,363                  | 2,001       |
| <i>States, 1927</i>       |                          |                                     |             |  |                   |                            |             |
| Missouri                  | 7                        | 295                                 | 190,760     | 268,740                                      | 638,834           | 370,085                    | 363         |
| New York                  | 11                       | 1,033                               | 1,370,289   | 1,769,559                                    | 4,204,346         | 2,434,787                  | 1,246       |
| Other States <sup>2</sup> | 5                        | 479                                 | 717,488     | 684,398                                      | 2,430,626         | 1,746,223                  | 319         |

<sup>1</sup> Includes value of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of tobacco pipes: 1927, \$78,786; 1925, \$22,459; corresponding amounts for earlier years not available. Does not include the following values of tobacco pipes made as secondary products by establishments classified in other industries: 1927, \$50,913; 1925, \$82,960; 1923, \$9,108; 1919, \$6,400. No comparable data for 1921.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Illinois, 1 establishment; Massachusetts, 2; New Jersey, 1; Virginia, 1.

## ROOFING MATERIALS, NOT INCLUDING WOOD, SLATE, BURN'T TILE, ASBESTOS, OR METAL OTHER THAN METAL SHINGLES AND CEILINGS

[Principal products: Asphalt, composition, and metal shingles; tarred and other saturated roofing felts, roofing cement, various roofing compositions, and metal ceilings. (The laying of roofing, which is a building and not a manufacturing process, is not included in this industry)]

| YEAR AND STATE            | Number of establishments | Wage earners (average for the year) | Wages        | Cost of materials, supplies, fuel, and power | Value of products | Value added by manufacture | Horse-power |
|---------------------------|--------------------------|-------------------------------------|--------------|--|-------------------|----------------------------|-------------|
| <i>United States</i>      |                          |                                     |              |  |                   |                            |             |
| 1927                      | 100                      | 7,255                               | \$10,712,626 | \$67,327,735                                 | \$123,210,305     | \$55,882,570               | 41,740      |
| 1925                      | 140                      | 8,310                               | 12,144,764   | 78,596,627                                   | 123,590,811       | 44,994,184                 | 34,161      |
| 1923                      | 122                      | 7,665                               | 10,826,123   | 55,520,343                                   | 84,841,931        | 28,821,588                 | 39,593      |
| 1921                      | 136                      | 6,908                               | 9,213,047    | 45,013,397                                   | 76,193,430        | 31,130,033                 | (?)         |
| 1919                      | 178                      | 8,871                               | 10,344,043   | 52,537,777                                   | 85,895,359        | 33,307,582                 | 39,247      |
| <i>States, 1927</i>       |                          |                                     |              |  |                   |                            |             |
| California                | 4                        | 576                                 | 742,558      | 3,763,020                                    | 8,071,330         | 4,308,250                  | 2,684       |
| Illinois                  | 21                       | 2,199                               | 3,468,850    | 22,473,729                                   | 40,211,251        | 17,737,522                 | 14,711      |
| Massachusetts             | 5                        | 457                                 | 622,430      | 5,256,915                                    | 9,514,626         | 4,257,711                  | 2,681       |
| Michigan                  | 4                        | 143                                 | 225,915      | 1,104,361                                    | 2,243,525         | 1,139,164                  | 1,143       |
| Missouri                  | 5                        | 158                                 | 201,483      | 1,666,430                                    | 4,112,841         | 2,446,411                  | 849         |
| New Jersey                | 10                       | 1,101                               | 1,885,280    | 11,308,321                                   | 19,649,492        | 8,341,171                  | 3,487       |
| New York                  | 13                       | 389                                 | 530,131      | 2,833,263                                    | 6,088,183         | 3,254,920                  | 1,799       |
| Ohio                      | 7                        | 869                                 | 1,292,630    | 6,706,708                                    | 12,080,407        | 5,283,699                  | 8,336       |
| Pennsylvania              | 11                       | 796                                 | 1,119,170    | 7,479,358                                    | 13,333,795        | 5,864,437                  | 4,400       |
| Other States <sup>2</sup> | 20                       | 567                                 | 615,179      | 4,045,570                                    | 7,904,855         | 3,259,285                  | 1,040       |

<sup>1</sup> Includes values of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of roofing materials: 1927, \$17,834,218; 1925, \$18,622,515; corresponding amounts for earlier years not available. Does not include the following values of roofing materials made as secondary products by establishments classified in other industries: 1927, \$9,959,321; 1925, \$8,207,330; 1923, \$4,649,096; 1921, \$8,776,319; 1919, \$8,415,514.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Alabama, 1 establishment; Colorado, 1; Georgia, 1; Indiana, 2; Louisiana, 2; Maryland, 1; Minnesota, 3; Oklahoma, 2; Oregon, 1; South Carolina, 1; Texas, 1; Utah, 1; Virginia, 2; Washington, 1.

## SUMMARY FOR INDUSTRIES IN THE MISCELLANEOUS GROUP WHICH ARE NOT COVERED BY SEPARATE REPORTS, 1919 TO 1927, AND BY STATES, 1927—CON.

[See note at head of this table, p. 1237]

## SANDPAPER, EMERY PAPER, AND OTHER ABRASIVE PAPER AND CLOTH

[Principal products: Paper and cloth coated with abrasives such as sand, flint, quartz, carborundum, and glass]

| YEAR AND STATE                    | Number of establishments | Wage earners (average for the year) | Wages         | Cost of materials, supplies, fuel, and power | Value of products           | Value added by manufacture | Horse-power      |
|-----------------------------------|--------------------------|-------------------------------------|---------------|--|-----------------------------|----------------------------|------------------|
| <i>United States</i> <sup>1</sup> |                          |                                     |               |  |                             |                            |                  |
| 1927                              | 2                        | 917                                 | \$1, 228, 420 | \$5, 470, 629                                | <sup>3</sup> \$12, 232, 064 | \$6, 761, 435              | 2, 834           |
| 1925                              | 12                       | 1, 230                              | 1, 713, 967   | 7, 341, 590                                  | <sup>3</sup> 15, 622, 720   | 8, 281, 130                | 4, 513           |
| 1923                              | 14                       | 1, 176                              | 1, 518, 526   | 6, 870, 410                                  | <sup>3</sup> 13, 753, 079   | 6, 882, 669                | 3, 694           |
| 1921                              | 12                       | 680                                 | 867, 585      | 3, 591, 851                                  | <sup>3</sup> 6, 462, 025    | 2, 870, 174                | ( <sup>4</sup> ) |
| 1919                              | 12                       | 771                                 | 840, 766      | 5, 060, 561                                  | <sup>3</sup> 9, 303, 734    | 4, 243, 173                | 3, 977           |

<sup>1</sup> Statistics for States can not be given without disclosing data reported by individual establishments.<sup>2</sup> Massachusetts, 2 establishments; Minnesota, 1; New Jersey, 1; New York, 3; Pennsylvania, 2; Wisconsin, 1.<sup>3</sup> Includes value of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of sandpaper, emery paper, and other abrasive paper and cloth: 1927, \$284,000; 1925, \$763,100; corresponding amounts for earlier years not available. Does not include the following values of sand, emery, and other abrasive paper and cloth made as secondary products by establishments classified in other industries: 1927, \$5,500,641; 1925, \$2,929,348; 1923, \$2,862,508; 1921, \$1,393,841; 1919, \$2,764,150.<sup>4</sup> Not called for on schedule.

## SIGNS AND ADVERTISING NOVELTIES

[Principal products: Electric signs; illuminated signs; talking signs; street-car destination signs; painted and decorated show cards; gold-plated, metallic, enameled-wood, and other letters; and advertising novelties such as utensils and conveniences marked with advertising notices. Custom sign painting for offices and stores and on billboards is not included in this industry]

| YEAR AND STATE            | Number of establishments | Wage earners (average for the year) | Wages          | Cost of materials, supplies, fuel, and power | Value of products           | Value added by manufacture | Horse-power      |
|---------------------------|--------------------------|-------------------------------------|----------------|--|-----------------------------|----------------------------|------------------|
| <i>United States</i>      |                          |                                     |                |  |                             |                            |                  |
| 1927                      | 813                      | 16, 907                             | \$24, 044, 389 | \$30, 892, 294                               | <sup>1</sup> \$98, 481, 024 | \$67, 588, 730             | 15, 325          |
| 1925                      | 759                      | 15, 128                             | 20, 764, 187   | 25, 858, 149                                 | <sup>1</sup> 89, 669, 343   | 63, 811, 194               | 12, 550          |
| 1923                      | 648                      | 12, 988                             | 16, 429, 466   | 22, 641, 082                                 | <sup>1</sup> 67, 223, 676   | 44, 582, 594               | 11, 781          |
| 1921                      | 624                      | 10, 373                             | 12, 703, 005   | 18, 734, 401                                 | <sup>1</sup> 53, 270, 864   | 34, 536, 463               | ( <sup>2</sup> ) |
| 1919                      | 779                      | 10, 432                             | 9, 715, 216    | 16, 071, 924                                 | <sup>1</sup> 43, 343, 093   | 27, 271, 169               | 7, 714           |
| <i>States, 1927</i>       |                          |                                     |                |  |                             |                            |                  |
| Alabama                   | 6                        | 45                                  | 84, 804        | 40, 489                                      | 270, 253                    | 229, 764                   | 1                |
| California                | 64                       | 485                                 | 911, 985       | 655, 521                                     | 2, 707, 368                 | 2, 051, 847                | 150              |
| Colorado                  | 12                       | 45                                  | 62, 224        | 97, 322                                      | 342, 515                    | 245, 193                   | 10               |
| Connecticut               | 13                       | 80                                  | 124, 720       | 121, 866                                     | 458, 239                    | 326, 373                   | 26               |
| Florida                   | 7                        | 66                                  | 105, 225       | 94, 428                                      | 449, 310                    | 354, 882                   | 6                |
| Georgia                   | 8                        | 54                                  | 77, 629        | 101, 077                                     | 253, 983                    | 152, 906                   | 6                |
| Illinois                  | 113                      | 2, 851                              | 4, 080, 971    | 5, 175, 558                                  | 17, 643, 884                | 12, 468, 326               | 2, 927           |
| Indiana                   | 17                       | 222                                 | 285, 952       | 375, 903                                     | 1, 323, 579                 | 947, 671                   | 99               |
| Iowa                      | 13                       | 382                                 | 448, 294       | 1, 130, 927                                  | 3, 290, 239                 | 2, 159, 312                | 102              |
| Kansas                    | 7                        | 25                                  | 38, 599        | 57, 459                                      | 163, 000                    | 105, 541                   | 11               |
| Kentucky                  | 7                        | 234                                 | 264, 468       | 428, 121                                     | 1, 204, 152                 | 775, 731                   | 234              |
| Louisiana                 | 5                        | 39                                  | 59, 330        | 34, 356                                      | 153, 343                    | 118, 987                   | 8                |
| Maine                     | 4                        | 27                                  | 33, 483        | 32, 967                                      | 109, 077                    | 76, 110                    | 6                |
| Maryland                  | 20                       | 632                                 | 849, 324       | 810, 224                                     | 2, 890, 497                 | 2, 080, 273                | 336              |
| Massachusetts             | 22                       | 338                                 | 435, 605       | 381, 474                                     | 1, 283, 552                 | 902, 078                   | 266              |
| Michigan                  | 25                       | 570                                 | 874, 325       | 1, 084, 650                                  | 3, 711, 029                 | 2, 626, 379                | 889              |
| Minnesota                 | 32                       | 1, 593                              | 2, 205, 826    | 2, 540, 264                                  | 9, 755, 891                 | 7, 215, 627                | 3, 154           |
| Missouri                  | 25                       | 401                                 | 522, 488       | 980, 465                                     | 2, 489, 816                 | 1, 509, 351                | 284              |
| New Jersey                | 25                       | 899                                 | 1, 255, 968    | 1, 484, 051                                  | 4, 781, 149                 | 3, 297, 098                | 846              |
| New York                  | 143                      | 2, 523                              | 4, 107, 270    | 4, 920, 401                                  | 15, 053, 597                | 10, 133, 196               | 2, 138           |
| North Carolina            | 3                        | 13                                  | 17, 110        | 9, 113                                       | 36, 681                     | 27, 568                    | —                |
| Ohio                      | 82                       | 2, 586                              | 3, 217, 755    | 4, 870, 548                                  | 14, 483, 009                | 9, 612, 461                | 2, 435           |
| Oregon                    | 6                        | 27                                  | 53, 623        | 42, 934                                      | 151, 972                    | 109, 038                   | 8                |
| Pennsylvania              | 66                       | 1, 107                              | 1, 605, 802    | 1, 845, 639                                  | 5, 230, 368                 | 3, 384, 729                | 336              |
| Rhode Island              | 3                        | 15                                  | 25, 822        | 9, 310                                       | 55, 072                     | 45, 762                    | 6                |
| Tennessee                 | 7                        | 69                                  | 74, 298        | 158, 082                                     | 393, 818                    | 235, 736                   | 41               |
| Texas                     | 24                       | 216                                 | 290, 592       | 318, 135                                     | 992, 734                    | 674, 599                   | 61               |
| Virginia                  | 5                        | 171                                 | 232, 321       | 251, 056                                     | 1, 210, 607                 | 954, 551                   | 70               |
| Washington                | 7                        | 50                                  | 103, 151       | 98, 766                                      | 305, 746                    | 206, 980                   | 11               |
| West Virginia             | 6                        | 34                                  | 47, 008        | 51, 710                                      | 162, 717                    | 111, 007                   | 3                |
| Wisconsin                 | 25                       | 988                                 | 1, 369, 612    | 2, 558, 939                                  | 6, 389, 830                 | 3, 830, 891                | 347              |
| Other States <sup>3</sup> | 11                       | 120                                 | 178, 805       | 180, 234                                     | 733, 997                    | 609, 763                   | 4                |

<sup>1</sup> Includes value of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of signs and advertising novelties: 1927, \$2,314,716; 1925, \$2,298,718; corresponding amounts for earlier years not available. Does not include the following values of signs and advertising novelties made as secondary products by establishments classified in other industries: 1927, \$2,050,549; 1925, \$1,685,680; 1923, \$2,510,678; 1921, \$2,201,634; 1919, \$2,402,023.<sup>2</sup> Not called for on schedule.<sup>3</sup> District of Columbia, 4 establishments; Mississippi, 1; Nebraska, 2; New Hampshire, 1; North Dakota 1; Oklahoma, 2.

## SUMMARY FOR INDUSTRIES IN THE MISCELLANEOUS GROUP WHICH ARE NOT COVERED BY SEPARATE REPORTS, 1919 TO 1927, AND BY STATES, 1927—Con.

[See note at head of this table, p. 1237]

## SODA-WATER APPARATUS

[Principal products: Soda fountains, parts, and accessories; siphons; carbonators; etc.]

| YEAR AND STATE            | Number of establishments | Wage earners (average for the year) | Wages       | Cost of materials, supplies, fuel, and power | Value of products | Value added by manufacture | Horse-power      |
|---------------------------|--------------------------|-------------------------------------|-------------|--|-------------------|----------------------------|------------------|
| <i>United States</i>      |                          |                                     |             |  |                   |                            |                  |
| 1927                      | 48                       | 2,838                               | \$4,222,944 | \$10,390,971                                 | \$23,929,068      | \$13,538,097               | 5,042            |
| 1925                      | 60                       | 2,372                               | 3,628,340   | 8,632,026                                    | 12,031,816        | 13,399,790                 | 4,180            |
| 1923                      | 66                       | 2,059                               | 3,779,476   | 6,712,374                                    | 18,169,234        | 11,456,860                 | 4,238            |
| 1921                      | 62                       | 2,144                               | 3,047,981   | 6,495,791                                    | 15,407,131        | 8,911,340                  | ( <sup>2</sup> ) |
| 1919                      | 66                       | 2,599                               | 3,232,398   | 6,626,868                                    | 15,185,370        | 8,558,502                  | 4,131            |
| <i>States, 1927</i>       |                          |                                     |             |  |                   |                            |                  |
| Illinois                  | 9                        | 1,227                               | 2,018,198   | 5,593,048                                    | 12,698,261        | 7,105,213                  | 2,198            |
| Massachusetts             | 3                        | 250                                 | 353,219     | 582,638                                      | 1,560,349         | 977,711                    | 711              |
| New York                  | 16                       | 111                                 | 233,833     | 554,753                                      | 1,269,011         | 714,258                    | 125              |
| Pennsylvania              | 4                        | 228                                 | 381,758     | 788,267                                      | 1,833,881         | 1,045,614                  | 311              |
| Other States <sup>1</sup> | 16                       | 1,022                               | 1,235,936   | 2,872,265                                    | 6,567,566         | 3,695,301                  | 1,697            |

<sup>1</sup> Includes value of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of soda-water apparatus: 1927, \$4,166,656; 1925, \$4,350,921; corresponding amounts for earlier years not available. Does not include the following values of soda-water apparatus made as secondary products by establishments classified in other industries: 1927, \$565,148; 1925, \$207,438; 1923, \$58,800; 1921, \$248,417; 1919, \$1,657,841.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> California, 1 establishment; Colorado, 1; Kentucky, 1; Michigan, 1; Missouri, 1; New Jersey, 3; Ohio, 4; Oklahoma, 1; Texas, 1; Virginia, 1; Washington, 1.

## STATIONERY GOODS, NOT ELSEWHERE CLASSIFIED

[The establishments in this industry are engaged primarily in the manufacture of papeterie and other stationers' specialties; inkstands, penholders, desk pads, etc.; calendars; copying devices; school supplies; etc.]

| YEAR AND STATE            | Number of establishments | Wage earners (average for the year) | Wages       | Cost of materials, supplies, fuel, and power | Value of products | Value added by manufacture | Horse-power      |
|---------------------------|--------------------------|-------------------------------------|-------------|--|-------------------|----------------------------|------------------|
| <i>United States</i>      |                          |                                     |             |  |                   |                            |                  |
| 1927                      | 194                      | 8,987                               | \$9,791,788 | \$27,016,348                                 | \$56,987,490      | \$29,971,142               | 8,891            |
| 1925                      | 217                      | 11,399                              | 12,076,257  | 31,108,376                                   | 67,800,267        | 36,700,891                 | 10,970           |
| 1923                      | 225                      | 13,314                              | 14,627,838  | 34,713,818                                   | 77,688,935        | 42,975,117                 | 11,539           |
| 1921                      | 221                      | 11,285                              | 12,399,283  | 29,605,923                                   | 64,596,078        | 34,991,055                 | ( <sup>2</sup> ) |
| 1919                      | 223                      | 11,261                              | 9,577,867   | 28,160,239                                   | 58,363,244        | 30,203,005                 | 8,342            |
| <i>States, 1927</i>       |                          |                                     |             |  |                   |                            |                  |
| California                | 6                        | 102                                 | 129,340     | 320,848                                      | 903,022           | 582,174                    | 186              |
| Connecticut               | 4                        | 254                                 | 287,533     | 741,762                                      | 1,358,511         | 616,749                    | 185              |
| Illinois                  | 28                       | 735                                 | 1,002,029   | 2,751,727                                    | 7,423,147         | 4,671,420                  | 1,034            |
| Indiana                   | 7                        | 351                                 | 298,274     | 1,090,833                                    | 2,138,084         | 1,047,251                  | 434              |
| Massachusetts             | 28                       | 2,608                               | 2,656,292   | 6,944,710                                    | 14,763,255        | 7,818,545                  | 2,305            |
| New Jersey                | 10                       | 227                                 | 258,053     | 538,567                                      | 1,207,704         | 669,137                    | 263              |
| New York                  | 52                       | 1,774                               | 2,068,086   | 4,850,474                                    | 9,941,424         | 5,090,950                  | 1,294            |
| Ohio                      | 10                       | 429                                 | 543,635     | 884,701                                      | 3,052,656         | 2,167,955                  | 466              |
| Pennsylvania              | 15                       | 623                                 | 587,840     | 1,474,486                                    | 3,134,159         | 1,659,673                  | 942              |
| Washington                | 3                        | 24                                  | 26,723      | 83,695                                       | 152,159           | 68,464                     | 29               |
| Wisconsin                 | 4                        | 100                                 | 122,969     | 479,816                                      | 991,135           | 511,319                    | 100              |
| Other States <sup>1</sup> | 27                       | 1,760                               | 1,811,014   | 6,854,729                                    | 11,922,234        | 5,067,505                  | 1,603            |

<sup>1</sup> Includes value of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of stationery goods, not elsewhere classified: 1927, \$4,413,512; 1925, \$3,191,264; corresponding amounts for earlier years not available. Does not include the following values of stationery goods, not elsewhere classified, made as secondary products by establishments classified in other industries: 1927, \$8,361,858; 1925, \$7,139,446; 1923, \$7,661,241; 1921, \$4,959,372; 1919, \$5,944,798.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Delaware, 1 establishment; Georgia, 3; Iowa, 1; Kansas, 1; Kentucky, 1; Louisiana, 1; Maryland, 1; Michigan, 5; Minnesota, 1; Missouri, 4; Nebraska, 1; Tennessee, 2; Texas, 3; Virginia, 2.

## SUMMARY FOR INDUSTRIES IN THE MISCELLANEOUS GROUP WHICH ARE NOT COVERED BY SEPARATE REPORTS, 1919 TO 1927, AND BY STATES, 1927—CON.

[See note at head of this table, p. 1237]

## STEAM AND OTHER PACKING, PIPE AND BOILER COVERING, AND GASKETS, NOT MADE IN TEXTILE MILLS

[Principal products: Packing for steam, water, and other pipe joints, and for engines, air compressors, etc.; insulating materials for covering boilers and pipes; and gaskets for internal-combustion engines. Asbestos packing, asbestos pipe and boiler covering, and asbestos gaskets are manufactured to a considerable extent by establishments classified in the "Asbestos products" industry]

| YEAR AND STATE                  | Number of establishments | Wage earners (average for the year) | Wages       | Cost of materials, supplies, fuel, and power | Value of products | Value added by manufacture | Horse-power |
|---------------------------------|--------------------------|-------------------------------------|-------------|--|-------------------|----------------------------|-------------|
| <i>United States</i>            |                          |                                     |             |  |                   |                            |             |
| 1927.....                       | 159                      | 5,946                               | \$7,904,603 | \$19,794,205                                 | 1 \$43,044,501    | \$23,250,296               | 29,810      |
| 1925.....                       | 172                      | 6,086                               | 8,072,189   | 20,371,863                                   | 1 43,871,139      | 23,499,276                 | 2 25,579    |
| 1923.....                       | 142                      | 5,064                               | 6,431,746   | 15,849,197                                   | 1 32,991,237      | 17,142,040                 | 17,671      |
| 1921.....                       | 157                      | 4,877                               | 5,328,783   | 15,983,691                                   | 1 29,112,457      | 13,128,766                 | (3)         |
| 1919.....                       | 169                      | 6,147                               | 7,103,275   | 22,724,561                                   | 1 40,524,770      | 17,800,218                 | 26,755      |
| <i>States, 1927</i>             |                          |                                     |             |  |                   |                            |             |
| Colorado.....                   | 4                        | 9                                   | 9,972       | 27,883                                       | 52,921            | 25,038                     | 40          |
| Illinois.....                   | 20                       | 1,458                               | 2,097,277   | 6,261,002                                    | 11,673,474        | 5,412,472                  | 7,633       |
| Indiana.....                    | 5                        | 280                                 | 308,201     | 378,272                                      | 1,031,498         | 653,226                    | 968         |
| Massachusetts.....              | 11                       | 152                                 | 162,692     | 437,010                                      | 882,645           | 445,635                    | 322         |
| Michigan.....                   | 10                       | 469                                 | 632,109     | 2,004,483                                    | 3,701,337         | 1,696,849                  | 848         |
| New Jersey.....                 | 15                       | 393                                 | 572,171     | 1,654,853                                    | 3,231,595         | 1,676,742                  | 1,264       |
| New York.....                   | 35                       | 693                                 | 883,203     | 2,852,185                                    | 6,972,771         | 4,120,686                  | 2,169       |
| Ohio.....                       | 6                        | 73                                  | 96,886      | 166,512                                      | 362,245           | 195,733                    | 163         |
| Pennsylvania.....               | 21                       | 1,493                               | 1,914,407   | 3,777,162                                    | 9,093,244         | 5,316,082                  | 11,881      |
| Other States <sup>4</sup> ..... | 32                       | 926                                 | 1,227,685   | 2,234,838                                    | 6,042,771         | 3,807,933                  | 4,532       |

<sup>1</sup> Includes values of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of steam and other packing, pipe and boiler covering, and gaskets: 1927, \$7,885,885; 1925, \$7,381,956; corresponding amounts for earlier years not available. Does not include the following values of steam and other packing, pipe, and boiler covering, and gaskets made as secondary products by establishments classified in other industries: 1927, \$8,270,886; 1925, \$7,894,813; 1923, \$2,406,446; 1921, \$3,499,064; 1919, \$3,391,145.

<sup>2</sup> Revised.

<sup>3</sup> Not called for on schedule.

<sup>4</sup> Alabama, 2 establishments; California, 12; Georgia, 1; Kentucky, 1; Louisiana, 1; Maryland, 1; Minnesota, 2; Missouri, 2; Montana, 1; Nebraska, 1; Oregon, 1; Texas, 1; Washington, 2; Wisconsin, 4.

## SURGICAL APPLIANCES

[Principal products: Trusses, elastic hosiery and belts, shoulder braces, arch supports, extension shoes, surgical gauze, pneumatic splints, abdominal supporters, anklets, kneecaps, suspensories, etc. The industry does not include the manufacture of surgical and dental instruments or dental and orthopedic appliances (see "Artificial limbs," "Instruments, professional and scientific," and "Dental goods,")]

| YEAR AND STATE                  | Number of establishments | Wage earners (average for the year) | Wages       | Cost of materials, supplies, fuel, and power | Value of products | Value added by manufacture | Horse-power |
|---------------------------------|--------------------------|-------------------------------------|-------------|--|-------------------|----------------------------|-------------|
| <i>United States</i>            |                          |                                     |             |  |                   |                            |             |
| 1927.....                       | 205                      | 6,718                               | \$7,463,127 | \$30,043,305                                 | 1 \$57,407,906    | \$27,364,601               | 8,661       |
| 1925.....                       | 180                      | 5,888                               | 6,043,237   | 26,186,992                                   | 1 55,264,356      | 29,077,364                 | 11,572      |
| 1923.....                       | 178                      | 5,375                               | 5,597,101   | 23,662,480                                   | 1 44,968,237      | 21,305,757                 | 9,290       |
| 1921.....                       | 190                      | 4,810                               | 4,555,113   | 14,457,730                                   | 1 32,495,421      | 18,037,691                 | (2)         |
| 1919.....                       | 268                      | 6,390                               | 6,084,143   | 22,213,621                                   | 1 43,533,860      | 21,320,239                 | 12,882      |
| <i>States, 1927</i>             |                          |                                     |             |  |                   |                            |             |
| California.....                 | 16                       | 47                                  | 58,800      | 84,545                                       | 290,138           | 205,593                    | 29          |
| Colorado.....                   | 4                        | 13                                  | 19,192      | 14,679                                       | 56,294            | 41,615                     | 5           |
| Illinois.....                   | 24                       | 1,153                               | 1,377,301   | 3,453,547                                    | 9,282,063         | 5,828,516                  | 1,654       |
| Kansas.....                     | 3                        | 13                                  | 13,749      | 19,607                                       | 90,476            | 70,869                     | 33          |
| Michigan.....                   | 5                        | 110                                 | 118,076     | 241,101                                      | 887,913           | 646,812                    | 36          |
| Missouri.....                   | 11                       | 188                                 | 196,395     | 655,240                                      | 1,651,050         | 895,819                    | 513         |
| New York.....                   | 53                       | 1,044                               | 1,143,968   | 4,392,898                                    | 8,097,715         | 3,704,817                  | 697         |
| Ohio.....                       | 12                       | 336                                 | 310,691     | 785,025                                      | 2,088,604         | 1,303,479                  | 35          |
| Pennsylvania.....               | 17                       | 518                                 | 532,395     | 631,803                                      | 1,777,486         | 1,145,683                  | 245         |
| Other States <sup>1</sup> ..... | 60                       | 3,291                               | 3,692,060   | 19,764,860                                   | 33,286,258        | 13,521,398                 | 5,414       |

<sup>1</sup> Includes value of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of surgical appliances: 1927, \$607,815; 1925, \$356,703; corresponding amounts for earlier years not available. Does not include the following values of surgical appliances made as secondary products by establishments classified in other industries: 1927, \$2,320,191; 1925, \$1,841,878; 1923, \$1,837,925; 1921, \$1,286,970; 1919, \$1,064,504.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Connecticut, 7 establishments; District of Columbia, 1; Indiana, 2; Iowa, 1; Kentucky, 2; Louisiana, 1; Maine, 1; Maryland, 1; Massachusetts, 16; Minnesota, 2; Nebraska, 1; Nevada, 1; New Jersey, 12; Oklahoma, 1; Oregon, 2; Rhode Island, 2; South Carolina, 1; Tennessee, 1; Utah, 1; Washington, 1; Wisconsin, 3.

SUMMARY FOR INDUSTRIES IN THE MISCELLANEOUS GROUP WHICH ARE NOT COVERED BY SEPARATE REPORTS, 1919 TO 1927, AND BY STATES, 1927—Con.

[See note at head of this table, p. 1237]

THEATRICAL SCENERY AND STAGE EQUIPMENT

[Principal products: Stage scenery; advertising curtains; stage hardware and equipment; floats for street pageants. The incidental work done on scenery in theaters is not included]

| YEAR AND STATE                  | Number of establishments | Wage earners (average for the year) | Wages       | Cost of materials, supplies, fuel, and power | Value of products        | Value added by manufacture | Horse-power |
|---------------------------------|--------------------------|-------------------------------------|-------------|--|--------------------------|----------------------------|-------------|
| <i>United States</i>            |                          |                                     |             |  |                          |                            |             |
| 1927.....                       | 39                       | 561                                 | \$1,379,971 | \$2,330,377                                  | <sup>1</sup> \$5,745,472 | \$3,415,095                | 998         |
| 1925.....                       | 33                       | 391                                 | 853,652     | 1,519,907                                    | <sup>1</sup> 3,578,210   | 2,058,303                  | 413         |
| 1923.....                       | 17                       | 210                                 | 429,772     | 634,622                                      | <sup>1</sup> 1,625,668   | 991,046                    | 162         |
| 1921.....                       | 18                       | 169                                 | 361,302     | 491,682                                      | <sup>1</sup> 1,214,480   | 722,798                    | (?)         |
| 1919.....                       | 17                       | 149                                 | 237,603     | 504,655                                      | <sup>1</sup> 1,067,033   | 562,378                    | 104         |
| <i>States, 1927</i>             |                          |                                     |             |  |                          |                            |             |
| California.....                 | 6                        | 77                                  | 188,768     | 214,271                                      | 771,090                  | 556,810                    | 31          |
| Illinois.....                   | 5                        | 54                                  | 102,777     | 130,207                                      | 400,986                  | 270,779                    | 37          |
| New York.....                   | 10                       | 265                                 | 670,194     | 1,098,608                                    | 2,656,403                | 1,557,795                  | 740         |
| Ohio.....                       | 4                        | 17                                  | 26,895      | 75,887                                       | 159,934                  | 84,407                     | 61          |
| Other States <sup>2</sup> ..... | 14                       | 148                                 | 301,337     | 811,404                                      | 1,757,059                | 945,655                    | 120         |

<sup>1</sup> Includes value of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of theatrical scenery and stage equipment: 1927, \$259,715; corresponding amounts for earlier years not available. Does not include the following values of theatrical scenery and stage equipment made as secondary products by establishments classified in other industries: 1925, \$143,790; 1923, \$12,850. No comparable data for 1927, 1921, and 1919.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Iowa, 1 establishment; Massachusetts, 1; Minnesota, 2; Missouri, 3; New Jersey, 1; Oklahoma, 3; Oregon, 1; Pennsylvania, 1; Texas, 1.

UMBRELLAS, PARASOLS, AND CANES

[Principal products: Umbrellas, parasols, covers, handles other than gold or silver, and other umbrella and parasol parts, and canes]

| YEAR AND STATE                  | Number of establishments | Wage earners (average for the year) | Wages       | Cost of materials, supplies, fuel, and power | Value of products         | Value added by manufacture | Horse-power |
|---------------------------------|--------------------------|-------------------------------------|-------------|--|---------------------------|----------------------------|-------------|
| <i>United States</i>            |                          |                                     |             |  |                           |                            |             |
| 1927.....                       | 164                      | 3,308                               | \$3,411,261 | \$14,020,984                                 | <sup>1</sup> \$23,156,400 | \$9,135,416                | 2,411       |
| 1925.....                       | 176                      | 3,731                               | 3,696,014   | 16,594,328                                   | <sup>1</sup> 27,299,431   | 10,705,103                 | 3,027       |
| 1923.....                       | 187                      | 3,776                               | 3,738,831   | 17,999,629                                   | <sup>1</sup> 28,395,233   | 10,395,604                 | 2,409       |
| 1921.....                       | 154                      | 3,149                               | 3,126,246   | 16,888,759                                   | <sup>1</sup> 26,007,762   | 9,119,003                  | (?)         |
| 1919.....                       | 198                      | 3,368                               | 3,139,662   | 15,632,989                                   | <sup>1</sup> 25,308,826   | 9,675,837                  | 3,357       |
| <i>States, 1927</i>             |                          |                                     |             |  |                           |                            |             |
| Illinois.....                   | 4                        | 57                                  | 52,007      | 283,764                                      | 405,030                   | 121,266                    | 3           |
| Maryland.....                   | 5                        | 427                                 | 325,629     | 1,782,278                                    | 2,791,570                 | 1,009,292                  | 51          |
| Massachusetts.....              | 9                        | 167                                 | 187,934     | 559,344                                      | 984,927                   | 425,583                    | 161         |
| New Jersey.....                 | 5                        | 208                                 | 172,975     | 622,239                                      | 1,020,916                 | 398,677                    | 72          |
| New York.....                   | 106                      | 967                                 | 1,261,551   | 6,268,676                                    | 9,582,677                 | 3,314,001                  | 392         |
| Ohio.....                       | 5                        | 192                                 | 208,101     | 819,871                                      | 1,171,128                 | 351,257                    | 28          |
| Pennsylvania.....               | 20                       | 1,203                               | 1,124,496   | 3,399,792                                    | 6,706,662                 | 3,306,870                  | 1,601       |
| Other States <sup>2</sup> ..... | 10                       | 87                                  | 78,568      | 285,020                                      | 493,490                   | 208,470                    | 103         |

<sup>1</sup> Includes value of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of umbrellas, parasols, and canes: 1927, \$489,643; 1925, \$1,245,033; corresponding amounts for earlier years not available. Does not include the following values of umbrellas, parasols, and canes made as secondary products by establishments classified in other industries: 1927, \$335,333; 1925, \$41,969; 1923, \$301,098; 1921, \$79,990; 1919, \$81,964.

<sup>2</sup> Not called for on schedule.

<sup>3</sup> Arkansas, 1 establishment; Connecticut, 1; Louisiana, 2; Missouri, 3; Tennessee, 1; Washington, 1; Wisconsin, 1.

## SUMMARY FOR INDUSTRIES IN THE MISCELLANEOUS GROUP WHICH ARE NOT COVERED BY SEPARATE REPORTS, 1919 TO 1927, AND BY STATES, 1927—CON.

[See note at head of this table, p. 1237]

## WHIPS

[Principal products: Drivers' and team whips, riding whips and crops, whip snaps, lashes, etc.]

| YEAR AND STATE                    | Number of establishments | Wage earners (average for the year) | Wages    | Cost of materials, supplies, fuel, and power | Value of products      | Value added by manufacture | Horse-power      |
|-----------------------------------|--------------------------|-------------------------------------|----------|--|------------------------|----------------------------|------------------|
| <i>United States</i> <sup>1</sup> |                          |                                     |          |  |                        |                            |                  |
| 1927.....                         | 7                        | 90                                  | \$89,365 | \$175,756                                    | <sup>3</sup> \$310,303 | \$134,547                  | 252              |
| 1925.....                         | 9                        | 103                                 | 73,004   | 131,969                                      | <sup>3</sup> 308,039   | 176,070                    | 158              |
| 1923.....                         | 12                       | 200                                 | 181,204  | 301,708                                      | <sup>3</sup> 742,145   | 440,437                    | 334              |
| 1921.....                         | 14                       | 292                                 | 239,931  | 427,634                                      | <sup>3</sup> 1,022,118 | 594,484                    | ( <sup>4</sup> ) |
| 1919.....                         | 26                       | 717                                 | 582,230  | 1,096,642                                    | <sup>3</sup> 2,986,285 | 1,889,643                  | 853              |

<sup>1</sup> Statistics for States can not be given without disclosing data for individual establishments.<sup>2</sup> Illinois, 1 establishment; Massachusetts, 2; New York, 3; Texas, 1.<sup>3</sup> Includes value of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of whips: 1927, \$120,703; 1925, \$11,769; corresponding amounts for earlier years not available. Does not include the following values of whips made as secondary products by establishments classified in other industries: 1927, \$75,665; 1925, \$289,954; 1923, \$87,374; 1921, \$157,218; 1919, \$219,695<sup>4</sup> Not called for on schedule.

## WINDOW SHADES AND FIXTURES

[Principal products: Window shades of cotton, linen, muslin, etc., window-shade fixtures, rollers, brass rods, wooden poles, and brackets]

|                                 |     |       |             |              |                           |              |                  |
|---------------------------------|-----|-------|-------------|--------------|---------------------------|--------------|------------------|
| <i>United States</i>            |     |       |             |              |                           |              |                  |
| 1927.....                       | 386 | 4,733 | \$5,855,781 | \$21,065,474 | <sup>1</sup> \$37,081,937 | \$16,016,463 | 8,670            |
| 1925.....                       | 336 | 5,176 | 6,207,820   | 25,029,474   | <sup>1</sup> 41,657,681   | 16,628,207   | 11,151           |
| 1923.....                       | 305 | 5,957 | 6,825,750   | 29,521,217   | <sup>1</sup> 47,640,082   | 18,118,865   | 11,450           |
| 1921.....                       | 242 | 3,781 | 4,421,041   | 17,887,600   | <sup>1</sup> 29,647,761   | 11,760,101   | ( <sup>2</sup> ) |
| 1919.....                       | 287 | 4,411 | 3,669,286   | 18,249,540   | <sup>1</sup> 29,190,649   | 10,941,100   | 8,946            |
| <i>States, 1927</i>             |     |       |             |              |                           |              |                  |
| California.....                 | 53  | 245   | 329,013     | 1,043,121    | 2,173,526                 | 1,135,405    | 255              |
| Connecticut.....                | 5   | 16    | 15,115      | 71,662       | 120,981                   | 49,319       | 3                |
| Illinois.....                   | 86  | 413   | 568,495     | 2,177,579    | 4,230,105                 | 2,052,526    | 329              |
| Indiana.....                    | 10  | 84    | 88,159      | 326,116      | 642,489                   | 316,373      | 35               |
| Maryland.....                   | 10  | 91    | 80,625      | 893,730      | 1,264,973                 | 371,243      | 16               |
| Massachusetts.....              | 18  | 200   | 217,329     | 1,016,734    | 1,641,829                 | 625,095      | 190              |
| Michigan.....                   | 13  | 870   | 1,023,379   | 2,387,490    | 4,906,304                 | 2,518,874    | 2,677            |
| Minnesota.....                  | 5   | 27    | 31,387      | 85,708       | 222,593                   | 136,885      | 105              |
| Missouri.....                   | 9   | 52    | 73,871      | 535,955      | 957,345                   | 421,390      | 18               |
| New Jersey.....                 | 21  | 424   | 568,472     | 2,226,528    | 3,874,533                 | 1,648,005    | 687              |
| New York.....                   | 81  | 1,238 | 1,698,617   | 5,831,051    | 9,523,208                 | 3,692,157    | 2,961            |
| Ohio.....                       | 15  | 225   | 264,323     | 774,975      | 1,401,501                 | 626,526      | 363              |
| Pennsylvania.....               | 15  | 141   | 160,667     | 760,998      | 1,223,672                 | 453,674      | 87               |
| Texas.....                      | 8   | 48    | 57,892      | 554,593      | 773,708                   | 219,115      | 17               |
| Vermont.....                    | 3   | 134   | 99,388      | 343,865      | 560,994                   | 217,129      | 235              |
| Washington.....                 | 6   | 25    | 34,959      | 100,388      | 181,787                   | 81,399       | 2                |
| Wisconsin.....                  | 12  | 146   | 142,168     | 526,400      | 1,030,744                 | 504,344      | 209              |
| Other States <sup>3</sup> ..... | 20  | 354   | 401,922     | 1,399,581    | 2,346,585                 | 947,004      | 489              |

<sup>1</sup> Includes value of miscellaneous products, normally belonging to other industries, made as secondary products by establishments engaged primarily in the manufacture of window shades and fixtures: 1927, \$4,044,801; 1925, \$5,702,353; corresponding amounts for earlier years not available. Does not include the following values of window shades and fixtures made as secondary products by establishments classified in other industries: 1927, \$3,521,305; 1925, \$3,147,793; 1923, \$2,251,387; 1921, \$952,161; 1919, \$1,263,644.<sup>2</sup> Not called for on schedule.<sup>3</sup> Colorado, 2 establishments; Delaware, 1; District of Columbia, 2; Florida, 1; Georgia, 2; Kansas, 1; Kentucky, 2; Maine, 1; New Hampshire, 1; Oklahoma, 2; Oregon, 2; Rhode Island, 2; Tennessee, 1.

## Chapter IV.—PERSONS ENGAGED; MONTHLY EMPLOYMENT OF WAGE EARNERS IN SELECTED INDUSTRIES

This chapter presents statistics for the several classes of persons engaged in manufacturing industries and for their total compensation, by industry groups and by industries.

The schedules used at the census of manufactures call for data as to the number of proprietors and firm members, the number of salaried officers and employees on the pay roll on December 15, and the number of wage earners employed on the 15th day (or nearest representative day) of each month.

**Salaried officers and employees.**—Although most of the salaried officers and employees are paid by the week or the month, and most wage earners on a per diem or a piece-price basis, the distinction between the two classes depends primarily on the character of work done rather than on the unit of time used in calculating rates of pay.

In general, office employees are classified as "salaried officers and employees," and factory workers as "wage earners," while factory superintendents and foremen are treated as salaried employees if not engaged in manual labor and as wage earners if they perform manual labor in addition to their supervisory duties.

**Wage earners.**—The importance of an industry as an employer of labor is more accurately measured by the average number of wage earners employed during the year than by the number at work on any given day. This average is calculated by totalizing the numbers reported for the several months (for the fifteenth or nearest representative day) and dividing the sum by 12. The average for any industry, thus calculated, is, however, somewhat in excess of the number of wage earners who would be required to perform the work in that industry if all were continuously employed during the year, for the reason that many manufacturers, instead of reporting the numbers of wage earners actually employed on the fifteenth days or the nearest representative days of the several months, as they are directed to do, report the numbers of persons whose names appeared on the pay rolls for those dates. These numbers are not necessarily identical, since the pay roll on any date is likely to contain the names of employees who have been temporarily laid off and of persons whose services had terminated a short time prior to the pay-roll date. Moreover, if a manufacturer operated his plant during only a part of a given month, he would select an active day as a representative day and would report the total number of wage earners employed on that day instead of giving the average for the month. For example: Suppose a manufacturer operated his plant, employing 100 wage earners, during 13 days of a month which contained 26 working days. This manufacturer's average employment of wage earners for the month would be 50, but in all probability he would report 100, since that would be the number employed on the 15th of the month or the nearest representative day. Thus the average number of wage earners is unavoidably overstated to some extent, but it is believed that the wage-earner statistics are fairly comparable as between one census year and another and as between different industries, except those of a seasonal character, for the same census year.