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REPORT OF  
**Director of the Mint**

Upon the Production of the Precious  
Metals in the United States

DURING THE CALENDAR YEAR

1908



WASHINGTON  
GOVERNMENT PRINTING OFFICE

1910

TREASURY DEPARTMENT,  
Document No. 2570.  
*Director of the Mint.*

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## LETTER OF TRANSMITTAL.

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TREASURY DEPARTMENT,  
OFFICE OF DIRECTOR OF THE MINT,  
*Washington, January 10, 1910.*

SIR: I have the honor to transmit herewith the report on the production of gold and silver in the United States and the world for the calendar year 1908, together with such information as to their distribution, coinage, and consumption as this Bureau has been able to gather. The returns for the United States have been secured through officials of the Mint Service and the United States Geological Survey. The aggregate of precious metals reported have been traced from production to market. The figures are therefore conservative, but are believed to be correct. The statistics for foreign countries are obtained from official sources wherever governmental calculations are made, and where such returns can not be had the best obtainable estimates are given and the authority stated.

Respectfully,

A. PIATT ANDREW,  
*Director of the Mint.*

The SECRETARY OF THE TREASURY.



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PART I.

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PRODUCTION, EMPLOYMENT, AND MOVEMENT OF GOLD AND SILVER  
IN THE UNITED STATES, AND SURVEY OF THE WORLD'S  
PRODUCTION OF GOLD AND SILVER IN 1908.

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## REPORT ON THE PRODUCTION OF THE PRECIOUS METALS IN THE UNITED STATES DURING THE CALENDAR YEAR 1908.

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The examination and analysis of reports from private refineries and the records of the mints and assay offices show that the mines of the United States in 1908 produced 4,574,340 fine ounces of gold of the value of \$94,560,000, and the production of silver was 52,440,800 fine ounces with the commercial value (at the average price of silver for the year \$0.5349) of \$28,050,600. The yield of gold as compared with that for the year 1907 shows an increase of \$4,124,300 and a decrease in the silver product of 4,073,900 fine ounces. Of the 23 States and Territories producing gold 9 show an increase of production, while 14 show a decrease. Of the 26 States and Territories producing silver 13 show an increase and 13 a decrease.

### SUMMARY OF THE PRODUCTION OF GOLD AND SILVER IN THE UNITED STATES DURING THE CALENDAR YEAR 1908.

*Alaska.*—This Territory produced in 1908 gold of the value of \$19,858,800, as against \$18,489,400 in 1907. There was a decrease in the output of the Nome district, but this was overcome by an increase in the Fairbanks and other districts to such an extent as to show an increase over the total product of this Territory for 1907 of \$1,369,400.

*Arizona.*—The value of the gold derived from the mines of Arizona during the calendar year 1908 was \$2,500,000, a loss as compared with 1907 of \$164,000. The yield of silver in 1908 amounted to 2,900,000 fine ounces, having a commercial value of \$1,551,200.

*California.*—The value of the gold product of the mines of California is placed at \$19,329,700. The yield of silver was 1,703,700 fine ounces of the commercial value of \$911,300. As compared with the figures for 1907 there was an increase of \$2,476,200 in the gold output. The silver product increased by 113,700 fine ounces.

*Colorado.*—The gold product for 1908 in the State of Colorado was \$22,871,000. The silver product was 10,150,200 fine ounces of the commercial value of \$5,429,400. As compared with the product for 1907 there was an increase in the gold of \$1,973,400, while the silver product as compared with that of 1907 showed a decline of 1,345,200 fine ounces.

*Idaho.*—In 1908 the value of the gold product of the mines of this State was \$1,443,500. The silver output was 7,558,300 fine ounces of the commercial value of \$4,042,900. There was an increase in the gold output of \$187,600, and a decrease in the silver product of 330,100 fine ounces.

*Montana.*—In this State there was a decrease in the product of gold in 1908 as compared with 1907. The value of the gold for 1908 was \$3,160,000, while for 1907 it was \$3,472,600, showing a decrease of \$312,600 in 1908. The yield of silver for 1908 was 10,356,200 fine ounces, while for 1907 the silver yield aggregated 11,129,600 fine ounces, showing a decrease in 1908 of 773,400 fine ounces.

*Nevada.*—Compared with 1907 there was a loss in the State of Nevada in the production of gold. In 1907 the gold product was \$15,411,000, while in 1908 it was \$11,689,400, showing a decrease of \$3,721,600. The yield of silver by the mines of Nevada for the year 1908 was 9,508,500 fine ounces, showing a gain in 1908 of 1,228,000 fine ounces.

*New Mexico.*—The gold product of New Mexico for 1908 was \$306,300, as against \$330,000 in 1907, showing a decrease of \$23,700. The silver output by the mines of New Mexico for 1908 was 400,900 fine ounces, as against 599,500 in 1907, showing a loss of 198,600 fine ounces.

*Oregon.*—There was a decrease in the product of gold by the mines of this State for 1908 as compared with 1907 of \$316,300, the product of 1907 having been \$1,222,200, as against \$905,900 for 1908. A number of the largest quartz mines of this State were not operated to any extent during the calendar year 1908.

*South Dakota.*—In 1908 South Dakota's output of gold was \$7,742,200 and for 1907 \$4,138,200, showing an increase in 1908 of \$3,604,000. The silver product of this State in 1908 was 197,300 fine ounces, as against 106,600 fine ounces for 1907, showing an increase of 90,700 fine ounces in 1908.

*South Appalachian States.*—This region produced only a small amount of the precious metals in 1908. The yield of gold was 12,379 ounces of the value of \$255,900.

*Philippine Islands.*—In 1907 the gold yield of the Philippine Islands was \$64,700 and in 1908 the product was \$284,500, showing an increase of \$219,800.

The approximate distribution of gold and silver by producing States and Territories for the calendar year 1908 is shown in the following table:

PRODUCT OF GOLD IN THE SEVERAL STATES AND TERRITORIES IN 1907 AND 1908, WITH THE INCREASE AND DECREASE OF EACH IN THE LATTER YEAR.

| State or Territory.     | Value.       |              | Increase.   | Decrease.   |
|-------------------------|--------------|--------------|-------------|-------------|
|                         | 1907.        | 1908.        |             |             |
| Alabama.....            | \$27, 400    | \$41, 200    | \$13, 800   | .....       |
| Alaska.....             | 18, 489, 400 | 19, 858, 800 | 1, 369, 400 | .....       |
| Arizona.....            | 2, 664, 000  | 2, 500, 000  | .....       | \$164, 000  |
| California.....         | 16, 853, 500 | 19, 329, 700 | 2, 476, 200 | .....       |
| Colorado.....           | 20, 897, 000 | 22, 871, 000 | 1, 973, 400 | .....       |
| Georgia.....            | 64, 800      | 56, 200      | .....       | 8, 600      |
| Idaho.....              | 1, 255, 900  | 1, 443, 500  | 187, 600    | .....       |
| Montana.....            | 3, 472, 600  | 3, 160, 000  | .....       | 312, 600    |
| Nevada.....             | 15, 411, 000 | 11, 689, 400 | .....       | 3, 721, 600 |
| New Hampshire.....      | .....        | 3, 700       | 3, 700      | .....       |
| New Mexico.....         | 330, 000     | 306, 300     | .....       | 23, 700     |
| North Carolina.....     | 78, 700      | 97, 500      | 18, 800     | .....       |
| Oregon.....             | 1, 222, 200  | 905, 900     | .....       | 316, 300    |
| Philippine Islands..... | 64, 700      | 284, 500     | 219, 800    | .....       |
| Porto Rico.....         | 1, 200       | 600          | .....       | 600         |
| South Carolina.....     | 58, 100      | 53, 700      | .....       | 4, 400      |
| South Dakota.....       | 4, 138, 200  | 7, 742, 200  | 3, 604, 000 | .....       |
| Tennessee.....          | 3, 800       | 3, 700       | .....       | 100         |
| Texas.....              | 1, 000       | 500          | .....       | 500         |
| Utah.....               | 5, 121, 600  | 3, 946, 700  | .....       | 1, 174, 900 |
| Virginia.....           | 8, 300       | 3, 600       | .....       | 4, 700      |
| Washington.....         | 262, 300     | 253, 700     | .....       | 8, 600      |
| Wyoming.....            | 9, 400       | 7, 600       | .....       | 1, 800      |
| Total.....              | 90, 435, 700 | 94, 560, 000 | 9, 866, 700 | 5, 742, 400 |
| Net increase.....       | .....        | .....        | 4, 124, 300 | .....       |

PRODUCT OF SILVER IN THE SEVERAL STATES AND TERRITORIES IN 1907 AND 1908,  
WITH THE INCREASE AND DECREASE OF EACH IN THE LATTER YEAR.

| State or Territory.     | Weight.             |                     | Increase.           | Decrease.           |
|-------------------------|---------------------|---------------------|---------------------|---------------------|
|                         | 1907.               | 1908.               |                     |                     |
|                         | <i>Fine ounces.</i> | <i>Fine ounces.</i> | <i>Fine ounces.</i> | <i>Fine ounces.</i> |
| Alabama.....            | 600                 | 400                 |                     | 200                 |
| Alaska.....             | 179,300             | 204,600             | 25,300              |                     |
| Arizona.....            | 2,903,100           | 2,900,000           |                     | 3,100               |
| California.....         | 1,590,000           | 1,703,700           | 113,700             |                     |
| Colorado.....           | 11,495,400          | 10,150,200          |                     | 1,345,200           |
| Georgia.....            | 700                 | 200                 |                     | 500                 |
| Idaho.....              | 7,888,400           | 7,558,300           |                     | 330,100             |
| Illinois.....           | 2,900               | 2,000               |                     | 900                 |
| Michigan.....           | 331,300             | 294,100             |                     | 37,200              |
| Missouri.....           | 25,300              | 49,400              | 24,100              |                     |
| Montana.....            | 11,129,600          | 10,356,200          |                     | 773,400             |
| Nevada.....             | 8,280,500           | 9,508,500           | 1,228,000           |                     |
| New Hampshire.....      |                     | 6,300               | 6,300               |                     |
| New Mexico.....         | 599,500             | 400,900             |                     | 198,600             |
| North Carolina.....     | 25,200              | 1,300               |                     | 23,900              |
| Oregon.....             | 96,000              | 56,100              |                     | 39,900              |
| Philippine Islands..... | 100                 | 1,300               | 1,200               |                     |
| South Carolina.....     | 100                 | 200                 | 100                 |                     |
| South Dakota.....       | 106,600             | 197,300             | 90,700              |                     |
| Tennessee.....          | 58,300              | 60,900              | 2,600               |                     |
| Texas.....              | 305,300             | 447,000             | 141,700             |                     |
| Utah.....               | 11,406,900          | 8,451,300           |                     | 2,955,600           |
| Vermont.....            | 3,800               |                     |                     | 3,800               |
| Virginia.....           | 200                 | 300                 | 100                 |                     |
| Washington.....         | 84,000              | 86,800              | 2,800               |                     |
| Wyoming.....            | 1,600               | 3,500               | 1,900               |                     |
| Total.....              | 56,514,700          | 52,440,800          | 1,638,500           | 5,712,400           |
| Net decrease.....       |                     |                     |                     | 4,073,900           |

APPROXIMATE GOLD PRODUCT OF THE UNITED STATES DURING THE CALENDAR YEAR 1908.

| Item.   | Gold.               |
|---|---------------------|
|   | <i>Fine ounces.</i> |
| Domestic product in fine bars reported by private refineries.....                   | 2,152,383           |
| Unrefined gold of domestic production deposited at the mints and assay offices..... | 2,401,967           |
| Domestic gold contained in ores, copper matte, etc., exported for reduction.....    | 19,990              |
| Total domestic product for 1908.....  | 4,574,340           |

APPROXIMATE DISPOSITION OF THE GOLD PRODUCT OF THE UNITED STATES DURING THE CALENDAR YEAR 1908.

| Item.  | Gold.               |
|--|---------------------|
|  | <i>Fine ounces.</i> |
| Product of private refineries deposited at United States mints and assay offices.....                            | 3,235,208           |
| Product of private refineries exported as per custom-house returns.....  | 22,573              |
| Product of private refineries sold for use in the arts.....  | 12,600              |
| Domestic gold in ores, copper matte, etc., exported for reduction (custom-house returns).....                    | 19,990              |
| Deposits of unrefined bullion at United States mints and assay offices.....                                      | 2,401,967           |
| Total.....   | 5,692,338           |
| Deduct:  | <i>Fine ounces.</i> |
| Bullion reported by domestic private refineries as contained in their product but derived from foreign ores..... | 892,138             |
| Bullion reported by domestic private refineries as from old material.....  | 200,884             |
| Difference in balances of domestic private refineries January 1 and December 31, 1908.....                       | 26,017              |
| Total disposition of domestic product.....   | 1,119,039           |
|  | 4,573,299           |

## APPROXIMATE SILVER PRODUCT OF THE UNITED STATES DURING THE CALENDAR YEAR 1908.

| Item.   | Silver.             |
|---|---------------------|
|   | <i>Fine ounces.</i> |
| Domestic product of fine bars reported by private refineries.....                     | 51,395,694          |
| Unrefined silver of domestic production deposited at the mints and assay offices..... | 997,649             |
| Domestic silver contained in ores, copper matte, etc., exported for reduction.....    | 47,433              |
| Total domestic product for 1908.....  | 52,440,776          |

## APPROXIMATE DISPOSITION OF THE SILVER PRODUCT OF THE UNITED STATES DURING THE CALENDAR YEAR 1908.

| Item.  | Silver.             |
|--|---------------------|
|  | <i>Fine ounces.</i> |
| Product of private refineries deposited at United States mints and assay offices.....                            | 9,290,669           |
| Product of private refineries exported as per custom-house returns.....  | 93,588,000          |
| Product of private refineries sold for use in the arts.....  | 15,161,517          |
| Domestic silver in ores, copper matte, etc., exported for reduction (custom-house returns)..                     | 47,433              |
| Deposits of unrefined bullion at United States mints and assay offices.....                                      | 997,649             |
| Total.....   | 119,085,268         |
| Deduct:  | <i>Fine ounces.</i> |
| Bullion reported by domestic private refineries as contained in their product but derived from foreign ores..... | 65,107,221          |
| Bullion reported by domestic private refineries as from old material.....  | 1,036,411           |
| Differences in balances of domestic private refineries January 1 and December 31, 1908.....                      | 382,938             |
|  | 66,526,570          |
| Total disposition of domestic product.....   | 52,558,698          |

## APPROXIMATE DISTRIBUTION BY PRODUCING STATES AND TERRITORIES OF THE PRODUCT OF GOLD AND SILVER IN THE UNITED STATES FOR THE CALENDAR YEAR 1908.

[As estimated by the Director of the Mint.]

| State or Territory.     | Gold.        |            | Silver.      |                   |
|-------------------------|--------------|------------|--------------|-------------------|
|                         | Fine ounces. | Value.     | Fine ounces. | Commercial value. |
| Alabama.....            | 1,993        | \$41,200   | 400          | \$200             |
| Alaska.....             | 960,669      | 19,858,800 | 204,600      | 109,400           |
| Arizona.....            | 120,937      | 2,500,000  | 2,900,000    | 1,551,200         |
| California.....         | 935,074      | 19,329,700 | 1,703,700    | 911,300           |
| Colorado.....           | 1,106,385    | 22,871,000 | 10,150,200   | 5,429,400         |
| Georgia.....            | 2,719        | 56,200     | 200          | 100               |
| Idaho.....              | 69,829       | 1,443,500  | 7,558,300    | 4,042,900         |
| Illinois.....           |              |            | 2,000        | 1,100             |
| Michigan.....           |              |            | 294,100      | 157,300           |
| Missouri.....           |              |            | 49,400       | 26,400            |
| Montana.....            | 152,865      | 3,160,000  | 10,356,200   | 5,539,500         |
| Nevada.....             | 565,475      | 11,689,400 | 9,508,500    | 5,086,100         |
| New Hampshire.....      | 179          | 3,700      | 6,300        | 3,400             |
| New Mexico.....         | 14,817       | 306,300    | 400,900      | 214,500           |
| North Carolina.....     | 4,716        | 97,500     | 1,300        | 700               |
| Oregon.....             | 43,823       | 905,900    | 56,100       | 30,000            |
| Philippine Islands..... | 13,763       | 284,500    | 1,300        | 700               |
| Porto Rico.....         | 29           | 600        |              |                   |
| South Carolina.....     | 2,598        | 53,700     | 200          | 100               |
| South Dakota.....       | 374,529      | 7,742,200  | 197,300      | 105,500           |
| Tennessee.....          | 179          | 3,700      | 60,900       | 32,600            |
| Texas.....              | 24           | 500        | 447,000      | 239,100           |
| Utah.....               | 190,922      | 3,946,700  | 8,451,300    | 4,520,600         |
| Virginia.....           | 174          | 3,600      | 300          | 200               |
| Washington.....         | 12,273       | 253,700    | 86,800       | 46,400            |
| Wyoming.....            | 368          | 7,600      | 3,500        | 1,900             |
| Total.....              | 4,574,340    | 94,560,000 | 52,440,800   | 28,050,600        |

DISTRIBUTION OF THE GOLD AND SILVER PRODUCT OF THE UNITED STATES, AS REPORTED BY THE MINE OWNERS, FOR THE CALENDAR YEAR 1908, AS TO SOURCE OF PRODUCTION.

[Figures furnished by the United States Geological Survey.]

| State or Territory.                                | Gold.               |                     | Silver.                             |                     |                     |
|--|---------------------|---------------------|-------------------------------------|---------------------|---------------------|
|  | Deep mines.         | Placer.             | Dry or siliceous ores. <sup>a</sup> | Lead ores.          | Copper ores.        |
|  | <i>Fine ounces.</i> | <i>Fine ounces.</i> | <i>Fine ounces.</i>                 | <i>Fine ounces.</i> | <i>Fine ounces.</i> |
| Alabama.....                                       | 1,948               | 46                  | 282                                 |                     |                     |
| Alaska.....  | 164,708             | 768,582             | 102,070                             |                     | 33,602              |
| Arizona.....                                       | 116,150             | 1,497               | 899,330                             | 131,854             | 1,777,266           |
| California.....                                    | 509,407             | 398,183             | 554,668                             | 61,229              | 1,031,381           |
| Colorado.....                                      | 1,069,847           | 8,946               | 5,555,710                           | 3,156,517           | 193,206             |
| Georgia.....                                       | 2,177               | 542                 | 200                                 |                     |                     |
| Illinois.....                                      |                     |                     |                                     | 2,051               |                     |
| Idaho.....   | 56,009              | 13,818              | 920,781                             | 5,917,939           | 631,261             |
| Massachusetts, New Hampshire,<br>Pennsylvania..... | 211                 |                     |                                     |                     | 6,270               |
| Michigan.....                                      |                     |                     |                                     |                     | 241,055             |
| Missouri.....                                      |                     |                     |                                     | 49,131              |                     |
| Montana.....                                       | 121,307             | 26,606              | 1,719,486                           | 361,762             | 8,274,951           |
| Nevada.....  | 545,824             | 3,858               | 8,955,667                           | 523,476             | 29,321              |
| New Mexico.....                                    | 13,330              | 1,122               | 364,488                             | 15,788              | 24,768              |
| North Carolina.....                                | 3,867               | 849                 | 1,260                               |                     |                     |
| Oregon.....  | 28,661              | 13,187              | 43,315                              |                     | 287                 |
| South Carolina.....                                | 2,560               | 39                  | 75                                  |                     | 151                 |
| South Dakota.....                                  | 369,945             | 481                 | 245,262                             | 3,500               |                     |
| Tennessee.....                                     | 149                 | 30                  |                                     |                     | 57,696              |
| Texas.....   |                     |                     | 435,163                             | 9,173               |                     |
| Utah.....  | 178,615             | 440                 | 163,348                             | 5,667,310           | 2,620,680           |
| Virginia.....                                      | 87                  | 32                  | 24                                  | 119                 | 93                  |
| Washington.....                                    | 10,776              | 942                 | 60,186                              | 9,426               | 19,211              |
| Wyoming.....                                       | 345                 | 40                  | 8                                   |                     | 3,990               |
| Total.....   | 3,195,923           | 1,239,240           | 20,021,323                          | 15,909,275          | 14,945,189          |

<sup>a</sup> Includes 159,285 ounces of silver from placers.

DISTRIBUTION OF THE SILVER PRODUCT OF THE UNITED STATES AS TO THE SOURCES OF PRODUCTION.

| Source.         | 1891.          | 1898.          | 1899.          | 1900.          | 1901.          | 1902.          | 1903.          | 1904.          | 1905.          | 1906.          | 1907.          | 1908.          |
|-----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
|                 | <i>Per ct.</i> |
| Quartz mills... | 49.2           | 24.7           | 28.0           | 27.4           | 27.8           | 29.4           | 29.9           | 26.2           | 24.9           | 29.6           | 36.5           | 39.3           |
| Lead bullion... | 40.6           | 56.2           | 51.1           | 50.8           | 46.7           | 48.5           | 45.6           | 46.8           | 44.8           | 30.8           | 36.0           | 31.3           |
| Copper bullion. | 10.2           | 19.1           | 20.9           | 21.8           | 25.5           | 22.1           | 24.5           | 27.0           | 30.3           | 9.6            | 27.5           | 29.4           |
| Total....       | 100.0          | 100.0          | 100.0          | 100.0          | 100.0          | 100.0          | 100.0          | 100.0          | 100.0          | 100.0          | 100.0          | 100.0          |

The production of gold and silver from the mines of the United States since 1792 is shown in the following table.

The commercial value of the silver product is reckoned at the average yearly market price of silver on the New York market.

## PRODUCT OF GOLD AND SILVER IN UNITED STATES FROM 1792 TO 1844 AND ANNUALLY SINCE.

[The estimate for 1792-1873 is by R. W. Raymond, commissioner, and since by Director of the Mint.]

| Calendar year.                       | Gold.        |               | Silver.        |                   |
|--------------------------------------|--------------|---------------|----------------|-------------------|
|                                      | Fine ounces. | Value.        | Fine ounces.   | Commercial value. |
| 1792 to July 31, 1834.....           | 677,250      | \$14,000,000  | Insignificant. | .....             |
| July 31, 1834, to Dec. 31, 1844..... | 362,812      | 7,500,000     | 193,400        | \$253,400         |
| 1845.....                            | 48,762       | 1,008,000     | 38,700         | 50,200            |
| 1846.....                            | 55,341       | 1,140,000     | 38,700         | 50,300            |
| 1847.....                            | 43,005       | 889,000       | 38,700         | 50,600            |
| Total.....                           | 1,187,170    | 24,537,000    | 309,500        | 404,500           |
| 1848.....                            | 483,750      | 10,000,000    | 38,700         | 50,500            |
| 1849.....                            | 1,935,000    | 40,000,000    | 38,700         | 50,700            |
| 1850.....                            | 2,418,750    | 50,000,000    | 38,700         | 50,900            |
| 1851.....                            | 2,660,625    | 55,000,000    | 38,700         | 51,700            |
| 1852.....                            | 2,902,500    | 60,000,000    | 38,700         | 51,300            |
| 1853.....                            | 3,144,375    | 65,000,000    | 38,700         | 52,200            |
| 1854.....                            | 2,902,500    | 60,000,000    | 38,700         | 52,200            |
| 1855.....                            | 2,660,625    | 55,000,000    | 38,700         | 52,000            |
| 1856.....                            | 2,660,625    | 55,000,000    | 38,700         | 52,000            |
| 1857.....                            | 2,660,625    | 55,000,000    | 38,700         | 52,400            |
| 1858.....                            | 2,418,750    | 50,000,000    | 38,700         | 52,000            |
| 1859.....                            | 2,418,750    | 50,000,000    | 77,300         | 105,109           |
| 1860.....                            | 2,225,250    | 46,000,000    | 116,000        | 156,800           |
| 1861.....                            | 2,080,125    | 43,000,000    | 1,546,900      | 2,062,000         |
| 1862.....                            | 1,896,300    | 39,200,000    | 3,480,500      | 4,684,800         |
| 1863.....                            | 1,935,000    | 40,000,000    | 6,574,200      | 8,842,300         |
| 1864.....                            | 2,230,087    | 46,100,000    | 8,507,800      | 11,443,000        |
| 1865.....                            | 2,574,759    | 53,225,000    | 8,701,200      | 11,642,200        |
| 1866.....                            | 2,588,062    | 53,500,000    | 7,734,400      | 10,356,400        |
| 1867.....                            | 2,502,196    | 51,725,000    | 10,441,400     | 13,866,200        |
| 1868.....                            | 2,322,000    | 48,000,000    | 9,281,200      | 12,306,900        |
| 1869.....                            | 2,394,562    | 49,500,000    | 9,281,200      | 12,297,600        |
| 1870.....                            | 2,418,750    | 50,000,000    | 12,375,000     | 16,434,000        |
| 1871.....                            | 2,104,312    | 43,500,000    | 17,789,100     | 23,588,300        |
| 1872.....                            | 1,741,500    | 36,000,000    | 22,236,300     | 29,396,400        |
| Total.....                           | 58,279,778   | 1,204,750,000 | 118,568,200    | 157,749,900       |
| 1873.....                            | 1,741,500    | 36,000,000    | 27,650,400     | 35,881,600        |
| 1874.....                            | 1,620,122    | 33,490,900    | 28,868,200     | 36,917,500        |
| 1875.....                            | 1,619,009    | 33,467,900    | 24,539,300     | 30,485,900        |
| 1876.....                            | 1,931,575    | 39,929,200    | 29,996,200     | 34,919,800        |
| 1877.....                            | 2,268,662    | 46,897,400    | 30,777,800     | 36,991,500        |
| 1878.....                            | 2,477,109    | 51,206,400    | 35,022,300     | 40,401,000        |
| 1879.....                            | 1,881,787    | 38,900,000    | 31,565,500     | 35,477,100        |
| 1880.....                            | 1,741,500    | 36,000,000    | 30,318,700     | 34,717,000        |
| 1881.....                            | 1,678,612    | 34,700,000    | 33,257,800     | 37,657,500        |
| 1882.....                            | 1,572,187    | 32,500,000    | 36,196,900     | 41,105,900        |
| 1883.....                            | 1,451,250    | 30,000,000    | 35,732,800     | 39,618,400        |
| 1884.....                            | 1,489,950    | 30,800,000    | 37,743,800     | 41,921,300        |
| 1885.....                            | 1,538,373    | 31,801,000    | 39,909,400     | 42,503,500        |
| 1886.....                            | 1,686,788    | 34,869,000    | 39,694,000     | 39,482,400        |
| 1887.....                            | 1,603,049    | 33,136,000    | 41,721,600     | 40,887,200        |
| 1888.....                            | 1,604,478    | 33,167,500    | 45,792,700     | 43,045,100        |
| 1889.....                            | 1,594,775    | 32,967,000    | 50,094,500     | 46,838,400        |
| 1890.....                            | 1,588,877    | 32,845,000    | 54,516,300     | 57,242,100        |
| 1891.....                            | 1,604,840    | 33,175,000    | 58,330,000     | 57,630,000        |
| 1892.....                            | 1,597,098    | 33,015,000    | 63,500,000     | 55,662,500        |
| 1893.....                            | 1,739,323    | 35,955,000    | 60,000,000     | 46,800,000        |
| 1894.....                            | 1,910,813    | 39,500,000    | 49,500,000     | 31,422,100        |
| 1895.....                            | 2,254,760    | 46,610,000    | 55,727,000     | 36,445,500        |
| 1896.....                            | 2,568,132    | 53,088,000    | 58,834,800     | 39,654,600        |
| 1897.....                            | 2,774,935    | 57,363,000    | 53,860,000     | 32,316,000        |
| 1898.....                            | 3,118,398    | 64,463,000    | 54,438,000     | 32,118,400        |
| 1899.....                            | 3,437,210    | 71,053,400    | 54,764,500     | 32,858,700        |
| 1900.....                            | 3,829,897    | 79,171,000    | 57,647,000     | 35,741,100        |
| 1901.....                            | 3,805,500    | 78,666,700    | 55,214,000     | 33,128,400        |
| 1902.....                            | 3,870,000    | 80,000,000    | 55,500,000     | 29,415,000        |
| 1903.....                            | 3,560,000    | 73,591,700    | 54,300,000     | 29,322,000        |
| 1904.....                            | 3,892,480    | 80,464,700    | 57,682,800     | 33,456,000        |
| 1905.....                            | 4,265,742    | 88,180,700    | 56,101,600     | 34,222,000        |
| 1906.....                            | 4,565,333    | 94,373,800    | 56,517,900     | 38,256,400        |
| 1907.....                            | 4,374,827    | 90,435,700    | 56,514,700     | 37,299,700        |
| 1908.....                            | 4,574,340    | 94,560,000    | 52,440,800     | 28,050,600        |
| Total.....                           | 88,833,231   | 1,836,344,000 | 1,664,271,300  | 1,379,892,200     |
| Grand total.....                     | 148,300,179  | 3,065,631,000 | 1,783,149,000  | 1,538,046,600     |

DEPOSITS OF GOLD.

The aggregate of the deposits of gold bullion and coin at the various offices connected with the service during the calendar year 1908 was 7,100,803 fine ounces of the value of \$146,786,628. The redeposits, in addition to the above, were 4,151,956 fine ounces of the value of \$85,828,539.

Domestic gold bullion deposited contained 5,637,175 fine ounces of the value of \$116,530,749. Light weight domestic gold coin purchased over the counter, and domestic gold coin transferred from the Treasury for recoinage contained 257,426 fine ounces of the value of \$5,321,477.

Foreign gold coin and foreign gold bullion deposited contained 962,944 fine ounces of the value of \$19,905,829, as follows:

|                               | Gold coin.   |                | Refined bullion. |                | Crude bullion. |                |
|-------------------------------|--------------|----------------|------------------|----------------|----------------|----------------|
|                               | Fine ounces. | Coining value. | Fine ounces.     | Coining value. | Fine ounces.   | Coining value. |
| British Columbia.....         |              |                | 11,852           | \$245,010      | 50,088         | \$1,035,414    |
| Northwest Territory.....      |              |                |                  |                | 92,461         | 1,911,348      |
| Ontario and Quebec.....       |              |                |                  |                | 3,956          | 81,779         |
| Nova Scotia.....              |              |                | 278              | 5,740          | 11,018         | 227,766        |
| Mexico.....                   | 1,583        | \$32,729       | 169,920          | 3,512,554      | 66,974         | 1,384,481      |
| West Indies.....              |              |                |                  |                | 1,589          | 32,845         |
| Central America.....          | 3,674        | 75,941         |                  |                | 68,457         | 1,415,120      |
| South America.....            | 143          | 2,965          | 60               | 1,241          | 102,928        | 2,127,705      |
| Great Britain.....            | 144,520      | 2,987,484      | 183,748          | 3,798,400      | 13,993         | 289,265        |
| France.....                   | 9,307        | 192,401        | 3,302            | 68,263         |                |                |
| Germany.....                  | 6,397        | 132,232        |                  |                |                |                |
| Russia.....                   | 4,021        | 83,131         |                  |                |                |                |
| Sweden.....                   | 863          | 17,841         |                  |                |                |                |
| China, Korea, and Africa..... |              |                |                  |                | 5              | 102            |
| Spain.....                    | 5,316        | 109,894        |                  |                |                |                |
| Unclassified.....             | 6,437        | 133,058        |                  |                | 54             | 1,114          |
| Total.....                    | 182,261      | 3,767,676      | 369,160          | 7,631,208      | 411,523        | 8,506,945      |

Old jewelry deposited, surplus bullion and grains collected during the year contained 1,576 fine ounces of gold of the value of \$32,578.

DEPOSITS AND PURCHASES OF SILVER.

Silver is coined in the United States on government account only. Deposits of silver bullion are received by the mints and assay offices, to be returned to the depositor in fine or unparted bars with the weight and fineness stamped thereon. These deposits are confined almost exclusively to the assay office at New York, and the bars, when returned to the depositor, are sold for use in the arts or exported.

The purchases and deposits of silver bullion at the mints and assay offices of the United States during the calendar year 1908 were as follows:

| Items.  | Standard ounces. |
|---|------------------|
| Silver purchased.....                               | 9,714,877.95     |
| Silver parted from gold deposits and purchased..... | 3,306,232.75     |
| Uncurrent domestic coin for recoinage.....          | 782,604.01       |
| For return in fine bars.....                        | 4,143,375.54     |
| For Philippine coinage.....                         | 13,137,897.65    |
| For San Salvador coinage.....                       | 557,148.53       |
| Total.....  | 31,642,136.43    |

Foreign silver coin and bullion deposited contained 2,874,215 fine ounces, as follows:

| Source.                  | Silver coin. |                | Refined bullion. |                | Crude bullion. |                |
|--------------------------|--------------|----------------|------------------|----------------|----------------|----------------|
|                          | Fine ounces. | Coining value. | Fine ounces.     | Coining value. | Fine ounces.   | Coining value. |
| British Columbia.....    |              |                |                  |                | 10,501         | \$13,576       |
| Northwest Territory..... |              |                |                  |                | 22,128         | 28,610         |
| Ontario and Quebec.....  |              |                | 232,623          | \$300,765      | 7,152          | 9,247          |
| Nova Scotia.....         |              |                |                  |                | 1,091          | 1,411          |
| Mexico.....              | 56,096       | \$72,528       | 369,236          | 477,397        | 2,071,890      | 2,678,807      |
| West Indies.....         | 17,318       | 22,392         |                  |                | 167            | 216            |
| Central America.....     | 4            | 6              |                  |                | 43,182         | 55,832         |
| South America.....       | 110          | 142            |                  |                | 36,517         | 47,214         |
| China.....               | 91           | 117            |                  |                |                |                |
| Spain.....               | 510          | 659            |                  |                |                |                |
| Hawaii.....              | 31           | 40             |                  |                |                |                |
| Unclassified.....        | 5,563        | 7,192          |                  |                | 5              | 7              |
| Total.....               | 79,723       | 103,076        | 601,859          | 778,162        | 2,192,633      | 2,834,920      |

Old jewelry deposited, surplus bullion, and grains collected during the year contained 552,219 fine ounces of silver.

#### PURCHASES OF SILVER FOR SUBSIDIARY COINAGE.

The silver required for the coinage of subsidiary coin was purchased under section 3526 of the Revised Statutes of the United States.

The following table shows the amount and cost of silver bullion purchased for the subsidiary silver coinage during the calendar year 1908:

| Stock.   | Standard ounces. | Cost.          |
|--|------------------|----------------|
| Silver bullion purchased under section 3526, Revised Statutes, at Treasury Department..... | 9,225,088.17     | \$4,495,517.54 |
| Silver bullion purchased under section 3526, Revised Statutes, at mints....                | 440,841.37       | 213,240.61     |
| Assay coins purchased.....   | 3,786.67         | 2,204.70       |
| Mutilated coin purchased.....  | 2,169.64         | 1,030.04       |
| Surplus bullion purchased.....   | 22,711.28        | 11,833.72      |
| United States coin transferred for recoinage.....  | 782,604.01       | 973,690.84     |
| Partings, charges, and fractions purchased.....  | 3,326,513.57     | 1,664,507.74   |
| Total.....   | 13,803,714.71    | 7,362,025.19   |

#### BALANCES OF SILVER BULLION.

The balances of silver bullion on hand December 31, 1908, at the New York assay office and the mints of the United States for subsidiary silver coinage, for the Philippine Islands and Government of San Salvador, were as follows:

| Items.   | Standard ounces. | Cost.          |
|--|------------------|----------------|
| For subsidiary silver coinage.....                     | 9,755,619.75     | \$5,060,735.39 |
| Silver bullion for Philippine coinage.....             | 2,878,332.22     | 2,477,350.19   |
| Silver bullion for the Government of San Salvador..... | 557,148.53       | 250,716.84     |
| Total.....   | 13,191,100.50    | 7,788,802.42   |

DEPOSITS OF GOLD AND SILVER SINCE 1880.

The following table shows the amount of gold and silver (excluding redeposits) received at the mints and assay offices, by calendar years, since 1880:

| Calendar year. | Gold.         | Silver (coin-<br>ing value). | Total.        |
|----------------|---------------|------------------------------|---------------|
| 1880.....      | \$100,278,703 | \$35,103,825                 | \$135,382,528 |
| 1881.....      | 98,763,426    | 30,326,848                   | 129,090,274   |
| 1882.....      | 41,921,263    | 35,161,254                   | 77,082,517    |
| 1883.....      | 51,089,456    | 36,978,184                   | 88,067,640    |
| 1884.....      | 50,518,179    | 36,670,731                   | 87,188,910    |
| 1885.....      | 44,714,052    | 35,836,725                   | 80,550,777    |
| 1886.....      | 66,422,088    | 39,086,070                   | 105,508,158   |
| 1887.....      | 74,724,077    | 46,381,333                   | 121,105,410   |
| 1888.....      | 41,496,410    | 41,323,973                   | 82,820,383    |
| 1889.....      | 42,599,206    | 41,977,265                   | 84,576,471    |
| 1890.....      | 48,767,964    | 55,198,037                   | 103,966,001   |
| 1891.....      | 60,849,552    | 70,994,120                   | 131,843,672   |
| 1892.....      | 45,406,646    | 84,591,898                   | 129,998,544   |
| 1893.....      | 69,419,223    | 62,465,005                   | 131,884,228   |
| 1894.....      | 49,704,902    | 14,120,605                   | 63,825,507    |
| 1895.....      | 69,433,579    | 13,843,636                   | 83,277,215    |
| 1896.....      | 91,743,670    | 10,873,160                   | 102,616,830   |
| 1897.....      | 87,924,232    | 12,707,128                   | 100,631,360   |
| 1898.....      | 182,996,602   | 15,841,222                   | 198,837,824   |
| 1899.....      | 129,798,782   | 13,481,927                   | 143,280,709   |
| 1900.....      | 158,060,258   | 16,005,626                   | 174,065,884   |
| 1901.....      | 136,858,186   | 7,486,293                    | 144,344,479   |
| 1902.....      | 127,142,337   | 8,585,751                    | 135,728,088   |
| 1903.....      | 139,475,047   | 28,898,656                   | 168,373,703   |
| 1904.....      | 169,580,717   | 21,101,057                   | 190,681,774   |
| 1905.....      | 139,769,034   | 16,409,547                   | 156,178,581   |
| 1906.....      | 186,748,794   | 18,927,533                   | 205,676,327   |
| 1907.....      | 205,133,821   | 42,288,635                   | 247,422,456   |
| 1908.....      | 146,786,628   | 33,865,296                   | 180,651,924   |

COINAGE OF THE UNITED STATES.

The domestic coinage manufactured during the calendar year 1908 was as follows:

| Description.           | Pieces.     | Value.           |
|------------------------|-------------|------------------|
| Gold.....              | 8,739,439   | \$131,638,632.50 |
| Subsidiary silver..... | 51,787,463  | 12,391,777.25    |
| Minor.....             | 56,129,164  | 1,468,738.72     |
| Total.....             | 116,656,066 | 145,499,148.47   |

The following table exhibits the number of fine ounces and value of gold and silver coinage of the United States, by calendar years, since 1873:

| Calendar year. | Gold.        |               | Silver.               |                 |                    |
|----------------|--------------|---------------|-----------------------|-----------------|--------------------|
|                | Fine ounces. | Value.        | Fine ounces consumed. | Dollars coined. | Subsidiary coined. |
| 1873.....      | 2,758,475    | \$57,022,748  | 3,004,803             | \$1,521,600     | \$2,503,147.60     |
| 1874.....      | 1,705,441    | 35,254,630    | 5,271,258             | 4,910,000       | 1,941,776.70       |
| 1875.....      | 1,594,050    | 32,951,940    | 11,504,961            | 6,279,600       | 9,068,293.00       |
| 1876.....      | 2,253,281    | 46,579,453    | 18,122,152            | 6,192,150       | 18,311,157.50      |
| 1877.....      | 2,128,493    | 43,999,864    | 21,378,389            | 13,092,710      | 15,300,335.50      |
| 1878.....      | 2,408,400    | 49,786,052    | 22,029,173            | 26,755,450      | 1,763,400.00       |
| 1879.....      | 1,890,499    | 39,080,080    | 21,323,113            | 27,561,641      | 8,135.00           |
| 1880.....      | 3,014,163    | 62,308,279    | 21,200,641            | 27,399,342      | 12,351.75          |
| 1881.....      | 4,685,162    | 96,850,890    | 21,609,422            | 27,928,935      | 11,228.75          |
| 1882.....      | 3,187,317    | 65,887,685    | 21,615,563            | 27,575,197      | 397,935.00         |
| 1883.....      | 1,414,581    | 29,241,990    | 22,581,870            | 28,471,018      | 775,950.45         |
| 1884.....      | 1,160,601    | 23,991,756    | 22,050,011            | 28,136,875      | 397,991.15         |
| 1885.....      | 1,343,519    | 27,773,012    | 22,387,196            | 28,397,767      | 264,409.20         |
| 1886.....      | 1,400,240    | 28,945,542    | 24,783,882            | 31,423,886      | 662,823.90         |
| 1887.....      | 1,159,664    | 23,972,383    | 27,139,034            | 33,611,710      | 1,579,371.40       |
| 1888.....      | 1,518,046    | 31,380,808    | 25,491,339            | 31,990,833      | 1,034,773.45       |
| 1889.....      | 1,035,899    | 21,413,931    | 27,412,169            | 34,651,811      | 844,872.15         |
| 1890.....      | 990,100      | 20,467,182    | 30,262,932            | 38,043,004      | 1,159,904.20       |
| 1891.....      | 1,413,614    | 29,222,005    | 21,086,062            | 23,562,735      | 3,956,121.60       |
| 1892.....      | 1,682,832    | 34,787,223    | 9,461,298             | 6,333,245       | 6,307,833.00       |
| 1893.....      | 2,757,231    | 56,997,020    | 6,440,604             | 1,455,792       | 7,347,005.30       |
| 1894.....      | 3,848,045    | 79,546,160    | 6,810,196             | 3,093,972       | 6,106,378.85       |
| 1895.....      | 2,883,941    | 59,616,358    | 4,164,996             | 862,880         | 4,835,130.25       |
| 1896.....      | 2,276,192    | 47,052,060    | 17,697,736            | 19,876,762      | 3,213,137.05       |
| 1897.....      | 3,677,878    | 76,028,485    | 14,006,626            | 12,651,731      | 5,835,566.30       |
| 1898.....      | 3,772,561    | 77,985,757    | 17,384,482            | 14,426,735      | 8,607,298.45       |
| 1899.....      | 5,386,277    | 111,344,220   | 19,612,343            | 15,182,846      | 10,878,673.90      |
| 1900.....      | 4,802,328    | 99,272,942    | 27,543,406            | 25,010,912      | 11,334,409.45      |
| 1901.....      | 4,921,439    | 101,735,188   | 23,437,523            | 22,566,813      | 8,271,647.75       |
| 1902.....      | 2,282,571    | 47,184,932    | 22,630,799            | 18,160,777      | 11,867,390.20      |
| 1903.....      | 2,113,212    | 43,683,970    | 14,894,507            | 10,343,755      | 9,530,685.00       |
| 1904.....      | 11,290,843   | 233,402,428   | 11,794,995            | 8,812,650       | 6,882,959.95       |
| 1905.....      | 2,401,260    | 49,638,441    | 4,580,542             | .....           | 6,332,180.90       |
| 1906.....      | 3,811,614    | 78,793,045    | 7,704,730             | .....           | 10,651,087.85      |
| 1907.....      | 6,381,025    | 131,907,490   | 9,532,950             | .....           | 13,178,435.75      |
| 1908.....      | 6,368,019    | 131,638,633   | 8,963,902             | .....           | 12,391,777.25      |
| Total.....     | 107,718,813  | 2,226,745,582 | 616,915,705           | 606,285,134     | 203,565,575.50     |

#### COINAGE FOR THE PHILIPPINE GOVERNMENT.

The Philippine government returned for recoinage pesos and fractional coins weighing 11,824,108.16 fine ounces, equivalent to 15,159,113 pesos, or in fractional coins, 15,177,355 pesos at the old weight and fineness, and will coin 22,986,213 pesos, or 24,518,277 pesos in fractional coins at the new weight and fineness.

There were coined from new bullion, as follows:

| Denomination.            | Pieces.   | Value.                     | Silver consumed.                 |
|--------------------------|-----------|----------------------------|----------------------------------|
| Pesos, silver.....       | 93,445    | <i>Pesos.</i><br>93,445.00 | <i>Fine ounces.</i><br>48,068.11 |
| 50-centavos, silver..... | 605,501   | 302,750.50                 | 146,001.43                       |
| 20-centavos, silver..... | 705,501   | 141,100.20                 | 68,045.57                        |
| 10-centavos, silver..... | 1,744,412 | 174,441.20                 | 84,124.26                        |
|                          |           |                            |                                  |
| Total.....               | 3,148,859 | 711,736.90                 | 346,239.37                       |

There was a further coinage of Philippine coins recoined, as follows:

| Denomination.            | Pieces.    | Value.        | Silver consumed.    |
|--------------------------|------------|---------------|---------------------|
|                          |            | <i>Pesos.</i> | <i>Fine ounces.</i> |
| Pesos, silver.....       | 20,862,000 | 20,862,000.00 | 10,731,412.80       |
| 50-centavos, silver..... | 996,000    | 498,000.00    | 240,160.50          |
| 20-centavos, silver..... | 830,000    | 166,000.00    | 80,053.50           |
| 10-centavos, silver..... | 1,620,000  | 162,000.00    | 78,124.50           |
| Total.....               | 24,308,000 | 21,688,000.00 | 11,129,751.30       |

COINAGE FOR CALENDAR YEAR 1908.

| Denomination.            | Pieces.    | Value.        | Silver consumed.    |
|--------------------------|------------|---------------|---------------------|
|                          |            | <i>Pesos.</i> | <i>Fine ounces.</i> |
| Pesos, silver.....       | 20,955,445 | 20,955,445.00 | 10,779,480.91       |
| 50-centavos, silver..... | 1,601,501  | 800,750.50    | 386,161.93          |
| 20-centavos, silver..... | 1,535,501  | 307,100.20    | 148,099.07          |
| 10-centavos, silver..... | 3,364,412  | 336,441.20    | 162,248.76          |
| Total silver.....        | 27,456,859 | 22,399,736.90 | 11,475,990.67       |
| 5-centavos, nickel.....  | 500        | 25.00         | .....               |
| 1-centavos, bronze.....  | 2,187,500  | 21,875.00     | .....               |
| ½-centavos, bronze.....  | 500        | 2.50          | .....               |
| Total coinage.....       | 29,645,359 | 22,421,639.40 | 11,475,990.67       |

TOTAL PHILIPPINE COINAGE TO DECEMBER 31, 1908.

| Denomination.              | Coined from new bullion, act of June 23, 1906. |              | Coined from Philippine coins received for recoinage, act of June 23, 1906. |               | Total.     |               |
|----------------------------|--|--------------|--|---------------|------------|---------------|
|                            | Pieces.  | Fine ounces. | Pieces.  | Fine ounces.  | Pieces.    | Fine ounces.  |
| Pesos.....                 | 93,445   | 48,068.11    | 31,140,000   | 16,018,416.00 | 31,233,445 | 16,066,484.11 |
| 50-centavo pieces.....     | 2,814,126                                      | 678,556.13   | 2,100,000  | 506,362.50    | 4,914,126  | 1,184,918.63  |
| 20-centavo pieces.....     | 3,216,152                                      | 310,197.86   | 2,735,000  | 263,790.75    | 5,951,152  | 573,988.61    |
| 10-centavo pieces.....     | 5,765,193                                      | 278,026.42   | 4,030,000  | 194,346.75    | 9,795,193  | 472,373.17    |
| Total silver.....          | 11,888,916                                     | 1,314,848.52 | 40,005,000   | 16,982,916.00 | 51,893,916 | 18,297,764.52 |
| 5-centavo pieces, nickel.. | 500  | .....        | .....  | .....         | 500        | .....         |
| 1-centavo pieces, bronze.. | 2,187,500                                      | .....        | .....  | .....         | 2,187,500  | .....         |
| ½-centavo pieces, bronze.. | 500  | .....        | .....  | .....         | 500        | .....         |
| Total minor.....           | 2,188,500                                      | .....        | .....  | .....         | 2,188,500  | .....         |
| Total coinage.....         | 14,077,416                                     | 1,314,848.52 | 40,005,000   | 16,982,916.00 | 54,082,416 | 18,297,764.52 |

## MOVEMENT OF GOLD FROM THE PORT OF NEW YORK.

The superintendent of the United States assay office at New York has prepared the following tables, giving exports of gold through the port of New York during the calendar year ended December 31, 1908:

## STATEMENT OF UNITED STATES GOLD COIN AND GOLD BULLION EXPORTED FROM THE PORT OF NEW YORK TO EUROPE DURING THE CALENDAR YEAR 1908.

| Date.            | Country.     | Amount.    | Rate of exchange. |
|------------------|--------------|------------|-------------------|
| February.....    | England..... | \$272      | .....             |
| April 17.....    | do.....      | 1,000,529  | 4.872             |
| April 20.....    | France.....  | 1,529,399  | 4.8725            |
| April 22.....    | do.....      | 5,013,136  | 4.8735            |
| April 27.....    | do.....      | 1,519,883  | 4.873             |
| April 29.....    | England..... | 1,015,000  | 4.871             |
| Do.....          | France.....  | 1,513,220  | 4.871             |
| May 13.....      | do.....      | 5,780,837  | 4.8715            |
| May 14.....      | do.....      | 1,012,000  | 4.8715            |
| May 18.....      | Germany..... | 4,094,000  | 4.871             |
| Do.....          | France.....  | 3,041,166  | 4.871             |
| May 19.....      | Germany..... | 500,000    | 4.8715            |
| May 20.....      | do.....      | 1,494,000  | 4.8725            |
| Do.....          | France.....  | 2,693,624  | 4.8725            |
| May 25.....      | Germany..... | 5,397,000  | 4.871             |
| May 27.....      | France.....  | 1,000,000  | 4.8725            |
| June 1.....      | Germany..... | 1,252,000  | 4.872             |
| June 5.....      | do.....      | 536,000    | 4.87              |
| June 8.....      | do.....      | 1,600,000  | 4.869             |
| June 15.....     | do.....      | 593,000    | 4.87              |
| June 17.....     | do.....      | 3,250,000  | 4.871             |
| June 23.....     | England..... | 4,000      | 4.87              |
| June 29.....     | Germany..... | 301,343    | 4.8695            |
| July 15.....     | France.....  | 1,040,000  | 4.8715            |
| July 31.....     | England..... | 325        | 4.869             |
| October 20.....  | do.....      | 4,243      | 4.865             |
| October 27.....  | do.....      | 7,275      | 4.8655            |
| November 4.....  | do.....      | 3,820      | 4.86              |
| November 16..... | do.....      | 3,915      | 4.859             |
| December 2.....  | France.....  | 1,504,025  | 4.8675            |
| December 11..... | do.....      | 4,000,500  | 4.869             |
| December 22..... | do.....      | 699,010    | 4.871             |
| Total.....       | .....        | 51,403,522 | .....             |

## RECAPITULATION OF GOLD EXPORTS TO EUROPE.

| Description.                         | France.     | England.  | Germany.    |
|--------------------------------------|-------------|-----------|-------------|
| United States coins.....             | \$1,055,000 | \$4,325   | \$9,350,000 |
| United States assay office bars..... | 29,291,800  | 2,015,529 | 9,667,343   |
| Bullion in ore.....                  | .....       | 272       | .....       |
| Gold in silver bullion.....          | .....       | 19,253    | .....       |
| Total.....                           | 30,346,800  | 2,039,379 | 19,017,343  |

|  |              |
|--|--------------|
| Grand total of exports to Europe.....  | \$51,403,522 |
| During the same period there were shipped to West Indies, Mexico, Central and South America, Cuba, etc., the following, viz: |              |
| United States coin.....  | \$2,758,101  |
| Foreign coins.....   | 794,250      |
| Total gold exports to other ports.....   | 3,552,351    |
| Grand total of gold exports.....   | 54,955,873   |

The imports during the same period were as follows:

|  |             |               |
|--|-------------|---------------|
| From Europe:   |             |               |
| United States coins.....   | \$151, 474  |               |
| Foreign coins.....   | 2, 672, 490 |               |
| Bullion.....   | 3, 801, 912 |               |
| Gold in ore and base bullion.....  | 80, 296     |               |
| Total gold imports from Europe.....  |             | \$6, 706, 172 |
| From other ports (West Indies, Mexico, Central and South America, and Cuba): |             |               |
| United States coins.....   | 6, 391, 582 |               |
| Foreign coins.....   | 717, 321    |               |
| Bullion.....   | 5, 565, 173 |               |
| In ore and base bullion.....   | 998, 382    |               |
| Total gold imports from other ports.....                                     |             | 13, 672, 458  |
| Grand total of gold imports.....   |             | 20, 378, 630  |

During the same period there was exported to England copper matte containing 13.65 ounces fine gold, and 212.295 ounces fine silver.

IMPORTS AND EXPORTS OF THE PRECIOUS METALS IN THE PRINCIPAL COUNTRIES OF THE WORLD, 1908.

GOLD.

| Country.                  | Imports.       | Exports.       | Excess of imports over exports. | Excess of exports over imports. |
|---------------------------|----------------|----------------|---------------------------------|---------------------------------|
| United States.....        | \$50, 276, 293 | \$81, 215, 456 |                                 | \$30, 939, 163                  |
| Africa <sup>a</sup> ..... | 111, 360       | 160, 346, 810  |                                 | 160, 235, 450                   |
| Austria-Hungary.....      | 14, 187, 494   | 12, 152, 494   | \$2, 035, 000                   |                                 |
| Bolivia.....              |                | 23, 057        |                                 | 23, 057                         |
| Brazil.....               | 30, 559        | 2, 198, 315    |                                 | 2, 167, 756                     |
| Canada.....               | 9, 635, 930    | 16, 359, 958   |                                 | 6, 724, 028                     |
| Colombia.....             |                | 789, 241       |                                 | 789, 241                        |
| Costa Rica.....           |                | 612, 924       |                                 | 612, 924                        |
| Denmark.....              | 2, 412, 000    | 1, 152, 400    | 1, 259, 600                     |                                 |
| Ecuador.....              | 931, 150       | 1, 762, 653    |                                 | 831, 503                        |
| Egypt.....                | 20, 652, 951   | 23, 087, 680   |                                 | 2, 434, 729                     |
| France.....               | 195, 656, 066  | 3, 998, 188    | 191, 657, 878                   |                                 |
| Germany.....              | 90, 662, 005   | 14, 042, 652   | 76, 619, 353                    |                                 |
| Great Britain.....        | 228, 809, 194  | 243, 174, 620  |                                 | 14, 365, 426                    |
| Guiana (British).....     | 4, 810, 192    | 1, 289, 946    | 3, 520, 246                     |                                 |
| Guiana (Dutch).....       | 115, 308       | 785, 866       |                                 | 670, 558                        |
| Honduras.....             |                | 303, 545       |                                 | 303, 545                        |
| India (British).....      | 34, 648, 263   | 3, 169, 551    | 31, 478, 712                    |                                 |
| Japan.....                | 8, 422, 984    | 1, 820, 883    | 6, 602, 101                     |                                 |
| Mexico.....               |                | 15, 911, 491   |                                 | 15, 911, 491                    |
| Netherlands.....          | 5, 266, 485    | 173, 809       | 5, 092, 676                     |                                 |
| Norway.....               | 942, 404       | 256, 136       | 686, 268                        |                                 |
| Portugal.....             | 16, 076, 352   | 1, 458, 016    | 14, 618, 336                    |                                 |
| Russia.....               | 8, 193, 434    | 7, 739, 587    | 453, 847                        |                                 |
| San Salvador.....         |                | 691, 424       |                                 | 691, 424                        |
| Santo Domingo.....        | 265, 377       |                | 265, 377                        |                                 |
| Siam.....                 | 2, 042, 822    | 20             | 2, 042, 802                     |                                 |
| Spain.....                | 132, 823       | 652, 448       |                                 | 519, 625                        |
| Straits Settlements.....  | 5, 824, 433    | 5, 178, 283    | 646, 150                        |                                 |
| Sweden.....               | 2, 470, 779    |                | 2, 470, 779                     |                                 |
| Switzerland.....          | 13, 731, 762   | 4, 842, 909    | 8, 888, 853                     |                                 |
| Venezuela.....            | 139, 349       | 232, 570       |                                 | 93, 221                         |

<sup>a</sup> Annual statement of the trade of the United Kingdom with foreign countries and with British possessions.

## IMPORTS AND EXPORTS OF THE PRECIOUS METALS IN THE PRINCIPAL COUNTRIES OF THE WORLD, 1908—Continued.

## SILVER.

| Country.                  | Imports.     | Exports.     | Excess of imports over exports. | Excess of exports over imports. |
|---------------------------|--------------|--------------|---------------------------------|---------------------------------|
| United States.....        | \$42,224,130 | \$51,837,671 | .....                           | \$9,613,541                     |
| Africa <sup>a</sup> ..... | 913,379      | 894,658      | \$18,721                        | .....                           |
| Austria-Hungary.....      | 2,078,413    | 963,876      | 1,114,537                       | .....                           |
| Bolivia.....              | .....        | 3,137,176    | .....                           | 3,137,176                       |
| Brazil.....               | 720,717      | 828          | 719,889                         | .....                           |
| Canada.....               | 333,534      | 13,116,953   | .....                           | 12,783,419                      |
| Costa Rica.....           | .....        | 81,288       | .....                           | 81,288                          |
| Ecuador.....              | .....        | 433          | .....                           | 433                             |
| Egypt.....                | 685,322      | 18,867       | 666,455                         | .....                           |
| France.....               | 33,601,107   | 33,947,349   | .....                           | 346,242                         |
| Germany.....              | 6,493,662    | 6,387,811    | 105,851                         | .....                           |
| Great Britain.....        | 60,712,357   | 64,646,041   | .....                           | 3,933,684                       |
| Guiana (British).....     | 223,983      | 187,200      | 36,783                          | .....                           |
| Guiana (Dutch).....       | 2,533        | 670          | 1,863                           | .....                           |
| Honduras.....             | .....        | 523,373      | .....                           | 523,373                         |
| India (British).....      | 48,484,088   | 7,046,658    | 41,437,430                      | .....                           |
| Japan.....                | 321,187      | 59,332       | 261,855                         | .....                           |
| Mexico.....               | .....        | 46,363,143   | .....                           | 46,363,143                      |
| Netherlands.....          | 641,259      | 3,647,343    | .....                           | 3,006,084                       |
| Norway.....               | 303,684      | 114,034      | 189,650                         | .....                           |
| Portugal.....             | 299,290      | 275,150      | 24,140                          | .....                           |
| Russia.....               | 6,329,676    | 1,994,973    | 4,334,703                       | .....                           |
| San Salvador.....         | 2,315,280    | 498,063      | 1,817,217                       | .....                           |
| Santo Domingo.....        | 94,311       | .....        | 94,311                          | .....                           |
| Siam.....                 | 2,079,671    | 278,984      | 1,800,687                       | .....                           |
| Spain.....                | 1,395,213    | 3,367,207    | .....                           | 1,971,994                       |
| Straits Settlements.....  | 14,869,615   | 7,150,926    | 7,718,689                       | .....                           |
| Sweden.....               | 93,757       | .....        | 93,757                          | .....                           |
| Switzerland.....          | 6,628,786    | 2,067,596    | 4,561,190                       | .....                           |
| Venezuela.....            | .....        | 6,846        | .....                           | 6,846                           |

<sup>a</sup> Annual statement of the trade of the United Kingdom with foreign countries and with British possessions.

## THE COURSE OF SILVER IN 1908.

The price of silver in the London market during the calendar year 1908 fluctuated between 22d. and 27d. for silver 925 M British Standard, the average for the year being 24 $\frac{1}{2}$ d. At the highest price, 27d., the equivalent in United States money was \$0.59187 per ounce fine; at the lowest price, \$0.42226, and at the average price, \$0.53490. The following review of the London silver market for 1908 is from the circular letter of Messrs. Pixley and Abell, bullion brokers, issued January 1, 1909.

*Silver.*—The heavy fall in silver which took place toward the close of 1907 was followed during the opening months of this year by a reaction, due chiefly to large purchases for the Indian bazaars, and during January the quotation rose to 27d., the highest of the year, an advance of 2 $\frac{1}{2}$ d. from the closing price of 1907. This steadiness continued until the beginning of April, when weakness again set in, and from that time the tendency of the market, with the exception of a temporary advance in June, was downward until December 2, when 22d., the lowest quotation of the year, was touched. From this point the market steadily improved until the end of the year, when the closing quotations were 23 $\frac{3}{16}$ d. for spot and 23 $\frac{1}{2}$ d. for forward silver. Important purchases for China and some buying for India, where the position has of late become more satisfactory, account for this sharp advance during the last few weeks. The average price for the whole year is 24 $\frac{1}{2}$ d.

Shipments to the Indian bazaars have throughout the year been on an unusually large scale. The net imports, chiefly from this country, into India will probably amount to 70,000,000 ounces, against 44,500,000 in 1907 and 32,750,000 in 1906. This demand may to a great extent be attributed to a desire on the part of the natives, attracted by the low prices, to convert their hoards of rupees into bar silver, and this action has doubtless been partially responsible for the increase of rupees in the Indian treasury. There were an unusual number of marriages during the early part of 1908, as in July commenced a period which will extend until October, 1909, and which is considered by the Hindoos to be unpropitious for matrimony, and this fact doubtless stimulated purchases during the earlier months. The cheapness of silver has also probably conduced to the purchase of this metal instead of gold, of which only about £3,100,000 in bars has been sent to India this year against £5,700,000 in 1907, the difference representing in silver some 25,000,000 ounces.

Indian speculators have during the last six months operated largely both on this market and that in Bombay. Though these speculative accounts have not yet been liquidated, the immediate result has been to transfer large amounts of silver from this market to Bombay, where, in spite of some substantial purchases for China, the stocks are still heavy, amounting, it is estimated, to nearly £400,000, while in addition there are £840,000 now in transit.

The Indian government has made no purchases this year. Their holdings of rupees have largely increased, and amounted at the beginning of this month, when the highest point was reached, to about 29 crores in the paper currency reserve and to  $18\frac{1}{2}$  crores in the gold standard reserve. Since then, owing to the opening of the export season, the paper currency reserve has fallen to just under 28 crores (£18,500,000) and the gold standard reserve to 18 crores (£12,000,000). At the commencement of this year the government's holdings were 21 crores (£14,000,000) in the paper currency reserve and 6 crores (£4,000,000) in that of the gold standard. Under these conditions the prospects of further purchases during the coming year are rather remote.<sup>a</sup>

Though China has at times been a seller, and has shipped about £220,000 in sycee to London for sale, yet she has on the whole been a considerable buyer. The low exchanges ruling in China have greatly stimulated the export trade and adversely affected the import trade, so that the banks have been forced to buy silver as cover for or as a hedge against their exchange operations. Part of these purchases has been shipped to China, but a large amount is still under the control of the China banks. Whether this will be resold or shipped to China remains to be seen. In addition to her purchases here, China has bought fair amounts in Bombay and has as well received regular shipments amounting to about £1,100,000 from San Francisco. An important feature in the future will be the effect of the prohibition of the import of opium into China, should this result from the recent efforts to suppress the use of this drug. Unless the import of other commodities should greatly increase, it would seem

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<sup>a</sup>To coin 1 crore of rupees requires 3,437,500 fine ounces of silver. As 15 rupees equal £1, 1 crore of rupees equal £666,666 $\frac{2}{3}$ .

probable that China will be a still more important buyer of silver than heretofore.

In Shanghai the stock of sycee is unusually heavy, amounting to about 19,000,000 taels, while in addition there are 10,000,000 Mexican dollars.

A convention was signed in November by the members of the Latin Union whereby it has been arranged to increase the circulation of subsidiary coins from 12 to 16 francs per head of the population. This convention comes into force on April 1 next, and the increase is to be made at the rate of 60 centimes per head per annum. There are also provisions to allow Italy and Greece, where the circulation is now below 60 centimes per head, to bring the circulation up to that amount. As a large part of the silver required will be provided by recoinng 5-franc pieces, or coins of similar value, the amount of new silver required will be unimportant. Excepting 5,000 kilos bought during December, the Paris mint has made no purchase by tender this year. Silver, however, was bought for French account during the earlier part of the year, and this presumably was required for colonial coinage. Switzerland has been a moderate buyer at times, while Portugal bought £250,000 in October.

In Germany a bill has passed the Reichstag for the purpose of increasing the silver currency of the country by 5 marks per head during the next five years. This is estimated to require about 1,250,000 kilos of silver; but so far we understand no purchases have been made.

During November the Mexican Government offered to buy 5,000 kilos monthly for currency purposes.

The low average price of silver which has ruled during the last fifteen months has no doubt caused some diminution of production. Where ores are mined principally for copper, lead, or other metals, and silver is but a by-product, low prices for silver can have had little effect, but many of the poorer mines, especially those which depend mainly upon the production of silver, have certainly reduced their output. Against these reductions must be set the increased production from the cobalt district of Canada, but it is probable that, when reliable figures are available, the world's production will show some decrease.

With silver at a low level—almost down to that of 1902-3, when 21½d. was the lowest quotation touched for spot silver—it becomes interesting to review the present situation and consider the prospects for the future. Though the Indian government is unlikely to be a buyer for some time to come, and though China has unusually large holdings of silver, the larger offtake by the Indian bazaars and the possible falling off in production will in all probability suffice to prevent any further material decline. Much, however, will depend upon whether China resells any of the silver under her control here or whether fresh purchases are made on her behalf.

HIGHEST, LOWEST, AND AVERAGE PRICE OF SILVER AND VALUE OF A FINE OUNCE, EACH MONTH DURING THE CALENDAR YEAR 1908.

| Month.         | Highest.                       | Lowest.                        | Average price per ounce, British standard, 0.925. | Equivalent value of a fine ounce with exchange at par (\$4.8665). | Average monthly price at New York of exchange on London. | Equivalent value of a fine ounce, based on average monthly price and average rate of exchange. | Average monthly New York price of fine bar silver. |
|----------------|--------------------------------|--------------------------------|---|---|--|--|--|
|                | <i>Pence.</i>                  | <i>Pence.</i>                  | <i>Pence.</i>                                     |   |  |  |  |
| January.....   | 27                             | 25 <sup>3</sup> / <sub>8</sub> | 25.7283   | \$0.56399   | \$4.8620   | \$0.56347  | \$0.56274  |
| February.....  | 25 <sup>3</sup> / <sub>8</sub> | 25 <sup>1</sup> / <sub>2</sub> | 25.8650   | .56699  | 4.8651   | .56682   | .56630   |
| March.....     | 25 <sup>3</sup> / <sub>8</sub> | 25 <sup>3</sup> / <sub>8</sub> | 25.5697   | .56051  | 4.8621   | .56001   | .55990   |
| April.....     | 25 <sup>3</sup> / <sub>8</sub> | 24 <sup>5</sup> / <sub>8</sub> | 25.1328   | .55094  | 4.8695   | .55123   | .55129   |
| May.....       | 24 <sup>1</sup> / <sub>8</sub> | 24 <sup>1</sup> / <sub>8</sub> | 24.3389   | .53353  | 4.8711   | .53404   | .53427   |
| June.....      | 25 <sup>3</sup> / <sub>8</sub> | 24 <sup>1</sup> / <sub>8</sub> | 24.7600   | .54276  | 4.8697   | .54312   | .54278   |
| July.....      | 24 <sup>1</sup> / <sub>8</sub> | 24 <sup>1</sup> / <sub>8</sub> | 24.5138   | .53737  | 4.8696   | .53771   | .53796   |
| August.....    | 24 <sup>1</sup> / <sub>8</sub> | 23 <sup>9</sup> / <sub>8</sub> | 23.8943   | .52379  | 4.8634   | .52345   | .52302   |
| September..... | 24 <sup>1</sup> / <sub>8</sub> | 23 <sup>9</sup> / <sub>8</sub> | 23.8725   | .52331  | 4.8639   | .52301   | .52300   |
| October.....   | 23 <sup>1</sup> / <sub>8</sub> | 23 <sup>1</sup> / <sub>8</sub> | 23.7199   | .51996  | 4.8646   | .51976   | .52050   |
| November.....  | 23 <sup>1</sup> / <sub>8</sub> | 22 <sup>1</sup> / <sub>8</sub> | 22.9275   | .50259  | 4.8608   | .50212   | .50320   |
| December.....  | 23 <sup>1</sup> / <sub>8</sub> | 22                             | 22.4925   | .49306  | 4.8689   | .49330   | .49399   |
| Average.....   |                                |                                | 24.4012   | .53490  | 4.8659   | .53483   | .53496   |

EXPORTS OF SILVER TO THE EAST.

The exports of silver from London to India, China, and the Straits since 1881 have been as follows:

| Calendar year. | India.       | China.      | Straits.    | Total.       |
|----------------|--------------|-------------|-------------|--------------|
| 1881.....      | \$12,375,612 | \$3,898,860 | \$3,577,729 | \$19,852,201 |
| 1882.....      | 18,604,945   | 1,584,318   | 7,354,255   | 27,543,518   |
| 1883.....      | 18,040,140   | 4,212,574   | 11,189,631  | 33,442,345   |
| 1884.....      | 26,073,909   | 5,018,714   | 8,136,097   | 39,228,720   |
| 1885.....      | 30,913,667   | 3,160,315   | 3,108,146   | 37,182,128   |
| 1886.....      | 21,159,591   | 1,769,425   | 2,892,064   | 25,821,080   |
| 1887.....      | 19,798,328   | 1,427,179   | 2,766,946   | 23,992,453   |
| 1888.....      | 21,162,116   | 1,153,002   | 3,219,321   | 25,534,439   |
| 1889.....      | 28,392,786   | 2,731,861   | 8,181,141   | 39,305,788   |
| 1890.....      | 35,673,177   | 1,284,498   | 4,441,197   | 41,398,872   |
| 1891.....      | 21,717,992   | 1,177,620   | 10,754,800  | 33,650,412   |
| 1892.....      | 35,180,897   | 719,668     | 18,622,825  | 54,523,390   |
| 1893.....      | 34,319,877   | 11,635,650  | 7,847,295   | 53,802,822   |
| 1894.....      | 24,391,351   | 13,279,564  | 6,002,565   | 43,673,480   |
| 1895.....      | 17,638,610   | 8,042,003   | 3,668,772   | 29,349,385   |
| 1896.....      | 23,874,942   | 3,602,597   | 4,025,257   | 31,502,796   |
| 1897.....      | 28,250,305   | 2,721,522   | 3,597,331   | 34,569,158   |
| 1898.....      | 20,984,625   | 3,721,656   | 1,971,443   | 26,677,724   |
| 1899.....      | 25,597,912   | 6,929,117   | 1,396,223   | 33,923,252   |
| 1900.....      | 37,916,065   | 11,252,496  | 3,922,477   | 53,091,038   |
| 1901.....      | 36,987,395   | 4,101,764   | 3,150,630   | 44,239,789   |
| 1902.....      | 30,987,195   | 991,793     | 5,363,710   | 37,342,698   |
| 1903.....      | 36,125,636   | 1,508,907   | 3,999,674   | 41,634,217   |
| 1904.....      | 46,366,153   | 2,495,502   | 385,758     | 49,247,413   |
| 1905.....      | 36,754,830   | 4,315,841   | 186,382     | 41,257,053   |
| 1906.....      | 73,997,060   | 2,096,002   | 8,516       | 76,101,578   |
| 1907.....      | 51,935,064   | 2,420,354   | 3,448,645   | 57,804,063   |
| 1908.....      | 45,133,819   | 3,608,023   | 802,413     | 49,544,255   |

## VALUE OF NET IMPORTS OF SILVER INTO INDIA SINCE 1835.

The net imports in value of silver into India, average exchange rate of India rupee in London, and amount of council bills sold, by fiscal years ended March 31, is shown by the following table:

| Year.                      | Net imports of silver.     | Average rate of Indian rupee.  | Amount of council bills sold. | Year.          | Net imports of silver. | Average rate of Indian rupee.  | Amount of council bills sold. |
|----------------------------|----------------------------|--------------------------------|-------------------------------|----------------|------------------------|--------------------------------|-------------------------------|
|                            |                            | <i>Pence.</i>                  |                               |                |                        | <i>Pence.</i>                  |                               |
| 1835-36.....               | <sup>a</sup> 16, 118, 960  | .....                          | \$9, 953, 224                 | 1872-73.....   | \$3, 298, 985          | 22 <sup>3</sup> / <sub>4</sub> | \$67, 834, 606                |
| 1836-37.....               | \$6, 176, 311              | 22 <sup>3</sup> / <sub>4</sub> | 9, 938, 522                   | 1873-74.....   | 11, 311, 401           | 22.351                         | 64, 654, 752                  |
| 1837-38.....               | 9, 173, 294                | 23                             | 8, 303, 149                   | 1874-75.....   | 20, 916, 698           | 22.221                         | 52, 760, 715                  |
| 1838-39.....               | 12, 671, 392               | 23 <sup>3</sup> / <sub>4</sub> | 11, 419, 685                  | 1875-76.....   | 6, 826, 414            | 21.645                         | 60, 294, 052                  |
| 1839-40.....               | 7, 864, 683                | 23 <sup>3</sup> / <sub>4</sub> | 7, 005, 448                   | 1876-77.....   | 29, 911, 149           | 20.491                         | 61, 784, 106                  |
| 1840-41.....               | 6, 679, 118                | 23 <sup>3</sup> / <sub>4</sub> | 5, 715, 461                   | 1877-78.....   | 61, 869, 640           | 20.790                         | 49, 319, 325                  |
| 1841-42.....               | 5, 887, 052                | 23 <sup>3</sup> / <sub>4</sub> | 12, 600, 746                  | 1878-79.....   | 15, 910, 390           | 19.761                         | 67, 880, 692                  |
| 1842-43.....               | 14, 068, 739               | 23 <sup>3</sup> / <sub>4</sub> | 5, 827, 332                   | 1879-80.....   | 31, 852, 848           | 19.961                         | 74, 271, 598                  |
| 1843-44.....               | 17, 237, 334               | 23                             | 13, 634, 624                  | 1880-81.....   | 15, 751, 280           | 19.956                         | 74, 163, 888                  |
| 1844-45.....               | 8, 719, 684                | 21 <sup>5</sup> / <sub>8</sub> | 12, 248, 742                  | 1881-82.....   | 21, 699, 764           | 19.895                         | 89, 604, 086                  |
| 1845-46.....               | 4, 112, 529                | 21 <sup>3</sup> / <sub>8</sub> | 14, 919, 273                  | 1882-83.....   | 29, 614, 971           | 19.525                         | 73, 584, 015                  |
| 1846-47.....               | 6, 332, 979                | 22 <sup>5</sup> / <sub>8</sub> | 15, 071, 750                  | 1883-84.....   | 25, 372, 923           | 19.536                         | 85, 649, 451                  |
| 1847-48.....               | 2, 204, 565                | 22                             | 7, 503, 189                   | 1884-85.....   | 28, 367, 364           | 19.308                         | 66, 957, 731                  |
| 1848-49.....               | 1, 344, 618                | 21 <sup>1</sup> / <sub>4</sub> | 9, 193, 767                   | 1885-86.....   | 42, 960, 530           | 18.254                         | 50, 089, 386                  |
| 1849-50.....               | 5, 810, 633                | 22 <sup>3</sup> / <sub>4</sub> | 14, 283, 752                  | 1886-87.....   | 25, 306, 454           | 17.441                         | 59, 061, 202                  |
| 1850-51.....               | 10, 410, 803               | 24 <sup>1</sup> / <sub>4</sub> | 15, 750, 223                  | 1887-88.....   | 31, 623, 459           | 16.899                         | 74, 742, 515                  |
| 1851-52.....               | 14, 016, 886               | 24 <sup>1</sup> / <sub>4</sub> | 13, 516, 816                  | 1888-89.....   | 30, 709, 917           | 16.379                         | 69, 410, 203                  |
| 1852-53.....               | 22, 293, 629               | 23 <sup>3</sup> / <sub>4</sub> | 16, 152, 235                  | 1889-90.....   | 36, 741, 437           | 16.566                         | 75, 306, 635                  |
| 1853-54.....               | 11, 279, 345               | 24 <sup>1</sup> / <sub>4</sub> | 18, 738, 775                  | 1890-91.....   | 51, 993, 287           | 18.089                         | 77, 713, 304                  |
| 1854-55.....               | 138, 797                   | 23 <sup>3</sup> / <sub>4</sub> | 17, 860, 191                  | 1891-92.....   | 30, 611, 949           | 16.733                         | 78, 320, 740                  |
| 1855-56.....               | 40, 085, 623               | 24 <sup>1</sup> / <sub>4</sub> | 7, 222, 081                   | 1892-93.....   | 39, 083, 615           | 14.984                         | 80, 454, 024                  |
| 1856-57.....               | 56, 413, 954               | 25 <sup>1</sup> / <sub>4</sub> | 13, 722, 119                  | 1893-94.....   | 40, 466, 665           | 14.546                         | 46, 378, 884                  |
| 1857-58.....               | 61, 012, 039               | 24 <sup>3</sup> / <sub>8</sub> | 3, 059, 077                   | 1894-95.....   | 16, 812, 318           | 13.100                         | 82, 268, 679                  |
| 1858-59.....               | <sup>a</sup> 77, 283, 420  | (b)                            | 124, 451                      | 1895-96.....   | 18, 206, 409           | 13.641                         | 85, 278, 507                  |
| 1859-60.....               | <sup>a</sup> 111, 475, 630 | (b)                            | 22, 843                       | 1896-97.....   | 17, 163, 165           | 14.454                         | 76, 028, 915                  |
| 1860-61.....               | <sup>a</sup> 53, 280, 090  | (b)                            | 3, 879                        | 1897-98.....   | 26, 447, 429           | 15.393                         | 44, 271, 918                  |
| 1861-62.....               | \$43, 988, 930             | 23 <sup>7</sup> / <sub>8</sub> | 5, 809, 277                   | 1898-99.....   | 16, 442, 585           | 15.979                         | 91, 064, 157                  |
| 1862-63.....               | 60, 757, 238               | 23 <sup>7</sup> / <sub>8</sub> | 32, 321, 230                  | 1899-1900..... | 11, 653, 240           | 16.068                         | 92, 495, 079                  |
| 1863-64.....               | 61, 950, 883               | 23 <sup>7</sup> / <sub>8</sub> | 43, 698, 839                  | 1900-1901..... | 30, 792, 023           | 15.973                         | 65, 501, 810                  |
| 1864-65.....               | 48, 793, 010               | 23 <sup>7</sup> / <sub>8</sub> | 33, 040, 970                  | 1901-2.....    | 23, 318, 450           | 15.988                         | 89, 444, 377                  |
| 1865-66.....               | 89, 904, 731               | 23 <sup>3</sup> / <sub>4</sub> | 33, 900, 604                  | 1902-3.....    | 22, 569, 699           | 16.0018                        | 90, 029, 987                  |
| 1866-67 <sup>c</sup> ..... | 32, 474, 026               | 23                             | 24, 661, 422                  | 1903-4.....    | 44, 294, 125           | 16.0491                        | 116, 111, 293                 |
| 1867-68.....               | 26, 230, 510               | 23 <sup>3</sup> / <sub>4</sub> | 20, 134, 097                  | 1904-5.....    | 43, 024, 637           | 16.045                         | 118, 866, 929                 |
| 1868-69.....               | 40, 330, 842               | 23 <sup>3</sup> / <sub>4</sub> | 18, 033, 989                  | 1905-6.....    | 51, 010, 716           | 16.048                         | 135, 972, 219                 |
| 1869-70.....               | 34, 500, 818               | 23 <sup>3</sup> / <sub>4</sub> | 33, 968, 764                  | 1906-7.....    | 77, 881, 906           | 16.0926                        | 144, 042, 151                 |
| 1870-71.....               | 4, 273, 507                | 22 <sup>3</sup> / <sub>4</sub> | 41, 090, 337                  | 1907-8.....    | .....                  | 16.0291                        | 73, 640, 175                  |
| 1871-72.....               | 30, 574, 254               | 23 <sup>3</sup> / <sub>4</sub> | 50, 175, 265                  |                |                        |                                |                               |

<sup>a</sup> Rupees.

<sup>b</sup> From 1858-59 to 1860-61, inclusive, the home treasury was opened at all times for the sale of bills on India at rates altered from time to time by advertisement. Consequent on the mutiny it was necessary to refrain from drawing on India and exchange was raised to a prohibitory rate.

<sup>c</sup> Eleven months.

GOLD AND SILVER IMPORTED INTO AND EXPORTED FROM BRITISH INDIA IN EACH FISCAL YEAR ENDING MARCH 31, FROM 1873-74 (BRITISH STANDARD OUNCES.)

[From Financial and Commercial Statistics of British India.]

| Period.   | Gold.     |           |              | Silver.     |            |              |
|-----------|-----------|-----------|--------------|-------------|------------|--------------|
|           | Imported. | Exported. | Net imports. | Imported.   | Exported.  | Net imports. |
|           | Ounces.   | Ounces.   | Ounces.      | Ounces.     | Ounces.    | Ounces.      |
| 1873-74   |           |           | 331,554      |             |            | 8,747,151    |
| 1874-75   |           |           | 446,964      |             |            | 16,269,590   |
| 1875-76   |           |           | 355,985      |             |            | 5,451,074    |
| 1876-77   |           |           | 62,696       |             |            | 25,229,986   |
| 1877-78   |           |           | 102,628      |             |            | 51,436,354   |
| 1878-79   |           |           | 177,101      |             |            | 13,916,146   |
| 1879-80   |           |           | 374,227      |             |            | 27,581,194   |
| 1880-81   |           |           | 777,533      |             |            | 13,642,358   |
| 1881-82   |           |           | 1,028,240    |             |            | 18,852,031   |
| 1882-83   |           |           | 1,048,810    |             |            | 26,216,055   |
| 1883-84   |           |           | 1,138,584    |             |            | 22,448,221   |
| 1884-85   |           |           | 973,053      |             |            | 25,393,863   |
| 1885-86   |           |           | 544,437      |             |            | 40,677,913   |
| 1886-87   |           |           | 393,174      |             |            | 25,078,814   |
| 1887-88   | 569,684   | 41,646    | 528,038      | 37,877,141  | 5,994,542  | 32,782,599   |
| 1888-89   | 512,287   | 50,710    | 461,577      | 37,844,665  | 5,408,636  | 32,436,029   |
| 1889-90   | 850,232   | 76,848    | 773,384      | 43,940,659  | 5,296,885  | 38,643,774   |
| 1890-91   | 1,175,875 | 161,646   | 1,014,229    | 56,190,870  | 4,661,785  | 51,529,085   |
| 1891-92   | 709,102   | 285,454   | 423,648      | 38,177,580  | 5,829,142  | 32,348,438   |
| 1892-93   | 272,442   | 726,925   | -454,483     | 54,180,144  | 8,656,632  | 45,523,512   |
| 1893-94   | 474,635   | 378,399   | 96,236       | 60,328,296  | 5,999,323  | 54,328,973   |
| 1894-95   | 236,873   | 926,843   | -689,970     | 32,638,069  | 5,598,047  | 27,040,022   |
| 1895-96   | 695,055   | 372,432   | 322,623      | 34,082,810  | 7,064,731  | 27,018,079   |
| 1896-97   | 657,238   | 347,873   | 309,365      | 37,520,322  | 11,591,234 | 25,929,088   |
| 1897-98   | 1,129,149 | 397,114   | 732,035      | 68,535,612  | 24,250,995 | 44,284,617   |
| 1898-99   | 1,432,461 | 410,461   | 1,022,000    | 49,226,780  | 26,061,355 | 23,165,425   |
| 1899-1900 | 1,914,037 | 353,225   | 1,560,812    | 50,663,542  | 32,017,260 | 18,646,282   |
| 1900-1901 | 1,987,738 | 1,881,060 | 1,106,678    | 64,746,549  | 15,311,385 | 49,435,164   |
| 1901-2    | 1,372,249 | 1,097,743 | 274,506      | 66,726,972  | 27,721,780 | 39,005,192   |
| 1902-3    | 2,187,384 | 770,766   | 1,416,618    | 75,569,185  | 32,294,876 | 42,274,309   |
| 1903-4    | 3,330,466 | 1,764,229 | 1,566,237    | 104,324,765 | 25,142,629 | 79,182,136   |
| 1904-5    | 3,605,017 | 2,088,025 | 1,516,992    | 98,118,908  | 23,769,313 | 74,349,595   |
| 1905-6    | 2,396,420 | 2,461,892 | -65,472      | 88,853,079  | 4,535,314  | 84,317,765   |
| 1906-7    | 3,019,161 | 642,010   | 2,377,151    | 125,878,008 | 7,679,151  | 118,198,857  |
| 1907-8    | 3,380,405 | 599,065   | 2,781,340    | 106,291,860 | 8,442,915  | 97,848,945   |
| 1908-9    | 1,334,107 | 708,769   | 625,338      | 85,039,761  | 11,309,088 | 73,730,673   |

NOTE.—The quantities in the column "net imports" for both gold and silver for the years 1873-74 to 1886-87 are estimated only, deduced from the declared values of the trade for those years by the following process:

For gold, the rupee value of the monthly net imports was converted into sterling at the average rate of exchange in each month, and this sterling value was then divided by the English mint price of gold (£3 17s. 10½d.). For silver the average price of 107 rupees per 100 tolas, or 285.33 rupees per 100 ounces, was taken as the basis of the value of the annual imports.

## IMPORTS AND EXPORTS OF BULLION INTO AND FROM LONDON.

The imports and exports of bullion from various countries during the calendar year 1908 were as follows:

| Country.   | Imports.    |            | Exports.    |            |
|--|-------------|------------|-------------|------------|
|  | Gold.       | Silver.    | Gold.       | Silver.    |
| Austria.....   |             |            | \$6,706,037 | \$60,880   |
| Belgium.....   | \$1,253,888 | \$673,236  | 79,324      | 633,618    |
| France.....  | 1,099,157   | 1,901,823  | 127,561,111 | 3,550,900  |
| Germany.....   | 13,959,881  | 1,311,225  | 19,133,209  | 2,428,807  |
| Holland.....   | 1,801,218   | 219,903    | 1,734,197   | 29,491     |
| Sweden and Denmark.....  |             |            | 1,824,938   | 145,995    |
| Russia.....  |             |            | 14,273,445  | 1,775,250  |
| Spain, Portugal, etc.....  | 1,831,697   | 285,294    | 98,624      | 728,335    |
| Gibraltar.....   | 158,288     | 11,378     | 316,323     | 18,030     |
| Malta.....   | 151,621     | 97,257     |             |            |
| Egypt.....   | 2,983,062   | 57,459     | 8,370,380   | 458,200    |
| Ceylon.....  | 2,057,902   | 1,318,821  |             | 57,366     |
| Bombay.....  |             |            |             |            |
| Madras.....  | 11,718,936  |            | 18,232,245  | 42,947,018 |
| Calcutta.....  |             |            |             |            |
| Singapore.....   |             |            |             |            |
| Penang.....  | 1,259,348   | 227,100    | 8,828       | 2,846,163  |
| Hongkong.....  |             |            |             |            |
| Shanghai.....  | 12,264      |            |             | 4,001,723  |
| West Coast of Africa.....  | 5,532,933   | 843,632    | 48,796      | 907,933    |
| British South Africa.....  | 154,821,682 | 55,025     | 97,856      | 5,684      |
| United States.....   | 574,977     | 40,421,032 | 3,662,270   | 976,210    |
| Mexico, South America, etc. (except Brazil),<br>West Indies..... | 3,881,647   | 1,027,815  | 32,144,843  | 1,016,325  |
| Brazil.....  | 2,158,950   | 316        | 1,368,109   | 707,613    |
| British North America.....                                       |             | 1,170,549  |             | 122        |
| Australia.....   | 13,442,373  | 172,070    |             | 796,889    |
| New Zealand.....   | 4,467,637   | 413,083    |             |            |
| Other countries.....   | 1,399,610   | 48,787     | 7,514,085   | 553,487    |
| Total.....   | 224,566,171 | 50,255,805 | 243,174,620 | 64,646,039 |

## STOCK OF MONEY IN THE UNITED STATES.

On December 31, 1908, the stock of domestic coin in the United States was \$2,266,695,667, as shown by the following official table:

| Items.   | Gold.           | Silver.       | Total.          |
|--|-----------------|---------------|-----------------|
| Estimated stock of coin December 31, 1907.....   | \$1,449,752,196 | \$707,997,205 | \$2,157,749,401 |
| Net imports United States coin, calendar year 1908.....  |                 | 2,313,930     | 2,313,930       |
| United States coin returned in transports from the Philippine Islands, not recorded at the custom-house, calendar year 1908..... |                 | 30,998        | a 30,998        |
| Coinage, calendar year 1908.....   | 131,638,633     | 12,391,777    | 144,030,410     |
| Total.....   | 1,581,390,829   | 722,733,910   | 2,304,124,739   |
| Less:  |                 |               |                 |
| United States coin melted for recoinage (face value), calendar year 1908.....  | 5,360,887       | 1,046,417     | 6,407,304       |
| United States coin estimated to have been used in the arts, calendar year 1908.....  | 3,500,000       | 100,000       | 3,600,000       |
| Net exports United States coin, calendar year 1908.....  | 27,421,768      |               | 27,421,768      |
| Total.....   | 36,282,655      | 1,146,417     | 37,429,072      |
| Estimated stock of coin in the United States December 31, 1908.....  | 1,545,108,174   | 721,587,493   | 2,266,695,667   |

a Of this amount \$10,000 were in 1-dollar pieces.

NOTE.—The number of standard silver dollars coined to December 31, 1908, was 570,272,610, which, added to the Hawaiian dollar coinage, 500,000, plus the number imported from the Philippine Islands, 150,000, and the number returned in government transports, 483,730, equals 571,406,340. Since July 1, 1898, the number of standard silver dollars exported in transports has been 2,495,000; and since 1883 the number melted has been 186,710 (see Report of the Director of the Mint, 1908, p. 16), and the number of Hawaiian dollars melted to December 31, 1908, has been 454,818, a total disposition of 3,136,528, leaving in the United States on December 31, 1908, 568,269,812 standard silver dollars, and 153,317,681 dollars in subsidiary silver coins.

The value of the gold and silver bullion held by the government institutions on December 31, 1908, was as follows:

GOLD AND SILVER BULLION IN THE MINTS AND ASSAY OFFICES ON DECEMBER 31, 1908.

| Bullion.           | Value.        |
|--------------------|---------------|
| Gold.....          | \$111,041,339 |
| Silver (cost)..... | 7,788,802     |
| Total.....         | 118,830,141   |

The total metallic stock in the United States was as follows:

METALLIC STOCK IN THE UNITED STATES ON DECEMBER 31, 1908.

| Bullion and coin. | Value.          |
|-------------------|-----------------|
| Gold.....         | \$1,656,149,513 |
| Silver.....       | 729,376,295     |
| Total.....        | 2,385,525,808   |

The total metallic stock in the United States on December 31, 1907, was as follows:

METALLIC STOCK ON DECEMBER 31, 1907.

| Bullion and coin. | Value.          |
|-------------------|-----------------|
| Gold.....         | \$1,612,689,332 |
| Silver.....       | 714,968,494     |
| Total.....        | 2,327,657,826   |

The above shows that there was an increase in the stock during calendar year 1908 of \$57,867,982.

The location of the stock of metallic and paper money in the United States December 31, 1908, was as follows:

| Money.   | In Treasury.  | Outside of Treasury. | Total.        |
|--|---------------|----------------------|---------------|
| <b>Metallic:</b>                               |               |                      |               |
| Gold bullion.....                              | \$111,041,339 | .....                | \$111,041,339 |
| Silver bullion.....                            | 7,788,802     | .....                | 7,788,802     |
| Gold coin.....                                 | 924,316,981   | \$620,791,193        | 1,545,108,174 |
| Silver dollars.....                            | 495,957,130   | 72,312,682           | 568,269,812   |
| Subsidiary silver coin.....                    | 18,551,231    | 134,766,450          | 153,317,681   |
| Total metallic.....                            | 1,557,655,483 | 827,870,325          | 2,385,525,808 |
| <b>Paper:</b>                                  |               |                      |               |
| Legal-tender notes (old issue).....            | 10,855,442    | 335,825,574          | 346,681,016   |
| Legal-tender notes (act of July 14, 1890)..... | 8,280         | 4,587,720            | 4,596,000     |
| National-bank notes.....                       | 25,717,767    | 651,350,398          | 677,068,165   |
| Total notes.....                               | 36,581,489    | 991,763,692          | 1,028,345,181 |
| Gold certificates.....                         | 57,729,060    | 800,583,809          | .....         |
| Silver certificates.....                       | 21,332,274    | 469,883,726          | .....         |
| Total certificates.....                        | 79,061,334    | 1,270,467,535        | .....         |
| Grand total.....                               | .....         | 3,090,101,552        | 3,413,870,989 |

**GOLD AND SILVER USED IN INDUSTRIAL ARTS IN THE UNITED STATES  
DURING THE CALENDAR YEAR 1908.**

Among the purveyors of gold and silver bars for use in the industrial arts, the United States mint at Philadelphia and the United States assay office at New York hold the foremost places. Consequently the larger portion of the material consumed in the arts is brought under government notice and is a matter of public record.

The following table gives the value of the gold and the quantity of the silver bars issued by the government institutions and private refineries during the calendar year 1908:

**GOLD AND SILVER BARS ISSUED BY THE GOVERNMENT INSTITUTIONS AND MANUFACTURED BY PRIVATE REFINERIES FOR USE IN THE INDUSTRIAL ARTS DURING THE CALENDAR YEAR 1908.**

| Material used.          | Gold.                    |                     | Total.         | Silver.                  |                     | Total.              |
|-------------------------|--------------------------|---------------------|----------------|--------------------------|---------------------|---------------------|
|                         | Government institutions. | Private refineries. |                | Government institutions. | Private refineries. |                     |
|                         |                          |                     |                | <i>Fine ounces.</i>      | <i>Fine ounces.</i> | <i>Fine ounces.</i> |
| Domestic bullion.....   | \$8,147,514.90           | \$260,456.00        | \$8,407,970.90 | 681,295.08               | 15,161,517.00       | 15,842,812.08       |
| Foreign material.....   | 2,846,767.12             | 207.00              | 2,846,974.12   | 1,829,103.63             | 2,661,838.00        | 4,490,941.63        |
| United States coin..... | 197.17                   | 334,713.00          | 334,910.17     | .....                    | 1,938.00            | 1,938.00            |
| Old jewelry, etc.....   | 14,686,845.78            | 2,034,300.00        | 16,721,145.78  | 324,364.21               | 3,115,366.00        | 3,439,730.21        |
| Total.....              | 25,681,324.97            | 2,629,676.00        | 28,311,000.97  | 2,834,762.92             | 20,940,659.00       | 23,775,421.92       |

Estimating that the total amount of gold coin used in the arts during the calendar year has been \$3,500,000, and silver coin \$100,000, equivalent to 77,344 fine ounces, the total industrial consumption would be as follows:

| Material used.          | Gold.          | Silver.             |
|-------------------------|----------------|---------------------|
|                         |                | <i>Fine ounces.</i> |
| Domestic bullion.....   | \$8,407,970.90 | 15,842,812.08       |
| Foreign material.....   | 2,846,974.12   | 4,490,941.63        |
| United States coin..... | 3,500,000.00   | 77,344.00           |
| Old material.....       | 16,721,145.78  | 3,439,730.21        |
| Total.....              | 31,476,090.80  | 23,850,827.92       |

The following table gives the amounts and the classification of gold and silver used in the industrial arts in the United States since 1880:

GOLD AND SILVER BARS FURNISHED FOR USE IN MANUFACTURES AND THE ARTS, AND CLASSIFICATION OF THE MATERIAL USED, BY CALENDAR YEARS, SINCE 1880.

GOLD.

| Calendar year. | New material.       |                   |                           |                     | Old material. | Grand total. |
|----------------|---------------------|-------------------|---------------------------|---------------------|---------------|--------------|
|                | United States coin. | Domestic bullion. | Foreign bullion and coin. | Total new material. |               |              |
| 1880.....      | \$3,300,000         | \$6,000,000       | \$1,267,600               | \$10,567,600        | \$395,000     | \$10,962,600 |
| 1881.....      | 2,700,000           | 7,000,000         | 1,547,800                 | 11,247,800          | 522,900       | 11,770,700   |
| 1882.....      | 2,500,000           | 7,000,000         | 671,500                   | 10,171,500          | 696,500       | 10,868,000   |
| 1883.....      | 4,875,000           | 7,840,000         | 194,500                   | 12,909,500          | 1,549,300     | 14,458,800   |
| 1884.....      | 5,000,000           | 6,000,000         | 385,500                   | 11,385,500          | 3,114,500     | 14,500,000   |
| 1885.....      | 3,500,000           | 6,736,927         | 178,913                   | 10,415,840          | 1,408,902     | 11,824,742   |
| 1886.....      | 3,500,000           | 7,003,480         | 638,003                   | 11,141,483          | 1,928,046     | 13,069,529   |
| 1887.....      | 3,500,000           | 9,090,342         | 384,122                   | 12,974,464          | 1,835,882     | 14,810,346   |
| 1888.....      | 3,500,000           | 9,893,057         | 718,809                   | 14,111,866          | 2,402,976     | 16,514,842   |
| 1889.....      | 3,500,000           | 9,686,827         | 291,258                   | 13,478,085          | 3,218,971     | 16,697,056   |
| 1890.....      | 3,500,000           | 10,717,472        | 362,062                   | 14,579,534          | 3,076,426     | 17,655,960   |
| 1891.....      | 3,500,000           | 10,697,679        | 628,525                   | 14,826,204          | 4,860,712     | 19,686,916   |
| 1892.....      | 3,500,000           | 10,588,703        | 771,686                   | 14,860,389          | 4,468,685     | 19,329,074   |
| 1893.....      | 1,500,000           | 8,354,452         | 804,254                   | 10,658,736          | 2,777,165     | 13,435,901   |
| 1894.....      | 1,500,000           | 6,430,073         | 543,585                   | 8,473,658           | 2,184,946     | 10,658,604   |
| 1895.....      | 1,500,000           | 8,481,789         | 471,027                   | 10,452,816          | 2,976,269     | 13,429,085   |
| 1896.....      | 1,500,000           | 7,209,787         | 316,804                   | 9,026,591           | 2,369,343     | 11,395,934   |
| 1897.....      | 1,500,000           | 7,184,822         | 613,981                   | 9,298,803           | 2,571,428     | 11,870,231   |
| 1898.....      | 1,500,000           | 9,463,262         | 437,641                   | 11,400,903          | 2,164,976     | 13,565,879   |
| 1899.....      | 1,500,000           | 13,267,287        | 344,906                   | 15,112,193          | 2,734,885     | 17,847,078   |
| 1900.....      | 1,500,000           | 14,582,627        | 584,903                   | 16,667,530          | 3,480,612     | 20,148,142   |
| 1901.....      | 1,500,000           | 16,296,688        | 685,642                   | 18,482,330          | 3,386,626     | 21,868,956   |
| 1902.....      | 1,500,000           | 18,653,625        | 851,673                   | 21,005,298          | 4,677,549     | 25,682,847   |
| 1903.....      | 3,500,000           | 19,944,365        | 953,597                   | 24,397,962          | 4,065,589     | 29,063,551   |
| 1904.....      | 3,500,000           | 12,288,459        | 7,131,577                 | 22,930,036          | 5,725,927     | 28,655,963   |
| 1905.....      | 3,500,000           | 20,559,910        | 3,562,069                 | 27,621,979          | 5,586,636     | 33,208,615   |
| 1906.....      | 3,500,000           | 18,667,804        | 10,452,037                | 32,619,841          | 6,506,922     | 39,126,763   |
| 1907.....      | 3,500,000           | 15,546,924        | 14,502,571                | 33,549,495          | 7,177,575     | 40,727,070   |
| 1908.....      | 3,500,000           | 8,407,971         | 2,846,974                 | 14,754,945          | 16,721,146    | 31,476,091   |
| Total.....     | 82,375,000          | 313,604,362       | 53,143,519                | 449,122,881         | 105,186,494   | 554,309,375  |

SILVER (FINE OUNCES).

|            |           |             |            |             |            |             |
|------------|-----------|-------------|------------|-------------|------------|-------------|
| 1880.....  | 464,063   | 3,867,188   | 273,023    | 4,604,274   | 112,148    | 4,716,422   |
| 1881.....  | 154,687   | 4,563,281   | 286,945    | 5,004,913   | 137,672    | 5,142,585   |
| 1882.....  | 154,687   | 4,906,920   | 340,544    | 5,402,151   | 164,665    | 5,566,816   |
| 1883.....  | 154,687   | 3,576,143   | 119,883    | 3,850,713   | 434,595    | 4,285,308   |
| 1884.....  | 154,687   | 3,480,469   | 502,734    | 4,137,890   | 131,484    | 4,269,374   |
| 1885.....  | 154,687   | 3,511,310   | 48,501     | 3,714,498   | 357,472    | 4,071,970   |
| 1886.....  | 154,687   | 2,804,635   | 638,562    | 3,597,884   | 312,589    | 3,910,473   |
| 1887.....  | 154,687   | 3,173,208   | 506,595    | 3,834,490   | 371,719    | 4,206,209   |
| 1888.....  | 154,687   | 5,010,218   | 597,082    | 5,761,987   | 504,318    | 6,266,305   |
| 1889.....  | 154,687   | 5,644,495   | 508,920    | 6,308,102   | 472,582    | 6,780,684   |
| 1890.....  | 154,687   | 5,525,155   | 963,254    | 6,643,096   | 495,077    | 7,138,173   |
| 1891.....  | 154,687   | 5,637,642   | 971,516    | 6,763,845   | 663,707    | 7,427,552   |
| 1892.....  | 154,687   | 5,572,006   | 966,643    | 6,693,336   | 500,706    | 7,194,042   |
| 1893.....  | 77,344    | 5,082,054   | 1,346,326  | 6,505,724   | 945,787    | 7,451,511   |
| 1894.....  | 77,344    | 6,635,685   | 759,824    | 7,472,853   | 944,504    | 8,417,357   |
| 1895.....  | 77,344    | 7,599,323   | 752,942    | 8,429,609   | 1,065,902  | 9,495,511   |
| 1896.....  | 77,344    | 6,160,777   | 821,387    | 7,059,508   | 832,860    | 7,892,368   |
| 1897.....  | 77,344    | 7,116,009   | 616,579    | 7,809,932   | 853,457    | 8,663,389   |
| 1898.....  | 77,344    | 9,417,981   | 489,160    | 9,984,485   | 734,233    | 10,718,718  |
| 1899.....  | 77,344    | 8,388,658   | 529,137    | 8,995,139   | 1,583,678  | 10,578,817  |
| 1900.....  | 77,344    | 10,423,485  | 940,450    | 11,441,279  | 1,776,006  | 13,217,285  |
| 1901.....  | 77,344    | 11,809,418  | 1,038,409  | 12,925,171  | 1,208,523  | 14,133,694  |
| 1902.....  | 77,344    | 15,236,711  | 1,289,623  | 16,603,678  | 2,741,331  | 19,345,009  |
| 1903.....  | 77,344    | 15,016,256  | 954,930    | 16,048,530  | 3,919,726  | 19,968,256  |
| 1904.....  | 77,344    | 16,629,834  | 1,218,122  | 17,925,300  | 2,554,687  | 20,479,987  |
| 1905.....  | 77,344    | 16,580,307  | 2,754,003  | 19,411,654  | 4,289,023  | 23,700,677  |
| 1906.....  | 77,344    | 15,231,628  | 2,734,187  | 18,043,159  | 3,810,105  | 21,853,264  |
| 1907.....  | 77,344    | 17,431,691  | 4,628,208  | 22,137,243  | 2,232,541  | 24,369,784  |
| 1908.....  | 77,344    | 15,842,812  | 4,490,942  | 20,411,098  | 3,439,730  | 23,850,828  |
| Total..... | 3,557,811 | 241,875,299 | 32,088,431 | 277,521,541 | 37,590,827 | 315,112,368 |

## EXCHANGE OF FINE GOLD BARS FOR GOLD COIN AND GOLD BULLION

The value of the fine gold bars furnished to the trade in exchange for gold coin and bullion, monthly, by the United States mint at Philadelphia and assay office at New York for the calendar year 1908 was as follows:

| Month.          | Exchanged for gold coin. |                |                | Exchanged for gold bullion. |              |              |
|-----------------|--------------------------|----------------|----------------|-----------------------------|--------------|--------------|
|                 | Philadel-<br>phia.       | New York.      | Total.         | Philadel-<br>phia.          | New York.    | Total.       |
| January .....   | \$599,712.36             | \$1,186,232.51 | \$1,785,944.87 | \$37,099.95                 | \$274,054.62 | \$311,154.57 |
| February .....  | 428,033.66               | 935,597.65     | 1,363,631.31   | 21,853.43                   | 133,962.61   | 155,816.04   |
| March .....     | 475,790.59               | 1,041,578.99   | 1,517,369.58   | 20,462.53                   | 783,644.83   | 804,107.36   |
| April .....     | 356,806.87               | 12,661,317.72  | 13,018,124.59  | 28,708.44                   | 192,063.30   | 220,771.74   |
| May .....       | 398,374.04               | 21,876,751.91  | 22,275,125.95  | 19,915.81                   | 185,648.44   | 205,564.25   |
| June .....      | 416,668.73               | 2,695,259.38   | 3,111,928.11   | 18,934.30                   | 47,691.51    | 66,625.81    |
| July .....      | 475,796.21               | 2,112,273.44   | 2,588,069.65   | 26,600.69                   | 292,865.08   | 319,465.77   |
| August .....    | 431,948.16               | 1,546,461.69   | 1,978,409.85   | 12,869.29                   | 253,812.14   | 266,681.43   |
| September ..... | 628,666.06               | 1,983,208.11   | 2,611,874.17   | 27,409.85                   | 278,425.46   | 305,835.31   |
| October .....   | 718,725.12               | 2,247,508.60   | 2,966,233.72   | 22,944.74                   | 293,822.94   | 316,767.68   |
| November .....  | 683,094.56               | 1,795,375.58   | 2,478,470.14   | 15,191.21                   | 255,216.10   | 270,407.31   |
| December .....  | 317,110.90               | 7,722,469.48   | 8,039,580.38   | 23,438.95                   | 326,243.63   | 349,682.58   |
| Total .....     | 5,930,727.26             | 57,804,035.06  | 63,734,762.32  | 275,429.19                  | 3,317,450.66 | 3,592,879.85 |

Of the total value of bars (\$63,734,762.32) exchanged for coin, \$40,973,663.35 were exported and \$22,761,098.97 were used in the industrial arts.

## THE WORLD'S INDUSTRIAL CONSUMPTION.

Since 1893 this bureau has endeavored to obtain, through the United States representatives abroad, official estimates from the various countries of the world of the consumption of precious metals in the arts and industries.

The results of these inquiries, though at times incomplete, are considered sufficiently full and accurate to encourage renewed efforts.

The interrogatories sent out by this bureau for 1908 were as follows: "What was the weight of fine gold used in the industrial arts during the calendar year 1908? What amount of this was new gold, what amount old gold, and what amount coins?"

"What was the weight of fine silver used in the industrial arts during the calendar year 1908? What amount of this was new silver, what amount old silver, and what amount coins?"

The following verbatim replies from countries heard from as to their consumption of precious metals in the arts during 1908 are submitted, together with such other matter relative to the question as was assumed to be of value:

*Africa.*—"It is understood that a certain amount of current coinage has been utilized in the industrial arts in this country, of which there are no returns."

*Australasia.*—New Zealand: "Not ascertainable, but insignificant." South Australia: "No record kept by manufacturers." Tasmania: "No means of ascertaining quantities, but probably insignificant." Victoria: "The weight of fine gold and silver used in the industrial arts in the State of Victoria during 1908 is not ascertainable." Western Australia: "Gold, about £5,000; about 80 per cent of which was coin and the balance old gold, manufactured gold, etc." "Silver, about £500 (the mint sold 1,258.10 ounces of fine silver during the year to local manufacturers)."

*Austria-Hungary.*—Austria: “The domestic consumption of the precious metals in the industries can be inferred from the gold and silver submitted for stamping, which during 1908 was as follows:

GOLD.

| Classification.   | Gross weight.              | Fine weight.               |
|---|----------------------------|----------------------------|
| Domestic gold ware, 0.58154 fine.....   | <i>Kilos.</i><br>7,267.171 | <i>Kilos.</i><br>4,226.151 |
| Domestic plated ware (the gold is reckoned at 2.5 per cent of the total weight of 182.835 kilos)..... |                            | 4.571                      |
| Domestic fine gold used for fire-gilded pure 12-carat and 6-carat and for galvano-gilded wire.....    |                            | 24.885                     |
| Total.....  |                            | 4,255.607                  |

“In regard to other uses of fine gold in the industries in the year 1908 (especially in the galvanic gilding) there are no data at hand.

“In the last three years the consumption of gold was as follows:

|           | Kilos fine. |
|-----------|-------------|
| 1905..... | 687.549     |
| 1906..... | 583.963     |
| 1907..... | 552.998     |

“According to the average of the three years, as stated above, the consumption of gold in industries other than before specified would amount to 608.170 kilograms of fine gold in 1908.

SILVER.

| Classification.                         | Gross weight.               | Fine weight.                |
|---|-----------------------------|-----------------------------|
| Domestic silverware, 0.797015 fine..... | <i>Kilos.</i><br>60,146.680 | <i>Kilos.</i><br>47,937.806 |
| Silver wire:                            |                             |                             |
| (a) Pure.....                           |                             | 1,789.766                   |
| (b) Half pure.....                      |                             | 18.823                      |
| (c) Quarter pure.....                   |                             | 1.119                       |
| Total.....                              |                             | 49,747.514                  |

“In relation to the consumption of silver in the industries other than those above mentioned no data are yet at hand. In the last three years the consumption of silver in these industries has been as follows:

|           | Kilos fine. |
|-----------|-------------|
| 1905..... | 8,815.148   |
| 1906..... | 10,688.920  |
| 1907..... | 12,647.065  |

“According to the average consumption of these three years, that of 1908 should figure up to 10,717.044 kilograms of fine silver. Besides, the silver employed as alloy in gold wares, being on the average 10 per cent of the full weight, would amount to 726.717 kilograms of fine silver, as estimated.

“According to past experience in the consumption of the precious metals in the industries, old material formed 27 per cent of the total in gold and 15 per cent in silver.

The results for 1908 may therefore be represented as follows:

| Gold:             | Kilos fine. |
|-------------------|-------------|
| New material..... | 3,550.557   |
| Old material..... | 1,313.220   |

| "The gold thus used consisted of— |       | Per cent.    |
|-----------------------------------|-------|--------------|
| Coins.....                        | ..... | 63. 0        |
| Alloyed gold.....                 | ..... | 23. 0        |
| Gold scrap.....                   | ..... | 4. 33        |
| Fine gold.....                    | ..... | 9. 67        |
| Silver:                           |       | Kilos fine.  |
| New material.....                 | ..... | 52, 012. 584 |
| Old material.....                 | ..... | 9, 178. 691  |

| "The silver thus used consisted of— |       | Per cent. |
|-------------------------------------|-------|-----------|
| Coins.....                          | ..... | 0. 99     |
| Alloyed silver.....                 | ..... | 13. 08    |
| Silver scrap.....                   | ..... | 2. 64     |
| Fine silver.....                    | ..... | 83. 29    |

"The 3,550.557 kilograms of gold 'new material' is equivalent to \$2,359,700 in United States currency, and the 52,012.584 kilograms of silver 'new material' represents 1,672,204 ounces of fine silver."

As no returns have been received from Hungary, the figures for 1907 are repeated for 1908, viz: Gold, \$1,081,059, and silver, 306,939 ounces, fine; a total consumption of \$3,440,759 for gold, and 1,979,143 fine ounces for silver.

*Great Britain.*—"No information available."

Dr. T. K. Rose, chemist and assayer of the royal mint in London, reports that the gold and silver wares presented for assay and stamping from July 1, 1907, to June 30, 1908, at Birmingham, Sheffield, and Chester amounted to 520,712 ounces for gold, and 5,802,855 ounces for silver. Heretofore this bureau has accepted this material at British standard; the report for this year states that "the amount of fine gold contained in these wares was 268,273 ounces;" assuming that 25 per cent of this amount was from old material, the value of the new material is \$4,159,300. Deducting 25 per cent for old material of the silver and assuming that it is 0.925 fine (British standard), gives 4,025,730 ounces, fine.

These are the actual figures showing the amounts contained in wares presented to government institutions for assaying and stamping, but must not be considered as the total amounts consumed in the arts during the calendar year 1908. As no later information has been received regarding the 1908 consumption, the latest estimate we have received (1905) is repeated, viz: Gold, \$14,500,000, and silver, 7,500,000 ounces, fine.

*Brazil.*—"No statistics."

*China.*—Shanghai: "No statistics are available showing the weight of metals used in the industrial arts, and the figures given are merely approximate. The weight of fine gold used in Shanghai during 1908 was about 30,000 ounces, of which 10,000 ounces was new gold and 20,000 ounces old gold. The amount of gold coin was practically nil. The weight of silver used was about 200,000 ounces, of which about 70,000 ounces were new silver and 130,000 ounces old silver. Silver coins are not used to any extent, being employed in making trinkets and souvenirs." Foochow: "New gold, 78 cattles; old gold, 312 cattles; total, 390 cattles. Amount of coins, none. (In Foochow there are 6 goldsmiths' establishments, in each of which an average amount of 65 cattles of gold is used a year.) New silver, 200 cattles, old silver, 1,925 cattles; total, 3,125 cattles. Amount of coins, none." (There are about 300 silversmiths' shops, each using 6¼ cattles, on average, a year, and 20 jewelry stores, each using 62½

catties, on average, a year.) Mukden: "The weight of fine gold used in the industrial arts in Mukden during 1908 was 3,887.33 ounces, Troy. This was all, as far as known, new gold, no old gold or coins being thus employed. The weight of fine silver used in the industrial arts during 1908 was 169,746 ounces, Troy. This was all, as far as is known, new silver, no coins being used."

In accordance with the above information, the value of the gold, new material, used in the arts in China during 1908 was \$318,435, and the weight of the silver used was 243,635 ounces, fine.

*Costa Rica.*—"No data as to gold and silver used in arts. Quantity negligible."

*Denmark.*—"Impossible to give answer."

*Dominican Republic.*—"Amount inappreciable."

*Ecuador.*—"The weight of fine gold used in the industrial arts was estimated to be 500 ounces, of which 200 ounces was old gold and 300 ounces was coin. The weight of silver used in the industrial arts was estimated to be 4,000 ounces, which was all coin."

*Egypt.*—"The Government has no statistics as to the weight or value of the gold or silver employed in Egyptian industries."

*France.*—"The amount of gold used may be estimated at 29,320 kilograms, fine gold. The weight of gold objects stamped at the mint (Bureau du Controle), was 15,000 kilograms (950 and 800 thousandths). Silver, 325,600 kilograms. Objects stamped at the mint and other bureaux de control, 145,600 kilograms (950-800 thousandths)."

It has been the custom in this bureau to deduct 25 per cent of the gold and 15 per cent of the silver reported by France as having been consumed in the arts and industries, for the amount of old material so used; following this custom, the new material consumed in the arts during 1908 amounted to 21,990 kilograms of gold, valued at \$14,614,600, and 276,760 kilograms, or 8,897,800 ounces, fine, of silver.

*Germany.*—"No official data have been collected on the amount of gold and silver consumed for industrial purposes during the calendar year 1908."

As no official information has been received relative to the amount of gold and silver used in industrial consumption in Germany during 1908, the estimate for 1905 (the latest received) is repeated, viz: Gold, \$11,000,000, and silver, 6,500,000 ounces.

*Greece.*—"Unknown."

*Guiana (British).*—"There is no record kept of the weight of fine gold and fine silver used in the industrial arts; the amount, however, is supposed to be very small."

*Guiana (Dutch).*—"No statistics are kept."

*Haiti.*—"There are no statistics showing the amount of fine gold or fine silver used in the arts. Other than in photography there seems to be no industrial use of gold or silver."

*Hongkong (British).*—"Very small amount by individual Chinese jewelers worked into ornaments. Quite an amount of Japanese gold yen coins were worked into gold leaf by the Chinese. Silver, some Chinese jewelry and plate. Estimated, Hongkong dollars, 100,000."

*Honduras.*—"No data obtainable as to gold used in arts; probably none. Silver used in arts, no data; amount insignificant."

*India (British).*—"I have not been able to obtain data on which to base intelligent answers to these questions. The only answer sup-

plied by the Government is: 'There are no data from which to make an estimate, except that it may be said that all the uncoined gold imported is manufactured into plate and ornaments. All gold produced in the Indian mines is exported to London for assay.' The imports of uncoined gold in 1907-8 amounted in value to about \$35,796,235. So it may be said that that much gold was used in the industrial arts, or is held in stock for that purpose. There is no way of telling how much of gold coins were melted and thus used. The quantity of silver in sterling value employed in industry is officially stated to be about \$23,000,000. Silver for rupee coinage is imported direct by the Government. No silver is produced from mines in India."

The amounts given above were used during the fiscal year 1908, and were printed in our report for last year; as no further information has been received for the fiscal year 1909, the figures for 1908 are accepted and used for that period, viz: \$35,796,200 for gold, and 34,848,500 fine ounces for silver.

*Italy.*—In the absence of any official figures from Italy regarding the amount of gold and silver consumed in the arts and industries during 1908, the amounts received for 1907 are repeated, viz: Gold, \$3,000,000; silver, 2,000,000 ounces, fine.

*Japan.*—"The weight of fine gold and fine silver used in industrial arts during the calendar year 1908 is unknown."

*Madagascar.*—"There were 14.18726 kilograms (31½ pounds) of fine gold used in industrial arts in Madagascar during the calendar year 1908. 12.84526 kilograms (28½ pounds) was of new gold, and 1.34218 kilograms (2 $\frac{9}{10}$  pounds) was of old gold and coin. There was no silver used in industrial arts in Madagascar during the calendar year 1908." The value of the 12.84+ kilograms of new material (gold) given above is \$8,500.

*Morocco.*—"None."

*Netherlands.*—"The quantity of gold used in industrial arts may be estimated at 873 kilograms of fine gold, and that of silver at 14,094 kilograms of fine silver. Whether this was obtained from new gold, old gold, or coins can not be stated."

The value of the weight of gold given above is \$580,200, and the weight of the silver represents 453,122 fine ounces.

This bureau has in past years estimated the industrial consumption of the Netherlands and Belgium together, but as Belgium made no returns for 1908 the estimate for 1905 (the latest at hand) is accepted and repeated, viz: Gold, \$1,500,000; silver, 1,000,000 ounces, fine.

*Norway.*—"As to the weight and value of any gold and silver employed for industrial purposes, information is not available."

*Persia.*—"Probably some English and Turkish gold coins."

*Portugal.*—"No answer obtainable."

*Russia.*—"Gold: There were presented for stamping objects of gold of Russian manufacture weighing 416 poods 37 pounds 7 zolotniks; of foreign manufacture weighing 62 poods 41 zolotniks. Besides, in the manufacture of medals, etc., the St. Petersburg mint used 25 poods 27 pounds 46 zolotniks 54 dolis of fine gold.

"Silver: There were presented for stamping objects of silver of Russian manufacture weighing 7,501 poods 19 pounds 29 zolotniks; of foreign manufacture, 277 poods 1 pound 7 zolotniks. In the making of medals, etc., the St. Petersburg mint used 54 poods 24 pounds 89 zolotniks 66 dolis of fine silver."

The gold objects stamped at the mint represent 219,572 ounces, and the amount used in the manufacture of metals, 13,528 ounces, making a total of 233,100 ounces, fine, of the value of \$4,818,600.

The silver objects stamped at the mint represent 3,950,619 ounces, and the amount of silver used in the manufacture of medals was 28,767 ounces, making a total of 3,979,386 ounces.

*San Salvador.*—"The amount of fine gold used in the arts was equivalent in value to approximately \$35,000; the gold used was exclusively coins melted over. The amount of fine silver used in the arts was equivalent in value to approximately \$5,000; of this a very small quantity was old silver, the balance Colombian, Chilean, and Bolivian coins, not in circulation in Salvador."

*Siam.*—"No statistics."

*Spain.*—"Not known."

*Straits Settlements.*—"No information available; statistics do not show."

*Sweden.*—"At least 700 kilograms of fine gold and 8,000 kilograms of fine silver were used in Sweden during 1908 for industrial purposes."

The weight of the gold as given above is equivalent to \$465,200 in United States currency, and the weight of the silver represents 257,200 ounces, fine.

*Switzerland.*—"The weight of fine gold used in 1908 by the Swiss industry was about 10,200 kilograms. For lack of information it is impossible to specify here the quantity of new gold, old gold, and of gold coins used for industrial purposes. Yet it may be possible that a considerable quantity of new gold coins of full weight have been melted. As regards the fine silver used in 1908 by our industry, its total weight was about 69,000 kilograms. In view of the low value of silver, it is to be presumed that silver in bullion, or scraps, was melted for industrial purposes."

The value of the gold (10,200 kilograms) is \$6,778,920, and the kilograms for silver represent 2,218,300 ounces, fine.

*Other countries.*—The estimate for 1905, viz: Gold \$3,000,000 and silver 2,000,000 fine ounces, is assumed to be the amounts used for industrial purposes in the countries other than those above mentioned in 1908.

*The world.*—Although the data for an estimate upon the world's consumption of the precious metals in the arts and industries are confessedly incomplete and unsatisfactory, we venture upon the strength of the foregoing information to submit the following estimate:

| Country.                     | Gold.        | Silver.             |
|------------------------------|--------------|---------------------|
|                              |              | <i>Fine ounces.</i> |
| United States.....           | \$14,754,900 | 20,411,100          |
| Great Britain.....           | 14,500,000   | 7,500,000           |
| France.....                  | 14,614,600   | 8,897,800           |
| Germany.....                 | 11,000,000   | 6,500,000           |
| Switzerland.....             | 6,778,900    | 2,218,300           |
| Italy.....                   | 3,000,000    | 2,000,000           |
| Russia.....                  | 4,818,600    | 3,979,400           |
| Austria-Hungary.....         | 3,440,700    | 1,979,100           |
| Netherlands and Belgium..... | 1,500,000    | 1,000,000           |
| Sweden.....                  | 465,200      | 257,200             |
| China.....                   | 318,400      | 243,600             |
| Madagascar.....              | 8,500        | .....               |
| Other countries.....         | 3,000,000    | 2,000,000           |
| Total.....                   | 78,199,800   | 56,986,500          |
| British India.....           | 35,796,200   | 34,848,500          |
| Grand total.....             | 113,996,000  | 91,835,000          |

## THE WORLD'S PRODUCTION OF GOLD AND SILVER IN 1908.

## GOLD.

The world's production of gold for 1908 was 21,378,480 ounces, fine, valued at \$441,932,200, while the production for 1907 was 19,860,620 ounces, fine, valued at \$410,555,300, showing an increased product in 1908 of 1,517,860 fine ounces of the value of \$31,376,900.

## SILVER.

The silver product of the world for 1908 was 203,186,370 ounces, fine, while that of 1907 was 185,014,623 ounces, fine, an increase in 1908 of 18,171,747 fine ounces.

The table following shows the increase and decrease in production for each country in 1908 compared with 1907:

## INCREASE AND DECREASE DURING 1908 AS COMPARED WITH 1907.

| Country.                   | Gold.               |                     | Silver.             |                     |
|----------------------------|---------------------|---------------------|---------------------|---------------------|
|                            | Increase in 1908.   | Decrease in 1908.   | Increase in 1908.   | Decrease in 1908.   |
|                            | <i>Fine ounces.</i> | <i>Fine ounces.</i> | <i>Fine ounces.</i> | <i>Fine ounces.</i> |
| United States.....         | 199,513             |                     |                     | 4,073,900           |
| Canada.....                | 70,595              |                     | 9,326,433           |                     |
| Mexico.....                | 178,511             |                     | 12,516,824          |                     |
| Africa.....                | 703,202             |                     | 482,164             |                     |
| Australasia.....           |                     | 113,701             |                     | 774,000             |
| Russia.....                | 66,173              |                     |                     |                     |
| Austria-Hungary.....       |                     | 755                 | 26,224              |                     |
| Germany.....               |                     | 86                  |                     | 116,542             |
| Norway.....                |                     |                     | 24,659              |                     |
| Sweden.....                |                     | 201                 | 5,967               |                     |
| Italy.....                 | 337                 |                     |                     | 62,995              |
| Spain.....                 |                     |                     | 78,639              |                     |
| Turkey.....                |                     | 108                 |                     | 59,380              |
| Great Britain.....         |                     | 642                 |                     | 1,961               |
| Argentina.....             | 2,816               |                     | 101,930             |                     |
| Bolivia and Chile.....     |                     | 44,561              | 583,759             |                     |
| Colombia.....              | 8,306               |                     | 326,320             |                     |
| Ecuador.....               | 4,022               |                     | 20,186              |                     |
| Brazil.....                | 8,509               |                     |                     |                     |
| Venezuela.....             | 102                 |                     | 104,626             |                     |
| Guiana, British.....       | 5,017               |                     |                     |                     |
| Guiana, Dutch.....         | 1,110               |                     |                     |                     |
| Uruguay.....               | 1,923               |                     |                     |                     |
| Central America.....       | 44,069              |                     |                     | 432,087             |
| Japan.....                 | 5,557               |                     | 727,904             |                     |
| China.....                 | 200,624             |                     |                     |                     |
| Korea.....                 | 42,410              |                     |                     |                     |
| Siam.....                  | 7,812               |                     |                     |                     |
| India, British.....        | 10,395              |                     |                     |                     |
| East Indies (British)..... |                     | 7,755               |                     |                     |
| East Indies (Dutch).....   | 29,004              |                     | 187,510             |                     |
| Total.....                 | 1,590,007           | 167,809             | 24,513,145          | 5,520,865           |
| Net increase.....          | 1,422,198           |                     | 18,992,280          |                     |

The following table shows, by calendar years, the production and value of gold and silver in the world since 1860:

PRODUCT OF GOLD AND SILVER IN THE WORLD SINCE 1860.

[The annual production of 1860 to 1872 is obtained from 5-year period estimates, compiled by Dr. Adolph Soetbeer. Since 1872 the estimates are those of the Bureau of the Mint.]

| Calendar year.   | Gold.        |               | Silver.       |                   |
|------------------|--------------|---------------|---------------|-------------------|
|                  | Fine ounces. | Value.        | Fine ounces.  | Commercial value. |
| 1860.....        | 6,486,262    | \$134,083,000 | 29,095,428    | \$39,337,000      |
| 1861.....        | 5,949,582    | 122,989,000   | 35,401,972    | 46,191,000        |
| 1862.....        | 5,949,582    | 122,989,000   | 35,401,972    | 47,651,000        |
| 1863.....        | 5,949,582    | 122,989,000   | 35,401,972    | 47,616,000        |
| 1864.....        | 5,949,582    | 122,989,000   | 35,401,972    | 47,616,000        |
| 1865.....        | 5,949,582    | 122,989,000   | 35,401,972    | 47,368,000        |
| 1866.....        | 6,270,086    | 129,614,000   | 43,051,583    | 57,646,000        |
| 1867.....        | 6,270,086    | 129,614,000   | 43,051,583    | 57,173,000        |
| 1868.....        | 6,270,086    | 129,614,000   | 43,051,583    | 57,086,000        |
| 1869.....        | 6,270,086    | 129,614,000   | 43,051,583    | 57,043,000        |
| 1870.....        | 6,270,086    | 129,614,000   | 43,051,583    | 57,173,000        |
| 1871.....        | 5,591,014    | 115,577,000   | 63,317,014    | 83,958,000        |
| 1872.....        | 5,591,014    | 115,577,000   | 63,317,014    | 83,705,000        |
| Total.....       | 78,766,630   | 1,628,252,000 | 547,997,231   | 729,563,000       |
| 1873.....        | 4,653,675    | 96,200,000    | 63,267,187    | 82,120,800        |
| 1874.....        | 4,390,031    | 90,750,000    | 55,300,781    | 70,674,400        |
| 1875.....        | 4,716,563    | 97,500,000    | 62,261,719    | 77,578,100        |
| 1876.....        | 5,016,488    | 103,700,000   | 67,753,125    | 78,322,600        |
| 1877.....        | 5,512,196    | 113,947,200   | 62,679,916    | 75,278,600        |
| 1878.....        | 5,761,114    | 119,092,800   | 73,385,451    | 84,540,000        |
| 1879.....        | 5,262,174    | 108,778,800   | 74,383,495    | 83,532,700        |
| 1880.....        | 5,148,880    | 106,436,800   | 74,795,273    | 85,640,600        |
| 1881.....        | 4,983,742    | 103,023,100   | 79,020,872    | 89,925,700        |
| 1882.....        | 4,934,086    | 101,996,600   | 86,472,091    | 98,232,300        |
| 1883.....        | 4,614,588    | 95,392,000    | 89,175,023    | 98,984,300        |
| 1884.....        | 4,921,169    | 101,729,600   | 81,567,801    | 90,785,000        |
| 1885.....        | 5,245,572    | 108,435,600   | 91,609,959    | 97,518,800        |
| 1886.....        | 5,135,679    | 106,163,900   | 93,297,290    | 92,793,500        |
| 1887.....        | 5,116,861    | 105,774,900   | 96,123,586    | 94,031,000        |
| 1888.....        | 5,330,775    | 110,196,900   | 108,827,606   | 102,185,900       |
| 1889.....        | 5,973,790    | 123,489,200   | 120,213,611   | 112,414,100       |
| 1890.....        | 5,749,306    | 118,848,700   | 126,095,062   | 131,937,000       |
| 1891.....        | 6,320,194    | 130,650,000   | 137,170,919   | 135,500,200       |
| 1892.....        | 7,094,266    | 146,651,500   | 153,151,762   | 133,404,400       |
| 1893.....        | 7,618,811    | 157,494,800   | 165,472,621   | 129,119,900       |
| 1894.....        | 8,764,362    | 181,175,600   | 164,610,394   | 104,493,000       |
| 1895.....        | 9,615,190    | 198,763,600   | 167,500,960   | 109,545,600       |
| 1896.....        | 9,783,914    | 202,251,600   | 157,061,370   | 105,859,300       |
| 1897.....        | 11,420,068   | 236,073,700   | 160,421,082   | 96,252,700        |
| 1898.....        | 13,877,806   | 286,879,700   | 169,055,253   | 99,742,600        |
| 1899.....        | 14,837,775   | 306,724,100   | 168,337,453   | 101,002,600       |
| 1900.....        | 12,315,135   | 254,576,300   | 173,591,364   | 107,626,400       |
| 1901.....        | 12,625,527   | 260,992,900   | 173,011,283   | 103,806,700       |
| 1902.....        | 14,354,680   | 296,737,600   | 162,763,483   | 86,264,700        |
| 1903.....        | 15,852,620   | 327,702,700   | 167,689,322   | 90,552,200        |
| 1904.....        | 16,804,372   | 347,377,200   | 164,195,266   | 95,233,300        |
| 1905.....        | 18,396,451   | 380,288,700   | 172,317,688   | 105,113,700       |
| 1906.....        | 19,471,080   | 402,503,000   | 165,054,497   | 111,721,100       |
| 1907.....        | 19,956,283   | 412,532,900   | 184,194,090   | 121,568,100       |
| 1908.....        | 21,378,481   | 441,932,200   | 203,186,370   | 108,684,400       |
| Total.....       | 332,953,704  | 6,882,764,200 | 4,515,015,025 | 3,591,986,300     |
| Grand total..... | 411,720,334  | 8,511,016,200 | 5,063,012,256 | 4,321,549,300     |

## WORLD'S COINAGE, 1906, 1907, AND 1908.

In the Appendix will be found a table, revised from the latest information received, exhibiting the coinages of the various countries of the world during the calendar years 1906, 1907, and 1908.

## COINAGE OF NATIONS.

| Calendar year. | Gold.         | Silver.       |
|----------------|---------------|---------------|
| 1906.....      | \$366,326,788 | \$155,590,466 |
| 1907.....      | 411,803,902   | 221,652,826   |
| 1908.....      | 327,018,200   | 194,692,737   |

While the above figures represent, as accurately as the bureau has been able to ascertain, the total value of the gold and silver coinage of the world during the calendar years 1906, 1907, and 1908, they do not accurately represent the value of the coinage from new material alone, but include the value of the recoinage of foreign and domestic coins and that derived from old material, plate, jewelry, etc., melted and used in coinage. Many foreign governments in their reports to the bureau failed to separate the values of the coinage derived from these various sources.

The following table, exhibits, by calendar years, the fine ounces and value of the gold and silver coinage of the world since 1873:

## COINAGE OF GOLD AND SILVER OF THE MINTS OF THE WORLD FOR THE CALENDAR YEARS SINCE 1873.

| Calendar year. | Gold.        |               | Silver.       |                |
|----------------|--------------|---------------|---------------|----------------|
|                | Fine ounces. | Value.        | Fine ounces.  | Coining value. |
| 1873.....      | 12,462,890   | \$257,630,802 | 101,741,421   | \$131,544,464  |
| 1874.....      | 6,568,279    | 135,778,387   | 79,610,875    | 102,931,232    |
| 1875.....      | 9,480,892    | 195,987,428   | 92,747,118    | 119,915,467    |
| 1876.....      | 10,309,645   | 213,119,278   | 97,899,525    | 126,577,164    |
| 1877.....      | 9,753,196    | 201,616,466   | 83,449,796    | 114,359,332    |
| 1878.....      | 9,113,202    | 188,386,611   | 124,671,870   | 161,191,913    |
| 1879.....      | 4,390,167    | 90,752,811    | 81,124,555    | 104,888,313    |
| 1880.....      | 7,242,951    | 149,725,081   | 65,442,074    | 84,611,974     |
| 1881.....      | 7,111,864    | 147,015,275   | 83,539,051    | 108,010,086    |
| 1882.....      | 4,822,851    | 99,697,170    | 85,685,996    | 110,785,934    |
| 1883.....      | 5,071,882    | 104,845,114   | 84,541,904    | 109,306,705    |
| 1884.....      | 4,810,061    | 99,432,795    | 74,120,127    | 95,832,084     |
| 1885.....      | 4,632,273    | 95,757,582    | 98,044,475    | 126,764,574    |
| 1886.....      | 4,578,310    | 94,642,070    | 96,566,844    | 124,854,101    |
| 1887.....      | 6,046,510    | 124,992,465   | 126,388,502   | 163,411,397    |
| 1888.....      | 6,522,346    | 134,828,855   | 104,354,000   | 134,922,344    |
| 1889.....      | 8,170,611    | 168,901,519   | 107,788,256   | 139,362,595    |
| 1890.....      | 7,219,725    | 149,244,965   | 117,789,228   | 152,293,144    |
| 1891.....      | 5,782,463    | 119,534,122   | 106,962,049   | 138,294,367    |
| 1892.....      | 8,343,387    | 172,473,124   | 120,282,947   | 155,517,347    |
| 1893.....      | 11,243,342   | 232,420,517   | 106,697,783   | 137,952,690    |
| 1894.....      | 11,025,680   | 227,921,032   | 87,472,523    | 113,095,788    |
| 1895.....      | 11,178,855   | 231,087,438   | 98,128,832    | 126,873,642    |
| 1896.....      | 9,476,639    | 195,899,517   | 123,394,239   | 159,540,027    |
| 1897.....      | 21,174,850   | 437,722,992   | 129,775,082   | 167,790,006    |
| 1898.....      | 19,131,244   | 395,477,905   | 115,461,020   | 149,282,936    |
| 1899.....      | 22,548,101   | 466,110,614   | 128,566,167   | 166,226,964    |
| 1900.....      | 17,170,053   | 354,936,497   | 143,362,948   | 185,358,156    |
| 1901.....      | 12,001,537   | 248,093,787   | 107,439,666   | 138,911,891    |
| 1902.....      | 10,662,098   | 220,405,125   | 149,826,725   | 193,715,362    |
| 1903.....      | 11,634,166   | 240,499,547   | 161,159,508   | 211,795,829    |
| 1904.....      | 22,031,285   | 455,427,085   | 136,518,406   | 176,508,646    |
| 1905.....      | 11,898,037   | 245,954,257   | 134,062,314   | 173,333,093    |
| 1906.....      | 17,721,058   | 366,326,788   | 120,339,501   | 155,590,466    |
| 1907.....      | 19,921,014   | 411,803,902   | 171,434,608   | 221,652,826    |
| 1908.....      | 15,819,505   | 327,018,200   | 150,582,664   | 194,692,737    |
| Total.....     | 387,070,969  | 8,001,467,123 | 4,001,972,599 | 5,177,695,596  |

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## PART II.

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THE COLLECTION OF THE STATISTICS OF THE PRODUCTION OF GOLD AND SILVER IN THE UNITED STATES IS NOW MADE BY THE BUREAU OF THE MINT IN CONJUNCTION WITH THE GEOLOGICAL SURVEY. THE FOLLOWING REVIEW OF THE MINING OF GOLD AND SILVER IN THE DIFFERENT PRODUCING STATES AND TERRITORIES HAS BEEN PREPARED BY THE AGENTS OF THE GEOLOGICAL SURVEY LOCATED IN THE RESPECTIVE STATES AND TERRITORIES.



## ALASKA.

The gold production of Alaska in 1908 was chiefly from three districts, which in order of their importance are: Fairbanks, Seward Peninsula, and southeastern Alaska. More than three-fourths of the gold came from the placers of Fairbanks and Seward Peninsula. The lode mines of southeastern Alaska produced most of the balance. The copper mines of the Ketchikan and Prince William Sound districts contributed small amounts. The yield from the placer camps was not materially influenced by the general business depression of the year, but it was seriously affected by the prolonged drought in all the important districts. The production from auriferous lodes made a considerable advance, while that from the copper mines decreased, on account of the decline in price of copper.

The 1908 production from southeastern Alaska gold mines increased over that of 1907, but decrease is shown by comparison with the production of 1906. The increase is from the Juneau district, where work was marked by extensive developments. Seven properties were in operation in the district.

Little interest was shown in the gold mines and prospects of the Ketchikan district, and except the gold contained in copper ores the production of this metal was very small. Gold production is reported from Chichagoff Island, in the Sitka district. There was but little placer mining in southeastern Alaska.

In the Copper River district placer mining in the Nizina and Chitochina basins was continued during 1908. The Copper River Railway was extended during the season to Abercrombie Rapids, where connection is made with steamboats navigating the river above. Gold-bearing lodes have been found on the Nabesna White River region, but are undeveloped.

In the Cook Inlet-Susitna region the new Valdez placer district and the Yentna district produced considerable amounts. There was little activity in the Sunrise district, and in the Willow Creek district interest centered in the discovery of gold-bearing quartz veins, which were developed in a small way. Important for this district was the establishment of steamboat service on the Susitna and the building of a trail from Turnagain Arm to Kenai Lake, where connection is made with the Alaska Central Railway.

*Yukon basin.*—The increased output of gold for the Yukon basin must be credited entirely to the Fairbanks district, as in all the other districts except the Koyukuk the low water during the summer led to decrease in production. Outside of the Fairbanks district the most significant features of the mining industry were successful operation of dredges in the Fortymile district, the discovery of some new gold-bearing creeks in the Hot Spring region, the finding of auriferous gravels in the Beaver Creek basin, and in the exploration of some deep gravels carrying high gold tenor in the Koyukuk district.

In the Fairbanks field the production surpassed that of previous years. Some promising auriferous lodes were found. The Circle dis-

tract was helped by the construction of a wagon road to the Birch Creek diggings and the installation of a wireless station. Prospecting in the Chena region, which is known to be auriferous, has not verified the 1907 reports of rich discoveries. The Salcha and Tenderfoot basins were productive. The Rampart Hot Springs district continued productive, though seriously hampered by drought. In the Bonnifield-Kantishna region there was but little work done, though the discovery of an auriferous quartz vein and the erection of a small stamp mill are significant. In the Chandlar district there was nothing of importance except the reported discovery of an auriferous quartz vein.

There was much activity in the Koyukuk. In the lower Yukon and Kuskokwim regions the Innoko continued encouraging to prospectors, but there was no large production. New placer finds were made on Ruby Creek and Gold Mount, near the Yukon, and on the Tuluksuk, a tributary of the lower Kuskokwim.

Norton Sound continued to have but one scene of productive placer mining—Bonanza Creek.

Gold mining on Seward Peninsula was much less active during 1908 than in 1907. The cause of this decline lay not only in the very dry season, but also in the exhaustion of the placers of the third beach line at Nome. Dredge mining was active on the Solomon River. The district's only established lode mine was not operated. In the Council and Kougarok districts there was little work done, but in the Fairhaven district there was much more activity.

In the Kobuk district placer mining continued in a small way.

#### ARIZONA.

Arizona continues to hold first place in the United States as a copper producer. Although conditions at the close of 1907 would hardly have warranted an encouraging prophecy for 1908, the Territory increased its copper output by nearly 31,000,000 pounds. It also surpassed Montana's output by about 34,000,000 pounds. As, however, the difference between the average price of copper per pound in 1907 and 1908 was nearly 7 cents, the value of the output of 1908 was less than that of 1907 by more than \$13,000,000. There were decreases in production of gold and lead, while that of zinc, silver, and copper increased. There were 8 smelting establishments within the Territory which aided in making the enlarged copper product: The Copper Queen and Calumet and Arizona, in Cochise County; the Old Dominion, in Gila County; the Arizona Copper Company, Detroit, and Shannon, in Graham County; the Imperial, in Pima County; and the United Verde, in Yavapai County. Nearly half the ore mined was smelted, about two-fifths was concentrated, and the remainder was treated in gold and silver mills. There were no lead furnaces operated in 1907 and the lead ore mined, which represented less than one-sixth of 1 per cent of the total, was shipped to plants at El Paso, Needles, and San Francisco. Siliceous ore amounted to only about 10 per cent, so that copper ore represented nearly 90 per cent of the total ore. Gold is derived almost entirely from siliceous ore and copper ore, the former supplying over 60 per cent. Most of the silver is found with the copper ore, with about 4 per cent in lead and the remainder in siliceous ore. The largest producers

of gold in 1908 were the United Verde in Yavapai County, the King of Arizona in Yuma County, the Congress mine in Yavapai County, and the Tom Reed in Mohave County. The most important silver producers were the Copper Queen in Cochise County, the United Verde and the Commonwealth and Tombstone mines in Cochise County.

The results of the 1907 panic were particularly hard on the small operator, and consequently there was a large decrease in the number of producing mines. Many of these were affected by the closing of the Humboldt smelter in Yavapai County. The plants at Duquesne and Mowry were also inactive. On the other hand, the larger companies were improving their plants, and the copper plant at Sasco in Pima County was operated. At Ray, in Pinal County, and Globe, in Gila County, and at the new camp of Courtland, in Cochise County, large deposits of low-grade ore were being developed. Gold and silver mills were in course of construction on the Tom Reed and Victor in Mohave County, North Star in Yuma County, and the property of the United Gold Mines Company in Yavapai County. Concentration plants were being added at the Imperial mine in Pima County and the Minnesota-Arizona Copper Company's property in Pinal County. It was reported at the end of 1908 that the new owners of the lead smelter at Benson were making contracts for ore.

Cochise County supplied a greater amount of ore and metals than in 1907, but the values of the silver, copper, lead, and zinc were so lessened that the total value of the county's output decreased over \$5,000,000. The county was first in the production of all metals but gold. It supplied more than one-fifth of the Territory's gold output, more than half the silver, nearly half the lead, and about 45 per cent of the copper. The large mines at Bisbee and the smelters at Douglas were unusually active after improving the equipment. While the copper mines in the Warren district were making record productions, the mines at Pearce and in the Tombstone district were supplying greater amounts of gold-silver ore.

Coconino County marketed some copper ore, but by no means as much as in 1907 when the high price of copper made the shipping of low-grade ore possible.

Production in Gila County was not greatly different from that of 1907, but the resulting value fell short by over \$2,000,000. Both the Old Dominion mine and smelter were active throughout the year, and these, together with the Arizona Commercial, Superior and Boston, United Globe, Warrior, and Globe Consolidated, were the largest producers. The Miami property has developed an extensive deposit of low-grade copper ore. The company intends erecting a large concentration mill for its treatment.

The value of the Graham County output was decreased by more than \$2,000,000. This, however, was due to the prices of the metals, particularly copper, since the county marketed more silver, copper, and lead than in 1907. The copper increase amounted to more than 14,000,000 pounds. The output was almost entirely a copper ore, most of which was concentrated and smelted at the Detroit, Shannon, and Arizona Copper Company's plants.

With the exception of a little gold from the Cave Creek and San Domingo districts in Maricopa County, there was only one other mine producing gold during 1908.

Mohave County had a rather dull year and showed decreased production of all metals but zinc. The value of the output decreased almost \$500,000. Most of the production came, as usual, from the San Francisco and Wallapai districts. The largest producer in 1907 was the Gold Road mine, but in 1908 production was restricted by the treatment of a large tonnage of tailings.

By far the largest producer was the Tom Reed Gold Mines Company, which operated a new 10-stamp mill and a 40-ton cyanide plant. The Victor was next in gold production, but both these mines were hampered by litigation, for which the district is becoming prominent. In the Wallapai district there were many producers, but only two were of note, one of which marketed considerable zinc ore.

In Pima County more ore, copper, and silver were taken out, but less gold and lead. The Imperial produced nearly 7,000,000 pounds of copper, all of which was treated at the Sasco smelter without concentration. The company has now completed a 300-ton concentration plant. The concentrator at the El Tiro mine was enlarged to treat 100 tons per day.

A decrease in all metals but zinc was recorded in Pinal County. There was, however, important work done in the Bunker Hill, Casa Grande, Mineral Creek, Mineral Hill, and Old Hat districts. The Ray Consolidated Copper Company made tests on copper ore from an extensive low-grade deposit preparatory to constructing a concentration mill of 2,000 tons daily capacity.

Aside from small shipments from a number of properties, Santa Cruz County did little toward the Territory's production. Decreases were shown in all metals.

Yavapai County's output was not up to the usual amount, largely on account of the idleness of the Humboldt smelter, combined with low prices. The large gold producers were active, and the United Verde kept up its wonderful record.

In Yuma County's production the most notable fact was the increase in gold. A 400-ton smelting plant was being erected on the Clara Consolidated Company's property during the year. The districts in the northern part of this county are being prospected with good results since the operation of the Arizona and California Railroad.

#### CALIFORNIA.

According to mine reports from the State of California there are between 1,000 and 1,100 producing mines in that State, slightly more than half being placers of different kinds—hydraulic, drift, dredge, surface, river bed, etc. There are also about 1,500 more mining properties on which development work is being carried on. The number of deep mines is about 500, and they produced in 1908 over 2,500,000 tons of ore. Of this upward of 2,000,000 tons are siliceous ores carrying gold and associated silver. Over 500,000 tons of copper ore were also treated, which also carried gold and silver. The output of ore in California is increasing each year, but the average value per ton in 1908 was not so high as in 1907. Most of the California siliceous ore is treated at gold and silver mills, a comparatively small proportion being smelted. The gold yield from hydraulic and drift mines is not so large as formerly, but the output

from surface placers seems to be again on the increase, and that from dredgers is steadily and largely gaining each year.

The gold production of California may be said to average annually between \$17,000,000 and \$20,000,000. In 1908 it was between \$2,000,000 and \$2,500,000 more than in 1907. This was mainly due to improved conditions in the dredging industry, which was somewhat crippled by damage through freshets in the latter year. The deep mines of the State are producing gold at the ratio of 10 to 8 as compared with the placers, and by far the largest proportion of the silver is also derived from the deep mines. In the placer mining industry the dredges are now producing annually nearly \$5,000,000 more each year than all the hydraulic, drift, and surface placers combined. Since 1905 the output of gold from the dredging industry has each year exceeded that of the other forms of placer mining combined. Of the 7 counties of California producing over \$1,000,000 each annually 3 are counties where dredge mining predominates as a mining industry, the others being quartz-mining counties.

The leading gold-producing county of the State is Butte, where the largest number of dredges is at work. The largest production of gold from quartz mining is from Nevada County. The principal source of gold from hydraulic mining is Trinity County; that from drift mines is Placer County; and that from surface sluicing is Siskiyou County. The largest producer of silver is Shasta County, where several copper-smelting plants are in operation, and where siliceous ore carrying gold and silver is used as a flux with the copper ores. From the reduction of the copper ores about \$500,000 in gold are annually recovered and upward of 1,000,000 ounces of silver. The silver coming from lead ores at the present time is of small quantity. Some silver is won in milling gold ores, and some is also derived from the placers. The silver-lead mines are not nearly so productive of late years as they formerly were.

As evidence of the increased activity in deep mining, it may be stated that virtually 500,000 tons more ore were treated at mills and smelting works in 1908 than in 1907. About 2,500,000 tons of ore are now being handled annually in California. Many of the counties of the State are showing increased activity in quartz mining. This is notably the case in some of the older mining counties which are isolated from railroad facilities and where the mining industry has been to a certain extent dormant for some years. Discoveries of exceptionally rich ore in some of the old and partly abandoned mines have attracted the attention of mining investors, particularly those from Nevada, and numbers of those old properties have been reopened with very satisfactory results. This has led to additional prospecting and considerable investment of capital. Development work is rapidly progressing, with the expectation of adding many mines to the lists of producers of the State.

The old famous mother lode counties of California—Amador, Calaveras, El Dorado, Mariposa, and Tuolumne—yielded nearly 1,200,000 tons of the 2,500,000 tons from the deep mines of the State. These mother lode mines are noted for the continuity and great width of the veins, but the grade of ore is low in comparison with that of those counties where the veins are narrower.

In some of the counties, notably that of Sierra, very exceptional high-grade ore has been produced from the groups of quartz veins in the vicinity of Alleghany. These mines have long been idle and partly developed until lately, when discoveries of rich ore were made. This has stimulated prospecting in that and the neighboring county of Plumas, not only in quartz mines, but in gravel mines as well. There is a larger number of productive quartz mines in San Bernardino than in any other county of the State, but their combined output does not nearly equal those of several other counties.

A notable feature in quartz mining is the large increase of electric power plants, furnishing power not only to large but to small mining districts. This has cheapened working costs materially. The enlargement of the smelting industry has also had a beneficial effect in giving miners markets for their ores and permitting them to profitably operate their mines without the expense of individual reduction plants.

As stated above, the most marked feature in connection with gold mining in California is the gradual and rapid increase in importance of the gold dredging branch of the industry. There are about seventy gold mining dredges now in operation in 8 counties of the State, some of them capable of handling 250,000 cubic yards of auriferous gravel monthly, at a lower cost than hydraulic mining can be carried on. The ground in which these dredges work is of such character that it could not be handled at a profit by any other form of mining. There is no "fall" for hydraulic mining, and it is of too low grade to pay by drifting and sluicing. For this reason it remained unproductive until dredges were employed upon it.

The larger dredging fields are at points in the Feather, Yuba, and American rivers, where those streams, passing through gravel mining sections, run from the mountains and foothills into the valleys. These productive fields are at Oroville, Folsom, and near Marysville. There are other isolated areas in northern California where dredges are operated. These machines do not, as a general rule, operate in the river beds proper, but in bottom lands adjacent to the streams. These dredging machines are now taking out gold to the value of over \$500,000 monthly, mostly from what was formerly unused and valueless land. In some instances old orchards or vineyards are dug up for the gold in the soil.

Hydraulic mining in California is in a decadent state generally, though it still flourishes in Trinity and Siskiyou counties, where there are no federal restrictions requiring impounding of the débris, as in the central counties. Drift mining does not seem to progress to any great extent, though there are signs of a revival in this industry in the counties of Sierra and Plumas. Surface placer mining, by sluicing and kindred methods, shows an augmented output within the past few years, though most persons suppose this to be an industry of the past in California.

Generally speaking, the gold and silver mining industry of California may be said to be in a fairly flourishing condition. More capital is being invested than formerly and numbers of new and old mines are being opened. For these reasons it is not at all likely that there will be any material reduction in annual yield for a long time to come. Indeed, the reverse may be expected. The very deep mines

are paying now better than they did on the surface, and costs are being everywhere reduced, while the placer fields are increasing their annual yield through the medium of the gold dredging industry.

### COLORADO.

Both placer and gold-bearing lode mines of Colorado increased their yield in 1908 as compared with that of 1907. The increase in the production of gold was nearly \$2,000,000. There was also an increase in the yield of copper as a side production in the marketing of gold-bearing ores. The quantity of silver, lead, and zinc produced shows a decided decrease, and the value of these metals shows a greater decrease, because of the lower average metal prices for the year. The value of the copper yield was also under that of 1907.

The feature of the operations of the precious-metal mines in this State in 1908 was a further extension of the leasing system in the camps of Cripple Creek, Central City, Idaho Springs, Silverton, and Telluride. Because of the low metal prices during the latter half of 1907 and throughout 1908 the operations of the silver-lead-zinc camps were greatly curtailed. Many of the largest mines, which depend on good prices for these metals, closed in 1907 and remained closed during 1908. The miners from the base-metal camps turned their attention to the gold camps and took up leases which would not have been acceptable in times of high base-metal prices, or devoted their time to prospecting.

The tonnage of siliceous or dry ores amounted to 82 per cent of all the ore mined and yielded 94 per cent of the gold production and 62 per cent of the silver yield. There was an increase in the tonnage of siliceous or dry ores and also in the tonnage of copper-lead ores (carrying gold and silver), but there were marked decreases in the tonnage of lead and zinc ores.

As regards milling, 60 per cent of the tonnage was treated in gold and silver mills, which includes stamp mills with plate amalgamation with or without concentration, and cyanide and chlorination mills, and 67 per cent, or two-thirds, of the gold yield of the State was marketed as bullion. Including concentration and separation mills, 76 per cent of the tonnage was treated in mills, and the yield in both bullion and concentrates amounted to 77 per cent of the state gold yield and 35 per cent of the silver. The remaining crude ore mined was shipped to smelters. However, the smelters treated, besides the crude ore, concentrates in tonnage representing 9 per cent of the original crude ore mined.

Cripple Creek district, Teller County, furnished 56 per cent of the gold yield in 1908. There was an abundance of skilled labor in the camp in 1908, many coming not only from other camps in Colorado, but also from other Western States. There was a great demand for leases on both well-developed properties and on the big dumps of the camp. Both lessees and company operators were active in making experiments as to treating the low-grade and dump ore by cyanide treatment, and the result was the building and remodeling of several local plants, many of which were decidedly successful, both from a metallurgical and a financial standpoint. The Portland Gold Mining Company's 10-stamp experimental mill demonstrated to the com-

pany's metallurgists "that the raw ores of Cripple Creek can be successfully treated without roasting, thus saving 76 cents per ton for roasting, and also \$1 per ton freight, now paid for transporting the ore to Colorado City." The rates for transportation and treatment given by the three custom mills at Colorado City were never more advantageous at any time in the history of the camp. The Golden Cycle mill (which had burned in August, 1907) was in commission again with an enlarged capacity. The plants of the United States Reduction and Refining Company were operated continuously throughout 1908. The capacity of the Colorado City mill of the Portland Gold Mining Company was also increased. The use of 3 large tanks at this mill "for the purpose of extracting the values contained in the sluice water brought about very satisfactory results."

Continuous work was performed in driving the Roosevelt deep drainage tunnel, and 4,872 feet of the 15,500 feet to be driven was completed.

The reports from the large companies in the Cripple Creek district show generally a very prosperous year. Considerable prospecting was done by these companies, both in running drifts and in sinking, in many cases working against heavy influxes of water. As a rule, however, mining was confined to the workings above the water level, most of the companies preferring to wait until the completion of the drainage tunnel, which should be accomplished by the 1st of July, 1910. The outlying mines should be reached by the 1st of January, 1910.

Almost one-quarter of the gold output of the State was from the three principal San Juan counties—Ouray, San Juan, and San Miguel—though the decrease in Ouray and San Miguel counties in gold yield was \$500,000. Both Ouray and San Miguel counties produced over \$2,000,000 in gold, and San Juan County almost \$1,000,000. Within the boundaries of Ouray County is the largest producing mine in Colorado—the Camp Bird. The value of the metallic production in San Juan County shows a large decrease in production of silver, copper, and lead. The rank of this county is second to Lake County in production of copper and lead. San Miguel showed an increase in the quantity of all the metals produced except gold. In 1908 San Miguel County ranked second to Teller in tonnage mined and in the value of gold produced. In silver yield San Miguel was second, with Lake County first and Pitkin County third. In total value of metals produced San Miguel County stood third of all the counties, with Teller first and Lake County second.

The production of Leadville (Lake County) fell off greatly, except in the value of the gold and in the quantity of the copper yield. Several of the largest properties were closed the entire year, but two of the largest resumed operations in December, 1908. The zinc production, which was 77 per cent of the entire output in the State, also fell off greatly. This county was first in the production of four metals—silver, copper, lead, and zinc—and in the production of gold it stood fourth. The Ibox Mining Company (Little Johnny mine), the Yak Mining, Milling and Tunnel Company, and the Iron Silver Mining Company were the chief producers in the Leadville camp. The Yak tunnel's main artery reached a point 3 miles from the portal by the 1st of January, 1909, and the branches into the adjacent territory of Iron and Breece Hills made several more miles of workings for drainage and transportation.

In Clear Creek County the operating companies around Idaho Springs were occupied in connecting their shafts with the Newhouse tunnel. This tunnel starts at Idaho Springs at an elevation of 7,543 feet and cuts under the Clear Creek-Gilpin ridge, which has an altitude of about 9,000 feet. In 1907 it had been driven 17,000 feet from the portal. Many companies completed their laterals to the tunnel in the early part of the year, and a gradually increased tonnage found its way out to the railroad and mills. There was an increase in the number of leases taken in the Idaho Springs district. The low prices for silver and the base metals were seriously felt in the Upper Clear Creek districts, around Georgetown and Silver Plume. There was an increased gold yield from this county.

The yield in Gilpin County showed an increase in gold production, which was offset by a decrease in the production of silver, lead, and copper. There was an increased tonnage sold, ore treated, and, with few exceptions, the sampling works and the stamp mills were worked to their full capacity. Several new strikes were made, and many old properties were reopened. Of greatest importance to the future of Gilpin County was the ratification of contracts with the mine operators and the Newhouse Tunnel Company, in December, 1908. The tunnel had been driven, in 1907, to the shaft of the Great Mammoth mine, and 5,000 feet remained to be completed before the Eureka shaft—the objective point of the tunnel—was reached. This tunnel will drain the Quartz Hill properties, long idle and filled with water, at depths of from 1,500 to 1,700 feet, which, in the majority of mines, will allow the deepening of the shafts from 400 to 700 feet.

The low prices for silver, lead, and zinc were very seriously felt in Aspen, Pitkin County, in 1908. The value of the total yield from this county was less than one-half of the 1907 production. From second place in the production of silver, lead, and zinc, the county took third place in 1908 in production of silver and lead, and sixth place in the yield of zinc.

Mineral County produced in 1908 a total metallic output of 46 per cent of that of 1907. The lead decrease was great. Some of the largest mines were idle, waiting for better metal prices.

In Summit County two new dredges, making three in all, operated from June, 1908, to the close of the year, and their output materially increased the gold production of this county. The production of zinc, though small in comparison, was second to that of Lake County.

Park County deep mines showed a decrease in gold, silver, and lead yield, but an increase in copper and zinc. The placer output was slightly increased.

Both placer and deep mines in Chaffee County yielded, in 1908, less than one-half the 1907 production. Copper, the chief metal of the county, in 1907, fell off heavily, because of greatly lessened activity in the Monarch and Turret districts. Increased shipments of lead ore from the Monarch camp resulted in an increase in lead production for the county.

The falling off in value of yield in Eagle County was slightly greater than the county zinc loss. Several mines in the Battle Mountain district, carrying gold and copper, made an increase in the output of those metals, which was offset by a decrease in the tonnage of lead ores mined.

Gunnison County entered the list in 1908 with several new shippers of gold ore, with an increase in the yield of that metal, and a larger yield in 1909 is promised. There was an increase in the quantity of the yield of silver, lead, and zinc, and a small decrease in copper. The Gold Brick and Tomichi districts were the chief districts in the county in 1908.

There was a decrease in production of all the metals in Hinsdale County, with the exception of copper. All the ore in the county was shipped direct to smelters. The mills of the county, of which there are several of good capacity, were idle.

La Plata County shows a heavy decrease in output in 1908 as compared with that of 1907.

The opening of old and new properties in the early months of 1909 and better metal prices would indicate a larger yield in all the metals for Colorado in 1909.

#### IDAHO.

During 1908 there was an increase over the previous year in the production of gold in Idaho, due to successful operations at Elk City in Idaho County, Atlanta in Elmore County, Sunbeam in Custer County, and Silver City in Owyhee County. Depression and low metal prices after the panic of 1907, however, resulted in decreases in all the other metals and greatly affected the mining of silver-lead ore and zinc ore in the Coeur d'Alene district of Shoshone County and the Mineral Hill district in Blaine County. There was therefore a decrease of almost 30 per cent in the total value of the State's output. Most of the gold was derived from siliceous ore, about one-fifth from placers, more than one-tenth from copper ore, and a slight amount from lead ore. Four-tenths of the silver, however, is taken from lead ore, while siliceous ore and copper ore each supply about one-tenth of the silver output. The tonnage of ore mined remained approximately the same, but the value per ton decreased nearly 30 per cent. Most of the output was lead ore, while the remainder, amounting to about 14 per cent, was equally divided between copper ore and siliceous ore. The placer-gold production was not as large as usual, substantial decreases occurring in Boise and Nez-Perce counties. There was about the same amount produced by dredges, but the production of gold by hydraulicking and sluicing was considerably less. Two new dredges were installed, one in Custer and one in Boise County.

The smelter at Mackay in Custer, which in the past has treated the largest tonnage of ore, was idle in 1908. This accounts for the decrease in copper in Idaho. The smelter of the Lost Packer Mining Company operated for three months, producing rich matte, which was refined in Baltimore. It is unfortunate that the location of this plant prevents its operation during the entire year. In Bonner County, at Ponderay, the Idaho Smelting and Refining Company operated the lead plant for two months, treating ores from Washington and Montana, as well as those from Bonner and Shoshone counties. The Lemhi Smelting Company started work on a 100-ton lead plant in Lemhi County to do away with the expensive hauling of ore from the Spring Mountain and Texas districts.

The most important advances in railroad construction were those which will affect the Coeur d'Alene region in Shoshone County. The Chicago, Milwaukee and St. Paul Railroad did vigorous work from

Taft, Mont., to St. Joe, Idaho. This road will eventually afford another outlet for the lead and copper ores in the southern and eastern part of this most productive region of the State. The Northside, or Murray, district will profit by the operation of the Idaho Northern Railroad from Enaville, on the Oregon Railroad and Navigation Company's line, up the North Fork of the Coeur d'Alene River to Murray. Progress in both shipping and development should result in the near future. In the western part of the State, in the Seven Devils district of Washington County, interest was manifested in development work on account of construction work on the road from Huntington, Oreg., to Lewiston, Idaho. Over 50 miles of the line have been completed. In the eastern part of the State, in Lemhi County, the Armstead and Gilmore Railroad Company will eventually connect Salmon and Gilmore with Armstead, Mont. Surveying has been done and construction work will be commenced in 1908. This road will not only awaken interest in the gold properties near Salmon, but in the silver-lead districts about Gilmore.

There were only 5 of the 22 counties in Idaho which recorded an increase in total value of the output, and Elmore and Idaho counties were the only ones which made striking gains. Although Ada County receives at Boise most of the gold from the State, it contributes little to the yearly output. In 1908 less was produced than during the previous year. Neither Bannock nor Bear Lake counties shipped any ore.

Bingham County contributed, as usual, some fine gold from Snake River and points near Gray, Idaho.

Blaine County considerably decreased its output, but did interesting work in the construction of mills and power plants.

The county produced ore from a large number of mines, but only five were shippers of any importance.

Boise County slightly increased the production of gold from deep mines, but greatly decreased the gold from placers. The two important districts are Boise Basin and West View. In the Boise Basin district, the Boston-Idaho Gold Dredging Company installed a large dredge, which was moved from California.

Bonner County, stimulated by the operation of the Ponderay smelter, turned out more than the usual amount of rich silver ore and copper ore from camps around Lake Pend d'Oreille.

Canyon and Cassia counties gave little toward the state production. The former supplied some placer gold and the latter shipped some copper-lead ore. Aside from the idleness of the smelter at Mackay and the activity of the Lost Packer smelter at Ivers, the one mine affected the county production more than any other property.

Elmore County increased its gold production. In the Neal district considerable work in development, equipment, and production was done. Fremont County's production was comparatively unimportant.

Idaho County materially increased its gold production even though some of the old producers were idle. The Orogrande district had a revival and the Elk City district produced sufficient gold to more than compensate for decreases in other localities.

Kootenai, Latah, Lincoln, Oneida, and Twin Falls counties supplied placer gold, but less than in previous years.

Lemhi County suffered decreased productions in all metals. The largest gold producers were the Bohannon Bar placers at Baker, the

Mullan Dredge, and the Kittie Burton mine at Ulysses. The Spring Mountain district made small shipments from several new properties.

Nez Perce County sent a little less gold to the refineries than in 1907. The deep mines were unproductive, but the Idaho Company operated its dredge and will install another.

Owyhee County increased its gold and silver output.

Shoshone County, which yielded the majority of the State's output, showed a decrease in total value of more than \$5,000,000. Copper was the only metal which recorded a greater production than in 1907. The Snowstorm shipped an unusually large amount of copper ore, and three of the large lead-ore producers, the Hercules, Standard-Mammoth, and Bunker Hill and Sullivan, were operated the entire year. The Bunker Hill and Sullivan M. and C. Company will add a 1,000-ton concentrator, thus doubling the capacity of the mill.

Washington County shipped a small amount of copper ore, which will doubtless be increased when the railroad reaches the Seven Devils country.

#### MONTANA.

As Montana is above all a copper producer, it is interesting to note that although the State produced more copper by over 31,000,000 pounds than it did in 1907 it received nearly \$11,000,000 less for the output. There were increases in ore mined and in silver, copper, lead, and zinc production, but they were not sufficient to offset the decreases in metal prices and a decrease in gold. Four-fifths of the value of the entire output was of copper. Nearly all the remaining value was in gold and silver, amounting to over \$8,000,000. The majority of the silver, copper, and zinc was taken from Silver Bow County mines, Fergus and Madison counties were prominent as gold producers, and Jefferson and Lewis and Clark counties turned out more lead than any others. There was a large increase in production of zinc, which came entirely from Silver Bow County. Over 4,000,000 tons of ore were mined and sold or treated, three-fourths of which was concentrated, one-fifth shipped crude to smelters, and the remainder treated in gold and silver mills. The smelters, therefore, reduced more than a million and a half tons of concentrates and crude ore. There were five smelting establishments in operation in 1908, two at Butte, one at Anaconda, one at Great Falls, and one at East Helena. All but the Great Falls plant do a custom business. There was more ore treated in 1908 than in 1907, but the value per ton decreased more than \$3. Nearly 90 per cent of the metal output of the State in value is copper ore, derived almost entirely from Silver Bow County. Over 9 per cent is siliceous ore containing about \$7 in gold and silver per ton. The remaining small amounts are lead, zinc, and copper-lead ore. In 1908 there were increases in the various kinds of ore mined, except lead ore.

Gold represented more than 7 per cent of the total value of the state output, or more than \$3,000,000. Nearly one-fifth of this amount is derived from placers, principally in Madison County, while Fergus County surpasses all others in the production of gold from deep mines. Nearly 42 per cent of Montana's gold was won from gold and silver mills, nearly 24 per cent from crude ore smelted, and over 16 per cent from concentrates. In regard to its source, the gold was derived as follows: Placers, 18 per cent; siliceous ore, nearly 58

per cent; copper ore, nearly 22 per cent; lead ore, less than 2 per cent; and zinc ore, less than 1 per cent. Gold from copper ore and placers increased, while that from other sources was less than in 1907.

Montana's output of silver in 1908 was over 750,000 ounces less than for the previous year. Copper ore supplied 81 per cent, siliceous ore 16 per cent, and lead ore less than 3 per cent of the silver. Silver increased from siliceous and copper ore, but decreased from lead ore and zinc ore.

As most of the copper is produced by a small number of mines around Butte, it is comparatively easy to judge of the general conditions of the copper-mining industry. In the early part of the year, for more than three months, the smelters were closed on account of the low metal prices and afterwards on account of floods. When, however, copper reached a higher price as the year advanced, some of the large plants even exceeded what was considered their normal capacity. The Washoe plant treated more than 10,000 tons per day during the latter part of the year, the Great Falls plant 4,000 tons, and the Pittsmtont 300 tons. This last company added a 250-ton blast furnace in 1908. A stack 506 feet high was completed at the Great Falls plant.

During 1908 the Chicago, Milwaukee and St. Paul Railroad was doing construction work in Missoula County, and the Armstead and Gilmore Railroad started grading on the line that will connect Armstead with Salmon and Gilmore, Idaho.

Beaverhead County suffered decreases in silver and lead, but not in copper and gold. There were more producers than in the past, but a smaller product. The Indian Queen in Utopia district and the Argyle in Vipond district were the leading producers.

Broadwater County considerably increased its metal output, although less ore was mined in 1908. Twenty-nine operators contributed over \$250,000 from the Backer, Beaver Creek, Cedar Plains, and Park districts. The Eclipse-Argo in the first, and the Keating Gold Mining Company near Radersburg, were large producers.

Carbon, Flathead, and Ravalli counties supplied only small amounts of placer gold.

Decided decreases in all metals but copper were recorded in Cascade County in 1908. Most of the product came from the Montana district and was also valuable for its silver content.

Chouteau County reduced its gold production, although there was more ore treated. A large part of the product is treated at the Ruby Gulch mill, where the gold is won by cyanide and the ore mined through "glory holes."

Deer Lodge County also suffered decreases in all metals but copper. The product is largely a siliceous ore from the Georgetown district.

Fergus County materially increased its gold output in 1908 on account of the operation of gold and silver mines in North Moccasin and Warm Springs districts. The Barnes King Development Company treated, during part of the year, 200 tons of ore per day by the cyanide method. The ore averages \$4 per ton. The Kendall and North Moccasin mined and treated a similar ore. In the Warm Springs district the Gold Reef mill was operated by lessees.

Granite County mined ore and produced more gold, copper, and lead, but less silver than in the previous year. Nearly 20,000 tons of ore, of which the gold and silver value was \$17 per ton, were sold or

treated, the majority being crude smelting ore. Most of the gold came from siliceous ore, but more than one-seventh was derived from placers. Flint Creek district, Red Lion district, and South Boulder districts were the principal producers.

Jefferson County mined more ore, but greatly decreased its gold output. However, the value of all metals was over \$800,000. The producing districts were the Amazon, Boulder, Cataract, Colorado, Elkhorn, Lump Gulch, and Whitehall.

Although Lewis and Clark County had an output valued at more than \$300,000, this was a decrease of over 100 per cent from the 1907 product. Most of the ore was treated at gold and silver mills, although considerable lead ore was smelted. The Ottawa district turned out gold, silver, and lead. In the Greenhorn district a new cyanide mill was completed for the Umatilla property. The Unionville district was a large gold producer. The Vaughn district was a placer producer.

Madison County stood fourth in the value of its output in 1908, which was over \$600,000. The gold output was largely increased, and many new operators entered the producing list. Over 70 per cent of the gold is derived from placers, and most of the remainder came from siliceous ore, which contained three-fourths of the silver. Most of the placer gold of the State is produced in Alder Gulch, where three electric dredges are operated. Thirteen districts produced ore, which usually contained gold, silver, and lead.

Meagher County had a small production of placer gold and copper and lead ore.

Missoula County supplied placer gold from Cedar Creek and Iron Mountain districts, but decreased the usual output.

Little was done in Park County.

In Powell County considerable lead, some copper ore, and siliceous ores were shipped and placer gold worth nearly \$50,000 was produced. There were decreases, however, in all metals but copper.

Sanders County treated a small amount of siliceous ore.

Silver Bow, the most important county of the State, produced metals aggregating in value over 90 per cent of the State total value. The only county that surpassed Silver Bow in gold production was Fergus. There was a large increase in copper, but the difference in metal prices brought the total values far below those of 1907. There were 100 producers in 1908, and nearly 4,000,000 tons of ore were mined. The greater part was copper ore, and most of it was concentrated. The June floods seriously handicapped the operation of the Boston and Montana plant, and fires slightly curtailed the output of the Anaconda and Never Sweat. At the end of the year ore was being taken out at the rate of about 16,000 tons per day.

#### NEVADA.

The mine returns of the State of Nevada for 1908 show a reduced gold yield of about \$3,700,000 as compared with that of 1907; but the silver output was over 1,000,000 ounces more than in 1907, though the increase in value was not in proportion to that of quantity, owing to the lower average price prevailing in 1908.

The placer gold output of the State is comparatively small, most of this metal coming from deep mine operations. The largest source

of gold is siliceous ore. The number of tons of siliceous ore treated in 1908 was about one-third greater than in 1907, but the average value per ton in gold and silver was \$16.58 in 1908, whereas the average value was \$25 in 1907. This was due to the fact that much low-grade ore was treated in 1908, while in 1907 the miners were mainly shipping their higher grades of ore, leaving the lower grade to be treated at local reduction works later on, when those should be built. Many such reduction plants were in operation in 1908, so that by avoiding railroad charges the miners were enabled to mill their lower-grade ores.

There were in 1908 400 productive deep mines in Nevada and about 28 placers. Some of the deep mines are worked for copper and lead, but most of them are for gold and silver. A small quantity of gold and silver is derived from copper ores, and more comes from lead and copper-lead ores.

Esmeralda County is the source of the largest production of gold in the State, nearly 43 per cent of the gold output coming from Goldfield district, in that county. Nye County is next in order of gold production, large amounts being derived from Tonopah, Bullfrog, Manhattan, and Round Mountain districts. In silver Nye County is the largest producer, over four-fifths of the entire yield of the State coming from that county, where the largest silver mines are at present in operation.

A feature of interest to be noted is the yield of gold and silver in greater quantities from districts which have recently become productive, and the output of several new districts which became producers for the first time in 1908. Among the older districts Tonopah shows largely increased values in both gold and silver, but particularly in gold, but a very decided decrease is shown in Goldfield district during the same period.

Some 18 mining districts in the State each produced over \$100,000 in 1908, while Tonopah showed a yield of over \$5,500,000. Silver Peak district shows very marked gains, as does Bullfrog district. The Comstock mines evince a revival of production in satisfactory gains for the year. Ferguson, Round Mountain, Manhattan, Pioche and Seven Troughs districts all show marked increases in output for the year as compared with their production in 1907. Among new productive districts in the year are Rawhide, Lucky Boy, Lone Mountain, Gold Circle, Berlin, Bellehelen, Johnnie, Hornsilver, Lodi Valley, and Ward.

Nye County is the most productive in the State, its output having been over \$7,000,000 in 1908, which is about \$2,000,000 more than in 1907. There are about 100 productive mines in the county, but a large proportion of the total output is from the mines in Tonopah district. A very large percentage of the silver of the State is from this county.

Esmeralda County is the leading gold-producing county of the State, though it shows a very materially decreased output in 1908 as compared with that of 1907.

A very encouraging feature connected with the mining conditions in Nevada is the increasing elimination of speculative activity in favor of legitimate operations. When, a few years ago, owing to the rich discoveries in Goldfield, Tonopah, and other southern Nevada districts, there was a rush of miners, prospectors, promoters, and

speculators to these and other new districts, hundreds of companies were floated on properties on which little or no actual mining work was ever done. Millions of shares of stock were disposed of and all sorts of visionary plans were made. It was difficult, if not impossible, without direct examination, to determine whether these companies represented legitimate mining operations or "wild-cat" ones. Time has left the legitimate mines and almost entirely eliminated the speculative operations. The stock in these latter companies finally became worthless and the number of mining companies was largely reduced, many going out of business altogether. These speculative ventures injured legitimate mining, inasmuch as it became difficult to sell treasury stock, the proceeds of the sales of which was intended for actual development work on promising claims. Numbers of mines in the development stage have therefore been compelled to cease operations until a more opportune time.

It is to be noted that the decision on the part of the mining companies, large and small, to erect their own reduction works on their properties has created quite a revolution in methods. As soon as railroads were built to, or near by, the more prominent camps, the miners shipped their better grade ores to the smelters, but the lower or average value ores were not reduced. High freight and smelter charges reduced profits materially, while under this system only the richer ores were advantageously shipped. In 1908 numbers of local reduction plants were put into operation, completely changing the mining situation in many camps. The lower grades of ore then became of value, and were mixed with the richer ones. The tonnage treated became much greater, but the average values extracted were naturally much lower. Thus, for example, the average value of ore treated in Esmeralda County in 1907 was \$66.13 per ton, while in 1908 this average value was \$29.27 per ton. In Goldfield district the average value of the ore treated (mainly at smelters) in 1907 was \$83.61 per ton, while in 1908 it was \$55.55 per ton. In Tonopah district in 1908 the average value recovered from the ores was \$19.86 per ton, gold and silver, while in 1907 it was \$22.03 per ton, though there was much more ore reduced in 1908 than in 1907. A large amount of development work was in progress in the various camps in 1908, and many of the mines thus operated are expected to become producers in 1909.

#### NEW MEXICO.

The metallic production from the mines of New Mexico for 1908 differs in the yield of the base metals, as compared with that of 1907. The output of copper, which, with zinc, has been the source of the largest revenue from the mines of the Territory since 1905, fell off heavily because of the greatly lessened activity in Grant and Santa Fe counties and the idleness of a smelter in each of these counties. The operations of 2 zinc companies in Socorro County and the shipping of a larger tonnage of zinc ore from Grant County made a very creditable increase in production of this metal for 1908 over the very small yield of 1907, though the production of 1908 was small in comparison with that of 1904, 1905, and 1906. The yield of gold was somewhat smaller than in 1907, but the production of siliceous and lead ores declined. Gold from placers increased, and a larger amount of gold was won from the greatly lessened tonnage of copper ores. The increase in gold from copper ores may be explained by

the fact that the copper ore of Grant County, the tonnage of which fell off heavily in 1908, carries less gold than the Otero County copper ore, of which there was an increase in 1908.

The decrease in value of copper produced overtopped the combined increases in value of silver, lead, and zinc, by \$500,000.

There was an increase in the number of both deep and placer mines. Most of the new shipments, however, were from small prospects.

In Dona Ana County the chief metal in value of output was lead, with silver second and copper third. The output was all from the Organ district, near the towns of Organ and Kent. The Stephenson-Bennett Consolidated was the chief operator in the district.

Grant County again held second place in the rank of the precious metal producing counties. In point of tonnage Grant County was first, and in the production of copper stood far in the lead, with 82 per cent of the year's yield to its credit. This, despite the fact that the decrease in copper yield was almost 3,000,000 pounds, as compared with 1907. The Central district, embracing the towns of Fierro, Bayard, Hanover, and Santa Rita, maintained its position in 1908 as the most productive district in Grant County, and the Santa Rita Mining Company, at Santa Rita, the largest producer of copper in New Mexico, held its place with a better record than in 1907. The Comanche smelter at Silver City was idle in 1908—which explains the copper decline.

In October, 1908, a new gold strike was made on the western slope of the Little Hatchet Mountains, in Grant County, about 12 miles southwest of Hachita station (on the El Paso and Southwestern Railway). This camp was called Sylvanite. Tetradyomite, a telluride of bismuth, has been reported to occur in the ore of this camp. The usual rush was made to the camp, and within ten days after the first discovery nearly 1,000 people had reached the place. During 1908 a little over 100 tons of gold ore were shipped.

Socorro County was third in county rank in 1908. In point of gold and zinc production Socorro County stood first, with a heavy lead in both metals. The zinc output, though an increase over the yield of 1907, was almost 14,000,000 pounds under the production of 1906. The county yielded 46 per cent of the total gold production for the Territory. The gold ores come from the Mogollon (Cooney) district, in the southwest corner of the county, and the zinc ore from the central-western district around Magdalena and Kelly.

Otero County ranked fourth in total production, and third in the yield of gold. There was almost twice as much tonnage mined in 1908 as in 1907. In quantity gold, silver, and copper showed substantial increases. The smelter and mines of the Southwest Smelting and Reduction Company, at Oro Grande, were operated from January, 1908, to May. The plant is a 250-ton copper matting plant. Considerable copper ore was shipped from Mountain Park.

The chief value of the metallic yield of Lincoln County is gold. The chief districts are the Nogal (including Bonita) and the Whiteoaks. The Whiteoaks district maintained its usual yield, chiefly in bullion from stamp mills.

Mining operations in Luna County in 1908 were greatly curtailed. The total value of the production was one-twelfth of that in 1907. The major part of the output for both years was from lead. The

National Mining and Smelting Company's smelter, at Deming, was idle in 1908.

Santa Fe County, which ranked third in total value of production, and second to Grant County in yield of copper, in 1907, produced \$2,034 in gold and silver in 1908, with no copper, a decrease in value of \$273,836. Of the yield of 1908, 88 per cent was from placers near Cerillos and Golden. The cause of the decrease is due to the fact that the Santa Fe Gold-Copper Mining Company's smelter and mines at San Pedro were closed the entire year of 1908.

In Colfax County the yield of 1908 was all from placer mines, and was slightly greater than in 1907. Over three-fourths of the production came from the Moreno district, near Elizabethtown, and the rest from placers on Ute Creek, near Baldy.

Sierra County in 1908 produced gold, silver, copper, and lead valued at \$24,524, which is an increase over the total value of the metal output of 1907 of \$13,224. Most of the county yield came from the Las Animas district, near Hillsboro.

#### OREGON.

The production of both gold and silver in Oregon in the calendar year 1908 was less than in 1907, the falling off in gold yield alone being about \$250,000. There are more than twice as many placer mines reporting output from this State as there are deep mines. In 1908 the output of ore from the deep mines was only about half of that in 1907, showing that the decrease in gold production was mainly due to the deep-mine operations. The largest yield of gold comes from Baker County, where the greatest production from deep mines is derived. The largest yield from placers is in Josephine County. The number of deep mines reporting yield was in 1908 about the same as in the previous year, but there is an apparent increase in the number of productive placer mines. Hydraulic mining is the most productive form of placer work, though the gold yield from this source was materially less in 1908 than it was in 1907. The yield of gold from siliceous ores derived from the deep mines was fully twice as much as that obtained by the different forms of placer mining.

A comparatively small amount of silver is produced in Oregon. Grant and Baker counties are the leading producers of this metal, the quartz mines yielding most of it, only small quantities coming from the placer work. The falling off in yield was due to the reduced output of the productive mines generally, not to any cessation of operations.

There are 15 counties in Oregon which yield more or less gold and silver, but over half the total output is derived from one county—Baker. The counties of Josephine, Grant, and Jackson follow in importance of yield, in the order named.

The northeastern Oregon counties, including Baker, Grant, Harney, Malheur, Union, Wallowa, and Wheeler, some of which are unimportant producers, yielded in 1908 about twice as much gold as the southwestern counties of Benton, Coos, Curry, Douglas, Jackson, Josephine, and Lane.

#### SOUTH DAKOTA.

The mining industry in South Dakota in 1908 was in a very flourishing condition. The increase in the total value of the metallic yield for 1908 was 85 per cent of the output of 1907. Both placer and deep mines increased their yield.

The gold mines of the Black Hills are not affected by the prices of silver and the base metals. The regular producers were operated steadily, and several large enterprises entered the producing stage for the first time. The adoption of the 8-hour day increased somewhat the price of labor, but the extended use of electricity effected considerable saving in running expenses. The output of the Homestake Mining Company, as the result of an unusually prosperous year, represents three-fourths of the state production. The discovery of ore in the lower quartzite by the Imperial Mining Company promises added life to the district. During the year the problem of treating successfully the "blue" (or unoxidized) ores, carrying from \$5 to \$7 per ton, and which generally fail to yield to the cyanide process an extraction of more than 30 to 40 per cent and are of too low grade to ship, received considerable attention. Renewed efforts were made to obtain a better extraction by the use of other chemicals with cyanide. Though promising results were obtained, no process of assured financial success was reached. The spread of slime processes in the Black Hills makes that region the best adapted locality for the study of these new methods. With the mills now building, there will be in operation 4 Moore filter plants, 1 Merrill sluice filter press plant, 1 closed type filter press plant, 2 decantation plants, 1 Burt press, 1 Chamberlain press, and 1 Butters plant.

All the state production, with the exception of about \$7,000, came from Lawrence County. The chief producer in the county and State is the Homestake Mining Company, at Lead. The other large properties are those of the Golden Reward, Imperial, Lundberg, Dorr and Wilson, Portland, Reliance, and Wasp Number 2 companies.

Both Custer and Pennington counties show an increased yield in 1908. The mines of Custer County are chiefly around the town of Custer, in Pennington County; the mines are at Keystone, Hill City, Mystic, Oreville, Rochford, and Rockerville.

Nearly all the ore was treated in mills on the ground, though a little was shipped to smelters in outside States. The National smelter, at Rapid City, was closed in 1908.

#### UTAH.

The statement of Utah's metal production for the year 1908 shows decreases in gold, silver, lead, and zinc, but increases in the tonnage of ore marketed and amount of copper produced. The treatment of an immense tonnage of low-grade ore from Bingham resulted in these increases, while low metal prices, general depression, and restrictions of the smelters account for the decreases. The value of the total output was more than one-fourth less than that of the previous year. About 80 per cent of the tonnage was copper ore, but lead ore and siliceous gold and silver ore represented about 10 per cent each. More than 60 per cent of the gold was won from copper ore, more than 10 per cent from lead ore, and the remainder from siliceous ore. The silver, on the other hand, was largely derived from lead ore, while over 30 per cent came from copper ore, more than 10 per cent from copper-lead ore, and less than 2 per cent from siliceous ore. In the last seven years the tonnage of ore has been increasing, while the value per ton in gold and silver has decreased from \$9 to almost \$2. Nearly 60 per cent of the total value resulted from the shipment of crude ore

to the smelters, and the remainder, excluding the small value of ore treated in gold and silver mills, came from concentrates.

There were six smelting establishments in operation in Utah in 1908, but only two were used continuously. The copper plant at Garfield was active all year largely on Bingham ore, and the lead plant of the A. S. and R. Company at Murray ran continuously on custom ores. The copper plants of the Utah Consolidated and Bingham Consolidated remained idle the entire year as the result of a court decision, and the United States lead plant was operated only the latter half of the year by the use of a bag house in which the fumes are neutralized, by zinc oxide. The Yampa copper plant in Bingham Canyon was operated most of the year, largely on ore from the Yampa mine. For a short time the Independent Smelting Company, near Ogden, treated custom ore, but was evidently unable to compete with smelters nearer the copper camps. The Tintic smelter at Silver City was a new acquisition for 1908. At the end of August it began smelting lead ores and at the end of the year had reached a daily capacity of 500 tons. A copper furnace was installed and ready for use in 1909. The smelter site secured by the Utah Consolidated Mining Company near Tooele was acquired by the International Smelting Company and a copper plant of 1,500 tons daily capacity is planned. The Fink smelter was an experimental plant erected near Garfield, the object of which was to turn out blister copper from ore by one operation. Its success has not been permanently demonstrated.

The only railroad construction reported in the State was a narrow-gauge road connecting various mines with the Tintic smelter. Aside from the completion of the large concentrators at Garfield, the most important mill construction was that of the dry concentrating plant for the Daly Judge ore. A concentrator was also installed in the Columbia district of Tooele County.

Although the state output was far less than usual in total value, more than \$5,000,000 in dividends was distributed.

Beaver County decreased the production of all metals but copper, of which the Cactus mine as usual produced more than any other property. In spite of plans for operating the Majestic smelter it remained idle as in 1907. The Horn Silver shipped lead ore part of the year, but made only test shipments of zinc ore. The Moscow marketed both lead and zinc ore. The Star district was active and produced considerable ore.

Box Elder County also increased its copper product while decreasing the output of other metals. The only producer of note was the Copper Mountain mine.

Cache County supplied a new producer of lead ore near Paradise.

Garfield, Grand, San Juan, and Uinta counties made the usual contributions of placer gold from the San Juan, Colorado, and Grand rivers.

Iron County increased its output as a result of the operations at the Jennie mine and mill. Bullion and cyanide product were shipped throughout the year.

In Juab County, Tintic continues to be the most important district, supplying more than one-fifth of the value of the State output. Decreases in all metals made an aggregate decrease in value of over \$3,000,000. The Centennial Eureka mine remains the largest pro-

ducer, but since the copper plant of the United States smelter was idle the ore was shipped to other smelters. The Bullion Beck and Champion mines were operated through the workings of the Centennial Eureka, the property having been acquired by the United States Mining Company. There were no new producers of note.

In Piute and Sevier counties little was accomplished.

Salt Lake County shipped more ore and produced more copper than previously, but owing to the low grade of the ore and comparatively low metal prices the value of all metals produced was far less than that of 1907. Seven-tenths of the ore mined in the State came from the Bingham district, and nearly all this amount was copper ore, only a little more than 2 per cent being lead ore. The Utah Copper Company, operating a steam shovel on copper ore in monzonite, not only increased its output by 75 per cent, but produced half the total copper output of Utah, and marketed a product worth more than one-fourth the total value of the State's metal production. The combined capacity of this company's mills at Garfield and Copperton is 6,800 tons per day, but not more than 5,000 tons daily were treated in 1908. The Boston Consolidated, working a similar deposit, operated its new mill at Garfield, where 1,600 tons of ore were being treated daily at the close of the year. Other prominent producers which did important development work were the Utah Consolidated, United States Mining Company, Bingham and New Haven, and Tintic Mining and Development Company, which operated the Yampa smelter and increased its capacity to 1,200 tons per day.

The Park City district, which is in both Summit and Wasatch counties, recorded decreases generally, amounting in value to over a million dollars. The amount of zinc produced, however, was considerably increased. This was due to the erection of a plant to concentrate the zinc middlings from the Daly Judge mill. The Silver King, Daly West, and Daly Judge were, as in previous years, the largest shippers, and a new concentration mill of 150 tons daily capacity was built on the Adirondack property.

Tooele County mined more ore than in 1907, and produced more gold and copper, but the silver, lead, and zinc were less than in the past. In the Camp Floyd district the Consolidated Mercur had a successful year. The Clifton district, though lacking a railroad, is doing development work. A new concentrator in the Columbia district was erected for the Sharp mine. In the Ophir district the Ophir Hill mill was busy all year, turning out concentrates, but the district was rather dull.

Utah County includes American Fork and Tintic districts. The latter was mentioned under Juab County. There was considerable development on American Fork properties.

Washington County produced no copper as in past years, but the usual amount of silver bullion was shipped.

#### WASHINGTON.

The gold and silver output of the State of Washington in 1908 was less than \$300,000, and is even then a slight falling off from that of the previous year. There are upward of 60 producing gold and silver mines in the State, of which about half are placers, but some 300 are yet unproductive and are held under development or assessment work.

Nearly 30,000 tons of siliceous ore were treated at the mills and smelters in 1908, and some gold and silver were also obtained from copper and lead ores. Stevens is the most productive county in the State in both gold and silver, followed in order by Ferry, King, and Okanogan, the others producing less amounts for the year. The counties of Ferry, King, and Okanogan increased their gold output in 1908 as compared with that of 1907, but the other counties show a decrease. The Benton and Clallam county mines are mainly small placers, while in Chelan there are both productive deep and placer mines.

The mines in Ferry County are mainly deep ones, the principal of which are in Republic district. In this district the outlook for future prosperity is much brighter than in years past, and there are several new and important producers.

In both Kittitas and King counties the producers of gold and silver are few in number. Okanogan County has less than a dozen producing mines, and most of them are deep ones. There are very few producers in Snohomish County. A very large proportion of the gold and silver of the State is derived from Stevens County, which shows more advancement in production than any of the other counties. There are less than a dozen productive mines in Whatcom and Whitman counties, and their aggregate output is quite small.

#### WYOMING.

The number of productive mines in Wyoming in 1908 was very small, and the number of properties undergoing development was less than that of 1907. Several companies, however, which have been developing steadily for several years reached a stage, in 1908, that promises an increased tonnage for 1909. The commencement of actual construction work on the part of several railroad companies during the latter part of 1908 and spring of 1909 on new branches, which had been in prospect for several years past, should aid in the marketing of ores from some of these developed properties.

There was an increase in the quantity of the yield from lode mines in 3 metals—gold, silver, and copper—though the value of the silver and copper output was less than that of 1907, because of lower average metal prices. The value of the copper production was 97 per cent of the value of the state yield of metals.

Placer mines yielded about one-fourth as much gold as in 1907. In combined deep and placer yield there was a decrease for the State in gold output. Lessened operations in the placer camps of the South Pass district, Fremont County, and the Jackson Hole district, Uinta County, were the cause of the smaller yield of placer gold.

The 3 southern counties—Albany, Carbon, and Laramie—produced 98 per cent of the total valuation of the state yield. There was a small amount of bullion produced by one mine in Albany County in a 5-stamp mill. The Penn-Wyoming mines and smelter at Encampment, Carbon County, produced the bulk of the output from Wyoming in gold, silver, and copper. The smelter was operated one hundred and nineteen days. The copper matte produced was shipped to eastern refineries. There was considerable development work performed in Carbon County at Encampment, Saratoga, Battle, Dillon, and French. Some of the properties in this district shipped early in

1909. A car or two of copper ore was shipped from a mine near Hartville, near Sunrise, Laramie County.

Crook County placers, in the Hurricane district, made a reduced output.

In Fremont County, 3 mines in the Copper Mountain and Willow Creek districts made several shipments of copper ore, carrying gold and silver. The proposed branch of the Burlington Railroad into these districts will greatly facilitate the marketing of ores from the mines, which are now ready to ship more steadily than heretofore. There was no yield from the placer mines in the South Pass district, Fremont County.

A very small placer yield from Jackson Hole, Uinta County, was reported in 1908. The placer gold won in 1907 from this district was considerable.

#### EASTERN STATES AND SOUTH APPALACHIAN STATES.

The combined value of gold and silver produced in the Eastern States, including the Appalachian region from Maine to Alabama, has been about the same during the past three years. An increase in value of gold production during each of these years has been offset by a corresponding decrease in the value of silver output, the latter largely due to industrial conditions, the low prices for copper, and decreased production of that metal. The production of silver in the Eastern States is largely from copper ores, there being no silver ores mined, and the production of argentiferous lead ores, or of silver from gold ores, being small. As in 1907, the copper production of Tennessee in 1908 showed an increase over that of the preceding year, but this was not sufficient to offset the decreased output in 1908 from Vermont and from North Carolina. Of the total silver production in 1908 a half of 1 per cent came from placer gold and lead ores combined,  $2\frac{1}{2}$  per cent came from dry or siliceous ores, and 97 per cent was derived from copper ores. Of the gold production, 12 per cent came from placers, 85 per cent from dry and siliceous ores, less than 3 per cent was derived from copper ores, and less than 1 per cent from lead ores.

As compared with the production of 1907 there was an increased output in value of gold from Alabama, Massachusetts, New Hampshire, Pennsylvania, and North Carolina, and of silver from Massachusetts, New Hampshire, Pennsylvania, and South Carolina.

The gold-mining industry showed increased activity over that of 1907. As stated above, recovery from the industrial depression of 1907, so far as the production of silver from the mining of copper ores elsewhere than in Tennessee was concerned, was very slow.

The most important gold mines of the Eastern States, the Haile of South Carolina; the Iola, of North Carolina; the Franklin, of Georgia; and the Hog Mountain, of Alabama, were all operated in 1908, but the Haile was temporarily closed in the latter part of the year as a result of an explosion in the mill, which killed the superintendent and damaged the plant. The most important producers of silver were the Ducktown copper mines, which had an active year, increasing their output over that of 1907.

## ALABAMA.

There was a marked increase in the production of gold in Alabama in 1908, but a slight decrease in the silver output. The Hog Mountain mines of the Hillabee Mining Company were worked throughout the year, furnishing the greater part of the precious metal production of the State. Exhaustive metallurgical experiments, with the view to ascertaining the most satisfactory process for the treatment of the ores, were continued. The placer production from Clear Creek and Arbacoochee was very small in 1908. In Randolph County the Gold Ridge Mining Company produced a small quantity of gold from the operation of their 20-stamp mill. The pyrites mine, at Pyriton in Clay County, whose ores furnish small amounts of copper and silver in the manufacture of sulphuric acid, was not operated in 1908.

## GEORGIA.

The production of both gold and silver in 1908 was considerably below that of 1907, the decrease being principally in gold. About one-fifth of the production of precious metals was from placers and all of the remainder was from siliceous gold ores. There were no copper or lead ores mined in Georgia in 1908. There were 34 mines actively operated in 1908, of which 22 were placer or surface mines.

In Cherokee County the Franklin mine was again the most important producer in the State. In Forsythe County there was a small placer production and in Lumpkin County there was a considerable number of placer operations in the vicinity of Auraria and Dahlonega. There was only a single deep mine of importance at the latter place in 1908. At Auraria there was some production at the close of the year from deep mining. The most important gold production in the county was on Chestatee River, southeast of Dahlonega. In McDuffie and Union counties there was a small production. The most important placers of White County continued their production of gold.

## MASSACHUSETTS.

In Massachusetts there was a small production of copper and silver from pyrite mines in Franklin County.

## NEW HAMPSHIRE.

The Milan Mining and Milling Company, operating the Milan copper mine, in Coos County, N. H., began important development work in 1907 and made shipments of copper ore in 1908, one-fourth the value of which was in precious metals, the values of the gold and silver being nearly equal.

## NORTH CAROLINA.

In 1908 the gold production of North Carolina increased over that of 1907, but the silver output decreased in quantity and therefore in value—the net result being a slight increase in combined value of the precious metals. The silver decrease was directly due to decreased mining of copper ores, chiefly at Gold Hill.

About the same number of deep and placer mines were operated in 1908 as in 1907. The ore from deep mines was almost entirely siliceous gold ore. About one-fifth of the gold and one-eleventh of the silver was derived from placers in 1908, the remainder of the gold and silver coming from siliceous ores. On the whole the gold mining industry held to the usual conditions of recent years, but showing some improvement over the conditions of 1907. North Carolina easily maintains first place among the Eastern States producing gold. The production of silver is largely dependent upon the copper mining industry, and this has not regained the position it held in North Carolina prior to the industrial depression of 1907.

In Burke and Cabarrus counties there was a small production of gold from placers and from reworking an old dump. In Catawba County various mines produced small amounts of gold. In Cleveland County, as well as in Burke County, some gold was recovered from concentration of monazite sands.

In Franklin and Gaston counties there was a small production. In Guilford County there was a small mine output and in McDowell County a small production of placer gold was reported.

The principal production in North Carolina in 1908, as usual in recent years, was from the Iola mine, the second largest producer in the East. Orange County made a small output and in Polk County there was a nominal output of placer gold.

In Rowan County there was a production of gold, silver, and copper from the Gold Hill mine, at Gold Hill; but the Union copper mines were not operated in 1908, thus reducing the usual production of copper and silver in the State.

There was a small placer production in Rutherford and Stanley counties and a small output from Union County.

#### PENNSYLVANIA.

A small production of gold in Pennsylvania in 1908 was of considerable interest as coming from a famous iron mine.

In the magnetic reconcentration of tailings of the Cornwall mine, in Lebanon County, there was a production of concentrates yielding copper and a small amount of gold.

#### SOUTH CAROLINA.

In South Carolina there was a small decrease in quantity and value of gold produced in 1908, as compared with the output of 1907, but there was a slight increase in both quantity and value of silver produced, the latter being due to a small production of copper ores. The gold production was almost wholly from siliceous ores, as usual, but the output of silver in 1908 from deep mines was about equally divided between siliceous ores and copper ores. There were 2 placers and 5 deep mines operated in 1908 as against 5 placers and 1 deep mine in 1907.

In Cherokee and Spartanburg counties there were small outputs of placer gold in 1908. The Haile mine, in Lancaster County, the largest gold producer east of the Black Hills, continued its important output until August, 1908, when an explosion of boilers in the mill killed the superintendent and seriously damaged the plant. The

mine was then temporarily closed down and production was thereby curtailed. In York County there was considerable activity in prospecting copper ores at several places, and shipments of this class of ore resulted in a small output of copper and silver.

#### TENNESSEE.

There was a slight decrease in both quantity and value of both gold and silver in Tennessee in 1908, while the output of copper was considerably increased. The output of gold is always small in this State, and, like that of silver, is chiefly derived as a by-product in the electrolytic refining of a part of the copper from the Ducktown mines. There was a very small production of placer gold from Monroe County.

#### VIRGINIA.

The production of gold in Virginia in 1908 was only about three-fourths of that of 1907, but the output of silver, always small, remained about the same. There were 4 placers and 4 deep mines producing in 1908, and copper, lead, and zinc ores were all mined in the State in addition to siliceous gold ores. The zinc ores yielded no gold or silver, but small tonnages of both copper and lead ores contributed somewhat to the production of precious metals.

In Floyd and Goochland counties there were small productions of placer gold in 1908, and the Virgilina district in Halifax County made a small production from siliceous ores, and the concentration of copper ores resulted in a production of copper, silver, and gold. A Prince William County pyrite mine produced some ore yielding copper and the precious metals. Smyth County produced lead ores from which lead and silver were obtained. In Spottsylvania County there was a small production of placer gold.

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PART III.

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PRODUCTION OF GOLD AND SILVER IN FOREIGN COUNTRIES.

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# PRODUCTION OF GOLD AND SILVER IN FOREIGN COUNTRIES IN 1908.

## NORTH AMERICA.

### BRITISH NORTH AMERICA.

According to the figures furnished this bureau by the statistician, department of mines, Ottawa, Canada, the production of gold and silver in British North America in 1907 and 1908, by provinces, was as follows:

| Province.             | Gold.          |                  | Silver.           |                     |
|-----------------------|----------------|------------------|-------------------|---------------------|
|                       | Fine ounces.   | Value.           | Fine ounces.      | Commercial value.   |
| <b>1907.</b>          |                |                  |                   |                     |
| Nova Scotia.....      | 13,675         | \$282,686        |                   |                     |
| Quebec.....           |                |                  | 16,000            | \$10,560            |
| Ontario.....          | 3,212          | 66,399           | 9,982,363         | 6,588,360           |
| Alberta.....          | 33             | 675              |                   |                     |
| British Columbia..... | 236,216        | 4,883,020        | 2,745,448         | 1,811,995           |
| Yukon District.....   | 152,381        | 3,150,000        | 35,988            | 23,752              |
| <b>Total.....</b>     | <b>405,517</b> | <b>8,382,780</b> | <b>12,779,799</b> | <b>a 8,434,667</b>  |
| <b>1908.</b>          |                |                  |                   |                     |
| Nova Scotia.....      | 11,842         | 244,799          |                   |                     |
| Quebec.....           |                |                  | 13,299            | 7,114               |
| Ontario.....          | 3,212          | 66,389           | 19,398,545        | 10,376,282          |
| Alberta.....          | 50             | 1,037            |                   |                     |
| British Columbia..... | 286,858        | 5,929,880        | 2,631,389         | 1,407,530           |
| Yukon district.....   | 174,150        | 3,600,000        | 63,000            | 33,698              |
| <b>Total.....</b>     | <b>476,112</b> | <b>9,842,105</b> | <b>22,106,233</b> | <b>b 11,824,624</b> |

<sup>a</sup>At 66 cents per fine ounce.

<sup>b</sup>At 53.49 cents per fine ounce.

## MEXICO.

The American ambassador at Mexico City submits the following figures for the production of Mexico, 1908-9:

|             |               |
|-------------|---------------|
| Gold.....   | 33,661.264    |
| Silver..... | 2,291,260.570 |

Kilos fine.

Which represents for the gold, 1,082,210 ounces of fine gold of the value of \$22,371,258, and for the silver, 73,664,027 ounces fine, of the commercial value of \$39,402,888.

## FOREIGN COMMERCE, 1908-9.

[From Bulletin of the International Union of the American Republics, October, 1909.]

\* \* \* \* \*

Silver shipments totaled 73,841,592.59 pesos against 93,012,766.23 pesos, a decline of 19,171,173.64 pesos; whereas exports of gold exceeded those of the preceding year

by 7,288,781.48 pesos; the valuations for 1908-9 and 1907-8 being 39,210,080.32 and 31,921,298.84, respectively.

\* \* \* \* \*

PRODUCTION OF GOLD AND SILVER FROM 1877 TO 1908.

During the thirty-one years from 1877 to 1908, Mexico produced 250,571 kilograms of gold, valued at \$334,228,518 silver, and 40,225,278 kilograms of silver, valued at \$1,649,528,978 silver, or a total value in Mexican silver during the period referred to, of \$1,987,757,496.

COMMERCE AND MINERAL PRODUCTION IN 1908.

[From Bulletin of the International Union of the American Republics, July, 1909.]

\* \* \* \* \*

Mineral exports were distributed as follows: Silver, \$46,517,300; gold, \$15,960,500; copper, \$12,417,000; lead, \$2,672,200.

Gold shipments increased \$4,023,600, and those of silver declined by \$3,413,500, so that precious metals together advanced \$610,100.

It is also worthy of note that while shipments of silver coin were nearly \$14,000,000 less than in 1907, the exportation of bar silver, silver ore, cyanides, sulphides, etc., increased by \$7,000,000, the increase in the exportation of bar silver being greater than the increase in the exportation of ore, which demonstrates the impetus given to home smelting and refining.

The decline in copper exports was caused by the depression of the market for that metal, which antedated by some months that of the silver market. Many of the mines were forced to suspend operations owing to this condition, but work has recently been resumed, the federal authorities contributing to the resumption of work by granting the free importation of fuel oil, thus cheapening the cost of production. Lead and zinc also participated in the decline caused by a fluctuating market.

\* \* \* \* \*

The mines of Mexico are the principal source of national wealth and one of the leading fields of industry in the republic. Calculated from exportation figures, which constitute the only available index to production values, Señor Limantour, minister of finance, gives the mineral production for 1907-8 at \$83,071,500 in the following distribution: Silver, \$42,723,500; gold, \$19,048,000; copper, \$12,400,000; coal, \$3,500,000; lead, \$2,700,000; other metals, \$1,700,000, and mineral oil, \$1,000,000. The annual increase in the output of gold is a matter of great satisfaction, the present figures showing a marked advance over the output of \$7,000,000 in 1898. The best paying gold mine in North and South America is the Esperanza at El Oro, Mexico, which paid its owners during the year 1908 \$1,180,000, and since its incorporation the sum of \$9,427,500, or 419 per cent on a capitalization of 2,250,000. The property is controlled by United States and British investors.

Notwithstanding the low price of silver since the middle of 1907, the operation of silver mines showed no decline during the latest fiscal year, and an increase was made both in quantity and value of the output, despite the fact that the average price per kilogram dropped from \$22 to less than \$20.

MEXICO'S MINERAL OUTPUT.

[From The Mining and Scientific Press, San Francisco, January 23, 1909.]

The annual budget sent to the Mexican Congress by Minister of Finance Limantour on December 14 gives some interesting figures as to the mineral output of the Republic. For 1907-8 the production of gold and silver was as follows:

|             | Pesos.     |
|-------------|------------|
| Gold.....   | 38,096,000 |
| Silver..... | 85,447,000 |

Gold ore and bullion exports, minus Mexican and foreign gold coins exported, were 20,156 kilograms, or 26,874,705 pesos; gold purchased for coinage by the exchange and currency commission, less 2,563,857 pesos obtained from foreign gold melted down, 8,316 kilograms, or 11,088,622 pesos; home consumption, 100 kilograms, or 133,333 pesos. The total production of gold for 1907 is 828,572 kilograms, amounting to 38,096,661 pesos, and for the year previous, 27,423 kilograms, or 36,563,898 pesos, an increase of 1,149 kilograms, or 1,523,763 pesos.

The exports of silver, minus those of Mexican and foreign silver coins, for the same time were 2,065,510 kilograms, valued at 82,192,655 pesos. Mexican silver bars bought for coinage, 85,504 kilograms, or 3,174,249 pesos, with a home consumption of 2,000 kilograms, or 80,000 pesos. The total production of silver for 1907-8 was 2,153,014 kilograms, valued at 85,446,904 pesos, while that of 1906-7 was 1,756,704 kilograms, or 77,088,877 pesos, an increase of 396,310 kilograms, or 8,358,077 pesos.

In mineral output Mexico ranks first in silver, second in copper, fourth in lead, and fifth in gold, and, it is said, will establish a high record for this year with 86 of the most important mines owned by Americans.

\* \* \* \* \*

CENTRAL AMERICAN STATES.

The production of gold and silver in the Central American States is usually arrived at by assuming that their export figures represent their product. The following table is compiled, for the most part, from the United States import figures:

| State.          | Gold.               |           | Silver.             |                   |
|-----------------|---------------------|-----------|---------------------|-------------------|
|                 | Weight.             | Value.    | Weight.             | Commercial value. |
|                 | <i>Fine ounces.</i> |           | <i>Fine ounces.</i> |                   |
| Costa Rica..... | 28,641              | \$592,068 | 151,968             | \$81,288          |
| Guatemala.....  | 351                 | 7,247     | .....               | .....             |
| Honduras.....   | 14,684              | 303,545   | 978,450             | 523,373           |
| Nicaragua.....  | 45,142              | 933,171   | .....               | .....             |
| Panama.....     | 8,224               | 170,000   | .....               | .....             |
| Salvador.....   | 48,992              | 1,012,762 | 330,391             | 176,726           |
| Total.....      | 146,034             | 3,018,793 | 1,460,809           | 781,387           |

COSTA RICA.

The American consul at San José, Costa Rica, in reply to our inquiry relative to the production of gold and silver in 1908 submits the following export figures, which represent Costa Rica's production:

|                     |           |
|---------------------|-----------|
| Gold bullion.....   | \$592,068 |
| Silver bullion..... | 81,288    |

equivalent to 28,641 ounces of fine gold, and 151,968 ounces of fine silver.

GUATEMALA.

The statement of imports furnished this bureau by the Bureau of Statistics (Department of Commerce and Labor) shows that there was imported from Guatemala during 1908 gold in ore valued at \$7,247, equivalent to 351 ounces, fine. As no official production figures have been received from that State, the imports figures are accepted as representing the production.

HONDURAS.

The American minister at Tegucigalpa reports that there were exported from Honduras in 1908, 14,684 ounces of gold and 978,450 ounces of silver. Assuming that these were fine ounces, the value of the gold would be \$303,545 and the commercial value of the silver \$523,373, which figures are taken as the product of Honduras.

## COMMERCE AND MINERAL PRODUCTION IN 1908.

[From Bulletin of the International Union of the American Republics, July, 1909.]

\* \* \* \* \*

Export values for the fiscal period ending July 31, 1908, under the head of minerals figured as follows: Cyanide products, for \$204,862; ore, for \$167,360; coined silver, \$98,280; silver in bars, \$85,912; and gold, \$18,360.

\* \* \* \* \*

Mining operations for the year 1908 were signalized by the location of valuable deposits at Minas de Oro, Macuelizo, and within 12 miles of San Pedro de Sula.

The Rosario property, which is said to be the best in the country, has yielded over \$12,000,000 worth of ore, and with the application of modern methods it is confidently predicted that the output of this and other properties can be largely increased. The plant was first constructed to treat ores by panamalgamation; later the treatment was changed to concentration and amalgamation, and now the cyanide process is used, the company claiming a 96 per cent extraction.

It is a well-known fact that gold, platinum, silver, copper, iron, lead, zinc, tin, quicksilver, and more or less coal of varying quality occur in Honduras, and they have never been adequately exploited. Gold is found in either quartz veins or alluvial deposits. The most important gold mines are on the south coast of the country, several good prospects being only a few miles from the sea.

Silver ores are found in all the departments, occurring in quartz veins carrying sulphides, galena, and zinc-blende, with some gold values; in blanket veins carrying free silver with small quantities of sulphides, but with no gold values; and in lead-zinc veins, mostly blanket, with some sulphides and no gold values. There are also deposits of antimony and lead carbonates carrying silver in the ratio of 20 to 40 ounces to the ton, with no gold values. Despite the fact that copper lode formations are not currently supposed to exist in Honduras, outcrops and old works have been found in several of the departments.

\* \* \* \* \*

## NICARAGUA.

The July number of the Bulletin of the International Union of the American Republics states that the exports of gold from Nicaragua in 1908 amounted to \$933,171, equivalent to 45,142 ounces, fine, which figures are assumed to be the production for that State.

## NICARAGUA IN 1908.

[The Mining Journal, London, January 2, 1909.]

It is a difficult matter to give exact statistics of the output of Nicaragua which are reliable. Most of our mining is done on the upper coast, and the news which we are getting here relates only to the exportation of gold which is done via Bluefields and Cape Gracias. I append a detailed list of gold exports from Bluefields, but the American consul at the "Cape," to whom I wrote, has not yet answered my inquiries, and I must estimate six months on Cape Gracias exports. To all this is to be added gold made up into native jewelry, gold sent to the interior, and gold exported via Honduras and through other channels, which at the very least represents \$200,000. We have accordingly:

|                             |            |
|-----------------------------|------------|
| Bluefields exports.....     | \$468, 171 |
| Cape Gracias exports.....   | 265, 000   |
| Miscellaneous as above..... | 200, 000   |
| Total production.....       | 933, 171   |

\* \* \* \* \*

There are several good mines stopping because the machinery is to be changed and mills are to be opened on new mines; also some cyanide plants are in erection, so that the coming year will be much better. The number of working mines is very small in proportion to those which can not be worked for want of capital, which is, however, coming in slowly, and the effect of which on the production will scarcely

be felt before June, 1909. My report, of course, is only for the coast, and you will doubtless know that there are many mines in the interior. The La Libertad-St. Domingo mining district had 26 mines running—more than ever since its discovery. Several mines ran also successfully in the Matayalpa district. All this gold goes over the Pacific side—partly to San Francisco, partly to England, and sometimes to Germany. It is easy there to send gold to Europe, because the senders are allowed to draw on it, and can sell the drafts readily.

\* \* \* \* \*

PANAMA.

From the same source referred to above, the value of gold bullion shipped from the mines near Darien during 1907 was \$170,000, which figures are repeated as the product of that State in 1908.

MINING INDUSTRY IN 1908.

[From Bulletin of the International Union of the American Republics, July, 1909.]

\* \* \* \* \*

In mining the Republic is being extensively prospected and 40 new claims were announced in 1907, as compared with 31 in 1906. Many of the rivers and points near the seashore contain gold in small quantities, while some of the deposits in the interior might be profitably worked. Gold bullion was shipped from mining properties near Darien in 1907 to the amount of \$170,000.

\* \* \* \* \*

SALVADOR.

The chargé d'affaires of the United States legation at San Salvador reports that the exports of gold and silver from that State in 1908 were as follows:

|                     |             |
|---------------------|-------------|
| Gold bullion.....   | \$1,012,762 |
| Silver bullion..... | 176,726     |

representing 48,992 ounces of fine gold and 330,391 ounces of fine silver, which figures are assumed for the product of 1908.

COMMERCE IN 1908.

[From Bulletin of the International Union of the American Republics, July, 1909.]

\* \* \* \* \*

The shipments to the United States were made up in part as follows: Gold bullion, \$822,181; coffee, \$719,455; gold and silver, \$387,902; sugar, \$26,680; rubber, \$10,595; indigo and hides, about \$10,000; and other articles in lesser valuations. Substantial gains were noted in shipments of gold and silver bullion, rubber, sugar, and indigo; balsam, copper, and miscellaneous items remaining stationary; while in hides and lead there was a considerable decline.

As the development of the mining resources of the country increases, larger shipments of gold and silver bullion will undoubtedly be made to the United States. The coffee of the country has always found its best market in Europe.

\* \* \* \* \*

## SOUTH AMERICA.

## ARGENTINA.

In estimating the production of the precious metals in Argentina, this bureau accepts the figures of the imports of those metals from Argentina by other countries, viz :

| Country importing. | Gold.   | Silver.           |
|--------------------|---------|-------------------|
|                    | Value.  | Commercial value. |
| Great Britain..... | \$7,525 | \$28,114          |
| Germany.....       | 42,534  | .....             |
| United States..... | 111,202 | 39,876            |
| Total.....         | 161,261 | 67,990            |

These values represent, for the gold, 7,801 ounces, fine, and for the silver, 127,108 ounces, fine.

## INDUSTRIES IN 1908.

[From Bulletin of the International Union of the American Republics, July, 1909.]

\* \* \* \* \*

Many causes contribute to the noticeable lack of interest shown in the exploitation of the mineral resources of the Republic, chief of which are lack of available capital, difficulties of transportation, and the high price of fuel. Official statistics show gold exports from 1903 to 1907 to have reached a total of \$1,910,912, or a yearly average of about \$382,000.

\* \* \* \* \*

## BOLIVIA AND CHILE.

No official information has been received by this bureau relative to the gold and silver product of Bolivia and Chile for 1908. Heretofore in estimating the product of these metals for Bolivia and Chile, by this bureau, it has been the custom to accept the figures of the imports from those countries by other countries plus their coinages, as the probable production.

Bolivia is compelled to export through some port of Peru or Chile and consequently does not get credit for her exports, at least we have been unable to find where any other country has received any gold or silver from Bolivia either in 1907 or 1908, thus making it almost impossible to separate Bolivia's product from Chile's.

The value of the imports of gold and silver bullion and ores from Chile by other countries during 1908 was as follows:

| Country importing. | Gold.     | Silver.           |
|--------------------|-----------|-------------------|
|                    | Value.    | Commercial value. |
| Great Britain..... | \$199,902 | \$1,497,047       |
| United States..... | 146,398   | 1,599,016         |
| Total.....         | 346,300   | 3,096,063         |

These values represent, for the gold, 16,752 ounces, fine, and for the silver, 5,788,117 ounces, fine.

There was no coinage of gold or silver reported from Chile during 1908. Bolivia coined 49,763 50-centavo pieces, containing 18,000 fine ounces of silver; adding this to the export figures given above, gives the total product of those countries as follows:

Gold, 16,752 fine ounces, valued at \$346,300, and silver, 5,806,117 fine ounces, of the commerci alvalue of \$3,105,692.

#### MINERAL PRODUCTION OF BOLIVIA IN 1908.

[From Bulletin of the International Union of the American Republics, July, 1909.]

\* \* \* \* \*

It is upon her mineral wealth that the Republic mainly depends, and present conditions all point to increased activity in the exploitation of these resources through the constantly increasing foreign demand for the mine products of the country.

The mineral wealth of Bolivia, including nearly all known metals, is widely distributed and very rich and abundant. Great veins of ore containing the precious metals are found in the mountains of the Republic, and while their exploitation is carried on on a considerable scale, yet, due to the lack of labor and capital and adequate transportation facilities, they are not fully developed, and in many instances remain entirely virgin. The copper mines of Corocoro and the tin and bismuth mines of the Republic are among the richest in the world.

\* \* \* \* \*

From 1540 to 1750, a period of two hundred and ten years, the gold mines of Bolivia produced \$2,100,000,000. From 1750 to the beginning of the nineteenth century the mines and placers situated in the provinces of Larecaja and Caupolican produced \$14,000,000 gold, and from 1818 to 1868 the output was 150,770 ounces of gold. The product of the other mines and placers of the nation, from the middle of the eighteenth to the latter part of the nineteenth century, is estimated at \$125,000,000. The annual gold production of Bolivia may be calculated at 17,460 troy ounces, which, at \$20 an ounce, gives a value of \$349,200. The 1907 shipments of silver aggregated 149 tons.

\* \* \* \* \*

In 1908 silvershipments showed an increase of \$209,400, reaching a total of \$2,802,000, while gold showed a gain of \$20,600.

\* \* \* \* \*

#### BOLIVIA.

[From The Mining Journal, London, October 2, 1909.]

Mr. Acting Consul J. Watson, in his report on the trade of La Paz for the year 1908, states: The financial situation may still be considered as critical. The prospects for 1909 depend a great deal upon the present rate of exchange being maintained.

The official figures of the production of silver in Potosi for the year 1907 (the latest available), are as follows: £446,000. The principal mining establishments are situated in and around Potosi.

(The exportation of silver from Bolivia in 1907 was 149,122 bolivianos.)

[From Bulletin of the International Union of the American Republics, October, 1909.]

Figures published in the "South American Journal" for August 14, 1909, give the valuation of the exports of silver from Bolivia during 1908, as £644,648.

## THE HUANCHACA COMPANY OF BOLIVIA.

[Specially abstracted for "The Mining Journal," London, August 21, 1909, from "Compañía Huanchaca de Bolivia, XXXVII. Memoria del Consejo de Administración; Balance General al 31 de Diciembre de 1908 y Anexos," Valparaiso, 1909.]

The production for the last two years has been as follows:

| Classification.                    | 1907.        | 1908.        |
|------------------------------------|--------------|--------------|
|                                    | <i>Tons.</i> | <i>Tons.</i> |
| Rich and ordinary silver ores..... | 20,907       | 22,562       |
| Rich blende No. 1.....             | 6,624        | 6,288        |
| Poor blende No. 2.....             | 1,266        | 928          |
| Magnetic separation blende.....    | 840          | 1,420        |
| Antimonial galena.....             | 2,896        | 3,533        |
| Galena (concentrates).....         | 1,420        | 1,720        |
| Auriferous pyrites.....            | 8,724        | 9,824        |
| Ground ores passed to stock.....   | 27,685       | 51,027       |
| Total.....                         | 70,362       | 97,302       |

*Profit.*—The balance of profit and loss account for 1908 shows a profit of 216,927.16 bolivianos. (In the report the boliviano is taken at 30d., it is usually valued at 19d.) Adding the profit from the preceding campaign less government tax paid for 1907, and deducting two dividends of 2.50 francs each per share paid in February and June of 1908, there is a net profit of B./405,295.01.

\* \* \* \* \*

## CHILE.

From the Mining Journal, London, November 13, 1909, the following figures were obtained, showing the gold product of Chile for 1906 to have been 1,135,459 kilograms, and for 1907, 1,907,110 kilograms, fine. These weights represent 36,505 ounces, fine, and 61,313 ounces, fine, respectively, with the respective value of \$754,625 and \$1,267,452, which figures are employed as the gold product of Chile for those years in the tables of the world's production published in this report.

## PRODUCTION AND INDUSTRIES IN 1908.

[From Bulletin of the International Union of the American Republics, July, 1909.]

\* \* \* \* \*

The only item of export which decreased in 1908 as compared with 1907 was coin, \$548,485.

Gold mining is less actively carried on in late years than was formerly the case, although the exploitation of placer gold is increasing. These deposits have a great future, particularly in Cautin, Valdivia, and Magellan, in the southern part of the Republic. Hydraulic and dredge systems have recently been installed, but as the work has been largely experimental the best results have not yet been attained. In 1907 the total output of gold was 1,500,000 grams, amounting in value to nearly \$1,000,000. Near Vallenar a gold deposit has lately been discovered assaying nearly 200 ounces of pure gold per ton. This is the old gold mining region of Chile.

Silver production, although it showed a slight advance in 1907, when the output amounted to 10,433 kilograms, does not receive the attention warranted by the known value of the deposits.

The mining energies of the country have been directed largely to copper, the production of which for 1908 was given as 35,000 tons of refined metal as compared with 28,854 tons in 1907. The mean copper percentage of ores worked in Chile during 1907 was 9½, a portion of which, with an average percentage of 20 per cent, is sent abroad as ore for treatment.

\* \* \* \* \*

## THE CHILIAN MINING INDUSTRY.

[From The Mining Journal, London, March 13, 1909.]

## GOLD.

A notable decadence is noted in the industry of the "noble metal" (gold) during the last few years, inasmuch as the mines are concerned. On the other hand, we have an increase in the production of placer gold. These latter deposits have a great future in the southern parts of Chile—namely, Cautin, Valdivia, and Magallanes (Magellan). During the last few years these deposits have been worked by the hydraulic and dredge system, although this latter has not proved a commercial success, due perhaps to the fact that the work has been purely experimental and also on account of the crisis that the country had to suffer last year. In 1907 the total gold production was 1,500,000 grams, with a value, in round numbers, of \$2,500,000 of 18d. (A Chilean dollar equals \$0.354 American.)

In Chile no great companies have been formed for the systematic exploitation of gold mines, which to a certainty exist in abundance, because there is a peculiar tendency to direct attention more to copper, due, undoubtedly, to the high price to which the red metal has risen.

## SILVER.

The past has shown the abundance and the wealth of our great silver deposits, such as Huantajaya, Chañarcillo, Caracoles, Tres Puntas, Esmeralda, Babeza de Vaca, Arqueros, Marquesa, etc., which, with their great richness have, so to speak, somewhat weakened the enterprising spirit of our miners who do not feel themselves inclined to work low-grade deposits under industrial conditions.

The metallurgy of silver ores is extremely undeveloped; there are few amalgamation plants working on the old system (arrastra).

In the smelting of silver ores with lead minerals there is no activity, although there exists a sure base for this class of installation.

The silver production in 1907 was 10,433 kilograms, being a little higher than in former years.

## COPPER.

Mining energies have been directed chiefly to copper, and to this fact is due the increase realized in the production of this metal, so that we are recovering our old standard of production, though the progress is slower than one would naturally expect it to be.

There was a time—in 1879, about—when Chile used to produce 30 per cent of the world's output; nowadays it only produces 4 per cent, or 28,854 tons, to 1907. Nevertheless, it is satisfactory to be able to announce for the year that now ends a minimum production of 35,000 tons of refined copper, which production will increase with the opening of the rich deposits of Collahuasi, Calama, Chiquicamata, and several others, as also with the starting of establishments of greater capacity for our lower-grade ores.

The mean copper percentage of our ores worked in Chile during 1907 was 9½ per cent, a portion of which goes abroad, with a mean percentage of 20 per cent, as raw ore to be treated there. The modern metallurgy of copper is well represented by practical and simple methods, in which all modern progress is considered. All that is lacking is the systematic development of the mines, which in general terms are not worked for large production. This is the reason why mines worked for a long time more or less constantly show little depth. The greatest depth arrived at in Chile is about 1,000 meters—at the Dulcinea mine in Piquios, Copiapo; but this is an exception. The mines that go beyond 500 meters are not more than eight in all the Republic, while depths of 150 to 200 meters are very common. These facts give an idea of the small scale of the work.

The investment of capital in mining, even in that of copper, is very small as compared with its merits and with what it could return.

For a long time the idea has been predominant that our national deposits are very large, numerically considered, but small in area—that is to say, incapable of a great production. This is completely erroneous.

Undoubtedly, in our country, we do not possess a Rio Tinto, a Michigan, or a Montana; but many other countries do not possess them either. But, on the other hand, to show that all this comes from a lack of knowledge of our deposits, we can quote the Braden Copper Company of Rancagua. This company undertook, with sufficient

capital, the exploitation of the old mines of Teniente, worked during fifty years with the object of forming a mine, but without having at its disposition the necessary resources; and now, after two-and-a-half years' labor, this company has guaranteed the existence of ore for an output of 2,500 tons daily, which means that this deposit alone will produce a tonnage two-and-a-half times greater than the total tonnage of the country, and perhaps the same may be said within a short time of the smelter in course of construction under the direction of Count Bernard de Saint Seine in the zone of Naltagua, in the department of Melipilla.

### BRAZIL.

The American ambassador at Petropolis states that the gold production of Brazil in 1908 was 4,157,367 grams, which amount, taken at a fineness, formerly reported, of 0.795, would give a product of 106,259 fine ounces, of the value of \$2,196,568.

### COMMERCE AND MINING IN 1908.

[From Bulletin of the International Union of the American Republics, July, 1909.]

\* \* \* \* \*  
The gold deposits existing in the Caixa de Conversão on December 31, 1908, amounted to \$27,154,141.92, which shows a decrease of \$3,233,542.68 over the deposits on the same date of last year.

The imports of gold coins amounted to \$688,537, while gold exports were only \$100,602.

Specie imports for 1907 and 1908 are reported as \$708,000 and \$22,000,000, respectively.

Exchange was maintained throughout the year at an average of  $15\frac{5}{32}$  per cent.

\* \* \* \* \*  
Old Portuguese records fixed the annual gold product of the country at over \$5,000,000 annually, a large proportion of which was obtained from Bahia.

A very rich deposit of surface gold was recently discovered at a point called Olho de Agua, 8 kilometers from the city of Montes Claros, in the northern part of the State of Minas, Brazil, and prospectors to the number of 3,000 are in the field. Gold to the value of about \$150,000 has been secured in flakes varying from 100 to 720 grams each. One of the latter, owing to its unusual weight, was exhibited in the National Exposition in Rio de Janeiro.

The most important placer is the basin of gold-bearing gravel below Guanay, reached by descending the Beni or Kaka River. This placer has been exploited to a considerable extent. The Incahuara basin, on the Beni River, and the gold-bearing gravel found on the banks of the Inambari River are also rich deposits, the gold being obtained from a black sand. Samples assayed ran over 80 ounces to the ton.

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### EXPORTS OF GOLD, 1905-6.

[From Bulletin of the International Union of the American Republics, April, 1909.]

The Jornal do Commercio of January 4, 1909, publishes comparative statistics covering exports of Brazilian gold for 1906, the latest period for which statistics are available, compared with 1905, as follows:

| Metal.    | 1906.                      |             | 1905.                      |             |
|-----------|----------------------------|-------------|----------------------------|-------------|
|           | Quantity.                  | Value.      | Quantity.                  | Value.      |
| Gold..... | <i>Grams.</i><br>4,547,940 | \$2,204,814 | <i>Grams.</i><br>3,878,698 | \$1,946,342 |

As is well known, Brazil was formerly one of the greatest gold-producing countries of the world, occupying in this respect the same position held by California and Australia in the nineteenth century. At the present time, however, Brazil produces gold in relatively small quantity, as is seen from the above figures. This decline is attributed to several causes. Many of the gold-bearing gravels and veins which formerly yielded so abundantly have become exhausted, and, although new mines have been discovered, the high prices of labor, and in many cases the absence of streams, render their exploitation unprofitable. The greatest obstacle, however, to progress in the gold-mining industry is the fact that the State where it still shows signs of life is absolutely devoid of mining legislation. It is not probable that much progress will be made in the industry until state and federal legislatures enact adequate mining laws and the owners of gold-bearing lands come to have a better understanding of their true interests.

\* \* \* \* \*

COLOMBIA.

The United States Bureau of Statistics, Department of Commerce and Labor, reports that gold in ore and bullion was imported from Colombia during 1908 valued at \$1,937,346 and silver in ore and bullion valued at \$26,140.

The Annual Statement of the Trade of the United Kingdom for 1908 shows that Great Britain received from Colombia in 1908, 78,977 ounces of gold bullion of British standard fineness, equivalent to 72,395 fine ounces, valued at \$1,476,537, and gold in ore valued at £2,765, or \$13,456, representing 651 ounces. The commercial value of the silver bullion and ore imported into Great Britain from Colombia was \$553,114, representing 1,034,051 fine ounces; a total gold importation into the United States and Great Britain of \$3,427,339, representing 165,797 fine ounces; and a silver importation of \$579,254, representing 1,082,920 fine ounces.

The silver coinage of Bogota during 1908 was 870,526 50-cent pieces, containing 292,119 fine ounces, of the commercial value of \$156,254. The coinage is supposed to have been made from the product of silver for the year, and is, consequently, added to the exports in order to obtain the total product; accordingly, the total gold product would be \$3,427,339, representing 165,797 ounces, fine, and the silver product, 1,375,039 fine ounces, of a commercial value of \$735,508.

COMMERCE AND MINERAL PRODUCTION IN 1908.

[From Bulletin of the International Union of the American Republics, July, 1909.]

\* \* \* \* \*

Gold was shipped to the United States from Colombia during 1908 to the value of \$789,241.33.

\* \* \* \* \*

In some departments, notably Antioquia, the mineral industry is well established, while the Marmato and Riosucio gold deposits are said to be equal to those of the Transvaal. A French company has been organized for the exploitation of the surface veins of Alta, Baja, and Vetas, in the Department of Santander. Large quantities of machinery and material have been sent to the country for the equipment of the plant, and engineers have arrived for the immediate installation of the works.

The Choco district is of recognized importance, and at present native and foreign companies are engaged in the development of the region. It is said that the entire Pacific coast of Colombia has been formed by gold-bearing alluvial, so that with more effective development a great mining center will be established. Near Tuquerres and Samaniego, in the Department of Nariño, gold deposits are being profitably worked,

while in the central cordillera region exploitation has scarcely begun. Abundant deposits of coal, iron, copper, lead, and cinnabar are known to exist on both slopes, so that Colombia may be regarded as a rich storehouse of minerals, as well as a vast area of agricultural and pastoral resources.

The great gold-bearing region is found in the lofty cordilleras of the Choco and Antioquia provinces and in the mountain ranges that separate the Cauca and Magdalena rivers. In this large area of many thousands of square miles, wherever there is gravel there is gold, and back in the mountains where the rock has been laid bare veins are found everywhere. These veins contain vast treasures of gold that can be extracted by the systematic use of modern machinery and methods. Many hundreds of miles of this rich territory have never been explored except by the Indian hunter.

The Choco placer region has twice as much territory as both the California and New Zealand regions together, and the possibilities for development are infinite. The construction of the Colombian Central Railroad will greatly stimulate mining in this part of the Republic, its northern terminal being opposite the mouth of the Atrato River. Much of the gravel of the river beds of the gold-bearing rivers of Colombia can not be worked because it is impossible to divert the streams, and the huge boulders and hard bed rock, together with torrential currents, often render dredging impossible by any of the methods known to the mining industry of the present day.

Recent gold discoveries near Neiva, on the upper Magdalena River, have opened up a new section of the gold belt. It is known that the State of Nariño, bordering on the Ecuador line, is rich in gold. Gold nuggets are found in the gravel beds of all the rivers of this section flowing into the Pacific Ocean.

The development of the quartz mining depends almost entirely upon transportation. The extension of the Dorado Railroad and the Tolima Railroad will facilitate transport to some of the mines of the eastern slopes of the gold belt of the Republic, and the Colombian Central Railroad, when completed, will pass through the very heart of the gold region and, in addition, will provide direct transportation from the coast.

Discoveries have been made of rich gold-bearing quartz on the headwaters of the Andagueda and Chirvigo rivers, distant about 125 miles from Quibdo, one ledge being reported 18 feet wide, running about \$50 gold per ton, and other veins, one carrying about 8 to 10 per cent copper, range from 6 to 8 feet in width.

Russia is the only country whose platinum output exceeds that of Colombia. This metal, which is always found mixed with gold, comes from the gravels of the Choco, its main source being the Platina and Condoto rivers, which are tributary to the San Juan River. It is also obtained from some of the streams that flow into the Atrato River.

Government returns covering platinum exploitation have not been published for a more recent period than 1905, but from records in the Bureau of Statistics of Bogota the total yield for exploitation during 1907 amounted to about 245 ounces. There is undoubtedly a great future for this branch of mining industry in the Republic, and concessions recently granted foreshadow the intention to adequately exploit it as a source of national wealth.

\* \* \* \* \*

## ECUADOR.

The United States consul-general at Guayaquil, Ecuador, writes that the gold product of that State in 1908 was valued at \$350,292 and the silver product at \$12,111, commercial value. These values represent 16,945 ounces of gold and 22,642 ounces of silver.

## THE GUIANAS.

### BRITISH GUIANA.

The United States consul at Georgetown states that there were produced in British Guiana in 1908, 73,639 ounces of gold of an average fineness of 0.920 to 0.930, which would equal 68,116 ounces of fine gold, of the value of \$1,408,083.

## DUTCH GUIANA.

From the same source as that mentioned above the product of Dutch Guiana is given as \$662,960. This amount represents 32,071 fine ounces.

## FRENCH GUIANA.

The United States minister at Paris states that the gold product of French Guiana for 1907 was 4,160 kilograms, valued at 12,232,000 francs, equivalent, in United States money, to \$2,360,776, representing 114,202 fine ounces. These figures are repeated for the product of 1908.

## BRITISH GUIANA'S MINING INDUSTRY.

[From the Mining Journal, London, December 19, 1908.]

## EXPORTS OF GOLD FROM JANUARY 1 TO NOVEMBER 25.

| Year.     | Quantity.              | Value.         |
|-----------|------------------------|----------------|
|           | <i>Ozs. dwts. grs.</i> |                |
| 1907..... | 61,030 15 17           | \$1,066,214.41 |
| 1908..... | 62,921 19 11           | 1,113,125.04   |

[From Colonial Reports, No. 589, for 1907-8.]

The gold won during the year amounted to 67,209 ounces, or some 18,295 less than the output for the previous year. The decrease is due to the smaller returns from the alluvial workings. The fields originally worked are gradually being exhausted, and no new ones have been found to take their place. A large number of men previously engaged in the gold fields have now turned their attention to other pursuits, such as rice planting, etc., and prospecting has practically been at a standstill.

Quartz mining was continued during the greater part of the year at the Peters mine, on the Purini River. Some 8,916 tons of ore were crushed, from which 5,815 ounces 13 pennyweights 8 grains of gold were won. A considerable amount of development work has been undertaken since the last report. Development work has also been steadily carried on at the Barima mine. Dredging operations have continued on the Konawaruk River, and about 2,652 ounces of gold were obtained by this method. The richer gravels of the higher parts of the river have not yet been worked, and better returns may confidently be looked for in the future.

## BRITISH GUIANA MINES.

[From The Engineering and Mining Journal, New York, February 20, 1909.]

Exports of gold from British Guiana for the year ended December 31 were 70,676 ounces bullion in 1907 and 73,089 ounces in 1908, an increase of 2,413 ounces. The bullion reported in 1908 was equal to \$1,289,948, or 62,407 ounces fine gold.

## DUTCH GUIANA.

## GOLD PRODUCTION IN SURINAM.

| Year.     | Quantity.     | Year.     | Quantity.     |
|-----------|---------------|-----------|---------------|
|           | <i>Kilos.</i> |           | <i>Kilos.</i> |
| 1901..... | 753           | 1905..... | 1,071         |
| 1902..... | 588           | 1906..... | 1,188         |
| 1903..... | 682           | 1907..... | 1,105         |
| 1904..... | 801           | 1908..... | 1,210         |

## GOLD IN FRENCH GUIANA.

[From L'Économiste Européen, Paris, September 3, 1909.]

The "Journal officiel de la Guyane française" has recently published the amount of the production of gold, from custom-house statistics, since 1866. We give a statement of the amount in the following table:

| Year.     | Quantity.     | Year.     | Quantity.     |
|-----------|---------------|-----------|---------------|
|           | <i>Kilos.</i> |           | <i>Kilos.</i> |
| 1866..... | 228           | 1896..... | 4,928         |
| 1871..... | 728           | 1901..... | 2,921         |
| 1876..... | 1,858         | 1905..... | 3,462         |
| 1881..... | 1,977         | 1906..... | 3,563         |
| 1886..... | 1,594         | 1907..... | 4,057         |
| 1891..... | 1,896         | 1908..... | 4,300         |

We see that the production of gold in French Guiana reached its maximum in 1896, which was the year of the discovery of Carsewene.

It afterwards declined and fell to 2,170 kilograms in 1900. The discovery of the Imni, in 1901, made it reascend to 4,246 kilograms in 1902, but in 1905 we find a considerable decrease, to 3,462 kilograms. It is notable, however, that since 1905 it has maintained a rising movement.

*Gold exports.*—The chief export of this colony is gold dust, valued at \$1,867,285 in 1907.

## PERU.

In the absence of any official data relative to the production of gold and silver in Peru in 1908, the returns from the United States minister at Lima for 1907 are repeated for 1908, viz: Gold, 24,890 fine ounces, valued at \$514,522, and silver, 9,566,118 fine ounces, which, at the average price of silver for the year 1907 (\$0.5349), gives the commercial value of \$5,116,917.

## THE MINERAL STATISTICS OF PERU FOR 1907.

[From The Mining Journal, London, February 13, 1909. Specially abstracted for "The Mining Journal" from "Boletín del Cuerpo de Ingenieros de Minas del Peru," No. 67, Lima, 1908.]

The following table shows the gold and silver production for 1907, as compared with the four previous years:

| Years.    | Gold.         | Silver.                  |
|-----------|---------------|--------------------------|
|           | <i>Kilos.</i> | <i>Tons.<sup>a</sup></i> |
| 1903..... | 1,078         | 171                      |
| 1904..... | 601           | 145                      |
| 1905..... | 777           | 191                      |
| 1906..... | 1,247         | 230                      |
| 1907..... | 778           | 208                      |

<sup>a</sup> Metric tons of 2,204.6 pounds avoirdupois.

*Gold.*—The production of gold from 28 districts (12 Departments) amounts to 25,013 Troy ounces, or 15,089 ounces less than in 1906.

*Silver.*—The production of fine silver from 30 districts (10 Departments) amounts to 6,687,304 Troy ounces, or 716,934 ounces less than in 1906.

## URUGUAY.

The number of the BULLETIN of the International Union of the American Republics for July, 1909, states that the mining works of Cuñapiru during 1908 yielded 102,395 kilograms of gold, worth \$45,056, and that the alluvial deposits and quartz from two other mines were valued at \$46,586. The total of these two amounts gives \$91,642, which represents 4,433 ounces, fine.

## VENEZUELA.

The United States Bureau of Statistics, Department of Commerce and Labor, reports that the value of the imports of gold in ore and bullion from Venezuela during 1908 was \$24,471, representing 1,184 ounces, fine.

The annual statement of the trade of the United Kingdom for 1908 shows that Great Britain imported silver ores from Venezuela in 1908 valued at £11,500 (\$55,965), representing 104,626 ounces, fine.

## EUROPE.

## AUSTRIA-HUNGARY.

The United States chargé d'affaires at Vienna, reports that the production of gold and silver in Austria during 1908 was as follows:

| Source.                | Gold.              |                | Silver.            |                |
|------------------------|--------------------|----------------|--------------------|----------------|
|                        | Weight.            | Value.         | Weight.            | Value.         |
|                        | <i>Kilos fine.</i> | <i>Crowns.</i> | <i>Kilos fine.</i> | <i>Crowns.</i> |
| From washing.....      | 55.269             | 156,211        |                    |                |
| From amalgamation..... | 133.941            | 438,069        | 65.784             | 5,542          |
| From leaching.....     | 12.416             | 39,602         | 6.997              | 591            |
| From smelting.....     | 5.875              | 18,484         | 39,784.721         | 3,396,935      |
| Total.....             | 207.501            | a 652,366      | 39,857.502         | a 3,403,068    |

<sup>a</sup> Besides these amounts, there was produced from gold and silver bearing slimes and from copper, 8.0216 kilos of fine gold, of the value of 30,854 crowns; and 3,341.15 kilos of fine silver, of the value of 296,628 crowns.

No official information has been received relative to the production of gold and silver in Hungary for 1908, therefore the product of 1907 is repeated for 1908, viz, 3,500 kilograms of fine gold, valued at 11,480,000 crowns, and 11,870 kilograms of fine silver, valued at 1,242,789 crowns. The total is equivalent to 119,454 fine ounces for the gold product, valued in United States currency at \$2,469,334, and 1,770,457 fine ounces for the silver product, of the United States commercial value of \$947,018.

## THE PRECIOUS METALS IN BELGIUM.

From 1872 to 1884 the compant ("Société de la Vieille-Montagne") obtained from argentiferous galenas, extracted by the smelting works of Moresnet (Belgian territory), an insignificant quantity of silver (an average of 30 kilograms per year). That production has ceased.

The smelting works situated in the provinces of Liège and Limbourg (works of Bleyberg, Sclaigneaux and Overpelt) treat argentiferous ores of foreign production. The production of these establishments had, in 1908, amounted to 68,451 kilograms. The works of Overpelt has also extracted from auriferous silver 38.767 kilograms of gold.

For the forty-three years (1866-1908) the production amounted to more than 1,009,807 kilograms of fine silver.

A fourth works, started at Hoboken, near Anvers, treated ingots of lead imported principally from Spain. Their production for 1908 amounted to 154,331 kilograms of silver and 919 kilograms of gold.

#### FRANCE.

The United States ambassador at Paris gives the production of gold and silver in France for 1907, as follows:

Gold, 1,257 kilograms fine; valued at 4,330,000 francs.

Silver, 24,727 kilograms fine; valued at 2,967,000 francs.

The kilograms are equivalent to 40,412.55 fine ounces of gold, of the value of \$835,402, and 794,973 fine ounces of silver, of the commercial value of \$524,682.

No official figures have been received for 1908, therefore the product for 1907 is repeated.

#### MINERAL PRODUCTION OF FRENCH COLONIES.

[From The Engineering and Mining Journal, May 29, 1909.]

The minister of colonies has just issued the statistics of the mineral production of the French colonies for the year 1907. The quantity and value of gold produced is as follows: 7,201 kilograms, value \$4,065,878.

Gold is obtained from placer workings and dredgings in Guiana, Madagascar, West Africa, and Indo-China. The production of Guiana was 4,160 kilograms, against 3,503 kilograms in 1906, declared for a value of 11,232,097 francs; of Madagascar, 2,940 kilograms, against 2,200 in 1906; the balance came from Indo-China and West Africa.

\* \* \* \* \*

Some new companies are now working for gold in Guiana and Madagascar, but they are not yet producing.

#### GERMANY.

The following information relative to the production of precious metals in Germany in 1908 was received from the embassy of the United States at Berlin:

The German refineries produced gold and silver during 1908 as follows:

| Description.                          | Gold.         | Silver.       |
|---------------------------------------|---------------|---------------|
|                                       | <i>Kilos.</i> | <i>Kilos.</i> |
| From domestic ores.....               | 97.47         | 154,635.89    |
| From foreign ores.....                | 669.23        | 179,457.05    |
| From lead ores.....                   |               | 210.73        |
| From foreign and domestic sweeps..... | 3,991.32      | 73,530.12     |
| Total.....                            | 4,758.02      | 407,833.79    |
| Value in marks.....                   | 13,287,000    | 29,744,000    |

Only the amounts refined from domestic ores are taken as the product of Germany, viz, 97.47 kilograms of fine gold, and 154,635.89 kilograms of fine silver. These amounts are equivalent to 3,134 ounces of gold and 4,971,544 ounces of silver, the respective values of which are \$64,785 and \$2,659,279.

#### GREAT BRITAIN.

Official information received from the United States embassy at London, relative to the product of gold and silver in that country in 1908, gives the gold as 24 kilograms fine and silver as 4,207 kilo-

grams fine. These amounts are equivalent to 772 ounces fine of gold, and 135,255 ounces fine of silver, the respective values of which are \$15,959 and \$72,348.

BRITISH EMPIRE'S GOLD OUTPUT, 1893-1907.

| Source of production and year. | Value. | Source of production and year.           | Value.    |
|--------------------------------|--------|--|-----------|
| United Kingdom:                |        | British India (including native States): |           |
| 1893.....                      | £8,691 | 1893.....                                | £759,826  |
| 1894.....                      | 14,811 | 1894.....                                | 778,192   |
| 1895.....                      | 18,520 | 1895.....                                | 950,329   |
| 1896.....                      | 5,035  | 1896.....                                | 1,398,549 |
| 1897.....                      | 7,185  | 1897.....                                | 1,568,065 |
| 1898.....                      | 1,299  | 1898.....                                | 1,608,504 |
| 1899.....                      | 12,086 | 1899.....                                | 1,724,906 |
| 1900.....                      | 52,147 | 1900.....                                | 1,893,107 |
| 1901.....                      | 22,042 | 1901.....                                | 1,931,030 |
| 1902.....                      | 14,570 | 1902.....                                | 1,970,701 |
| 1903.....                      | 19,308 | 1903.....                                | 2,303,210 |
| 1904.....                      | 73,925 | 1904.....                                | 2,366,079 |
| 1905.....                      | 21,222 | 1905.....                                | 2,416,971 |
| 1906.....                      | 6,569  | 1906.....                                | 2,230,284 |
| 1907.....                      | 6,228  | 1907.....                                | 2,133,691 |

AUSTRALIA.

SELF-GOVERNING COLONIES.

| Year.     | New South Wales. | Victoria.  | South Australia. <sup>a</sup> | Western Australia. <sup>b</sup> | Tasmania. | Queensland. | Total. <sup>c</sup> |
|-----------|------------------|------------|-------------------------------|---------------------------------|-----------|-------------|---------------------|
| 1893..... | £651,286         | £2,684,504 | £153,132                      | £421,385                        | £145,875  | £2,159,290  | £6,215,472          |
| 1894..... | 1,156,717        | 2,867,816  | 152,092                       | 787,099                         | 225,485   | 2,378,288   | 7,567,497           |
| 1895..... | 1,315,929        | 2,960,344  | 128,792                       | 879,748                         | 212,329   | 2,210,887   | 7,708,029           |
| 1896..... | 1,073,360        | 3,220,348  | 112,759                       | 1,068,808                       | 237,574   | 2,241,347   | 7,954,196           |
| 1897..... | 1,104,315        | 3,251,064  | 120,044                       | 2,564,977                       | 289,241   | 2,553,141   | 9,882,782           |
| 1898..... | 1,201,743        | 3,349,028  | 95,143                        | 3,990,698                       | 281,485   | 2,750,349   | 11,668,446          |
| 1899..... | 1,623,320        | 3,353,022  | 79,041                        | 6,246,732                       | 327,545   | 2,838,119   | 14,467,779          |
| 1900..... | 1,070,920        | 3,190,940  | 82,188                        | 6,007,611                       | 316,220   | 2,871,709   | 13,539,588          |
| 1901..... | 737,164          | 3,102,753  | 93,222                        | 7,235,653                       | 295,176   | 2,541,764   | 14,005,732          |
| 1902..... | 684,970          | 3,062,028  | 95,203                        | 7,947,662                       | 301,573   | 2,720,512   | 14,811,948          |
| 1903..... | 1,080,029        | 3,259,482  | 90,250                        | 8,770,719                       | 254,403   | 2,839,801   | 16,294,684          |
| 1904..... | 1,146,109        | 3,252,045  | 80,008                        | 8,424,226                       | 280,015   | 2,714,934   | 15,897,337          |
| 1905..... | 1,165,013        | 3,173,744  | 76,824                        | 8,305,654                       | 312,380   | 2,517,295   | 15,550,910          |
| 1906..... | 1,078,866        | 3,280,478  | 81,225                        | 7,622,749                       | 254,963   | 2,313,464   | 14,631,745          |
| 1907..... | 1,050,730        | 2,954,617  | 42,468                        | 7,210,749                       | 277,607   | 1,978,938   | 13,515,109          |

| Year.     | Dominion of New Zealand. | Natal. | Cape of Good Hope. | Dominion of Canada. | Transvaal. <sup>d</sup> | Total.     |
|-----------|--------------------------|--------|--------------------|---------------------|-------------------------|------------|
| 1893..... | £913,138                 | £187   | £1,989             | £200,672            | .....                   | £1,115,986 |
| 1894..... | 887,839                  | 259    | 1,115              | 231,922             | .....                   | 1,121,135  |
| 1895..... | 1,162,164                | 540    | 581                | 428,152             | .....                   | 1,591,437  |
| 1896..... | 1,041,428                | 161    | 530                | 566,049             | .....                   | 1,608,168  |
| 1897..... | 980,204                  | 157    | 308                | 1,238,428           | .....                   | 2,219,097  |
| 1898..... | 1,080,691                | 64     | 456                | 2,830,506           | .....                   | 3,911,717  |
| 1899..... | 1,513,173                | 238    | 508                | 4,368,819           | .....                   | 5,882,738  |
| 1900..... | 1,439,602                | 51     | 488                | 5,734,552           | .....                   | 7,174,693  |
| 1901..... | 1,753,783                | 607    | 301                | 4,957,911           | <sup>d</sup> £1,097,219 | 7,809,821  |
| 1902..... | 1,951,433                | 331    | 101                | 4,385,870           | 7,301,501               | 13,639,236 |
| 1903..... | 2,037,831                | .....  | 46                 | 3,871,534           | 12,628,057              | 18,537,468 |
| 1904..... | 1,987,501                | .....  | 139                | 3,383,962           | 16,028,883              | 21,400,485 |
| 1905..... | 2,093,936                | 458    | 367                | 3,003,248           | 20,854,440              | 25,952,449 |
| 1906..... | 2,270,904                | 308    | 1,117              | 2,362,902           | 24,616,704              | 29,251,935 |
| 1907..... | 2,027,490                | 3,730  | 2,386              | 1,698,868           | 27,410,210              | 31,142,684 |

<sup>a</sup> Including northern territory.

<sup>b</sup> The figures represent the quantity of gold "Entered for export," as well as that received at the Perth branch of the Royal Mint.

<sup>c</sup> The figures for years prior to 1906 are taken from the several Australian state returns and differ slightly in some cases from those obtainable from the Commonwealth returns.

<sup>d</sup> The gold production of the Transvaal is only included from May, 1901—the date of resumption of mining operations after annexation in September, 1900.

## AUSTRALIA—continued.

## OTHER COLONIES AND POSSESSIONS.

| Year.     | Federated Malay States. | Sarawak. | Territory of Papua. <sup>a</sup> | Bechuanaland Protectorate. | Swaziland. | Southern Rhodesia. <sup>b</sup> | Gold Coast. | British Guiana. <sup>c</sup> | Total.    | Grand total. |
|-----------|-------------------------|----------|----------------------------------|----------------------------|------------|---------------------------------|-------------|------------------------------|-----------|--------------|
| 1893..... |                         | £2,764   | £4,500                           |                            |            |                                 | £79,099     | £505,049                     | £591,412  | £7,922,870   |
| 1894..... |                         | 5,494    | 3,906                            |                            |            |                                 | 76,796      | 484,876                      | 571,072   | 9,259,704    |
| 1895..... | £48,357                 | 3,107    | 2,596                            |                            |            |                                 | 91,497      | 442,185                      | 587,711   | 9,887,177    |
| 1896..... | 77,794                  |          | 45,000                           |                            |            |                                 | 86,186      | 464,768                      | 673,748   | 10,236,112   |
| 1897..... | 96,583                  | 2,871    | 73,085                           |                            |            |                                 | 84,798      | 442,935                      | 613,272   | 12,715,151   |
| 1898..... | 79,605                  | 2,270    | 56,682                           |                            |            | £59,598                         | 63,838      | 412,395                      | 674,388   | 16,254,551   |
| 1899..... | 72,219                  | 52,666   | 64,425                           |                            |            | 205,690                         | 51,300      | 411,211                      | 857,511   | 21,208,028   |
| 1900..... | 68,192                  | 84,371   | 89,075                           | £19,105                    |            | 308,219                         | 38,007      | 415,997                      | 1,022,966 | 21,737,247   |
| 1901..... | 77,795                  | 119,419  | 79,006                           |                            |            | 610,389                         | 22,187      | 369,439                      | 1,277,689 | 23,093,242   |
| 1902..... | 63,390                  | 116,747  | 76,047                           |                            |            | 687,096                         | 96,880      | 381,080                      | 1,421,240 | 29,872,424   |
| 1903..... | 56,662                  | 150,152  | 87,545                           | 431                        |            | 827,729                         | 254,791     | 329,350                      | 1,712,660 | 30,544,812   |
| 1904..... | 74,875                  | 170,550  | 84,930                           |                            |            | 969,343                         | 345,608     | 349,504                      | 1,994,810 | 39,292,632   |
| 1905..... | 45,812                  | 183,996  | 82,736                           | 10,617                     |            | 1,449,985                       | 596,583     | 349,510                      | 2,719,239 | 44,222,598   |
| 1906..... | 46,320                  | 165,138  | 87,869                           | 18,732                     |            | 1,985,099                       | 822,025     | 316,900                      | 3,442,083 | 47,325,763   |
| 1907..... | 61,412                  |          | 58,886                           | 20,406                     | £2,197     | 2,178,886                       | 1,130,975   | 245,035                      | 3,697,797 | 48,355,590   |

<sup>a</sup> Estimated figures.

<sup>b</sup> Figures for year ended June 30.

<sup>c</sup> For the twelve months ended March 31 of the years following those stated.

NOTE.—The quantity of gold produced in the several colonies and protectorates is stated in units of varying degrees of fineness, but for the most part fine ounces are given. Where production figures are not available, domestic exports figures are given.

For the British Empire the figures are mainly based upon official returns, but values for India and Canada are partly estimated. In the case of foreign countries the figures given have been arrived at on careful estimates from somewhat meager data. It is mainly to be noted that whereas in 1898 the British Empire (in which the Transvaal with its output valued at £16,044,135 is included to render the comparison a fair one) contributed 57 per cent (£33,938,000), and all other countries 43 per cent (£25,485,000); of the aggregate output in 1908 (on estimates) the British proportion apparently rose to about 60.2 per cent (£53,040,000), and the foreign proportion apparently fell to about 39.8 per cent (£35,000,000).

## BRITISH EMPIRE'S SILVER OUTPUT, 1893-1907.

| Source of production and year. | Value.  | Source of production and year. | Value.  |
|--------------------------------|---------|--------------------------------|---------|
| United Kingdom:                |         | United Kingdom—Continued.      |         |
| 1893.....                      | £40,687 | 1901.....                      | £19,764 |
| 1894.....                      | 33,313  | 1902.....                      | 14,737  |
| 1895.....                      | 34,908  | 1903.....                      | 18,036  |
| 1896.....                      | 36,365  | 1904.....                      | 17,549  |
| 1897.....                      | 28,614  | 1905.....                      | 19,419  |
| 1898.....                      | 23,728  | 1906.....                      | 19,083  |
| 1899.....                      | 21,942  | 1907.....                      | 19,331  |
| 1900.....                      | 22,465  |                                |         |

## AUSTRALIA.

## SELF-GOVERNING COLONIES.

| Year.     | New South Wales. | Victoria, <sup>a</sup> | South Australia, <sup>b</sup> | Western Australia. | Tasmania, <sup>c</sup> | Queensland. | Total.   |
|-----------|------------------|------------------------|-------------------------------|--------------------|------------------------|-------------|----------|
| 1893..... | £78,131          | £6,375                 | .....                         | .....              | £198,610               | £42,408     | £325,524 |
| 1894..... | 94,150           | 5,996                  | £132                          | .....              | 293,043                | 22,077      | 415,398  |
| 1895..... | 81,858           | 6,419                  | .....                         | .....              | 175,957                | 30,042      | 294,276  |
| 1896..... | 26,518           | 6,703                  | .....                         | .....              | 229,660                | 32,162      | 295,043  |
| 1897..... | 16,711           | 8,667                  | .....                         | .....              | 200,167                | 25,118      | 250,663  |
| 1898..... | 59,278           | 9,300                  | .....                         | .....              | 188,892                | 10,585      | 268,055  |
| 1899..... | 76,913           | 11,546                 | .....                         | .....              | 250,331                | 15,671      | 354,461  |
| 1900..... | 90,243           | 6,846                  | .....                         | £3,594             | 279,372                | 12,712      | 392,767  |
| 1901..... | 50,484           | 6,550                  | .....                         | 7,609              | 207,228                | 62,241      | 334,112  |
| 1902..... | 105,360          | 4,900                  | .....                         | 9,190              | 218,864                | 70,145      | 407,459  |
| 1903..... | 113,755          | 4,898                  | 804                           | 19,153             | 192,492                | 65,538      | 396,640  |
| 1904..... | 123,256          | 4,900                  | .....                         | 45,912             | 203,702                | 71,858      | 449,718  |
| 1905..... | 52,196           | 4,100                  | 1,626                         | 44,278             | 246,888                | 69,176      | 418,264  |
| 1906..... | 36,431           | 4,980                  | 10,410                        | 37,612             | 462,443                | 101,693     | 653,569  |
| 1907..... | 275,314          | 4,355                  | 780                           | 25,382             | 572,560                | 112,540     | 972,931  |

<sup>a</sup> Quantity and value extracted at the Melbourne mint.

<sup>b</sup> Including northern territory.

<sup>c</sup> The figures given for Tasmania for value represent the value of "silver-lead ore" produced, according to the annual reports of the Tasmania secretary for mines.

The total given in the above table for the Australian Commonwealth are for the most part exclusive of the value of "silver" contained in silver-lead bullion and ore, the value of which can not be stated. The Commonwealth government state that in practically all cases the particulars available concerning the total production of silver in the Commonwealth are statistics of exports, and according to returns furnished by that government the estimated value of silver-lead and "silver-lead bullion and ore" produced in Australia in the above-mentioned years was as follows:

| Year.     | New South Wales. | Victoria. | South Australia. | Western Australia. | Tasmania. | Queensland. | Total.     |
|-----------|------------------|-----------|------------------|--------------------|-----------|-------------|------------|
| 1893..... | £3,035,925       | £6,375    | £755             | .....              | £153,859  | £42,408     | £3,239,322 |
| 1894..... | 2,289,749        | 6,152     | 281              | .....              | 217,844   | 26,447      | 2,540,473  |
| 1895..... | 1,642,868        | 6,419     | 50               | .....              | 227,916   | 33,676      | 1,910,929  |
| 1896..... | 1,785,710        | 6,703     | 2,127            | £4                 | 222,948   | 38,342      | 2,055,834  |
| 1897..... | 1,698,637        | 8,667     | 2,668            | 44                 | 216,893   | 29,235      | 1,956,144  |
| 1898..... | 1,723,337        | 9,540     | 4,911            | 96                 | 167,618   | 13,065      | 1,918,567  |
| 1899..... | 2,170,446        | 11,546    | 4,292            | 912                | 208,869   | 16,401      | 2,412,466  |
| 1900..... | 2,743,263        | 6,846     | 22,428           | 4,127              | 252,080   | 16,071      | 3,044,815  |
| 1901..... | 1,954,964        | 6,550     | 3,906            | 3,761              | 325,335   | 69,234      | 2,367,750  |
| 1902..... | 1,487,837        | 4,900     | 42,063           | 9,467              | 387,024   | 72,851      | 2,004,142  |
| 1903..... | 1,539,989        | 4,898     | 10,870           | 19,153             | 428,125   | 109,177     | 2,112,212  |
| 1904..... | 2,131,504        | 4,990     | 1,387            | 45,912             | 318,971   | 96,418      | 2,599,182  |
| 1905..... | 2,496,709        | 4,100     | 3,244            | 44,278             | 415,248   | 102,388     | 3,065,967  |
| 1906..... | 2,864,057        | 4,980     | 12,982           | 37,612             | 562,704   | 151,577     | 3,623,912  |
| 1907..... | 3,915,946        | 4,355     | 13,873           | 25,382             | 572,560   | 187,870     | 4,719,986  |

| Year.     | Dominion of New Zealand. | Dominion of Canada. | Transvaal. | Other colonies and possessions; southern Rhodesia. | Total.    |
|-----------|--------------------------|---------------------|------------|--|-----------|
| 1893..... | £9,743                   | £67,860             | .....      | .....  | £77,603   |
| 1894..... | 6,697                    | 109,777             | .....      | .....  | 116,474   |
| 1895..... | 10,679                   | 211,705             | .....      | .....  | 222,384   |
| 1896..... | 10,589                   | 441,842             | .....      | .....  | 452,431   |
| 1897..... | 20,872                   | 683,142             | .....      | .....  | 704,014   |
| 1898..... | 33,107                   | 533,197             | .....      | .....  | 566,304   |
| 1899..... | 40,838                   | 417,824             | .....      | £12  | 458,674   |
| 1900..... | 38,879                   | 563,297             | .....      | 95   | 602,271   |
| 1901..... | 65,258                   | 671,212             | .....      | 313  | 736,783   |
| 1902..... | 71,975                   | 460,106             | £13,025    | 346  | 545,452   |
| 1903..... | 91,497                   | 351,426             | 36,961     | 2,072  | 481,956   |
| 1904..... | 112,875                  | 420,792             | 47,813     | 7,015  | 588,495   |
| 1905..... | 120,542                  | 743,633             | 63,773     | 10,394   | 938,342   |
| 1906..... | 143,572                  | 1,176,414           | 83,620     | 14,253   | 1,417,859 |
| 1907..... | 169,484                  | 1,712,118           | 93,947     | 20,199   | 1,995,748 |

## GREECE.

This bureau has received no official information relative to the product of silver in Greece since 1905, and, accordingly, the product for that year is repeated for 1908, viz, 829,025 ounces, fine, of the commercial value of \$443,445.

## ITALY.

According to the "Revista del Servizio Minerario," Rome, 1909, the product of gold ore from mines of Italy during 1908 amounted to 14,671 tons, valued at 241,115 lire (at 16.43 lire per ton), equivalent in United States currency to \$46,535, representing 2,251 ounces, fine.

The product of silver ore from the only mine worked during 1908 was 53 tons, valued at 67,700 lire (at 1,277.36 lire per ton), equivalent to \$13,066, representing 24,427 ounces, fine.

The value of the silver recovered from silver-lead ores and by cupellation in the metallurgical establishments of Italy during 1908 was 1,802,644 lire, or \$347,910, representing 650,421 ounces, fine, being a total commercial value of \$360,976, representing 674,848 ounces, fine.

## ITALIAN MINING IN 1908.

[From the Mining Journal, London, December 19, 1908.]

\* \* \* \* \*

The production of lead and zinc ores increased slightly, the figures being: Zinc ores, 160,517 tons; lead ores, 43,037 tons; and mixed ores, 680 tons. The chief production was, as usual, from Sardinia, the output being practically the same as in 1906. Zinc ores were 137,580 tons as against 137,611 tons, averaging in each case 43.40 per cent metal, while the lead ores amounted to 42,247 tons against 40,679 tons, of 56 per cent metal, and 500 grams silver as in the previous year. The Pertusola and Monteponi smelters produced 22,978 tons of lead from 43,195 tons of ore treated; 20,502 kilograms of silver and 88 tons of spelter, from 2,207 tons of calamine. The great bulk of the zinc ores are exported to the Vieille Montagne works in Belgium. The only other producing center of importance is the Bergamo district, where the Vieille Montagne, the English Crown Spelter Company, and the Società Austro-Belga are working. Here the production of calamine was 15,504 tons (43.68 per cent metal), and of blende 2,141 tons (38.25 per cent metal).

\* \* \* \* \*

The output of gold ores was 13,475 tons, averaging 6.12 grams to the ton. The only mines worked were the Creas of the New Monte Rosa Mining Company, and the Fenillaz of the Evançon Gold Mining Company. The Orbeillaz mine, of the latter company, closed in February of last year, and the various prospects being opened by Mr. George Robinson, managing director of the New Monte Rosa Company, also were left idle.

\* \* \* \* \*

NORWAY.

The United States minister at Christiania reports that the Kongsberg silver mines produced during the fiscal year ending March 31, 1908, 7,035 kilograms of fine silver, equivalent to 226,175 fine ounces which, taken at the average price of silver for the calendar year 1908, gives the commercial value of \$120,981. Norway produces no gold.

SWEDEN.

According to information from the United States minister at Stockholm, the product of gold and silver in Sweden during 1908 was as follows:

|             |             |
|-------------|-------------|
|             | Kilos.      |
| Gold.....   | 21. 829     |
| Silver..... | 1, 111. 288 |

The kilograms of gold are equivalent to 702 fine ounces, and those of silver 35,728 fine ounces, the values of which are \$14,512 and \$19,111, respectively.

RUSSIA.

The United States ambassador to St. Petersburg gives the product of Russia in 1908 as 2,576 poods, 22 pounds of fine gold. This amount is equivalent to 1,356,927 fine ounces, of the value of \$28,050,170.

In the absence of any official information relative to the product of silver in that country in 1908 the figures for 1907 are repeated, viz, 250 poods, 35 pounds, equivalent to 132,122 fine ounces, of the commercial value (at the average price of silver for 1908) of \$70,672.

FINLAND.

The "Industri-Statistik" of Finland for 1907 gives the gold product in that country for 1907 as 3,559 grams, of the value of 10,750 Finnish marks, equivalent in United States money to \$2,075, representing 100 fine ounces.

GOLD PRODUCTION OF FINLAND FOR THE LAST TEN YEARS.<sup>a</sup>

| Year.     | Weight. |                | Year.     | Weight. |                |
|-----------|---------|----------------|-----------|---------|----------------|
|           | Grams.  | Finnish marks. |           | Grams.  | Finnish marks. |
| 1898..... | 4, 619  | 14, 780        | 1903..... | 2, 995  | 9, 586         |
| 1899..... | 2, 620  | 8, 384         | 1904..... | 1, 950  | 6, 241         |
| 1900..... | 2, 174  | 6, 956         | 1905..... | 925     | 2, 960         |
| 1901..... | 1, 974  | 6, 316         | 1906..... | 2, 867  | 9, 176         |
| 1902..... | 3, 256  | 10, 420        | 1907..... | 3, 559  | 10, 750        |

<sup>a</sup> From official statistics of Finland for 1907, Helsingfors, 1909.

## SERVIA.

No official information has been received by this bureau from Servia relative to the product of gold for 1908. The figures for 1906 (the latest received) are therefore repeated for 1908, viz, 2,893 ounces, fine, valued at \$59,814.

## SPAIN.

According to information received from the United States legation at Madrid, the product of silver in that country in 1908 was 129,881 kilograms, valued at the mines at 12,663,803 pesetas. This weight is equivalent to 4,175,674 fine ounces, of the commercial value of \$2,233,568.

## TURKEY.

The United States ambassador at Constantinople reports that the gold product of Turkey during 1908 was 3.374 kilograms and the silver product 247.923 kilograms. Assuming these amounts to be fine metals they are equivalent to 108 fine ounces of gold and 7,971 fine ounces of silver, the values of which are \$2,233 for the gold and \$4,264 (commercial value) for the silver.

## ASIA.

## CHINA.

As China publishes no statistics of her production of gold and silver, recourse is had to the figures of the imports of gold bullion from China by other countries.

The secretary of the United States embassy at Berlin reports that there were imported into Germany from China during 1908, 7,211 kilograms of gold bullion.

The United States ambassador at Tokyo states that the importation of gold bullion into Japan from China during 1908 was valued at 1,873,570 yen.

The "Seaborne Trade and Navigation Accounts of British India, 1908," gives the value of imports into that country from China during 1908 as £600,389.

The following table is compiled from these amounts:

| Country importing. | Weight.         | Value.      |
|--------------------|-----------------|-------------|
|                    | <i>Fine oz.</i> |             |
| Germany.....       | 231,834         | \$4,792,427 |
| Japan.....         | 45,136          | 933,038     |
| India.....         | 141,342         | 2,921,793   |
| Total.....         | 418,312         | 8,647,258   |

## INDO-CHINA.

The United States ambassador at Paris reports that the product of gold in Indo-China during 1907 amounted to 56 kilograms, valued at 165,000 francs, which is equivalent to \$31,845 in United States currency, representing 1,540 ounces, fine.

As no information has been received at this bureau relative to the product in 1908 the 1907 figures are repeated for that year.

BRITISH INDIA.

The London Mining Journal for October 23, 1909, states that the gold product of India for 1908 was 567,780 ounces, valued at £2,177,847, equivalent in United States money to \$10,598,492, representing 512,702 ounces, fine.

THE MYSORE GOLD MINE.

[From the Engineering and Mining Journal, May 22, 1909.]

The report of the Mysore Gold Mining Company of Mysore, India, for the year 1908 is again a record of prosperity. The mill crushed 206,170 tons of ore, from which gold to the value of £848,145 was recovered, or an average yield of 82s. per ton, just under 1 ounce fine gold per ton.

\* \* \* \* \*

For the last three years the operations of the company have been as follows:

| Year.     | Tons crushed. | Gold realized. |
|-----------|---------------|----------------|
| 1906..... | 185,900       | £809,413       |
| 1907..... | 194,838       | 820,114        |
| 1908..... | 206,170       | 848,145        |

\* \* \* \* \*

The ore reserves at the end of the year were estimated at 969,920 tons, excluding a quantity of low-grade ore, representing an ore supply sufficient for five years for the mills at the present increased rate of extraction. The average value of the ore reserves is not given.

\* \* \* \* \*

INDIAN MINES' GOLD OUTPUT.

[From The Mining Journal, London, April 10, 1909.]

The production in ounces since the beginning of 1905 has been as follows:

| Month.         | 1905.          | 1906.          | 1907.          | 1908.          |
|----------------|----------------|----------------|----------------|----------------|
|                | <i>Ounces.</i> | <i>Ounces.</i> | <i>Ounces.</i> | <i>Ounces.</i> |
| January.....   | 51,707         | 52,014         | 46,010         | 45,866         |
| February.....  | 50,660         | 49,538         | 43,224         | 44,191         |
| March.....     | 52,688         | 49,040         | 44,602         | 45,812         |
| April.....     | 53,374         | 46,033         | 44,573         | 45,607         |
| May.....       | 52,174         | 48,515         | 45,081         | 45,638         |
| June.....      | 52,717         | 47,816         | 44,741         | 46,000         |
| July.....      | 52,191         | 47,247         | 45,267         | 46,259         |
| August.....    | 51,758         | 46,817         | 47,640         | 46,155         |
| September..... | 52,033         | 46,638         | 44,812         | 45,794         |
| October.....   | 52,291         | 47,101         | 45,808         | 47,983         |
| November.....  | 51,906         | 46,487         | 45,878         | 48,279         |
| December.....  | 54,201         | 49,981         | 52,115         | 52,759         |
| Total.....     | 627,700        | 577,227        | 549,751        | 560,343        |

## KOLAR GOLD FIELD.

## NUNDYDROOG.

[From The Statist, London, March 13, 1909.]

| Year.     | Ore crushed. | Total value of gold secured. | Value per ton. |           |
|-----------|--------------|------------------------------|----------------|-----------|
|           |              |                              | <i>s.</i>      | <i>d.</i> |
|           | <i>Tons.</i> |                              |                |           |
| 1901..... | 52,030       | £214,267                     | 82             | 6         |
| 1902..... | 55,940       | 218,171                      | 78             | 0         |
| 1903..... | 66,860       | 264,458                      | 79             | 1         |
| 1904..... | 75,840       | 258,155                      | 68             | 0         |
| 1905..... | 79,070       | 265,251                      | 67             | 1         |
| 1906..... | 81,750       | 272,385                      | 66             | 8         |
| 1907..... | 84,000       | 283,138                      | 67             | 4         |
| 1908..... | 87,000       | 303,807                      | 69             | 10        |

## COREGUM.

| Year.     | Ore crushed. | Total value of gold secured. | Value per ton. |           |
|-----------|--------------|------------------------------|----------------|-----------|
|           |              |                              | <i>s.</i>      | <i>d.</i> |
|           | <i>Tons.</i> |                              |                |           |
| 1898..... | 67,942       | £196,600                     | 57             | 10        |
| 1899..... | 64,107       | 229,029                      | 71             | 6         |
| 1900..... | 74,867       | 312,396                      | 83             | 2         |
| 1901..... | 78,125       | 310,915                      | 82             | 2         |
| 1902..... | 106,878      | 327,846                      | 61             | 6         |
| 1903..... | 141,755      | 317,050                      | 44             | 8         |
| 1904..... | 127,449      | 276,716                      | 43             | 5         |
| 1905..... | 121,779      | 248,505                      | 40             | 9         |
| 1906..... | 122,537      | 259,250                      | 42             | 3         |
| 1907..... | 124,160      | 278,898                      | 45             | 0         |
| 1908..... | 121,886      | 329,318                      | 54             | 0         |

## INDIA'S GOLD PRODUCTION IN 1908.

[From Daily Consular and Trade Reports.]

The following figures for the gold product of India during 1908, appeared in a recent issue of the official Indian Trade Journal of Calcutta: \$10,598,492, as against \$10,349,858 in 1907.

## JAPAN.

The following figures of the production of gold and silver in Japan and Formosa during 1907 were taken from the Ninth Financial and Economic Annual of Japan, 1909:

| 1907.              | Gold.               |              |                                  | Silver.             |              |   |
|--------------------|---------------------|--------------|----------------------------------|---------------------|--------------|---|
|                    | Momme. <sup>a</sup> | Fine ounces. | Value in United States currency. | Momme. <sup>a</sup> | Fine ounces. | Value in United States currency. <sup>b</sup> |
| Japan, proper..... | 783,409             |              |                                  | 25,492,267          |              |   |
| Formosa.....       | 329,259             |              |                                  |                     |              |   |
| Total.....         | 1,112,668           | 134,146      | \$2,773,044                      | 25,492,267          | 3,073,411    | \$2,028,451                                   |

<sup>a</sup> The Momme is equivalent to 57.87 grains.<sup>b</sup> Commercial value, 66 cents per fine ounce.

The United States Ambassador at Tokyo gives the following figures of the production of Japan (exclusive of Formosa) during 1908:

| 1908.              | Gold.                |              |                                  | Silver.    |              |   |
|--------------------|----------------------|--------------|----------------------------------|------------|--------------|---|
|                    | Momme.               | Fine ounces. | Value in United States currency. | Momme.     | Fine ounces. | Value in United States currency. <sup>a</sup> |
| Japan, proper..... | 829,497              | .....        | .....                            | 31,529,833 | .....        | .....   |
| Formosa.....       | <sup>b</sup> 329,259 | .....        | .....                            | .....      | .....        | .....   |
| Total.....         | 1,158,756            | 139,703      | \$2,887,917                      | 31,529,833 | 3,801,315    | \$2,033,324                                   |

<sup>a</sup> Commercial value, \$0.5349 per fine ounce.

<sup>b</sup> Product for 1907.

KOREA.

The Ninth Financial and Economic Annual of Japan, 1909, give the value of gold exported from Korea in 1908 as 6,114,567 yen, the value of which in United States money is \$3,047,500, representing 147,423 fine ounces, which is assumed to have been the product of that country for 1908.

MINING IN KOREA.

The following is an abstract of a report on mining by Mr. Sammons, American Consul-General at Seoul, written as recently as last October:

The Japanese have completed a geological survey of the country, which has been published, together with a detailed account of the mines and mineral resources of the country.

The general trend of opinion supported in this authority is in accord with the published views of many American and European engineers, viz, that Korea is a highly mineralized country, possessing an excellent climate and an abundant supply of good and cheap labor.

Very few of the prospect discoveries have yet been developed to a greater depth than a few feet, and the natives not possessing any means of pumping out the water, usually cease work upon its appearance.

Practically all mineral deposits in Korea have been discovered by Koreans, who are considered to be good miners. They have crushed gold quartz by the primitive method of rolling a large rock upon it, and in placer mining they are credited with being among the most expert in the world. They use wooden bowls in panning, the customary size being 2½ feet in diameter.

MINING LAWS AND REGULATIONS.

While the nominal substance of the mining laws and regulations, as originally extended to Korea by the Japanese protectorate, were not considered satisfactory to investors and mine promoters, the modifications made during 1908 are accepted as meeting most of the requirements of capital in mine exploitation. Technically, however, the laws and regulations may not in all cases be accepted as entirely satisfactory other than in the spirit of a friendly administrative interpretation. Unlike American methods, the administrative department in Korea has exceptional jurisdiction, and when viewed from the point of possible unfriendly or adverse administrative supervision the modified laws and regulations may be considered unsatisfactory to capital, which is proverbially timid.

On the whole the Japanese protectorate has, in addition to materially modifying the objectionable clauses of the mining laws, recently inaugurated a policy of encouraging mining exploitation in Korea by abolishing all import taxes on machinery and tools used in mining, and by adding copper and copper concentrates to the list of

chief mineral products that may be exported free of duty. The protectorate has also accepted in principle the policy of utilizing timber lands in the vicinity of mines for the promotion of the mining industry, in that the concessionaires are to enjoy special privileges in obtaining the necessary lumber and fuel supply at reasonable cost.

Metalliferous deposits of various kinds have been located in nearly all parts of Korea. Up to the present time, however, the bulk of these deposits have been of small size, and few of them have been opened up. Speaking generally, the northern portion of the peninsula is richer than the southern.

Gold is the principal product of Korean mines. The reported yearly output (valued at approximately \$2,250,000, as shown by the customs returns) does not include a large amount of gold that is carried away by Chinese miners and others, and not accounted for in the official records.

Korea's chief gold quartz mines are included in the American concession at Unsan, which was granted originally in 1895 for twenty-five years, and, as modified and extended, may be operated until 1954. At the Unsan mines a series of large quartz lodes, occurring in granite, are being mined successfully and profitably under American management.

The quartz bands in the Unsan granite formation vary from a few inches to 10 feet in width, the greatest depth reached being 1,000 feet.

As the formation between the bands of quartz is not solid, as a rule, much timbering is required. This is particularly true in the wider formations and, consequently, a large amount of lumber is necessary to successfully operating the mines.

The timber question in Korea has, therefore, received much attention as the mineral development grows more promising. While the authorities have accepted, in principle, the proposition that that timber in the vicinity of mines is primarily to be utilized at reasonable cost for the promotion of the mining industry, an elaborate set of rules and regulations have been drawn up under the supervision of the Japanese protectorate, and the application of the same to the needs and purposes of practical mining operations is now about to be put to the test.

Without exception, it may be said that American mining interests in Korea favor the preservation of the forests without, however, endangering the successful operation of mining properties possessing vested interests based upon previous assurances of government assistance in securing an ample supply of the necessary mining lumber and fuel at reasonable cost.

\* \* \* \* \*

Silver is not at present mined in Korea, although there is evidence that silver deposits exist. The same applies to lead.

\* \* \* \* \*

### SIAM.

The United States minister at Bangkok states that the gold product of Siam for 1908 was 493 kilograms, which represents 15,850 ounces, fine, of the value of \$327,649.

### EAST INDIES.

#### BRITISH EAST INDIES.

The Report of the Department of Mines, Western Australia, 1908, gives the production of the territory of Papua (British New Guinea) during 1908, as 12,439 ounces, fine, valued at £52,837. This is equivalent to \$257,137 in United States money.

#### BRITISH NORTH BORNEO.

The figures of the gold product in Sarawak, British North Borneo, for 1907 are repeated for 1908, viz, 41,751 ounces, valued at \$863,070.

## FEDERATED MALAY STATES.

The vice and deputy consul-general from the United States in charge at Singapore gives the gold product for 1908 as 13,580.50 ounces, fine, valued at £57,686 (value in United States money, \$280,734).

## GOLD PRODUCTION OF THE FEDERATED MALAY STATES.

| Items.   | Ounces, troy. | Value at<br>£3 17s. 6d.<br>per ounce. |
|--|---------------|---------------------------------------|
| Gold exported, 1908 <sup>a</sup> .....                         | 13,652.6      | £52,903.16                            |
| Gold reported to have been bought by gold buyers in Petak..... | 1,234.2       | 4,782.10                              |
| Total.....   | 14,886.8      | 57,686.6                              |

<sup>a</sup> Pahang was the only exporting State during 1908.

## SILVER.

No silver was produced during 1908, but argentiferous galena was discovered in the Gopeng district, Petak.

## DUTCH EAST INDIES.

According to the London Mining Journal the production of gold and silver in Dutch East Indies during 1908 was 108,641 ounces of gold and 510,070 ounces of silver. Value in United States money: Gold, \$2,245,808; silver, \$272,836 (commercial value).

## AUSTRALASIA.

The Thirty-ninth Annual Report of the Deputy Master and Comptroller of the Mint, London, for 1908, gives the gold product of Australasia for 1908 as follows:

| State.                 | Weight.             | Value in<br>United States<br>currency. |
|------------------------|---------------------|--|
|                        | <i>Fine ounces.</i> |  |
| New South Wales.....   | 224,792             | \$4,646,863                            |
| New Zealand.....       | 471,968             | 9,756,444                              |
| Queensland.....        | 465,085             | 9,614,160                              |
| South Australia.....   | 9,161               | 189,375                                |
| Tasmania.....          | 57,085              | 1,180,052                              |
| Victoria.....          | 671,208             | 13,875,101                             |
| Western Australia..... | 1,647,911           | 34,065,344                             |
| Total.....             | 3,547,210           | 73,327,339                             |

According to the same report referred to above, the silver production of Australasia for 1908 is given as follows:

| State.                      | Weight.             | Commercial value. |
|-----------------------------|---------------------|-------------------|
|                             | <i>Fine ounces.</i> |                   |
| New South Wales.....        | 11,983,669          | \$6,410,065       |
| New Zealand.....            | 1,731,336           | 926,092           |
| Queensland.....             | 1,162,276           | 621,703           |
| South Australia.....        |                     |                   |
| Tasmania <sup>a</sup> ..... | 2,100,000           | 1,123,290         |
| Victoria.....               | 29,363              | 15,706            |
| West Australia.....         | 168,455             | 90,107            |
| Total.....                  | 17,175,099          | 9,186,963         |

<sup>a</sup> Mr. T. Kapp, general manager Tasmania Smelting Company, Zeehan, stated in an article printed in the report of this bureau for 1906 that Tasmania silver-lead ores carried 34.4 ounces of silver to the ton. Tasmania's product for 1908 was 61,046.86 tons, valued at £319,549. Assuming that it carried the same proportion of silver—34.4 ounces per ton—it contained 2,100,000 ounces, which figure is taken as the silver product of Tasmania for 1908. Following the same procedure, the silver products for 1906 and 1907 are revised as follows: 1906, 2,996,859 ounces, of the commercial value of \$2,025,877; 1907, 3,087,830 ounces, of the commercial value of \$2,037,968.

#### AUSTRALIA'S DECLINING GOLD PRODUCTION.

[From the Mining World and Engineering Record, London, June 5, 1909.]

The latest commonwealth mining statistics apparently confirm the assertion that the Australian gold-mining industry is in a declining condition, but a close investigation of the returns from the different States shows that the production is stationary rather than retrogressive. Taking the period 1901-8, the value of the gold annually raised in New South Wales was as follows:

|           |           |           |            |
|-----------|-----------|-----------|------------|
| 1901..... | £737,164  | 1905..... | £1,165,013 |
| 1902..... | 684,970   | 1906..... | 1,078,866  |
| 1903..... | 1,080,029 | 1907..... | 1,050,730  |
| 1904..... | 1,146,109 | 1908..... | 954,855    |

The decrease in this State is largely due to the increased attention given to copper and other mines, but there are indications that in the near future the level of 1905 will again be reached. In Victoria the value of the production was as subjoined:

|           |            |           |            |
|-----------|------------|-----------|------------|
| 1901..... | £3,102,753 | 1905..... | £3,173,744 |
| 1902..... | 3,062,028  | 1906..... | 3,280,478  |
| 1903..... | 3,259,482  | 1907..... | 2,954,617  |
| 1904..... | 3,252,045  | 1908..... | 2,871,485  |

In this State the decrease is attributed to the decreased richness of many of the known lodes, but this will probably be compensated by the discovery of others, only a limited portion of the State having been systematically prospected. The Queensland returns were:

|           |            |           |            |
|-----------|------------|-----------|------------|
| 1901..... | £2,541,764 | 1905..... | £2,517,295 |
| 1902..... | 2,720,512  | 1906..... | 2,313,464  |
| 1903..... | 2,839,801  | 1907..... | 1,978,938  |
| 1904..... | 2,714,934  | 1908..... | 1,959,727  |

It will be seen that the value of the production has, on the whole, been well maintained, and that, with increased facilities of communication with the northern auriferous districts, a largely augmented output may reasonably be anticipated. The heaviest decline, proportionately, has been in South Australia, which has never been regarded as an auriferous producer, although its possibilities have never been definitely ascertained. The figures during the last eight years were as follows:

|           |         |           |         |
|-----------|---------|-----------|---------|
| 1901..... | £99,222 | 1905..... | £76,824 |
| 1902..... | 95,203  | 1906..... | 81,225  |
| 1903..... | 90,250  | 1907..... | 42,468  |
| 1904..... | 80,008  | 1908..... | 38,917  |

The Tasmania figures show no heavy fluctuations. They were as subjoined:

|           |           |           |           |
|-----------|-----------|-----------|-----------|
| 1901..... | £295, 176 | 1905..... | £312, 380 |
| 1902..... | 301, 573  | 1906..... | 254, 963  |
| 1903..... | 254, 403  | 1907..... | 277, 607  |
| 1904..... | 280, 015  | 1908..... | 257, 888  |

The western Australian returns also display a fairly average level, as below:

|           |              |           |              |
|-----------|--------------|-----------|--------------|
| 1901..... | £7, 235, 653 | 1905..... | £8, 305, 654 |
| 1902..... | 7, 947, 662  | 1906..... | 7, 622, 749  |
| 1903..... | 8, 770, 719  | 1907..... | 7, 210, 749  |
| 1904..... | 8, 424, 226  | 1908..... | 7, 002, 399  |

The total commonwealth figures were:

|           |               |           |               |
|-----------|---------------|-----------|---------------|
| 1901..... | £14, 055, 782 | 1905..... | £15, 550, 910 |
| 1902..... | 14, 811, 948  | 1906..... | 14, 631, 745  |
| 1903..... | 16, 294, 684  | 1907..... | 13, 515, 109  |
| 1904..... | 15, 897, 337  | 1908..... | 13, 085, 271  |

The decline in 1908 on the value of the production of 1901 was £970,511. The production of 1903-1905 was simply phenomenal, and was not accepted as forming the rule. Even the reduced total in 1908 was in excess of all previous years, with the exception of 1899 and 1900. The probabilities are in favor of a high minimum level, say, of from £12,500,000 to £13,000,000, being maintained, if not exceeded, during the next couple of decades.

AFRICA.

The value of the gold product of Africa for 1908 was \$166,520,518, representing 8,055,430 ounces, fine, and the commercial value of the silver product, \$680,711, representing 1,272,595 ounces, fine.

| Year.  | Transvaal.    |               | West Coast.   |             | French colonies. <sup>a</sup> |             | Rhodesia. <sup>b</sup> |              | Total.        |               |
|--------|---------------|---------------|---------------|-------------|-------------------------------|-------------|------------------------|--------------|---------------|---------------|
|        | Weight.       | Value.        | Weight.       | Value.      | Weight.                       | Value.      | Weight.                | Value.       | Weight.       | Value.        |
|        | <i>Kilos.</i> |               | <i>Kilos.</i> |             | <i>Kilos.</i>                 |             | <i>Kilos.</i>          |              | <i>Kilos.</i> |               |
| 1889.. | 11, 719       | \$7, 788, 372 | 1, 270        | \$844, 262  | 261                           | \$173, 461  | (c)                    |              | 13, 250       | \$8, 806, 095 |
| 1890.. | 15, 706       | 10, 438, 356  | 1, 062        | 705, 705    | 261                           | 173, 461    | (c)                    |              | 17, 029       | 11, 317, 522  |
| 1891.. | 22, 398       | 14, 885, 639  | 1, 289        | 856, 730    | 261                           | 173, 461    | (c)                    |              | 23, 948       | 15, 915, 830  |
| 1892.. | 34, 938       | 23, 220, 108  | 1, 528        | 1, 011, 924 | <sup>d</sup> 261              | 173, 461    | (c)                    |              | 36, 722       | 24, 405, 493  |
| 1893.. | 42, 573       | 28, 293, 831  | 977           | 649, 695    | 261                           | 173, 461    | (c)                    |              | 43, 811       | 29, 116, 987  |
| 1894.. | 59, 730       | 39, 696, 330  | 865           | 574, 653    | 261                           | 173, 461    | (c)                    |              | 60, 856       | 40, 444, 444  |
| 1895.. | 66, 045       | 43, 893, 300  | 995           | 661, 630    | 261                           | 173, 461    | (c)                    |              | 67, 301       | 44, 728, 391  |
| 1896.. | 65, 874       | 43, 779, 669  | 945           | 627, 938    | 261                           | 173, 461    | (c)                    |              | 67, 080       | 44, 581, 068  |
| 1897.. | 86, 720       | 57, 633, 861  | 751           | 499, 311    | 640                           | 425, 510    | (c)                    |              | 88, 111       | 58, 558, 682  |
| 1898.. | 119, 190      | 79, 213, 953  | 518           | 343, 928    | 189                           | 125, 987    | 669                    | \$444, 617   | 120, 566      | 80, 128, 485  |
| 1899.. | 107, 410      | 71, 384, 561  | 422           | 280, 185    | 344                           | 228, 512    | 1, 700                 | 1, 129, 773  | 109, 876      | 73, 023, 031  |
| 1900.. | 9, 215        | 6, 124, 226   | 326           | 216, 873    | 1, 115                        | 741, 029    | 2, 392                 | 1, 589, 815  | 13, 048       | 8, 671, 943   |
| 1901.. | 8, 026        | 5, 333, 994   | 216           | 143, 813    | 958                           | 636, 700    | 4, 476                 | 2, 974, 943  | 13, 676       | 9, 089, 450   |
| 1902.. | 52, 514       | 34, 901, 140  | 109           | 6, 552      | 1, 127                        | 748, 976    | 5, 065                 | 3, 366, 561  | 58, 716       | 39, 023, 725  |
| 1903.. | 92, 468       | 61, 454, 439  | 2, 028        | 1, 347, 845 | 1, 701                        | 1, 130, 358 | 6, 117                 | 4, 065, 489  | 102, 314      | 67, 998, 131  |
| 1904.. | 117, 371      | 78, 004, 559  | 2, 544        | 1, 690, 770 | 2, 143                        | 1, 424, 340 | 7, 214                 | 4, 794, 208  | 129, 272      | 85, 913, 881  |
| 1905.. | 152, 707      | 101, 489, 199 | 4, 351        | 2, 891, 928 | 2, 312                        | 1, 536, 353 | 11, 040                | 7, 337, 211  | 170, 410      | 113, 254, 691 |
| 1906.. | 179, 986      | 119, 618, 507 | 6, 426        | 4, 270, 685 | 2, 086                        | 1, 386, 068 | 15, 171                | 10, 082, 747 | 203, 669      | 135, 358, 007 |
| 1907.. | 200, 665      | 133, 361, 943 | 8, 456        | 5, 620, 248 | 2, 712                        | 1, 802, 676 | 16, 851                | 11, 199, 181 | 228, 685      | 151, 984, 048 |
| 1908.. | 219, 475      | 145, 862, 971 | 8, 687        | 5, 773, 333 | 2, 801                        | 1, 861, 754 | 19, 594                | 13, 022, 460 | 250, 557      | 166, 520, 518 |

<sup>a</sup> Includes Madagascar, Algeria, and the French Sudan. For 1903 and 1904, Madagascar only. For 1905, figures for Madagascar and Egypt. For 1906 and 1907, Madagascar and Egypt for 1905 repeated.

<sup>b</sup> Includes Mozambique, Cape Colony, and Natal for all years except 1901, which does not include product of Mozambique or Natal. For 1903, includes Rhodesia, Cape Colony, and Natal. For 1904 and 1905, Rhodesia, Cape Colony, and Mozambique. For 1906 and 1907, Rhodesia, Cape Colony, Mozambique, Natal, and Bechuanaland.

<sup>c</sup> Previous to 1898 Rhodesia and Mozambique together produced 289 kilograms, fine, included in the Transvaal returns.

<sup>d</sup> Previous to 1897 the only figures obtainable were those for 1892—Madagascar only.

## BECHUANALAND.

The United States ambassador at London reports that the product of gold in Bechuanaland during 1908 was 5,010 fine ounces, the value of which, in United States currency, is \$103,566.

Return showing the weight and value of gold and silver produced in the Bechuanaland Protectorate during the year 1908, and also the approximate number of Europeans and natives employed in connection with mining on the 31st December, 1908:

|                              |          |              |
|------------------------------|----------|--------------|
| Produced:                    |          |              |
| Fine gold.....               | ounces.. | 5,010        |
| Fine silver.....             | do....   | 586          |
| Total value.....             |          | £21,215.15.5 |
| Approximate number employed: |          |              |
| Europeans.....               |          | 20           |
| Natives.....                 |          | 360          |

## CAPE COLONY.

The United States consul-general at Cape Town reports the product of gold for that colony in 1908 as 54.681734 kilograms, valued at £1,665, equivalent, in United States currency, to \$8,103.

## EGYPT.

The United States consul-general at Cairo states that the product of gold in Egypt during 1907 was valued at £20,714, and for 1908 £7,868, equivalent, in United States money, to \$100,805 and \$38,290, respectively.

## AMERICAN DIPLOMATIC AGENCY AND CONSULATE-GENERAL.

[Copy of a note from the Financial Adviser dated March 23, 1909.]

DEAR MR. IDDINGS: With reference to the inclosed letter from the Director of the Washington mint, which you left with me some days ago, I have made inquiries on the three points raised by that letter.

(a) A few years ago the head of the Bureau de Poinçonnement made some inquiries in the goldsmith's bazaar with the object of arriving at an estimate of the amount of gold melted down into gold ornaments.

The estimate he submitted for the year in question, 1905, was the enormous sum of £2,000,000 (sterling), which, however surprising, was not inconsistent with the amount of gold coin registered through the customs as having been retained in the country during the period 1902-1905, viz, £11,000,000 (sterling).

We are, however, quite unable to confirm the above estimate, which has not been made the subject of a systematic inquiry, and which, at best, does not amount to more than a rough guess.

(b) The output of gold from Egyptian mines was, in 1907, £20,714; in 1908, £7,868. As to the Sudan, I believe the output is confined to the Um Nabadi mine, which made no returns in 1907 and only a few hundreds sterling in 1908. The department of mines of the Egyptian government has been abolished.

(c) The question of the stock of gold coin in Egypt is bound up with that of the amount melted down in ornaments, since hoards may be kept either in the form of coin or of ornaments. In the absence of data for estimating the amount of the latter, any figures given of the stock of gold must include gold in all its forms.

The stock of gold, usually stated as the stock of "gold coin," has formed the subject of several diverse estimates. The following list, I believe, comprises them all:

|                                      |                     |                  |
|--------------------------------------|---------------------|------------------|
| Ottomar Haupt, 1891.....             | francs..            | 706,500,000      |
| M. L. Muhleman, 1896.....            | dollars..           | 120,000,000      |
| De Beaupuis, 1901.....               | pounds (sterling).. | 8,000,000        |
| United States mint, 1905.....        | dollars..           | 87,000,000       |
| P. Arminjon and B. Michel, 1908..... | pounds (Egyptian).. | 33 to 41,000,000 |

It is a justifiable assumption that the only one of the foregoing estimates which is based on any scientific study is the last one. This has been worked out by the authors by a mathematical comparison of the curves of fluctuations in the gold and silver circulation during the last twenty years. The conclusion, however, is open to some discussion. Meanwhile their estimate remains, *faute de mieux* ("for want of better"), as the only one which has any pretension to accuracy. The authors are careful to state that it includes coin lost, hoarded, and melted down.

There is, of course, always a certain stock of coin in the hands of the banks, including, as the treasury correctly states, the 50 per cent of the coin held by the National Bank of Egypt against its note issue. This stock varies greatly according to the time of year and the activity of business, but it can never exceed a few millions, and, even were it accurately known, would furnish no guide to the amount of gold in the country. (Messrs. Arminjon and Michel's method and estimates are explained in full in their work "*La Circulation, le Credit et leurs Instruments en Egypte.*")

I hope the above information will meet the requirements of the Director of the Mint.  
Yours, sincerely,

H. P. HARVEY.

#### MADAGASCAR.

The United States ambassador at Paris, France, gives the gold product of Madagascar for 1907 as 2,940 kilograms, valued at 8,820,000 francs. According to this valuation, the gold was only 0.871 fine, giving a fine product of 82,328 ounces, valued at \$1,701,871.

The United States consul at Tamatave states that the gold produced in Madagascar in 1908 was 3,149 kilograms, valued at 9,448,002 francs, which represents 88,210 ounces fine, valued at \$1,823,464.

#### MOZAMBIQUE.

The Annual Statement of the Trade of the United Kingdom for 1908 reports the value of the imports of gold from Portuguese East Africa into the United Kingdom during 1908 as £124,941, equivalent in United States money to \$608,025, representing 29,413 ounces fine.

The value of the imports of silver ore during 1908 was £22,023, equivalent to \$107,175, representing 200,364 ounces fine.

The value of the imports of silver ore during 1907 was £16,868, or \$82,088, representing 124,376 ounces fine.

#### NATAL.

The secretary of the United States embassy in London gives the gold product of Natal for 1908 as 442 ounces fine, valued at £1,878, equivalent in United States money to \$9,137.

#### NYASSALAND.

Report from the United States embassy in London states that there was produced in the Nyassaland Protectorate during 1908, 1.2603 kilograms of gold, valued at £168, equivalent in United States money to \$821.

## RETURN SHOWING THE GOLD AND SILVER PRODUCED IN THE NYASSALAND PROTECTORATE DURING THE CALENDAR YEAR 1908.

[By Thomas I. Binnie, Director of Mines, Zomba, Nyassaland Protectorate, December 31, 1908.]

Weight, expressed in kilograms, fine, and value of the gold produced from the mines of the colonies during the calendar year 1908: 1.2603 kilograms; value, £168 13s. 4d.

## RHODESIA.

The Fourteenth Annual Report of the Rhodesia Chamber of Mines states that the production of gold in Rhodesia in 1908 was 606,962 ounces, valued at £2,526,006, and that of silver 283,424 ounces, valued at £29,425, representing a value in United States money for the gold of \$12,292,808, equivalent to 594,664 ounces fine, and for the silver, the commercial value of \$143,197, equivalent to 267,708 ounces fine.

## PRODUCT OF GOLD AND SILVER IN SOUTHERN RHODESIA, ONLY, 1908.

[From "Rhodesia Chamber of Mines," Bulawayo, January, 1909.]

| Month.         | Gold.          | Silver.        |
|----------------|----------------|----------------|
|                | <i>Ounces.</i> | <i>Ounces.</i> |
| January.....   | 50,520.67      | 16,546.50      |
| February.....  | 47,683.39      | 14,796.59      |
| March.....     | 48,925.25      | 18,673.45      |
| April.....     | 50,716.71      | 26,494.51      |
| May.....       | 53,187.82      | 28,024.63      |
| June.....      | 53,423.80      | 27,701.45      |
| July.....      | 54,237.42      | 28,151.35      |
| August.....    | 52,482.36      | 27,743.91      |
| September..... | 48,573.46      | 24,506.41      |
| October.....   | 48,847.34      | 24,615.48      |
| November.....  | 46,726.78      | 23,820.77      |
| December.....  | 51,636.84      | 22,348.95      |
| Total.....     | 606,961.84     | 283,424.00     |

## RHODESIA'S GOLD OUTPUT.

[From The Mining Journal, London, February 27, 1909.]

| Month.         | 1906.          |           | 1907.          |           | 1908.          |           |
|----------------|----------------|-----------|----------------|-----------|----------------|-----------|
|                | <i>Ounces.</i> |           | <i>Ounces.</i> |           | <i>Ounces.</i> |           |
| January.....   | 42,950.23      | £155,337  | 47,047.95      | £168,240  | 50,520.67      | £199,380  |
| February.....  | 38,037.15      | 137,561   | 40,482.25      | 145,397   | 47,683.39      | 191,635   |
| March.....     | 44,573.54      | 160,722   | 46,886.52      | 167,424   | 48,973.46      | 200,615   |
| April.....     | 42,423.22      | 157,108   | 49,771.75      | 175,210   | 50,718.39      | 212,935   |
| May.....       | 46,728.93      | 169,218   | 52,667.73      | 189,216   | 53,187.82      | 223,867   |
| June.....      | 47,663.88      | 170,083   | 54,918.20      | 192,506   | 53,423.80      | 224,920   |
| July.....      | 48,484.63      | 173,313   | 54,270.55      | 191,681   | 54,237.42      | 228,151   |
| August.....    | 50,127.14      | 179,000   | 54,558.43      | 192,106   | 52,482.36      | 220,792   |
| September..... | 48,409.82      | 173,973   | 53,622.40      | 192,186   | 48,573.46      | 204,262   |
| October.....   | 45,663.73      | 161,360   | 53,822.82      | 191,478   | 48,847.34      | 205,466   |
| November.....  | 48,502.66      | 175,656   | 50,890.78      | 183,058   | 46,726.78      | 196,668   |
| December.....  | 48,329.08      | 171,770   | 53,113.00      | 190,383   | 51,637.00      | 217,316   |
| Total.....     | 551,894.01     | 1,985,101 | 612,052.38     | 2,178,885 | 607,013.89     | 2,526,007 |

## TRANSVAAL.

The United States consul at Johannesburg reports that the gold product of the Transvaal for 1908 was 219,475 kilograms, valued at £29,973,214; this weight is equivalent to 7,056,121 ounces fine, of the value of \$145,862,971.

The information regarding the silver product from the same source as the above is given as 25,024 kilograms, of the commercial value of £86,906; the weight represents 804,522 ounces fine, of the commercial value of \$430,339.

## THE RAND IN 1908.

[From The Statist, London, December 26, 1908.]

No one who has followed the facts and features in connection with the production of gold in South Africa can with reason controvert the statement we have more than once of late expressed, that never in its history of about twenty years has the gold industry of the Rand been in a sounder condition than it now is.

Along about 40 miles of the Rand from east to west gold in 1908 will be produced to a value of over one-third of what we estimate will be shown to be the world's total production of gold for the year, and the £28,600,000 which we estimate will be the production of gold from the Rand alone is more than the total production of the world seventeen years ago. The comparative figures since the Rand became a real gold producer are set out in the following table. Parenthetically we may say that for the year 1899 the output is not the actual result of the year, but is at the rate of the best month—August—multiplied by 12.

| Year.     | Rand's production.      | World's production.     | Proportion of Rand's to world's production. |
|-----------|-------------------------|-------------------------|---|
| 1880..... | Nil.                    | £22,130,000             | Nil.  |
| 1890..... | £1,855,000              | 24,260,000              | 7.6   |
| 1891..... | 2,560,000               | 26,700,000              | 9.5   |
| 1892..... | 4,297,610               | 29,900,000              | 14.2  |
| 1893..... | 5,187,206               | 32,600,000              | 15.9  |
| 1894..... | 6,963,100               | 36,765,000*             | 16.2  |
| 1895..... | 7,840,779               | 39,752,000              | 19.9  |
| 1896..... | 7,864,341               | 40,450,000              | 19.5  |
| 1897..... | 10,683,606              | 47,762,000              | 22.1  |
| 1898..... | 15,141,376              | 57,486,000              | 26.3  |
| 1899..... | <sup>a</sup> 19,704,300 | 61,345,000              | .....                                       |
| 1900..... | ( <sup>b</sup> )        | 50,915,000              | Nil.  |
| 1901..... | 1,014,687               | 52,198,000              | 1.9   |
| 1902..... | 7,179,074               | 59,348,000              | 12.1  |
| 1903..... | 12,146,307              | 65,192,000              | 18.6  |
| 1904..... | 15,520,329              | 69,378,000              | 22.3  |
| 1905..... | 19,991,658              | 75,427,000              | 26.5  |
| 1906..... | 23,615,400              | 82,480,000              | 28.6  |
| 1907..... | 26,421,837              | 82,200,000              | 32.1  |
| 1908..... | <sup>c</sup> 28,600,000 | <sup>c</sup> 85,000,000 | 33.6  |

<sup>a</sup> August result of 1899 multiplied by 12 for rate of production per annum.

<sup>b</sup> War.

<sup>c</sup> Estimated.

## DISPOSAL OF GOLD FROM THE RAND.

[Paper read by T. Kirke Rose before the Chemical, Metallurgical, and Mining Society of South Africa February 20, 1909.]

By common consent statistics are admitted to be both misleading and dull, and the following account of the first rough distribution of the gold produced in South Africa can not be expected to escape the common lot of such papers. Consequently, I beg the society to remember that the paper was written at the invitation of the council, following a suggestion made by T. L. Carter. In drawing up this account I have used official publications only and have everywhere reached the limits of information almost at the beginning of the inquiry. My own private quarrel with statistics is not that they are misleading and dull, but that they always stop short before they have told what I want to know, so I am continually driven to making guesses.

The official publications consulted are the Annual Statements of Trade of the United Kingdom, the Statistical Abstract of the United Kingdom, and of the British

Colonies, Possessions, etc., and the Annual Reports of the English, French, and United States mints.

I have considered only the period of five years, 1903 to 1907, because during the war the production of gold in South Africa was comparatively unimportant, and the years 1899 to 1902 were abnormal in that and other respects. In a limited sense every year is abnormal. The conditions affecting the distribution of gold change continually, and it is useless, from a study of statistics alone, to hazard predictions.

At the beginning of the study of what becomes of the Rand gold it must be premised that no distinction can be drawn between the gold from the Rand and that from other districts. The gold from the Rand goes down to the coast and is at once, statistically speaking, mingled inextricably with that from the rest of the Transvaal and from Rhodesia. The combined stream flows into London and there joins other streams, and its identity is lost again. Little rills flow out hither and thither and are caught up in other currents so that by imperceptible degrees the whole world is involved. In this paper the assumption has been made that wherever two streams unite and become indistinguishable from each other, they are at once completely mixed, so that any sample, however small, contains the same proportion of each constituent as the whole mass.

When the Rand gold leaves South Africa, a slight difficulty is at once encountered, for no definite statement is available as to its destination. The declared value of the production of gold in the Transvaal and Rhodesia was, for example, £26,615,025 in 1906. The value of the exports of gold from British South Africa is given as £26,516,475 for 1906 in the Statistical Abstract. In the Annual Statement of Trade of the United Kingdom the value of the gold bullion imported into England from South Africa is not given, but only the gross weight in ounces, for example, 6,986,832 ounces in 1906. The result is that the imports into the United Kingdom can not be identified with the exports from or the production of British South Africa. These three figures are, however, in sufficient agreement (taking the mean gold fineness of South African bullion imported into England as 875) to justify the assumption that practically all the South African gold is exported to London. Apart from the figures this is, of course, perfectly well known.

On arriving in London the South African gold is mixed with bullion coming from other parts of the world, and can no longer be distinguished. This matters the less for the reason that the South African bullion forms the bulk of the total imports of gold bullion, as is shown in the following table, drawn from the Annual Statement of Trade for 1907:

IMPORTS OF GOLD INTO THE UNITED KINGDOM.

| Country of origin.        | 1905.               | 1906.               | 1907.               |
|---------------------------|---------------------|---------------------|---------------------|
|                           | <i>Troy ounces.</i> | <i>Troy ounces.</i> | <i>Troy ounces.</i> |
| British South Africa..... | 5,833,741           | 6,986,832           | 8,012,437           |
| British India.....        | 610,320             | 571,033             | 547,452             |
| Australasia.....          | 972,342             | 729,237             | 803,961             |
| Rest of world.....        | 664,828             | 805,703             | 1,334,608           |
| Total ounces.....         | 8,081,231           | 9,092,805           | 10,698,458          |
| Total value.....          | £30,114,369         | £33,865,361         | £39,956,304         |
| Gold fineness.....        | 876.6               | 876.8               | 879.2               |

In these years South African gold is seen to form 72, 71, and 75 per cent, respectively, of the total weight, and judging from unofficial returns the values were in nearly the same proportions. The bullion on arrival in London is in part refined there and in part reexported in its unrefined state. Beginning with 1908, the customs establishment will publish statistics distinguishing between unrefined and refined bullion imported and exported, but no figures are as yet available. My own opinion is that about 15 per cent of the imported bullion was reexported, in the period 1903 to 1907, without being refined in London. Both the amount and the percentage of such bullion appear to be increasing, but there is little to go upon in forming these opinions. The refined bullion is partly retained in the country and partly exported. Comparison of the total imports and exports of bullion shows:

| Items.              | 1903-7.      | 1907.       |
|---------------------|--------------|-------------|
| Imports.....        | £151,973,235 | £39,956,304 |
| Exports.....        | 98,059,568   | 26,589,442  |
| Excess imports..... | 53,913,667   | 13,366,862  |

Here the imported bullion is divided clearly into two parts, one part required and retained in the United Kingdom, while the other part is reexported without delay. These will now be considered separately.

Dealing first with the bullion retained in the United Kingdom, it is at once evident that most of it is converted into coin, thus: Coinage, from ingots only, at the Royal Mint, London: 1903-7, £48,944,370; 1907, £16,098,894.

Some of the ingots received for coinage, however, are derived from the melting of gold coin. No exact record is kept of the value of these, but, in my opinion, it may be put at the following amounts: Ingots resulting from melting gold coin: 1903-7, £1,392,000; 1907, £4,500.

The coinage from refined ingots at the Royal Mint has accordingly been approximately as follows: 1903-7, £47,552,400; 1907, £16,094,400.

The rest of the bullion retained in England but not used for coinage, which amounted to about £6,361,300 for the five years 1903 to 1907, was added to the stock of bullion already in existence, or was used in the arts for the manufacture of jewelry, for gold plating, for the manufacture of gold leaf, in dentistry, in photography, etc.

The stock of bullion in the United Kingdom, apart from the floating stocks held by refiners and bullion dealers, is in the vaults of the Bank of England. No figures are available as to the amount so held, the bank making known only its total stock of bullion and coin. The stock of bullion is, of course, a fluctuating amount, but any gradual permanent change is doubtless in the direction of an increase. The gold bullion and coin held by the bank on December 31, 1902, was £27,840,385, that on January 2, 1907, £29,270,470, and on January 1, 1908, £31,602,515. For purposes of comparison, it may be remarked that the mean stock in the first week of January of the ten years 1881 to 1890 was £20,550,000. It is likely that a part of the increase shown was in the form of ingots. During the year 1907 it is quite possible that the stock of bullion was reduced.

Leaving all this on one side, therefore, we have the sum of £6,361,300 in ingots which was all or mostly used in the industrial arts in the United Kingdom during the years 1903 to 1907. No estimates of the consumption of gold are published officially in England, though the matter will doubtless be dealt with in the forthcoming census of production. The total consumption for the three years 1903 to 1905, however, has been estimated by the Director of the United States Mint at £7,706,000 (as stated in the Annual Report of the Director of the French Mint), excluding old material (re-melted jewelry, etc.), but including gold coin. This seems to me, judging from returns of the manufacture of jewelry to which I have had access, to be a reasonable figure, but the annual consumption in 1906 and 1907 was certainly higher than from 1903 to 1905. The amount of English gold coin melted annually for use in the industrial arts is estimated at £500,000, at least (Annual Report of the Deputy Master of the Royal Mint, London, 1903), its only known use being for the manufacture of wedding rings. This would leave an annual amount of about £2,000,000 to be derived from gold ingots, or £10,000,000 in five years. There is here a discrepancy of nearly £4,000,000, which is most readily accounted for by assuming that the amount of British gold coin melted for use in the arts was underestimated in 1903, and that it really amounts to £1,500,000 per annum. The disappearance of immense quantities of British gold coin has certainly never been fully and satisfactorily explained. The discrepancy would be equally well accounted for by the assumption that £1,000,000 in gold coin is melted down annually in the United Kingdom and subsequently exported.

The destination of the exports is shown in the following table, which is abstracted from the Annual Statements of Trade for 1903 to 1907:

| Countries to which exported. | 1903-1907.   |           | 1907.        |           |
|------------------------------|--------------|-----------|--------------|-----------|
|                              | Troy ounces. | Per cent. | Troy ounces. | Per cent. |
| Continent of Europe.....     | 13,005,963   | 54.4      | 2,021,561    | 30.4      |
| United States.....           | 6,063,671    | 25.3      | 3,143,700    | 48.1      |
| British India.....           | 4,630,381    | 19.3      | 1,374,879    | .....     |
| Rest of the world.....       | 227,822      | 1.0       | 1,272        | 21.0      |
| Total ounces.....            | 23,927,837   | .....     | 6,541,402    | .....     |
| Total value.....             | £98,059,568  | .....     | £26,589,442  | .....     |
| Gold fineness.....           | 964.8        | .....     | 956.9        | .....     |

Concerning these table it may be observed that "Europe" stands chiefly for France and Germany, which together take almost the whole of the exports in certain years. There are exceptional years, however, as, for example, 1906, when 402,559 ounces went to Russia, as against 1,140,537 ounces to France and only 77,068 ounces to Germany.

The gold bullion imported into France for the most part stays there, the exports of ingots being inconsiderable. The bars from England form over 30 per cent of the total imports of gold and over 40 per cent of the imported ingots. About one-half of the imported bar gold is coined, chiefly into 20-franc pieces; about a quarter of it is employed in the industries; perhaps 5 per cent is reexported; and the remainder presumably goes to swell the stock of bullion in the Banque de France, which increased by about £16,000,000 in the four years 1903 to 1906.

Of the gold bullion imported into Germany, something like 20 per cent is reexported, a like amount is used in the industries, and the remainder is coined. The gold ingots sent to America have varied in amount more than those exported elsewhere. From 1903 to 1907 (the year of the panic) they increased steadily from 158,945 ounces to 3,143,700 ounces. There was, of course, a large reduction in 1908. The mean for the five years from 1903 to 1907 amounted to over 10 per cent of the gold deposited at the United States mints. Of this total quantity, in the years 1903 to 1906, about 55 per cent was coined, about one-seventh was used in the industrial arts, and the remainder was added to the stock or exported. According to the United States mint reports, however, the ingots exported are almost invariably United States fine bars, practically never foreign ingots. Also rather more than 40 per cent of the imported gold bars were issued for use in the industrial arts in the years 1903 to 1905. This would leave nearly 60 per cent of the imported bars to be divided between coinage and additions to the stock of bullion in the United States mints and assay offices. This stock is subject to great fluctuations; for example, it was \$124,083,823 on June 30, 1902; \$51,910,029 on June 30, 1905; and \$104,383,158 on June 30, 1906. No exact information is available as to the stocks on January 1, 1903, and December 31, 1907, and it is better to leave this aside, as in the case of the stock of bullion in the Bank of England, and to assume that 60 per cent of the imported bars was used for coinage. The difference between the percentage distribution of the total deposits in United States mints and the distribution of the imported gold bars (of which those from England form only a part) illustrates the difficulties of this part of the inquiry, and shows how great may be the errors in the statements as to the disposal of the gold exported to France and Germany.

The gold bullion (chiefly or entirely in the form of 10-ounce fine bars) which is sent from England to India disappears on arrival in that country, and is probably in great part converted into jewelry. As the Director of the United States Mint remarks: "The tide of gold and silver has been flowing into India for centuries." Probably some large hoards exist, but no doubt there are immense numbers of small hoards. From 1835, when the official records begin, the net imports to the end of 1906 amounted to £193,880,000, in addition to the production in India, which was £23,400,000. The world's production for the same period is estimated at £1,920,000,000, approximately 12 per cent of which was accordingly absorbed by India.

The wanderings of the gold bullion from the Rand have now been traced as far as is practicable. Summarizing the disposal of the Rand gold for the period 1903 to 1907, the following seems to be shown:

|  | Per cent. |
|--|-----------|
| Used in coinage.....                           | 58. 6     |
| Used in industrial arts.....                   | 30. 5     |
| Deposited as ingots in the Bank of France..... | 3. 5      |
| Undetermined.....                              | 7. 4      |

The result may also be put in the form of a bet; such as that of any particular ounce of gold produced on the Rand, it is 7 to 1 against its disappearing into India as refined 10-ounce bars, 99 to 1 against its being exported from France to an unknown destination, and 69 to 31 against its being coined at the Royal Mint.

#### WEST AFRICA.

The London Mining Journal for October 23, 1909, gives the gold product of West Africa for 1908 as 297,366 ounces, valued at £1,186,342, which is equivalent in United States money to \$5,773,333, representing 279,285 ounces, fine.

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PART IV.

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GENERAL STATISTICS.

## No. 1.—DOMESTIC PRODUCTION, DEPOSITS, AND PURCHASES OF GOLD,

|    | Locality and description of deposits. | Philadelphia.      | San Francisco.     | New Orleans.       | Denver.            | New York.          |
|----|---------------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|    |                                       | <i>Stand. ozs.</i> |
| 1  | Alabama.....                          | 23. 182            |                    | 118. 596           |                    |                    |
| 2  | Alaska.....                           | 132. 106           | 43, 590. 406       |                    | 748. 581           | 225. 454           |
| 3  | Arizona.....                          | 105. 806           | 29, 081. 499       |                    | 17, 668. 501       | 49. 155            |
| 4  | California.....                       | 353. 772           | 338, 731. 978      |                    | 233. 500           | 8, 121. 693        |
| 5  | Colorado.....                         | 74. 291            | 121. 863           |                    | 552, 535. 925      | 27. 965            |
| 6  | Georgia.....                          | 591. 393           |                    |                    |                    |                    |
| 7  | Idaho.....                            | 760. 881           | 8. 117             |                    | 420. 145           | 60. 739            |
| 8  | Michigan.....                         |                    |                    |                    |                    | . 978              |
| 9  | Montana.....                          |                    | 9. 288             |                    | 8, 266. 504        | 1, 675. 086        |
| 10 | Nevada.....                           | 89. 731            | 98, 268. 742       | . 807              | 3, 758. 677        | 1, 358. 378        |
| 11 | New Mexico.....                       | 25. 174            | 27. 784            |                    | 3, 016. 069        | 4, 138. 677        |
| 12 | North Carolina.....                   | 199. 187           |                    |                    |                    | 120. 636           |
| 13 | Oregon.....                           | 141. 795           | 9, 299. 993        |                    | 245, 091           | 27. 648            |
| 14 | South Carolina.....                   | 10. 466            |                    |                    |                    | 1, 164. 458        |
| 15 | South Dakota.....                     |                    |                    |                    |                    | 334, 970. 277      |
| 16 | Utah.....                             |                    | 39. 518            |                    | 34, 874. 004       | 10, 296. 366       |
| 17 | Virginia.....                         | 107. 479           |                    |                    |                    |                    |
| 18 | Washington.....                       | 9. 934             | 64. 889            |                    |                    | 86. 111            |
| 19 | Wyoming.....                          |                    |                    |                    | 74. 718            |                    |
| 20 | Porto Rico.....                       |                    |                    |                    |                    | 31. 670            |
| 21 | Philippines.....                      |                    | 54. 442            |                    |                    | 8. 141             |
| 22 | Other.....                            | 340. 294           |                    |                    | 2. 210             |                    |
| 23 | Total domestic.....                   | 2, 965. 491        | 519, 298. 519      | 119. 403           | 621, 843. 925      | 362, 363. 432      |
| 24 | Domestic bullion, refinery bars.....  | 374. 796           |                    |                    | 231, 503. 608      | 383, 973. 479      |
| 25 | Domestic bullion, refined.....        |                    | 1, 323, 781. 733   |                    |                    | 1, 647, 248. 774   |
| 26 | Total domestic bullion....            | 3, 340. 287        | 1, 843, 080. 252   | 119. 403           | 853, 347. 533      | 2, 393, 585. 685   |
| 27 | Domestic coin, mutilated.....         | 14, 206. 833       | 606. 062           | 3, 198. 864        | 88. 304            | 38, 792. 548       |
| 28 | Domestic coin transferred.....        | 207, 516. 680      |                    |                    |                    |                    |
| 29 | Foreign bullion, crude.....           | 10, 113. 569       | 55, 846. 766       | 42, 222. 323       | 335. 639           | 202, 714. 367      |
| 30 | Foreign bullion, refined.....         |                    |                    |                    |                    | 397, 008. 187      |
| 31 | Foreign coin.....                     | 37. 624            | 88, 331. 207       | 753. 474           |                    | 113, 373. 137      |
| 32 | Jeweler's bars, old plate, etc.....   | 63, 080. 836       | 7, 415. 696        | 3, 171. 030        | 3, 217. 281        | 188, 677. 111      |
| 33 | Surplus bullion.....                  |                    | 71. 004            | 118. 890           | 489. 448           |                    |
| 34 | Deposit, melting room, grains ..      | 46. 739            | 70. 730            | 19. 258            | 54. 094            | 733. 564           |
| 35 | Sweeps, from Helena.....              |                    |                    |                    | 26. 670            |                    |
| 36 | Total deposits.....                   | 298, 342. 568      | 1, 995, 421. 717   | 49, 603. 242       | 857, 558. 969      | 3, 334, 884. 599   |
|    | Redeposits:                           |                    |                    |                    |                    |                    |
| 37 | Fine bars.....                        | 1, 739, 178. 426   |                    |                    |                    | 20. 933            |
| 38 | Unparted bars.....                    | 1, 344, 837. 987   | 187, 180. 914      |                    | 916, 545. 420      |                    |
| 39 | Mint bars.....                        | 425, 516. 930      |                    |                    |                    |                    |
| 40 | Total redeposits.....                 | 3, 509, 533. 343   | 187, 180. 914      |                    | 916, 545. 420      | 20. 933            |
| 41 | Total bullion.....                    | 3, 807, 875. 911   | 2, 182, 602. 631   | 49, 603. 242       | 1, 774, 104. 389   | 3, 334, 905. 532   |

BY WEIGHT, DURING THE CALENDAR YEAR ENDED DECEMBER 31, 1908.

| Carson.            | Boise.             | Helena.            | Charlotte.         | St. Louis.         | Deadwood.          | Seattle.           | Total.             |    |
|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|----|
| <i>Stand. ozs.</i> |    |
|                    |                    | 154.686            | 18.531             | 60.624             |                    | 827,542.852        | 160.309            | 1  |
|                    |                    |                    |                    | 9.230              |                    | 13.294             | 872,454.709        | 2  |
| 9,561.375          | 329.778            |                    |                    |                    |                    | 64.840             | 46,927.485         | 3  |
|                    |                    |                    | 694.125            |                    |                    | 14.848             | 357,396.936        | 4  |
|                    | 35,959.226         | 969.133            |                    |                    |                    |                    | 552,774.892        | 5  |
|                    |                    |                    |                    |                    |                    | 1,128.903          | 1,285.518          | 6  |
|                    |                    |                    |                    |                    |                    |                    | 39,307.144         | 7  |
|                    |                    |                    |                    |                    |                    |                    | .978               | 8  |
|                    | 311.476            | 83,777.982         |                    |                    |                    | 55.300             | 94,095.636         | 9  |
| 105,449.713        | 11.425             | 5,293.054          |                    |                    |                    | 4.061              | 214,234.588        | 10 |
|                    |                    |                    | 3,508.136          |                    |                    |                    | 7,207.704          | 11 |
|                    | 13,568.600         |                    |                    |                    |                    | 690.904            | 3,827.959          | 12 |
|                    |                    |                    | 52.300             |                    |                    |                    | 23,974.031         | 13 |
|                    |                    |                    |                    |                    | 71,575.395         |                    | 1,227.224          | 14 |
|                    | 89.093             | 4.079              |                    |                    |                    |                    | 406,545.672        | 15 |
|                    |                    |                    |                    |                    |                    |                    | 45,303.060         | 16 |
|                    | 373.562            | 204.945            |                    |                    |                    |                    | 107.479            | 17 |
|                    |                    |                    |                    | 8.611              |                    |                    | 1,411.394          | 18 |
|                    |                    |                    |                    |                    |                    |                    | 83.329             | 19 |
|                    |                    |                    |                    | 89.485             |                    |                    | 31.670             | 20 |
|                    |                    |                    |                    |                    |                    |                    | 62.583             | 21 |
|                    |                    |                    |                    |                    |                    |                    | 431.989            | 22 |
| 115,011.088        | 50,643.160         | 90,403.879         | 4,273.092          | 167.950            | 71,575.395         | 830,186.955        | 2,668,852.289      | 23 |
|                    |                    |                    | 5,619.869          | 483.282            |                    |                    | 621,955.034        | 24 |
|                    |                    |                    |                    | 1,689.325          |                    |                    | 807                | 25 |
| 115,011.088        | 50,643.160         | 90,403.879         | 9,892.961          | 2,340.557          | 71,575.395         | 830,187.762        | 6,263,527.962      | 26 |
|                    |                    |                    | 7.470              | 21,610.533         |                    | 2.089              | 78,512.703         | 27 |
|                    |                    |                    |                    |                    |                    |                    | 207,516.680        | 28 |
|                    |                    | 2,712.391          |                    | 12.220             |                    | 143,201.055        | 457,248.330        | 29 |
|                    |                    |                    |                    |                    |                    | 13,169.266         | 410,177.453        | 30 |
|                    |                    | 13.141             |                    |                    |                    | 3.992              | 202,512.575        | 31 |
|                    |                    | 132.770            | 88.571             | 2,027.522          |                    | 723.833            | 268,534.700        | 32 |
|                    |                    |                    |                    |                    |                    |                    | 679.342            | 33 |
|                    | 31.594             | 18.563             | 5.893              | 2.925              | 22.118             | 39.588             | 1,045.066          | 34 |
|                    |                    |                    |                    |                    |                    |                    | 26.670             | 35 |
| 115,011.088        | 50,674.754         | 93,280.744         | 9,994.895          | 25,993.757         | 71,597.513         | 987,417.635        | 7,889,781.481      | 36 |
|                    |                    |                    |                    |                    |                    |                    | 1,739,199.359      | 37 |
|                    |                    |                    |                    |                    |                    | 3.365              | 2,448,567.686      | 38 |
|                    |                    |                    |                    |                    |                    |                    | 425,516.930        | 39 |
|                    |                    |                    |                    |                    |                    | 3.365              | 4,613,283.975      | 40 |
| 115,011.088        | 50,674.754         | 93,280.744         | 9,994.895          | 25,993.757         | 71,597.513         | 987,421.000        | 12,503,065.456     | 41 |

## No. 2.—DOMESTIC PRODUCTION, DEPOSITS, AND PURCHASES OF SILVER,

|             | Locality and description of deposits. | Philadelphia.      | San Francisco.     | New Orleans.       | Denver.            | New York.          |
|-------------|---------------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|             |                                       | <i>Stand. ozs.</i> |
| 1           | Alabama.....                          | 6.17               |                    | 1,327.58           |                    |                    |
| 2           | Alaska.....                           | 18.63              | 4,782.39           |                    | 38.87              | 28.75              |
| 3           | Arizona.....                          | 65.76              | 12,125.95          |                    | 5,441.10           | 56.91              |
| 4           | California.....                       | 66.78              | 75,051.49          |                    | 108.16             | 922.03             |
| 5           | Colorado.....                         | 15.98              | 37.01              |                    | 333,385.21         | 16.29              |
| 6           | Georgia.....                          | 124.00             |                    |                    |                    |                    |
| 7           | Idaho.....                            | 507.10             | 3.18               |                    | 16.35              | 6.04               |
| 8           | Michigan.....                         | 1,582.24           |                    |                    |                    | 15,425.81          |
| 9           | Montana.....                          |                    | 2.00               |                    | 1,859.49           | 12,139.06          |
| 10          | Nevada.....                           | 29.87              | 29,487.78          | .26                | 481.27             | 1,246.62           |
| 11          | New Mexico.....                       | 5.57               | 2.77               |                    | 781.26             | 187,668.99         |
| 12          | North Carolina.....                   | 34.03              |                    |                    |                    | 27.55              |
| 13          | Oregon.....                           | 12.04              | 1,745.21           |                    | 43.51              | 3.56               |
| 14          | South Carolina.....                   | .75                |                    |                    |                    | 25.07              |
| 15          | South Dakota.....                     |                    |                    |                    |                    | 102,738.00         |
| 16          | Utah.....                             |                    | 8.09               |                    | 4,912.72           | 13.99              |
| 17          | Virginia.....                         | 49.83              |                    |                    |                    |                    |
| 18          | Washington.....                       | 3.60               | 7.21               |                    |                    | 7.30               |
| 19          | Wyoming.....                          |                    |                    |                    | 8.11               |                    |
| 20          | Porto Rico.....                       |                    |                    |                    |                    | 3.61               |
| 21          | Philippines.....                      |                    | 14.67              |                    |                    | 7.19               |
| 22          | Other.....                            | 62.32              |                    |                    |                    |                    |
| 23          | Total domestic.....                   | 2,584.67           | 123,267.75         | 1,327.84           | 347,076.05         | 320,336.77         |
| 24          | Domestic bullion, refinery bars.....  | 32,042.31          |                    |                    | 11,227.72          | 196,487.62         |
| 25          | Domestic bullion, refined.....        | 1,111,480.96       | 1,450,390.60       | 2,756,944.11       | 2,173,329.11       | 2,590,610.49       |
| 26          | Total domestic bullion.....           | 1,146,107.94       | 1,573,658.35       | 2,758,271.95       | 2,531,632.88       | 3,107,434.88       |
| 27          | Domestic coin, mutilated.....         | 2,426.82           | 93.60              | 163.11             | 48.96              |                    |
| 28          | Domestic coin, transferred.....       | 662,191.00         | 26,690.11          | 93,722.90          |                    |                    |
| 29          | Trade dollars.....                    | 96.57              |                    |                    |                    |                    |
| 30          | Foreign bullion, crude.....           | 302,556.94         | 897,224.72         | 20,575.05          | 458.63             | 1,182,273.10       |
| 31          | Foreign bullion, refined.....         |                    |                    |                    |                    | 668,732.72         |
| 32          | Foreign coin.....                     | 276.75             | 22,548.80          | 39,755.68          |                    | 25,999.51          |
| 33          | Philippine coin for recoinage.....    |                    | 13,137,897.65      |                    |                    |                    |
| 34          | Philippine assay coins.....           | 3,790.20           |                    |                    |                    |                    |
| 35          | Philippine coin purchased.....        |                    | .80                |                    |                    |                    |
| 36          | Jewelers' bars, old plate, etc.....   | 80,094.75          | 37,683.42          | 5,499.19           | 2,551.79           | 400,502.34         |
| 37          | Surplus bullion.....                  | 5,769.45           | 4,128.08           |                    | 11,438.52          | 870.71             |
| 38          | Deposit, melting room, grains.....    | 23.95              | 72.66              | 19.70              | 25.54              | 1,092.26           |
| 39          | Sweeps from Helena.....               |                    |                    |                    | 23.26              |                    |
| 40          | Total deposits.....                   | 2,203,334.37       | 15,699,998.19      | 2,918,007.58       | 2,546,179.58       | 5,386,905.52       |
| Redeposits: |                                       |                    |                    |                    |                    |                    |
| 41          | Fine bars.....                        | 610.45             | 70,349.13          |                    |                    | 52,144.46          |
| 42          | Unparted bars.....                    | 2,546,766.90       | 60,732.32          |                    | 137,096.25         |                    |
| 43          | Mint bars.....                        | 225,085.15         |                    |                    |                    |                    |
| 44          | Total redeposits.....                 | 2,772,462.50       | 131,081.45         |                    | 137,096.25         | 52,144.46          |
| 45          | Total bullion.....                    | 4,975,796.87       | 15,831,079.64      | 2,918,007.58       | 2,683,275.83       | 5,439,049.98       |

BY WEIGHT, DURING CALENDAR YEAR ENDED DECEMBER 31, 1908.

| Carson.            | Boise.             | Helena.            | Charlotte.         | St. Louis.         | Deadwood.          | Seattle.           | Total.             |    |
|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|----|
| <i>Stand. ozs.</i> |    |
|                    |                    | 17.42              | 14.07              | 10.38              |                    | 115,641.97         | 1,347.82           | 1  |
|                    |                    |                    |                    | 9.83               |                    | 52.70              | 120,538.41         | 2  |
| 6,253.02           | 617.42             |                    |                    |                    |                    | 13.28              | 17,752.25          | 3  |
|                    |                    |                    | 70.01              |                    |                    | 5.44               | 83,032.18          | 4  |
|                    | 19,008.32          | 134.05             |                    |                    |                    |                    | 333,459.93         | 5  |
|                    |                    |                    |                    |                    |                    | 303.15             | 194.01             | 6  |
|                    |                    |                    |                    |                    |                    |                    | 19,978.19          | 7  |
|                    | 27.43              | 35,616.13          |                    |                    |                    | 373.21             | 17,008.05          | 8  |
| 38,727.68          | 6.12               | 3,571.40           |                    |                    |                    | .16                | 50,017.32          | 9  |
|                    |                    |                    | 909.86             |                    |                    |                    | 73,551.16          | 10 |
|                    | 5,297.37           |                    | 11.89              |                    |                    | 75.42              | 188,458.59         | 11 |
|                    |                    |                    |                    |                    | 86,648.99          |                    | 971.44             | 12 |
|                    | 53.28              | .36                |                    |                    |                    |                    | 7,177.11           | 13 |
|                    | 128.45             | 34.82              |                    | .73                |                    |                    | 37.71              | 14 |
|                    |                    |                    |                    |                    |                    | 263.78             | 49.83              | 15 |
|                    |                    |                    |                    |                    |                    |                    | 4,988.44           | 16 |
|                    |                    |                    |                    |                    |                    |                    | 17                 | 17 |
|                    |                    |                    |                    |                    |                    |                    | 445.16             | 18 |
|                    |                    |                    |                    |                    |                    |                    | 8.84               | 19 |
|                    |                    |                    |                    |                    |                    |                    | 3.61               | 20 |
|                    |                    |                    |                    |                    |                    |                    | 21.86              | 21 |
|                    |                    |                    |                    | 7.64               |                    |                    | 69.96              | 22 |
| 44,980.70          | 25,138.39          | 39,374.18          | 1,005.83           | 28.58              | 86,648.99          | 116,729.11         | 1,108,498.86       | 23 |
|                    |                    |                    | 448.14             | 4.33               |                    |                    | 240,210.12         | 24 |
|                    |                    |                    |                    |                    |                    |                    | 10,082,755.27      | 25 |
| 44,980.70          | 25,138.39          | 39,374.18          | 1,453.97           | 32.91              | 86,648.99          | 116,729.11         | 11,431,464.25      | 26 |
|                    |                    |                    |                    |                    |                    |                    | 2,732.49           | 27 |
|                    |                    |                    |                    |                    |                    |                    | 782,604.01         | 28 |
|                    |                    |                    |                    |                    |                    |                    | 96.57              | 29 |
|                    |                    | 742.58             |                    | 1.64               |                    | 32,426.30          | 2,436,258.96       | 30 |
|                    |                    | .15                |                    |                    |                    |                    | 668,732.72         | 31 |
|                    |                    |                    |                    |                    |                    |                    | 88,580.89          | 32 |
|                    |                    |                    |                    |                    |                    |                    | 13,137,897.65      | 33 |
|                    |                    |                    |                    |                    |                    |                    | 3,790.20           | 34 |
|                    |                    |                    |                    |                    |                    |                    | 80                 | 35 |
|                    |                    | 36.14              | 29.68              | 657.17             |                    | 238.29             | 527,292.77         | 36 |
|                    |                    |                    |                    |                    |                    |                    | 22,206.76          | 37 |
|                    | 33.11              | 6.91               | 1.07               | 3.61               | 23.39              | 5.88               | 1,308.08           | 38 |
|                    |                    |                    |                    |                    |                    |                    | 23.26              | 39 |
| 44,980.70          | 25,171.50          | 40,159.96          | 1,484.72           | 695.33             | 86,672.38          | 149,399.58         | 29,102,989.41      | 40 |
|                    |                    |                    |                    |                    |                    |                    | 123,104.04         | 41 |
|                    |                    |                    |                    |                    |                    | .59                | 2,744,596.06       | 42 |
|                    |                    |                    |                    |                    |                    |                    | 225,085.15         | 43 |
|                    |                    |                    |                    |                    |                    | .59                | 3,092,785.25       | 44 |
| 44,980.70          | 25,171.50          | 40,159.96          | 1,484.72           | 695.33             | 86,672.38          | 149,400.17         | 32,195,774.66      | 45 |

No. 3.—MUTILATED AND UNCURRENT DOMESTIC GOLD AND SILVER COIN  
RECOINAGE DURING THE

| Denomination.                             | Philadelphia.                    |                                 | San Francisco.                 |                              | New Orleans.                   |                                |
|---|----------------------------------|---------------------------------|--------------------------------|------------------------------|--------------------------------|--------------------------------|
|   | Received from Treasury.          | Purchased.                      | Received from Treasury.        | Purchased.                   | Received from Treasury.        | Purchased.                     |
| <b>GOLD.</b>                              |                                  |                                 |                                |                              |                                |                                |
| 1 Double eagles .....                     | \$775,720.00                     | \$42,700.00                     | .....                          | \$7,680.00                   | .....                          | \$14,340.00                    |
| 2 Eagles .....                            | 961,490.00                       | 71,570.00                       | .....                          | 1,520.00                     | .....                          | 15,600.00                      |
| 3 Half eagles .....                       | 2,138,890.00                     | 143,125.00                      | .....                          | 2,205.00                     | .....                          | 29,995.00                      |
| 4 Three-dollar pieces .....               | 24.00                            | 42.00                           | .....                          | 9.00                         | .....                          | .....                          |
| 5 Quarter eagles .....                    | 10,902.50                        | 8,280.00                        | .....                          | 70.00                        | .....                          | 215.00                         |
| 6 Dollars .....                           | 61.00                            | 177.00                          | .....                          | 12.00                        | .....                          | .....                          |
| 7 Total face value .....                  | 3,887,087.50                     | 265,894.00                      | .....                          | 11,496.00                    | .....                          | 60,150.00                      |
| <b>SILVER.</b>                            |                                  |                                 |                                |                              |                                |                                |
| 8 Trade dollars .....                     | .....                            | 111.00                          | .....                          | .....                        | .....                          | .....                          |
| 9 Dollars .....                           | .....                            | 871.00                          | .....                          | .....                        | .....                          | 82.00                          |
| 10 Half dollars .....                     | 315,568.50                       | 684.50                          | \$19,000.00                    | 87.50                        | \$46,990.00                    | 36.00                          |
| 11 Quarter dollars .....                  | 265,349.50                       | 1,165.75                        | 9,500.00                       | 26.75                        | 35,850.00                      | 44.75                          |
| 12 Twenty-cent pieces .....               | 175.60                           | .....                           | .....                          | 80                           | 5.00                           | .....                          |
| 13 Dimes .....                            | 299,108.10                       | 380.50                          | 7,000.00                       | 10.70                        | 43,375.00                      | 44.40                          |
| 14 Half dimes .....                       | 749.55                           | 4.00                            | .....                          | 23.40                        | 30.00                          | .05                            |
| 15 Three-cent pieces .....                | 81.00                            | .66                             | .....                          | .....                        | .....                          | .....                          |
| 16 Total face value .....                 | 881,032.25                       | 3,217.41                        | 35,524.20                      | 124.95                       | 126,250.00                     | 207.20                         |
| <b>SUMMARY.</b>                           |                                  |                                 |                                |                              |                                |                                |
| 17 Gold coins .....                       | <i>Stand. oz.</i><br>207,516.680 | <i>Stand. oz.</i><br>14,206.833 | <i>Stand. oz.</i><br>26,690.11 | <i>Stand. oz.</i><br>606.062 | <i>Stand. oz.</i><br>93,722.90 | <i>Stand. oz.</i><br>3,198.864 |
| 18 Silver coins .....                     | 662,191.00                       | 2,523.39                        | .....                          | 93.60                        | .....                          | 163.11                         |
| 19 Gold coining value .....               | \$3,860,775.45                   | \$264,313.17                    | .....                          | \$11,275.58                  | .....                          | \$59,513.71                    |
| 20 Silver coining value, subsidiary ..... | 823,876.83                       | 3,139.52                        | \$33,206.98                    | 116.45                       | \$116,607.01                   | 202.93                         |
| 21 Loss, gold value .....                 | 26,312.05                        | 1,580.83                        | .....                          | 220.42                       | .....                          | 636.29                         |
| 22 Loss, silver subsidiary .....          | 57,155.42                        | 77.89                           | 2,317.22                       | 8.50                         | 9,642.99                       | 4.27                           |

No. 4.—COINAGE OF UNITED STATES

| Denomination.              | Philadelphia. |                 | San Francisco. |              |
|----------------------------|---------------|-----------------|----------------|--------------|
|                            | Pieces.       | Value.          | Pieces.        | Value.       |
| <b>GOLD.</b>               |               |                 |                |              |
| 1 Double eagles .....      | 4,427,910     | \$88,558,200.00 | 22,000         | \$440,000.00 |
| 2 Eagles .....             | 374,986       | 3,749,860.00    | 59,850         | 598,500.00   |
| 3 Half eagles .....        | 999,886       | 4,999,430.00    | 82,000         | 410,000.00   |
| 4 Quarter eagles .....     | 565,057       | 1,412,042.50    | .....          | .....        |
| 5 Total gold .....         | 6,367,839     | 98,720,132.50   | 163,850        | 1,448,500.00 |
| <b>SILVER, SUBSIDIARY.</b> |               |                 |                |              |
| 6 Half dollars .....       | 1,354,545     | 677,272.50      | 1,644,828      | 822,414.00   |
| 7 Quarter dollars .....    | 4,232,545     | 1,058,136.25    | 784,000        | 196,000.00   |
| 8 Dimes .....              | 10,600,545    | 1,060,054.50    | 3,220,000      | 322,000.00   |
| 9 Total silver .....       | 16,187,635    | 2,795,463.25    | 5,648,828      | 1,340,414.00 |
| <b>MINOR.</b>              |               |                 |                |              |
| 10 Five-cent nickel .....  | 22,686,177    | 1,134,308.85    | .....          | .....        |
| 11 One-cent bronze .....   | 32,327,987    | 323,279.87      | 1,115,000      | 11,150.00    |
| 12 Total minor .....       | 55,014,164    | 1,457,588.72    | 1,115,000      | 11,150.00    |
| 13 Total coinage .....     | 77,569,638    | 102,973,184.47  | 6,927,678      | 2,800,064.00 |

NOTE.—All the double eagles and eagles were of the St. Gaudens design. There were \$98,706,020 in double eagles without the motto and \$10,557,180 with the motto; also \$635,000 in eagles without the motto and \$14,178,360 with the motto. There were \$2,109,370 in half eagles of the old design made during the first three months of 1908, and \$4,040,060 were made from the Bigelow-Pratt design; all the quarter eagles from the Bigelow-Pratt design.

TRANSFERRED FROM THE TREASURY AND PURCHASED OVER THE COUNTER FOR CALENDAR YEAR 1908.

| Denver.              | New York.                | St. Louis.               | Charlotte.          | Seattle.            | Total.                        |                          | Total.                    |
|----------------------|--------------------------|--------------------------|---------------------|---------------------|-------------------------------|--------------------------|---------------------------|
| Pur-<br>chased.      | Pur-<br>chased.          | Pur-<br>chased.          | Pur-<br>chased.     | Pur-<br>chased.     | Received<br>from<br>Treasury. | Purchased.               |                           |
| \$440.00             | \$138,780.00             | \$119,380.00             | \$140.00            | .....               | \$775,720.00                  | \$323,460.00             | \$1,099,180.00            |
| 570.00               | 396,330.00               | 105,300.00               | 10.00               | \$20.00             | 961,490.00                    | 590,920.00               | 1,552,410.00              |
| 730.00               | 192,060.00               | 181,025.00               | .....               | 20.00               | 2,138,890.00                  | 549,160.00               | 2,688,050.00              |
| .....                | 123.00                   | .....                    | .....               | .....               | 24.00                         | 174.00                   | 198.00                    |
| 5.00                 | 1,187.50                 | 47.50                    | .....               | .....               | 10,902.50                     | 9,805.00                 | 20,707.50                 |
| 1.00                 | 89.00                    | 1.00                     | .....               | .....               | 61.00                         | 280.00                   | 341.00                    |
| 1,746.00             | 728,569.50               | 405,753.50               | 150.00              | 40.00               | 3,887,087.50                  | 1,473,799.00             | 5,360,886.50              |
| .....                | .....                    | .....                    | .....               | .....               | .....                         | 111.00                   | 111.00                    |
| 12.00                | .....                    | .....                    | .....               | .....               | .....                         | 965.00                   | 965.00                    |
| 5.50                 | .....                    | .....                    | .....               | .....               | 381,558.50                    | 813.50                   | 382,372.00                |
| 43.00                | .....                    | .....                    | .....               | .....               | 310,699.50                    | 1,280.25                 | 311,979.75                |
| .....                | .....                    | .....                    | .....               | .....               | 181.40                        | .....                    | 181.40                    |
| .....                | .....                    | .....                    | .....               | .....               | 349,483.10                    | 435.60                   | 349,918.70                |
| .80                  | .....                    | .....                    | .....               | .....               | 802.95                        | 4.85                     | 807.80                    |
| .....                | .....                    | .....                    | .....               | .....               | 81.00                         | .66                      | 81.66                     |
| 61.30                | .....                    | .....                    | .....               | .....               | 1,042,806.45                  | 3,610.86                 | 1,046,417.31              |
| Stand. oz.<br>88.304 | Stand. oz.<br>38,792.548 | Stand. oz.<br>21,610.533 | Stand. oz.<br>7.470 | Stand. oz.<br>2.089 | Stand. oz.<br>207,516.680     | Stand. oz.<br>78,512.703 | Stand. oz.<br>286,029.383 |
| 48.96                | .....                    | .....                    | .....               | .....               | 782,604.01                    | 2,829.06                 | 785,433.07                |
| \$1,642.88           | \$721,721.84             | \$402,056.42             | \$138.98            | \$38.89             | \$3,860,775.45                | \$1,460,701.47           | \$5,321,476.92            |
| 60.91                | .....                    | .....                    | .....               | .....               | 973,690.82                    | 3,519.81                 | 977,210.63                |
| 103.12               | 6,847.66                 | 3,697.08                 | 11.02               | 1.11                | 26,312.05                     | 13,097.53                | 39,409.58                 |
| .39                  | .....                    | .....                    | .....               | .....               | 69,115.63                     | 91.05                    | 69,206.68                 |

MINT DURING THE CALENDAR YEAR 1908.

| New Orleans. |                | Denver.    |                 | Total.      |                  |
|--------------|----------------|------------|-----------------|-------------|------------------|
| Pieces.      | Value.         | Pieces.    | Value.          | Pieces.     | Value.           |
| .....        | .....          | 1,013,250  | \$20,265,000.00 | 5,463,160   | \$109,263,200.00 |
| .....        | .....          | 1,046,500  | 10,465,000.00   | 1,481,336   | 14,813,360.00    |
| .....        | .....          | 148,000    | 740,000.00      | 1,229,886   | 6,149,430.00     |
| .....        | .....          | .....      | .....           | 565,057     | 1,412,642.50     |
| .....        | .....          | 2,207,750  | 31,470,000.00   | 8,739,439   | 131,638,632.50   |
| 5,360,000    | \$2,680,000.00 | 3,280,000  | 1,640,000.00    | 11,639,373  | 5,819,686.50     |
| 6,244,000    | 1,561,000.00   | 5,788,000  | 1,447,000.00    | 17,048,545  | 4,262,136.25     |
| 1,789,000    | 178,900.00     | 7,490,000  | 749,000.00      | 23,099,545  | 2,309,954.50     |
| 13,393,000   | 4,419,900.00   | 16,558,000 | 3,836,000.00    | 51,787,463  | 12,391,777.25    |
| .....        | .....          | .....      | .....           | 22,686,177  | 1,134,308.85     |
| .....        | .....          | .....      | .....           | 33,442,987  | 334,429.87       |
| .....        | .....          | .....      | .....           | 56,129,164  | 1,468,738.72     |
| 13,393,000   | 4,419,900.00   | 18,765,750 | 35,306,000.00   | 116,656,066 | 145,499,148.47   |

## PHILIPPINE COINAGE.

| Denomination.                       | Made at—           |                   |
|-------------------------------------|--------------------|-------------------|
|                                     | Phila-<br>delphia. | San<br>Francisco. |
|                                     | <i>Pieces.</i>     | <i>Pieces.</i>    |
| Peso..... silver.....               | 501                | 20,954,944        |
| 50-centavo..... do.....             | 501                | 1,601,000         |
| 20-centavo..... do.....             | 501                | 1,535,000         |
| 10-centavo..... do.....             | 501                | 3,363,911         |
| 5-centavo..... nickel.....          | 500                | .....             |
| 1-centavo..... bronze.....          | 500                | 2,187,000         |
| $\frac{1}{2}$ -centavo..... do..... | 500                | .....             |
| Total.....                          | 3,504              | 29,641,855        |



## NO. 5.—ASSETS AND LIABILITIES OF THE UNITED STATES

## ASSETS.

|    | Institutions.                         | Gold bullion.                       |                                  | Silver bullion.                      |                                 | Value of bullion shipped for coinage. |
|----|---------------------------------------|-------------------------------------|----------------------------------|--------------------------------------|---------------------------------|---------------------------------------|
|    |                                       | Quantity.                           | Value.                           | Quantity.                            | Value (cost).                   |                                       |
|    | COINAGE MINTS.                        |                                     |                                  |                                      |                                 |                                       |
| 1  | Philadelphia.....                     | <i>Standard ozs.</i><br>935,359.578 | <i>Dollars.</i><br>17,402,038.73 | <i>Standard ozs.</i><br>5,994,345.82 | <i>Dollars.</i><br>3,209,155.51 | <i>Dollars.</i><br>.....              |
| 2  | Bullion for Philippine coinage.....   |                                     |                                  | 116.05                               | 73.24                           | .....                                 |
| 3  | San Francisco.....                    | 3,610,888.504                       | 67,179,320.94                    | 1,933,680.18                         | 1,013,867.81                    | .....                                 |
| 4  | Bullion for Philippine coinage.....   |                                     |                                  | 2,878,216.17                         | 2,477,276.95                    | .....                                 |
| 5  | Bullion for San Salvador coinage..... |                                     |                                  | 557,148.53                           | 250,716.84                      | .....                                 |
| 6  | New Orleans.....                      | 135,787.896                         | 2,526,286.22                     | 504,190.16                           | 231,236.57                      | .....                                 |
| 7  | Denver.....                           | 808,679.360                         | 15,045,197.40                    | 841,473.84                           | 389,389.66                      | .....                                 |
|    | ASSAY OFFICES.                        |                                     |                                  |                                      |                                 |                                       |
| 8  | New York.....                         | 453,079.438                         | 8,429,384.90                     | 472,593.25                           | 212,847.68                      | .....                                 |
| 9  | Carson.....                           | 2,325.457                           | 43,260.38                        | 1,043.28                             | 472.79                          | 159,861.01                            |
| 10 | Helena.....                           | 1,161.163                           | 21,603.31                        | 231.25                               | 104.06                          | 50,895.47                             |
| 11 | Boise.....                            | 2,485.333                           | 46,238.77                        | 1,142.15                             | 513.97                          | .....                                 |
| 12 | St. Louis.....                        | 2,460.594                           | 45,778.46                        | 89.56                                | 40.32                           | .....                                 |
| 13 | Charlotte.....                        | 611.250                             | 11,372.09                        | 73.73                                | 33.18                           | .....                                 |
| 14 | Deadwood.....                         | 3,514.435                           | 65,385.38                        | 4,933.25                             | 2,255.78                        | .....                                 |
| 15 | Seattle.....                          | 12,119.174                          | 225,472.25                       | 1,823.28                             | 818.06                          | 645,276.38                            |
| 16 | Total.....                            | 5,968,472.182                       | 111,041,338.83                   | 13,191,100.50                        | 7,788,802.42                    | 856,032.86                            |

## LIABILITIES.

|    | Institutions.      | Bullion fund.                     | Undeposited earnings.        | Seigniorage on silver.        | Unpaid depositors.           | Minor coinage profits.        |
|----|--------------------|-----------------------------------|------------------------------|-------------------------------|------------------------------|-------------------------------|
|    | COINAGE MINTS.     |                                   |                              |                               |                              |                               |
| 17 | Philadelphia.....  | <i>Dollars.</i><br>430,570,640.95 | <i>Dollars.</i><br>30,300.80 | <i>Dollars.</i><br>426,285.84 | <i>Dollars.</i><br>64,289.66 | <i>Dollars.</i><br>169,890.03 |
| 18 | San Francisco..... | 147,271,751.11                    | 14,435.47                    | .....                         | 279,012.58                   | 10,007.80                     |
| 19 | New Orleans.....   | 37,211,116.85                     | 165.29                       | 283,448.79                    | 73.79                        | .....                         |
| 20 | Denver.....        | 312,900,226.96                    | 20.71                        | 77,880.30                     | 643,269.68                   | .....                         |
|    | ASSAY OFFICES.     |                                   |                              |                               |                              |                               |
| 21 | New York.....      | 10,204,048.62                     | 29,320.84                    | .....                         | 19,767.46                    | .....                         |
| 22 | Carson.....        | 521,150.29                        | 1,161.49                     | .....                         | .....                        | .....                         |
| 23 | Helena.....        | 295,767.74                        | 680.72                       | .....                         | .....                        | .....                         |
| 24 | Boise.....         | 110,564.26                        | 177.65                       | .....                         | .....                        | .....                         |
| 25 | St. Louis.....     | 63,232.85                         | 213.50                       | .....                         | .....                        | .....                         |
| 26 | Charlotte.....     | 54,332.07                         | 229.89                       | .....                         | .....                        | .....                         |
| 27 | Deadwood.....      | 80,024.39                         | 416.13                       | .....                         | .....                        | .....                         |
| 28 | Seattle.....       | 5,989,290.44                      | 2,500.50                     | .....                         | 13,032.72                    | .....                         |
| 29 | Total.....         | 945,272,146.53                    | 79,622.99                    | 787,614.93                    | 1,019,445.89                 | 179,897.83                    |

MINTS AND ASSAY OFFICES, DECEMBER 31, 1908.

ASSETS.

| Gold coin.                        | Silver coin.                      | Credit with assistant treasurer and depository banks.  | Minor coin.                     | Minor coinage metal.                  | Deficiencies.                | Total.   |  |
|-----------------------------------|-----------------------------------|--|---------------------------------|---------------------------------------|------------------------------|--|--|
| <i>Dollars.</i><br>302,751,748.45 | <i>Dollars.</i><br>107,715,031.37 | <i>Dollars.</i>  | <i>Dollars.</i><br>1,199,719.43 | <i>Dollars.</i><br>177,751.22<br>1.88 | <i>Dollars.</i><br>13,543.82 | 432,468,988.53<br>75.12  | 1<br>2                                     |
| 8,477,325.00                      | 62,562,894.12                     | 8,654,489.41   | 8,859.82<br>3,082.66            | 2,147.98<br>8,657.42                  | 413,558.24                   | 148,312,463.32<br>2,489,017.03   | 3<br>4                                     |
| 1,443,371.18                      | 32,995,767.69                     | 298,143.06   |                                 |                                       |                              | 250,716.84   | 5  |
| 293,928,760.00                    | 3,239,290.63                      | 1,018,759.96   |                                 |                                       |                              | 37,494,804.72<br>313,621,397.65  | 6<br>7                                     |
| 1,117,087.78<br>67,494.48         | 796.67                            | 493,816.56<br>174,876.70<br>223,845.62<br>63,989.17<br>17,627.57<br>43,156.69<br>12,799.36<br>5,133,256.97 |                                 |                                       | 75,549.75                    | 10,253,136.92<br>522,311.78<br>296,448.46<br>110,741.91<br>63,446.35<br>54,561.96<br>80,440.52<br>6,004,823.66 | 8<br>9<br>10<br>11<br>12<br>13<br>14<br>15 |
| 607,785,786.89                    | 206,513,780.48                    | 16,134,761.07  | 1,211,661.91                    | 188,558.50                            | 502,651.81                   | 952,023,374.77   | 16   |

LIABILITIES.

| Minor coin metal fund.                    | Unpaid cent depositors and subtreasury minor coin transfers. | Government of the Philippine Islands and San Salvador. | Total.   |  |
|---|--|--|--|--|
| <i>Dollars.</i><br>160,000.00<br>1,000.00 | <i>Dollars.</i><br>1,047,580.62                              | <i>Dollars.</i><br>75.75<br>3,475,990.23               | <i>Dollars.</i><br>432,469,063.65<br>151,052,197.19<br>37,494,804.72<br>313,621,397.65                         | 17<br>18<br>19<br>20                         |
|   |  |  | 10,253,136.92<br>522,311.78<br>296,448.46<br>110,741.91<br>63,446.35<br>54,561.96<br>80,440.52<br>6,004,823.66 | 21<br>22<br>23<br>24<br>25<br>26<br>27<br>28 |
| 161,000.00                                | 1,047,580.62   | 3,476,065.98   | 952,023,374.77   | 29   |

No. 6.—HIGHEST, LOWEST, AND AVERAGE PRICE OF BAR SILVER IN LONDON, PER OUNCE BRITISH STANDARD (.925), SINCE 1833, AND THE EQUIVALENT IN UNITED STATES GOLD COIN OF AN OUNCE 1,000 FINE, TAKEN AT THE AVERAGE PRICE.

| Calendar year. | Highest quotation. | Lowest quotation. | Average quotation. | Value of a fine ounce at average quotation. | Calendar year. | Highest quotation. | Lowest quotation. | Average quotation. | Value of a fine ounce at average quotation. |
|----------------|--------------------|-------------------|--------------------|---|----------------|--------------------|-------------------|--------------------|---|
|                | <i>d.</i>          | <i>d.</i>         | <i>d.</i>          | <i>Dollars.</i>                             |                | <i>d.</i>          | <i>d.</i>         | <i>d.</i>          | <i>Dollars.</i>                             |
| 1833.....      | 59 $\frac{3}{4}$   | 58 $\frac{3}{4}$  | 59 $\frac{3}{8}$   | 1.297                                       | 1871.....      | 61                 | 60 $\frac{3}{4}$  | 60 $\frac{1}{2}$   | 1.326                                       |
| 1834.....      | 60 $\frac{3}{4}$   | 59 $\frac{3}{4}$  | 59 $\frac{1}{2}$   | 1.313                                       | 1872.....      | 61 $\frac{1}{2}$   | 59 $\frac{1}{2}$  | 60 $\frac{3}{4}$   | 1.322                                       |
| 1835.....      | 60                 | 59 $\frac{1}{2}$  | 59 $\frac{1}{4}$   | 1.308                                       | 1873.....      | 59 $\frac{1}{2}$   | 57 $\frac{1}{2}$  | 59 $\frac{3}{4}$   | 1.29769                                     |
| 1836.....      | 60 $\frac{3}{4}$   | 59                | 60                 | 1.315                                       | 1874.....      | 59 $\frac{1}{2}$   | 57 $\frac{1}{2}$  | 58 $\frac{3}{4}$   | 1.27883                                     |
| 1837.....      | 60 $\frac{3}{4}$   | 59 $\frac{3}{4}$  | 59 $\frac{3}{8}$   | 1.305                                       | 1875.....      | 57 $\frac{3}{4}$   | 55 $\frac{1}{2}$  | 56 $\frac{1}{2}$   | 1.24233                                     |
| 1838.....      | 60 $\frac{3}{4}$   | 59 $\frac{1}{2}$  | 59 $\frac{1}{4}$   | 1.304                                       | 1876.....      | 58 $\frac{1}{2}$   | 46 $\frac{3}{4}$  | 53 $\frac{1}{2}$   | 1.16414                                     |
| 1839.....      | 60 $\frac{3}{4}$   | 60                | 60                 | 1.323                                       | 1877.....      | 58 $\frac{1}{2}$   | 53 $\frac{1}{2}$  | 54 $\frac{1}{2}$   | 1.20189                                     |
| 1840.....      | 60 $\frac{3}{4}$   | 60 $\frac{1}{2}$  | 60 $\frac{3}{8}$   | 1.323                                       | 1878.....      | 55 $\frac{1}{2}$   | 49 $\frac{1}{2}$  | 52 $\frac{1}{2}$   | 1.15358                                     |
| 1841.....      | 60 $\frac{3}{4}$   | 59 $\frac{3}{4}$  | 60 $\frac{1}{4}$   | 1.316                                       | 1879.....      | 53 $\frac{3}{4}$   | 58 $\frac{3}{4}$  | 51 $\frac{1}{2}$   | 1.12392                                     |
| 1842.....      | 60                 | 59 $\frac{1}{2}$  | 59 $\frac{3}{8}$   | 1.303                                       | 1880.....      | 52 $\frac{1}{2}$   | 51 $\frac{1}{2}$  | 52 $\frac{1}{2}$   | 1.14507                                     |
| 1843.....      | 59 $\frac{3}{4}$   | 59                | 59 $\frac{3}{8}$   | 1.297                                       | 1881.....      | 52 $\frac{1}{2}$   | 50 $\frac{3}{4}$  | 51 $\frac{1}{2}$   | 1.13229                                     |
| 1844.....      | 59 $\frac{3}{4}$   | 59 $\frac{1}{2}$  | 59 $\frac{3}{8}$   | 1.304                                       | 1882.....      | 52 $\frac{3}{8}$   | 50                | 51 $\frac{3}{8}$   | 1.13562                                     |
| 1845.....      | 59 $\frac{3}{4}$   | 58 $\frac{3}{4}$  | 59 $\frac{1}{2}$   | 1.298                                       | 1883.....      | 51 $\frac{1}{2}$   | 50 $\frac{1}{4}$  | 50 $\frac{3}{8}$   | 1.10874                                     |
| 1846.....      | 60 $\frac{3}{4}$   | 59                | 59 $\frac{3}{8}$   | 1.300                                       | 1884.....      | 51 $\frac{3}{8}$   | 49 $\frac{1}{2}$  | 50 $\frac{1}{2}$   | 1.11068                                     |
| 1847.....      | 60 $\frac{3}{4}$   | 58 $\frac{3}{4}$  | 59 $\frac{1}{2}$   | 1.308                                       | 1885.....      | 50                 | 46 $\frac{3}{4}$  | 48 $\frac{3}{8}$   | 1.06510                                     |
| 1848.....      | 60                 | 58 $\frac{1}{2}$  | 59 $\frac{1}{2}$   | 1.304                                       | 1886.....      | 47                 | 42                | 45 $\frac{3}{8}$   | .99467                                      |
| 1849.....      | 60                 | 59 $\frac{1}{2}$  | 59 $\frac{3}{8}$   | 1.309                                       | 1887.....      | 47 $\frac{1}{2}$   | 43 $\frac{1}{2}$  | 44 $\frac{1}{2}$   | .97946                                      |
| 1850.....      | 61 $\frac{1}{2}$   | 60 $\frac{1}{2}$  | 61 $\frac{1}{4}$   | 1.316                                       | 1888.....      | 44 $\frac{3}{4}$   | 41 $\frac{3}{4}$  | 42 $\frac{3}{4}$   | .93974                                      |
| 1851.....      | 61 $\frac{1}{2}$   | 60                | 61                 | 1.337                                       | 1889.....      | 44 $\frac{3}{4}$   | 41 $\frac{3}{4}$  | 42 $\frac{3}{4}$   | .93511                                      |
| 1852.....      | 61                 | 59 $\frac{3}{4}$  | 60 $\frac{1}{2}$   | 1.326                                       | 1890.....      | 54 $\frac{3}{8}$   | 43 $\frac{3}{4}$  | 47 $\frac{3}{8}$   | 1.04634                                     |
| 1853.....      | 61                 | 60 $\frac{3}{4}$  | 61 $\frac{1}{2}$   | 1.348                                       | 1891.....      | 48 $\frac{3}{4}$   | 43 $\frac{1}{2}$  | 45 $\frac{1}{2}$   | .98800                                      |
| 1854.....      | 61                 | 60 $\frac{3}{4}$  | 61 $\frac{1}{2}$   | 1.348                                       | 1892.....      | 43 $\frac{3}{4}$   | 37 $\frac{3}{4}$  | 39 $\frac{3}{4}$   | .87145                                      |
| 1855.....      | 61                 | 60                | 61 $\frac{3}{8}$   | 1.344                                       | 1893.....      | 38 $\frac{3}{4}$   | 30 $\frac{1}{2}$  | 35 $\frac{3}{8}$   | .78030                                      |
| 1856.....      | 62 $\frac{1}{2}$   | 60 $\frac{1}{2}$  | 61 $\frac{3}{8}$   | 1.344                                       | 1894.....      | 31 $\frac{3}{4}$   | 27                | 28 $\frac{3}{4}$   | .63479                                      |
| 1857.....      | 62 $\frac{1}{2}$   | 61                | 61 $\frac{3}{8}$   | 1.353                                       | 1895.....      | 31 $\frac{3}{4}$   | 27 $\frac{3}{4}$  | 29 $\frac{3}{4}$   | .65406                                      |
| 1858.....      | 61                 | 60 $\frac{3}{4}$  | 61 $\frac{3}{8}$   | 1.344                                       | 1896.....      | 31 $\frac{3}{4}$   | 29 $\frac{3}{4}$  | 30 $\frac{1}{2}$   | .67565                                      |
| 1859.....      | 62                 | 61 $\frac{3}{4}$  | 62 $\frac{1}{4}$   | 1.360                                       | 1897.....      | 29 $\frac{3}{4}$   | 23 $\frac{3}{4}$  | 27 $\frac{3}{4}$   | .60438                                      |
| 1860.....      | 62                 | 61 $\frac{1}{2}$  | 61 $\frac{1}{2}$   | 1.352                                       | 1898.....      | 28 $\frac{3}{4}$   | 25                | 26 $\frac{1}{2}$   | .59010                                      |
| 1861.....      | 61                 | 60 $\frac{3}{4}$  | 60 $\frac{3}{4}$   | 1.333                                       | 1899.....      | 29                 | 26 $\frac{3}{4}$  | 27 $\frac{1}{2}$   | .60154                                      |
| 1862.....      | 62 $\frac{1}{2}$   | 61                | 61 $\frac{1}{4}$   | 1.346                                       | 1900.....      | 30 $\frac{1}{2}$   | 27                | 28 $\frac{3}{4}$   | .62007                                      |
| 1863.....      | 61                 | 61                | 61 $\frac{3}{8}$   | 1.345                                       | 1901.....      | 29 $\frac{3}{4}$   | 24 $\frac{1}{2}$  | 27 $\frac{1}{2}$   | .59595                                      |
| 1864.....      | 62 $\frac{1}{2}$   | 60 $\frac{3}{4}$  | 61 $\frac{3}{8}$   | 1.345                                       | 1902.....      | 26 $\frac{1}{2}$   | 21 $\frac{1}{2}$  | 24 $\frac{1}{2}$   | .52795                                      |
| 1865.....      | 60 $\frac{3}{4}$   | 60 $\frac{1}{2}$  | 61 $\frac{1}{4}$   | 1.338                                       | 1903.....      | 28 $\frac{1}{2}$   | 21 $\frac{1}{2}$  | 24 $\frac{1}{2}$   | .54257                                      |
| 1866.....      | 62 $\frac{1}{2}$   | 60 $\frac{3}{4}$  | 61 $\frac{1}{2}$   | 1.339                                       | 1904.....      | 28 $\frac{3}{4}$   | 24 $\frac{1}{2}$  | 26 $\frac{1}{2}$   | .57876                                      |
| 1867.....      | 61 $\frac{1}{2}$   | 60 $\frac{3}{4}$  | 60 $\frac{3}{4}$   | 1.328                                       | 1905.....      | 30 $\frac{3}{4}$   | 25 $\frac{1}{4}$  | 27 $\frac{1}{2}$   | .61027                                      |
| 1868.....      | 61 $\frac{1}{2}$   | 60 $\frac{3}{4}$  | 60 $\frac{3}{4}$   | 1.326                                       | 1906.....      | 33 $\frac{1}{2}$   | 29                | 30 $\frac{1}{2}$   | .67689                                      |
| 1869.....      | 61                 | 60                | 60 $\frac{7}{8}$   | 1.325                                       | 1907.....      | 32 $\frac{1}{2}$   | 24 $\frac{1}{2}$  | 30 $\frac{3}{4}$   | .66152                                      |
| 1870.....      | 60 $\frac{3}{4}$   | 60 $\frac{1}{2}$  | 60 $\frac{3}{8}$   | 1.328                                       | 1908.....      | 27                 | 22                | 24 $\frac{1}{2}$   | .53490                                      |

No. 7.—COMMERCIAL RATIO OF SILVER TO GOLD EACH YEAR SINCE 1687.

[NOTE.—From 1687 to 1832 the ratios are taken from Dr. A. Soetbeer, from 1833 to 1878 from Pixley and Abell's tables, and from 1879 to 1896 from daily cablegrams from London to the Bureau of the Mint, and since from daily London quotations.]

| Year.     | Ratio. | Year.   | Ratio. | Year.   | Ratio. | Year.   | Ratio. | Year.   | Ratio. | Year.   | Ratio. |
|-----------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|
| 1687..... | 14.94  | 1724... | 15.11  | 1761... | 14.54  | 1798... | 15.59  | 1835... | 15.80  | 1872... | 15.63  |
| 1688..... | 14.94  | 1725... | 15.11  | 1762... | 15.27  | 1799... | 15.74  | 1836... | 15.72  | 1873... | 15.93  |
| 1689..... | 15.02  | 1726... | 15.15  | 1763... | 14.99  | 1800... | 15.68  | 1837... | 15.83  | 1874... | 16.16  |
| 1690..... | 15.02  | 1727... | 15.24  | 1764... | 14.70  | 1801... | 15.46  | 1838... | 15.85  | 1875... | 16.64  |
| 1691..... | 14.98  | 1728... | 15.11  | 1765... | 14.83  | 1802... | 15.26  | 1839... | 15.62  | 1876... | 17.75  |
| 1692..... | 14.92  | 1729... | 14.92  | 1766... | 14.80  | 1803... | 15.41  | 1840... | 15.62  | 1877... | 17.20  |
| 1693..... | 14.83  | 1730... | 14.81  | 1767... | 14.85  | 1804... | 15.41  | 1841... | 15.70  | 1878... | 17.92  |
| 1694..... | 14.87  | 1731... | 14.94  | 1768... | 14.80  | 1805... | 15.79  | 1842... | 15.87  | 1879... | 18.39  |
| 1695..... | 15.02  | 1732... | 15.09  | 1769... | 14.72  | 1806... | 15.52  | 1843... | 15.93  | 1880... | 18.05  |
| 1696..... | 15.00  | 1733... | 15.18  | 1770... | 14.62  | 1807... | 15.43  | 1844... | 15.85  | 1881... | 18.25  |
| 1697..... | 15.20  | 1734... | 15.39  | 1771... | 14.66  | 1808... | 16.08  | 1845... | 15.92  | 1882... | 18.20  |
| 1698..... | 15.07  | 1735... | 15.41  | 1772... | 14.52  | 1809... | 15.96  | 1846... | 15.90  | 1883... | 18.64  |
| 1699..... | 14.94  | 1736... | 15.18  | 1773... | 14.62  | 1810... | 15.77  | 1847... | 15.80  | 1884... | 18.61  |
| 1700..... | 14.81  | 1737... | 15.02  | 1774... | 14.62  | 1811... | 15.53  | 1848... | 15.85  | 1885... | 19.41  |
| 1701..... | 15.07  | 1738... | 14.91  | 1775... | 14.72  | 1812... | 16.11  | 1849... | 15.78  | 1886... | 20.78  |
| 1702..... | 15.52  | 1739... | 14.91  | 1776... | 14.55  | 1813... | 16.25  | 1850... | 15.70  | 1887... | 21.10  |
| 1703..... | 15.17  | 1740... | 14.94  | 1777... | 14.54  | 1814... | 15.04  | 1851... | 15.46  | 1888... | 22.00  |
| 1704..... | 15.22  | 1741... | 14.92  | 1778... | 14.68  | 1815... | 15.26  | 1852... | 15.59  | 1889... | 22.10  |
| 1705..... | 15.11  | 1742... | 14.85  | 1779... | 14.80  | 1816... | 15.28  | 1853... | 15.33  | 1890... | 19.75  |
| 1706..... | 15.27  | 1743... | 14.85  | 1780... | 14.72  | 1817... | 15.11  | 1854... | 15.33  | 1891... | 20.92  |
| 1707..... | 15.44  | 1744... | 14.87  | 1781... | 14.78  | 1818... | 15.35  | 1855... | 15.38  | 1892... | 23.72  |
| 1708..... | 15.41  | 1745... | 14.98  | 1782... | 14.42  | 1819... | 15.33  | 1856... | 15.38  | 1893... | 26.49  |
| 1709..... | 15.31  | 1746... | 15.13  | 1783... | 14.48  | 1820... | 15.62  | 1857... | 15.27  | 1894... | 32.56  |
| 1710..... | 15.22  | 1747... | 15.26  | 1784... | 14.70  | 1821... | 15.95  | 1858... | 15.38  | 1895... | 31.60  |
| 1711..... | 15.29  | 1748... | 15.11  | 1785... | 14.92  | 1822... | 15.80  | 1859... | 15.19  | 1896... | 30.59  |
| 1712..... | 15.31  | 1749... | 14.80  | 1786... | 14.96  | 1823... | 15.84  | 1860... | 15.29  | 1897... | 34.20  |
| 1713..... | 15.24  | 1750... | 14.55  | 1787... | 14.92  | 1824... | 15.82  | 1861... | 15.50  | 1898... | 35.03  |
| 1714..... | 15.13  | 1751... | 14.39  | 1788... | 14.65  | 1825... | 15.70  | 1862... | 15.35  | 1899... | 34.36  |
| 1715..... | 15.11  | 1752... | 14.54  | 1789... | 14.75  | 1826... | 15.76  | 1863... | 15.37  | 1900... | 33.33  |
| 1716..... | 15.09  | 1753... | 14.54  | 1790... | 15.04  | 1827... | 15.74  | 1864... | 15.37  | 1901... | 34.68  |
| 1717..... | 15.13  | 1754... | 14.48  | 1791... | 15.05  | 1828... | 15.78  | 1865... | 15.44  | 1902... | 39.15  |
| 1718..... | 15.11  | 1755... | 14.68  | 1792... | 15.17  | 1829... | 15.78  | 1866... | 15.43  | 1903... | 38.10  |
| 1719..... | 15.09  | 1756... | 14.94  | 1793... | 15.00  | 1830... | 15.82  | 1867... | 15.57  | 1904... | 35.70  |
| 1720..... | 15.04  | 1757... | 14.87  | 1794... | 15.37  | 1831... | 15.72  | 1868... | 15.59  | 1905... | 33.87  |
| 1721..... | 15.05  | 1758... | 14.85  | 1795... | 15.55  | 1832... | 15.73  | 1869... | 15.60  | 1906... | 30.54  |
| 1722..... | 15.17  | 1759... | 14.15  | 1796... | 15.65  | 1833... | 15.93  | 1870... | 15.57  | 1907... | 31.24  |
| 1723..... | 15.20  | 1760... | 14.14  | 1797... | 15.41  | 1834... | 15.73  | 1871... | 15.57  | 1908... | 38.64  |

## No. 8.—IMPORTS OF GOLD AND SILVER, BY CUSTOMS DISTRICTS, INTO THE

| Customs districts. |                                   | GOLD.                    |                   |            |                |           | Total gold. |
|--------------------|-----------------------------------|--------------------------|-------------------|------------|----------------|-----------|-------------|
|                    |                                   | In ore and base bullion. | Bullion, refined. |            | Coin.          |           |             |
|                    |                                   |                          |                   |            | United States. | Foreign.  |             |
|                    | Dollars.                          | Ounces.                  | Dollars.          | Dollars.   | Dollars.       | Dollars.  |             |
| 1                  | Baltimore, Md.....                |                          | 24,400            | 497,683    |                |           | 497,683     |
| 2                  | Bangor, Me.....                   | 99                       | 1,546             | 30,901     |                | 46        | 31,046      |
| 3                  | Boston and Charlestown, Mass..... |                          | 875               | 14,953     | 4,100          | 5,213     | 24,266      |
| 4                  | Bridgeport, Conn.....             |                          |                   |            |                |           |             |
| 5                  | Newark, N. J.....                 |                          |                   |            |                |           |             |
| 6                  | New York, N. Y.....               | 1,117,916                | 493,637           | 10,168,942 | 7,080,799      | 1,938,211 | 20,305,868  |
| 7                  | Passamaquoddy, Me.....            |                          | 9,450             | 187,398    | 4,237          | 540       | 192,175     |
| 8                  | Perth Amboy, N. J.....            | 3,460,352                |                   |            |                |           | 3,460,352   |
| 9                  | Philadelphia, Pa.....             | 150                      | 170               | 2,700      |                | 965       | 3,815       |
| 10                 | Porto Rico.....                   |                          |                   |            | 3,000          |           | 3,000       |
| 11                 | Key West, Fla.....                |                          |                   |            | 1,340          |           | 1,340       |
| 12                 | Mobile, Ala.....                  |                          |                   |            |                |           |             |
| 13                 | New Orleans, La.....              | 752,046                  | 279               | 4,185      | 7,570          |           | 763,801     |
| 14                 | Tampa, Fla.....                   |                          |                   |            | 120,508        |           | 120,508     |
| 15                 | Arizona.....                      | 716,113                  | 96,737            | 1,934,744  |                |           | 2,650,857   |
| 16                 | Brazos de Santiago, Tex.....      |                          |                   |            |                |           |             |
| 17                 | Corpus Christi, Tex.....          |                          | 199,898           | 4,131,833  | 10,344         | 1,906     | 4,144,083   |
| 18                 | Paso del Norte, Tex.....          | 489,174                  | 27,039            | 540,794    | 2,851          | 9,462     | 1,042,281   |
| 19                 | Saluria, Tex.....                 | 194,970                  | 7,918             | 162,390    |                |           | 357,360     |
| 20                 | Alaska.....                       | 168,318                  | 139,344           | 2,237,494  | 19,298         |           | 2,425,110   |
| 21                 | Hawaii.....                       |                          |                   |            |                |           |             |
| 22                 | Los Angeles, Cal.....             | 75                       |                   |            |                |           | 75          |
| 23                 | Puget Sound, Wash.....            | 3,522,379                | 119,704           | 2,362,284  | 180,310        |           | 6,064,973   |
| 24                 | San Diego, Cal.....               | 9,612                    | 490               | 8,775      |                |           | 18,387      |
| 25                 | San Francisco, Cal.....           | 807,944                  | 88,468            | 1,827,966  | 72,477         | 1,686,745 | 4,395,132   |
| 26                 | Buffalo Creek, N. Y.....          | 12,916                   |                   |            | 821,495        |           | 834,411     |
| 27                 | Champlain, N. Y.....              | 14,900                   |                   |            | 810,496        |           | 825,396     |
| 28                 | Chicago, Ill.....                 | 27,128                   | 3                 | 60         |                | 50,183    | 77,371      |
| 29                 | Detroit, Mich.....                | 2,060                    | 315               | 4,950      | 852,724        |           | 859,734     |
| 30                 | Huron, Mich.....                  | 2,000                    |                   |            |                |           | 2,000       |
| 31                 | Memphremagog, Vt.....             | 50                       |                   |            |                |           | 50          |
| 32                 | Minnesota, Minn.....              | 1,000                    |                   |            |                |           | 1,000       |
| 33                 | Montana and Idaho.....            | 76                       |                   |            |                |           | 76          |
| 34                 | Niagara, N. Y.....                | 10,620                   | 21                | 443        | 426,050        |           | 437,113     |
| 35                 | North and South Dakota.....       | 139,791                  |                   |            |                |           | 139,791     |
| 36                 | Oswegatchie, N. Y.....            | 465,999                  |                   |            |                |           | 465,999     |
| 37                 | Superior, Mich.....               | 13,500                   |                   |            |                |           | 13,500      |
| 38                 | Vermont, Vt.....                  | 838                      | 90                | 2,080      | 33,728         | 81,094    | 117,740     |
| 39                 | Denver, Colo.....                 |                          |                   |            |                |           |             |
|                    | Total.....                        | 11,930,026               | 1,210,384         | 24,120,575 | 10,451,327     | 3,774,365 | 50,276,293  |

UNITED STATES DURING THE CALENDAR YEAR ENDING DECEMBER 31, 1908.

| SILVER.           |                |                 |                 |                 |                 |                 | Total gold and silver. |  |
|-------------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------------|--|
| Contained in ore. | Bullion.       |                 | Coin.           |                 | Total silver.   |                 |                        |  |
|                   |                |                 | United States.  | Foreign.        |                 |                 |                        |  |
| <i>Dollars.</i>   | <i>Ounces.</i> | <i>Dollars.</i> | <i>Dollars.</i> | <i>Dollars.</i> | <i>Dollars.</i> | <i>Dollars.</i> |                        |  |
| 141,911           | 1,113,862      | 595,650         | 10,101          | 345             | 737,561         | 1,235,244       | 1                      |  |
|                   |                |                 | 1,457           | 487             | 10,446          | 41,492          | 2                      |  |
|                   |                |                 |                 |                 | 1,944           | 26,210          | 3                      |  |
| 18,349            | 6,463          | 3,555           |                 |                 | 21,904          | 21,904          | 4                      |  |
| 2,967             |                |                 |                 |                 | 2,967           | 2,967           | 5                      |  |
| 2,780,012         | 6,841,708      | 3,623,215       | 383,280         | 141,767         | 6,928,274       | 27,234,142      | 6                      |  |
|                   |                |                 | 29,074          | 60              | 29,134          | 221,309         | 7                      |  |
| 11,581,885        |                |                 |                 |                 | 11,581,885      | 15,042,237      | 8                      |  |
|                   |                |                 |                 |                 | 234             | 4,049           | 9                      |  |
|                   |                |                 | 21,861          |                 | 21,861          | 21,861          | 10                     |  |
|                   |                |                 |                 |                 | 1,340           | 1,340           | 11                     |  |
|                   |                |                 |                 |                 | 12,780          | 12,780          | 12                     |  |
|                   |                |                 |                 |                 | 189,568         | 953,369         | 13                     |  |
|                   |                |                 | 793             |                 | 793             | 121,301         | 14                     |  |
| 2,302,355         | 1,075,282      | 662,019         |                 |                 | 2,964,374       | 5,615,231       | 15                     |  |
|                   |                |                 | 821             |                 | 821             | 821             | 16                     |  |
| 25                | 332,687        | 198,844         | 2,537           |                 | 201,406         | 4,345,489       | 17                     |  |
| 1,566,615         | 2,680,510      | 1,399,948       |                 |                 | 3,054,291       | 4,096,572       | 18                     |  |
| 725,710           | 3,824,779      | 2,032,955       |                 | 87,728          | 2,758,665       | 3,116,025       | 19                     |  |
| 26                |                |                 |                 |                 | 26              | 2,425,136       | 20                     |  |
|                   |                |                 | 3,500           |                 | 3,500           | 3,500           | 21                     |  |
|                   |                |                 |                 |                 |                 | 75              | 22                     |  |
| 540,989           |                |                 | 218,343         |                 | 759,332         | 6,824,305       | 23                     |  |
|                   |                |                 |                 |                 |                 | 18,387          | 24                     |  |
| 422,710           | 4,364,327      | 2,294,542       |                 | 34,939          | 2,752,191       | 7,147,323       | 25                     |  |
| 418,985           |                |                 | 226,795         |                 | 645,780         | 1,480,191       | 26                     |  |
| 3,470,832         |                |                 | 43,605          |                 | 3,514,437       | 4,339,833       | 27                     |  |
| 166,447           |                |                 |                 |                 | 166,447         | 243,818         | 28                     |  |
| 616               |                |                 | 1,518,267       |                 | 1,518,883       | 2,378,617       | 29                     |  |
| 356,851           |                |                 |                 |                 | 356,851         | 358,851         | 30                     |  |
|                   |                |                 |                 |                 |                 | 50              | 31                     |  |
|                   |                |                 |                 |                 |                 | 1,000           | 32                     |  |
| 3,297             |                |                 |                 |                 | 3,297           | 3,373           | 33                     |  |
| 1,997,812         | 469,453        | 231,359         | 20,461          |                 | 2,249,632       | 2,686,745       | 34                     |  |
| 14,089            |                |                 |                 |                 | 14,089          | 153,880         | 35                     |  |
| 1,081,006         |                |                 |                 |                 | 1,081,006       | 1,547,005       | 36                     |  |
| 121,117           |                |                 |                 |                 | 121,117         | 134,617         | 37                     |  |
| 3,502             | 257,660        | 141,198         | 37,436          |                 | 182,136         | 299,876         | 38                     |  |
| 336,498           |                |                 |                 |                 | 336,498         | 336,498         | 39                     |  |
| 28,054,606        | 20,966,731     | 11,183,285      | 2,518,331       | 467,908         | 42,224,130      | 92,500,423      |                        |  |

## No. 9.—IMPORTS OF GOLD AND SILVER, BY COUNTRIES, INTO THE UNITED

| Countries.               |                                  | GOLD.                    |                   |            |                |           | Total gold. |
|--------------------------|----------------------------------|--------------------------|-------------------|------------|----------------|-----------|-------------|
|                          |                                  | In ore and base bullion. | Bullion, refined. |            | Coin.          |           |             |
|                          |                                  |                          | United States.    | Foreign.   | United States. | Foreign.  |             |
|                          |                                  | Dollars.                 | Ounces.           | Dollars.   | Dollars.       | Dollars.  | Dollars.    |
| 1                        | Austria-Hungary.....             |                          |                   |            |                | 1,660     | 1,660       |
| 2                        | Azores, and Madeira Islands..... |                          |                   |            | 1,814          |           | 1,814       |
| 3                        | Belgium.....                     |                          | 18                | 375        |                |           | 375         |
| 4                        | France.....                      | 57,741                   | 9,706             | 199,957    | 486,553        | 874,154   | 1,618,405   |
| 5                        | Germany.....                     | 9,922                    | 1,736             | 35,750     | 9,676          | 40        | 55,388      |
| 6                        | Gibraltar.....                   |                          |                   |            |                | 85        | 85          |
| 7                        | Greece.....                      |                          |                   |            | 1,100          |           | 1,100       |
| 8                        | Italy.....                       |                          |                   |            | 4,745          | 695       | 5,440       |
| 9                        | Netherlands.....                 |                          |                   |            |                |           |             |
| 10                       | Portugal.....                    |                          |                   |            | 3,728          |           | 3,728       |
| 11                       | Servia.....                      |                          | 457               | 9,419      |                |           | 9,419       |
| 12                       | Spain.....                       | 7,614                    | 1,319             | 27,159     | 1,213          |           | 35,986      |
| 13                       | United Kingdom—England.....      | 16,921                   | 206,079           | 4,244,946  | 136,033        | 404,223   | 4,802,123   |
| 14                       | Bermuda.....                     |                          |                   |            |                | 14,599    | 14,599      |
| 15                       | British Honduras.....            |                          |                   |            | 4,370          |           | 4,370       |
| Dominion of Canada:      |                                  |                          |                   |            |                |           |             |
| 16                       | Nova Scotia, etc.....            | 99                       | 11,871            | 233,252    | 4,237          | 586       | 238,174     |
| 17                       | Quebec, Ontario, etc.....        | 221,412                  | 139,940           | 2,247,667  | 2,963,791      | 81,094    | 5,513,964   |
| 18                       | British Columbia.....            | 4,081,953                | 119,704           | 2,362,284  | 180,310        |           | 6,624,547   |
| 19                       | Newfoundland and Labrador.....   | 34,950                   | 868               | 17,876     |                |           | 52,826      |
| Central American States: |                                  |                          |                   |            |                |           |             |
| 20                       | Costa Rica.....                  |                          | 21,104            | 434,795    | 220,244        | 35,000    | 690,039     |
| 21                       | Guatemala.....                   | 7,247                    |                   |            |                |           | 7,247       |
| 22                       | Honduras.....                    | 234,771                  | 4,827             | 99,527     | 3,200          | 2,120     | 339,618     |
| 23                       | Nicaragua.....                   | 747,629                  | 5,644             | 114,695    |                |           | 862,324     |
| 24                       | Panama.....                      |                          | 1,390             | 28,636     | 475            |           | 29,111      |
| 25                       | Salvador.....                    |                          | 38,985            | 805,724    | 8,018          |           | 813,742     |
| 26                       | Mexico.....                      | 6,189,325                | 419,029           | 8,572,261  | 26,584         | 11,475    | 14,799,645  |
| West Indies:             |                                  |                          |                   |            |                |           |             |
| 27                       | British.....                     | 7,114                    | 5,260             | 108,299    | 1,034,958      | 19,750    | 1,170,121   |
| 28                       | Cuba.....                        | 7,647                    | 1,344             | 27,493     | 4,345,198      | 69,523    | 4,449,861   |
| 29                       | Danish.....                      |                          |                   |            | 54,163         | 1,425     | 55,588      |
| 30                       | Dutch.....                       |                          | 30                | 615        | 23,545         | 56,796    | 80,956      |
| 31                       | French.....                      |                          |                   |            | 15,360         | 896       | 16,256      |
| 32                       | Haiti.....                       | 25                       |                   |            | 190,441        | 2,000     | 192,466     |
| 33                       | Santo Domingo.....               |                          | 58                | 1,199      | 25,488         | 3,189     | 29,876      |
| 34                       | Argentina.....                   | 55,095                   | 2,724             | 56,107     | 640            |           | 111,842     |
| 35                       | Chile.....                       | 91,865                   | 2,652             | 54,533     | 570            |           | 146,968     |
| 36                       | Colombia.....                    | 9,191                    | 93,598            | 1,928,155  | 75,000         | 688       | 2,013,034   |
| 37                       | Ecuador.....                     | 110,639                  | 7,791             | 160,514    | 550,245        | 497,330   | 1,318,728   |
| Guiana:                  |                                  |                          |                   |            |                |           |             |
| 38                       | British.....                     | 176                      | 2                 | 50         | 60             |           | 286         |
| 39                       | Dutch.....                       |                          | 303               | 6,252      |                |           | 6,252       |
| 40                       | Peru.....                        | 15,531                   | 3,878             | 79,898     | 7,055          | 847       | 103,331     |
| 41                       | Uruguay.....                     |                          |                   |            |                |           |             |
| 42                       | Venezuela.....                   | 471                      | 1,167             | 24,000     | 12,470         | 9,445     | 46,386      |
| 43                       | Chinese Empire.....              |                          |                   |            | 2,865          | 145,995   | 148,860     |
| 44                       | Japan.....                       | 3,488                    | 1,742             | 35,901     | 14,740         | 79,170    | 133,299     |
| 45                       | Korea.....                       | 16,600                   |                   |            |                |           | 16,600      |
| 46                       | Russia-Asiatic.....              |                          |                   |            | 25,975         |           | 25,975      |
| 47                       | Australia and Tasmania.....      |                          | 106,286           | 2,185,115  | 1,073          | 1,461,580 | 3,647,788   |
| 48                       | French Oceania.....              |                          |                   |            | 15,390         |           | 15,390      |
| 49                       | Philippine Islands.....          | 2,600                    | 872               | 18,121     |                |           | 20,721      |
| 50                       | Total.....                       | 11,930,026               | 1,210,384         | 24,120,575 | 10,451,327     | 3,774,365 | 50,276,293  |

STATES DURING THE CALENDAR YEAR ENDING DECEMBER 31, 1908.

| SILVER.           |            |            |                |          |               |            | Total gold and silver. |  |
|-------------------|------------|------------|----------------|----------|---------------|------------|------------------------|--|
| Contained in ore. | Bullion.   |            | Coin.          |          | Total silver. | Dollars.   |                        |  |
|                   |            |            | United States. | Foreign. |               |            |                        |  |
| Dollars.          | Ounces.    | Dollars.   | Dollars.       | Dollars. | Dollars.      | Dollars.   |                        |  |
|                   |            |            | 59             |          | 59            | 1,719      | 1                      |  |
|                   |            |            |                |          |               | 1,814      | 2                      |  |
|                   | 21,529     | 12,203     |                |          | 12,203        | 12,578     | 3                      |  |
| 34,778            | 360        | 217        | 41,453         | 29,103   | 105,551       | 1,723,956  | 4                      |  |
| 8,561             | 79,478     | 43,920     | 87,247         | 7,648    | 147,376       | 202,764    | 5                      |  |
|                   |            |            | 62             | 1,676    | 1,738         | 1,823      | 6                      |  |
|                   |            |            |                |          |               | 1,100      | 7                      |  |
|                   |            |            | 1,994          | 780      | 780           | 6,220      | 8                      |  |
|                   |            |            | 10             |          | 1,994         | 1,994      | 9                      |  |
|                   | 1,636      | 814        |                |          | 10            | 3,738      | 10                     |  |
| 22,646            | 61,141     | 33,600     |                |          | 814           | 10,233     | 11                     |  |
| 9,415             | 333,367    | 168,880    | 16,936         | 39,059   | 56,246        | 92,232     | 12                     |  |
|                   |            |            | 375            | 3,893    | 4,268         | 5,036,413  | 13                     |  |
|                   |            |            |                | 46,313   | 46,313        | 18,867     | 14                     |  |
|                   |            |            |                |          |               | 50,683     | 15                     |  |
| 164               |            |            | 40,632         | 405      | 41,201        | 279,375    | 16                     |  |
| 7,598,820         | 733,576    | 376,112    | 1,846,564      |          | 9,821,496     | 15,335,460 | 17                     |  |
| 503,996           |            |            | 218,343        |          | 722,339       | 7,940,886  | 18                     |  |
| 4,580             | 14,494     | 8,526      |                |          | 13,106        | 65,932     | 19                     |  |
|                   |            |            |                |          |               |            |                        |  |
|                   | 153,580    | 86,723     |                |          | 86,723        | 776,762    | 20                     |  |
|                   |            |            |                |          |               | 19,840     | 21                     |  |
| 386,628           | 82,483     | 47,333     |                | 12,593   | 12,593        | 919,471    | 22                     |  |
|                   | 1,800      | 1,080      |                | 145,892  | 579,853       | 869,595    | 23                     |  |
|                   | 237        | 120        |                | 6,191    | 7,271         | 29,231     | 24                     |  |
|                   | 50,600     | 26,812     |                |          | 120           | 840,554    | 25                     |  |
| 18,002,739        | 16,964,607 | 9,007,973  | 3,370          | 89,629   | 27,103,711    | 41,903,356 | 26                     |  |
|                   |            |            |                |          |               |            |                        |  |
|                   | 6,670      | 3,893      | 46,365         | 3,550    | 53,808        | 1,223,929  | 27                     |  |
| 200               | 26,815     | 16,326     | 127,793        | 14,000   | 158,319       | 4,608,180  | 28                     |  |
|                   |            |            | 26,604         |          | 26,604        | 82,192     | 29                     |  |
|                   |            |            | 5,966          | 2,263    | 8,229         | 89,185     | 30                     |  |
|                   |            |            | 166            | 383      | 549           | 16,805     | 31                     |  |
| 31                |            |            | 5,114          | 27,280   | 32,425        | 224,891    | 32                     |  |
|                   |            |            | 44,743         | 105      | 44,848        | 74,724     | 33                     |  |
| 21,098            | 36,191     | 18,778     |                |          | 39,876        | 151,718    | 34                     |  |
| 1,395,226         | 373,616    | 203,790    |                |          | 1,599,016     | 1,745,984  | 35                     |  |
| 3,809             | 40,233     | 22,331     | 650            | 2,592    | 29,382        | 2,042,416  | 36                     |  |
|                   | 3,759      | 2,244      |                | 150      | 2,394         | 1,321,122  | 37                     |  |
|                   |            |            |                |          |               |            |                        |  |
|                   |            |            |                |          |               | 286        | 38                     |  |
|                   |            |            |                |          |               | 6,252      | 39                     |  |
| 55,517            | 1,156,920  | 655,554    | 75             |          | 711,146       | 814,477    | 40                     |  |
|                   |            |            | 260            |          | 260           | 46,436     | 41                     |  |
|                   |            |            | 50             |          | 50            | 167,643    | 42                     |  |
|                   | 430        | 240        |                | 18,543   | 18,783        | 223,219    | 43                     |  |
| 496               | 135,043    | 70,654     | 3,500          | 15,270   | 89,920        | 22,455     | 44                     |  |
| 5,855             |            |            |                |          | 5,855         | 25,975     | 45                     |  |
|                   |            |            |                |          |               | 4,023,520  | 46                     |  |
|                   | 688,166    | 375,162    |                | 590      | 375,752       | 15,390     | 47                     |  |
|                   |            |            |                |          |               | 20,768     | 48                     |  |
| 47                |            |            |                |          | 47            |            | 49                     |  |
| 28,054,606        | 20,966,731 | 11,183,285 | 2,518,331      | 467,908  | 42,224,130    | 92,500,423 | 50                     |  |

No. 10.—EXPORTS BY CUSTOMS DISTRICTS OF DOMESTIC GOLD AND SILVER FROM THE UNITED STATES DURING THE CALENDAR YEAR ENDING DECEMBER 31, 1908.

| Customs districts.       | GOLD.                    |                   |            |            |             |
|--------------------------|--------------------------|-------------------|------------|------------|-------------|
|                          | In ore and base bullion. | Bullion, refined. |            | Coin.      | Total gold. |
|                          | Dollars.                 | Ounces.           | Dollars.   | Dollars.   | Dollars.    |
| Baltimore, Md.....       |                          |                   |            | 8,500      | 8,500       |
| Bangor, Me.....          |                          | 3                 | 67         |            | 67          |
| Newark, N. J.....        |                          |                   |            |            |             |
| New York, N. Y.....      | 272                      | a 1,995,169       | 40,974,672 | 13,167,426 | 54,142,370  |
| Perth Amboy, N. J.....   |                          |                   |            |            |             |
| New Orleans, La.....     |                          |                   |            | 68,100     | 68,100      |
| Corpus Christi, Tex..... |                          |                   |            | 5,248      | 5,248       |
| Paso del Norte, Tex..... | 68,998                   | 7                 | 140        |            | 69,138      |
| Alaska.....              | 207,375                  | 4,086             | 63,000     |            | 270,375     |
| Hawaii.....              |                          |                   |            | 5,355      | 5,355       |
| Puget Sound, Wash.....   | 136,528                  | 2,217             | 44,091     | 18,334     | 198,953     |
| San Francisco, Cal.....  |                          | 92                | 1,903      | 18,577     | 20,480      |
| Buffalo Creek, N. Y..... |                          | 8,120             | 168,062    | 200,000    | 368,062     |
| Champlain, N. Y.....     |                          |                   |            | 19,830,000 | 19,830,000  |
| Detroit, Mich.....       |                          | 15                | 312        |            | 312         |
| Memphremagog, Vt.....    |                          |                   |            |            |             |
| Montana and Idaho.....   | 50                       |                   |            |            | 50          |
| Niagara, N. Y.....       |                          | 7,349             | 150,565    | 526,555    | 677,120     |
| Oswegatchie, N. Y.....   |                          |                   |            |            |             |
| Vermont, Vt.....         |                          | 1,959             | 38,486     | 4,025,000  | 4,063,486   |
| Total.....               | 413,223                  | 2,019,017         | 41,441,298 | 37,873,095 | 79,727,616  |

| Customs districts.       | SILVER.                  |                          |                      |           |               | Total gold and silver. |
|--------------------------|--------------------------|--------------------------|----------------------|-----------|---------------|------------------------|
|                          | In ore and base bullion. | Bullion, refined.        |                      | Coin.     | Total silver. |                        |
|                          | Dollars.                 | Ounces.                  | Dollars.             | Dollars.  | Dollars.      |                        |
| Baltimore, Md.....       |                          |                          |                      | 665       | 665           | 9,165                  |
| Bangor, Me.....          |                          |                          |                      |           |               | 67                     |
| Newark, N. J.....        |                          |                          |                      |           |               | 985,530                |
| New York, N. Y.....      | 106,097                  | { 1,860,228<br>a 269,039 | { 985,530<br>147,900 | { 109,391 | { 41,943,938  | 96,086,308             |
| Perth Amboy, N. J.....   |                          | { 78,871,492             | { 41,580,550         |           | { 1,592,244   | 1,592,244              |
| New Orleans, La.....     |                          | 2,894,320                | 1,592,244            | 904       | 904           | 69,004                 |
| Corpus Christi, Tex..... |                          |                          |                      |           |               | 5,248                  |
| Paso del Norte, Tex..... | 154,899                  | 120                      | 63                   | 32,000    | 186,962       | 256,100                |
| Alaska.....              | 1,008                    |                          |                      |           | 1,008         | 271,383                |
| Hawaii.....              |                          |                          |                      | 21        | 21            | 5,376                  |
| Puget Sound, Wash.....   | 10,794                   | 22,980                   | 14,808               | 60,188    | 85,790        | 284,743                |
| San Francisco, Cal.....  |                          | 10,883,456               | 5,752,460            |           | 5,752,460     | 5,772,940              |
| Buffalo Creek, N. Y..... | 3,496                    | 75,177                   | 45,083               |           | 48,579        | 416,641                |
| Champlain, N. Y.....     |                          | 2,473                    | 1,376                | 85        | 1,461         | 19,831,461             |
| Detroit, Mich.....       |                          | 20                       | 12                   |           | 12            | 324                    |
| Memphremagog, Vt.....    |                          | 795                      | 421                  | 50        | 471           | 471                    |
| Montana and Idaho.....   |                          |                          |                      |           |               | 50                     |
| Niagara, N. Y.....       |                          | 18,343                   | 10,131               | 397       | 10,528        | 687,648                |
| Oswegatchie, N. Y.....   | 6,963                    | 283                      | 174                  |           | 7,137         | 7,137                  |
| Vermont, Vt.....         |                          | 146,574                  | 77,361               | 700       | 78,061        | 4,141,547              |
| Total.....               | 283,257                  | 95,045,300               | 50,208,113           | 204,401   | 50,695,771    | 130,423,387            |

a United States mint or assay office bars.

No. 11.—EXPORTS BY COUNTRIES OF DOMESTIC GOLD AND SILVER FROM THE UNITED STATES DURING THE CALENDAR YEAR ENDING DECEMBER 31, 1908.

| Countries.                  | GOLD.                    |                   |                 |                 |                 |
|-----------------------------|--------------------------|-------------------|-----------------|-----------------|-----------------|
|                             | In ore and base bullion. | Bullion, refined. |                 | Coin.           | Total gold.     |
|                             | <i>Dollars.</i>          | <i>Ounces.</i>    | <i>Dollars.</i> | <i>Dollars.</i> | <i>Dollars.</i> |
| France.....                 |                          | a 1,524,967       | 31,307,329      | 1,055,000       | 32,362,329      |
| Germany.....                | 500                      | a 470,202         | 9,667,843       | 9,350,000       | 19,017,843      |
| United Kingdom—England..... | 272                      |                   |                 | 4,325           | 4,597           |
| British Honduras.....       |                          |                   |                 | 29,200          | 29,200          |
| Dominion of Canada:         |                          |                   |                 |                 |                 |
| Nova Scotia, etc.....       |                          | 3                 | 67              |                 | 67              |
| Quebec, Ontario, etc.....   | 198,145                  | 17,443            | 357,425         | 24,581,555      | 25,137,125      |
| British Columbia.....       | 145,308                  | 6,303             | 107,091         | 18,334          | 270,733         |
| Central American States:    |                          |                   |                 |                 |                 |
| Costa Rica.....             |                          |                   |                 | 1,300           | 1,300           |
| Guatemala.....              |                          |                   |                 | 28,600          | 28,600          |
| Honduras.....               |                          |                   |                 | 8,000           | 8,000           |
| Nicaragua.....              |                          |                   |                 | 1,000           | 1,000           |
| Panama.....                 |                          |                   |                 | 900,000         | 900,000         |
| Mexico.....                 | 68,998                   | 7                 | 140             | 12,248          | 81,386          |
| West Indies:                |                          |                   |                 |                 |                 |
| British.....                |                          |                   |                 | 14,500          | 14,500          |
| Haiti.....                  |                          |                   |                 | 343,280         | 343,280         |
| Santo Domingo.....          |                          |                   |                 | 226,610         | 226,610         |
| Argentina.....              |                          |                   |                 | 1,000,000       | 1,000,000       |
| Brazil.....                 |                          |                   |                 | 131             | 131             |
| Colombia.....               |                          |                   |                 | 2,500           | 2,500           |
| Ecuador.....                |                          |                   |                 | 50,000          | 50,000          |
| Guiana—British.....         |                          |                   |                 |                 |                 |
| Venezuela.....              |                          |                   |                 | 221,830         | 221,830         |
| Chinese Empire.....         |                          |                   |                 |                 |                 |
| East Indies:                |                          |                   |                 |                 |                 |
| British India.....          |                          |                   |                 |                 |                 |
| Straits Settlements.....    |                          |                   |                 | 750             | 750             |
| Hongkong.....               |                          | 92                | 1,903           | 8,877           | 10,780          |
| Japan.....                  |                          |                   |                 | 55              | 55              |
| French Oceania.....         |                          |                   |                 | 15,000          | 15,000          |
| Total.....                  | 413,223                  | 2,019,017         | 41,441,298      | 37,873,095      | 79,727,616      |

| Countries.                  | SILVER.                  |                   |                 |                 |                 | Total gold and silver. |
|-----------------------------|--------------------------|-------------------|-----------------|-----------------|-----------------|------------------------|
|                             | In ore and base bullion. | Bullion, refined. |                 | Coin.           | Total silver.   |                        |
|                             | <i>Dollars.</i>          | <i>Ounces.</i>    | <i>Dollars.</i> | <i>Dollars.</i> | <i>Dollars.</i> |                        |
| France.....                 |                          | 9,580,901         | 5,050,290       |                 | 5,050,290       | 37,412,619             |
| Germany.....                | 102,613                  |                   |                 |                 | 102,613         | 19,120,456             |
| United Kingdom—England..... | 3,484                    | a 269,039         | 147,900         |                 |                 | 39,236,102             |
| British Honduras.....       |                          | 73,989,940        | 39,080,121      |                 | 39,231,505      | 29,200                 |
| Dominion of Canada:         |                          |                   |                 |                 |                 |                        |
| Nova Scotia, etc.....       |                          |                   |                 |                 |                 | 67                     |
| Quebec, Ontario, etc.....   | 10,459                   | 243,655           | 134,558         | 1,232           | 146,249         | 25,283,374             |
| British Columbia.....       | 11,802                   | 22,980            | 14,808          | 60,188          | 86,798          | 357,531                |
| Central American States:    |                          |                   |                 |                 |                 |                        |
| Costa Rica.....             |                          |                   |                 |                 |                 | 1,300                  |
| Guatemala.....              |                          |                   |                 |                 |                 | 28,600                 |
| Honduras.....               |                          |                   |                 | 904             | 904             | 8,904                  |
| Nicaragua.....              |                          |                   |                 |                 |                 | 1,000                  |
| Panama.....                 |                          |                   |                 | 870             | 870             | 900,870                |
| Mexico.....                 | 154,899                  | 120               | 63              | 32,000          | 186,962         | 268,348                |
| West Indies:                |                          |                   |                 |                 |                 |                        |
| British.....                |                          | 10                | 5               | 6,685           | 6,690           | 21,190                 |
| Haiti.....                  |                          |                   |                 |                 |                 | 343,280                |
| Santo Domingo.....          |                          |                   |                 | 102,501         | 102,501         | 329,111                |
| Argentina.....              |                          |                   |                 |                 |                 | 1,000,000              |
| Brazil.....                 |                          |                   |                 |                 |                 | 131                    |
| Colombia.....               |                          |                   |                 |                 |                 | 2,500                  |
| Ecuador.....                |                          |                   |                 |                 |                 | 50,000                 |
| Guiana—British.....         |                          | 5,103             | 2,808           |                 | 2,808           | 2,808                  |
| Venezuela.....              |                          |                   |                 |                 |                 | 221,830                |
| Chinese Empire.....         |                          | 1,306,736         | 691,222         |                 | 691,222         | 691,222                |
| East Indies:                |                          |                   |                 |                 |                 |                        |
| British India.....          |                          | 50,096            | 25,100          |                 | 25,100          | 25,100                 |
| Straits Settlements.....    |                          |                   |                 |                 |                 | 750                    |
| Hongkong.....               |                          | 9,576,720         | 5,061,238       |                 | 5,061,238       | 5,072,018              |
| Japan.....                  |                          |                   |                 | 21              | 21              | 76                     |
| French Oceania.....         |                          |                   |                 |                 |                 | 15,000                 |
| Total.....                  | 283,257                  | 95,045,300        | 50,208,113      | 204,401         | 50,695,771      | 130,423,357            |

a United States mint or assay office bars.

No. 12.—EXPORTS, BY CUSTOMS DISTRICTS, OF FOREIGN GOLD AND SILVER FROM THE UNITED STATES DURING THE CALENDAR YEAR ENDING DECEMBER 31, 1908.

| Customs districts.       | GOLD.                    |                   |                 |                 |                 |
|--------------------------|--------------------------|-------------------|-----------------|-----------------|-----------------|
|                          | In ore and base bullion. | Bullion, refined. |                 | Coin.           | Total gold.     |
|                          | <i>Dollars.</i>          | <i>Ounces.</i>    | <i>Dollars.</i> | <i>Dollars.</i> | <i>Dollars.</i> |
| Baltimore, Md.....       |                          |                   |                 |                 |                 |
| New York, N. Y.....      |                          |                   |                 | 794,250         | 794,250         |
| New Orleans, La.....     |                          |                   |                 |                 |                 |
| Paso Del Norte, Tex..... |                          |                   |                 |                 |                 |
| Alaska.....              | 5,842                    |                   |                 |                 | 5,842           |
| Hawaii.....              |                          |                   |                 | 16,525          | 16,525          |
| Puget Sound, Wash.....   |                          |                   |                 | 3,828           | 3,828           |
| San Diego, Cal.....      |                          |                   |                 |                 |                 |
| San Francisco, Cal.....  |                          |                   |                 |                 |                 |
| Buffalo Creek, N. Y..... |                          | 55                | 1,147           |                 | 1,147           |
| Champlain, N. Y.....     |                          |                   |                 | 454,424         | 454,424         |
| Detroit, Mich.....       |                          |                   |                 |                 |                 |
| Vermont, Vt.....         |                          |                   |                 | 211,824         | 211,824         |
| Total.....               | 5,842                    | 55                | 1,147           | 1,480,851       | 1,487,840       |

  

| Customs districts.       | SILVER.           |                   |                 |                 |                 | Total gold and silver. |
|--------------------------|-------------------|-------------------|-----------------|-----------------|-----------------|------------------------|
|                          | Contained in ore. | Bullion, refined. |                 | Coin.           | Total silver.   |                        |
|                          | <i>Dollars.</i>   | <i>Ounces.</i>    | <i>Dollars.</i> | <i>Dollars.</i> | <i>Dollars.</i> |                        |
| Baltimore, Md.....       |                   |                   |                 | 600             | 600             | 600                    |
| New York, N. Y.....      |                   | 1,410,733         | 802,867         | 83,253          | 886,120         | 1,680,370              |
| New Orleans, La.....     |                   |                   |                 | 43,366          | 43,366          | 43,366                 |
| Paso del Norte, Tex..... |                   |                   |                 | 19,247          | 19,247          | 19,247                 |
| Alaska.....              |                   |                   |                 |                 |                 | 5,842                  |
| Hawaii.....              |                   |                   |                 | 232             | 232             | 16,757                 |
| Puget Sound, Wash.....   |                   | 53,256            | 34,124          | 5,795           | 39,919          | 43,747                 |
| San Diego, Cal.....      |                   |                   |                 | 997             | 997             | 997                    |
| San Francisco, Cal.....  |                   |                   |                 | 7,829           | 7,829           | 7,829                  |
| Buffalo Creek, N. Y..... |                   | 6,450             | 3,874           | 33,119          | 36,993          | 38,140                 |
| Champlain, N. Y.....     |                   |                   |                 | 56,084          | 56,084          | 510,508                |
| Detroit, Mich.....       |                   |                   |                 | 602             | 602             | 602                    |
| Vermont, Vt.....         |                   |                   |                 | 49,911          | 49,911          | 261,735                |
| Total.....               |                   | 1,470,439         | 840,865         | 301,035         | 1,141,900       | 2,629,740              |

No. 13.—EXPORTS, BY COUNTRIES, OF FOREIGN GOLD AND SILVER FROM THE UNITED STATES DURING THE CALENDAR YEAR ENDING DECEMBER 31, 1908.

| Countries.                  | GOLD.                    |                   |         |           |             |
|-----------------------------|--------------------------|-------------------|---------|-----------|-------------|
|                             | In ore and base bullion. | Bullion, refined. |         | Coin.     | Total gold. |
|                             |                          | Dollars.          | Ounces. |           |             |
| United Kingdom—England..... |                          |                   |         |           |             |
| Bermuda.....                |                          |                   |         | 9,735     | 9,735       |
| Dominion of Canada:         |                          |                   |         |           |             |
| Quebec, Ontario, etc.....   |                          | 55                | 1,147   | 666,248   | 667,395     |
| British Columbia.....       | 5,842                    |                   |         | 3,928     | 9,770       |
| Nicaragua.....              |                          |                   |         |           |             |
| Mexico.....                 |                          |                   |         |           |             |
| West Indies:                |                          |                   |         |           |             |
| British.....                |                          |                   |         |           |             |
| Cuba.....                   |                          |                   |         | 774,300   | 774,300     |
| Dutch.....                  |                          |                   |         | 240       | 240         |
| French.....                 |                          |                   |         | 1,975     | 1,975       |
| Brazil.....                 |                          |                   |         | 2,500     | 2,500       |
| Chile.....                  |                          |                   |         | 5,500     | 5,500       |
| Colombia.....               |                          |                   |         |           |             |
| Guiana—British.....         |                          |                   |         |           |             |
| Chinese Empire.....         |                          |                   |         |           |             |
| Hongkong.....               |                          |                   |         |           |             |
| British Oceania:            |                          |                   |         |           |             |
| Australia and Tasmania..... |                          |                   |         | 16,425    | 16,425      |
| Other British Oceania.....  |                          |                   |         |           |             |
| Total.....                  | 5,842                    | 55                | 1,147   | 1,480,851 | 1,487,840   |

| Countries.                  | SILVER.           |                   |         |         |               | Total gold and silver. |
|-----------------------------|-------------------|-------------------|---------|---------|---------------|------------------------|
|                             | Contained in ore. | Bullion, refined. |         | Coin.   | Total silver. |                        |
|                             |                   | Dollars.          | Ounces. |         |               |                        |
| United Kingdom—England..... |                   |                   |         |         |               |                        |
| Bermuda.....                |                   | 1,410,733         | 802,867 | 31,000  | 833,867       | 833,867                |
| Dominion of Canada:         |                   |                   |         |         |               |                        |
| Quebec, Ontario, etc.....   |                   | 6,450             | 3,874   | 139,716 | 143,590       | 810,985                |
| British Columbia.....       |                   |                   |         | 5,798   | 5,798         | 15,568                 |
| Nicaragua.....              |                   |                   |         | 43,366  | 43,366        | 43,366                 |
| Mexico.....                 |                   |                   |         | 26,634  | 26,634        | 26,634                 |
| West Indies:                |                   |                   |         |         |               |                        |
| British.....                |                   |                   |         | 33,556  | 33,556        | 33,556                 |
| Cuba.....                   |                   |                   |         |         |               | 774,300                |
| Dutch.....                  |                   |                   |         |         |               | 240                    |
| French.....                 |                   |                   |         |         |               | 1,975                  |
| Brazil.....                 |                   |                   |         |         |               | 2,500                  |
| Chile.....                  |                   |                   |         |         |               | 5,500                  |
| Colombia.....               |                   |                   |         | 3,000   | 3,000         | 3,000                  |
| Guiana—British.....         |                   |                   |         | 9,907   | 9,907         | 9,907                  |
| Chinese Empire.....         |                   | 53,256            | 34,124  |         | 34,124        | 34,124                 |
| Hongkong.....               |                   |                   |         | 66      | 66            | 66                     |
| British Oceania:            |                   |                   |         |         |               |                        |
| Australia and Tasmania..... |                   |                   |         | 229     | 229           | 16,654                 |
| Other British Oceania.....  |                   |                   |         | 7,763   | 7,763         | 7,763                  |
| Total.....                  |                   | 1,470,439         | 840,865 | 301,035 | 1,141,900     | 2,629,740              |



No. 15.—TRANSIT AND TRANSSHIPMENT OF GOLD AND SILVER IN THE CUSTOMS DISTRICTS OF NEW YORK DURING THE CALENDAR YEAR ENDING DECEMBER 31, 1908.

| Countries from which received and to which shipped. | GOLD.    |                  |         |             | SILVER. |           |             |               | Total gold and silver. |
|---|----------|------------------|---------|-------------|---------|-----------|-------------|---------------|------------------------|
|   | In ore.  | Bullion refined. | Coin.   | Total gold. | In ore. | Bullion.  | Coin.       | Total silver. |                        |
| Received from—                                      |          |                  |         |             |         |           |             |               |                        |
| United Kingdom—England.....                         |          |                  |         |             |         |           | \$1,186,445 | \$1,186,445   | \$1,186,445            |
| Central American States:                            |          |                  |         |             |         |           |             |               |                        |
| Nicaragua.....                                      |          | \$4,039          |         | \$4,039     |         | \$1,095   |             | 1,095         | 5,134                  |
| Panama.....   |          |                  |         |             | \$1,375 |           |             | 1,375         | 1,375                  |
| Mexico.....   | \$14,720 | 1,379            |         | 16,099      | 74,530  | 4,879,398 | 200         | 4,954,128     | 4,970,227              |
| West Indies:  |          |                  |         |             |         |           |             |               |                        |
| British.....  |          | 45,005           | \$1,500 | 46,505      |         | 4,342     |             | 4,342         | 50,847                 |
| Cuba.....   |          |                  | 560,000 | 560,000     | 17,000  | 1,131,250 | 233,000     | 1,381,250     | 1,941,250              |
| Haiti.....  |          | 1,000            |         | 1,000       |         |           |             |               | 1,000                  |
| Colombia.....                                       |          | 354,297          |         | 354,297     |         | 37,969    |             | 37,969        | 392,266                |
| Venezuela.....                                      |          | 2,370            | 33,574  | 35,944      |         |           |             |               | 35,944                 |
| Total.....  | 17,090   | 439,294          | 561,500 | 1,017,884   | 92,905  | 6,054,054 | 1,419,645   | 7,566,604     | 8,584,488              |
| Shipped to—   |          |                  |         |             |         |           |             |               |                        |
| France.....   |          | 19,101           | 560,000 | 579,101     | 800     | 3,298,770 |             | 3,299,570     | 3,878,671              |
| Germany.....  |          | 1,379            |         | 1,379       |         | 1,105,535 | 200         | 1,105,735     | 1,107,114              |
| Italy.....  |          | 2,150            |         | 2,150       |         |           |             |               | 2,150                  |
| United Kingdom—England.....                         |          |                  |         |             |         |           |             |               |                        |
| Mexico.....   | 17,090   | 416,664          | 1,500   | 435,254     | 92,105  | 1,649,749 | 233,000     | 1,974,854     | 2,410,108              |
| Total.....  | 17,090   | 439,294          | 561,500 | 1,017,884   | 92,905  | 6,054,054 | 1,419,645   | 7,566,604     | 8,584,488              |

## No. 16.—COINAGE OF NATIONS.

| Country.                          | 1906.        |              | 1907.         |              | 1908.         |              |
|-----------------------------------|--------------|--------------|---------------|--------------|---------------|--------------|
|                                   | Gold.        | Silver.      | Gold.         | Silver.      | Gold.         | Silver.      |
| United States.....                | \$78,793,045 | \$10,651,088 | \$131,907,490 | \$13,178,436 | \$131,638,633 | \$12,391,777 |
| Philippine Islands.....           |              | 100,951      |               | 6,730,260    |               | 11,199,868   |
| Austria-Hungary.....              | 7,403,715    | 932,581      | 4,605,184     | 3,458,435    | 5,890,827     | 10,868,313   |
| Belgium.....                      |              |              |               | 105,185      |               |              |
| Bolivia.....                      |              | 295,462      |               |              |               | 9,687        |
| Brazil.....                       | 4,324        | 604,968      | 40,962        | 4,340,900    | 69,331        | 2,888,288    |
| British Empire:                   |              |              |               |              |               |              |
| Australasia.....                  | 55,841,584   |              | 52,772,229    |              | 50,887,122    |              |
| Canada.....                       |              | 809,463      |               | 1,194,000    | 3,299         | 313,338      |
| British Honduras.....             |              |              |               | 24,500       |               |              |
| Ceylon.....                       |              |              |               | 25,955       |               | 81,108       |
| Cyprus.....                       |              |              |               | 24,333       |               |              |
| Newfoundland.....                 |              |              |               | 50,000       |               | 100,000      |
| Great Britain.....                | 61,147,573   | 8,865,780    | 100,011,442   | 9,924,740    | 67,157,700    | 4,911,301    |
| Guiana (British).....             |              |              |               |              |               | 2,433        |
| Hongkong.....                     |              | 248,813      |               |              |               | 1,945,726    |
| India.....                        |              | 64,891,356   |               | 84,630,837   |               | 58,773,220   |
| Straits Settlements.....          |              |              |               | 17,517,000   |               | 6,929,500    |
| Sarawak.....                      |              | 15,000       |               | 2,000        |               |              |
| Chile.....                        |              | 293,948      | 90,867        | 750,166      |               |              |
| China.....                        |              | 11,089,409   |               | 5,316,439    |               | 24,498,653   |
| Colombia.....                     |              | 227,433      |               | 1,017,580    |               | 407,058      |
| Danish West Indies.....           |              |              |               | 29,172       |               |              |
| Denmark.....                      |              | 80,815       |               | 216,789      | 3,912,084     |              |
| Egypt.....                        |              | 1,349,094    |               | 2,224,350    |               |              |
| France.....                       | 64,064,117   | 626,801      | 75,261,788    | 1,202,130    | 29,574,098    | 3,110,555    |
| French colonies:                  |              |              |               |              |               |              |
| Indo-China.....                   |              | 10,194,060   |               | 14,061,745   |               | 14,785,004   |
| Tunis.....                        | 249          | 349          | 266           | 77,551       | 498           | 116,499      |
| Germany.....                      | 40,995,041   | 14,716,370   | 15,925,915    | 20,216,679   | 15,660,469    | 13,834,161   |
| Colony of German East Africa..... |              | 561,667      |               | 324,433      |               | 162,217      |
| Honduras.....                     |              |              |               | 3,000        |               |              |
| Italy.....                        |              | 1,274,612    |               | 2,115,806    |               | 1,288,730    |
| San Marino.....                   |              | 11,580       |               |              |               |              |
| Japan.....                        | 13,286,840   | 4,096,944    | 8,944,080     | 8,586,999    | 10,371,704    | 8,459,796    |
| Korea.....                        | 49,800       | 647,400      |               | 517,920      | 423,640       | 935,071      |
| Liberia.....                      |              | 24,000       |               |              |               |              |
| Mexico.....                       | 26,234,640   | 11,296,000   | 10,632,152    | 9,651,454    | 4,436,294     | 3,932,351    |
| Morocco.....                      |              | 868,500      |               |              |               |              |
| Netherlands.....                  | 68,144       | 562,800      |               | 1,849,200    | 207,799       | 1,206,000    |
| Dutch East Indies.....            |              | 904,500      |               | 1,869,300    |               | 1,809,000    |
| Norway.....                       |              | 53,600       |               | 97,927       |               | 155,440      |
| Persia.....                       | 149,571      | 1,014,061    |               |              |               |              |
| Peru.....                         | 1,075,908    | 109,759      | 996,016       | 415,527      | 704,207       | 152,869      |
| Portugal.....                     |              |              |               | 207,360      |               | 2,344,468    |
| Russia.....                       | 77           | 4,348,085    | 280           | 5,660,338    | 1,930         | 3,263,078    |
| Roumania.....                     | 579,000      | 675,500      |               |              |               |              |
| San Salvador.....                 |              |              |               |              |               | 2,315,280    |
| Siam.....                         |              | 1,705,217    |               | 1,342,891    |               | 47,560       |
| Sweden.....                       |              | 217,509      |               | 714,428      |               | 319,726      |
| Switzerland.....                  | 386,000      |              | 579,000       | 653,305      | 1,370,300     | 386,000      |
| Turkey.....                       | 16,247,160   | 738,991      | 10,036,231    | 1,325,756    | 4,708,265     | 748,707      |
| Total.....                        | 366,326,788  | 155,490,466  | 411,803,902   | 221,652,826  | 327,018,200   | 194,692,737  |

No. 17.—WORLD'S PRODUCTION OF GOLD AND SILVER.

CALENDAR YEAR 1906.

| Country.             | GOLD.             |                |              | SILVER.           |                |                   |
|----------------------|-------------------|----------------|--------------|-------------------|----------------|-------------------|
|                      | Kilograms (fine). | Ounces (fine). | Value.       | Kilograms (fine). | Ounces (fine). | Commercial value. |
| North America:       |                   |                |              |                   |                |                   |
| United States.....   | 142,001           | 4,565,333      | \$94,373,800 | 1,757,944         | 56,517,900     | \$38,256,400      |
| Canada.....          | 18,092            | 581,657        | 12,023,900   | 266,521           | 8,568,665      | 5,800,000         |
| Mexico.....          | 27,889            | 896,615        | 18,534,700   | 1,717,738         | 55,225,268     | 37,381,400        |
| Africa.....          | 203,669           | 6,547,943      | 135,358,000  | 21,850            | 702,464        | 475,500           |
| Australasia.....     | 123,971           | 3,985,684      | 82,391,400   | 432,640           | 13,909,371     | 9,412,400         |
| Europe:              |                   |                |              |                   |                |                   |
| Russia.....          | 29,336            | 943,142        | 19,496,500   | 5,169             | 166,183        | 112,500           |
| Austria-Hungary..... | 3,935             | 126,519        | 2,615,400    | 56,184            | 1,806,322      | 1,222,700         |
| Germany.....         | 121               | 3,890          | 80,400       | 177,183           | 5,696,433      | 3,855,900         |
| Norway.....          |                   |                |              | 5,458             | 175,475        | 118,800           |
| Sweden.....          | 20                | 643            | 13,300       | 1,007             | 32,375         | 21,900            |
| Italy.....           | 62                | 1,993          | 41,200       | 20,916            | 672,449        | 455,200           |
| Spain.....           |                   |                |              | 126,424           | 4,064,532      | 2,751,200         |
| Greece.....          |                   |                |              | 25,786            | 829,025        | 561,200           |
| Turkey.....          | 9                 | 289            | 6,000        | 1,178             | 37,874         | 25,600            |
| France.....          | 756               | 24,305         | 502,400      | 22,378            | 719,453        | 487,000           |
| Great Britain.....   | 44                | 1,414          | 29,200       | 4,268             | 137,216        | 92,900            |
| Servia.....          | 90                | 2,893          | 59,800       |                   |                |                   |
| South America:       |                   |                |              |                   |                |                   |
| Argentina.....       | 8                 | 268            | 5,500        | 449               | 14,440         | 9,800             |
| Bolivia.....         |                   |                |              |                   |                |                   |
| Chile.....           | 1,135             | 36,505         | 754,600      | 97,959            | 3,149,395      | 2,131,800         |
| Colombia.....        | 3,296             | 105,982        | 2,190,800    | 23,743            | 763,335        | 516,700           |
| Ecuador.....         | 443               | 14,233         | 294,200      | 423               | 13,592         | 9,200             |
| Brazil.....          | 3,616             | 116,243        | 2,403,000    |                   |                |                   |
| Venezuela.....       | 38                | 1,223          | 25,300       |                   |                |                   |
| Guiana—              |                   |                |              |                   |                |                   |
| British.....         | 2,419             | 77,770         | 1,607,700    |                   |                |                   |
| Dutch.....           | 1,037             | 33,338         | 689,200      |                   |                |                   |
| French.....          | 2,797             | 89,923         | 1,858,900    |                   |                |                   |
| Peru.....            | 1,247             | 40,102         | 829,000      | 230,303           | 7,404,238      | 5,011,900         |
| Uruguay.....         | 48                | 1,535          | 31,700       |                   |                |                   |
| Central America..... | 2,875             | 92,432         | 1,910,700    | 51,949            | 1,670,159      | 1,130,500         |
| Asia:                |                   |                |              |                   |                |                   |
| Japan.....           | 4,136             | 132,979        | 2,748,900    | 78,696            | 2,530,093      | 1,712,600         |
| China.....           | 6,771             | 217,688        | 4,500,000    |                   |                |                   |
| Korea.....           | 3,435             | 110,438        | 2,283,000    |                   |                |                   |
| Siam.....            | 80                | 2,572          | 53,200       |                   |                |                   |
| India (British)..... | 18,188            | 584,744        | 12,087,700   |                   |                |                   |
| East Indies—         |                   |                |              |                   |                |                   |
| British.....         | 2,180             | 70,079         | 1,448,700    |                   |                |                   |
| Dutch.....           | 1,888             | 60,706         | 1,254,900    | 7,721             | 248,240        | 168,000           |
| Total.....           | 605,632           | 19,471,080     | 402,503,000  | 5,133,887         | 165,054,497    | 111,721,100       |

## No. 17.—WORLD'S PRODUCTION OF GOLD AND SILVER—Continued.

CALENDAR YEAR 1907.

| Country.             | Gold.              |                |              | Silver.           |                |                   |
|----------------------|--------------------|----------------|--------------|-------------------|----------------|-------------------|
|                      | Kilo-grams (fine). | Ounces (fine). | Value.       | Kilograms (fine). | Ounces (fine). | Commercial value. |
| North America:       |                    |                |              |                   |                |                   |
| United States.....   | 136,075            | 4,374,827      | \$90,435,700 | 1,757,844         | 56,514,700     | \$37,299,700      |
| Mexico.....          | 28,109             | 903,699        | 18,681,100   | 1,901,934         | 61,147,203     | 40,357,200        |
| Canada.....          | 12,613             | 405,517        | 8,382,800    | 397,505           | 12,779,800     | 8,434,700         |
| Africa.....          | 228,685            | 7,352,228      | 151,984,100  | 24,586            | 790,431        | 521,700           |
| Australasia.....     | 113,870            | 3,660,911      | 75,677,700   | 558,292           | 17,949,099     | 11,846,400        |
| Europe:              |                    |                |              |                   |                |                   |
| Russia.....          | 40,151             | 1,290,854      | 26,684,300   | 4,110             | 132,122        | 87,200            |
| Austria-Hungary..... | 3,739              | 120,209        | 2,484,900    | 54,253            | 1,744,233      | 1,151,200         |
| Germany.....         | 100                | 3,220          | 66,600       | 158,261           | 5,088,086      | 3,358,100         |
| Norway.....          |                    |                |              | 6,268             | 201,516        | 133,000           |
| Sweden.....          | 28                 | 903            | 18,700       | 929               | 29,761         | 19,600            |
| Italy.....           | 60                 | 1,914          | 39,600       | 22,950            | 737,843        | 487,000           |
| Spain.....           |                    |                |              | 127,435           | 4,097,035      | 2,704,000         |
| Greece.....          |                    |                |              | 25,786            | 820,025        | 547,200           |
| Turkey.....          | 7                  | 216            | 4,500        | 2,095             | 67,351         | 44,500            |
| France.....          | 1,257              | 40,413         | 835,400      | 24,727            | 794,973        | 524,600           |
| Great Britain.....   | 44                 | 1,414          | 29,200       | 4,268             | 137,216        | 90,600            |
| Servia.....          | 90                 | 2,893          | 59,800       |                   |                |                   |
| South America:       |                    |                |              |                   |                |                   |
| Argentina.....       | 155                | 4,985          | 103,000      | 783               | 25,178         | 16,600            |
| Bolivia.....         |                    |                |              |                   |                |                   |
| Chile.....           | 1,907              | 61,313         | 1,267,400    | 162,437           | 5,222,358      | 3,446,800         |
| Colombia.....        | 4,898              | 157,491        | 3,255,600    | 32,619            | 1,048,719      | 692,200           |
| Ecuador.....         | 402                | 12,923         | 267,100      | 76                | 2,456          | 1,600             |
| Brazil.....          | 3,040              | 97,750         | 2,020,700    |                   |                |                   |
| Venezuela.....       | 34                 | 1,082          | 22,400       |                   |                |                   |
| Guiana—              |                    |                |              |                   |                |                   |
| British.....         | 1,963              | 63,099         | 1,304,400    |                   |                |                   |
| Dutch.....           | 963                | 30,961         | 640,000      |                   |                |                   |
| French.....          | 3,552              | 114,202        | 2,360,800    |                   |                |                   |
| Peru.....            | 774                | 24,890         | 514,500      | 297,546           | 9,566,118      | 6,313,600         |
| Uruguay.....         | 78                 | 2,510          | 51,900       |                   |                |                   |
| Central America..... | 3,172              | 101,965        | 2,107,800    | 58,877            | 1,892,896      | 1,249,300         |
| Asia:                |                    |                |              |                   |                |                   |
| Japan.....           | 4,172              | 134,146        | 2,773,000    | 95,596            | 3,073,411      | 2,028,400         |
| China.....           | 6,771              | 217,688        | 4,500,000    |                   |                |                   |
| Indo-China.....      | 48                 | 1,540          | 31,800       |                   |                |                   |
| Korea.....           | 3,266              | 105,013        | 2,170,800    |                   |                |                   |
| Siam.....            | 250                | 8,038          | 166,200      |                   |                |                   |
| India (British)..... | 15,624             | 502,307        | 10,383,600   |                   |                |                   |
| East Indies—         |                    |                |              |                   |                |                   |
| British.....         | 2,349              | 75,525         | 1,561,300    |                   |                |                   |
| Dutch.....           | 2,477              | 79,637         | 1,646,200    | 10,033            | 322,560        | 212,900           |
| Total.....           | 620,723            | 19,956,283     | 412,532,900  | 5,729,210         | 184,194,090    | 121,568,100       |

No. 17.—WORLD'S PRODUCTION OF GOLD AND SILVER—Continued.

CALENDAR YEAR 1908.

| Country.             | Gold.             |                |              | Silver.           |                |                   |
|----------------------|-------------------|----------------|--------------|-------------------|----------------|-------------------|
|                      | Kilograms (fine). | Ounces (fine). | Value.       | Kilograms (fine). | Ounces (fine). | Commercial value. |
| North America:       |                   |                |              |                   |                |                   |
| United States.....   | 142,281           | 4,574,340      | \$94,560,000 | 1,631,129         | 52,440,800     | \$28,050,600      |
| Canada.....          | 14,809            | 476,112        | 9,842,100    | 687,597           | 22,106,233     | 11,824,600        |
| Mexico.....          | 33,661            | 1,082,210      | 22,371,200   | 2,291,260         | 73,664,027     | 39,402,900        |
| Africa.....          | 250,558           | 8,055,430      | 166,520,500  | 39,583            | 1,272,595      | 680,700           |
| Australasia.....     | 110,333           | 3,547,210      | 73,327,300   | 534,218           | 17,175,099     | 9,187,000         |
| Europe:              |                   |                |              |                   |                |                   |
| Russia.....          | 42,209            | 1,357,027      | 28,052,200   | 4,109             | 132,122        | 70,700            |
| Austria-Hungary..... | 3,715             | 119,454        | 2,469,300    | 55,069            | 1,770,457      | 947,000           |
| Germany.....         | 97                | 3,134          | 64,800       | 154,636           | 4,971,544      | 2,659,300         |
| Norway.....          |                   |                |              | 7,035             | 226,175        | 121,000           |
| Sweden.....          | 22                | 702            | 14,500       | 1,111             | 35,728         | 19,100            |
| Italy.....           | 70                | 2,251          | 46,500       | 20,990            | 674,848        | 361,000           |
| Spain.....           |                   |                |              | 129,881           | 4,175,674      | 2,233,600         |
| Greece.....          |                   |                |              | 25,786            | 829,025        | 443,400           |
| Turkey.....          | 3                 | 108            | 2,200        | 248               | 7,971          | 4,300             |
| France.....          | 1,257             | 40,413         | 835,400      | 24,727            | 794,973        | 425,200           |
| Great Britain.....   | 24                | 772            | 16,000       | 4,207             | 135,255        | 72,300            |
| Servia.....          | 90                | 2,893          | 59,800       |                   |                |                   |
| South America:       |                   |                |              |                   |                |                   |
| Argentina.....       | 243               | 7,801          | 161,300      | 3,954             | 127,108        | 68,000            |
| Bolivia.....         | 521               | 16,752         | 346,300      | 180,595           | 5,806,117      | 3,105,700         |
| Chile.....           |                   |                |              |                   |                |                   |
| Colombia.....        | 5,157             | 165,797        | 3,427,300    | 42,769            | 1,375,039      | 735,500           |
| Ecuador.....         | 527               | 16,945         | 350,300      | 704               | 22,642         | 12,100            |
| Brazil.....          | 3,305             | 106,259        | 2,196,600    |                   |                |                   |
| Venezuela.....       | 37                | 1,184          | 24,500       | 3,254             | 104,626        | 56,000            |
| Guiana—              |                   |                |              |                   |                |                   |
| British.....         | 2,119             | 68,116         | 1,408,100    |                   |                |                   |
| Dutch.....           | 998               | 32,071         | 663,000      |                   |                |                   |
| French.....          | 3,552             | 114,202        | 2,360,800    |                   |                |                   |
| Peru.....            | 774               | 24,890         | 514,500      | 297,546           | 9,566,118      | 5,116,900         |
| Uruguay.....         | 138               | 4,433          | 91,600       |                   |                |                   |
| Central America..... | 4,542             | 146,034        | 3,018,800    | 45,437            | 1,460,809      | 781,400           |
| Asia:                |                   |                |              |                   |                |                   |
| Japan.....           | 4,345             | 139,703        | 2,887,900    | 118,237           | 3,801,315      | 2,033,300         |
| China.....           | 13,011            | 418,312        | 8,647,300    |                   |                |                   |
| Indo-China.....      | 48                | 1,540          | 31,800       |                   |                |                   |
| Korea.....           | 4,585             | 147,423        | 3,047,500    |                   |                |                   |
| Siam.....            | 493               | 15,850         | 327,600      |                   |                |                   |
| India (British)..... | 15,947            | 512,702        | 10,598,500   |                   |                |                   |
| East Indies—         |                   |                |              |                   |                |                   |
| British.....         | 2,108             | 67,770         | 1,400,900    |                   |                |                   |
| Dutch.....           | 3,379             | 108,641        | 2,245,800    | 15,865            | 510,070        | 272,800           |
| Total.....           | 664,958           | 21,378,481     | 441,932,200  | 6,319,947         | 203,186,370    | 108,684,400       |

## No. 18.—PRODUCTION OF GOLD AND SILVER IN THE WORLD SINCE THE DISCOVERY OF AMERICA.

[From 1493 to 1885 is from a table of averages for certain periods compiled by Dr. Adolph Soetbeer; for the years 1886 to 1908 the production is the annual estimate of the Bureau of the Mint.]

| Period.        | GOLD.                      |             |                   |                | SILVER.                    |                |                   |                | PERCENTAGE OF PRODUCTION. |         |           |         |
|----------------|----------------------------|-------------|-------------------|----------------|----------------------------|----------------|-------------------|----------------|---------------------------|---------|-----------|---------|
|                | Annual average for period. |             | Total for period. |                | Annual average for period. |                | Total for period. |                | By weight.                |         | By value. |         |
|                | Fine ounces.               | Value.      | Fine ounces.      | Value.         | Fine ounces.               | Coining value. | Fine ounces.      | Coining value. | Gold.                     | Silver. | Gold.     | Silver. |
| 1493-1520..... | 186,470                    | \$3,855,000 | 5,221,160         | \$107,931,000  | 1,511,050                  | \$1,954,000    | 42,309,400        | \$54,703,000   | 11                        | 89      | 66.4      | 33.6    |
| 1521-1544..... | 230,194                    | 4,759,000   | 5,524,656         | 114,205,000    | 2,899,930                  | 3,740,000      | 69,598,320        | 89,986,000     | 7.4                       | 92.6    | 55.9      | 44.1    |
| 1545-1560..... | 273,596                    | 5,656,000   | 4,377,544         | 90,492,000     | 10,017,940                 | 12,952,000     | 160,287,040       | 207,240,000    | 2.7                       | 97.3    | 30.4      | 69.6    |
| 1561-1580..... | 219,906                    | 4,546,000   | 4,398,120         | 90,917,000     | 9,628,925                  | 12,450,000     | 192,578,500       | 248,990,000    | 2.2                       | 97.8    | 26.7      | 73.3    |
| 1581-1600..... | 237,267                    | 4,905,000   | 4,745,340         | 98,095,000     | 13,467,635                 | 17,413,000     | 269,352,700       | 348,254,000    | 1.7                       | 98.3    | 22        | 78      |
| 1601-1620..... | 273,918                    | 5,662,000   | 5,478,360         | 113,248,000    | 13,596,265                 | 17,579,000     | 271,924,700       | 351,579,000    | 2                         | 98      | 24.4      | 75.6    |
| 1621-1640..... | 266,845                    | 5,516,000   | 5,336,900         | 110,324,000    | 12,654,240                 | 16,361,000     | 253,084,800       | 327,221,000    | 2.1                       | 97.9    | 25.2      | 74.8    |
| 1641-1660..... | 281,955                    | 5,828,000   | 5,639,110         | 116,571,000    | 11,776,545                 | 15,226,000     | 235,530,900       | 304,525,000    | 2.3                       | 97.7    | 27.7      | 72.3    |
| 1661-1680..... | 297,709                    | 6,154,000   | 5,954,180         | 123,084,000    | 10,834,550                 | 14,008,000     | 216,691,000       | 280,166,000    | 2.7                       | 97.3    | 30.5      | 69.5    |
| 1681-1700..... | 346,095                    | 7,154,000   | 6,921,895         | 143,088,000    | 10,992,085                 | 14,212,000     | 219,841,700       | 284,240,000    | 3.1                       | 96.9    | 33.5      | 66.5    |
| 1701-1720..... | 412,163                    | 8,520,000   | 8,243,260         | 170,403,000    | 11,432,540                 | 14,781,000     | 228,650,800       | 295,629,000    | 3.5                       | 96.5    | 36.6      | 63.4    |
| 1721-1740..... | 613,422                    | 12,681,000  | 12,268,440        | 253,611,000    | 13,863,080                 | 17,924,000     | 277,261,600       | 358,480,000    | 4.2                       | 95.8    | 41.4      | 58.6    |
| 1741-1760..... | 791,211                    | 16,356,000  | 15,824,230        | 327,116,000    | 17,140,612                 | 22,162,000     | 342,812,235       | 443,232,000    | 4.4                       | 95.6    | 42.5      | 57.5    |
| 1761-1780..... | 665,666                    | 13,781,000  | 13,313,315        | 275,211,000    | 20,985,591                 | 27,133,000     | 419,711,820       | 542,658,000    | 3.1                       | 96.9    | 33.7      | 66.3    |
| 1781-1800..... | 571,948                    | 11,823,000  | 11,438,970        | 236,464,000    | 28,261,779                 | 36,540,000     | 565,235,580       | 730,810,000    | 2                         | 98      | 24.4      | 75.6    |
| 1801-1810..... | 571,563                    | 11,815,000  | 5,715,627         | 118,152,000    | 28,746,922                 | 37,108,000     | 287,469,225       | 371,677,000    | 1.9                       | 98.1    | 24.1      | 75.9    |
| 1811-1820..... | 367,957                    | 7,606,000   | 3,679,568         | 76,063,000     | 17,385,755                 | 22,479,000     | 173,857,555       | 224,786,000    | 2.1                       | 97.9    | 25.3      | 74.7    |
| 1821-1830..... | 457,044                    | 9,448,000   | 4,570,444         | 94,479,000     | 14,807,004                 | 19,144,000     | 148,070,040       | 191,444,000    | 3                         | 97      | 33        | 67      |
| 1831-1840..... | 652,291                    | 13,484,000  | 6,522,913         | 134,841,000    | 19,175,807                 | 24,795,000     | 191,758,675       | 247,930,000    | 3.3                       | 96.7    | 35.2      | 64.8    |
| 1841-1850..... | 1,760,502                  | 36,393,000  | 17,605,018        | 363,928,000    | 25,090,342                 | 32,440,000     | 250,903,422       | 324,400,000    | 6.6                       | 93.4    | 52.9      | 47.1    |
| 1851-1855..... | 6,410,324                  | 132,513,000 | 32,051,621        | 662,566,000    | 28,488,597                 | 36,824,000     | 445,477,142       | 184,169,000    | 18.4                      | 81.6    | 78.3      | 21.7    |
| 1856-1860..... | 6,486,262                  | 134,083,000 | 32,431,312        | 670,415,000    | 29,095,428                 | 37,618,000     | 445,477,142       | 188,092,000    | 18.2                      | 81.8    | 78.1      | 21.9    |
| 1861-1865..... | 5,949,582                  | 122,989,000 | 29,747,913        | 614,944,000    | 35,401,972                 | 45,772,000     | 177,009,862       | 228,861,000    | 14.4                      | 85.6    | 72.9      | 27.1    |
| 1866-1870..... | 6,270,086                  | 129,614,000 | 31,350,430        | 648,071,000    | 43,051,583                 | 55,663,000     | 215,257,914       | 278,313,000    | 12.7                      | 87.3    | 70        | 30      |
| 1871-1875..... | 5,591,014                  | 115,577,000 | 27,955,068        | 577,883,000    | 63,317,014                 | 81,884,000     | 316,585,069       | 409,322,000    | 8.1                       | 91.9    | 58.5      | 41.5    |
| 1876-1880..... | 5,543,110                  | 114,886,000 | 27,715,550        | 572,931,000    | 78,775,602                 | 101,851,000    | 393,878,009       | 509,256,000    | 6.6                       | 93.4    | 53        | 47      |
| 1881-1885..... | 4,794,755                  | 99,116,000  | 23,973,773        | 495,582,000    | 92,003,944                 | 118,955,000    | 460,019,722       | 594,773,000    | 5                         | 95      | 45.5      | 54.5    |
| 1886-1890..... | 5,461,282                  | 112,895,000 | 37,306,411        | 564,474,000    | 108,911,431                | 140,815,000    | 544,557,155       | 704,074,000    | 4.8                       | 95.2    | 44.4      | 55.6    |
| 1891-1895..... | 7,882,565                  | 162,947,000 | 39,412,823        | 814,736,000    | 157,581,331                | 203,742,000    | 787,906,656       | 1,018,708,000  | 4.8                       | 95.2    | 44.4      | 55.6    |
| 1896-1900..... | 12,446,939                 | 257,301,100 | 62,234,698        | 1,286,505,400  | 165,693,304                | 214,229,700    | 828,466,522       | 1,071,148,400  | 7                         | 93      | 54.6      | 45.4    |
| 1901.....      | 12,625,527                 | 260,992,900 | 12,625,527        | 260,992,900    | 173,011,283                | 223,691,300    | 173,011,283       | 223,691,300    | 6.8                       | 93.2    | 53.8      | 46.2    |
| 1902.....      | 14,354,680                 | 296,737,600 | 14,354,680        | 296,737,600    | 162,763,483                | 210,441,900    | 162,763,483       | 210,441,900    | 8.1                       | 91.9    | 58.5      | 41.5    |
| 1903.....      | 15,852,620                 | 327,702,700 | 15,852,620        | 327,702,700    | 167,689,322                | 216,810,300    | 167,689,322       | 216,810,300    | 8.6                       | 91.4    | 60.2      | 39.8    |
| 1904.....      | 16,804,372                 | 347,377,200 | 16,804,372        | 347,377,200    | 164,195,266                | 212,292,900    | 164,195,266       | 212,292,900    | 9.3                       | 90.7    | 62.1      | 37.9    |
| 1905.....      | 18,396,451                 | 380,288,700 | 18,396,451        | 380,288,700    | 172,317,688                | 222,794,500    | 172,317,688       | 222,794,500    | 9.6                       | 90.4    | 63.1      | 36.9    |
| 1906.....      | 19,471,080                 | 402,503,000 | 19,471,080        | 402,503,000    | 165,054,497                | 213,403,800    | 165,054,497       | 213,403,800    | 10.5                      | 89.5    | 65.3      | 34.7    |
| 1907.....      | 19,556,283                 | 412,532,900 | 19,556,283        | 412,532,900    | 184,194,090                | 238,149,900    | 184,194,090       | 238,149,900    | 9.8                       | 90.2    | 63.4      | 36.6    |
| 1908.....      | 21,378,481                 | 441,932,200 | 21,378,481        | 441,932,200    | 203,186,370                | 262,705,600    | 203,186,370       | 262,705,600    | 9.5                       | 90.5    | 62.7      | 37.3    |
| Total.....     |                            |             | 625,798,143       | 12,936,397,600 |                            |                | 10,220,943,048    | 13,214,956,600 | 5.8                       | 94.2    | 49.5      | 50.5    |

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