

STONE.¹

INTRODUCTION.

The value of the stone product increased from \$44,090,670 in 1899 to \$48,008,739 in 1900, a gain of \$3,918,069. This increase showed in all kinds of stone, but the greatest in limestone. The table given below shows for the first time the value of granite exclusive of trap rock, and the value of sandstone exclusive of bluestone. The value of sandstone made into whetstones and grindstones is not included in the 1899 and 1900 report, in order that no duplication of figures may occur. These products are treated of under the heading "Abrasive materials," by Dr. Joseph Hyde Pratt. A large amount of limestone used in the manufacture of Portland cement is not included in the value of limestone.

VALUE OF STONE PRODUCED FROM 1890 TO 1900.

The following table shows the value of the different kinds of stone produced in the United States from 1890 to 1900, inclusive:

Value of the different kinds of stone produced in the United States from 1890 to 1900, inclusive.

| Year. | Granite. | Trap rock. | Marble. | Slate. | Sandstone. | Bluestone. | Limestone. | Total. |
|----------|--------------|-------------|-------------|-------------|--------------|-------------|--------------|--------------|
| 1890.... | \$14,464,095 | ..... | \$3,488,170 | \$3,482,513 | \$10,816,057 | \$1,689,606 | \$19,095,179 | \$53,035,620 |
| 1891.... | 13,867,000 | ..... | 3,610,000 | 3,825,746 | 8,700,000 | a 1,500,000 | 15,792,000 | 47,294,746 |
| 1892.... | 12,642,000 | ..... | 3,705,000 | 4,117,125 | 8,315,500 | a 1,600,000 | 18,342,000 | 48,721,625 |
| 1893.... | 8,808,934 | ..... | 2,411,092 | 2,523,173 | 5,295,151 | a 1,000,000 | 13,947,223 | 33,985,573 |
| 1894.... | 10,029,156 | ..... | 3,199,585 | 2,790,324 | 3,955,847 | a 900,000 | 16,190,118 | 37,065,030 |
| 1895.... | 8,894,328 | ..... | 2,825,719 | 2,698,700 | 4,211,314 | a 750,000 | 15,308,755 | 34,688,816 |
| 1896.... | 7,944,994 | ..... | 2,859,136 | 2,746,205 | 4,023,199 | a 750,000 | 13,022,637 | 31,346,171 |
| 1897.... | 8,905,075 | ..... | 3,870,584 | 3,524,614 | 4,065,445 | a 900,000 | 14,804,933 | 36,070,651 |
| 1898.... | 9,324,406 | ..... | 3,629,940 | 3,723,540 | 4,724,412 | a 1,000,000 | 16,039,056 | 38,441,354 |
| 1899.... | 10,343,298 | \$1,275,041 | 4,011,681 | 3,962,733 | b 4,924,670 | 815,284 | 18,757,963 | 44,090,670 |
| 1900.... | 10,969,417 | 1,706,200 | 4,267,253 | 4,240,466 | b 5,272,865 | 1,198,519 | 20,354,019 | 48,008,739 |

a Estimated.

b Does not include grindstones and whetstones.

¹Owing to the continued severe illness of Dr. William C. Day, the stone report is again limited to tables of production and review of the industry in each State, for which credit is due to Miss Altha T. Coons, statistical expert.—Ed.

Value of various kinds of stone produced in 1900, by States.

| State. | Granite. | Sandstone. | Slate. | Marble. | Limestone. | Total. |
|----------------------|---------------------|--------------------|-----------|-----------|-----------------|------------------|
| Alabama | | \$7,132 | | \$500 | \$533,608 | \$541,240 |
| Arizona | | 64,000 | | 5,000 | 165 | 69,165 |
| Arkansas | \$62,500 | 104,923 | | | 71,407 | 238,830 |
| California | <i>a</i> 738,993 | 200,090 | \$26,500 | 17,500 | 407,489 | 1,390,572 |
| Colorado | 143,054 | 119,658 | | | 160,587 | 423,299 |
| Connecticut | <i>a</i> 507,754 | 192,593 | | | 148,060 | 848,407 |
| Delaware | 608,028 | | | | | 608,028 |
| Florida | | | | | 128,381 | 128,381 |
| Georgia | 380,434 | 600 | 9,375 | 631,241 | 54,451 | 1,076,101 |
| Idaho | 2,450 | 438 | | 1,250 | 34,587 | 38,725 |
| Illinois | | 19,141 | | | 1,881,151 | 1,900,292 |
| Indiana | | <i>c</i> 36,513 | | | 2,344,818 | 2,381,331 |
| Iowa | | 19,063 | | | 586,410 | 605,473 |
| Kansas | 30,000 | 55,173 | | | 339,466 | 424,639 |
| Kentucky | | 56,178 | | | 178,252 | 234,430 |
| Louisiana | | <i>d</i> 118,192 | | | | <i>f</i> 118,192 |
| Maine | 1,568,573 | | 177,342 | | 691,312 | 2,437,227 |
| Maryland | 486,822 | 6,655 | 128,673 | 70,000 | 317,207 | 1,009,357 |
| Massachusetts | <i>a</i> 1,698,605 | 153,427 | | 130,735 | 209,359 | 2,192,126 |
| Michigan | 3,957 | <i>c</i> 132,650 | | | 425,636 | 562,243 |
| Minnesota | 221,684 | 267,000 | 700 | | 441,554 | 930,938 |
| Missouri | 139,103 | 53,401 | | 900 | 1,079,343 | 1,272,747 |
| Montana | 59,091 | 59,630 | | 1,200 | 141,093 | 211,014 |
| Nebraska | | | | | 107,305 | 107,305 |
| New Hampshire | 870,646 | | | | | 870,646 |
| New Jersey | <i>a</i> 1,170,555 | 198,234 | 13,600 | | 170,066 | 1,552,395 |
| New Mexico | | 2,500 | | 4,500 | | 7,000 |
| New York | <i>a</i> 446,171 | <i>e</i> 1,467,496 | 62,755 | 332,518 | 1,730,162 | 4,039,102 |
| North Carolina | 257,962 | 27,210 | | | (<i>f</i>) | 285,172 |
| Ohio | | <i>c</i> 1,683,980 | | | 1,909,387 | 3,653,367 |
| Oklahoma | | | | | 25,586 | 25,586 |
| Oregon | 5,313 | 5,460 | | | 10,900 | 21,663 |
| Pennsylvania | <i>a</i> 396,271 | <i>e</i> 1,043,321 | 2,713,598 | 151,167 | 3,800,318 | 8,104,675 |
| Rhode Island | 444,316 | | | | 16,828 | 461,144 |
| South Carolina | 500,802 | | | | <i>g</i> 38,415 | 539,217 |
| South Dakota | 114,115 | 12,675 | | | 47,762 | 174,552 |
| Tennessee | | 11,300 | 250 | 424,054 | 238,505 | 674,109 |
| Texas | 76,069 | 37,038 | | | 124,728 | 237,835 |
| Utah | 2,170 | 66,733 | | | 12,749 | 81,652 |
| Vermont | 1,113,788 | | 917,462 | 2,484,852 | 188,100 | 4,704,202 |
| Virginia | 211,080 | 6,000 | 190,211 | | 403,318 | 810,609 |
| Washington | 48,900 | 68,133 | | 11,836 | 249,163 | 378,032 |
| West Virginia | | <i>c</i> 65,615 | | | 53,701 | 119,316 |
| Wisconsin | 407,711 | 81,571 | | | 989,685 | 1,478,967 |
| Wyoming | 8,700 | 27,671 | | | 3,065 | 39,436 |
| Total | <i>a</i> 12,675,617 | <i>c</i> 6,471,384 | 4,240,466 | 4,267,253 | 20,354,019 | 48,008,739 |

a Includes trap rock.*b* Includes small amount of Nevada.*c* Excludes value of grindstones and whetstones.*d* Includes small amount for Mississippi.*e* Includes bluestone.*f* Included with South Carolina.*g* Includes small amount for North Carolina.

GRANITE.

The granite product in 1900 showed an increase of \$1,057,278 over the previous year, being valued at \$12,675,617 in 1900, and at \$11,618,339 in 1899. This increase was divided among all the uses to which the rock was put, except riprap and monumental work, which showed a slight decline. The greatest advance was shown in the value of stone dressed for building purposes, which advanced from \$2,625,289 in 1899 to \$3,233,224 in 1900, a gain of \$607,935. A considerable gain was shown in the product of stone crushed for road-building purposes, being \$2,044,797 in 1899 and \$2,571,899 in 1900, or a gain of \$527,102.

The following table shows the value of the granite output for 1897, 1898, 1899, and 1900, by States:

Value of granite produced in 1897, 1898, 1899, and 1900.

| State. | 1897. | 1898. | 1899. | 1900. |
|----------------------|-----------|-----------|------------|------------|
| Arkansas | | | \$39,470 | \$62,500 |
| California | \$167,518 | \$247,429 | 471,665 | 738,993 |
| Colorado | 44,284 | 25,923 | 78,261 | 143,054 |
| Connecticut | 616,215 | 682,768 | 516,886 | 507,754 |
| Delaware | 272,469 | 677,754 | 1,039,349 | 608,028 |
| Georgia | 436,000 | 339,311 | 411,344 | 380,434 |
| Idaho | | | | 32,450 |
| Kansas | | | | |
| Maine | 1,115,327 | 1,032,621 | 1,321,082 | 1,568,573 |
| Maryland | 247,948 | 317,258 | 423,823 | 486,822 |
| Massachusetts | 1,736,069 | 1,650,508 | 1,798,294 | 1,698,605 |
| Michigan | | | | 3,957 |
| Minnesota | 92,412 | 79,309 | 159,459 | 221,684 |
| Missouri | 97,857 | 78,423 | 151,688 | 139,103 |
| Montana | | | | |
| Nevada | 3,050 | | 9,950 | 9,091 |
| New Hampshire | 641,691 | 683,595 | 802,636 | 870,646 |
| New Jersey | 561,782 | 753,513 | 779,822 | 1,170,555 |
| New York | 422,216 | 516,847 | 306,711 | 446,171 |
| North Carolina | 59,236 | 79,969 | 225,544 | 257,962 |
| Oregon | 1,125 | | 3,012 | 5,313 |
| Pennsylvania | 349,947 | 237,780 | 385,101 | 396,271 |
| Rhode Island | 629,564 | 320,242 | 400,128 | 444,316 |
| South Carolina | 37,820 | 169,518 | 361,034 | 500,802 |
| South Dakota | 68,961 | 17,443 | 91,049 | 114,115 |
| Texas | 3,500 | 4,685 | 84,945 | 76,069 |
| Utah | 3,854 | 3,545 | 4,735 | 2,170 |
| Vermont | 1,074,300 | 1,084,218 | 1,212,967 | 1,113,788 |
| Virginia | 88,096 | 136,180 | 223,380 | 211,080 |
| Washington | 5,800 | 9,700 | 42,766 | 48,900 |
| Wisconsin | 126,134 | 175,867 | 270,538 | 407,711 |
| Wyoming | | | 2,700 | 8,700 |
| Total | 8,905,075 | 9,324,406 | 11,618,339 | 12,675,617 |

The following table shows the value of the granite production in 1899 and 1900, by States and uses:

Value of granite produced in 1899 and 1900, by States and uses.

1899.

| State. | Sold in rough. | Dressed for building purposes. | Dressed for monumental work. | Made into paving blocks. | Curbing. | Crushed for roads. | Riprap. | Total. |
|---------------------|----------------|--------------------------------|------------------------------|--------------------------|----------|--------------------|-----------|------------|
| Arkansas..... | \$6,100 | \$12,270 | \$2,800 | \$750 | \$300 | \$15,000 | \$2,250 | \$39,470 |
| California..... | 45,940 | 41,678 | 32,134 | 41,176 | 12,603 | 292,863 | 5,271 | 471,665 |
| Colorado..... | 22,850 | 48,152 | 1,082 | ..... | 75 | 95 | 6,007 | 78,261 |
| Connecticut..... | 79,720 | 167,889 | 82,766 | 26,526 | 12,964 | 130,145 | 16,876 | 516,886 |
| Delaware..... | 11,408 | 1,935 | 8,252 | 17,511 | 3,748 | 46,495 | 950,000 | 1,039,349 |
| Georgia..... | 69,370 | 185,135 | 13,227 | 37,500 | 68,748 | 30,564 | 6,800 | 411,344 |
| Maine..... | 302,731 | 637,616 | 77,350 | 184,084 | 94,237 | 7,860 | 17,204 | 1,321,082 |
| Maryland..... | 104,167 | 137,377 | 21,518 | 24,075 | 27,500 | 106,636 | 2,550 | 423,823 |
| Massachusetts..... | 508,781 | 533,004 | 257,820 | 226,909 | 88,685 | 88,414 | 94,681 | 1,798,294 |
| Minnesota..... | 19,769 | 38,913 | 63,395 | 1,588 | 28,835 | 2,500 | 4,459 | 159,459 |
| Missouri..... | 14,860 | 12,000 | 2,970 | 34,213 | 61,500 | 25,995 | 150 | 151,688 |
| Montana..... | 1,650 | 6,850 | 1,200 | ..... | 250 | ..... | ..... | 9,950 |
| Nevada..... | | | | | | | | |
| New Hampshire..... | 180,109 | 272,368 | 256,397 | 54,099 | 23,437 | 7,480 | 8,746 | 802,636 |
| New Jersey..... | 56,276 | 48,035 | ..... | 67,793 | 138 | 606,780 | 800 | 779,822 |
| New York..... | 30,768 | 23,477 | 2,460 | 12,575 | 447 | 236,736 | 248 | 306,711 |
| North Carolina..... | 34,028 | 60,128 | 361 | 40,873 | 71,414 | 11,925 | 6,815 | 225,544 |
| Oregon..... | 12 | ..... | ..... | 3,000 | ..... | ..... | ..... | 3,012 |
| Pennsylvania..... | 60,692 | 11,809 | 1,339 | 46,290 | 13,445 | 250,520 | 1,006 | 385,101 |
| Rhode Island..... | 73,866 | 151,521 | 145,001 | 16,147 | 3,360 | 4,915 | 5,318 | 400,128 |
| South Carolina..... | 13,189 | 75,750 | 10,500 | 8,222 | 1,500 | 43,497 | 208,376 | 361,034 |
| South Dakota..... | 27,220 | 21,303 | 21,500 | 13,506 | ..... | 5,700 | 1,820 | 91,049 |
| Texas..... | 16,222 | 1,605 | 35,038 | ..... | ..... | 30,580 | 1,500 | 84,945 |
| Utah..... | 4,700 | ..... | ..... | 35 | ..... | ..... | ..... | 4,735 |
| Vermont..... | 563,475 | 125,775 | 509,358 | 3,500 | 7,086 | 1,931 | 1,842 | 1,212,967 |
| Virginia..... | 32,336 | 10,349 | 28,812 | 37,127 | 8,683 | 55,666 | 50,407 | 223,380 |
| Washington..... | 42,250 | 350 | 166 | ..... | ..... | ..... | ..... | 42,766 |
| Wisconsin..... | 26,742 | ..... | 112,521 | 72,000 | 16,700 | 42,500 | 75 | 270,538 |
| Wyoming..... | 2,700 | ..... | ..... | ..... | ..... | ..... | ..... | 2,700 |
| Total..... | 2,351,931 | 2,625,289 | 1,687,967 | 969,499 | 545,655 | 2,044,797 | 1,393,201 | 11,618,339 |

Value of granite produced in 1899 and 1900, by States and uses—Continued.

1900.

| State. | Sold in rough. | Dressed for building purposes. | Dressed for monumental work. | Made into paving blocks. | Curbing. | Crushed for roads. | Riprap. | Total. |
|---------------------|----------------|--------------------------------|------------------------------|--------------------------|----------|--------------------|-----------|------------|
| Arkansas..... | \$12,000 | ..... | ..... | \$4,000 | \$7,000 | \$28,500 | \$11,000 | \$62,500 |
| California..... | 47,539 | \$256,990 | \$34,159 | 33,006 | 17,116 | 238,991 | 111,192 | 738,993 |
| Colorado..... | 14,356 | 106,784 | 4,509 | 8,750 | 215 | 8,440 | ..... | 143,054 |
| Connecticut..... | 94,080 | 112,010 | 52,535 | 15,670 | 25,224 | 176,743 | 31,492 | 507,754 |
| Delaware..... | 7,912 | 5,348 | 1,000 | 28,191 | 3,459 | 36,558 | 525,560 | 608,028 |
| Georgia..... | 52,975 | 84,052 | 24,100 | 28,652 | 130,065 | 43,240 | 17,350 | 380,434 |
| Idaho..... | ..... | ..... | 2,450 | ..... | ..... | ..... | ..... | 2,450 |
| Kansas..... | ..... | ..... | ..... | ..... | ..... | 30,000 | ..... | 30,000 |
| Maine..... | 286,781 | 887,786 | 98,380 | 145,966 | 96,271 | 5,012 | 48,377 | 1,568,573 |
| Maryland..... | 127,608 | 164,181 | 13,400 | 71,855 | 24,520 | 84,151 | 1,107 | 486,822 |
| Massachusetts..... | 569,119 | 429,077 | 80,573 | 267,148 | 89,692 | 122,661 | 140,335 | 1,698,605 |
| Michigan..... | 3,957 | ..... | ..... | ..... | ..... | ..... | ..... | 3,957 |
| Minnesota..... | 19,598 | 104,955 | 72,934 | 3,896 | 11,199 | 5,450 | 3,652 | 221,684 |
| Missouri..... | 15,073 | 215 | 217 | 71,154 | 11,056 | 38,749 | 2,639 | 139,103 |
| Montana..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Nevada..... | 285 | 2,202 | 4,922 | ..... | 1,682 | ..... | ..... | 9,091 |
| New Hampshire..... | 193,471 | 299,418 | 242,026 | 58,512 | 37,427 | 15,126 | 24,666 | 870,646 |
| New Jersey..... | 100,130 | 176,608 | 800 | 51,697 | 337 | 838,621 | 2,362 | 1,170,555 |
| New York..... | 40,290 | 48,275 | 730 | 8,341 | 3,155 | 345,115 | 265 | 446,171 |
| North Carolina..... | 15,508 | 56,133 | 6,621 | 46,414 | 81,426 | 25,778 | 26,082 | 257,962 |
| Oregon..... | 993 | 1,500 | 2,500 | 320 | ..... | ..... | ..... | 5,313 |
| Pennsylvania..... | 71,454 | 14,761 | 507 | 13,189 | 10,664 | 285,296 | 400 | 396,271 |
| Rhode Island..... | 70,800 | 120,428 | 232,144 | 13,382 | 3,461 | 3,483 | 618 | 444,316 |
| South Carolina..... | 6,376 | 143,750 | 26,498 | 7,077 | 2,625 | 99,459 | 215,017 | 500,802 |
| South Dakota..... | 61,915 | 7,245 | 5,645 | 10,344 | 6,195 | 12,645 | 10,126 | 114,115 |
| Texas..... | 19,808 | 130 | 25,616 | ..... | 3,500 | 6,015 | 21,000 | 76,069 |
| Utah..... | 918 | 32 | 920 | ..... | ..... | ..... | 300 | 2,170 |
| Vermont..... | 526,370 | 49,763 | 527,053 | 225 | 2,735 | 1,472 | 6,170 | 1,113,788 |
| Virginia..... | 54,225 | 55,296 | 21,461 | 16,605 | 8,810 | 38,850 | 15,833 | 211,080 |
| Washington..... | 15,500 | 13,500 | 10,000 | ..... | 9,500 | ..... | 400 | 48,900 |
| Wisconsin..... | 19,335 | 90,985 | 107,142 | 101,902 | 5,875 | 81,544 | 928 | 407,711 |
| Wyoming..... | 6,900 | 1,800 | ..... | ..... | ..... | ..... | ..... | 8,700 |
| Total..... | 2,455,276 | 3,233,224 | 1,598,842 | 1,006,296 | 593,209 | 2,571,899 | 1,216,871 | 12,675,617 |

The quarrying of trap rock for road-making purposes has in recent years become an important feature of the trade, and is included in the above table.

Trap rock outcrops and is quarried commercially in all the New England States, New York, New Jersey, Pennsylvania, Maryland, and Virginia, and in the West chiefly in California, where basaltic rock is also included in the road-making materials. New Jersey produces more trap rock than any other State. The trap-rock quarries in this State are situated within easy reach of transportation, and the ease with which the stone is quarried, together with the demands for good roads, as encouraged by the State and Government, renders the quarries of great importance. Pennsylvania, New York, and Connecticut follow next after New Jersey. The following table shows the pro-

duction of trap rock in the States where it forms a large factor in the trade:

Value of trap rock produced in the United States in 1899 and 1900, by States and uses.

1899.

| State. | Sold in rough. | Made into paving blocks. | Crushed for roads or ballast. | Other purposes. | Total. |
|---------------------|----------------|--------------------------|-------------------------------|-----------------|-----------|
| California | | \$3,500 | \$44,307 | \$4,500 | \$52,307 |
| Connecticut | | 804 | 109,085 | 865 | 110,754 |
| Massachusetts | \$9,000 | | 56,835 | 400 | 66,235 |
| New Jersey | 4,973 | 63,918 | 574,905 | 5,225 | 649,021 |
| New York | | | 162,250 | | 162,250 |
| Pennsylvania | 10,250 | 2,000 | 221,224 | 1,000 | 234,474 |
| Total | 24,223 | 70,222 | 1,168,606 | 11,990 | 1,275,041 |

1900.

| | | | | | |
|---------------------|--------|----------|-----------|---------|-----------|
| California | \$750 | \$10,000 | \$117,062 | \$4,523 | \$132,335 |
| Connecticut | 3,701 | 767 | 144,293 | 1,427 | 150,188 |
| Massachusetts | 1,000 | | 80,545 | | 81,545 |
| New Jersey | 28,014 | 46,247 | 793,621 | 13,766 | 881,648 |
| New York | | | 171,773 | 12,627 | 184,400 |
| Pennsylvania | 5,573 | 21 | 270,444 | 46 | 276,084 |
| Total | 39,038 | 57,035 | 1,577,738 | 32,389 | 1,706,200 |

The total value, \$1,706,200, shows a gain of \$431,159 over the value for 1899, which was \$1,275,041.

GRANITE INDUSTRY IN INDIVIDUAL STATES.

ARKANSAS.

The granite output in Arkansas increased from \$39,470 in 1899 to \$62,500 in 1900, or \$23,030, with excellent prospects for 1901.

CALIFORNIA.

The value of the granite produced in the State of California increased from \$471,665 in 1899 to \$738,993 in 1900. This represents a gain of \$267,328. These figures include the value of trap rock and basaltic rock used largely for riprap, macadam, and railroad ballast.

COLORADO.

The granite production of Colorado in 1900 exceeded that of 1899 by \$64,793, the value being \$143,054 in 1900 against \$78,261 in 1899. The chief increase was due to the large amount of building stone used, the amount of granite used in building operations being \$48,152 in 1899 and \$106,784 in 1900. The granite product of Colorado includes basalt and lava rock.

CONNECTICUT.

The granite industry in Connecticut in 1900 was reported as being dull, several quarries only working part of the time. There was also more or less trouble on account of strikes. The value of the output fell from \$516,886 in 1899 to \$507,754 in 1900, a decrease of \$9,132. An increase was noted in the value of stone crushed for roads. The Connecticut product includes trap rock, valued at \$150,188.

DELAWARE.

The production of granite in Delaware decreased considerably in 1900 owing to less stone being quarried for breakwater and riprap purposes.

GEORGIA.

The most interesting feature in the production of granite in Georgia is the increase in the amount of stone used for curbing, riprap work, and road making, and the decrease in value of stone used for building. The entire product of Georgia decreased from \$411,344 in 1899 to \$380,434 in 1900, a loss of \$30,910.

MAINE.

The value of the granite product of Maine in 1900 was \$1,568,573. This is the highest figure reached since 1892, when the production was given as \$2,300,000, and it about equaled the product in 1894, which had a value of \$1,551,036. The value in 1899 was \$1,321,082, which was \$247,491 less than 1900. Notwithstanding the increase in value quarrymen reported that the quarries were operated only part of the time, and that labor troubles were also frequent.

MASSACHUSETTS.

Massachusetts ranks first as a granite-producing State, exceeding Maine by \$130,032. The value of granite produced in 1900 was slightly lower than that of 1899, being \$1,698,605 in 1900 and \$1,798,294 in 1899, a loss of \$99,689.

Many quarrymen make note of strikes, which affected the production, and some report working their quarries but part of the time.

The most important trade change which took place during the year was the combination of most of the quarries at Quincy into The Quincy Granite Quarries Company.

The value of trap rock included in the granite production in 1900 was \$81,545, which is \$15,310 more than the value in 1899, when it was \$66,235.

MINNESOTA.

The granite production in Minnesota in 1900 was \$221,684, which is a gain of \$62,225 over 1899, when the value was \$159,459. Almost every firm reported increased operations.

MISSOURI.

The value of the granite product in Missouri decreased from \$151,688 in 1899 to \$139,103 in 1900.

NEW HAMPSHIRE.

The production in 1900 slightly increased in value, although strikes were reported.

NEW JERSEY.

The granite production in New Jersey is almost entirely represented by trap rock, used for road-making purposes.

The value of the granite in 1900 was \$288,907 and of the trap rock \$881,648, or a total of \$1,170,555. The corresponding figures for 1899 were: Granite, \$130,201; trap rock, \$649,021; total value, \$779,222. This shows an increase of \$158,706 in the value of the granite, \$232,627 in the value of trap rock, and \$391,333 in the total value.

NEW YORK.

New York shows an increase of \$139,460 in granite production in 1900 over 1899. The value in 1899 was \$306,711 and in 1900 \$446,171. Trap rock to the amount of \$184,400 is included in the total for 1900 and to the value of \$162,250 in the total for 1899.

NORTH CAROLINA.

The granite production of North Carolina increased from \$225,544 in 1899 to \$257,962 in 1900, or a gain of \$32,418.

PENNSYLVANIA.

Trap rock, valued at \$276,084, forms the greater part of the granite production in Pennsylvania in 1900. The value of granite was \$120,187, making a total of \$396,271. This shows a slight increase over the total value in 1899, which was \$385,101. The value of trap rock in 1899 was \$234,474, showing a gain of \$41,610 in 1900. The value of granite in 1899 was \$150,627, or a decline of \$30,440 in 1900.

RHODE ISLAND.

The value of the granite production of Rhode Island in 1900 showed an increase of \$44,188 over the value in 1899. The production in 1899 was \$400,128; in 1900, \$444,316. The increase was chiefly in the value of stone dressed for building purposes and for monumental work.

SOUTH CAROLINA.

The granite product of South Carolina advanced from \$361,034 in 1899 to \$500,802 in 1900, a gain of \$139,768. No new operations were undertaken, but the old ones showed great activity. The increase

was shown in the use of granite for all purposes except that sold in the rough and in the paving-block industry.

SOUTH DAKOTA.

The production of granite in South Dakota advanced from \$91,049 in 1899 to \$114,115 in 1900.

TEXAS.

The Texas production of granite declined from \$84,945 in 1899 to \$76,069 in 1900.

VERMONT.

In 1899 the value of granite produced in Vermont was \$1,212,967; in 1900 it was \$1,113,788, showing a decrease of \$99,179. The decline was shown mostly in the value of stone used for building purposes; this was \$125,775 in 1899 and \$49,763 in 1900. There was, however, an increase in the value of granite used for monumental work from \$509,358 in 1899 to \$527,053 in 1900.

VIRGINIA.

The granite product in Virginia decreased from \$223,380 in 1899 to \$211,080 in 1900, or \$12,300.

WASHINGTON.

The granite product of Washington increased slightly in 1900, being valued at \$42,766 in 1899 and \$48,900 in 1900.

WISCONSIN.

The granite product of Wisconsin increased from \$270,538 in 1899 to \$407,711 in 1900, being an increase of \$137,173. The increase was in the values of stone dressed for building, made into paving blocks, and crushed for roads.

SANDSTONE.

The total value of the sandstone produced in 1900 was \$7,149,300. The production in 1899 was valued at \$6,362,944.

These figures include bluestone produced in New York and Pennsylvania to the value of \$1,198,519 in 1900 and \$815,284 in 1899. They also include grindstones and whetstones valued at \$677,916 in 1900 and \$622,990 in 1899. Deducting these values from the entire total as given above, the value of the sandstone product by itself was \$5,272,865 in 1900 and \$4,924,670 in 1899.

The figures given above for grindstones and whetstones are the values as obtained from quarrymen who produce other kinds of stone as well, and do not include the product of those operators who manufacture only whetstones and grindstones.

The following table shows the value of the sandstone production in the United States in 1897, 1898, 1899, and 1900, by States:

Value of sandstone produced in the United States in 1897, 1898, 1899, and 1900, by States.

| States. | 1897. | 1898. | 1899. | 1900. |
|----------------------|-----------|-----------|--------------------|----------------------|
| Alabama | \$3,000 | \$27,882 | \$71,675 | \$7,132 |
| Arizona | 15,000 | 57,444 | 4,168 | 64,000 |
| Arkansas | 3,161 | 24,825 | 73,616 | 104,923 |
| California | 4,035 | 358,908 | 261,193 | 200,090 |
| Colorado | 60,847 | 89,637 | 129,815 | 119,658 |
| Connecticut | 364,604 | 215,733 | 271,623 | 192,593 |
| Georgia | | | | 600 |
| Idaho | | | | 438 |
| Illinois | 14,250 | 13,758 | 16,133 | 19,141 |
| Indiana | 35,561 | 45,342 | 35,636 | <i>d</i> 36,513 |
| Iowa | 14,771 | 7,102 | 24,348 | 19,063 |
| Kansas | 20,953 | 19,528 | 49,629 | 55,173 |
| Kentucky | 40,000 | 72,525 | 119,982 | 56,178 |
| Louisiana | 8,000 | 200,500 | <i>a</i> 226,503 | <i>c</i> 118,192 |
| Maryland | | 13,646 | 24,426 | 6,655 |
| Massachusetts | 194,684 | 91,287 | 131,877 | 153,427 |
| Michigan | 171,127 | 222,376 | 320,192 | <i>d</i> 132,650 |
| Minnesota | 158,057 | 175,810 | 294,615 | 267,000 |
| Missouri | 57,583 | 48,795 | 57,662 | 53,401 |
| Montana | 25,644 | 3,682 | 26,160 | 59,630 |
| New Jersey | 190,976 | 257,217 | 147,768 | 198,234 |
| New Mexico | | 3,500 | 1,829 | 2,500 |
| New York | 544,514 | 566,133 | <i>b</i> 1,218,053 | <i>b</i> 1,467,496 |
| North Carolina | 11,500 | 9,100 | 10,300 | 27,210 |
| Ohio | 1,600,058 | 1,494,746 | 1,775,642 | <i>d</i> 1,683,980 |
| Oregon | | 7,864 | 4,153 | 5,450 |
| Pennsylvania | 380,813 | 478,451 | <i>b</i> 717,053 | <i>b d</i> 1,043,321 |
| South Dakota | | 9,000 | 18,325 | 12,675 |
| Tennessee | | | | 11,300 |
| Texas | 30,030 | 77,190 | 35,738 | 37,038 |
| Utah | 7,907 | 15,752 | 29,091 | 66,733 |
| Virginia | | | 8,000 | 6,000 |
| Washington | 16,187 | 15,575 | 58,395 | 68,133 |
| West Virginia | 47,288 | 14,381 | 33,860 | <i>d</i> 65,615 |
| Wisconsin | 33,620 | 80,341 | 132,901 | 81,571 |
| Wyoming | 11,275 | 6,382 | 32,583 | 27,671 |
| Total | 4,065,445 | 4,724,412 | 6,362,944 | <i>d</i> 6,471,384 |

a Includes small amounts for Idaho and Nevada.

b Includes bluestone.

c Includes Mississippi.

d Does not include value of grindstones and whetstones.

The following table shows the value of sandstone produced in the United States in 1899 and 1900, by States and uses :

Value of sandstone produced in the United States in 1899 and 1900, by States and uses.

1899.

| States. | Sold in rough. | Dressed for building purposes. | Sold for curbing and flag-stone. | Sold for grind-stones. | Sold for whet-stones. | Other purposes. | Total. |
|---------------------------------|----------------------|--------------------------------|----------------------------------|------------------------|-----------------------|-----------------|-----------|
| Alabama | \$17,500 | \$39,175 | \$15,000 | ..... | ..... | ..... | \$71,675 |
| Arizona | 3,680 | 488 | ..... | ..... | ..... | ..... | 4,168 |
| Arkansas | 34,091 | 13,475 | 26,050 | ..... | ..... | ..... | 73,616 |
| California | 186,216 | 73,009 | ..... | ..... | ..... | \$1,968 | 261,193 |
| Colorado | 60,138 | 25,673 | 37,229 | ..... | ..... | 6,775 | 129,815 |
| Connecticut | 175,918 | 62,839 | ..... | ..... | ..... | 32,866 | 271,623 |
| Illinois | 3,162 | 10,800 | 256 | ..... | ..... | 1,915 | 16,133 |
| Indiana | 24,030 | 4,150 | 376 | ..... | \$7,080 | ..... | 35,636 |
| Iowa | 4,744 | 17,904 | 1,700 | ..... | ..... | ..... | 24,348 |
| Kansas | 3,735 | 1,010 | 34,069 | ..... | ..... | 10,815 | 49,629 |
| Kentucky | 45,203 | 71,629 | 2,650 | ..... | ..... | 500 | 119,982 |
| Louisiana | ^a 226,503 | ..... | ..... | ..... | ..... | ..... | 226,503 |
| Maryland | 759 | 23,667 | ..... | ..... | ..... | ..... | 24,426 |
| Massachusetts | 60,244 | 70,433 | ..... | ..... | ..... | 1,200 | 131,877 |
| Michigan | 102,447 | 51,682 | 109 | \$138,115 | 4,039 | 23,800 | 320,192 |
| Minnesota | 59,181 | 144,732 | 88,702 | ..... | ..... | 2,000 | 294,615 |
| Missouri | 49,368 | 6,541 | 1,297 | 27 | ..... | 429 | 57,662 |
| Montana | 19,160 | ..... | ..... | ..... | ..... | 7,000 | 26,160 |
| New Jersey | 57,978 | 89,390 | 400 | ..... | ..... | ..... | 147,768 |
| New Mexico | 1,030 | 18 | 781 | ..... | ..... | ..... | 1,829 |
| New York ^b | 306,168 | 328,147 | 554,914 | ..... | ..... | 28,824 | 1,218,053 |
| North Carolina ..... | ..... | 10,000 | 300 | ..... | ..... | ..... | 10,300 |
| Ohio | 249,211 | 434,978 | 572,111 | 480,963 | 3,440 | 34,939 | 1,775,642 |
| Oregon | 4,153 | ..... | ..... | ..... | ..... | ..... | 4,153 |
| Pennsylvania ^b | 184,464 | 350,525 | 119,156 | ..... | ..... | 62,908 | 717,053 |
| South Dakota | 14,050 | 3,425 | 575 | ..... | ..... | 275 | 18,325 |
| Texas | 3,338 | 9,600 | 21,800 | ..... | ..... | 1,000 | 35,738 |
| Utah | 3,970 | 24,341 | 20 | ..... | ..... | 760 | 29,091 |
| Virginia | 2,000 | 6,000 | ..... | ..... | ..... | ..... | 8,000 |
| Washington | 42,495 | 12,550 | 2,550 | ..... | ..... | 800 | 58,395 |
| West Virginia | 7,040 | 18,660 | 600 | 3,510 | ..... | 4,050 | 33,860 |
| Wisconsin | 36,118 | 83,537 | 7,165 | 375 | ..... | 5,706 | 132,901 |
| Wyoming | 9,938 | 15,145 | ..... | ..... | ..... | 7,500 | 32,583 |
| Total | 1,998,032 | 2,003,523 | 1,487,810 | 622,990 | 14,559 | 236,030 | 6,362,944 |

^a Includes small amounts for Idaho and Nevada.

^b Includes bluestone.

Value of sandstone produced in the United States in 1899 and 1900, by States and uses—Cont'd.

1900.

| States. | Sold in rough. | Dressed for building purposes. | Sold for curbing and flag-stone. | Sold for grind-stones. | Sold for whet-stones. | Other purposes. | Total. |
|----------------------|----------------|--------------------------------|----------------------------------|------------------------|-----------------------|-----------------|-----------|
| Alabama | \$3,745 | \$2,250 | \$1,137 | ..... | ..... | ..... | \$7,132 |
| Arizona | 14,000 | 50,000 | ..... | ..... | ..... | ..... | 64,000 |
| Arkansas | 58,538 | 8,055 | 31,010 | ..... | ..... | \$7,320 | 104,923 |
| California | 176,592 | 16,114 | 7,384 | ..... | ..... | ..... | 200,090 |
| Colorado | 59,387 | 31,478 | 22,793 | ..... | ..... | 6,000 | 119,658 |
| Connecticut | 52,646 | 127,540 | ..... | ..... | ..... | 12,407 | 192,593 |
| Georgia ..... | ..... | 400 | 200 | ..... | ..... | ..... | 600 |
| Idaho ..... | ..... | 438 | ..... | ..... | ..... | ..... | 438 |
| Illinois | 3,483 | 13,577 | 2,081 | ..... | ..... | ..... | 19,141 |
| Indiana | 23,096 | 6,394 | 320 | ..... | \$8,550 | 6,703 | 45,063 |
| Iowa | 3,058 | 15,052 | 771 | ..... | ..... | 182 | 19,063 |
| Kansas | 3,625 | 6,164 | 44,080 | ..... | ..... | 1,304 | 55,173 |
| Kentucky | 17,598 | 29,348 | 9,232 | ..... | ..... | ..... | 56,178 |
| Louisiana a | 118,192 | ..... | ..... | ..... | ..... | ..... | 118,192 |
| Maryland | 6,655 | ..... | ..... | ..... | ..... | ..... | 6,655 |
| Massachusetts | 47,283 | 78,644 | ..... | ..... | ..... | 27,500 | 153,427 |
| Michigan | 73,850 | 58,800 | ..... | \$102,000 | 4,000 | ..... | 238,650 |
| Minnesota | 74,318 | 84,895 | 107,787 | ..... | ..... | ..... | 267,000 |
| Missouri | 28,462 | 5,404 | 19,278 | ..... | ..... | 257 | 53,401 |
| Montana | 34,410 | 20,400 | 1,200 | ..... | ..... | 3,620 | 59,630 |
| New Jersey | 29,760 | 166,264 | 2,210 | ..... | ..... | ..... | 198,234 |
| New Mexico ..... | ..... | 1,000 | 1,500 | ..... | ..... | ..... | 2,500 |
| New York | 59,405 | 301,109 | b 948,553 | ..... | ..... | 158,429 | 1,467,496 |
| North Carolina | 15,660 | 8,216 | 1,000 | ..... | ..... | 2,334 | 27,210 |
| Ohio | 501,071 | 530,005 | 612,968 | 542,721 | 6,895 | 39,936 | 2,233,596 |
| Oregon | 4,890 | 155 | 55 | ..... | ..... | 350 | 5,450 |
| Pennsylvania | 247,586 | 412,633 | 243,118 | 6,727 | 200 | 139,984 | 1,050,248 |
| South Dakota | 5,500 | 6,800 | 375 | ..... | ..... | ..... | 12,675 |
| Tennessee ..... | ..... | 11,300 | ..... | ..... | ..... | ..... | 11,300 |
| Texas | 15,066 | 12,847 | 9,125 | ..... | ..... | ..... | 37,038 |
| Utah | 9,029 | 52,548 | 5,006 | ..... | ..... | 150 | 66,733 |
| Virginia ..... | ..... | 6,000 | ..... | ..... | ..... | ..... | 6,000 |
| Washington | 38,211 | 29,172 | ..... | ..... | ..... | 750 | 68,133 |
| West Virginia | 6,615 | 58,700 | 300 | 6,823 | ..... | ..... | 72,438 |
| Wisconsin | 30,237 | 47,680 | 404 | ..... | ..... | 3,250 | 81,571 |
| Wyoming | 16,354 | 8,317 | ..... | ..... | ..... | 3,000 | 27,671 |
| Total | 1,778,322 | 2,207,699 | 2,071,887 | 658,271 | 19,645 | 413,476 | 7,149,300 |

a Includes Mississippi.

b Includes \$225,592 used for paving purposes.

The following table shows the value and uses of bluestone produced in the United States in 1900, by States:

Value and uses of bluestone produced in the United States in 1900, by States.

| State. | Flagging. | Curbing. | Gutters and crossings. | Coping, sills, lintels. | Other purposes. | Total. |
|--------------------|-----------|-----------|------------------------|-------------------------|-----------------|-----------|
| New York | \$340,087 | \$169,332 | \$60,644 | \$181,773 | \$165,229 | \$917,065 |
| Pennsylvania | 90,609 | 46,227 | 7,031 | 12,179 | 125,408 | 281,454 |
| Total | 430,696 | 215,559 | 67,675 | 193,952 | 290,637 | 1,198,519 |

The production of bluestone in 1899 was valued at \$815,284. Of this New York produced \$664,484 and Pennsylvania \$150,800. No record was made of the production by uses.

SANDSTONE PRODUCTION IN INDIVIDUAL STATES.

ALABAMA.

Alabama showed a large decrease in the output of sandstone in 1900. Several companies reporting last year did not operate in 1900.

ARIZONA.

Arizona showed a considerable increase, owing to the inclusion of stone used by railroads for ballast, bridge masonry, etc.

ARKANSAS.

In 1900 Arkansas showed an increase in the value of sandstone production of \$31,307, or from \$73,616 in 1899 to \$104,923 in 1900. This increase was in the value of stone sold in the rough, of which a large part was used for riprap, and in the stone used for curbing and flagstone. The amount used for building purposes decreased somewhat.

CALIFORNIA.

The value of sandstone produced in California in 1900 decreased from \$261,193 in 1899 to \$200,090 in 1900. A large amount of the rough stone used was for breakwater purposes.

COLORADO.

The value of the sandstone produced in Colorado in 1900 was \$119,658, and in 1899 \$129,815. There was an increase in the value of the stone used for building purposes. The other products decreased slightly in value.

CONNECTICUT.

The production of sandstone in Connecticut decreased in value from \$271,623 in 1899 to \$192,593 in 1900. The value of the rough stone sold was less than in 1899, and the value for building increased.

ILLINOIS.

The sandstone product of Illinois increased from \$16,133 in 1899 to \$19,141 in 1900. This gain was chiefly in the value of stone used for building purposes.

INDIANA.

The production of sandstone in Indiana increased from \$35,636 in 1899 to \$45,063 in 1900, or a gain of \$9,427.

IOWA.

The value of the sandstone product of Iowa decreased from \$24,348 in 1899 to \$19,063 in 1900.

KANSAS.

The value of the sandstone produced in Kansas in 1900 was \$55,173. The value in 1899 was \$49,629. The chief increase was in the value of the stone used for curbing and flagstone.

KENTUCKY.

There was a decrease in the value of sandstone produced in Kentucky from \$119,982 in 1899 to \$56,178 in 1900. This was due to business changes, and the trade will in all probability return to its former condition in 1901.

MASSACHUSETTS.

The value of the sandstone production in Massachusetts increased from \$131,877 in 1899 to \$153,427 in 1900. This gain was confined chiefly to stone used for building. The value of the rough stone sold decreased in value.

MICHIGAN.

Diminished production, as reported by several quarries, caused the sandstone produced in Michigan to decrease somewhat in value. The value in 1899 was \$320,192, and in 1900 \$238,650.

MINNESOTA.

The value of sandstone decreased from \$294,615 in 1899 to \$267,000 in 1900.

MISSOURI.

There was a slight decrease in the sandstone production of Missouri in 1900.

MONTANA.

An increase in the value of stone used for building purposes and sold in the rough caused the value of the sandstone production to increase from \$26,160 in 1899 to \$59,630 in 1900, a gain of \$33,470.

NEW JERSEY.

A small amount of bluestone is quarried in New Jersey, but as this does not form any considerable amount it is included in the sandstone production without note being made as to its value. The value of the sandstone quarried in New Jersey in 1900 was \$198,234. In 1899 the value was \$147,768. This shows an increase of \$50,466. The increase is shown chiefly in the stone used for building purposes, which advanced from \$89,390 in 1899 to \$166,264 in 1900, a gain of \$76,874. The value of rough stone sold decreased.

NEW YORK.

The total value of the sandstone produced in New York in 1900 was \$1,467,496. This includes bluestone, valued at \$917,065, and sand-

stone, valued at \$550,431. The total value in 1899 was \$1,218,053, which included bluestone, valued at \$664,484, and sandstone, valued at \$553,569. This shows an increase in the total value of \$249,443, an increase in the bluestone value of \$252,581, and a loss of \$3,138 in the value of the sandstone. The value, \$948,553, noted for curbing and flagstone includes \$225,592 used for paving purposes.

NORTH CAROLINA.

The value of the sandstone product of North Carolina increased from \$10,300 in 1899 to \$27,210 in 1900, a gain of \$16,910. The increase was chiefly in the value of rough stone sold.

OHIO.

Ohio ranks first in the list of the sandstone producing States, the value of the product in 1900 being \$2,233,596, and in 1899, \$1,775,642. This shows an increase of \$457,954. This total includes grindstones and whetstones to the value of \$549,636. The value of grindstones and whetstones in 1899 was \$484,403.

There was a decided increase in the value of stone sold in the rough—from \$249,211 in 1899 to \$501,071 in 1900. The stone for building purposes increased from \$434,978 in 1899 to \$530,005 in 1900. This is a larger amount than attained by any other State.

PENNSYLVANIA.

The total value of the sandstone production in Pennsylvania in 1900 was \$1,050,248. This includes \$281,454 for bluestone and \$768,794 for sandstone. The corresponding figures for 1899 were a total value of \$717,053, which included \$150,800 for bluestone and \$566,253 for sandstone. This gives an increase in the total of \$333,195, in the bluestone of \$130,654, and in sandstone of \$202,541.

SOUTH DAKOTA.

South Dakota decreased slightly in the value of its sandstone production. The product was valued at \$12,675 in 1900 and \$18,325 in 1899.

TENNESSEE.

An output of sandstone valued at \$11,300 was reported as used for building purposes in Tennessee in 1900. This is more than has ever been reported before.

TEXAS.

The output of sandstone in Texas in 1900 was \$37,038. This is but a slight gain over the production in 1899, which was \$35,738.

UTAH.

The sandstone production in 1900 in Utah showed a decided increase over the value for 1899. The production for 1900 was valued at \$66,733, of which \$52,548 was used for building purposes. The value as reported in 1899 was \$29,091, with \$24,341 the value of the building stone. This shows an increase of \$37,642 in the total and of \$28,207 in the building-stone value.

VIRGINIA.

Owing to business changes, but a small quantity of sandstone was quarried in Virginia in 1900.

WASHINGTON.

The production of sandstone in Washington increased from \$58,395 in 1899 to \$68,133 in 1900, a gain of \$9,738.

WEST VIRGINIA.

The output of sandstone for West Virginia in 1900 was \$72,438, a gain of \$38,578 over 1899, when the output was \$33,860. Most of this gain was in stone used for railroad construction.

WISCONSIN.

The sandstone output in Wisconsin decreased from \$132,901 in 1899 to \$81,571 in 1900, a loss of \$51,330. Many of the larger quarries gave decreased production, and less stone was used in railroad construction.

WYOMING.

The production of sandstone in Wyoming decreased from \$32,583 in 1899 to \$27,671 in 1900. Most of this stone was sold in the rough.

SLATE.

The slate industry showed an increase in value of \$277,733, or from \$3,962,733 in 1899 to \$4,240,466 in 1900. The amount used for roofing increased from 1,100,513 squares, valued at \$3,454,817, in 1899 to 1,194,048 squares, valued at \$3,596,182, in 1900, being an increase of 93,535 squares, and in value of \$141,365. The average value per square decreased 13 cents in 1900, or from \$3.14 in 1899 to \$3.01 in 1900.

The value of milled stock increased \$136,368, or from \$507,916 in 1899 to \$644,284 in 1900.

The export trade showed a decrease from \$1,363,617 in 1899 to \$950,543 in 1900, a decline of \$413,074, or 30 per cent.

The following table shows the output of slate in the United States, by States, from 1897 to 1900:

Value of slate produced in the United States from 1897 to 1900.

| State. | 1897. | 1898. | 1899. | 1900. |
|---------------------|-----------|-----------|-----------|-----------|
| California | \$7,000 | \$2,700 | \$6,642 | \$26,500 |
| Georgia | | 13,125 | | 9,375 |
| Maine | 201,117 | 199,237 | 181,766 | 177,342 |
| Maryland | 53,939 | 82,240 | 93,595 | 128,673 |
| Massachusetts | | 958 | | |
| Minnesota | 1,500 | 400 | | 700 |
| New Jersey | 775 | 800 | (a) | 13,600 |
| New York | 53,799 | 48,694 | 76,675 | 62,755 |
| Pennsylvania | 2,365,299 | 2,491,756 | 2,537,022 | 2,713,598 |
| Tennessee | | | (a) | 250 |
| Utah | | | (a) | |
| Vermont | 695,815 | 732,684 | 872,673 | 917,462 |
| Virginia | 145,370 | 150,946 | 183,110 | 190,211 |
| Other States | | | -11,250 | |
| Total | 3,524,614 | 3,723,540 | 3,962,733 | 4,240,466 |

a Included in other States.

The following table shows the value of the output of roofing and milled slate in the United States in 1899 and 1900, by States:

Value of roofing and milled slate in the United States in 1899 and 1900, by States.

1899.

| State. | Roofing slate. | Value. | Other pur- poses than roofing, value. | Total value. |
|---------------------|-------------------|-----------|--|-----------------|
| | <i>Squares.</i> | | | |
| California | 928 | \$6,642 | | \$6,642 |
| Maine | 24,676 | 121,640 | \$60,126 | 181,766 |
| Maryland | 20,196 | 90,897 | 2,698 | 93,595 |
| New York | 10,912 | 69,525 | 7,150 | 76,675 |
| Pennsylvania | 711,138 | 2,202,742 | 334,280 | 2,537,022 |
| Vermont | 277,463 | 777,971 | 94,702 | 872,673 |
| Virginia | 52,550 | 174,950 | 8,160 | 183,110 |
| Georgia | | | | |
| Massachusetts | | | | |
| New Jersey | 2,650 | 10,450 | 800 | 11,250 |
| Tennessee | | | | |
| Utah | | | | |
| Total | 1,100,513 | 3,454,817 | 507,916 | 3,962,733 |

Value of roofing and milled slate in the United States in 1899 and 1900, by States—Cont'd.

1900.

| State. | Roofing slate. | Value. | Other pur- poses than roofing, value. | Total value. |
|--------------------|-------------------|-----------|--|-----------------|
| | <i>Squares.</i> | | | |
| California | 3,500 | \$26,500 | ..... | \$26,500 |
| Georgia | 2,500 | 9,375 | ..... | 9,375 |
| Maine | 21,771 | 103,949 | \$73,393 | 177,342 |
| Maryland | 27,158 | 126,271 | 2,402 | 128,673 |
| Minnesota ..... | ..... | ..... | 700 | 700 |
| New Jersey | 3,600 | 13,600 | ..... | 13,600 |
| New York | 7,713 | 58,360 | 4,395 | 62,755 |
| Pennsylvania | 788,571 | 2,277,192 | 436,406 | 2,713,598 |
| Tennessee | 50 | 250 | ..... | 250 |
| Vermont | 282,820 | 795,474 | 121,988 | 917,462 |
| Virginia | 56,365 | 185,211 | 5,000 | 190,211 |
| Total | 1,194,048 | 3,596,182 | 644,284 | 4,240,466 |

The following table shows the average value of roofing slate per square since 1890:

Average annual price per square of roofing slate for the entire country.

| | | | |
|------------|--------|------------|--------|
| 1890 | \$3.34 | 1896 | \$3.36 |
| 1891 | 3.49 | 1897 | 3.09 |
| 1892 | 3.56 | 1898 | 3.42 |
| 1893 | 3.55 | 1899 | 3.14 |
| 1894 | 3.11 | 1900 | 3.01 |
| 1895 | 3.23 | | |

EXPORTS.

The following table shows the ports and customs districts from which and countries to which slate has been exported since 1893:

Value of slate exported from United States, showing ports and customs districts from which and countries to which sent, from 1893 to 1900.

| Port and customs district. | 1893. | 1894. | 1895. | 1896. | 1897. | 1898. | 1899. | 1900. |
|------------------------------------|---------|--------|--------|---------|-----------|-----------|----------|-----------|
| Baltimore, Md. | | | | \$9,860 | \$101,581 | \$170,916 | \$99,083 | \$110,049 |
| Bangor, Me. | | \$445 | | 350 | | | | 577 |
| Boston and Charlestown, Mass. | \$1,086 | | \$443 | 609 | 1,020 | 385 | 40,622 | 65,531 |
| Newport News, Va. | | | | | 18,170 | 65,290 | 42,220 | 19,950 |
| New York, N. Y. | 36,306 | 19,684 | 31,092 | 242,559 | 557,099 | 986,638 | 968,395 | 592,288 |
| Passamaquoddy, Me. | | | 192 | | 120 | | | |
| Philadelphia, Pa. | | | | 2,300 | 94,865 | 136,916 | 205,779 | 150,254 |
| Portland and Falmouth, Me. | | | | | 270 | | | |
| Brazos de Santiago, Tex. | 5 | | | | | | 14 | |
| Corpus Christi, Tex. | | | 105 | 174 | | 1,761 | | |
| New Orleans, La. | | 587 | | | | | | |
| Paso del Norte, Tex. | | 621 | | | | | | |
| Puget Sound, Wash. | | | | | | 22 | 67 | |
| San Diego, Cal. | | | | | | | 7 | |

Value of slate exported from United States, showing ports and customs districts from which and countries to which sent, from 1893 to 1900—Continued.

| Port and customs district. | 1893. | 1894. | 1895. | 1896. | 1897. | 1898. | 1899. | 1900. |
|--------------------------------|----------|----------|---------|---------|---------|-----------|-----------|---------|
| Buffalo Creek, N. Y..... | \$13,428 | \$13,696 | \$4,748 | \$5,903 | \$2,378 | \$4,141 | \$6,364 | \$6,584 |
| Champlain, N. Y..... | 869 | 1,869 | 1,961 | 1,617 | 613 | 3,015 | 937 | 2,320 |
| Detroit, Mich..... | | | 65 | 2,874 | 2,427 | 854 | 129 | 1,441 |
| Huron, Mich..... | 200 | | | | | | | 424 |
| North and South Dakota..... | 94 | 160 | | | | 137 | | 612 |
| Oswegatchie, N. Y..... | | | | | | | | 487 |
| Vermont..... | 24 | 133 | 200 | 139 | 1,569 | | | 26 |
| Total..... | 52,012 | 37,195 | 38,806 | 266,385 | 780,112 | 1,370,075 | 1,363,617 | 950,543 |
| Belgium..... | | | | | | | 524 | |
| France..... | | | | 12,000 | | | | |
| Germany..... | | | 25 | 910 | 5,850 | 82,916 | 65,974 | 17,921 |
| Netherlands..... | | | | | 2,087 | 25 | 520 | |
| United Kingdom..... | 1,400 | 4,800 | 3,000 | 197,440 | 695,980 | 1,213,377 | 1,188,962 | 813,918 |
| Denmark..... | | | | | | 8,150 | 25,323 | 25,437 |
| Norway and Sweden..... | | | | | | 270 | 669 | 859 |
| Bermuda..... | 1,046 | 336 | 1,550 | 2,312 | 1,395 | 157 | 230 | 202 |
| Dominion of Canada: | | | | | | | | |
| Nova Scotia, New Brunswick, | | | | | | | | |
| etc..... | 119 | 445 | 406 | 1,278 | 730 | | 288 | 798 |
| Quebec, Ontario, etc..... | 14,615 | 15,858 | 6,974 | 10,533 | 6,977 | 8,147 | 7,430 | 11,894 |
| British Columbia..... | | | | | | 22 | 67 | |
| Newfoundland and Labrador..... | 32 | | 13 | | | | | 30 |
| Central American States: | | | | | | | | |
| Guatemala..... | | | | | | 1,755 | | |
| Honduras..... | | 587 | | | | | | |
| Mexico..... | 22 | 621 | 488 | 821 | 150 | 1,872 | 330 | |
| Miquelon, Langley, etc..... | | | | | | 35 | | |
| West Indies: | | | | | | | | |
| British..... | | 3,803 | 4,419 | 1,159 | 1,860 | 2,356 | 1,400 | 2,049 |
| Haiti..... | | 330 | | | | 26 | | 332 |
| Santo Domingo..... | | | 10 | | | | | |
| Cuba..... | | 2,643 | 3,258 | 90 | | 673 | 16 | |
| Colombia..... | | | | 259 | 100 | | | 285 |
| Guianas: | | | | | | | | |
| British..... | | 712 | 702 | 440 | 165 | 600 | | |
| Dutch..... | 3,145 | | 340 | | 1,640 | 1,325 | 2,275 | 650 |
| Peru..... | 405 | | | | | | | 1,000 |
| Uruguay..... | | | | 417 | | 807 | 760 | 829 |
| China..... | | | | | | 110 | | |
| East Indies—British..... | | | | 1,628 | 810 | 550 | | |
| British Australasia..... | 30,362 | 7,060 | 17,363 | 34,970 | 60,604 | 44,642 | 64,434 | 71,881 |
| Hawaiian Islands..... | | | | 245 | 166 | | 77 | |
| British Africa..... | 866 | | 258 | 1,883 | 1,598 | 2,218 | 4,335 | 2,458 |
| Portuguese Africa..... | | | | | | 42 | 3 | |
| Total..... | 52,012 | 37,195 | 38,806 | 266,385 | 780,112 | 1,370,075 | 1,363,617 | 950,543 |

THE SLATE INDUSTRY IN INDIVIDUAL STATES.

ARKANSAS.

No slate of commercial value was reported from Arkansas in 1900, yet several firms have been prospecting and companies have been organized and work will probably be pushed in 1901.

Red slate has been obtained in the quarries at Mena. This is of interest and value, since the only red slate hitherto produced has come from Washington County, N. Y.

CALIFORNIA.

The product in this State showed an increase of \$19,858 from \$6,642 in 1899 to \$26,500 in 1900. This was all used for roofing.

GEORGIA.

Slate has been produced in a small amount in Georgia for many years, but not regularly.

MAINE.

There was a slight decrease in the number and value of squares of slate produced in this State in 1900, the product being 24,676 squares, valued at \$121,640, in 1899 and 21,771 squares, valued at \$103,949, in 1900. There was also a decrease in the average price per square. The value of milled stock, however, increased from \$60,126 in 1899 to \$73,393 in 1900, an increase of \$13,267. The entire decrease was from \$181,766 in 1899 to \$177,342 in 1900, a decrease of \$4,424. The decrease in production was due to one of the principal quarries having been destroyed or partially destroyed by fire. As a producer of milled stock Maine ranks third, following Pennsylvania and Vermont. The value of milled stock produced in Maine was \$73,393, while Pennsylvania and Vermont produced milled stock to the value of \$436,406 and \$121,988, respectively.

MARYLAND.

The value of the slate produced in Maryland has increased steadily since 1897, when the value was \$53,939. The value in 1900 was \$128,673, against \$93,595 in 1899, an increase of \$35,078. The number of quarries remains about the same in the Peach Bottom region, and the average value per square increased slightly in 1900.

MASSACHUSETTS.

Massachusetts produces a small amount of slate every year. It is not used for roofing, and only a very small amount for milled stock, but chiefly for building and foundation work; therefore the amount is not included in the total.

MINNESOTA.

Minnesota reports but a small amount of slate yearly. The entire product is used for milled stock.

NEW JERSEY.

New Jersey, being at the northern end of the slate chain that extends through Pennsylvania, Maryland, and into Virginia, has hitherto been of little importance as a commercial producer, but in 1900 new quar-

ries were started, old ones opened up, and the production was unusually large.

The New Jersey Slate Company resumed operations in the old quarry at Newton, Sussex County, and near Delaware Water Gap, in Warren County, operations were carried on by Mr. J. I. Johnson. Other quarries were operated at Lafayette.

NEW YORK.

The production of slate in New York decreased from \$76,675 in 1899 to \$62,755 in 1900, or \$13,920. The product in 1899, \$62,755, however, was an increase of \$14,061 over the product of 1898, \$48,694. Several old quarries came into the hands of the Mathews Slate Company of Granville, and there are prospects of large production in 1901.

PENNSYLVANIA.

Pennsylvania ranks first in the list of slate-producing States, and has showed a steady increase of products since 1893, when the value of the output was \$1,472,275, this being the lowest value obtained in the eleven years for which statistics are given. In 1899 the value was \$2,537,022 and in 1900, \$2,713,598, an increase of \$176,576. The greatest increase was in the value of milled stock, the value being \$334,280 in 1899 and \$436,406 in 1900, an increase of \$102,126. The number of squares increased from 711,138 in 1899 to 788,571 in 1900, or 77,433 squares, while the value increased from \$2,202,742 in 1899 to \$2,277,192 in 1900, or \$74,450. The average value per square in 1899 was \$3.097 and in 1900, \$2.887, showing a slight decrease.

The principal producing counties are Northampton, Lehigh, York, and Bucks. Operators report home consumption to be better and the export trade slightly less. This is also shown in the table of exports.

TENNESSEE.

Operations in Tennessee have been only spasmodically carried on, resulting in a very small production this year.

VERMONT.

Vermont ranks second in the list of slate-producing States, both in the value of roofing slate and the value of milled stock. The value of the product increased from \$872,673 in 1899 to \$917,462 in 1900, or \$44,789. The amount of slate produced increased from 277,463 squares, valued at \$777,971, in 1899, to 282,820 squares, valued at \$795,474, in 1900, or an increase of 5,357 squares, and in value \$17,503. The average value per square was greater in 1899 than in 1900.

VIRGINIA.

Virginia showed a very slight gain in slate output in 1900 over 1899, the product in 1899 being \$183,110 and in 1900 \$190,211, or a gain of \$7,101. The gain was in the value of roofing slates, the product of

which increased from 52,550 squares, valued at \$174,950, in 1899, to 56,365 squares, valued at \$185,211, in 1900, an increase of 3,815 squares, and in value \$10,261. The value of milled stock decreased from \$8,160 in 1899 to \$5,000 in 1900, or \$3,160.

The home trade was reported to be better, with less foreign demand.

The value per square decreased from \$3.329 in 1899 to \$3.286 in 1900.

MARBLE.

The production of marble in the United States in 1900 exceeded that of 1899 by \$255,572, the production in 1900 being \$4,267,253 and in 1899 \$4,011,681. This increase is chiefly in the marble used for cemetery work, with a marked decrease in the value of stone used for ornamental purposes, which was \$92,942 in 1899 and \$13,754 in 1900. The value of marble used for outside building decreased from \$1,176,208 in 1899 to \$1,080,969 in 1900, a loss of \$95,239.

Operations have been started in several new States, as Alabama, Arizona, Idaho, Missouri, Montana, and New Mexico.

Although deposits of marble have been long known in these States, they have not been worked commercially to any great extent. The value of the output in California increased from \$6,500 in 1899 to \$17,500 in 1900. Georgia's marble product decreased from \$742,554 in 1899 to \$631,241 in 1900. Massachusetts showed a decided increase in marble production, going from \$59,416 in 1899 to \$130,735 in 1900, an increase of \$71,319. This increase was chiefly in the amount used for building. The value of the marble product in New York decreased slightly, and in Pennsylvania there was a slight increase. The production in Tennessee advanced in value, as did that of Vermont and Washington. Marble quarries have also been reported in Alaska, but no commercial value has been given.

The following table gives the production of marble, by States, for the years 1891 to 1900, both inclusive:

Value of marble, by States, from 1891 to 1900.

| State. | 1891. | 1892. | 1893. | 1894. | 1895. |
|---------------------|-----------|-----------|-----------|-----------|-----------|
| California | \$100,000 | \$115,000 | \$10,000 | \$13,420 | \$22,000 |
| Georgia | 275,000 | 280,000 | 261,666 | 724,385 | 689,229 |
| Idaho | | | 4,500 | 3,000 | 2,250 |
| Iowa | | | | | 13,750 |
| Maryland | 100,000 | 105,000 | 130,000 | 175,000 | 145,000 |
| Massachusetts | | 100,000 | | | 2,000 |
| New York | 390,000 | 380,000 | 206,926 | 501,585 | 207,828 |
| Pennsylvania | 45,000 | 50,000 | 27,000 | 50,000 | 59,787 |
| Tennessee | 400,000 | 350,000 | 150,000 | 231,796 | 362,277 |
| Vermont | 2,200,000 | 2,275,000 | 1,621,000 | 1,500,399 | 1,321,598 |
| Scattering | 100,000 | 50,000 | | | |
| Total | 3,610,000 | 3,705,000 | 2,411,092 | 3,199,585 | 2,825,719 |

Value of marble, by States, from 1891 to 1900—Continued.

| State. | 1896. | 1897. | 1898. | 1899. | 1900. |
|---------------------|-----------|-----------|-----------|----------------------|-----------|
| Alabama | | | | | \$500 |
| Arizona | | | | | 5,000 |
| Arkansas | | | | \$3,410 | |
| California | \$4,000 | \$48,690 | \$40,200 | 6,500 | 17,500 |
| Colorado | | 99,600 | | 10,776 | |
| Georgia | 617,380 | 598,076 | 656,808 | 742,554 | 631,241 |
| Idaho | 5,500 | 5,000 | 4,400 | | 1,250 |
| Iowa | 39,740 | | | | |
| Maryland | 110,000 | 130,000 | 120,525 | 77,000 | 70,000 |
| Massachusetts | 83,904 | 79,721 | 82,210 | 59,416 | 130,735 |
| Missouri | | | | | 900 |
| Montana | | | | | 1,200 |
| New Mexico | | | | | 4,500 |
| New York | 484,160 | 354,631 | 342,072 | 338,816 | 332,518 |
| Pennsylvania | 31,522 | 62,683 | 39,373 | 139,506 | 151,167 |
| Tennessee | 381,373 | 441,954 | 316,814 | ^a 384,705 | 424,054 |
| Utah | | | | 2,355 | |
| Vermont | 1,101,557 | 2,050,229 | 2,067,938 | 2,241,806 | 2,484,852 |
| Washington | | | 3,600 | 4,837 | 11,836 |
| Total | 2,859,136 | 3,870,584 | 3,629,940 | 4,011,681 | 4,267,253 |

^a Contains small amount from North Carolina.

The following table shows the purposes for which the marble of the various productive States was sold by the quarrymen in 1897, 1898, 1899, and 1900:

Value of the marble product, by uses and States, in 1897, 1898, 1899, and 1900.

| State. | Rough. | Building. | Orna- mental. | Cemetery. | Interior. | Other. | Total. |
|---------------------|---------|-----------|------------------|-----------|-----------|---------|-----------|
| 1897. | | | | | | | |
| California | \$8,280 | \$2,625 | \$4,960 | \$3,015 | \$27,310 | \$2,500 | \$48,690 |
| Colorado | | | | | 82,000 | 17,600 | 99,600 |
| Georgia | 198,198 | 145,875 | | 157,803 | 71,200 | 25,000 | 598,076 |
| Idaho | | | | 4,500 | 500 | | 5,000 |
| Maryland | | 130,000 | | | | | 130,000 |
| Massachusetts | 1,026 | 58,608 | 306 | 2,300 | 15,481 | 1,000 | 79,721 |
| New York | 11,066 | 274,626 | | 61,631 | 5,308 | 2,000 | 354,631 |
| Pennsylvania | | 56,000 | | 6,683 | | | 62,683 |
| Tennessee | 147,679 | 4,000 | | 15,625 | 259,025 | 15,625 | 441,954 |
| Vermont | 111,607 | 402,912 | 3,744 | 1,295,912 | 115,159 | 120,895 | 2,050,229 |
| Total | 477,856 | 1,074,646 | 9,010 | 1,547,469 | 576,983 | 184,620 | 3,870,584 |
| 1898. | | | | | | | |
| California | 10,800 | 750 | 17,100 | 1,050 | 10,500 | | 40,200 |
| Georgia | 271,723 | 142,000 | | 147,000 | 84,700 | 11,385 | 656,808 |
| Idaho | 100 | | | 4,000 | 100 | 200 | 4,400 |
| Maryland | | 116,000 | 625 | | 3,900 | | 120,525 |
| Massachusetts | 1,210 | 25,000 | | | 12,000 | | 38,210 |
| New York | 54,696 | 193,464 | 27 | 74,990 | 3,031 | 15,864 | 342,072 |
| Pennsylvania | 75 | 38,700 | | 560 | | 38 | 39,373 |
| Tennessee | 239,483 | 11,000 | | | 66,331 | | 316,814 |
| Vermont | 108,553 | 441,439 | 6,152 | 1,386,142 | 124,152 | 1,500 | 2,067,938 |
| Washington | 3,600 | | | | | | 3,600 |
| Total | 690,240 | 968,353 | 23,904 | 1,613,742 | 304,714 | 28,987 | 3,629,940 |

Value of the marble product, by uses and States, in 1897, 1898, 1899, and 1900—Cont'd.

| State. | Rough. | Building. | Orna- mental. | Cemetery. | Interior. | Other. | Total. |
|---------------------|----------------------|-----------|------------------|-----------|-----------|----------|-----------|
| 1899. | | | | | | | |
| Arkansas | \$2,850 | \$210 | \$140 | \$210 | | | \$3,410 |
| California | 6,200 | | | 300 | | | 6,500 |
| Colorado | 10,766 | | | | | | 10,776 |
| Georgia | 335,535 | 97,400 | | 194,600 | \$92,350 | \$22,669 | 742,554 |
| Maryland | | 75,000 | 300 | | 1,700 | | 77,000 |
| Massachusetts | 565 | 43,121 | 2,000 | 1,100 | 8,000 | 4,630 | 59,416 |
| New York | 14,207 | 185,559 | 5,708 | 110,379 | | 22,963 | 338,816 |
| Pennsylvania | 3,531 | 134,356 | | 840 | 240 | 539 | 139,506 |
| Tennessee | ^a 126,955 | 10,000 | | 5,000 | 230,750 | 12,000 | 384,705 |
| Utah | 2,355 | | | | | | 2,355 |
| Vermont | 133,411 | 630,562 | 84,107 | 1,337,726 | 56,000 | | 2,241,806 |
| Washington | 4,150 | | 687 | | | | 4,837 |
| Total | 640,535 | 1,176,208 | 92,942 | 1,650,155 | 389,040 | 62,801 | 4,011,681 |
| 1900. | | | | | | | |
| Alabama | 500 | | | | | | 500 |
| Arizona | 5,000 | | | | | | 5,000 |
| California | 5,000 | 4,400 | 5,900 | 2,200 | | | 17,500 |
| Georgia | 194,483 | 87,777 | | 228,409 | 104,322 | 16,250 | 631,241 |
| Idaho | 250 | | | 1,000 | | | 1,250 |
| Maryland | | 50,000 | | 20,000 | | | 70,000 |
| Massachusetts | 5,950 | 107,604 | | 300 | 10,961 | 5,920 | 130,735 |
| Missouri | | | | 900 | | | 900 |
| Montana | | | | 1,200 | | | 1,200 |
| New Mexico | 1,500 | 1,500 | | 1,000 | | 500 | 4,500 |
| New York | 51,480 | 102,904 | | 164,331 | | 13,803 | 332,518 |
| Pennsylvania | 16,056 | 114,533 | | 10,003 | 8,000 | 2,575 | 151,167 |
| Tennessee | 88,284 | 36,750 | | 70,250 | 228,770 | | 424,054 |
| Vermont | 123,310 | 574,623 | 6,000 | 1,510,980 | 202,950 | 66,989 | 2,484,852 |
| Washington | | 878 | 1,854 | 8,901 | 89 | 114 | 11,836 |
| Total | 491,813 | 1,080,969 | 13,754 | 2,019,474 | 555,092 | 106,151 | 4,267,253 |

^a Contains a small amount from North Carolina.

The following table shows the various uses to which the marble quarried in 1897, 1898, 1899, and 1900 was put:

Distribution and value of output in 1897, 1898, 1899, and 1900 among various uses.

| | 1897. | 1898. | 1899. | 1900. |
|--|-----------|-----------|-----------|-----------|
| Sold by producers in rough state | \$477,856 | \$690,240 | \$640,535 | \$491,813 |
| Sold for outside building | 1,074,646 | 968,353 | 1,176,208 | 1,080,969 |
| Ornamental purposes | 9,010 | 23,904 | 92,942 | 13,754 |
| Cemetery work (monuments and tombstones) | 1,547,469 | 1,613,742 | 1,650,155 | 2,019,474 |
| Interior decoration in buildings | 576,983 | 304,714 | 389,040 | 555,092 |
| Other scattering uses | 184,620 | 28,987 | 62,801 | 106,151 |
| Total | 3,870,584 | 3,629,940 | 4,011,681 | 4,267,253 |

LIMESTONE.

As with the other branches of the stone industry, limestone showed an increase in the value of the product. The value of the output in 1899 was \$18,757,963, and in 1900 \$20,354,019, a gain of \$1,596,056.

This increase is in the value of the limestone used for paving and road making, and in the amount used for blast-furnace flux. All the other products decreased in value. For the first time the report for blast-furnace flux includes values obtained from pig-iron producers, who quarried their own stone, as well as from quarrymen only.

The value of lime burned decreased from \$6,983,067 in 1899 to \$6,798,496 in 1900. Pennsylvania ranks first among the limestone-producing States, being the largest producer of lime and of blast-furnace flux. Indiana ranks second, being the largest producer of building stone. Ohio, Illinois, New York, and Missouri follow in the order named, the value of the product of each State exceeding a million dollars.

The following table shows the production of limestone in the United States in 1899 and 1900, by States and uses:

Value of limestone produced in the United States in 1899 and 1900, by States and uses.

1899.

| State or Territory. | Building purposes. | Paving and road making. | Riprap. | Made into lime. | Stone sold to lime burners. | Flux. | Other purposes. | Total. |
|-----------------------------------|--------------------|-------------------------|---------|-----------------|-----------------------------|-----------|-----------------|-----------|
| Alabama | \$37,250 | \$16,021 | \$150 | \$118,928 | \$7,450 | \$184,837 | ..... | \$364,636 |
| Arizona ..... | ..... | ..... | ..... | 960 | ..... | ..... | ..... | 960 |
| Arkansas | 21,230 | 785 | 10,850 | 38,240 | 800 | ..... | \$60 | 71,965 |
| California | 1,551 | 9,915 | ..... | 263,406 | ..... | 525 | 11,898 | 287,295 |
| Colorado ..... | ..... | 150 | ..... | 33,675 | ..... | 62,431 | 200 | 96,456 |
| Connecticut ..... | ..... | ..... | ..... | 161,945 | ..... | 443 | ..... | 162,388 |
| Florida | 18,000 | 17,402 | ..... | 8,600 | ..... | ..... | ..... | 44,002 |
| Georgia ..... | ..... | ..... | ..... | 29,786 | ..... | ..... | ..... | 29,786 |
| Idaho | 25 | ..... | ..... | 3,300 | ..... | ..... | ..... | 3,325 |
| Illinois | 1,067,622 | 561,329 | 99,976 | 194,773 | 9,000 | 80,810 | 51,973 | 2,065,483 |
| Indiana | 1,400,854 | 272,969 | 8,678 | 273,901 | 492 | 184,570 | 32,369 | 2,173,833 |
| Iowa | 312,595 | 158,917 | 139,064 | 102,611 | 1,505 | ..... | 70,884 | 785,576 |
| Kansas | 209,680 | 75,443 | 57,023 | 2,615 | ..... | ..... | 34,240 | 379,001 |
| Kentucky | 104,094 | 44,845 | 7,510 | 12,672 | ..... | 6,248 | 3,492 | 178,861 |
| Maine ..... | ..... | ..... | ..... | 1,001,368 | 16,396 | 2,543 | 8,068 | 1,028,375 |
| Maryland | 8,896 | 7,292 | 51 | 217,522 | 794 | 75 | 595 | 235,225 |
| Massachusetts | 6,100 | 250 | ..... | 159,997 | ..... | 1,675 | 125 | 168,147 |
| Michigan | 30,299 | 62,815 | 1,111 | 89,441 | 157,657 | 27,512 | 2,375 | 371,210 |
| Minnesota | 325,856 | 26,105 | 75,335 | 52,851 | ..... | 3,840 | 12,475 | 496,462 |
| Missouri | 242,469 | 284,453 | 47,020 | 383,543 | 385 | 10,231 | 9,298 | 977,399 |
| Montana ..... | ..... | ..... | ..... | 13,818 | ..... | 99,900 | ..... | 113,718 |
| Nebraska | 33,571 | 24,948 | 36,962 | 2,000 | 2,960 | 18,000 | 6,576 | 125,017 |
| New Jersey | 705 | 1,824 | ..... | 108,056 | 914 | 41,526 | ..... | 153,025 |
| New York | 574,372 | 337,775 | 5,965 | 522,480 | 14,206 | 43,042 | 47,859 | 1,545,699 |
| Ohio | 250,816 | 315,890 | 11,828 | 802,228 | 29,841 | 313,936 | 69,065 | 1,793,604 |
| Oklahoma | 10,050 | 40,500 | ..... | ..... | ..... | ..... | ..... | 50,550 |
| Oregon ..... | ..... | ..... | ..... | 8,000 | ..... | ..... | ..... | 8,000 |
| Pennsylvania | 195,116 | 230,907 | 46,187 | 1,132,760 | 147,204 | 1,278,632 | 57,777 | 3,088,583 |
| Rhode Island ..... | ..... | ..... | ..... | 18,239 | ..... | ..... | ..... | 18,239 |
| South Carolina ^a ..... | ..... | ..... | ..... | 17,650 | ..... | ..... | ..... | 17,650 |
| South Dakota | 450 | ..... | ..... | 10,001 | ..... | 35,357 | ..... | 45,808 |
| Tennessee | 79,550 | 14,225 | 1,250 | 93,137 | 2,500 | 17,130 | 305 | 208,097 |
| Texas | 3,940 | 357 | 858 | 79,399 | ..... | 15,471 | ..... | 100,025 |
| Utah | 3,898 | 56 | ..... | 1,033 | ..... | 1,394 | ..... | 6,381 |

^a Contains a small amount from North Carolina.

Value of limestone produced in the United States in 1899 and 1900, by States and uses—
Continued.

| State or Territory. | Building purposes. | Paving and road making. | Riprap. | Made into lime. | Stone sold to lime burners. | Flux. | Other purposes. | Total. |
|---------------------|--------------------|-------------------------|---------|-----------------|-----------------------------|-----------|-----------------|------------|
| Vermont | | \$13 | | \$281,560 | | | \$600 | \$282,173 |
| Virginia | \$12,622 | 6,788 | \$4 | 111,339 | \$10 | \$119,477 | 5,400 | 255,640 |
| Washington | | | | 133,646 | | | 5,693 | 139,339 |
| West Virginia | 1,345 | 296 | 10 | 54,259 | 558 | 2,334 | | 58,802 |
| Wisconsin | 122,202 | 135,276 | 45,020 | 442,586 | 174 | 28,860 | 52,368 | 826,486 |
| Wyoming | | | | 742 | | | | 742 |
| Total | 5,075,158 | 2,647,546 | 594,852 | 6,583,067 | 392,846 | 2,580,799 | 483,695 | 18,757,963 |

1900.

| | | | | | | | | |
|-----------------------------------|-----------|-----------|----------|-----------|---------|-----------|---------|------------|
| Alabama | \$83,380 | | \$14,597 | \$139,090 | | \$296,241 | \$200 | \$533,608 |
| Arizona | 165 | | | | | | | 165 |
| Arkansas | 5,994 | \$665 | | 64,038 | \$200 | | 510 | 71,407 |
| California | 1,937 | 87,128 | 325 | 297,810 | 316 | 1,980 | 18,893 | 407,489 |
| Colorado | | 1,274 | | 96,055 | 75 | 62,413 | 770 | 160,587 |
| Connecticut | | 25 | | 145,490 | | 2,545 | | 148,060 |
| Florida | | 6,988 | 97,023 | 24,370 | | | | 128,381 |
| Georgia | 1,200 | 10,735 | | 39,492 | 2,000 | 1,024 | | 54,451 |
| Idaho | | 5,000 | | 25,587 | | | | 34,587 |
| Illinois | 499,739 | 859,602 | 96,900 | 246,575 | | 114,849 | 63,486 | 1,881,151 |
| Indiana | 1,639,985 | 239,913 | 11,451 | 227,343 | | 168,692 | 57,434 | 2,344,818 |
| Iowa | 248,883 | 153,329 | 58,493 | 110,589 | 580 | | 13,936 | 586,410 |
| Kansas | 203,304 | 113,952 | 7,586 | 2,192 | 1,125 | | 10,307 | 339,466 |
| Kentucky | 21,623 | 115,730 | 12,500 | 8,393 | | 17,728 | 2,278 | 178,252 |
| Maine | | | | 629,545 | 4,218 | 883 | 56,666 | 691,312 |
| Maryland | 11,385 | 14,343 | 524 | 281,717 | 3,726 | 2,867 | 1,645 | 317,207 |
| Massachusetts | 8,175 | | | 199,645 | | 1,539 | | 209,359 |
| Michigan | 32,362 | 105,266 | 799 | 94,789 | 65,000 | 3,200 | 124,220 | 425,936 |
| Minnesota | 323,688 | 27,778 | 32,912 | 42,480 | 400 | 300 | 13,996 | 441,554 |
| Missouri | 362,344 | 235,489 | 57,023 | 398,010 | | 8,288 | 18,189 | 1,079,343 |
| Montana | 3,000 | 2,093 | | 19,000 | | 117,000 | | 141,093 |
| Nebraska | 39,556 | 31,442 | 10,488 | 590 | 7,088 | 13,125 | 5,016 | 107,305 |
| New Jersey | 6,955 | 1,299 | 1,000 | 105,902 | 286 | 54,564 | | 170,006 |
| New York | 244,738 | 484,902 | 21,668 | 676,324 | 40,838 | 71,408 | 190,284 | 1,730,162 |
| Ohio | 217,399 | 466,819 | 47,530 | 661,869 | 14,939 | 422,407 | 138,424 | 1,969,387 |
| Oklahoma | 2,672 | 22,914 | | | | | | 25,586 |
| Oregon | | | | 10,525 | 375 | | | 10,900 |
| Pennsylvania | 128,997 | 684,983 | 660 | 910,903 | 21,799 | 1,949,859 | 103,117 | 3,800,318 |
| Rhode Island | | | | 16,715 | | 113 | | 16,828 |
| South Carolina ^a | | 500 | | 36,320 | | 1,595 | | 38,415 |
| South Dakota | 300 | | | 14,380 | | 33,082 | | 47,762 |
| Tennessee | 22,800 | 26,490 | 396 | 128,035 | 120 | 60,564 | 100 | 238,505 |
| Texas | 15,681 | 9,821 | 250 | 79,659 | | 18,942 | 375 | 124,728 |
| Utah | 11,979 | | | 770 | | | | 12,749 |
| Vermont | 193 | 32 | | 187,075 | | | 800 | 188,100 |
| Virginia | 5,070 | 8,721 | | 151,687 | | 237,840 | | 403,318 |
| Washington | | 240 | | 239,022 | | 6,643 | 3,258 | 249,163 |
| West Virginia | 9,391 | 40 | | 36,677 | 5,851 | 1,742 | | 53,701 |
| Wisconsin | 177,386 | 231,356 | 110,263 | 445,193 | 3,630 | 15,861 | 5,996 | 989,685 |
| Wyoming | 425 | | | 2,640 | | | | 3,065 |
| Total | 4,330,706 | 3,953,469 | 582,488 | 6,797,496 | 172,566 | 3,687,394 | 829,900 | 20,354,019 |

^a Includes North Carolina.

The following table shows the production of limestone in the United States from 1897 to 1900, by States:

Value of limestone from 1897 to 1900, by States.

| State. | 1897. | 1898. | 1899. | 1900. |
|-----------------------------------|------------|------------|------------|------------|
| Alabama | \$221,811 | \$242,295 | \$364,636 | \$533,608 |
| Arizona | 11,522 | 1,782 | 960 | 165 |
| Arkansas | 44,222 | 54,373 | 71,965 | 71,407 |
| California | 308,925 | 229,729 | 287,295 | 407,489 |
| Colorado | 79,256 | 109,310 | 96,456 | 160,587 |
| Connecticut | 178,410 | 142,057 | 162,388 | 148,060 |
| Florida | 18,889 | 91,330 | 44,002 | 128,381 |
| Georgia | 32,000 | 57,803 | 29,786 | 54,451 |
| Idaho | 15,538 | 3,080 | 3,325 | 34,587 |
| Illinois | 1,483,157 | 1,421,072 | 2,065,483 | 1,881,151 |
| Indiana | 2,012,608 | 1,686,572 | 2,173,833 | 2,344,818 |
| Iowa | 480,572 | 524,546 | 785,576 | 586,410 |
| Kansas | 208,889 | 305,605 | 379,001 | 339,466 |
| Kentucky | 40,815 | 83,960 | 178,861 | 178,252 |
| Maine | 742,877 | 1,283,468 | 1,028,375 | 691,312 |
| Maryland | 181,637 | 433,653 | 235,225 | 317,207 |
| Massachusetts | 126,508 | 174,822 | 168,147 | 209,359 |
| Michigan | 215,177 | 271,523 | 371,210 | 425,636 |
| Minnesota | 236,397 | 345,685 | 496,462 | 441,554 |
| Missouri | 1,018,202 | 735,275 | 977,399 | 1,079,343 |
| Montana | 37,300 | 63,196 | 113,718 | 141,093 |
| Nebraska | 42,359 | 78,493 | 125,017 | 107,305 |
| New Jersey | 141,646 | 146,611 | 153,025 | 170,006 |
| New York | 1,697,780 | 1,533,936 | 1,545,699 | 1,730,162 |
| North Carolina ^a | | 1,605 | | |
| Ohio | 1,486,550 | 1,673,160 | 1,793,604 | 1,969,387 |
| Oklahoma | | 3,000 | 50,550 | 25,586 |
| Oregon | | 7,480 | 8,000 | 10,900 |
| Pennsylvania | 2,327,870 | 2,746,256 | 3,088,583 | 3,800,318 |
| Rhode Island | 11,555 | 10,215 | 18,239 | 16,828 |
| South Carolina | 30,000 | 34,000 | 17,650 | 38,415 |
| South Dakota | 3,895 | 26,858 | 45,808 | 47,762 |
| Tennessee | 113,774 | 182,402 | 208,097 | 238,505 |
| Texas | 57,258 | 70,321 | 100,025 | 124,728 |
| Utah | 9,250 | 11,721 | 6,381 | 12,749 |
| Vermont | 165,657 | 174,150 | 282,173 | 188,100 |
| Virginia | 192,972 | 182,852 | 255,640 | 403,318 |
| Washington | 126,877 | 140,239 | 139,339 | 249,163 |
| West Virginia | 61,546 | 56,167 | 58,802 | 53,701 |
| Wisconsin | 641,232 | 698,454 | 826,486 | 989,685 |
| Wyoming | | | 742 | 3,065 |
| Total | 14,804,933 | 16,039,056 | 18,757,963 | 20,354,019 |

^a Small amounts for 1899 and 1900 are included with South Carolina.

LIMESTONE PRODUCTION IN INDIVIDUAL STATES.

ALABAMA.

The value of the product increased from \$364,636 in 1899 to \$533,608 in 1900, or \$168,972. The only noticeable decrease was in the amount used for paving and road making.

ARKANSAS.

The limestone trade in Arkansas showed no appreciable change from 1899. The product is chiefly lime, which advanced from \$38,240 in 1899 to \$64,038 in 1900. The total for 1900 was \$71,407, and for 1899, \$71,965.

CALIFORNIA.

The production of limestone in California advanced from \$287,295 in 1899 to \$407,489 in 1900, a gain of \$120,194. The increase was chiefly in the value of stone used for paving and road making. Limestone is used in this State by the sugar refineries, and most of that noted in the table as used for other purposes went to the refineries.

COLORADO.

Colorado showed a decided increase in value, the product being valued at \$96,456 in 1899 and \$160,587 in 1900. The chief increase was in the value of lime, which advanced from \$33,675 in 1899 to \$96,055 in 1900, a gain of \$62,380.

CONNECTICUT.

The value decreased slightly for 1900, being \$162,388 in 1899 and \$148,060 in 1900. The product is chiefly lime.

FLORIDA.

The value of the limestone product increased \$84,379 or from \$44,002 in 1899 to \$128,381 in 1900.

GEORGIA.

The value of the limestone product in Georgia in 1899 was \$29,786, in 1900 \$54,451, which gives a gain of \$24,665.

IDAHO.

The rise noticed in the production of limestone in Idaho is due to the fact that more producers were heard from than in former years. The value given for 1900 is \$34,587.

ILLINOIS.

Illinois shows a decrease in limestone production of \$184,332 from 1899, the value being \$2,065,483 in 1899 and \$1,881,151 in 1900. The decrease was in the amount and value of building stone sold, and was partly made up by increase in stone used for paving and road making, which advanced from \$561,329 in 1899 to \$859,602 in 1900. A large part of this was railroad ballast. The value of the lime made also advanced in a satisfactory manner, being \$194,773 in 1899 and \$246,575 in 1900. The decrease in value of building stone was due to the large number of strikes that took place in and around Chicago during 1900 in the building trades.

INDIANA.

Indiana showed an increase in the limestone product for 1900, the value of the output being \$2,173,833 in 1899 and \$2,344,818 in 1900, a gain of \$170,985. This gain was almost entirely in the value of building stone, which increased from \$1,400,854 in 1899 to \$1,639,985 in 1900, or \$239,131. The other products showed a slight decrease.

IOWA.

Iowa's limestone production in 1900 declined to \$586,410 from \$785,576 in 1899. This decrease was mostly in stone used for riprap.

KANSAS.

The limestone production in Kansas in 1900 was \$339,466. This is a decline of \$39,535 from the production of \$379,001 in 1899. The decrease was chiefly in the stone used for riprap.

KENTUCKY.

The limestone product of Kentucky was practically the same as 1899. The value of the product in 1900 was \$178,252. In 1899 it was \$178,861. The value of the stone used for building purposes decreased and that for railroad ballast, paving, and road making increased.

MAINE.

There was a considerable decrease in the value of the limestone product of Maine in 1900. The value in 1899 was \$1,028,375, and in 1900 \$691,312. The decrease was due to the business change which took place in this State. Most of the large firms formed a combination known as the Rockland-Rockport Lime Company, of Rockland, Me. Most of the stone in this State is burned into lime.

MARYLAND.

The value of the production in Maryland increased from \$235,225 in 1899 to \$317,207 in 1900. This increase was shared by all the purposes for which the stone was used.

MASSACHUSETTS.

The limestone production increased from \$168,147 in 1899 to \$209,359 in 1900. This gain was mostly in the value of the lime made, which was \$159,997 in 1899 and \$199,645 in 1900, a gain of \$39,648.

MICHIGAN.

Michigan showed an increase in limestone production in 1900. The value was \$371,210 in 1899 and \$425,636 in 1900. A considerable amount of the product in this State is used in sugar refineries and in the manufacture of soda.

MINNESOTA.

There was a decrease of \$54,908 in the limestone production in 1900, the output being \$496,462 in 1899 and \$441,554 in 1900.

MISSOURI.

Missouri increased in value of limestone production from \$977,399 in 1899 to \$1,079,343 in 1900, or \$101,944.

MONTANA.

The production of limestone in Montana increased from \$113,718 in 1899 to \$141,093 in 1900. The stone is used chiefly for lime and for blast furnace flux.

NEBRASKA.

The limestone production in Nebraska decreased from \$125,017 in 1899 to \$107,305 in 1900. This decrease was chiefly in the stone used for riprap.

NEW JERSEY.

New Jersey produced limestone to the value of \$170,006 in 1900, as compared with \$153,025 in 1899.

NEW YORK.

The output of limestone in New York in 1900 was valued at \$1,730,162. This shows a gain of \$184,463 over the production in 1899, which was \$1,545,699. This gain was shared by stone used for all purposes, except for building which decreased in value.

OHIO.

The limestone product of Ohio increased from \$1,793,604 in 1899 to \$1,969,387 in 1900, or \$175,783. The stone used for paving, road making, ballast, riprap, and blast furnace flux increased in value, while the value of the stone used for building purposes decreased, as did also the value of the lime made.

PENNSYLVANIA.

The value of the limestone production in Pennsylvania increased from \$3,088,583 in 1899 to \$3,800,318 in 1900, or \$711,735. This increase is principally in the value of blast furnace flux as obtained from pig-iron manufacturers. The value of the lime burned in Pennsylvania decreased from \$1,132,760 in 1899 to \$910,903 in 1900, or \$221,857. This decrease, however, does not prevent Pennsylvania from keeping first rank as a lime-producing State. The cause of the decrease was due chiefly to the high price of coal. Farmers who depended upon coal for fuel in burning lime were unable to keep their kilns running. Much of the lime burned in this State is used by the farmers on their land and burned for this purpose alone.

TENNESSEE.

The limestone production in Tennessee in 1900 showed a slight increase over 1899, it being \$238,505 in 1900, as compared with \$208,097 in 1899. The increase was in the amount and value used for blast furnace flux. The value of both building stone and lime decreased.

TEXAS.

The production of limestone in Texas increased from \$100,025 in 1899 to \$124,728 in 1900. This increase was chiefly in the value of building stone and stone used for paving and road making. The value of the lime remained about the same.

UTAH.

There was an increase from \$6,381 in 1899 to \$12,749 in 1900 in the value of the limestone production as reported from Utah. This stone was used chiefly for building.

VERMONT.

The limestone production in Vermont decreased from \$282,173 in 1899 to \$188,100 in 1900. The product was almost entirely lime.

WASHINGTON.

Considerable activity has been shown recently in the lime business in Washington. In 1899 the value of the limestone product was \$139,339, and in 1900, \$249,163, or a gain of \$109,824. The value of the lime burned was \$133,646 in 1899 and \$239,022 in 1900.

WEST VIRGINIA.

West Virginia decreased in limestone production from \$58,802 in 1899 to \$53,701 in 1900. The decrease was in the value of lime burned.

WISCONSIN.

The value of the limestone produced in Wisconsin in 1900 was \$989,685. The value for 1899 was \$826,486, showing an increase of \$163,199. The value of stone used for blast furnace flux decreased somewhat. All other products showed an increase.

THE STONE INDUSTRY IN CUBA.

The stone available for building purposes in Cuba includes all varieties mentioned in this report, from granite and trap rock in the interior of the island to marble on the Isle of Pines and Coquina, and denser limestone in the newer formations near the coast.

Quarrying has been carried on for many years in a small way. The most extensive operations are on the outskirts of Habana, where two quarries are operated by the Cuba Quarry Company, about 3

miles from the center of the city. These two quarries are known under the names of San Miguel and Jesus de Monte. The San Miguel quarry has been in operation from sixty to seventy-five years. It has an exposed face about 400 feet long, and from 20 to 75 feet wide. During the past year about 50,000 tons of this sandstone have been turned out for making concrete.

Previous to the Spanish war in Cuba a large steam stone mill with eight gangs of saws was in operation cutting this stone for use in various places on the island, especially for sidewalks, curbstones, etc. The mill was burned during the war.

The Jesus de Monte quarry is in Coquina. In addition to these two quarries the Campo Florido Company is now opening up a quarry of so-called granite 18 miles from Habana, toward Matanzas. It is sufficiently tough for use in repairing the streets of Habana.

Mr. C. E. McDowell, general superintendent of the Cuba Quarry Company, has reported a very superior trap rock, found about 25 miles west of Habana, about 2 miles from the town of Mariel. This has been used to a considerable extent for macadamized roads.