MINERAL RESOURCES OF THE UNITED STATES.

CALENDAR YEAR 1885.

Division of Mining Statistics and Technology.

SUMMARY—1885.

Coal.—The total commercial product of coal of all kinds in 1885, exclusive of that consumed at the mines, known as colliery consumption, was 95,834,705 long tons, valued at $152,915,108. Of this 32,265,421 long tons were Pennsylvania anthracite, valued at $72,274,544; while of other coals, including bituminous, brown coal, lignite, and small lots of anthracite produced outside of Pennsylvania, the production was 63,569,284 long tons, valued at $80,640,564 at the points of production. The total production including colliery consumption was: Pennsylvania anthracite 34,228,548 long tons, all other coals 64,840,668 long tons, making the total absolute production of the coal mines of the United States 99,069,216 long tons, valued as follows: Anthracite, $76,671,948; bituminous, $82,347,648; total, $159,019,596. The total production (including local consumption) of anthracite was 1,052,792 tons in excess of that of 1884, and its value was $10,320,436 greater. The total production of bituminous coal was 8,889,871 tons less than in 1884, but its value was $4,930,582 greater. The total production of coal of all kinds shows a net loss in tonnage of 7,837,079 long tons compared with that of 1884, but a gain in value of $15,251,018, the increase in value being due to an average increase of 25 cents per long ton. The total value is about the same as that of 1883.

Coke.—The total production of coke in 1885 was 5,106,696 short tons, valued at the ovens at $7,629,118. Of this Pennsylvania produced 78 per cent., or 3,991,805 tons, valued at $4,981,656. The remainder was produced by fourteen States and Territories. The maximum production of coke in the United States was reached in 1883, when 5,464,721 tons were made. This declined in 1884 to 4,873,805 tons. The production of 1885 shows a gain upon that of 1884, being within 360,000 tons of the make in 1883.

Petroleum.—The total production was 21,842,041 barrels of 42 gallons, of which the Pennsylvania and New York fields produced 20,776,041 barrels. The total value, at an average price of 87⅞ cents per barrel, was $19,193,694. The production showed a decrease of 2,247,717 barrels and $1,282,600 in value from 1884.

Natural gas.—No record is kept of the yield in cubic feet. The amount of coal displaced by gas in 1885, was 3,161,600 tons, valued at $4,854,200. In 1884 the coal displaced was valued at $1,460,000. The yield has increased tenfold since 1883.

Iron.—The principal statistics for 1885 were: Domestic iron ore consumed, 7,600,000 long tons; value at mine $19,000,000. Imported iron ore consumed, 390,786 long tons; total iron ore consumed, 7,990,786 long tons; pig iron made, 4,044,525 long tons, a decrease of 53,343 tons as compared with 1884; value at furnace $64,712,400, or $9,049,224 less than in 1884. Total spot value of all iron and steel in the first stage of of manufacture, excluding all duplications, $93,000,000 a decline of $14,000,000 from 1884.

Gold and silver.—The mint authorities estimate the value of the gold produced in 1885 at $31,801,000, an increase of $1,001,000 over 1884. The production of silver is similarly estimated at $51,600,000, an increase of $2,800,000 over 1884.

Copper.—The production in 1885, including 5,086,841 pounds made from imported pyrites, was 170,962,607 pounds, valued in New York at $18,292,999 at the average price of 10.7 cents per pound. The increase in pounds over 1884 was 23,157,200; in value $186,337.

Lead.—Production, 129,412 short tons. Total value, at an average price of $81 per short ton at the Atlantic coast, $10,469,431, a decline of 10,485 tons and $67,611 in value from the product of 1884. The production of white lead is estimated at 60,000 short tons, worth at 5¼ cents per pound, $6,300,000.

Zinc.—The production of metallic zinc in 1885 was 40,688 short tons, valued at $3,539,856 at an average value of 4.35 cents per pound, an increase of 2,144 tons and $117,149 in value over 1884. Zinc was also made from the ore directly into zinc white (zinc oxide) to the extent of 15,000 short tons, valued at $1,050,000.

Quicksilver.—Production, 32,073 flasks (of 76½ pounds net), or 160 flasks more than in 1884. Total value, at an average price of $30.53 per flask at San Francisco, $979,189, an increase of $42,862 over 1884. The production of quicksilver vermilion was about 600,000 pounds, the same as in 1884, but the price advanced to 52 cents per pound, making the total value $312,000.

Nickel.—The production of metallic or "grain" nickel was 245,504 pounds, valued at $169,397. In addition, matte and ore containing 32,400 pounds of nickel were exported. Total value of all nickel, $191,753.

Cobalt.—The amount of cobalt oxide was 8,423 pounds, valued at $19,373. The total value of cobalt in ore, matte, and the above oxide was $65,373.

Manganese.—The production of manganese ores was 23,258 long tons, valued at $190,281. Manganiferous iron ore, 3,237 long tons, valued at $17,318. Total value, $207,599.

Chromium.—The production of chrome iron ore was 2,700 long tons, valued at $40,000. The consumption for making potassium and sodium bichromates increased markedly, due to imports of chrome iron ore from Asia Minor.

Tin.—Probably 200 tons of "black tin" ore were made at the concentrating works at the Etta mine in Dakota. No smelting works have yet been erected.

Platinum.—The amount of crude platinum mined in 1885 was about 250 troy ounces, valued at $187. This is exclusive of about 300 ounces of iridosmine, for pointing pens.

Aluminum.—The production of metallic aluminum increased from 1,800 troy ounces in 1884 to 3,400 ounces in 1885, valued at $2,550. Aluminum bronze, containing 10 per cent. aluminum, was made to the amount of about 4,500 pounds, valued at $1,800.

Building stone.—Value, $19,000,000; about the same as in 1884.

Brick and tile.—The demand and consequent production increased to an estimated value of $35,000,000 in 1885.

Lime.—With the price constant at 50 cents per barrel at the kilns, the production increased from 37,000,000 barrels in 1884 to 40,000,000 in 1885.

Cement.—The production of cement from natural rock increased to 4,000,000 barrels of 300 pounds each, but was valued at only $3,200,000. Artificial Portland cement amounted to 150,000 barrels of 400 pounds each, with a total value of $292,500. The total production of cement of all kinds was 4,150,000 barrels, valued at $3,492,500, against $3,720,000 in 1884.

Precious stones.—The value of American precious stones produced in 1885 was $69,900. This includes $42,800 for stones sold as specimens and souvenirs and $27,100 for stones to be cut into gems. Besides this, gold quartz, with an estimated value of $140,000 was sold for specimens and for ornaments and jewelry.

Millstones.—The trade in millstones of all kinds has decreased markedly from the introduction of roller mills. The total value of the Esopus millstones in New York and Cocalico stone in Pennsylvania did not exceed $100,000 in 1885.

Grindstones.—Estimated value of product for 1885, $500,000.

Phosphates.—With the exception of a local consumption of about 1,000 tons in North Carolina, thetotal production of phosphate rock came from South Carolina, and amounted to 437,856 long tons of washed

rock for the calendar year 1885, valued at $2,846,064, at an average value of $6.50 per ton.

Gypsum.—The estimated production of land plaster in 1885 was 100,600 short tons; of calcined plaster 72,200 tons; total 172,800 tons, valued at $959,600. The above includes 75,100 tons from native stone, the remainder being imported from Nova Scotia.

Salt.—The total production in barrels of 280 pounds was 7,038,653, exceeding the yield of 1884 by 523,716 barrels. The total value of all salt produced was $4,825,345, an increase of $732,887, which was due partly to the increased value of the Michigan product, and partly to the large increase in the production of western New York.

Bromine.—The production increased slightly, being about 310,000 pounds against 281,100 in 1884. The total value, at an average of 29 cents per pound, was $89,900, an increase of $22,436 above the previous year.

Borax.—Production, limited to California and Nevada, 8,000,000 pounds; value, at 6 cents per pound for concentrated, $480,000. While the product increased by 1,000,000, the fall in price lowered the total value by $10,000.

Sulphur.—The production was only about 700 tons, worth about $18,000.

Pyrites.—About 49,000 long tons were mined, valued at $220,500. In addition 47,500 tons were imported.

Barytes.—The production was about 15,000 tons, valued at $75,000, in the unground condition, as taken from the mines.

Mica.—The production decreased in the West, owing to the inferior value of the sheets obtained. The whole product, excluding waste, was 92,000 pounds, valued at $161,000.

Feldspar.—Production, 13,600 long tons, valued, before grinding, at $68,000.

Asbestus.—The amount mined was about 300 short tons, valued at $9,000.

Asphaltum.—The production remained constant at about 3,000 tons, with a spot value of $10,500.

Mineral waters.—The sales amounted to $1,312,845, from 9,148,401 gallons; the value is slightly less than in 1884. The great change in the number of gallons stated in the last report is due to the exclusion of the water from artesian wells in Madison, Wisconsin, which is used as the regular city supply. A large local consumption is also excluded.

Totals.—The statements made in the last report in regard to the total mineral product require little change for the year 1885. The statistics have been compiled with a view to giving information on those points which are of most interest and utility, and are presented in the form usual in the several branches of trade statistics. Comparing the totals given since 1882, a continuous decrease in value is noted in 1883 and

1884, being marked in the latter year. The year 1885 shows, on the other hand, an increase, due, no doubt, in part to more complete returns and closer estimates, but indicating, nevertheless, a more profitable business year, which would be still more apparent if the last half were compared with the corresponding period in 1884, since, in many important branches of trade, prices increased towards the end of the year.

Metallic products of the United States in 1885.

	Quantity.	Value.
Pig-iron, spot value.....long tons..	4,044,525	$64,712,400
Silver, coining value.....troy ounces..	39,910,279	51,600,000
Gold, coining value.....do....	1,538,376	31,801,000
Copper, value at New York City (*a*).....pounds..	170,962,607	18,292,999
Lead, value at New York City.....short tons..	129,412	10,469,431
Zinc, value at New York City.....do....	40,688	3,539,856
Quicksilver, value at San Francisco.....flasks..	32,073	979,189
Nickel, value at Philadelphia.....pounds..	277,904	191,753
Aluminum, value at Philadelphia.....troy ounces..	3,400	2,550
Platinum, value, crude, at New York City.....do....	250	187
Total.....	.....	$181,589,365

a Including copper from imported pyrites.

Non-metallic mineral products of the United States in 1885 (*spot values*).

	Quantity.	Value.
Bituminous coal, brown coal, lignite, and anthracite, mined elsewhere than in Pennsylvania.....long tons (*a*).	64,840,668	$82,347,648
Pennsylvania anthracite.....do (*b*).	34,228,548	76,671,948
Petroleum.....barrels..	21,842,041	19,193,694
Building stone.....	.....	19,000,000
Lime.....barrels..	40,000,000	20,000,000
Salt.....do....	7,038,653	4,825,345
Cement.....do....	4,150,000	3,492,500
South Carolina phosphate rock.....long tons..	437,856	2,846,064
Limestone for iron flux.....	.....	1,694,656
Mineral waters.....gallons sold..	9,148,401	1,312,845
Natural gas.....	.....	4,854,200
Zinc, white.....short tons..	15,000	1,050,000
Concentrated borax.....pounds..	8,000,000	480,000
New Jersey marls.....short tons..	875,000	437,500
Mica.....pounds..	92,000	161,000
Pyrites.....long tons..	49,000	220,500
Gold quartz souvenirs, jewelry, &c.....	.....	140,000
Manganese ore.....long tons..	23,258	190,281

a The commercial product, that is, the amount marketed, was only 63,569,284 tons, valued at $80,640,564.

b The commercial product, that is, the amount marketed, was only 32,265,421 tons, valued at $72,274,544.

Non-metallic mineral products of the United States in 1885 (*spot value*), *&c.*—Continued.

	Quantity.	Value.
Crude barytes ..... long tons..	15,000	75,000
Ocher ..... do....	3,950	43,575
Precious stones	.....	69,900
Bromine ..... pounds..	310,000	89,900
Feldspar ..... long tons..	13,600	68,000
Chrome iron ore ..... do...	2,700	40,000
Asbestus ..... short tons..	300	9,000
Slate ground as a pigment ..... long tons..	1,975	24,687
Sulphur ..... short tons..	715	17,875
Asphaltum ..... do....	3,000	10,500
Cobalt oxide ..... pounds..	68,723	65,373
Total	.....	$239,431,991

Résumé of the values of the metallic and non-metallic mineral substances produced in the United States in 1885.

Metals	$181,589,365
Mineral substances named in the foregoing table	239,431,991
	$421,021,356
Estimated value of mineral products unspecified	7,500,000
Grand total	$428,521,356

Summary of the mineral products of the United States, calendar years 1882, 1883, 1884, *and* 1885.

Products.	1882.		1883.		1884.		1885.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
METALLIC.								
Pig-iron, spot value ..... long tons..	4, 623, 329	$106, 336, 429	4, 595, 510	$91, 910, 200	4, 097, 868	$73, 761, 624	4, 044, 525	$64, 712, 400
Silver, coining value ..... troy ounces..	36, 197, 695	46, 800, 000	35, 733, 622	46, 200, 000	37, 744, 605	48, 800, 000	39, 910, 279	51, 600, 000
Gold, coining value ..... do.....	1, 572, 186	32, 500, 000	1, 451, 249	30, 000, 000	1, 489, 949	30, 800, 000	1, 538, 376	31, 801, 000
Copper, value at New York City ..... pounds..	91, 646, 232	16, 038, 091	117, 151, 795	18, 064, 807	147, 805, 407	18, 106, 162	170, 962, 607	18, 292, 999
Lead, value at New York City ..... short tons..	132, 890	12, 624, 550	143, 957	12, 322, 719	139, 897	10, 537, 042	129, 412	10, 469, 431
Zinc, value at New York City ..... do....	33, 765	3, 646, 620	36, 872	3, 311, 106	38, 544	3, 422, 707	40, 688	3, 539, 856
Quicksilver, value at San Francisco ..... flasks..	52, 732	1, 487, 042	46, 725	1, 253, 632	31, 913	936, 327	32, 073	979, 189
Nickel, value at Philadelphia ..... pounds..	281, 616	309, 777	58, 800	52, 920	64, 550	48, 412	277, 904	191, 753
Antimony, value at San Francisco ..... short tons..	60	12, 000	.....	.....	.....	.....	.....	.....
Platinum, value (crude) at New York City ... troy ounces..	200	600	200	600	150	450	250	187
Aluminum, value at Philadelphia ..... troy ounces..	.....	.....	1, 000	875	1, 800	1, 350	3, 400	2, 550
Total value metallic products	.....	219, 755, 109	.....	203, 116, 859	.....	186, 414, 074	.....	181, 589, 365

Summary of the mineral products of the United States, &c.—Continued.

Products.	1882.		1883.		1884.		1885.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
NON-METALLIC (SPOT VALUES).								
Bituminous coal ..... long tons..	60, 861, 190	$76, 076, 487	68, 531, 500	$82, 237, 800	73, 730, 539	$77, 417, 066	64, 840, 668	$82, 347, 048
Pennsylvania anthracite ..... do	31, 358, 264	70, 556, 094	34, 336, 469	77, 257, 055	33, 175, 756	66, 351, 512	34, 228, 548	76, 671, 948
Petroleum ..... barrels..	30, 053, 500	23, 704, 698	23, 400, 229	25, 740, 252	24, 689, 758	20, 476, 294	21, 842, 041	19, 193, 694
Lime ..... do....	31, 000, 000	21, 700, 000	32, 000, 000	19, 200, 000	37, 000, 000	18, 500, 000	40, 000, 000	20, 000, 000
Building stone	.....	21, 000, 000	.....	20, 000, 000	.....	19, 000, 000	.....	19, 000, 000
Salt ..... barrels..	6, 412, 373	4, 340, 140	6, 192, 231	4, 211, 042	6, 514, 937	4, 197, 734	7, 038, 653	4, 825, 345
Cement ..... do ..	3, 250, 000	3, 672, 750	4, 190, 000	4, 293, 500	4, 000, 000	3, 720, 000	4, 150, 000	3, 492, 500
Limestone for iron flux ..... long tons.	3, 850, 000	2, 310, 000	3, 814, 273	1, 907, 136	3, 401, 930	1, 700, 965	.....	1, 694, 656
South Carolina phosphate rock ..... do ..	332, 077	1, 992, 462	378, 380	2, 270, 280	431, 779	2, 374, 784	437, 856	2, 846, 064
New Jersey marls ..... short tons..	1, 080, 000	540, 000	972, 000	486, 000	875, 000	437, 500	875, 000	437, 500
Borax ..... pounds..	4, 236, 291	338, 903	6, 500, 000	585, 000	7, 000, 000	490, 000	8, 000, 000	480, 000
Mica ..... do	100, 000	250, 000	114, 000	285, 000	147, 410	368, 525	92, 000	161, 000
Ocher ..... long tons..	7, 000	105, 000	7, 000	84, 000	7, 000	84, 000	3, 950	43, 575
Soapstone ..... short tons..	6, 000	90, 000	.....	.....	.....	.....	.....	.....
Crude barytes ..... long tons	20, 000	80, 000	27, 000	108, 000	25, 000	100, 000	15, 000	75, 000
Precious stones	.....	75, 000	.....	74, 050	.....	82, 975	.....	69, 900
Gold-quartz souvenirs, jewelry, etc	.....	75, 000	.....	115, 000	.....	140, 000	.....	140, 000
Pyrites ..... long tons..	12, 000	72, 000	25, 000	137, 500	35, 000	175, 000	49, 000	220, 500
Manganese ore ..... do....	3, 500	52, 500	8, 000	120, 000	10, 000	120, 000	23, 258	190, 281
Chrome iron ore ..... do....	2, 500	50, 000	3, 000	60, 000	2, 000	35, 000	2, 700	40, 000
Asbestus ..... short tons..	1, 200	36, 000	1, 000	30, 000	1, 000	30, 000	300	9, 000
Graphite ..... pounds..	425, 000	34, 000	575, 000	46, 000	.....	.....	.....	.....
Cobalt oxide ..... do....	11, 653	32, 046	1, 096	2, 795	2, 000	5, 100	68, 723	65, 373
Slate ground as a pigment ..... long tons..	2, 000	24, 000	2, 000	24, 000	2, 000	20, 000	1, 975	24, 687
Sulphur ..... short tons..	600	21, 000	1, 000	27, 000	500	12, 000	715	17, 875
Asphaltum ..... do....	3, 000	10, 500	3, 000	10, 500	3, 000	10, 500	3, 000	10, 500
Corundum ..... do....	500	6, 250	.....	.....	.....	.....	.....	.....

Pumice-stone ..... do....	70	1,750	.....	.....	.....	.....	.....	.....
Feldspar ..... long tons..	.....	.....	14,100	71,113	10,900	55,112	13,600	68,000
Zinc-white ..... short tons..	.....	.....	.....	.....	13,000	910,000	15,000	1,050,000
Bromine ..... pounds..	.....	.....	301,100	72,264	281,100	67,464	310,000	89,900
Mineral waters ..... gallons sold..	.....	.....	7,529,423	1,119,603	10,215,328	1,459,143	9,148,401	1,312,845
Natural gas	.....	215,000	.....	475,000	.....	1,460,000	.....	4,854,200
Total value non-metallic mineral products	.....	$227,461,580	.....	$241,049,889	.....	$219,800,674	.....	$239,431,991
Total value metallic products	.....	219,755,109	.....	203,116,859	.....	186,414,074	.....	181,589,365
Estimated value of mineral products unspecified	.....	8,000,000	.....	8,000,000	.....	7,000,000	.....	7,500,000
Grand total	.....	$455,216,689	.....	$452,166,748	.....	$413,214,748	.....	$428,521,356