

REPORTS OF THE
DEPARTMENT OF
CONSERVATION AND DEVELOPMENT
STATE OF NEW JERSEY

HENRY B. KUMMEL, State Geologist Director

BULLETIN 27

Geologic Series

THE MINERAL INDUSTRY
OF NEW JERSEY
FOR 1924

Compiled by

M. W. TWITCHELL, *Ph.D.*

Assistant State Geologist



Published 1925

Division of Geology and Topography.

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GENERAL SUMMARY.

Cooperation in Collection of Statistics. The statistics of the mineral industry of New Jersey for the calendar year 1924 were collected cooperatively by the U. S. Geological Survey, U. S. Bureau of the Census and the New Jersey Department of Conservation and Development. In June 1925 the Division of Mineral Resources of the U. S. Geological Survey was transferred from the U. S. Department of the Interior to U. S. Department of Commerce, at the same time the Bureau of Mines was also transferred from the Department of the Interior to the Department of Commerce. As a result of these changes the former Division of Mineral Resources of the U. S. Geological Survey has now been made the Division of Mineral Resources and Statistics under the Bureau of Mines in the Department of Commerce. The particular part of this statistical work, which is carried on by the Bureau of the Census, is the collection and compilation of the statistics relating to the brick and tile, and pottery products. This cooperative method avoids the necessity of troubling producers by requests from several organizations and insures greater accuracy and completeness in the results.

Total Value of the Mineral Production in 1924. In 1924 the total value of the mineral production in New Jersey was \$81,558,477. As the corresponding figure for 1923 was \$82,310,148 there was actually a decrease of \$751,671; but as this was relatively so small it is evident that the State practically maintained the high level attained in 1923.

General Table. In the following table there is given a general summary of the quantities and values for 1924 of the principal mineral products with the figures of 1923 for comparison. Details regarding the individual industries will be found in the pages that follow:

MINERAL PRODUCTION IN NEW JERSEY IN 1924.

Products	Pro- ducers	1924		1923	
		Quantity	Value	Quantity	Value
Zinc ore	1	610,944 s. t.	(a)	548,891 s. t.	(a)
Iron ore	3	(a)	(a)	349,435 l. t.	\$1,403,723
Stone	49	2,149,270 s. t.	\$3,326,278	2,038,740 s. t.	3,022,918
Sand and Gravel	74	3,921,521 s. t.	3,331,712	6,101,204 s. t.	4,381,855
Clay	41	352,734 s. t.	1,486,032	376,854 s. t.	1,650,900
Brick and Tile	73	20,445,851	22,128,816
Pottery	56	25,968,316	23,838,455
Peat	5	23,523 s. t.	172,863	18,380 s. t.	107,885
Greensand Marl	4	14,055 s. t.	151,205	10,656 s. t.	131,123
Mineral Water (b)....	13	(b)	(b)	507,680 gal.	50,261
Miscellaneous (c):					
Coke	2				
Feldspar (ground) ...	3				
Fuel Briquets	2				
Iron Ore	3				
Lime	3		26,676,200		25,594,212
Portland Cement	2				
Quartz (ground)	2				
Talcose rock (ground)	1				
Zinc ore	1				
Total	312		\$81,558,477		\$82,310,148

- a. May not be separately published. Value included under "Miscellaneous".
 b. Figures for 1924 were not collected.
 c. In 1923 the value of slate was also included, and that of iron ore was not included.

ZINC ORE.

New Jersey possesses some really wonderful deposits of zinc ore. These have been mined for many years but comparatively few know of their real importance in the mining industry. Zinc is used in a large way in the coating of sheet iron to make it "galvanized iron" (which is really "zinc-ized iron"), also in making white oxide of zinc which is used in paints, medicines, etc. Our zinc resources are limited to Sussex County where two great bodies of high-grade zinc ore are known to exist. One body of zinc ore located at Franklin is an inclined bed from one-half to three-fourths of a mile long and extends from the surface to a depth of over 1,000 feet, and is from 12 to 100 feet in thickness. Another great deposit, somewhat smaller, occurs at Stirling Hill, near Ogdensburg. Both deposits are now owned by the New Jersey Zinc Company which operates one mine at each locality. The Franklin mine is said to be the greatest zinc mine in the world. Its modern equipment and mining methods are the equal of the greatest mines in the West. Every year at these great zinc mines about half a million tons of zinc ore are mined, crushed, dried and separated by powerful electro-magnets into several grades destined for different uses. The ore is no longer smelted in New Jersey but is shipped to and treated at the New Jersey Zinc Company's great smelters at Palmerton, Pennsylvania. Over

10,000,000 tons of ore have been taken from the New Jersey Zinc mines since 1880 and great reserves of ore still remain in the ground. The quantity of zinc ore mined in 1924 was 610,944 short tons. While the value of this ore was several million dollars, as there was only one producer the exact figures are not available for publication. It may, however, be stated that the estimated value of the recoverable zinc in the ores mined in the eastern states in 1924 was \$16,875,606. The states thus included were New Jersey, Tennessee, New York and Virginia, and the recoverable zinc content of the ore mined in these four states is estimated to be 212,148,000 pounds. It must be distinctly understood that the value of the zinc in New Jersey, as incorporated in the above total, is not that of ore mined. It is the estimated smelter value of the recoverable zinc content of the ore after freight, haulage, smelting and manufacturing are added.

IRON ORE.

The iron mining industry in this State continued to be adversely affected by the importation of both foreign iron ore and foreign pig iron and also in some measure by a discrimination in freight rates against the New Jersey mines. As a result we find that during 1924 magnetite ore was hoisted and shipped from but one mine in New Jersey, namely the Richard Mine of the Thomas Iron Company, near Wharton, Morris County. The Ringwood Company, operating the Cannon and Peters mines near Ringwood Manor, Passaic County, and the Basic Iron Ore Company, owners of the Ahles Mine near Oxford Furnace, Warren County, shipped ore. The Ahles Mine has not been operated for a number of years, but small and steady shipments of limonite ore have been made from the stock pile which had accumulated before the mine was shut down. The figures of production of iron ore may not be separately published this year but are included under the heading "Miscellaneous" and in the total for all products. In 1923 the shipments were 349,435 long tons, whose value was \$1,403,723.

STONE.

New Jersey has become one of the important stone-producing states. Its rank in 1923 was thirteenth on the basis of quantity and seventeenth on the basis of value of total stone produced—a very creditable showing for so small a state. In 1924 the total production of stone in New Jersey was 2,149,270 tons having a value of \$3,326,298. This involved an *increase* of 110,530 tons in quantity and \$303,380 in value.

Details in regard to the production of stone in 1924 together with the figures of 1923 for comparison, are given in the following table

PRODUCTION OF STONE IN NEW JERSEY IN 1924.

Variety	Pro- ducers	1924		1923	
		Quantity	Value	Quantity	Value
Trap (basalt)	(a) 30	1,808,260 s. t.	\$2,806,365	1,596,170 s. t.	\$2,422,338
Limestone	(b) 11	282,700 s. t.	390,837	394,090 s. t.	473,416
Other stone	(c) 8	58,310 s. t.	129,096	48,480 s. t.	127,164
Total	49	2,149,270 s. t.	\$3,326,298	2,038,740 s. t.	\$3,022,918

(a) Chiefly crushed stone for road material, concrete and railroad ballast.
 (b) Includes stone for blast furnace flux, agricultural purposes and use as road metal.
 (c) Includes argillite, granite, sandstone and serpentine marble (block and crushed).

Trap rock. The above table shows that trap rock still greatly dominates the field in the stone industry of the State. The great output of 1924, 1,808,260 tons constituted 84 per cent of the total tonnage. This involved an increase of 212,090 tons over even the record-breaking output of 1923. When it is borne in mind that practically all of this stone had to be crushed and sized before being sold, the enormous output of 1,808,260 tons is a remarkable achievement for the 30 producers of New Jersey. The value of the 1924 output of trap rock, \$2,806,365, involved an increase of \$384,027 and was the greatest in the history of the industry.

Limestone. The limestone industry ranks second in importance among our stone industries. There were 11 active producers in 1924 whose combined output was 282,700 tons, valued at \$390,837. This involved a decrease of 111,300 tons in quantity and \$82,579 in value. For a number of years there has been a decrease in the number of operators quarrying blue or magnesian limestone and this is one reason for the decrease in output above noted. Another reason for this decrease is the fact that several blast furnaces formerly active and utilizing considerable white limestone as a flux, have been shut down because of the importation of cheap foreign pig-iron.

Other stone. It is known that New Jersey has considerable resources in the way of building stone of various kinds, though the State's production in this line is not now as large as formerly. There are great quantities of red and brown sandstone yet untouched but, owing largely to a change in taste on the part of the public, there is little demand for it. The sandstone quarried is either white or of light tints, such as light chocolate and pink, the active quarries being located on the Delaware near Raven Rock in Hunterdon County, at Wilburtha in Mercer County, and at Closter in Bergen County. *Argillite* or "Princeton Stone" is a hardened clay stone that has been quarried near Princeton in recent years and used in the newer buildings of Princeton University

and other buildings at Princeton and Trenton. It occurs in several shades which are used together and give a very pleasing general effect. Green *verd antique marble* or *serpentine*, is quarried near Phillipsburg. Some *granite* is quarried at Butler in Morris County. Granite deposits are also known to occur and were formerly quarried at Pompton and Haskell in Passaic County, Waterloo, Sussex County, near Long Valley, Rockaway and Middle Valley in Morris County and elsewhere. The total value of the output of the different varieties of building stone here described is now usually somewhat over \$100,000.00 per year.

SAND AND GRAVEL.

The production of sand and gravel constitutes an important mineral industry in New Jersey. In 1924 the total output was 3,921,521 short tons, valued at \$3,331,712. High as these figures are, they were less than the record-breaking figures for 1923, which were 6,101,204 short tons valued at \$4,381,855, the decrease being 2,179,683 tons in amount and \$1,050,143 in value.

In 1924 there were seventy-four producers operating over one hundred pits distributed in fifteen counties. The total output of sand alone in 1924 was 3,098,674 tons, valued at \$2,601,130, and the total output of gravel alone in 1924 was 822,847 tons, valued at \$730,582. Of the 1924 production the chief sand items in the order of their rank were: building sand, 1,385,392 tons, valued at \$815,315; molding sand, 424,470 tons, valued at \$580,856; paving and road-making sand, 891,126 tons, valued at \$519,637; glass sand 184,831 tons, valued at \$298,297 and cutting and grinding sand (including blast sand) 101,056 tons valued at \$250,698. The chief gravel items in 1924 were building gravel (concrete and mortar) 594,592 tons valued at \$523,486, and paving and road-making gravel, 228,255 tons valued at \$207,096. It will be noticed that the paving and road-making sand and the paving and road-making gravel taken together amount to 1,119,381 tons, valued at \$726,733.

Further details with comparative figures for 1923 will be found in the following table.

PRODUCTION OF SAND AND GRAVEL IN NEW JERSEY IN 1924.

Variety	Pro- ducers	1924		1923	
		Amount Short tons	Value	Amount Short tons	Value
Building sand	41	1,385,392	\$815,315	2,755,848	\$1,277,983
Molding sand	19	424,470	580,856	670,225	833,004
Paving sand	25	891,126	519,637	672,338	339,398
Glass sand	5	184,831	298,297	186,898	306,956
Cutting and Grinding sand.....	8	101,056	250,698	76,499	205,689
Fire or Furnace sand	10	44,071	48,646	63,719	89,925
Other sands (a)	10	67,728	87,681	169,299	171,382
Total sand	72	3,098,674	\$2,601,130	4,594,826	\$3,224,337
Gravel	25	822,847	730,582	1,506,378	1,157,518
Total sand and gravel	74	3,921,521	\$3,331,712	6,101,204	\$4,381,855

(a) Includes engine sand, filter sand, etc.

The study of the above table shows that there was a *decrease* in quantity of 1,370,456 tons and in value of \$462,668 in the case of building sand; a *decrease* of 245,755 tons in quantity and \$252,148 in value in the case of molding sand; a *decrease* of 2,067 tons in quantity and of \$8,659 in value in glass sand; and a *decrease* of 19,648 tons in quantity and \$41,279 in value in the case of fire or furnace sand. On the other hand there was an *increase* of 218,788 tons in quantity and \$180,239 in value in the case of paving and road-making sand; and an *increase* of 24,557 tons in quantity and \$45,009 in value, in cutting and grinding sand.

Of the counties producing sand and gravel the four leading counties ranked according to the value of their production in 1924 are as follows: Burlington, 971,934 short tons, valued at \$682,703; Cumberland, 484,103 short tons, valued at \$643,108; Middlesex, 647,876 short tons, valued at \$638,652; and Morris, 764,032 short tons, valued at \$397,209. Other counties with an important output, according to their rank, are Monmouth, Cape May, Atlantic, Warren and Camden. The distribution of the production of the various varieties of sand in the different counties, is as follows: Glass sand is produced in only two counties, Cumberland leading and Camden ranking second. Molding sand is produced in ten counties, Cumberland leading and Burlington, Middlesex and Atlantic following in order. Building sand is produced in fourteen counties, Burlington leading and Morris and Middlesex following in order. Paving sand is produced in eleven counties, Middlesex leading and Morris and Burlington following in order.

CLAY AND CLAY PRODUCTS.

Clay. New Jersey continues to hold a high rank among the states as a producer of clay. In 1923 it was the leading State in the *value* of clay sold as clay. Clay is mined and sold as clay in New Jersey by 41 producers, whose total output in 1924 was 352,734 short tons, valued at \$1,486,032. The chief variety mined and sold is fire clay, which brought an average price of \$4.73 per ton in 1924. Detailed statistics regarding the varieties of clay mined in 1924 will be found in the table given below. In addition to the clay mined and sold as raw clay, a large amount is mined by many manufacturers and used directly in their plants in the making of building brick, fire brick, hollow building tile, terra cotta and other clay products.

CLAY MINED AND SOLD IN NEW JERSEY IN 1924.

Variety	Pro- ducers	1924		1923	
		Quantity	Value	Quantity	Value
Fire clay	32	268,401 s. t.	\$1,234,718	286,145 s. t.	\$1,353,566
Ball clay	4	5,366 s. t.	37,040	11,280 s. t.	89,838
Stoneware clay	8	8,053 s. t.	31,046	13,603 s. t.	68,167
Miscellaneous clay (a)	9	70,914 s. t.	183,228	65,826 s. t.	139,329
Total	41	352,734 s. t.	\$1,486,032	376,854 s. t.	\$1,650,900

(a) Chiefly clay for use in making terra cotta.

A study of the table reveals that as compared with the preceding year there was a *decrease* in 1924 in the case of fire clay of 17,744 tons in quantity and \$118,848 in value; a *decrease* in the case of ball clay of 5,914 tons in quantity and \$52,798 in value; a *decrease* in the case of stoneware clay of 5,550 tons in quantity and \$37,121 in value, and a total *decrease* of 24,120 tons in quantity and \$164,868 in value.

As for many years past, Middlesex County stood first as a producer of clay in 1924, its output being 219,944 tons, valued at \$1,033,290. This was nearly two times the quantity and more than two times the value of that of all of the other seven producing counties combined. The other producing counties, in alphabetical order were Atlantic, Burlington, Camden, Cumberland, Mercer, Ocean and Salem.

Clay Products. As in the case of the preceding year, the 1924 statistics in regard to clay products were compiled co-operatively by the Division of Manufactures, Bureau of the Census of the United States Department of Commerce, and the Division of Geology and Topography of this Department. In 1924 New Jersey maintained the high production of the previous year in its output of clay products. The total value of the output for 1924 was \$46,414,167. For 1923 it was \$45,967,271, there was therefore, an increase of \$446,896.

Brick and Tile. The total production of brick and tile in New Jersey in 1924 was valued at \$20,445,851. This was \$1,682,965 less than in 1923. The quantity and value of the various kinds of brick and tile produced in 1924, together with the corresponding figures for 1923, are given in the following table.

PRODUCTION OF BRICK AND TILE IN NEW JERSEY IN 1924.

Products	Pro-ducers	1924		1923	
		Quantity	Value	Quantity	Value
Common brick	31	305,187 M	\$4,542,788	322,491 M	\$5,231,979
Face brick	}				
Enameled brick					
Terra cotta	6	41,030 M	1,631,433	30,666 M	1,288,252
Hollow bldg. tile (a)	6	40,151 n. t.	4,060,042	36,278 n. t.	4,239,426
Floor tile	10	361,777 n. t.	3,631,713	338,354 n. t.	3,666,993
Ceramic Mosaic tile..	8	3,770,819 sq. ft.	914,812	3,199,865 sq. ft.	792,699
Faience tile	4	5,533,122 sq. ft.	1,231,074	4,769,222 sq. ft.	1,488,936
Wall tile	4	137,672 sq. ft.	154,223	327,747 sq. ft.	282,630
Fire brick	7	6,957,674 sq. ft.	2,408,084	4,663,702 sq. ft.	2,346,281
Miscellaneous	13	17,290 M	1,198,554	23,692 M	1,509,523
	(e)		673,128		1,282,097
Total	73		\$20,445,851		\$22,128,816

- (a) Includes partition, load-bearing, back up, blocks, furring, book tile, floor arch, silo tile, corn-crib tile, conduits, radial chimney blocks and fire-proofing.
- (b) Including plain, vitreous, encaustic, quarry, etc.
- (c) Including art tile, enameled tile, and hand-decorated tile.
- (d) Includes thin, white, glazed, etc.
- (e) Includes drain tile, and other products not listed.

A study of the above table reveals that as compared with 1923 there were the following decreases and increases. There was a *decrease* in the case of common brick of 17,304 thousand in quantity and \$689,191 in value; a *decrease* in the case of faience tile of 190,075 sq. ft. in quantity and \$128,407 in value; and a *decrease* in the case of fire brick of 6,402 thousand in quantity and \$310,969 in value. In the case of terra cotta there was an *increase* in quantity of 3,873 tons but a *decrease* in value of \$179,384; in the case of hollow building tile an *increase* in quantity of 23,423 tons but a *decrease* in value of \$35,280; and in the case of ceramic mosaic tile an *increase* in quantity of 763,900 sq. ft. but a *decrease* in value of \$257,862. On the other hand, in the case of face and enameled brick taken together there was an *increase* in quantity of 10,364 thousand and an *increase* in value of \$343,181; in the case of floor tile an *increase* in quantity of 570,954 sq. ft. and an *increase* in value of \$122,113; and in the case of wall tile an *increase* in quantity of 2,293,972 sq. ft. and an *increase* in value of \$61,803.

Pottery. The statistics of the pottery industry for 1924 show a gratifying increase in the production over that for the preceding year. The total production of all classes of pottery ware in 1924 amounted in value to \$25,968,316 as against \$23,838,455 in 1923, an *increase* of \$2,129,861. This is chiefly due to the great output of sanitary ware which in 1924 was valued at \$17,011,367 as contrasted with \$13,776,499 in 1923, an *increase* of \$3,234,868.

The growth of the sanitary ware output in the last decade is an interesting development of our pottery industry as is shown in the following table.

GROWTH OF THE SANITARY WARE INDUSTRY IN NEW JERSEY.
1915 — 1924

Year	Producers	Value of Products	Increase	Decrease
1915	20	\$4,793,406		
1916	20	6,458,356	\$1,664,950	
1917	21	7,202,671	744,315	
1918	19	6,151,752		\$1,050,919
1919	20	7,931,371	1,779,619	
1920	22	12,763,442	4,832,071	
1921	22	8,230,836		4,532,606
1922	24	13,748,287	5,517,451	
1923	24	13,776,499	28,212	
1924	28	17,011,367	3,234,868	
Total for the decade		\$98,067,987	\$12,217,961	

The production in 1924 of the various kinds of pottery are given in the following table with the corresponding figures for 1923 for comparison.

PRODUCTION OF POTTERY IN NEW JERSEY IN 1924.

Products	Producers	Value—1924	Value—1923
Sanitary ware	28	\$17,011,367	\$13,776,499
White ware, etc.	4		
Porcelain, china, belleek etc.	3	4,016,715	3,635,297
Hotel china	5		
Porcelain electrical supplies	16	3,507,229	5,340,773
Miscellaneous products (a)		1,433,055	1,085,886
Total	56	\$25,968,316	\$23,838,455

(a) Includes red earthenware, red and brown white-lined cooking ware, chemical stoneware, saggars and a few other products not listed in this table.

Attention has already been called to the increase in the total pottery output and in the output of sanitary ware. A study of the above table reveals that there was an *increase* in the value of the combined output of porcelain, china, belleek etc., hotel china and white ware of \$381,418, on the other hand there was a *decrease* in the value of the output of porcelain electrical supplies of \$1,833,544.

CEMENT ROCK AND CEMENT.

New Jersey continued to be an important producer of Portland cement in 1924. The famous Lehigh cement district extends from Pennsylvania into New Jersey and includes the two active New Jersey producers, the Edison Portland Cement Company located at New Village and the Vulcanite Portland Cement Company located at Vulcanite, both in Warren County. These two concerns quarry their cement rock near their plants and produce several million dollars worth of Portland cement annually. The figures of production for 1924 cannot be separately published but are included under the heading "Miscellaneous" in the general table on page 4.

COKE AND FUEL BRIQUETS.

No coal deposits of a commercial importance are known to occur in New Jersey but the State does produce considerable coke and also fuel briquets.

Coke. Two operators in New Jersey were actively engaged in 1924 in the production of coke as a by-product in the making of illuminating gas. The coal from which this coke is made is obtained from Pennsylvania. One plant was that of the Camden Coke Company located at Camden, and the other that of the Seaboard By-Product Coke Company located at Kearney. The quantity of coke marketed by these two plants in 1924 was 862,345 tons. The value of this output may not be separately published but is included under the heading of "Miscellaneous" in the general table on page 4.

Fuel Briquets. Two operators in New Jersey were actively engaged in 1924 in the making of fuel briquets from waste anthracite coal shipped in from Pennsylvania. One plant was that of the Burnrite Coal Company at Newark, and the other that of the Anthracite Manufacturing Company at Trenton. As there were less than three producers, figures for production of fuel briquets in 1924 may not be separately published but the value of the output is included under the heading "Miscellaneous" in the general table on page 4.

PEAT.

New Jersey was the leading state in the production of peat in 1924. Its output was 23,523 tons valued at \$172,863. The whole production of the United States in 1924 was only 55,469 tons valued at \$395,470; therefore New Jersey produced 42 per cent of the country's output. The New Jersey production in 1924 involved an *increase* over that of 1923 of 5,143 tons, or 28 per cent, in quantity and \$64,978, or 60 per cent, in value. Practically all of the peat produced was sold for use as a fertilizer or as an ingredient of fertilizers.

GREENSAND OR GREENSAND MARL.

Interest in the new use of treated greensand for water softening continues. As a result the output of greensand in New Jersey has made another substantial gain. In 1924 there were 5 producers whose total output was 14,055 tons, valued at \$151,205. As the corresponding figures in 1923 were 10,656 tons valued at \$131,123, there was an increase of 3,389 tons in quantity and \$20,082 in value.

In every case some treatment of the greensand is involved before shipment. Usually the treatment comprises the steps of washing, screening and drying. Before the greensand is used for water softening it is treated further, the particular steps varying with the different concerns selling water-softening apparatus and materials. The material in its final form ready for use in water-softening apparatus, has usually had part of the glauconite grains altered by treatment with a sodium compound and the grains have been more or less stabilized (or hardened) so that they are less easily worn away in use. The sodium iron silicate is the effective agent in exchanging its base for the calcium and magnesium that occur in hard waters.

MISCELLANEOUS PRODUCTS.

Ground Talc and Talcose Rock. Considerable light-colored serpentine together with some associated talc is quarried each year at the quarry of the Rock Products Company near Phillipsburg, Warren County. The rock is ground to a "mineral pulp" and sold for industrial uses similar to other talcose minerals. As there is only one producer of this material in New Jersey the figures of production for 1924 may not be separately published but are included under the heading "Miscellaneous" in the general table on page 4.

Ground Quartz or "Silica". Considerable white quartz sand is dug near Cedarville, South Vineland and Newport in Cumberland County and near Williamstown Junction in Camden County, and is pulverized for use as "silica" in various industries. Interest in this product is increasing and during the past year a new plant of considerable capacity has been erected near Newport, Cumberland County and another is under construction near Toms River in Ocean County. The figures of production for 1924 are included under the heading "Miscellaneous" in the general table on page 4.

Ground Feldspar. While no deposits of feldspar of commercial importance have been discovered in New Jersey, large quantities of the crude mineral are brought into the State from Maine, Connecticut and elsewhere, and ground to supply the needs of the potteries. There are three concerns engaged in the producing of ground feldspar, all located at Trenton; they are the Eureka Flint and Spar Company, Golding and

Sons Company, and the Trenton Flint and Spar Company. The detailed figures regarding the output of ground feldspar may not be published but the value for 1924 is included under the heading "Miscellaneous" in the general table on page 4.

Lime. The lime industry in New Jersey still continues to decline in importance. In former years there were many operators who burned both the white limestone and blue limestone into lime but only three operators reported a production in 1924. These were M. C. Mulligan at Clinton, Hunterdon County and E. J. Neighbor at Vernoy, Hunterdon County, and Todd and Cordes at Peapack, Somerset County. The value of the lime produced in 1924 is included under the heading "Miscellaneous" in the general table on page 2.

Mineral Waters. For several years we have reported the output of the active mineral water producers in New Jersey. In 1923 there were 13 active springs and their total output was 507,680 gallons valued at \$50,261. Statistics regarding the 1924 output of these mineral water producers in the State were not collected.

Slate. In 1924, for the first time in a number of years, there was no production of slate in New Jersey.