Minor Nonmetals

By Joseph C. Arundale and Henry P. Chandler 23

GREENSAND

TOTAL of 6,457 short tons of greensand (glauconite) was reported produced in the United States in 1953 by the following firms: The Permutit Co., 330 West 42d Street, New York, N. Y.; Zeolite Chemical Co., Medford, N. J.; and Inversand Co., 226 Atlantic Avenue, Clayton, N. J. Production was from open-pit operations in Burlington and Gloucester Counties, N. J. The bulk of the product was sold for water softening and purification and for local soil application as a source of potassium.

The price of greensand ranged to about \$121 per short ton f. o. b.

shipping point, with an average value of about \$28 per ton.

TABLE 1.—Greensand marl sold or used by producers in the United States, 1944-48 (average) and 1949-53

| Year | Short tons | Value | Year | Short tons | Value |
|-------------------|------------|------------|------|------------|------------|
| 1944–48 (average) | 6, 128 | \$446, 882 | 1951 | 5, 067 | \$263, 944 |
| 1949 | 6, 128 | 276, 564 | 1952 | 4, 600 | 177, 847 |
| 1950 | 3, 935 | 304, 321 | 1953 | 6, 821 | 193, 404 |

Glauconite is reported to be produced from the Gingin district of Western Australia for domestic use as a water softener and for export. About 1,000 tons annually is said to be the rate of output.

MEERSCHAUM

No production of meerschaum (sepiolite) in the United States was reported in 1953. In the past a small tonnage has been produced from the few domestic deposits. The world's principal source is Turkey,

TABLE 2.—Meerschaum imported for consumption in the United States, 1944-48 (average) and 1949-531

[U. S. Department of Commerce]

| Year | Pounds | Value | Year | Pounds | Value |
|-------------------|---------|-----------|------|---------|-----------|
| 1944–48 (average) | 16, 495 | \$31, 278 | 1951 | 11, 289 | \$13, 384 |
| 1949 | 5, 844 | 13, 897 | 1952 | 10, 479 | 12, 344 |
| 1950 | 9, 621 | 18, 549 | 1963 | 8, 568 | 12, 600 |

¹ 1944-48 (average), all from Turkey; 1949 and 1951, all from Turkey; 1950: Italy: 20 pounds, \$120; Turkey; 9,601 pounds, \$18,429; 1952: Austria: 18 pounds, \$40; Turkey; 10,461 pounds, \$12,304, and 1953: Turkey: 8,168 pounds, \$11,911; Union of South Africa: 400 pounds, \$689.

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 Figures on imports and exports compiled by Mae B. Price and Elsie D. Page, Division of Foreign Activities, Bureau of Mines, from records of the U. S. Department of Commerce.

where it has been mined for centuries. The principal markets are in Europe and the United States. Exports of blocks of meerschaum from Turkey totaled 12 metric tons in 1953 compared with 11 metric tons in 1952.

The principal use of meerschaum is in pipe bowls and in cigar and cigarette holders. The color of these smokers' articles deepens with smoking as ingredients in the smoke and finishing waxes are absorbed into the meerschaum. This use originated over 200 years ago in Europe.

It is said that meerschaum has also been used as a building material. a "soap," and an ingredient in porcelain and in making vases and

MINERAL WOOL

Mineral wool produced in the United States during 1953 from rock. slag, and glass had a total value of \$149,092,000, according to the Bureau of the Census. The production in 1952 was valued at \$138,305,000 and in 1951 at \$134,128,000. Use statistics are not available for 1953, but the 1947 report of the Bureau of the Census on mineral wool gave the following percentages for the broad classifications of its use: Structural insulation, 56; equipment insulation, 23; industrial insulation, 17; and unspecified, 4.

In 1953 the average number of persons employed by the mineralwool industry was 10,506 compared with 10,340 and 10,374, respectively, the previous 2 years. The number of production workers in 1953 was 8,661; in 1952, 8,491; and in 1951, 8,583.

Exports of mineral-wool products from the United States during 1953 were valued at \$2,029,000 compared with \$1,723,000 in 1952 and \$1,511,000 in 1951.

The use of mineral wool for insulation purposes, its composition, and its manufacture in Britain are described in an article in a trade journal.4

A report which indicates that metaanthracite can be used in producing satisfactory mineral-wool insulation has been published by the Rhode Island Engineering Experiment Station.⁵

Development of mineral wool from Florida minerals was the subject of a report of the State experiment station.6

An insulation made from mineral wool with a heavy aluminum foil backing was introduced by one producer.

Production of mineral wool by a newly patented spinning process was announced by a firm in Texas.8

<sup>Mining Journal (London), Rock Wool and Its Applications: Vol. 241, No. 6168, Nov. 6, 1953, pp. 535-536.
Mining Congress Journal, Mineral Wool in Rhode Island: Vol. 39, No. 10, October 1953, p. 72.
Greves-Walker, A. F., Welch, A. Philip, Mineral Wool: Florida Eng. and Exp. Sta., February 1953,</sup>

²⁸ pp. 7 Rock Products, New Insulating Material: Vol. 56, No. 4, April 1953, p. 90. 8 Pit and Quarry, New Rock-Wool Process Used at Baldwin-Hill Co. Plant: Vol. 46, No. 6, December

WOLLASTONITE

The only production of wollastonite on a commercial scale is from a deposit near Willsboro, N. Y. Late in 1951 Cabot Carbon Co. (previously Godfrey L. Cabot, Inc.), 77 Franklin Street, Boston 10, Mass., acquired the property formerly operated by Willsboro Mining Co. A mill on the property was operated on a pilot-plant scale pending completion of a new and larger plant. This new plant was completed in September 1953. The firm plans to manufacture several wollastonite products in a number of mesh sizes and with various physical properties. The market is still in the development stage, but uses are anticipated in the manufacture of ceramic insulators, tiles and glazes, paint, paper coating, and various fillers.

