

Attention is again called to the necessity of sending at once to the Secretary, Prof. Frank R. Van Horn, Case School of Applied Science, Cleveland, Ohio, titles of papers to be presented before the annual meeting. A preliminary list of titles will appear in the December issue of the Journal.

BOOK REVIEWS

THE MINERAL WEALTH OF THE BLACK HILLS. JOSEPH P. CONNOLLY AND CLEOPHAS C. O'HARRA. Bulletin No. 16, SOUTH DAKOTA SCHOOL OF MINES. 418 pages+64 plates. Published May 1929.

Many papers have been published from time to time on the economic geology and mineralogy of the Black Hills region but bulletin No. 16 is the only recent publication which covers all phases of the subject.

When the mineral wealth of this region is mentioned the casual reader, no doubt, has visions of rich gold deposits and also possibly of important lithium minerals. These impressions are but natural as the Black Hills produce annually more than one eighth of the gold mined in the United States and since 1875 the value of this metal alone has exceeded \$274,000,000. Also the largest lithium producing mine in the World is located here and the size of the spodumene crystals has not been equalled elsewhere. (One crystal had a length of 42 ft. and a cross section of 3×6 ft. Theoretically such a crystal should yield about 90 tons of spodumene but it was so badly weathered that only 37 tons of commercial spodumene were obtained. Dr. Schaller has called attention to a still longer crystal, one measuring 47 feet in length).

This, however, is only part of the story. Over one hundred different species including both primary and secondary minerals have been listed as occurring in the pegmatites of the Black Hills, while the value of the mineral production since mining began fifty-four years ago has totaled approximately \$335,000,000. Aside from gold, in the period from 1875-1928, the value of the production of silver, tungsten, mica, cement, gypsum, building stone, sand and gravel, clays, petroleum and natural gas, and coal has been, in each case, in excess of \$1,000,000. Many other minerals of economic importance have been recovered but the values have been less than those mentioned above.

The bulletin is written in a semi-popular style and covers not only the geology and mineral production of the region but also touches upon such phases of petrology as the origin of the pegmatites. The magmatic crystallization theory and the hydrothermal replacement theory are discussed with special reference to their application to the dikes of the Black Hills.

The bulletin contains 64 plates as glazed inserts and these contribute much to the interest and attractiveness of the volume. A copy of bulletin No. 16 can be purchased for the nominal sum of eighty cents, plus postage, by addressing the South Dakota School of Mines at Rapid City, South Dakota.

W. F. H.