

Dr. Felix Tannhauser, professor of mineralogy and geology at the Technische Hochschule and the University of Berlin, died on December 2.

After having heard representatives of the Geological Survey, the Bureau of Soils and others concerned, the Committee on Mines and Mining of the House of Representatives is expected to report favorably the Sheppard bill, authorizing an expenditure of \$500,000 for prospecting and research looking to the development of domestic potash resources.

### ABSTRACTS

BAUXITE ASSOCIATED WITH SIDERITE. ERNEST F. BURCHARD.  
*Bull. Geol. Soc. Am.*, **35**, 437-448 (1924).

A new bauxite field occurring as a belt of separate deposits 3 to 5 mi. wide and 150 miles long, extending thru 10 counties, has been found in N.E. Mississippi. Associated with the bauxite are lenticular masses of siderite, 6 to 20 in. thick, which alter easily to limonite. A large proportion of the Miss. bauxite contains so much  $Fe_2O_3$  and  $SiO_2$  that it is considered low to medium grade compared with bauxite from other localities.  $Al_2O_3$  (bulk) 35-45%;  $Fe_2O_3$  5-35%;  $SiO_2$  10-30%. W. F. H.

MINERALOGY AND PETROGRAPHY OF FOSSIL BONE. AUSTIN F. ROGERS. *Bull. Geol. Soc. Am.*, **35**, 535-556 (1924).

Silicified bone is exceedingly rare, only 3 were found among 300 examined. Fossil bones, generally, consist almost entirely of the amorphous mineral collophane,  $3Ca_3(PO_4)_2 \cdot nCa(CO_3)(H_2O)_x$ , which is also the main constituent of phosphate rock.  $n$  has the limiting values of 1 and 2 and  $x$  is also variable. Ca is partially replaced by Fe, Al, and Mg and  $(CO_3)$  by F, O, and  $(SO_4)$ . Index of refraction, 1.573-1.621. The associated minerals (usually cavity fillings) include quartz, opal, chalcedony, calcite, dolomite, aragonite, barite, pyrite, dahllite and wavellite. W. F. H.

CONTACT METAMORPHISM AT BINGHAM, UTAH. WALDEMAR LINDGREN. *Bull. Geol. Soc. Am.*, **35**, 507-534 (1924).

As a result of contact metamorphism, extending from a few hundred to 2000 feet from the igneous mass, the original siliceous limestone of the Yampa and Highland Boy formations, gained  $SiO_2$ , S, iron, magnesia, alumina and soda, while  $CO_2$  and lime have been carried away. The metamorphism was accompanied by the introduction of  $FeS_2$ ,  $CuFeS_2$ , and other sulfides, altho the main ore deposits were formed at a later stage. The volume of the limestone has remained approx. constant. W. F. H.

A NOTE ON THE LANCASTER GAP MINE, PENNSYLVANIA. T. C. PHEMISTER. *J. Geology*, **32**, 498-510 (1924).

The nickel deposits occur mostly at the contact of mica schist and amphibolite. Ascending solutions, it is argued, formed biotite by the replacement of silicates. Later solutions carrying S, Fe, Cu,  $CO_3$  and Ni reacted with the silicates and sulfides were produced. The biotite was especially susceptible to replacement.

W. F. H.