the close of Dr. Clarke's address it was moved that a resolution be prepared asking the New York Legislature to expedite the printing of the scientific papers now awaiting publication, as Reports of the New York State Museum. On a motion by Mr. R. M. Allen, a vote of thanks was extended to Dr. Clarke for his most interesting address.

Mr. Ashby showed and distributed to the members some small crystal mounts, appropriate to the display of loose crystals. The meeting was adjourned at 10 P.M.

HERBERT P. WHITLOCK, Recording Secretary.

## PHILADELPHIA MINERALOGICAL CLUB

## Wagner Free Institute of Science, December 11, 1919

A stated meeting of The Philadelphia Mineralogical Society was held on the above date, with the president, Dr. Burgin, in the chair. Twenty members and 28 visitors were present. Dr. Alfred C. Hawkins, Wilmington, Del., was nominated for active membership.

Dr. George P. Merrill, head curator of the department of geology, U. S. National Museum, addressed the society on "Meteorites." The phenomena of a fall, history of the study of meteorites, types, structure, mineralogical and chemical composition, and probable origin were discussed in detail. The fragmental character of most stones was noted, and the theories to account for chondrules were reviewed. Of especial interest was the description of the Cumberland Falls, Ky., stone which fell in April, 1919, whose characters showed that the stone had been part of a very large body. The address was illustrated with a large series of lantern slides of photographs of various meteorites and thin sections. After a discussion of the subject, the speaker was tendered a rising vote of thanks. S. G. GORDON, Secretary.

## NEW MINERALS

## Ferrazite

T. H. LEE and L. F. DE MORAES: Ferrazite, a new associate of the diamond, Am. J. Sci. [4], 48 (5), 353-354, 1919.

NAME: After Dr. J. B. de A. Ferraz.

PHYSICAL PROPERTIES: Color, dark yellowish white; sp. gr. 3.0-3.3; in favas (heavy-mineral pebbles). Under the microscope shows a peculiar structure.

CHEMICAL PROPERTIES: Analysis gave:  $H_2O$  14.20, PbO 45.63, BaO 8.87, CaO tr., Al<sub>2</sub>O<sub>3</sub> 3.48, P<sub>2</sub>O<sub>5</sub> 26.24, SiO<sub>2</sub> 2.44, sum 100.86%. After deducting several per cent. of "kaolinite" and "wavellite," the balance has the composition:  $3(Pb, Ba)O.2P_2O_5.8H_2O$ .

REMARKS: [This seems so obviously a mixture that it is hardly deserving of a special name; the day has long passed when a mineral species can be established by an analysis, no matter how accurate, on a massive specimen not fully studied optically or demonstrated otherwise to be homogeneous. AB-STRACTOR]. S. G. G.