

PROCEEDINGS OF SOCIETIES

NEW YORK MINERALOGICAL CLUB

Regular Monthly Meeting of January 16, 1924

A regular monthly meeting of the New York Mineralogical Club was held in the East Assembly Room of the American Museum of Natural History on Wednesday evening, January 16, 1924. The President, Dr. George F. Kunz, presided. There was an attendance of 18 members. There being no available reports from Committees, the President introduced the speaker of the evening, Dr. Edmond Otis Hovey, who delivered an address on the *Geysers of New Zealand and Their Deposits*.

The speaker described the geographical location of the geyser and hot spring area in the North Island and touched on the physical geography and scenery of the two Islands. He outlined the limits of the geyser region as stretching about 150 miles north-northeastward and as averaging about 20 miles wide. In this area there are many thousands of hot springs some of which are true geysers as distinct from mud volcanoes and "paint pots." The volcanic activity of the region began in the Tertiary period. Touching on the scenic aspects of the island the speaker drew attention to the cone of Mt. Egmont as rivaling that of Fujiyama in beauty. Passing to the lantern slides, Dr. Hovey described some of the principal geysers in the national park just to the south of Rotorua at Wairakei, and at Taupo. The geysers of the Whakarewarewa group in the vicinity of Rotorua are irregularly active, throwing water to heights which for the most part vary from 10 to 20 feet, but two of them erupt to heights of 80 or 90 feet.

The geysers of the Wairakei group are small but frequent in their action. None of them throw a column of water more than 25 feet high. The Crows Nest Geyser, an isolated vent near Taupo, erupts a small column of water to a height of 80 feet for about 20 minutes, at 4 hour intervals. Eighteen miles southwest of Rotorua is located the great Waimangu Geyser which broke out after the volcanic outburst of 1886 and remained in activity for 30 years, throwing up a column of water from 900 to 1500 feet in height. Its last eruption occurred in 1916.

The waters of these geysers and hot spring are highly mineralized. Most of them carry much silica in solution and some of them show a considerable content of sodium bicarbonate. The most common salts are the sulphates and chlorides of sodium, potassium, calcium, magnesium, aluminium and iron, and bicarbonates of sodium, calcium and magnesium. The speaker also showed several slides of the Yellowstone geysers and drew some striking and interesting comparisons between them and those of New Zealand.

At the close of his address a vote of thanks was tendered to Dr. Hovey for his interesting and valuable paper. Mr. Whitlock then exhibited two rare mineral species recently acquired by the collection of the American Museum of Natural History through the gift of Professor W. Spencer Hutchinson. These comprise fine specimens of sincosite, a recently discovered hydrous calcium vanadyl phosphate from Sincos, Peru, and melanovanadinite, a new vanadium mineral from the Minas Ragra locality. He also drew attention to the pamphlet on the *Final Disposition of Some American Collections of Minerals* recently published by Dr. Frederick A. Canfield. The meeting adjourned at 9:15.

HERBERT P. WHITLOCK, *Recording Secretary*.

PHILADELPHIA MINERALOGICAL SOCIETY

Academy of Natural Sciences, February 14, 1924

A stated meeting of the Philadelphia Mineralogical Society was held on the above date with the president, Mr. Vaux, in the chair. Seventeen members and three visitors were present.

Mr. Charles W. Hoadley addressed the Society on "*Mineral Collecting in New Jersey.*" A hypothetical auto trip starting from Philadelphia and including the principal localities was described, with data regarding the minerals, their association, and mode of occurrence. Of chief interest were the Bergen Hill localities, Paterson, Franklin, and Moore Station. The talk was illustrated with numerous maps, photographs, lantern slides, and specimens.

Mr. Trudell described a visit with Mr. Gordon to view Col. Roebing's collection. He described a large section of a topaz crystal measuring over three decimeters across, and two beautifully twinned chrysoberyls from Brazil, lately acquired by the Colonel.

SAMUEL G. GORDON, *Secretary.*

NEW MINERALS: NEW SPECIES

CLASS: HALIDES. SUB-CLASS: HYDROXYHALIDES. DIVISION.

R":CL:O:OH=4:2:2:2.

Chloroxiphite.

L. J. SPENCER and E. D. MOUNTAIN: New lead-copper minerals from the Mendip Hills, Somerset. *Min. Mag.*, 20, (102) 67-92, (1923); this mineral pp. 75-77.

NAME: From the Greek *chloros*, green, and *xiphos*, a blade or straight sword, may be pronounced either chloro-ziphite or chloroxi-phite, the latter suggesting the composition (an oxychloride).

CHEMICAL PROPERTIES: *Formula*, $2\text{PbO} \cdot \text{Pb}(\text{OH})_2 \cdot \text{CuCl}_2$ or $\text{CuPb}_3\text{Cl}_2(\text{OH})_2\text{O}_2$. Theory Pb 75.6, Cu 7.7, Cl₂ 8.6, O 5.9, H₂O 2.2, sum 100.0%. Analyses by E.D.M. gave Pb 75.34, 74.10, Cu 8.71, 8.37, Cl₂ 7.19, 8.97, O 6.38, 5.79, H₂O 2.56, 2.52, sums 100.18, 99.75%. Methods of analysis are given. No H₂O is lost at 110°, but all escapes below 250°. On soln. in HNO₃ the Cu dissolves first, then the Pb slowly. The constituents were weighed as AgCl, PbSO₄ and CuO.

Qualitatively gives the usual reactions for the constituents. In closed tube decrepitates, gives off PbCl₂ fumes, and melts to brown liquid which becomes green and glassy on cooling.

CRYSTALLOGRAPHIC PROPERTIES: *System*, monoclinic, with angle β near 63°; elongated on axis *b*. Habit thin blades up to 3×1 cm.×1 mm. Cleavage perfect on *c*, less so on *a*. Resembles epidote in crystallography and color.

OPTICAL PROPERTIES: Refractive indices and birefringence both high. Biaxial, negative, with axial angle in oil 80°; plane of optic axes perpendicular to plane of symmetry and acute bisectrix near axis *c*. Flakes lying on *c* show tilted figures in convergent light; and in ordinary polarized light striking pleochroism, bright emerald green lengthwise and yellowish brown crosswise.

PHYSICAL PROPERTIES: Color, dull olive to pistachio green; luster, resinous to adamantine; streak, characteristic pale greenish yellow. Brittle and friable; H.=2½. D.16/4=6.763.