ART. XV.—*Tourmaline of Crown Point, N. Y.*; by WM. P. BLAKE.

THE tourmaline of Crown Point, Essex County, N. Y., is interesting by reason of its peculiar occurrence, association, gem-like characters, color, and crystallization. It occurs in the midst of the concretionary and investing form of phosphate of lime described by Dr. E. Emmons as eupyrochroite. The locality, about a mile south of the Crown Point village, was worked in the year 1852 to obtain the phosphate for the manufacture of fertilizers but was soon abandoned.

The material thrown out yielded many fragments of tourmaline, light clove-brown in color, transparent and valuable as gems. Fragments having terminal planes have recently been submitted by me to Mr. John Marcus Blake of New Haven for crystallographic study. He has drawn the accompanying figure representing the antilogous terminal. In the number and relative size of the planes this closely resembles the figure from Rose of the antilogous pole of a crystal from Gouverneur, N. Y.,* but the cross-section of the prism of the Crown Point crystals is hexagonal rather than triangular, and in this respect resembles the figure of the crystal from Hunterstown, C. E.†

Mr. Blake writes :

“Rose’s specimen from Gouverneur had a greater development of the prismatic planes *m*, which gives a triangular appearance to the prismatic section, whereas these Crown Point specimens show an almost complete suppression of these *m* planes, while the complementary *m* planes which come opposite the plane *o*, on the antilogous pole, are here moderately developed, while they do not show at all in Rose’s drawing. These latter *m* planes are, however, shown on drawings of crystals from Gouverneur, N. Y., figs. 8, 9, 10, Dana’s Mineralogy drawn by Farrington. Here, also, the *m* planes first named are shown large, as in Rose’s drawing.

The hexagonal section of the Crown Point specimens is caused by the large development of the *a* planes. These

* Dana’s Mineralogy (E. S. Dana), 6th edit., p. 552, fig. 11.

† Ibid., 5th edit., p. 366, fig. 336.

planes are bright and flat and the meeting of these six planes gives, as a rule, sharp intersections, the *m* planes being represented by reflections from striae where they were found at all. On the contrary, the complementary *m* planes show in two instances as bright well-defined planes. The large development of *o* and *u*, in figs. 8, 9, and 10 by Farrington, are represented on one fragment of the Crown Point material, but were attributed to accident of growth, and were taken as exceptional in view of their smaller development on the other specimens."