

Note on Francolite.

By F. H. BUTLER, M.A., A.R.S.M.

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SOME little confusion having apparently arisen with respect to the characters of certain Cornish apatites, it may be well in the interests of scientific exactitude to point out the following facts.—In a series of specimens of Francolite from Fowey Consols one may observe every gradation of form betwixt long and coarsely striated hexagonal prisms and narrow-edged crystals of an almost lenticular shape. Similar to the latter in their small vertical measurement are the “thin hexagonal plates” which have been enumerated among the known varieties of Cornish apatite, and which are, indeed, indistinguishable in general characters from the recently described Francolite of Levant Mine, St. Just. The particular Francolite, however, which, obtained by Mr. Talling from Fowey Consols, was shown by Maskelyne and Flight to contain over 5 per cent. of calcium carbonate (*Journ. Chem. Soc.* Jan. 1871), must not be identified with any one of the three varieties just mentioned. Carefully distinguishing it, in fact, from the ordinary Fowey Consols form, these authors write as follows:—

“The true francolite consists of small well-defined hexagonal prisms, usually terminated by the basal plane 111. The crystals of the variety under description consist of little aggregated crystals, in which the prisms intersect with each other in a confused manner, which may arise from their being twinned; but with such minute and rough tessellated surfaces it is impossible to determine the twin-plane. The prisms are terminated by a low pyramid, the faces of which form, with those of the prism $2\bar{1}\bar{1}$, an angle which an average of several measurements by the goniometer, with its object glass used microscopically, gave as $72^{\circ} 47'$.” “The summit plane 111 seems, singularly enough, to be always absent, a not common feature in a true apatite.”

The specimens now exhibited will serve to illustrate the above remarks, and to evidence the still unique character of the Francolite examined by the authors quoted.