

*Note on a Crystal of Tourmaline.*

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MY friend, Mr. A. T. Karstlake, sent me recently a parcel of crystals from Ceylon, amongst which was a brown tourmaline showing the very rare face  $z = (\bar{1}22)$ , (first recorded by Haiiy), on whose existence so much doubt has been thrown. The crystal is about  $\frac{1}{2}$  inch across, and about  $\frac{1}{4}$  inch in the direction of the axis, and shows well the hemimorphic development. At the analogous pole are  $r\{100\}$  and  $z\{\bar{1}22\}$ , both largely developed, also  $o\{111\}$ ,  $e\{110\}$ ,  $s\{\bar{1}11\}$ ,  $\{\bar{3}22\}$ .

At the antilogous pole are  $\{\bar{1}00\}$  very large, and  $\{\bar{1}\bar{1}0\}$  very small. The prism faces are  $b\{2\bar{1}\bar{1}\}$  and  $a\{10\bar{1}\}$ .

The faces  $z$  are triangular and give a broken reflection such as might be obtained from a thin plate of ice resulting from the freezing together of several plates which had started simultaneously at different points on the surface of smooth water. The means of the measurements with naked eye of the angles in two zones are  $or\ 27^\circ 30'$ ,  $oz\ 27^\circ 35'$  (the two readings being  $27^\circ 58'$  and  $27^\circ 18'$ ),  $os\ 46^\circ 6'$ ,  $111 : \bar{3}22 = 68^\circ 45'$  and  $ob\ 89^\circ 58'$ .