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## Prof. How on the Mineralogy of Nova Scotia.

of the anhydrite in which they are imbedded; these surfaces The nodules are generally about the size of filberts or are dull. pigeons' eggs, but occasionally larger; the largest specimen I have is a fragment about 2 inches in diameter: they sometimes show, when detached, a subvitreous lustre on the exterior. The mineral is translucent in thin fragments; under the microscope its powder is seen to be perfectly transparent and crystalline; the form, to judge from the cleavage, is possibly rhombic. The greatest hardness is about 3.5; specific gravity 2.55. Before the blowpipe, the hardest fragments decrepitate strongly, and all fuse readily to a clear colourless bead, making the inner flame green, deep green when the mineral has lain some time in water. Fragments fuse even in the flame of a lamp to a colourless blebby glass, which, when further heated before the blowpipe, froths considerably, and finally becomes quite clear. The transparent bead can be rendered opake by sudden insertion in, and removal from, the oxidizing flame, probably from the formation of bubbles of boracic acid which cannot escape till the mass gets further heated; for on re-fusion the bead becomes clear again, and remains so on prolonged heating. These reactions distinguish the mineral from natroborocalcite, which colours the flame yellow at first, and fuses readily to a clear colourless bead, which can also be rendered opake by the method just given, but which on prolonged fusion becomes so reduced in bulk as to leave the wire-loop nearly empty; the flame meanwhile becomes decidedly greenish yellow. In the former case the presence of silica is no doubt the cause of the permanent transparency. A minute quantity of either mineral with a drop of dilute hydrochloric acid gives the boracic-acid test with turmeric paper most readily. The new mineral before ignition gelatinizes perfectly in two or three minutes when its powder is stirred with cold hydrochloric acid,—after ignition also, when left in contact merely for some time. In a closed tube it decrepitates and gives much water. In the following analyses the results under I. were from a nodule in anhydrite; those under II. from several fragments, some of which were perfectly dull and opake, while others were lustrous in parts of the exterior. The absence of soda was proved by testing after removal of boracic and silicic acids by heating with fluor and sulphuric acid; the boracic acid was estimated by deficiency after gravimetrical determination of the other constituents in the regular way. Analysis of the air-dried hard minera! gave :--

definite

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