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NOTES ON DAWSONITE, A NEW CARBONATE.

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In the present paper I wish to describe a new mineral, which on account of its peculiar composition seems to be of more than ordinary interest.

In 1862 Messrs. J. H. and G. Gladstone described, under the name of Hovite, a mineral which they suggested might be regarded as a double carbonate of *alumina* and lime.* On the ground, however, of a carbonate in which alumina or sesquioxide of iron enters being unknown to chemistry, and from the fact that the so-called Hovite occurs mixed with Collyrite, a hydrous silicate of alumina, Dana regards the alumina as belonging wholly to the admixed material, and considers the lime to be present in the state of *bicarbonate*. With regard to it he says: "Although the bicarbonate referred to is known only in solution, the most likely condition for finding it in the mineral kingdom is in one of the hydrous silicates of alumina, like collyrite, in which there is present much water, loosely held; the mineral therefore is most probably a carbonate of the formula above given ($\frac{1}{2}\text{Ca.}$) + $\frac{1}{2}\text{HO}$) $\text{CO}_2 + \text{aq}$; especially since a carbonate in which Al_2O_3 or Fe_2O_3 enters is, as the authors (the Messrs. Gladstone) admit, yet unknown to chemistry."

Now although the formation in the laboratory of a carbonate

* Phil. Mag., IV. xxiii. 462, 1862.

† Mineralogy, 5th ed. p. 709.