in the original description. One would rather expect that an amorphous mineral, stored in museum conditions, should eventually have lost humidity. An explanation may be that the original analysis was made on more or less dried material.

Referring to the new chemical data, bolivarite can now more satisfactorily be compared with the related amorphous aluminium phosphates, evansite and vashegyite, which, according to the recorded data in the literature, show, respectively, $H_2O \sim 40$ %, $Al_2O_3:P_2O_5$ 2·25 to 3·07, n 1·483 to 1·50, sp. gr. 1·82 to 2·13, and $H_2O \sim 40$ %, $Al_2O_3:P_2O_5$ 1·26 to 1·48, n 1·47 to 1·505, sp. gr. 1·96 to 2·0.

My thanks are due to Prof. J. L. Amorós, Museo de Ciencias Naturales, Madrid, who kindly supplied the type material.

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[1] L. Fernández Navarro and P. Castro Barea, Bol. real Soc. Esp. Hist. Nat., 1921, vol. 21, p. 326.

[2] Dana's System of Mineralogy, 7th edn, 1951, vol. 2, p. 872.

[3] R. L. Manly Jr., Amer. Min., 1950, vol. 35, p. 108.

[4] E. S. Larsen and H. Berman, Bull. U.S. Geol. Surv., 1934, no. 848, p. 49.

[5] W. L. Brown, Univ. Toronto Studies, Geol. Ser., 1933, no. 35, p. 19.

British gold from the Bouglise collection.

NATIVE gold from Cumberland is a rarity, although Calvert in 1853[1] mentions several localities where he collected specimens and makes particular reference to the Goldscoop (Goldscope) mine near Keswick, which was worked from very early times for copper that had a high gold and silver content. However it was not until 1956, when Mr. A. W. G. Kingsbury presented a specimen (B.M. 1956, 410) collected by himself from Grainsgill, that the British Museum possessed any Cumberland gold. Therefore it was with considerable interest that we heard of a specimen labelled 'Cumberland, England' in the collection of Harvard University.

The gold occurs in minute grains and crystals in a quartz gossan with caledonite, linarite, cerussite, and hemimorphite. This specimen (Harvard 100289) originally came from A. E. Foote of Philadelphia, Pennsylvania. It found its way into the collection of Georges de La Bouglise, a French mining engineer who specialized in collecting gold from every possible locality, many of which he had visited personally. In 1911 this collection was sold in Paris to an American mining pro-

moter, A. C. Burrage of Boston, Massachusetts. It was willed conditionally to Harvard University in 1916 and eventually came into their possession in 1948.

In the Bouglise sale catalogue, p. 60, the specimen in question appears as 477: '40×50×25 [mm.] Or natif, linarite et calédonite. Echantillon d'associations et de localités intéressantes. *Leadhills, Ecosse.*' The change in locality has given rise to some doubt and research but there seems no valid reason why Bouglise should have decided it came from Leadhills rather than Cumberland.

In an attempt to settle this query I have examined material from both localities in the Royal Scottish Museum and the Museum of the Geological Survey as well as in our own collection. Although gold in matrix is known from Leadhills, it is found only in quartz and is more usually alluvial. On the other hand, gold from Cumberland is very rare. Red Gill in the Caldbeck Fells, Cumberland, and Leadhills, Lanarkshire, both produce linarite, caledonite, and hemimorphite but the specimen resembles the material from Red Gill more nearly than that from Leadhills. Also, as we have seen, gold in small quantities was widespread in Cumberland at one time and in fact Calvert records finding gold 'disseminated in small specks' on 'one of the lead ores at Caldbeck Fells'.[2]

The mineral dealers and collectors of Philadelphia and other towns in Pennsylvania had very close connexions with Bryce M. Wright who was himself a dealer and hailed from the north of England. As the original label bears the locality 'Cumberland, England' I think it more than likely that the occurrence was somewhere in the Caldbeck Fells.

Through the generosity of Professor Clifford Frondel, who has also supplied much of the relevant information, the Department of Mineralogy of this Museum has now received the specimen (B.M. 1958, 732) as a gift from Harvard University.

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[1] John Calvert, The Gold Rocks of Great Britain and Ireland . . ., 1853, p. 103.
[2] Loc. cit., p. 106.

Glottalite is chabazite.

IN 1836 T. Thomson[1] described a new species, naming it *glottalite* from a name of the river Clyde, because the dealer he obtained his one specimen from 'found it, I have reason to believe, in the hills behind Port Glasgow'.