

which in depth carries arsenopyrite, blende, and galena, between Sandbed and Potts Gill (baryte) Mines, near Caldbeck; here it forms tufts of minute, brown, glistening scales and is associated with scorodite, beudantite, and carminite; in material from a vein in Ingray Gill, near Caldbeck, where it is associated with pharmacosiderite, scorodite, and erythrite; here it is almost certainly derived from alteration of the erythrite. Apart from its occurrence in the Paddy End section of Coniston Mines, this is the only definite erythrite that we have so far confirmed in the Lake District; its reported occurrence at 'Force Crag' and at the nearby so-called 'Cobalt Mine', in the Causey Pike range (both of which probably refer to the same, latter, locality), is of considerable doubt. X-ray examination of many specimens of pink minerals collected at the so-called 'Cobalt Mine', and which, superficially, might be taken for erythrite, has in almost every case shown them to be scorodite; the other examples of this material are simply iron-stained, altered apatite.

In Cornwall arseniosiderite has been found at Penberthy Croft Mine, St. Hilary, associated with scorodite and decomposed arsenopyrite, and in Devon, at Huckworthy Bridge Mine, Sampford Spiney, associated with, and probably derived from alteration of, erythrite.

The mineral may be commoner than supposed as it is easily overlooked. X-ray powder photographs are identical with each other and with that of arseniosiderite from the original locality at Romanèche, Saône-et-Loire, France.

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### *New occurrences of phosgenite.*

PHOSGENITE, lead chlorocarbonate, has so far only been known to occur with certainty at two British localities, namely the Bage Mine, Bole Hill, near Wirksworth, Derbyshire (= the various localities usually given in the literature and on labels with old specimens as 'Cromford' or 'Matlock'), and Wheal Rose, Sithney, Cornwall, whence it was described in 1927 by Sir Arthur Russell,<sup>1</sup> who also showed that other Cornish specimens, supposedly from Wheal Confidence, Newquay, undoubtedly came from Wheal Rose as well. No further specimens of the mineral had been found in Britain for a very long time.

Within the last few years I have discovered another locality in Cornwall, Penberthy Croft Mine, St. Hilary, where in a cavity in some decomposed, 'gossany' quartz-galena veinstone I found two small but well-defined prismatic crystals of phosgenite, associated with anglesite, on decomposed galena. The crystals of phosgenite are pale wine-yellow in colour, and of long prismatic habit, the larger of the two being about 8 mm. long and 2 mm. thick: both show well-developed terminal faces of  $c(001)$  and several small faces in the pyramid and prism zones, but the latter are in general very striated, with many small vicinal faces, and owing to the positions of the crystals in the cavity it is difficult to make out what most of the faces are.

A second occurrence has also been identified, in Cumberland, from the outcrop of the main Driggith-Sandbed vein near Caldbeck, in an old opencast between the two mines: here colourless phosgenite has been found with anglesite in somewhat decomposed, massive granular galena.

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<sup>1</sup> Min. Mag., 1927, vol. 21, p. 221.

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### *New occurrences of rosasite in Britain.*

ROSASITE,  $(\text{Cu,Zn})_2\text{CO}_3(\text{OH})_2$ , was first described from the Rosas Mine, Sulcis, Sardinia, and has since been recorded from several localities in the U.S.A., at Tsumeb in South-West Africa, and in northern Turkestan. It is probably the zinc-rich end member, with Cu:Zn near 3:2, of an isostructural series with malachite, the X-ray powder-patterns being similar but with different spacings and quite distinct. It is possible that the series is continued farther in the zinc-rich direction, towards aurichalcite,  $(\text{Zn,Cu})_5(\text{CO}_3)_2(\text{OH})_6$ , but that with Zn becoming predominant over Cu there is a change of lattice to orthorhombic.

Though a likely mineral to be found at several localities, rosasite has not so far been reported in Britain, but we are now able to record no less than seven occurrences. In the Lake District, at Driggith Mine, Caldbeck (12- and 30-fathom levels); Sandbed Mine, Caldbeck (Upper level); Roughtongill Mine (outcrop of the south vein and 60-fathom level); Silvergill Mine (Middle level, on north vein); a copper vein near Potts Gill, Caldbeck; Tongue, or Ruthwaite Lodge, vein, Grisedale Mines, Patterdale; at all these localities the rosasite generally forms small bluish-green wart-like aggregates, though the colour may vary from