

MEMOIRS OF THE GEOLOGICAL SURVEY.

SPECIAL REPORTS ON THE MINERAL RESOURCES OF GREAT BRITAIN.

VOL. XXIII.—LEAD AND ZINC ORES IN THE PRE-CARBONIFEROUS ROCKS OF WEST SHROPSHIRE AND NORTH WALES.

PART I.—WEST SHROPSHIRE, BY BERNARD
SMITH, M.A.

PART II.—NORTH WALES, BY HENRY DEWEY
AND BERNARD SMITH, M.A.

PUBLISHED BY ORDER OF THE LORDS COMMISSIONERS OF HIS MAJESTY'S TREASURY.



LONDON:
PRINTED UNDER THE AUTHORITY OF HIS MAJESTY'S
STATIONERY OFFICE.

To be purchased from
E. STANFORD, LTD., 12, 13, and 14, LONG ACRE, LONDON, W.C.2;
W. & A. K. JOHNSTON, LTD., 2, ST. ANDREW SQUARE, EDINBURGH;
HODGES, FIGGIS & CO. LTD., 20, NASSAU STREET, AND
17 and 18, FREDERICK STREET, DUBLIN;
or from any Agent for the sale of Ordnance Survey Maps;
or through any Bookseller, from the DIRECTOR GENERAL,
ORDNANCE SURVEY, SOUTHAMPTON.

1922.

CHAPTER IV.

NORTH WELSH MINES.

MONTGOMERYSHIRE : LLANGYNOG DISTRICT.

In the northern corner of this county, several mines have produced a considerable quantity of ore in past times, though no longer working. The veins traverse Llandeilo beds that contain contemporaneous lavas, ashes, and intrusive rocks.

Llangynog Mine.—Probably the most important of the veins was that worked at the Llangynog Mine,¹ situated on the hill-side about a third of a mile south of Llangynog, 15 miles west of Oswestry.

According to Pennant,² lead-ore was discovered here in 1692, in a vein with a width ranging up to $3\frac{1}{2}$ yards, 2 yards at least being solid ore. It was worked to a depth of 100 yards before operations were stopped by water. The mine had continued in a flourishing state for nearly 40 years. D. C. Davies,³ writing in 1881, stated that it had then been in work for about 150 years. It was being worked for lead and calamine about 1797 when visited by Arthur Aikin,⁴ the raw produce being sent to the foundries near Ruabon. In 1809 it was apparently dormant, but was described by Westgarth Forster⁵ as being, while it lasted, perhaps the richest vein of lead-ore yet discovered in this island. It was worked again at later dates, however, 60 men being employed in 1845-46. From 1852 to 1860 inclusive it appears to have been known and worked as the Chirk Castle Mine, after which it was called the Llangynog Ltd., East Llangynog, and New Llangynog or Pengwern Mine. On the six-inch ordnance map it is named South Llangynog Mines.

The mine was last worked in 1877 or thereabouts by the Dyke Dennis Co., Ruabon; but since that date the Vieille Montagne Co., in 1892-4, tested the tip-heaps for lead and zinc ores.

The chief vein trends east and west, along a faulted junction between an intrusive 'neck' of rhyolite, with attendant lava, on

¹ New Series One-inch Ordnance Map, 136 (Bala); six-inch, Montgomeryshire 4 S.E.; Old Series One-inch Geological Map, 74 S.W. Lat. $52^{\circ} 49' 10''$, long. $3^{\circ} 24' 15''$.

² 'Tours in Wales,' vol. iii, 1810, p. 172.

³ 'Metalliferous Minerals and Mining,' 8vo, Lond., 1881, p. 203.

⁴ 'Journal of a Tour through North Wales, etc.,' 8vo., Lond., 1797, p. 14.

⁵ 'A Treatise on a Section of the Strata commencing near Newcastle upon Tyne and concluding on The West Side of the Mountain of Cross-Fell. With Remarks on Mineral Veins in general, and Engraved Figures of some of the different species of those Productions, &c.' Newcastle, 1809, pp. 67-8.