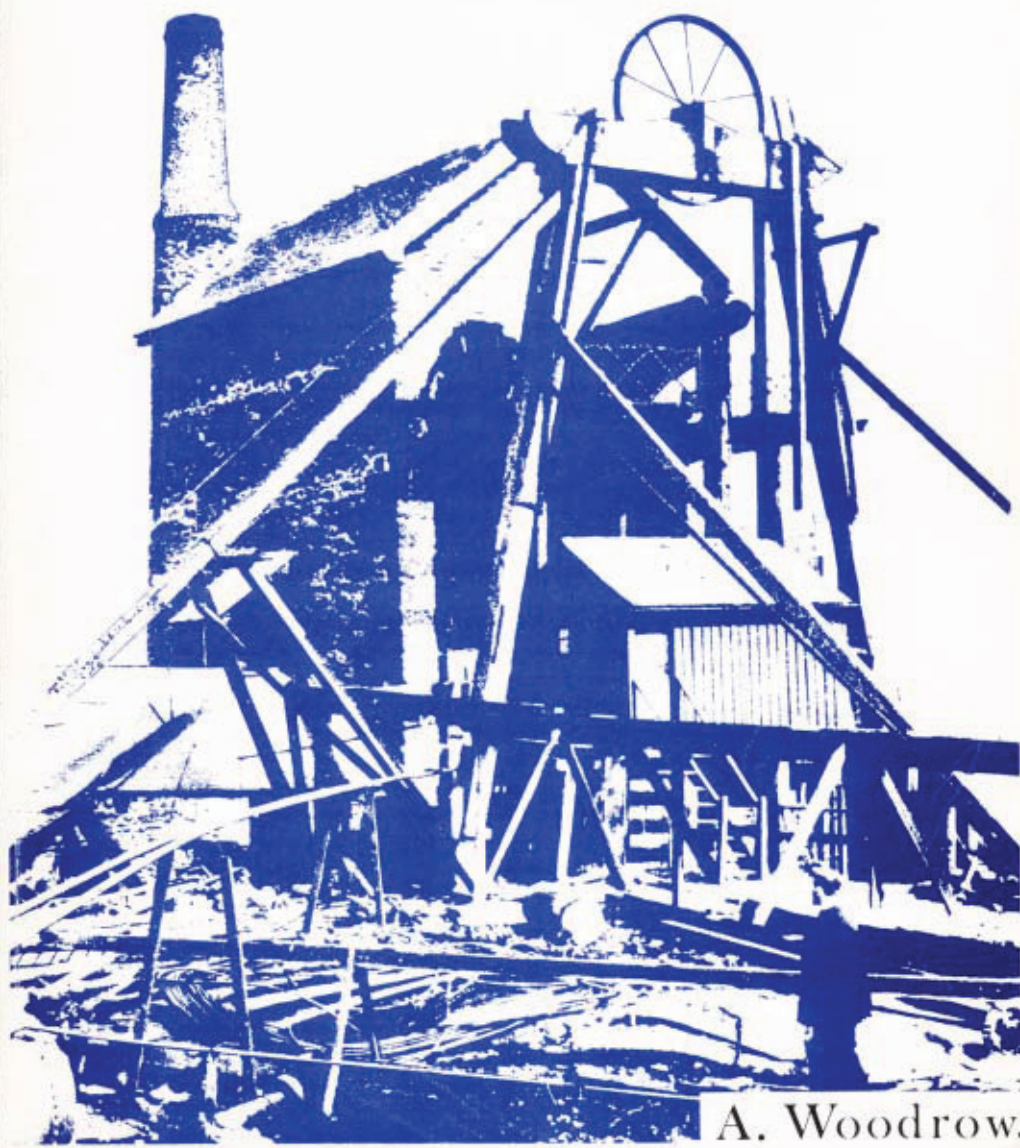




British Mining No. 7.

A HISTORY
of the
CONLIG & WHITESPOTS
LEAD MINES



A. Woodrow.

ISSN 0308-2199
ISBN 0 901450 11 1

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A HISTORY OF THE CONLIG AND WHITESPOTS LEAD MINES

by
A. WOODROW

A MONOGRAPH OF THE
NORTHERN MINE RESEARCH SOCIETY

1978

NB

This publication was originally issued in the A4 format then used by the society. It has now been digitised and reformatted at A5. This has changed the original pagination, which is given in square brackets.

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Kindly Prepared by M.C. Gill

COVER DESIGN

R.H. Bird

PUBLISHER'S FOREWORD

The current interest in Britain's metalliferous mining history has resulted in the appearance of numerous written works, ranging from short articles to lengthy dissertations. Metal mines from St Just to Wanlockhead and from Foxdale to Matlock have formed the subject matter for the above but, in spite of Ireland's quite remarkable output of lead, zinc and copper during the 19th century, the latter has tended to be almost entirely neglected by modern writers.

Whilst the great - and for the most part Cornish managed - mines of southern Eire, as well as those concerns centred upon Avoca, are not entirely unknown to mining historians, those enterprises in the north have received scant if no attention whatsoever. Indeed, it will probably come as a surprise to many that Ulster supported at least one important lead mine in an otherwise virtually unmineralised part of the island.

The author's researches have entailed years of intensive probing and 'detective work', a task made no easier by the widespread dissipation of original papers and record books and the nett result contained within the following pages must amply demonstrate the potential that surely remains in other areas and also the many fascinating stories that have still to be told.

Thus, largely assembled from tenuous scraps of information and diverse documents, the following narrative traces the story of the Conlig and Whitespots concerns from their earliest surface scratchings to the subsequent blossoming of a wealthy deep mining enterprise, often fraught with practical difficulties and hedged about with problems concerning the mineral lords. Here, recorded for the first time, are the forgotten events and characters responsible for the decaying remains still to be seen at surface on the Escarpment and the miles of unseen water-filled workings below grass.

It is with pleasure therefore that we present what is hoped will be a precursor to further detailed studies in the mining history of Ireland and, in view of the recent title change of Society publications to that of the all embracing 'British Mining', the appearance of this volume is felt to be particularly apt.

R.H. BIRD
EDITOR

Around the close of the 17th century, metal mining in our islands lay beset by numerous problems which were hindering development. For the smelters, there was cause for equal concern centred more simply on their dwindling reserves of fuel. After centuries of prodigal consumption, the forests in the mining counties were running out, the country was within reach of the timber famine, and new methods of firing the iron furnaces had to be found. Iron smelting mills operated close to forest areas, but the situation had obliged the Welsh ironmasters, at least, to import Co. Wicklow charcoal out of Dublin. Ireland, better endowed with oak than metal ores, was under less immediate threat, but here also the ironmasters and other merchants had been steadily burning the forests and before the turn of the 18th century, the last of the Irish bloomeries had put out their fires.

In 1700, because of the limitations imposed on depth by the absence of adequate pumping machinery, the metal mines were shallow, hand-wrought affairs, seldom exceeding the forty fathom level. Dewatering was by rag and chain pump, or windlass and bucket wrought by squads of labourers, by horse capstan and tub, or where surface water was in abundance, by water-wheel. Where the topography allowed and a valley lay beneath the level of the shafts, the most effective system was the drainage level, or adit, a narrow tunnel driven into the rising ground to channel the water out of the mines. Gunpowder had been introduced in the last quarter of the 17th century but was expensive and the miners had not become practised in its application. Mining in hard-rock country was a slow and laborious task thereby. Many of the mineral lodes outcropped in remote areas. With mines sunk often in bleak and generally barren spots, it was essentially a rural industry and miners were local men who owed first loyalty to their own small farms and turbaries. Absenteeism was thus common during these harvest seasons.

Events taking place closely on either side of the year 1700 make it a convenient central turning point in metal mining history. In 1689, Parliament recognised the basic flaw in the concept of the Society of the Mines Royal and abrogated that monopoly which had reserved unto the Crown the rights to the mining of silver-bearing ores. Landowners thus regained freedom to develop their own ore deposits of iron, lead, copper and zinc. Tin remained governed by the ancient Stannary laws in south-west England. In 1710, Newcomen's radical improvement of Thomas Savery's crude atmospheric engine enabled the adventurers to pump the mines from greater depth. Its major weakness lay in its enormous consumption of fuel, a penalty that was to virtually prohibit its use in coal-less areas like Cornwall and most of Ireland. Gunpowder came into general use and the

pace of mining quickened. As the mines went deep, Welsh lead and in its turn the copper lying deep in the Cornish granite, long after tin, came to control the world market in these metals and as the century wore on, developments in mine engineering were to transform these islands into the most concentrated deep mining area of the world.

In 1764, the massive copper ore deposits discovered on Parys Mountain in Anglesey were to displace Cornwall from her pre-eminent position, for despite its low grade, the ore lay in vast quantity, close 'to grass', and was capable of being mined on an opencast basis and free of the ruinous pumping costs suffered by its rivals who had to import Welsh coal for their engines. During this exceptionally difficult period which lasted for almost two decades, the Irish copper mines must have suffered as badly as did Cornwall, under this double burden. It was at this crucial point that Matthew Bolton and his dour Scottish partner were to transform the now outmoded Newcomen engine.

[1]

With his separate condenser, James Watt trebled the engine capacity by cutting the coal consumption to one third. Massive and economic means of pumping were now at hand and with the later conversion to high-pressure steam, the Cornish beam pumping engine came into its hall of fame. Remaining almost unchanged, it was to outlast the metal mines and indeed to preside at the funeral of the handful which struggled on into the 20th century.

As coal-fired pumping engines came into general use after 1800, the days of 'cheap' mining came to an end and as the industry became capital intensive, the abuse of absenteeism was no longer tolerated. The financial requirements of such undertakings were now clearly beyond the resources of the earlier family mining groups and the era of the cost-book companies began. For those who put their money at risk, it was a highly speculative industry with disaster a constant bed-fellow. Family dynasties were founded overnight and fortunes lost as easily as mines cut rich or veins pinched out. Fraudulent promoters, aided by dishonest assayers, floated 'circular' mines, they revived and renamed worked out setts which were worthless and in the last century were to give British mining scrip a reputation from which it was never to recover.

For the mine engineer, the 19th century became a period of taxing complexity. As the mines went deep to unheard of levels of four then five hundred fathoms, problems of bulk, weight and component strength became an almost daily preoccupation. In 1850, before the days of the

steel wire hawser, hemp rope was a highly expensive commodity. In lode mining, the engineer either put down his shafts on the vertical and worked into the orebody via crosscut levels, or he went down at an underlie on the same angle as the vein. In a deep mine, the pumprod consisted of perhaps 350 fathoms of heavy balks of Danzig pine, each some 50 to 70 feet long, and fishplated end to end. Measuring, at surface, somewhere between 18 to 24 inches square and tapering down to 12 inches at the sump, this enormous piece of timber weighing over thirty tons went straight down these vertical shafts to the bottom cistern. Raising pieces of heavy pitwork could entail the use of 19 inch hemp rope. When one considers that the engineer is then having to cater for a total suspended weight of about 14 tons of rope alone and that its bulk was such as could require a team of shire horses to deliver it to a mine, the problems of merely handling such a hawser will be readily appreciated. Where, however, the shaft went down at an incline, off the vertical, as it workscrewed after the vein, the engineer then had to carry the uninterrupted stroke of the ever-bobbing pump-rod through these corners with a minimum of friction and loss of power. Often working beyond the limits of his practical knowledge, the engineer's brilliance of remedy lay in its sheer simplicity and these were but the fringe of his daily problems.

For the metal miner, a well-conducted mining sett in 1850, rendered as safe as any reasonably careful management could make it, was a dangerous place in which to earn a living. Sanitation was non-existent. Access and exit from the working pitches of most metal mines was by ladderway, for few mines were fitted with man engines. The deep mines like those at Allihies in West Cork entailed going down 300 fathoms and was a double journey that could take a man the best part of two hours. Eventually, as a miner grew older, this pitiless daily slog on slimy ladders imposed an intolerable burden on heart and lungs, already weakened by years of working in bad ventilation, and in these mines, the older men eventually became unable to climb back from the bottom levels. Left to scavenge the higher and less remunerative pitches, they took to riding the forbidden skip, often with disastrous results.

The old cost-book company, with its lack of subscribed capital, was required to declare monthly dividends, and seldom were these ploughed back [2] for development or reserves. Hence, few mines held any read money to tide them over a difficult period and most of them saw the end of their days under this form of management which was ill-equipped to compete with the rising tide of cheap foreign ore in the latter half of the 19th century. Whilst most of the abuses of wasteful spending, truck and other disreputable practice had vanished by mid-century, the speculative system of remuneration of the metal miner employed on the 'tribute' pitch persisted

until late in the century. These pitches were put out on auction to the miners who worked in squads or 'pares'. The bargains, as they were called, were fixed on setting days, the 'taker' of each squad entering his bid to work the pitch either at a percentage of the eventual sale price of the ore or more simply at a set price per ton. Against each miner was debited his weekly bundle of candles, gunpowder used, his tools and such necessary subsistence as was advanced to him to maintain his family during the bargain period which was generally for a month. To his credit was eventually passed his share of the proceeds of the bargain and it was only after this cumbersome rigmarole that his true earnings were known. These pitches went to the best of the miners because they offered a price that was economic both to the owners and themselves. Hence, their right to bargain as contractors gave them an unusual freedom. However, during the many difficult periods which beset individual mines and the industry as a whole, there is little doubt that the competitive bidding, edged by fear of hungry families, drove labour costs down to subsistence level and less.

It is against this general backcloth that the fortunes of the Irish metal mines must be reflected. Two centuries earlier, Ireland had been a woodland society with vast forests of which perhaps 40% consisted of oak. With the destruction of the forests by the charcoal burners, Ireland's days of smelting her own metallic ore came to an end before 1800. To an extent, mines in certain areas owed their existence to the presence of a nearby smeltery. In remote districts, haunted by difficulty of access in bad weather, transport costs always loomed large in mining economics. Small isolated mines working poor lodes on slender profit margins and dependent on pack horses supplied by local contractors, would be the first to close when the bloomeries put out their fires. It was however a geological blessing that the mineral lodes of economic importance lay, like the vanished timber, in an elongated ring round the Irish seaboard and its immediate hinterland.

In the Northeast, the bauxite and the iron ore lay bedded along the coastal strip of Co. Antrim. In Co. Down, the major lead deposits at Whitespots lay close to the port of Bangor and these ores from the handful of Ulster mines were readily transported to the Scottish ports and to the smelters on the Dee in North Wales. Likewise in the south, where with its sulphur, lead and copper, Wicklow was the premier mining county, the Irish metal mines extended in a ring from Ballycorus and the vales of Glendalough and Avoca, going south through Kilkenny, Waterford and West Cork into Kerry, and reaching up through Clare and Galway, into Mayo, Sligo and Donegal, while the rich silver-lead deposits of Silvermines in Tipperary lay close to the port of Limerick on the Shannon. Despite the seemingly isolated positions of some of the mines in the west of Ireland, the coming of the