

TASMANIAN OSMIRIDIUM & ITS MARKETING.INTRODUCTION.

Osmiridium is a native alloy of iridium and osmium with relatively small amounts of associated metals such as ruthenium, rhodium, palladium and platinum. It is a comparatively rare mineral, but for the past 20 years uses have been found for it and its constituent metals. There has thus been a market available for the sale of it and the whole of the output from Tasmania and other countries has been absorbed in the industrial arts. It would be expected that the osmiridium could be satisfactorily marketed but such has not been the experience in the past.

The osmiridium mining industry is an important one to the State employing as it does a large number of individuals and small parties, and the whole of the output being sold overseas thus bringing outside money into the State.

The industry is, however, greatly affected by :-

- (1). Uncertain markets when local buyers are not operating on behalf of their principals.
- (2). Uncertain prices when markets are available.

Any efforts and arrangements which could overcome these obstacles and produce a continuous market at a fairly uniform and satisfactory price would, therefore, be very advantageous to the industry.

Many factors are involved in the marketing of osmiridium such as uses, production, price, producing countries and these and other phases will be discussed briefly below.

USES.

Osmiridium has two main uses viz. for production of tips for fountain pen nibs and for separation and utilisation of its constituent metals.

(1). FOUNTAIN PEN NIBS:- The osmiridium is used in its natural state. The larger pieces are broken up and the whole of the material is screened and those pieces of suitable size, shape and physical properties are then used.

This use demands osmiridium grains above a certain size and Tasmanian osmiridium fulfils this condition whereas that from practically all other countries is too fine. It is for this reason that Tasmania leads all other countries in the production of osmiridium suitable for fountain pen points.

(2). PRODUCTION OF CONSTITUENT METALS:- Osmiridium is a natural alloy consisting chiefly of iridium and osmium with smaller amounts of ruthenium, rhodium, palladium and platinum. The most important of these from the industrial view point is iridium which is used to alloy with platinum for practically every purpose for which platinum is used. The reason for this is that platinum is comparatively soft and the iridium produces a harder alloy. The proportion of iridium ranges up to 20% but is generally between 5% and 10%.

For this use, osmiridium has a competitor in the iridium sponge and platinum-iridium alloys produced from the deposits of platinum and associated metals throughout the world and which probably exceeds in amount the iridium produced from osmiridium. Russia is the greatest producer.

PRODUCING COUNTRIES.

At present the two main producing countries for osmiridium are South Africa and Tasmania. In the past and possibly also at present Papua and Japan have produced small quantities.

As regards the component metals these are associated with platinum in the platinum deposits. The production of platinum is much greater than that of any of the associated metal, but the proportions of these metals in the platinum are small. It is for this reason that osmiridium is called upon to supply osmium, iridium &c. The chief platinum producing countries are Russia, South Africa, Colombia, United States.

PRICE OF TASMANIAN OSMIRIDIUM.

The following table shows how the price has varied throughout the last twenty years.

YEAR.	LOCAL AVERAGE PRICE PER OUNCE.	YEAR.	LOCAL AVERAGE PRICE PER OUNCE.
1910	£4.42	1921	£24.52
1911	4.37	1922	30.25
1912	7.37	1923	29.16
1913	9.52	1924	26.36
1914	9.89	1925	30.77
1915	6.40	1926	Undetermined. Advances made by Co-Operative Assoc
1916	8.55	1927	
1917	14.75	1928	26.6
1918	27.90	1929	22.52
1919	23.73	1930 (To Sept. 30th)	18.40
1920	38.33		

It is to be noted that there was generally a steady rise (with minor fluctuations) from £4.42 per ounce in 1910 to £38.33 per ounce in 1920. Between 1920 and 1929 the average price has ranged between £22.52 and £30.25, except that during 1926 and 1927 when the Co-Operative Association was in existence it is difficult to determine the price (due to advances being made and the final results not being obtained) but it was in the vicinity of £12 - £15 per ounce.

The average price for the current year to the 30th September is £18.40 and it is obvious that the decrease in price throughout 1928 and 1929 is continuing into this year. In fact at the present time, very few sales are being made and the prices are as low as £14 per ounce.

The highest price ever paid was £42.5 in March 1920, the highest one since being £32.75 in 1925.

The prices quoted on the London market are in general agreement with those received in Tasmania, but are naturally somewhat higher. The difference varies from time to time and generally is such as would be expected to occur between a sale in Tasmania and final disposal of it in London. However, it is not usually possible to compare the price of a particular parcel in Tasmania with the actual price for the same parcel in London and make an absolute comparison.

The South African osmiridium is quoted on the London market at a price several pounds less than Tasmanian osmiridium (Present quotations are Tasmanian £17.18 and South African £12 per ounce).

PRODUCTION OF TASMANIAN OSMIRIDIUM.

The recorded production of osmiridium in Tasmania is given in the following table.

YEAR	QUANTITY. OZS.	VALUE. £
1910	120	530
1911	271.88	1883
1912	778.77	5742
1913	1261.65	12016
1914	1018.83	10,076
1915	247.048	1581
1916	222.150	1899
1917	332.079	4898
1918	1606.743	44,833
1919	1669.715	39,614
1920	2009.196	77,114
1921	1750.655	42,935
1922	1173.924	35,512
1923	673.423	19,642
1924	364.805	10,617
1925	3365.543	103,570
1926	3172.5	61,908
1927	632.687	7456
1928	1627.186	42,458
1929	1360	30,624
1930 (To Sept. 30th)	572.50	10,533
TOTAL	24,231.284	565,076

These figures represent the recorded statistics only and do not include osmiridium taken out of Tasmania without being reported.

METHODS OF MARKETING IN THE PAST.

The general method of marketing has been by sales to local buyers who act as agents to overseas users and dealers. In 1919, the Osmiridium Act was passed and provided for the licensing of buyers and the notification of all purchases and transfers of osmiridium from the State.

In 1923, owing to the decrease in price, a pool was formed by the miners and a buying agent was appointed in Tasmania and two selling agents abroad. It had the effect of materially increasing the price and provided a market, but it eventually proved a failure. This was due to the system of a percentage advance and a delay before final settlements were made, and to the disloyalty of some of the miners themselves who sold to unlicensed buyers outside the pool.

Licensed buyers again operated until the end of 1925, when after the discovery of Adamsfield the market was oversupplied and buyers ceased to operate. The Tasmanian Osmiridium Producers' Co-Operative Association was formed by the miners, and advantage taken of a Commonwealth Act whereby advances were made by the Commonwealth Bank on a basis of 60% of the market price. Messrs. Robt. Nettlefold & Son were appointed selling agents and the osmiridium was disposed of through Derby & Co., in London. The advances were at first made on £18 but the price quickly dropped to £12 and eventually to £10. Failure resulted due to this low price and the delay in final settlements and to the selling of osmiridium through unlicensed buyers outside the Association. The low price was partly brought about through the Commonwealth Bank enforcing the finalisation of all sales within six months, thus necessitating the placing of large quantities on the market.

Early in 1927, licensed buyers were again permitted to operate and the price rose almost immediately to nearly £30 owing to the scarcity of osmiridium and the refusal of individuals to sell at low prices.

EXPERIENCE GAINED BY PAST METHODS OF MARKETING.

In the above descriptions it is to be noted that three methods of marketing have been tried but without success i.e. they did not produce a continuous market at a fairly uniform and satisfactory price. These methods were :-

(1). Buying by licensed buyers who act as agents for overseas users, dealers &c. An order for a definite amount is given and when the order is fulfilled, the buyers cease buying. A maximum price is usually stated in the order, but the buyer may sometimes obtain the parcel at as low a price as possible.

The price is generally regulated by the law of supply and demand and the only control the miners have on the price is when by mutual arrangements or otherwise they refuse to sell their osmiridium at the prices offered. This has seldom if ever failed to produce an increase in price, but it means that it can only be applied when the holders of osmiridium are comparatively few and when they are so financially situated that they do not have to make immediate sales. It is the necessity for selling by those whose finances are weak that enables this method of control to be defeated.

(2). Formation of a Pool with one buying agent in Tasmania and one or two selling agents abroad. The 1923 Pool was of this type, an advance of 60% being made. As the result of a year's trial, it was defeated through the reasons given above.

(3). Formation of a Co-Operative Association with one buying or forwarding agent in Tasmania and one selling agent in London. Advances of 60% of the market price were made by the Commonwealth Bank. This likewise failed for the reasons given above.

The lessons to be learnt from the above appear to be

(1). Schemes involving one or two selling agents abroad though appearing effective in theory are not satisfactory in practice. It is apparent that as the stocks accumulate in London those requiring to buy osmiridium take advantage of same and force a low price on the selling agents.

(2). The only effective control has been when the producers themselves can hold their stocks and refuse to sell until a satisfactory price has been obtained.

SUGGESTED MARKETING SCHEMES.

(1). All schemes discussed above have been attempts to control the sale and price of Tasmanian osmiridium only. It has been suggested that steps should be taken to combine with South Africa in order to arrive at a marketing scheme for both countries.

The South African output for 1929 was estimated at 5,300 ozs., while that of Tasmania was 1,360 ozs. Further the South African osmiridium is used for different purposes to that of most of the Tasmanian. In view of the greater production from South Africa and the fact that there is no similarity of interest as regards the use of the metal, it is considered possible that the South African Government may not be disposed to any combining of forces with Tasmania. This would apply particularly if their osmiridium is being sold at a satisfactory price and without trouble. Moreover, the South African osmiridium is merely a by-product from the large gold mines of the Rand and it is inconceivable that mines which produced gold to the value of £43,719,149 in 1929 would worry about a by-product valued at £100,000.

(2). The scheme that seems to offer the best chances of success is one in which all the stocks of osmiridium are held in Tasmania and sold from here either to the licensed buyers as at present or direct to the overseas users and dealers. This would involve financing either by the Government or a body formed for that purpose so that an advance could be made, or a fixed price paid to the miners and the osmiridium held until a satisfactory price obtained.

The most important point in this as in any other scheme would be the total prohibition of export by the Commonwealth Government except through the authorised authority. Such a procedure would be difficult to enforce owing to the small size of parcels of osmiridium, and the prohibition would need to be strictly enforced and heavy penalties provided. The likelihood of such a prohibition being given effect to is one worthy of being taken up with the Commonwealth Government.

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