

become a considerable item. The shipments for some years are as under:—

Year.	Quantity in Tons.	Value.
1878 ... ..	2,516 ...	£10,416
1879 ... ..	2,140 ...	8,338
1880 ... ..	2,611 ...	10,423
1881 ... ..	1,271 ...	3,283
1882 ... ..	2,181 ...	6,963
1883 ... ..	318 ...	808
1884 ... ..	601½ ...	1,716

Another factor which will probably determine the shipment of a much smaller quantity than formerly is the carriage of goods to New Zealand by steamers, to the displacement of sailing-vessels, the latter alone requiring ballast.

In the event of other demands arising, and so causing an increase in the price of manganese ore, it is probable that an impetus will be given to its production here, in which case the reduction of the cost of producing it would become a necessity; hitherto the tools and means of dressing it being of the simplest, while the high price of labour and cost of exploitation has proved inimical to its competing with other parts of the world which also produce it in large quantity and of fair percentage—notably Spain, Russia, and Italy.

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ART. XLIV.—*On the Occurrence of Tellurium in the Thames Lodes.*

By J. A. POND, Colonial Analyst.

[Read before the Auckland Institute, 22nd October, 1888.]

In the year 1884 I received some rich stone from Mr. E. H. Whitaker, whose assay showed it to contain silver to the extent of 3,928oz., and gold 234oz. to the ton. This was from the Moa Claim, at Te Aroha. The suggestion to examine these specimens for tellurium was given by Sir James Hector, to whom I submitted them, and who confirmed the fact of tellurium being present on his return to Wellington. In the meantime I had determined the constituents of the ore, the analysis of which I append.\* This exceptionally rich stone naturally led to further investigation of the ground, showing that it occurred in exceedingly narrow veins, occasionally widening to the width of an inch, or slightly more. In the richer portions the telluride is accompanied by anti-

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\* Analysis not received.—Ed.

monide of silver and free gold. The telluride is irregularly disseminated throughout the stone in the massive state and also in fine granules. In colour it is steel-grey, with metallic lustre, and it is readily crushed. It is always accompanied by magnetite in fine grains, and sometimes by ilmenite.

Anticipating that it would be found in other portions of the district, I have examined a large number of the richer portions of the lodes, with the result of finding it in combination with the silver in the Crown, Woodstock (Maria Reef), and Ivanhoe Mines, at Karangahape; in the Champion and Lord Nelson Mines, at Te Aroha; and as a trace only in the Rosemont Mine, at Waihi. That this metal is present in much larger quantities than is generally anticipated I feel convinced, and when proper examination of the ores is made before treatment we shall find a great deal more consideration given to the presence of tellurium than has hitherto been the case. Experience already gained elsewhere has shown this metal to be very inimical to the saving of gold or silver combined with it; and, as I have found it present in some of the Crown ore to the extent of 4.18 per cent. it will be seen that it is a factor which will require to be considered when an economical and satisfactory mode of saving the riches of our lodes is adopted.

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ART. XLV.—*On the Preparation of Artificial Chromes for Ornamental Purposes.*

By WILLIAM SKEY, Analyst to the Geological Survey Department.

[Read before the Wellington Philosophical Society, 22nd August, 1888.]

THE great beauty of some of our native mineral chromes has no doubt incited others besides myself to attempt their imitation, but, so far as I know, no process for accomplishing this has yet been discovered.

In 1870 I found that in the case of chalcopyrite a very beautiful iridescence was induced upon it, in parts, by making it the negative end of an electric battery;\* but there was not that thoroughness or certainty in the process necessary to give it an economic value. However, I still kept in my mind the idea of imitating nature, and at different times made experiments with that object, but until quite recently my efforts have not been attended with much success.

It is well known that the fine play of colours displayed

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\* "Trans. N.Z. Inst.," vol. iii., p. 223.