

ed to 91,694 tons of ore valued at £114,345, and 5,799 tons of matte valued at £150,152. This represents an increase in value of £13,288 for ore and £6,150 for matte as compared with 1912. The output of nickel during 1914 is stated to show an increase of 4 per cent. as compared with 1913.

For further details respecting the nickel deposits of New Caledonia, reference should be made to a report on these deposits by M. E. Glasser (*Ann. des Mines*, 1903, pp. 299 and 397).

Nickel in Asia.

India.—Rocks of the norite type occur in some abundance in various parts of India, and pyrrhotite is abundant at some localities, as in Travancore. A sample of Travancore pyrrhotite examined at the Imperial Institute some years ago was found to contain some chalcopryite and molybdenite. An analysis showed the presence of 0.63 per cent. of nickel oxide (NiO), 0.15 per cent. of cobalt oxide (CoO), and 0.39 per cent. of copper oxide (CuO). A small amount of gold and probably also a trace of platinum were present.

Nickeliferous pyrrhotite occurs also at various localities in Rajputana, as at Khetri, and in the Kolar gold reefs, associated with chalcopryite.

PROPOSED DEPARTMENT OF MINERALS AND METALS.

The following letter was addressed to Sir William S. McCormick, Chairman, Advisory Council for Scientific and Industrial Research, London: On behalf and by authority of the Councils of the following institutions: The Iron and Steel Institute (incorporated by Royal charter as representing the iron and steel industries); the Institute of Metals (incorporated as representing the users and manufacturers of non-ferrous metals and alloys); the Institution of Mining Engineers (incorporated by Royal charter as representing coal and iron ore mining and allied industries); and the Institution of Mining and Metallurgy (incorporated by Royal charter as representing the mining of minerals other than coal and iron ores and the production of metals other than iron and steel.

We, the undersigned, have the honor to submit the following considerations and recommendations in the hope that through the intervention of the Committee of the Privy Council for Scientific and Industrial Research, measures may be taken to provide the necessary machinery for the protection and advancement of the economic welfare of the mineral and metal industries of the Empire.

The absence of effective co-ordination of the organizations of these vital industries has been demonstrated and brought into prominence by the war, in many directions. The grave results to the national interests are generally admitted.

There are highly organized geological surveys and departments of mines in nearly all foreign countries, and their influence in the development of mineral resources is a factor of the first importance. There are similar well organized departments in some of the British Dominions, but there is no connecting link or central "clearing house" in the Metropolis of the Empire to co-ordinate information on its mineral resources, to stimulate their development and to safeguard Imperial interests.

Various departments of the Home Government, such as the Geological Surveys and Museum of Practical Geology, the Board of Trade, the Home Office, the Imperial Institute, and, since the outbreak of the present

war, the Foreign Office, the Admiralty, the War Office and the Ministry of Munitions, have all been concerned with the collection of information bearing on the sources of supply of minerals and the production of metals. There does not appear, however, to have been any serious attempt to co-ordinate and render available even such information as has been collected by these departments, and it is certain that there has been considerable overlapping and duplication of effort with corresponding waste and confusion.

It is, we submit, obvious that the overlapping and confusion will be seriously increased if the various Technical Committees appointed by the Advisory Council attempt to collect the information which is essential to enable the beneficent object of the Committee of the Privy Council to be attained in its wider aspects, in regard to the mineral and metal industries.

We respectfully urge this view upon the serious attention of the Advisory Council, as already there are evidences of increasing overlapping and consequent waste of time and energy, which we believe it is one of the main purposes of the Committee of the Privy Council to eliminate as far as possible.

In the opinion of the institutions represented by us the organization of a central Department of Minerals and Metals is imperatively necessary in the public interest, and the work of organization, which will necessarily take much time to complete, should be commenced at the earliest possible moment.

It cannot be doubted that if a properly organized and efficiently conducted Department of Minerals and Metals had been in existence, much valuable time, many lives and vast sums of money would have been saved to the nation in the conduct of the present war, and much of the cost and inconvenience to British industries depending largely for their raw materials on mineral products would have been saved, with corresponding advantages to the prosecution of the war and to many industries.

A Department of Minerals and Metals should not only be in intimate relationship with the Geological Surveys and Mines Departments of the Dominions, but also with the organizations representing the different branches of the mining and metallurgical industries, whose co-operation in the work of the department should form a vital part of its machinery.

The Geological Surveys of Great Britain and Ireland and the Museum of Practical Geology should also form an integral part of the department.

The functions of the department should be active and constructive. All overlapping by other Home Government departments, and also by the institutions representing the industries, should be absolutely prevented.

The duties of a Department of Minerals and Metals would include:

1. Arrangements for expediting the completion of Mineral Surveys of the United Kingdom and of the Crown Colonies and other British possessions.
2. The systematic collection and co-ordination of information bearing on the occurrence, uses and economic value of minerals and their products; special attention being devoted to securing industrial applications for newly-discovered minerals or metallurgical products and to finding mineral materials required for new metallurgical products or inventions. Some of this information should be promptly and widely disseminated in summarized form to those interested in the industries, through the medium of the existing publications of the institutions directly concerned.