

DECIMAL COINAGE IN AUSTRALIA.

The Daily Mail of Sydney, N.S.W., for April 19th, contains the following item:

In the forthcoming session of the Federal Parliament, the Government will introduce a bill for the establishment of the Metric System of Weights and Measures in Australia. The bill provides that the Metric System shall be legalized immediately, while the Governor-General will be empowered to make it compulsory at any time. The bill would include the establishment of decimal coinage as well, were it not for the difficulty which would be experienced in getting rid of the existing currency. The Imperial Government is willing to take £100,000 worth annually, but the Federal Treasurer declares that it would be necessary to export double that amount.

DIRECT ROLLING PROCESS FOR COPPER.

In the Canadian Engineer for November, 1902, was given a description by H. J. Martin, of Swansea, England, of his Direct Rolling Copper Process, by which the heat contained in copper cakes or wire bars, immediately after they are ladled in the refinery, is utilized for the rolling of the metal direct, thus doing away with reheating, as now practised. A recent number of the Iron and Coal Trades Review, of London, contained a detailed description of the process, with drawings for a copper refinery equipped for this method of handling.

The writer claims for his process the following advantages:

1. Great reduction of time in casting all the larger masses of copper, through doing away with hand-ladling of same by tapping from the furnace and pouring from a big ladle, at the same time enabling either means to be carried out, as found desirable, for any particular product.
2. Prevention of chilling and setting of copper in the ladle by the continuous flow of molten metal in same at a high temperature, without interfering with the proper control necessary for starting and stopping the pouring into the moulds.
3. The amelioration to a large extent of the present trying conditions for the workmen in carrying out the tedious, laborious and hot work now necessary.
4. The moulds being all self-contained, thus obviating the present trouble of putting together and taking apart after casting.
5. Freedom and independence of movement between the different stages of the casting operation, through providing storage room, etc., between each.
6. The furnace charge of cakes, plates and bars being available on the same day, instead of the next, as at present.
7. Prevention of cold sets, etc., through pouring in a larger body and so filling the mould more rapidly.
8. The moulds being so constructed as to be suitable for immediately tipping the hot cakes therefrom and thus enabling direct rolling, with its further advantages, to be adopted or not, as found desirable.

THE PRESENT POSITION OF THE METRIC SYSTEM.

A paper read by the late Arthur Harvey, a few weeks ago, before the Engineers' Club, of Toronto, dealt very fully with the present situation in England, the United States and Canada with reference to the Metric System. In view of the general adoption of metrics in all countries except the Anglo-Saxon strongholds, and the consequent isolation of such non-metric countries becoming yearly more complete, Mr. Harvey took the position that Canada should be prepared for eventualities. Canada, in his opinion, cannot prudently make metric weights and measures compulsory until either the United States or England, which divide most of our foreign trade between them, had taken that step, but in the meantime we ought to familiarize ourselves with the question.

Dealing with the position in England, Mr. Harvey summarized the debate in the House of Lords, February 23rd, 1904, on the second reading of the bill to render compulsory the use of the Metric System. In this debate, the following facts were referred to:

The Colonial Conference of 1902 passed a resolution advising the adoption of the Metric System throughout the Em-

pire and urging the Governments to give consideration to the question of its early adoption.

The House of Representatives for Australia has passed a strong resolution in favor of the system.

New Zealand has passed a Weights and Measures Act by which the Governor is empowered to enforce by proclamation the compulsory adoption of the system. This proclamation is not to be issued prior to January 1st, 1906, and it is not intended to have it issued before the adoption of the system by Great Britain.

Three hundred and thirty-three members of the British House of Commons have signified their intention to support the metric bill when presented.

The Chambers of Commerce of the Empire, meeting in Montreal in 1903, passed a resolution in favor of the system.

The Cape of Good Hope House of Assembly has addressed the Imperial Government on the subject of the adoption of the Metric System.

The Transvaal Chamber of Mines have signified their cordial approval of the proposal.

The Governors of Malta and Bermuda have intimated the desire of the inhabitants of those islands for the adoption of the system.

All civilized nations, with the exception of Great Britain and her dependencies, the United States, and Russia, have adopted the Metric System. In the United States there is a bill before Congress providing for the adoption of the system, and in Russia a little is being done in this direction as the Government has instructed iron and steel works to alter their machinery so as to produce rods, rails and sheets on a metric scale.

The Metric System, worked out in France, originated in England. In a letter dated November 14th, 1783, James Watt laid down a plan which was in all respects the system adopted by the French philosophers seven years later.

The bill, after a lengthy discussion, was given a second reading in the Lords and referred to a select committee. It might be noted that a select committee, presided over by Sir Henry Roscoe, made a very full report of this subject in 1895.

Mr. Harvey gave a few letters from British consuls, samples of many which have been received, all pointing out the loss to British trade through the persistence of British weights and measures, and all favorable to an immediate change to the Metric System. The letters read were from Brazil, Sweden, Argentina, Germany, Bulgaria, Algeria, Spain, and the Netherlands.

The change to meters and kilos in England is likely to be sudden, as a wave of opinion speedily overwhelms a democratic country, such as England now is. The trades and labor councils are already advocates of the Metric System, and the Trades Union Congress, at Leeds, September, 1904, representing 5,000,000 workmen, unanimously resolved to petition the House of Commons in favor of Lord Belhaven's bill, which had just passed the Lords.

Mr. Harvey then described the situation in the United States. Here the foreign trade is still insignificant in its ratio to internal trade, and questions of domestic convenience are likely to outweigh those of the profit of external commerce in the consideration of the Metric System. The Metric System was made legal in the United States in 1866. Every year for the past fifteen years bills have been introduced to make the system compulsory in Government transactions, and these have been referred to the Committee on Coinage, Weights and Measures. This is not a permanent committee, its members being appointed by the Speaker at the beginning of every new Congress, but as a general thing those who show an interest in weights and measures are reappointed to the committee if re-elected to the House. Thus, James H. Southard, the present chairman, has occupied the seat for three Congresses. None of the bills have become law, though in every case they have received strong commendation from the committee. Last year's session was the one preceding a presidential election, and the present session is a short one, where there is little time for anything beyond the regular appropriation bills. Knowing this, the committee planned to hear the opponents of the Metric System last year, and those in favor of it this session. "I confidently look for another favorable recommendation,"