"(iii.) That of the three Directors one should be an expert business and financial man with ability in organization; the other two should be chosen mainly on account of scientific attainments and wide experience; their tenure should be fixed by the Act; and that the scientific staff should be appointed by the Governor-General in Council on the recommendation of the Directors." Other provisions deal with the vesting of discoveries and inventions in trustees, power to charge royalties for their use, to pay bonuses to inventors, and to charge fees for special investigations.

It is intended that as far as possible the Advisory Council shall act in co-operation with the Advisory Council of the Imperial Privy Council and with similar bodies in other parts of the Empire.

Finance.—A grant of £5,000 was made by the Federal Government to cover the cost of the scientific work of the Advisory Council and of the incidental expenses. In the fifteen months, April, 1916, to June, 1917, the total expenditure was £3,593.

It is understood that for the carrying-out of the original scheme the Prime Minister stated that the Commonwealth Government was prepared to spend £500,000.

III. CANADA.

The British memorandum on the suggestions for making the British scheme applicable to the whole Empire was in Canada referred to the Minister of Trade and Commerce, and on his recommendation the Governor-General in Council approved, on the 6th June, 1916, of the appointment of a

COMMITTEE OF THE PRIVY COUNCIL, consisting of the Minister of Trade and Commerce, the Minister of the Interior, the Minister of Mines, the Minister of Inland Revenue, and the Minister of Agriculture, which should be charged with and responsible for the expenditure of any moneys provided by Parliament for scientific and industrial research; and also of an

HONORARY ADVISORY COUNCIL, responsible to the Committee of Council, to be composed of nine men representative of the scientific and industrial interests of Canada, who should be charged with the following duties:—

(*a.*) To consult with all responsible bodies and persons carrying on scientific and industrial research work in Canada with a view to bringing about united effort and mutual co-operation in solving the various problems of scientific and industrial research which from time to time present themselves:

(*b.*) To co-ordinate as far as possible the work so carried on so as to avoid overlapping of effort and to direct the various problems requiring solution into the hands of those whose equipment and ability are best adapted thereto:

(*c.*) To select the most practical and pressing problems indicated by industrial necessities and present them when approved by the committee to the research bodies for earliest possible solution:

(*d.*) To report from time to time the progress and results of their work to the Minister of Trade and Commerce as Chairman of the Committee of Council.

It was further resolved that a competent secretary be appointed on the nomination of the committee and paid by the Department of Trade and Commerce, and that the travelling-expenses of the committee should be paid by the Department of Trade and Commerce.

On the 29th November, 1916, the nine members of the Honorary Advisory Council were appointed, six of them being presidents or professors of Canadian universities.

On the 13th December, 1916, the number of the members of the Honorary Advisory Council was raised to eleven, and Dr. A. B. Macallum was appointed permanent chairman of the said Council, with headquarters at Ottawa, with a salary of 10,000 dollars per annum, to date from the 15th December, 1916. This charge and other expenses were to be payable out of the vote for 1916–17 to provide for the development and extension of Canadian trade.

IV. UNITED STATES OF AMERICA.

SCIENTIFIC AND INDUSTRIAL RESEARCH.

In the United States before the war scientific research was probably better organized than in any other country except Germany. The chief agencies were several important Government scientific bureaux; certain institutions privately, and in a few cases munificently, endowed for research; some universities and schools of technology carrying on researches, and scientific societies and industrial corporations giving a certain amount of opportunity for and support of research. What was chiefly wanting was organization and co-ordination, to avoid overlapping and to secure the proper distribution of effort over the whole field in which scientific research in connection with national defence and industrial efficiency was likely to be profitable.

One way in which two universities assisted in the work of scientific industrial research may be specially mentioned—namely, by the establishment of the DUNCAN AND MELLON INDUSTRIAL FELLOWSHIPS in connection with the Universities of Kansas and Pittsburgh respectively. The Mellon Institute of Industrial Research was established in 1910 as an integral part of the University of Pittsburgh. About £100,000 was given by the brothers Mellon for its establishment, of which one-half was used for the permanent building, £12,000 for equipment and apparatus, and £4,000 for the chemical library. Dr. A. K. Duncan, who had in 1907 founded a system of industrial fellowships