

counter-propaganda to Soviet propaganda should be a purely governmental activity directed and administered by a government agency, and it is easy to see reasons why it would be detrimental to the influence of either the B.B.C. or the British Council if either were used for propaganda purposes. This is, however, only one of the questions which Mr. Coatman suggests might form the subject at the present time of expert inquiry. He advocates that a small expert committee should consider first whether the political warfare kind of broadcasting should be carried out by a government department or agency, and the B.B.C. relieved of all such responsibility; next, the committee should consider the technical point whether exchange of transcription services is a more effective method than direct transmission; and finally, whether greater economy and efficiency could be achieved in this field by co-ordinating the work of the B.B.C., the British Council and the Central Office of Information. An inquiry of this type would, indeed, be worth considering, and it would also be of value in that it would satisfy the many who have testified recently to the value of the overseas work both of the B.B.C. and of the British Council, and are alarmed at the prospect of that work being diminished in present circumstances.

#### National Research Council of Canada: Review for 1949-50

THE National Research Council of Canada has published "Review 1950" (N.R.C. No. 2254; pp. 278+11 plates. Ottawa: National Research Council, 1951. 75 cents), which describes in greater detail than does its annual report the work of the Council during the year ended December 31, 1949. It includes also some notes on early work in 1950 and is intended chiefly for scientific workers, research institutions and other persons or organizations requiring specialized information on the investigations in progress. There is also included a list of scientific staff arranged by Divisions and Sections. Lists of publications during the year are appended to the divisional reports and to those of the committees, and, besides a list of the outside committees on which the Council is represented, the report also includes an analysis of the distribution of scholarships, research fellowships and research grants made by the Council during 1949-50.

Features of the year which are emphasized in the report are the studies in applied biology which have led to modified designs of railway refrigerator vans and the adoption of new cooling mixtures, using ice, which lower the air temperatures by 3-6° C. Spray drying has been applied in the preparation of pure undenatured wheat gluten, and fermentation studies on wheat starch are yielding good results. New species of bacteria have been discovered which give a glycerol fermentation without producing 2:3-butylene glycol. Solvent separation of rapeseed oil using furaldehyde as selective solvent continued, and work on the conditions of pressure, temperature, moisture content and straw size in making fuel briquettes was completed. Valuable contributions have been made to aerial photography through the development of special emulsions, and to surveying by means of 'Shoran' equipment. Work on turbine icing is being expedited, and research is proceeding on artificial precipitation or rain-making, by seeding clouds with dry ice, as well as on the development of apparatus for the generation, radiation and reception of microwaves. Cobalt-60 has

been produced for use in medical and industrial radiology in place of radium, and more than twenty different radioisotopes have been supplied to universities, and research and other institutions.

#### Textile Institute: Annual Report for 1950

AT the annual general meeting of the Textile Institute, held at the Town Hall, Manchester, on April 18, it was announced that new headquarters premises have been acquired at 10 Blackfriars Street, Manchester; these premises are much more spacious than those at present occupied at 16 St. Mary's Parsonage, Manchester 3, and it is hoped that the new premises will be ready for occupation by September. Wider recognition of the importance of the application of science and technology to the textile industry has led to a big influx of new members of the Institute in the past five years, membership having increased from 2,369 at the end of 1945 to 5,235 in 1950. An increase in the applications for fellowship and associateship of the Institute has also been recorded. Similarly, in the field of education, there has been a greater number of entries for the Institute's examinations in general textile technology, but concern is felt at the apparent lack on the part of candidates of that broad scientific foundation which is so essential to an appreciation of textile technology. This trend is shown by the total number of examinees and corresponding percentages of successes for the following years: 1948—114, 50.9 per cent; 1949—150, 45.3 per cent; 1950—192, 38.5 per cent. During the past year the circulation of the Institute's *Journal* increased to six thousand copies a month; also published during the year were the "Review of Textile Progress", edited jointly by the Institute and the Society of Dyers and Colourists, and the third issue of the Institute's "Year Book". A new Publication Fund, to be used for the expansion of the *Journal* and the publication of new text-books and other textile literature, was opened by a gift of £5,000 from the Rayon and Synthetic Fibres Producers' Committee. From the general financial point of view the year was very successful, 105 firms and associations being elected as patrons of the Institute, and for the first time for many years there was a surplus of income over expenditure.

#### Fifteenth Anniversary of the Theory of Mesons

IN 1935, in the *Proceedings of the Physico-Mathematical Society of Japan* (17, 48), Prof. H. Yukawa published his now famous paper on the interaction of elementary particles, in which he suggested, *inter alia*, the existence of new particles, charged or uncharged, with mass about 200 times that of the electron. It is now generally believed that the  $\pi$ -mesons, the existence of which has since 1937 been firmly established experimentally, are to be identified with the particles suggested by Prof. Yukawa. To commemorate the fifteenth anniversary of the discovery of meson theory, the July/August 1950 number of *Progress in Theoretical Physics* consists, in addition to a special preface by M. Kobayasi and a bibliography of the more important papers relating to mesons published up to 1949, of a group of specially contributed articles. From outside Japan there are contributions by L. Rosenfeld, W. Heisenberg, W. Pauli, E. Fermi, G. Wentzel, W. Heitler, C. Bloch and R. E. Marshak. It is interesting to note that Prof. Fermi states that "the meson theory has been the dominant factor in the development of physics since it was announced 15 years ago by