

REPORT OF THE MEDICAL RESEARCH COUNCIL. "ELABORATE, PATIENT, AND UNADVERTISED WORK."

The Annual Report of the Medical Research Council, 1922-1923, just issued,* is a document of the utmost importance, and though primarily a scientific contribution, is yet of extraordinary interest to a much larger section of the community than that engaged in research work, for the result of that work is of supreme importance to the public at large.

The Council, though not directly associated with the Ministry of Health, is brought into close relation with it through the work of Dr. A. S. MacNalty, Secretary, by permission of the Ministry, to a group of sub-committees dealing with tuberculosis, including bacteriological questions. Its work has been made possible by a grant in aid of £130,000 provided by Parliament for its expenditure for the financial year, including the cost of the work of the Industrial Fatigue Research Board, and the grants formerly made to the Board of Control (England and Wales) for the promotion of researches into mental disorders, and to the General Board of Control for Scotland for pathological inquiries of a routine kind.

The Council point out that they have employed by far the greater part of the public money entrusted to their disposal in supporting research work done at the Universities and at other suitable centres, and thereby an incalculably greater result has been attained than by the independent use of the same money.

THE SCOPE OF THE COUNCIL'S WORK.

The work falls within two groups, not sharply distinct. On the one hand are studies which have obvious importance as pieces of medical research directly applied to the better maintenance of health, or the better treatment of disease.

On the other hand is work, of which the nature and purpose cannot so easily be appreciated, or, indeed, hardly understood by laymen not equipped with technical knowledge, and the bearing of which, even when explained, must often be largely taken on trust.

In the former group of inquiries the present task of the Council is easy. Everyone, it is pointed out, can see, for instance, the immediate value of work to extend our knowledge of the factors in diet called "vitamins," now that the close relation of these to growth and to health have been revealed; or, again, that of work for the improvement and better production of remedies in such varied kinds, for instance, as diphtheria antitoxin, or salvarsan, or insulin, of which the benefits are known. It is easy to get general approval for direct experimental study of particular diseases, in the hope of gaining means of cure or prevention. All, again, can see the importance of finding the best physiological conditions for bodily labour of different kinds, or of studying the actions of light upon the body, the interplay of sunshine and nutritive factors in healthy growth—and can readily understand the importance of work of this kind and its results for an industrial population in a northern climate and too often under a pall of smoke.

But the public do not realise easily either the volume or the value of the highly elaborate, patient, and unadvertised work which is being done in apparently academic directions.

INSULIN.

Perhaps the most conspicuous medical event of the past year has been that the public have suddenly become aware that a substance named insulin has been introduced to use, or, as is commonly said, "discovered," and that daily miracles are being achieved by its means. Men, the Report states, declining quickly or slowly through stages of weakness and pain to early death, have been brought within

a few days back to working power; sufferers carried to hospital actually dying of diabetes, already helpless and unconscious, have been resuscitated as by some magic, and have been brought back almost at once to normal life by help of this remedy. This boon appears as a sudden gift; diabetic men, women and children, in these recent months, have been granted alleviation which has been denied to all their suffering predecessors during all recorded time.

The Report emphasises the point that this new boon conferred on mankind, first by the extraction and next by the successful and regular production of insulin, is not due to any sudden "discovery" by any one exceptional man, but is the end point of a long series of scientific steps, each of which was as truly a "discovery," and each of which was accomplished by men exceptionally gifted.

The lesson to be learnt is that before the practical fruit of research work in the shape of new powers of control of health and disease can be expected, the tree providing it, which is the growing body of knowledge, must have been planted and tended and must have reached proper development. When, and at what point, the fruit is to be gathered, can rarely, if ever, be foretold; but if it is to be obtained it can only be through steady cultivation of the growth from which it springs.

SUPERVISION OF INFANTS.

A useful piece of work is now being done by the St. Andrew's Institute of Clinical Research. Under the scheme of work supported by the Council records are now being obtained of about 75 per cent. of infants born in St. Andrew's. Most of them are seen at the Child Welfare Centre within three weeks of birth. Notes of heredity and surroundings, and of the condition at birth, are obtained with the assistance of doctors and nurses, and the children continue to be seen at the Centre till they reach the age of two years. They are brought regularly for inspection, however healthy they may be. Every effort is being made to keep these children under observation during the interval before school life begins.

FACTORS CONTRIBUTING TO DEAD BIRTHS, PREMATURE BIRTHS, AND NEO-NATAL DEATH.

Pathological work at different centres is being continued in the above directions, and recently Dr. F. J. Browne, of the Royal Infirmary, Edinburgh, has undertaken an experimental investigation of the paths of intra-natal infection, and Dr. O. L. V. de Wesselow is making chemical investigations into the toxæmias of pregnancy at St. Thomas' Hospital.

MENTAL DISORDERS.

Psychological investigations are being made at the University of Cambridge into mental defects in children, and Sir Frederick Mott is investigating at the Hollymore Mental Hospital, Birmingham, in a research department, established by the joint action of the University and the civic authorities, of the chemical changes of the body in cases of epilepsy and dementia præcox.

DEFICIENCY DISEASES.

The study of Deficiency Diseases, and more particularly of the ætiology of rickets, in Central Europe by Dr. Harriette Chick and other medical women, has drawn forth the following comment from Professor Pirquet, of Vienna:—

"The crucial experiment was successfully made. The British workers succeeded with the accuracy of a laboratory experiment, in a city where rickets is extremely prevalent, in maintaining a large number of artificially fed babies free from the disease, and further, in the same wards, were invariably successful in healing children admitted with rickets already developed."

"With this the chain of evidence appears to me to be complete that animal experiments upon rickets are applicable to man, that rickets is a disease of nutrition, and that deficiency of fat-soluble vitamins in diet is an essential cause of the disease."

* Committee of the Privy Council for Medical Research. H. M. Stationery Office. 3s. 6d.

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