

ADV. 8.9.28
TRAINED SCIENCE WORKERS.

DEMAND GREATER THAN SUPPLY.

The demand that has arisen since the war for trained men capable of research is due to the recognition that industries, both primary and secondary, need the assistance of science to solve problems that have been keeping them back. The need for enlisting science in this cause was emphasised by the war, and even before peace came one of the acts of Mr. Hughes in 1916 was to establish a bureau, which has now become the Council for Scientific and Industrial Research.

It is one thing to recognise that science is an indispensable factor in industry, no less important than capital and labor; it is another to provide trained research workers to fill a demand so sudden. Such men cannot be got at a moment's notice. Both temperament and long training must be allied to intelligence before a student is fit to take up work which involves knowledge, patience, accuracy, and a large degree of self-sacrifice. For the victories of science are in general such as gain no public acclaim and very seldom material reward. Research, then, often involves the sacrifice of a brilliant success in a career of applied science, and men capable of this degree of abnegation are rare. To indicate the difficulty that lies in the lack of trained workers, it is only necessary to cite the case of the council drawn from the Pastoralists' Association and the Woolbrokers' Association, pledged to initiate research into the problems of the wool industry. Their trouble has been, not to raise the money, but to obtain suitable men to carry on the vitally important investigations involved.

There is, however, in existence a fund created by the Commonwealth Parliament in 1926 by the Science and Industry Endowment Act. It amounts to £100,000, and the interest on this sum is used for two purposes. The first is for assisting persons engaged in scientific work already; the second is to train students with this object. The trustee of this fund have an income of about £5,000 a year to distribute for the purposes named in the Act. Sir Frank Heath, who visited Australia in 1925, drew attention to the lack of scientific workers. He predicted that this would be the chief obstacle in the way of investigations which are the objectives of the Council of Scientific and Industrial Research. What he said then has been borne out by events.

The trustees intend for the present to devote about four-fifths of the income at their disposal to training research workers. For this purpose they have initiated a system of research studentships, which will be prizes for distinguished honors graduates of Australian Universities or Technical Colleges, whose scholastic careers have indicated their suitability for research. While in general these men are sent abroad, there is no bar against Australian Universities as fields of training. About ten students a year will be given this opportunity. These give the council an option on their services for three years subsequent to their return to the Commonwealth at salaries of not less than £400, £450, and £500 for the three years respectively. Eight investigators have already been appointed to full studentships, and their services thus secured for a term in the cause of Australian industry.

In addition to this assistance, the remaining one-fifth of the income, namely, £1,000, is devoted to helping existing field or laboratory work. It is not a great amount, and private benefactors would deserve well of their country if they took part in a work so fraught with important results to their country. Already several most interesting and valuable investigations are under way with the assistance of these workers, subsidised by the council. No existing institutions, such as Universities, one of whose primary functions is research, can participate in these grants. Neither is the fund available for augmenting technical plant or equipment of a laboratory, which should have such as its ordinary concomitants. It is used solely for proved workers, in order to enable them to devote to specific research time which would otherwise have to be given to paid work in the course of the ordinary struggle to live.

REG. 10.9.28
ALSO ADV.
CANCER RESEARCH.

Committee Enlarged.

At the last meeting of the general committee for cancer treatment and research, invitations to become members were extended to Professors A. Killen MacBeth and H. H. Woollard, Drs. G. A. Lendon, H. A. McCoy, and H. C. Nott, Col. Dollman, and Messrs. J. E. Davidson and C. E. Wyld. The general committee and various subcommittees are now constituted as follows:—

General Committee.—President, the Chancellor (Sir George Murray); chairman, Dr. A. A. Lendon; the Vice-Chancellor (Professor Mitchell), the Lord Mayor (Mr. J. L. Bonython), the registrar (Mr. F. W. Eardley), Sir Henry Newland, the Inspector-General of Hospitals (Dr. B. H. Morris), the medical superintendent of the Adelaide Hospital (Dr. J. C. Sleeman), the director of the laboratory, Adelaide Hospital (Dr. L. B. Bull), the president of the B.M.A. (Dr. John Corbin), Professors J. B. Cleland, Kerr Grant, C. S. Hicks, A. Killen MacBeth, T. Brailsford Robertson, and H. H. Woollard, Drs. A. M. Cudmore, C. T. C. de Crespigny, F. S. Hone, F. R. Hone, G. A. Lendon, H. A. McCoy, Helen Mayo, H. C. Nott, W. Ray, B. H. Swift, H. Swift, J. Stanley Verco, and T. G. Wilson, Col. Dollman, Messrs. H. W. Crompton, C. R. J. Glover, J. E. Davidson, R. T. Melrose, C. E. Wyld, and W. J. Young.

Finance and Organization Committee.—The Chancellor, the Vice-Chancellor, the registrar, the chairman, Drs. F. S. Hone, B. H. Morris, W. Ray, Col. Dollman, Messrs. F. W. Crompton, J. E. Davidson, C. R. J. Glover, R. T. Melrose, C. E. Wyld, and W. J. Young.

Treatment and Research Committee.—The chairman, the registrar, Sir Henry Newland, Professors J. B. Cleland, Kerr Grant, C. S. Hicks, A. Killen MacBeth, T. Brailsford Robertson, H. H. Woollard, Drs. L. B. Bull, John Corbin, A. M. Cudmore, C. T. C. de Crespigny, F. S. Hone, F. R. Hone, G. A. Lendon, H. A. McCoy, B. H. Morris, Helen Mayo, H. C. Nott, W. Ray, B. H. Swift, H. Swift, J. G. Sleeman, J. Stanley Verco, and T. G. Wilson.

Education and Publicity Committee.—The chairman, the registrar, Sir Henry Newland, Drs. C. T. C. de Crespigny, F. S. Hone, Helen Mayo, B. H. Morris, Stanley Verco, T. G. Wilson, Col. Dollman, Messrs. J. E. Davidson and C. E. Wyld.

Prof. R. S. Conway, member of the Faculty of Victoria University, Manchester, and one of the eminent classical scholars of the Empire, will arrive by the Melbourne express tomorrow from Tasmania. He is on a lecture tour of Australia and New Zealand, and will speak at the University of Adelaide on Wednesday and Friday evenings. His first subject will be "The Master Mind of Rome," and his latter, "The Place of Classical Study in the Modern World." While in Adelaide Prof. Conway will be the guest of Sir George Murray (Chancellor of the University). He will return to Melbourne, where he will deliver a series of four lectures under the auspices of the Classical Association, which is affiliated with the University of Melbourne. The council of the University of Adelaide has invited Prof. Conway to address the students on Thursday afternoon at 4 o'clock.

NEWS 10.9.28

REG. 11.9.28

THE ANTARCTIC.

ANOTHER EXPEDITION.

SIR D. MAWSON'S PLANS.

Sir Douglas Mawson is anxious to secure the ship Discovery for a further expedition to the Antarctic. He will probably approach the Federal Government on his return to Australia at the end of the month.

A cable message was received in Melbourne on Friday stating that Sir Douglas hoped to arrange an expedition from Australia in Scott's old ship. The vessel belongs to the British Government, and it has been stationed for some years in the Falkland Islands, where research work is being carried out. Much scientific work has been done aboard her, particularly in connection with the whaling and fishing industry. However, the work was stopped some time ago, and it was because of that that Sir Douglas was anxious to secure the ship for a further voyage to the south polar regions.

Discussing the subject on Monday, Mr. C. T. Madigan, who was a member of Mawson's expedition to the south in 1911, and now is lecturer in geology at the Adelaide University, said he understood that Sir Douglas wanted the British Government to present the Discovery to Australia. However, the Home authorities were not willing to do that. It seemed now that there was an offer to hire the vessel to the Commonwealth Government. That meant, of course, that money would have to be raised. The

position at present was that Sir Douglas was negotiating with the Commonwealth Government for financial assistance to secure the use of the vessel.

Mr. Madigan added that he believed the nature of the negotiations was the reason for Sir Douglas's delay in London. The fitting out of an oceanographic expedition entailed much work, especially the preparation of a vessel; and when it was realized that at present the Discovery, which was thoroughly suited for such an expedition, was virtually "doing nothing," some effort should be made to secure it. Good work had been, and was being, done by the Norwegians on the other side of the Antarctic, and it was for Australia to do something at this juncture. The Norwegians were most active in the fishing industry at Bouvet Island.

Mr. Madigan said he did not know whether Sir Douglas proposed to go to the South Pole himself. As far as he understood the situation, the arrangements were quite on a general plane, and nothing had been done as regards personnel. He personally considered that the proposal to secure the ship was an excellent one, and every effort should be made to raise the money.

The Discovery.

The Discovery was built for Capt. R. F. Scott, who set out for the South Pole in 1901. It is a wooden ship of 700 tons register (1,700 tons displacement). Some idea of the complexity of the construction of the ship may be gained from the fact that the inner lining is of Riga fir, the frames of English oak, the inner skin, according to its position, of pitch pine, Honduras mahogany, or oak, while the outer skin is of English elm or greenheart. The stern and bow are specially constructed to withstand severe buffeting in ice regions.

In his book "The Voyage of the Discovery" Capt. Scott wrote:—"The enthusiasm of the magnetic experts on the ship committee had at first led them to request that there should be no iron or steel at all in the Discovery, and when it was pointed out that this could scarcely be, they demanded the exclusion of the metals from the vicinity of the magnetic observatory. At last a compromise was arrived which stipulated that no magnetic materials should be employed within 30 feet of the observatory."

ADV. 11.9.28

AUSTRALIA'S DEBT TO SCIENCE.

UNIVERSITIES CO-OPERATE WITH SCIENCE COUNCIL.

The Council for Science and Industrial Research was brought into existence to act as a clearing-house of research ideas and a stimulator of scientific work generally. It was not intended to take the place of any organizations already in existence, but to help such with counsel and money, to bring co-operation to a fine art, and to work as an ally with the institutions pursuing similar aims.

In South Australia important work is progressing, fraught with great moment to Australia. Three main lines of enquiry are being pursued, with the help of three University professors. Professor T. G. B. Osborn, one of these professors, is now in New South Wales, but his assistance to the council in plant problems was of great value. Professor J. A. Prescott advised on soil problems, and Professor A. E. V. Richardson on agricultural questions in general.

The Waite Agricultural Research Institute is an integral part of the University of Adelaide, and this institute was a party to the agreement which was drawn up between University and council. The council has supplied an officer who, in the institute's laboratories, is carrying on investigations on virus diseases, soil-borne fungus diseases, and other diseases of plants. As it is better to concentrate on a specific disease, rather than dissipate energies over a wide, vague area, tomato wilt has been selected for closer investigation. It will be obvious how important an advance will be made with the determination of the cause and a discovery of the cure of this destructive disease.

Soil studies, plus a soil survey, are also under way by council officers, under Professor Prescott.

The council has divided its activities in the solution of Australian problems into certain major lines of enquiry.

One of these is that of animal nutrition, of far-reaching importance to the whole Commonwealth. This investigation has its home at the Adelaide University. The University has provided the site. Professor T. Brailsford Robertson and his trained assistants have joined the council's forces, with the consent of the University. The council is erecting the laboratories, supplying the equipment, and paying salaries and running expenses. The important work going on in this corner of the Commonwealth may in time constitute a romance of science. From it will emanate knowledge that may be worth millions of money to future Australian stock-owners. Yet few know of its existence.

Another activity that has its centre at the Waite Agricultural Institute is an extensive investigation of the mineral deficiencies of Australian pastures. Co-operating in this work is the Empire Marketing Board, an index of its importance.

Related to that line of enquiry is an investigation into the regeneration of eaten-out areas with native vegetation. The council and the University are co-operating in this work, under the direction of Professor Osborn, now of the Botany School of the Sydney University.

Quite apart from this sort of co-operation, but valuable, none the less, is the policy of the council in making grants to individual research workers. Thus, at Adelaide University, Mr. J. G. Wood is working on plant pathology research, Dr. S. W. Pennycuik on chemical research, Mr. H. R. Marston on bio-chemical research, and a part-time lady doctor has been making a sheep thyroid survey, under the direction of Professor Hicks.

It will be seen, from this rather formidable list of investigations, that South Australia is particularly active, under the council's direction, in applying itself to making Australian pastoral industries less liable to disorders from pests and disease.

ADV. 11.9.28

BUSINESS STABILITY.

ECONOMIC SOCIETY DISCUSSION.

There was a large attendance at the meeting of the Economic Society, which was held at the Prince of Wales theatre, Adelaide University, on Monday evening. Invitations had been issued to pastoral, agricultural, manufacturing, commercial, and trade union interests, and to students of economics. The president (Dr. Jethro Brown) was in the chair. He introduced Mr. H. G. Oliphant.

Mr. Oliphant gave a resume of the report of the Migration and Development Commission, which was published recently. He indicated the methods of securing information which the Commission had adopted, the ground it had covered, and the recommendations it had made. The report was interesting and informative. If it added little to their knowledge of conditions in the business world, and offered no solution of their difficulties with regard to unemployment, it opened their eyes to the fact that they were poorly equipped for facing the problems which confronted them. The Commission had taken a survey of the field, and at every turn found itself balked because of the lack of reliable statistical information which was necessary to any preliminary understanding of the conditions which it encountered. It, therefore, could do no more than indicate the steps to be taken to secure the missing facts. Bearing this in mind they would see that the Commission's conclusion were sound and helpful. It was to be hoped that the authorities would take steps to carry out the practical suggestions made. (Applause.)

The annual meeting of the Economic Society was held prior to the lecture. Mr. S. Russell Booth presided.

The annual report, which was presented by the secretary (Mr. A. L. G. MacKay), stated that when the branch was established its aim was to enlighten public opinion upon the State's outstanding problems. Beginning in 1925 with an exposition of what might be termed a sound loan policy, the society had steadily pursued its aim of explaining the condition of each industry in the State, indicating where weaknesses could be found and suggesting lines of improvement. During the current year particular attention had been paid to instalment finance, the dairying industry, piecemeal, and the necessity for research and some sound business principles in primary industry. In all cases the exposition of those subject matters had been done by the ablest expert in the State as far as it was possible to secure the services of such expert, and the discussions had been conducted in the presence not only of members of the society, but also in the presence of invited guests who, in the opinion of the society, would be most likely to be affected by the changes suggested by those lecturing under the society's auspices. At no time had the society failed to examine to most controversial of pressing problems. Membership remained almost unaltered. Arrangements had been made for publishing and distributing lectures. The resignation of the secretary (Mr. A. G. L. MacKay) had been accepted. Mr. E. F. Hamilton was a likely successor to the position.