- <sup>1</sup> Dix, A., and Scott Blair, G. W., J. App. Phys., **11**, 574 (1940). <sup>2</sup> Einstein, A., Ann. Physik, (4), **19**, 289 (1906); Kolloid Z., **27**, 137 (1920).
- \* Eirich, F., Bunzl, M., and Margaretha, H., Kolloid Z., 74, 276 (1936).
- Vand, V., J. Phys. Colloid. Chem., 52, 277, 300 (1948).
- <sup>5</sup> Eilers, H., Kolloid Z., 97, 313 (1941).
  <sup>6</sup> Philipof, W., and Hess, K., Z. phys. Chem., 31, 237 (1935).
- <sup>7</sup> Arrhenius, S., Z. phys. Chem., 1, 285 (1887). <sup>8</sup> Burgers, J. M., Proc. Ned. Akad. Wet., 44, 1045, 1184 (1941); 45, 16 (1942).
- <sup>9</sup> Whittaker, S. R. F., and Winton, F. R., J. Physiol., 78, 344 (1933). 10 Whittington, R. B., Proc. Roy. Soc., B, 131, 183 (1942).

## 126 NATIONAL INSTITUTE OF INDUSTRIAL PSYCHOLOGY

THE annual conference of the National Institute of Industrial Psychology was held at Buxton during April 29-May 2, and took as its theme the job and its day-to-day reality. This theme was set in a wife framework by Sir George Schuster, chairman of the Human Factor's Panel of the Committee on HE annual conference of the National Institute Industrial Productivity, who opened the conference by stating that the job is the essential basis of the good and satisfactory life, and that we could do little unless our attitude was based on a belief that life had purpose and meaning.

Concentrating on the two questions : (1) Could the industrial task be accepted as a satisfactory part of human life ?; (2) How could modern industrial employment be made a free activity ?, Sir George stated that too many sweeping generalizations had been made in answer and there was urgent need to study the job, how it affected different people, how it could be designed to fit the individual worker and how monotony and drudgery could be relieved. Where work could not be made satisfying of itself, attempts should be made to ensure satisfaction in its other aspects. The most important task to-day was to seek out and remove the obstructive influences in industry that checked the will to work.

Taking the chair at the second session, the president of the Institute, Lord Piercy, explained that the Conference would be addressed in turn by three manual workers from the steel, cotton and coalmining industries. Each speaker gave a detailed account of his job as a furnaceman, weaver or miner, and Prof. Rex Knight then related these three descriptions to the work of the industrial psychologist. There appeared to be four main points at which the findings and methods of the industrial psychologist had a bearing on their work. With better selection, labour turnover and training wastage would be reduced, while whether a boy was going to be a smelter, a weaver or a miner, effective training methods should be introduced. Working conditions should be made as comfortable as possible, and attention to the improvement of personal relations had been promoted by the industrial psychologists through attitudesurveys, grievance-interviews, recommendation-forms and other techniques.

At the next session, the three manual workers were re-introduced by Sir Ronald Adam, chairman of the Institute, who stated that the three speakers would describe the satisfactions they obtained from their work. Their accounts were related to those of other industrial workers by Charles Madge, social development officer to the Stevenage Development Corpora-

tion. While the three speakers might derive considerable satisfaction from their work, it was questionable whether the majority of workers had comparable satisfactions. Quoting the results obtained from a survey which he had directed at three large factories, Mr. Madge declared that three out of every four workers were generally satisfied with their jobs. There was a difference between the satisfactions described by skilled and unskilled men; skilled men liked the variety of their work, the pay and the responsibility; the unskilled liked easy work and good conditions. Many surveys showed that only between one-tenth and one-fifth of workers were interested in the trade unions, works councils, clubs and evening classes. The 'feel' of the work was also important and was a primitive and instinctive satisfaction which obtained in pre-industrial eras and had been carried over into the 'heavy' industries, the earliest to be developed. These old heavy industries contrasted strongly with the modern 'light' industries, in which little of this 'feel' was needed and which led to a certain degree of dissatisfaction in the worker.

The closing address was given by Mr. E. P. Harries, the T.U.C. member of the Human Factors Panel of the Committee on Industrial Productivity, who declared that social justice and individual satisfaction could only be achieved through the unity of free men. Confidence was badly needed in industry to provide an atmosphere of spiritual development in which all would obtain lasting satisfaction in their work.

T. H. HAWKINS

## FIFTH BRITISH EMPIRE FORESTRY **CONFERENCE**

THE First Entish Forestry Conference was held in Londow in 1920; it practically heralded the new Foregry Commission which had been set up under the 1919 Parliament Forestry Bill and placed it in the saddle under the presidency of that very able and keen landowner, the late Lord Lovat. One of the not least important subjects under consider-ation at the first meeting was forestry education, and it is interesting to contrast the position held by it is interesting to contrast the position held by forest education in the Empire at that date with that of to-day. One of the outcomes of this first Conference was the inauguration of the Imperial Forestry Institute at Oxford four years later.

The Fifth Conference was conducted in London at Church House, Westminster, on June 15, 1947 (London: H.M. Stationery Office, 1948. 10s.); the Ministers of State for Agriculture and for Scotland, Mr. Tom Williams and Mr. Joseph Westwood, opened the proceedings, and were supported by other Cabinet Ministers and by Forestry Commissioners. The two Secretaries of State were elected presidents, Lord Robinson chairman, with Mr. D. R. Cameron (Canada), Mr. A. P. F. Hamilton (India) and Dr. F. Y. Henderson as vice-chairmen. The delegates and associate delegates came from all over the Empire and included one guest from the United States and two from the Forestry Branch of the Food and Agriculture Organisation of the United Nations.

Excursions were made to certain of the areas afforested by the Forestry Commission since they started operations in 1920, both in England and Scotland, and some privately owned woods were included in the tour. Factories connected with wood utilization were also visited, including the Forest Products Research Laboratory, Princes Risborough.

Thirty-six forest authorities presented statements on Empire forests and the War. These were not merely of interest, but were particularly valuable as a record on such matters as : the areas of land under forest; total volume of standing timber and of increment; output of home-grown wood; imports and exports for pre-war years and for each war year ; the effect of war-time exploitation on forest capital and future increment (the latter more or less guesswork in most cases); and, lastly, the lessons to be learned from war-time experience - especially the often quite unnecessary and unjustifiable war-time extravagance. The data acquired have been analysed and summarized by the Central Statistical Office and printed as a publication entitled "Empire Forests and the War. A Digest of Statistics prepared by the Fifth British Empire Forestry Conference" (H.M. Stationery Office).

The subject of land-use came under the consideration of one of the sections of the Conference. In the Fourth Conference held in South Africa in 1935, under resolution No. 2 the Governments of the Empire were urged to maintain under vegetative cover catchment areas and other lands particularly liable to desiccation and erosion. This matter had first received public world-attention at the World Forestry Congress held in Rome in 1926 and was again brought up at the Second World Forestry Congress in Budapest in 1936. Those who have been studying this problem for many years know how little has been done as a result of the resolutions put forward on the subject at these Congresses.

One step, however, inaugurated in the United States, has made a start on promising lines, and that is the appointment of Soil Conservation Committees; several similar bodies are also now working in several British Colonies and some of the Dominions. But this commencement, so far as it has gone, has been more or less confined to agriculture and its improvement in various ways; the real root of the matter, which rests in the maintenance of the forests of certain definite parts of the catchment areas of the world in the interests of agriculture, has not yet been really touched upon.

## 36

## COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANISATION, AUSTRALIA

R EFERENCE ras made in Nature of April 30, p. 671, to Inpending changes in the conduct of Government research in Australia. As from May 19, 1949, the Australian Council for Scientific and Industrial Research will be known as the Commonwealth Scientific and Industrial Research Organisation. This announcement, was made on behalf of the Australian Government by the Hon. J. J. Dedman, Minister in Charge, who also announced the following appointments to the Executive of the Organisation : the chairman will be Dr. Ian Clunies Ross ; the chief executive officer, Dr. F. W. G. White. Both were previously members of the Executive of the Commonwealth Council for Scientific and Industrial Research. They succeed Sir David Rivett and Dr. A. E. V. Richardson respectively. The new appointments will be for seven years. The third full-time executive of the Division of Tribophysics, whose appointment will

be for five years. The fourth member will be Mr. D. A. Mountjoy, whose three-year term expires next November. Mr. H. J. Goodes, assistant secretary, Commonwealth Treasury, has been appointed for three years to the fifth seat on the Executive.

Mr. Dedman said that he looked forward with confidence to the new Organisation continuing unbroken the long and honourable record of service which the Council had given to the Commonwealth. While the recent rapid expansion and widespread ramifications of the Council's work had led the Government to bring into being a new form of organisation more suited to present-day needs and responsibility, every care had been taken to preserve that freedom and initiative so essential for effective scientific work. All rights and privileges of officers of the old body would be safeguarded in the new, and Mr. Dedman said he had no doubt that the staff would find unimpaired the conditions of service and the high traditions built up over the past two decades.

Mr. Dedman paid a warm tribute to all those members of the former Council and its State committees whose disinterested service from its inception had contributed in marked degree to the success which had rewarded the Council's work. He had greatly appreciated the free and generous offer of the members of the Council to serve on the Advisory Council of the new Organisation, and, in the expectation that members of the State Committees would display a similar willingness, he would shortly extend an invitation, on behalf of the Government, to all of them to do so. It was particularly pleasing to him personally and to the Government that Sir David Rivett, while laying down the cares of his present office as chairman of the Council, had consented to act as chairman of the new Advisory Council. On behalf of the Prime Minister and the Government of the Commonwealth, Mr. Dedman wished to place on record the substantial debt owed to Sir David Rivett and Dr. A. E. V. Richardson.

Sir David, as chief executive officer of the Council for Scientific and Industrial Research for just on twenty years and more recently as chairman, had become identified not only with the Council which, with its successor body, would always stand as a monument to his untiring care and wise direction, but also with Australian science in general. Sir David had seen the Council grow from small and uncertain beginnings to a great organisation of truly national proportions with an international reputation. On his retirement, Sir David would have the satisfaction of knowing that he carried with him the affection of his thousands of colleagues and the esteem of the whole community.

Dr. Richardson, first as member of the Executive committee of the Council, and later as deputy chief executive officer, and finally as chief executive officer, had brought to the Council an unrivalled knowledge of the problems of Australian agriculture, and a wide experience and sound judgment which had influenced all the Council's activities. He had played a major part in the development of the Council's work in the plant and animal industries than which none had yielded results of greater value to the Commonwealth. As dean of the Faculty of Agriculture in the University of Melbourne, as first director and creator of the Waite Institute in South Australia, and as chief executive officer of the Council for Scientific and Industrial Research, Dr. Richardson's name would always be associated with the development of Australian agricultural science.