

concept of "arthritis," to the individual and the way he reacts, on account possibly of a specific constitution or diathesis, to a variety of extraneous factors, such as infection, metabolic disturbance, and so on, to produce the clinical picture of rheumatoid arthritis. This aspect was emphasized frequently in contradistinction to a specific infection or metabolic upset being the specific cause of the clinical pictures presented by this disease.

#### CLINICAL AND PATHOLOGICAL ASPECTS

The second session opened with a paper by Dr. Francis Bach (London) on the anatomy and the physiology of the skeletal system, and the pathological changes that occur in the early stages of rheumatoid arthritis. The importance of the general decalcification of bone, as one of the earliest signs of this disease, was emphasized by Dr. S. Gilbert Scott (London), who followed with an interesting paper on the radiographic aspect of rheumatoid arthritis. The bone changes that may be present in the various stages of the disease were described, and an illustration was given of the value of the standardized radiograph of the hand as an aid to the early diagnosis of rheumatoid arthritis, and its differential diagnosis from osteoarthritis, gout, and other conditions. Professor Abrami (Paris) gave an able word picture of the different clinical forms in which the disease may manifest itself, and Professor Marañon (Madrid) read a carefully prepared paper on the differential diagnosis of rheumatoid arthritis. Drs. R. J. Weissenbach (Paris) and F. Françon (Aix-les-Bains) discussed the importance of taking, in conjunction with the clinical picture, the laboratory and the radiographic evidence and the response to treatment in making a prognosis in the individual case. A paper on sulphur metabolism in rheumatoid arthritis was communicated by Dr. A. R. Neligan and Mr. H. B. Salt, M.Sc., from the laboratory of the Royal Brine Baths Clinic, Droitwich. The session concluded with a paper by Professor Kahlmeter (Stockholm) on the changes in the blood which may be found in this disease.

#### DISCUSSION ON TREATMENT

The third session was devoted to a discussion on treatment. Among the papers was one read by Sir William Willcox, who discussed the part that infection, and in particular "focal" infection, plays in the genesis of this disease. He outlined the technique of its treatment by vaccine therapy. Professor Rathery (Paris) described the methods of drug treatment and chemotherapy that have been recognized to be of value. Professor Gunzburg (Brussels) described the indications for, and the methods of, physiotherapy that may be applied. Professor Paul Mathieu, professor of clinical surgery in Paris, and Dr. Loring T. Swaim of Boston described the orthopaedic treatment of rheumatoid arthritis. A provocative paper was read by Professor Leriche (Strasbourg) on the role of surgery in this disease. He described bone and joint pathology, and the role of the parathyroid gland in the regulation of calcium metabolism. He stressed the value of parathyroidectomy in the treatment of this disease, and discussed the indications for arterial sympathectomy and arthroplasty. A film showing aspects of the orthopaedic treatment of rheumatoid arthritis was demonstrated by Dr. Vincent Coates (Bath).

Most of the papers read at the meeting were collected and published beforehand.<sup>1</sup> The secretaries, Dr. Mathieu-Pierre Weil of Paris and Drs. F. Françon and J. Forestier of Aix-les-Bains, had arranged the scientific part of the congress with great care. The subject for discussion had been well defined, and excellent opportunities were given for the consideration of its pathological, aetiological, and clinical aspects. The new thermal baths were open for inspection, and the various methods of physical treatment for which Aix-les-Bains has long been famous were shown to the delegates.

<sup>1</sup> Rapports: Rhumatisme chronique progressif généralisé. Aix-les-Bains, 1934. Imprimeries Réunies de Chambéry, 3, Rue Lamartine, Aix-les-Bains.

## BEIT MEMORIAL TRUST FOR MEDICAL RESEARCH

A meeting of the trustees of the Beit Memorial Fellowships for Medical Research was held on July 12th for the election of Fellows and other business. The annual report, which was adopted by the trustees, expressed deep regret at the death, on July 3rd, at the age of 82, of their senior colleague, Sir James Kingston Fowler. For twenty-one years, in his double capacity of trustee and honorary secretary, Sir James had given devoted service to the welfare of the Trust, and when enfeebled health made it necessary for him to relinquish the secretarial duties he still watched closely, as trustee, the progress of the work, which owed so much of its success and even of its existence to his creative powers. When Dean of the Faculty of Medicine in the University of London Sir James had been foremost among those who were planning for certain changes in the teaching of the preclinical subjects, and for this end he had won the practical sympathy of Mr. Alfred Beit. The plan was not realized, but Sir Otto Beit, on the death of his brother, generously decided to give the money that the latter had intended for the plan, together with a great addition to the sum on his own part, for a new purpose—the establishment of Beit Memorial Fellowships. The Trust was created in 1909, and every step of its formation and growth was nursed by Sir James with a wisdom that rested on his knowledge of practical affairs, and yet never lacked the vision that was content to wait for results provided that Fellows of high scientific abilities were chosen. His eager care in fostering the aims of the Trust rivalled that of the founder himself—Sir Otto Beit—during the twenty years in which the latter lived to preside as chairman of the trustees; and to both of them (now dead) all gratitude is due for such personal service.

Fellowships throughout the year 1933-4 were held by twenty-four workers. Among the distinctions gained by past and present Fellows during the year may be especially noted the appointment of Professor E. Mellanby, F.R.S. (1910-12), as secretary of the Medical Research Council. Dr. H. Cohen (1924-5) has been appointed Professor of medicine in the University of Liverpool. Dr. Helen Mackay (1920-2) was elected to the Fellowship of the Royal College of Physicians, London, being the first woman to be thus honoured. Dr. Dorothy Russell (1923-6) gained the Hunter Medal and Triennial Prize of the Royal College of Surgeons, London; and Dr. Janet Vaughan (1931-4) received the Triennial Liddle Prize of the London Hospital. Dr. Maurice Stacey (1933-) earned an unusual distinction as first-year Fellow in being awarded the Meldola Prize of the Institute of Chemistry.

#### ELECTION OF NEW FELLOWS

The following elections to Fellowships were made by the trustees:

*Fourth-year Fellowships* (value £500 per annum).—Robert Hill, M.A.Camb. To continue his research on the properties of haemoglobin and cytochrome. (Dunn Institute of Biochemistry and Molteno Institute, University of Cambridge.) Leonard Hubert Stickland, M.A., Ph.D.Camb. To continue his work on the metabolism of the strictly anaerobic bacteria of the genus *Clostridium*. (Dunn Institute of Biochemistry, University of Cambridge.)

*Junior Fellowships* (value £400 per annum).—Solly Zuckerman, M.A.Capetown, D.Sc.Lond., M.R.C.S., L.R.C.P. Proposed research: Experimental study in animals of the neurovascular control of reproductive functions. (Department of Human Anatomy, University of Oxford.) Harold Williams Fullerton, M.A., M.B., Ch.B.Aberd. Proposed research: The aetiology and treatment of hypochromic anaemia of women of the poor classes. (Department of Medicine, University of Aberdeen, and the Rowett Research Institute, Aberdeen.) Emanuel Mannie Lourie, M.B., B.S.Lond., D.P.H., D.T.M. and H. Proposed research: Studies on chemotherapy in protozoal disease. (Liverpool School of Tropical Medicine.) Joseph Stanley Mitchell, B.A., M.B., B.Ch.Camb. Proposed research: The effects of radiation on thin protein films.

(Laboratory of Colloid Sciences, University of Cambridge.) David Ezra Green, M.S. New York, Ph.D. Camb. Proposed research: The effect of hormones and vitamins upon the metabolism of individual organs. (Institute of Biochemistry, University of Cambridge.) Gordon Allison Grant, M.Sc. Dalhousie, Ph.D. Toronto. Proposed research: The metabolism of galactose and the physiological synthesis of lactose by the active mammary gland. (Lister Institute of Preventive Medicine, London.) Stuart Lawson Cowan, B.Sc. Lond. Proposed research: To continue study of the chemical exchanges occurring in crustacean nerve, as a result of stimulation and oxygen want; to study the blood flow through the kidney during diuresis. (Pharmacology Laboratories, University of Cambridge.) Maurice Jowett, B.Sc., Ph.D. Liverp. Proposed research: Metabolism of the central nervous system with reference to the effects of narcotic and basic amines in cases of mental disorder. (Biochemical Laboratory, Cardiff City Mental Hospital.)

In considering candidates for election this year the trustees were influenced by a special desire to promote research in relation to mental disease.

All correspondence of Fellows and candidates should be addressed to Professor T. R. Elliott, M.D., F.R.S., honorary secretary, Beit Memorial Fellowships, University College Hospital Medical School, University Street, W.C.1.

## Union of South Africa

[FROM OUR CORRESPONDENT IN PRETORIA]

### Medical and Nursing Services in the Native Territories

The urgent health needs of the four million Bantus living in the native reserves of the Union are at last to be met by an organized scheme of relief. Six years ago a State commission inquired into the practicability of training Bantus in medicine, with a view to their serving their own people in the territories after qualification. It was then pointed out that there were areas where only one medical man was available to attend to the health needs of some 40,000 people. In such areas native herbalists and witch doctors flourished, and preventable mortality was excessive. That commission recommended that a full course of medical training for natives leading to a registrable qualification be instituted at one of the South African universities. This was considered by the Government of the day to be impracticable, and no action was taken in the matter.

#### Recommendations of Departmental Committee

Last year an interdepartmental committee was appointed by the Government to advise on methods for meeting the health needs of the Bantus, and during the 1934 Budget debate the Minister of Public Health announced that the Government proposed to carry out the recommendations made by that committee. The committee pointed out that the provision of a sufficient number of fully qualified native practitioners to meet the requirements of all the reserves was impracticable. Even if all financial obstacles could be overcome, the difficulty of providing the necessary training would still be insuperable. The number of suitable Bantu students who would be available for training would of necessity be very small for many years—too small to justify the establishment of a separate Bantu medical school. Parallel classes at the two existing European medical schools would also be unjustifiably expensive, in view of the relatively small number of students who could avail themselves of the course. Individual talented Bantus should not, however, be debarred from all prospect of qualifying as doctors, and the legitimate claims for higher education could not be ignored. Since facilities for their training in the Union could not be provided, although such were provided for

their fellow tax-paying European citizens, some State aid in the form of scholarships for proceeding over-seas was recommended. The inducements for European practitioners to settle in the reserves were too slight to attract more than a very few, apart from the State-aided district surgeons and the devoted men working in conjunction with missionary societies. With full facilities provided the number of Bantus who could qualify during the next few decades would also be much too small to meet the medical requirements of these people.

#### Medical Aids

Because of the urgent necessity of providing some medical relief, however, special training of suitable natives in a shortened course not leading to a medical qualification was recommended. The individual so trained is to be referred to as a "native medical aid." The course will, at all stages, differ from the corresponding stage of the medical curriculum. Apart from the elimination of study unnecessary to the future activities of the medical aid, it was considered important to meet possible opposition from the medical profession because of an "inferior" medical degree or diploma. The training will differ fundamentally from the medical curriculum in that it will not be concerned with principles on which the practitioner subsequently builds. The medical aid will be trained to do a limited number of duties very well. Thus he will be specially trained in first-aid treatment, and in the careful preparation of blood smears for malaria examination, of nasal smears for leprosy examination, and of sputum for tuberculosis examination. In such matters high technical skill will be required of him. He should be capable of dealing with most of the ordinary ailments and injuries, and know when to call to his aid a medical man. He will be in full-time Government employ, though he may be seconded to a local authority or other body concerned with health administration. Private practice will be precluded. Any fees due by patients for services rendered will be collected by the Government or local authority. He will be given a suitable house, considerably superior to the huts in the kraal where he will be stationed, and a dispensary and consulting room will be provided. The Minister stated that the proposals had been generally approved by the Federal Council of the South African Medical Association, and the Government had decided to accept the obligation of the conduct of a native health service. The institution of the scheme would necessarily be progressive, keeping pace with the training of the necessary personnel. It was contemplated that ultimately 200 native medical aids would be employed, at the cost to the State of approximately £70,000 per annum. The initial capital expenditure for residential and dispensary quarters would be about £100,000. Realizing the importance of the proposed health service, not only for the natives but for South Africa as a whole, the Government has readily accepted these commitments.

The Johannesburg Chamber of Mines had previously announced that it was prepared to make an appropriate donation towards some suitable scheme for Bantu welfare in the Union. On learning of the Government's decision it donated £75,000 for the medical training of natives, the disposal of this sum being left to the Government. The latter decided, with the Chamber's concurrence, to pay it to the South African Native College, the council of which is to be empowered to use not more than £5,000 for building purposes, and to invest the remainder as a permanent fund. As a result of the Chamber's generous action, coupled with the Government's decision, it has now become possible to proceed with one of the biggest forward steps in native welfare which have been taken for a very long time.