

No. 3929 SATURDAY, FEBRUARY 17, 1945 Vol. 155

CONTENTS

CONTENTS	Page
Science in the Foreign Service	187
Much About the Soybean. By Dr. E. F. Armstrong, F.R.S.	189
Singing Breeze. By Miss Margaret Howard	189
A South African Divine Ruler. By Rev. Edwin W. Smith	190
Application of Infra-Red Spectroscopy to Chemical Problems	191
Gordon College at Khartoum: University College Status. By E. N. Corbyn	193
The Peats of New Jersey. By Dr. V. J. Chapman . Obituary :	195
Sir Thomas Barlow, Bt., K.C.V.O., F.R.S. By E. C. M.	197
News and Views	197
Letters to the Editors :	
Electron Microscopic Investigation of Precipitates of Cellulose Nitrates.—Gunnar Hambraeus and Bengt Rånby	200
Action of Penicillin on the Rate of Fall in Numbers of Bacteria in vivo.—Squad. Leader Alexander B.	200
MacGregor and David A. Long Action of Notatin on the Rous No. I Sarcoma	201
Virus.—J. G. Carr	202
Michael Finkelstein Inhibition of Bone Calcification by Sulphonamides	202
-R. Benesch, M. R. A. Chance and L. E. Glynn Insecticidal Sprays and Flying InsectsW. A. L.	203
David A Third Factor for Resistance to Puccinia graminis	204
TriticiDr. I. A. Watson and W. L. Waterhouse	205
Nutrients in Wheat Endosperm.—Dr. T. Moran .	205
Sources of London HoneyDr. Ronald Melville .	206
Duration of the Larval Stage of Echinometra.—A. Khalaf El-Duweini	207
Preparation of Stable Colloidal Solutions of Car- cinogenic and other Water-Insoluble Com-	
pounds.—Dr. Jacob Feigenbaum	207
worth-Johnstone	207
Research Items	208
Biphasic Action of Penicillin and other Sulphonamide Similarity. By Surg. LieutComdr. W. Sloan Miller, R.N., Surg. Comdr. C. A. Green, R.N.V.R., and	
Dr. H. Kitchen	210
Conference on Audio-Visual Education	211
Mangroves in the New World. By Dr. R. D. Preston.	212
Effects of Heat on Human Beings. By Dr. G. Lapage .	213

Editorial and Publ	lishing Offices	
MACMILLAN &	CO., LTD.,	

ST. MARTIN'S STREET, LONDON, W.C.2.

Telephone Number : Whitehall 8831

Telegrams : Phusis Lesquare London Advertisements should be addressed to

T. G. Scott & Son, Ltd., Talbot House, 9 Arundel Street, London, W.C.2 Telephone : Temple Bar 1942

The annual subscription rate is £4 100, payable in advance, Inland or Abroad. All rights reserved. Registered as a Newspaper at the General Post Office

SCIENCE IN THE FOREIGN SERVICE

'HE departure of Prof. Eric Ashby for Moscow to take up his position as scientific attaché, with the rank of counsellor at the Australian Legation, to which he has been appointed, as recently announced (Nature, Jan. 20, p. 72), marks the first step in fulfilment of a proposal which has been increasingly discussed during the last two years. The interruption of communications by war conditions has of course made it necessary to improvise new organizations now that contacts of men of science are fewer and less easily arranged and even the publication of scientific and technical papers may require to be withheld temporarily or in part. Experience gained during the War with such organizations as the British Central Scientific O.t.ce in Washington, the American Scientific Orice in London, the Anglo-Soviet Science Collaboration Committee, and the Scientific Cooperation Office of the British Council in China goes far to suggest that, even when normal means of communication and intercourse are fully restored, such organizations may still have a valuable part to play.

That much appears in the specific recommendations of the report of the British Commonwealth Science Committee, set up under the chairmanship of the President of the Royal Society in October 1941. Reporting in the summer of 1943, this Committee suggested the maintenance of permanent scientific and technical representation in London and possibly also in other capital cities of the English-speaking countries, in association so far as possible with representatives of the United States and others of the United Nations. This idea has since been further developed by Dr. J. Needham in his article on "An International Science Co-operation Service" (Nature, 154, 657; 1944), where the further suggestion is put forward that the proposed Service should have permanent representatives in all countries and regions. with diplomatic or 'League-official' status, and guaranteed Government facilities for communication and transport.

This line of thought goes far beyond that of the mere exchange of information or even of personnel. As Dr. J. Needham has pointed out, the staff of a Science Co-operation Bureau in its work of collecting and disseminating scientific information must be familiar with the conditions of scientific and technical life and thought in the country where they are stationed. They must possess the confidence of the resident diplomatic personnel and be competent to advise them authoritatively on problems relating to science and technology. They must be unfailingly at the service of the Ministers of the Government departments concerned with science.

It is at this point, where the advantages of diplomatic status as suggested by Dr. Needham are most apparent, whatever its disadvantages in other respects, that we meet another trend of thought which has also thrown up the idea of scientific

attaches. Despite the welcome which the Government's proposals for the reform of the Foreign Service received generally in 1943, there was widespread agreement that they did not provide sufficiently for the introduction of a scientific outlook into the Service or the capacity to appreciate the importance of scientific and technical questions. Lacking that capacity or outlook, diplomatists cannot function effectively as intelligence officers in the modern world, and Sir Victor Wellesley, who recognizes clearly that essential function among various constructive proposals in his recent book "Diplomacy in Fetters" (Hutchinson and Co., Ltd., 1944), says "Scientific, industrial, and mineralogical that : attachés may soon have to be added". In a close survey of some aspects of the work of the Foreign Service, Political and Economic Planning in a broadsheet "The Future of Foreign Publicity" pointed out that an ambassador or minister is responsible for all the official contacts between his country and that in which he works, and he cannot escape a measure of concern for many of the unofficial contacts as well, since they may react upon the international relations which it is his primary duty to oversee and conduct. For this reason PEP believes that after the War the number and range of specialist o ficials may be increased, particularly in the general field of economics, and attachés to Embassy staffs for nutrition, agriculture and labour are particularly indicated, and possibly other attachés concerned with the Colonies or colonial policy.

The suggestion which Lord Samuel threw out in the House of Lords' debate on scientific and industrial research on July 15, 1943, regarding the appointment of scientific attachés to the principal British embassies abroad, or that Great Britain should be provided with scientific liaison officers competent to bring to the notice of those interested at home the progress and methods which have been achieved or established in other countries, thus fell on well-prepared soil. It has been taken up by the Parliamentary and Scientific Committee, which has prepared a confidential memorandum on the subject in the light of views obtained from various sources. The memorandum, after reviewing existing arrangements, recommends a formal inquiry into the whole question by the Government with representation of the Foreign Office, the Fighting Services, the Departments of Overseas Trade and of Scientific and Industrial Research and the British Council. The memorandum was adopted by the Committee on December 12, 1944, and has been sent to the Secretary of State for Foreign Affairs.

While this idea of scientific attachés has been widely discussed from both points of view, no practical steps have so far been taken in the matter, though Great Britain has an agricultural attaché in Washington. Among scientific men it appears to find widespread approval, for it is recognized that if the common attack on some of the scourges of mankind is to be organized effectively on international lines, in the way in which Prof. J. M. Mackintosh, for example, suggested in his review of preventive medicine at the recent British Association meeting, some further means of integrating knowledge and power will be required. At a recent dinner at which Prof. Ashby was present, the whole question was discussed and his appointment stimulated much favourable comment.

It has been left, however, to Australia to give a lead to the British Commonwealth and Empire in this matter, but Prof. Ashby's short visit to Britain will have convinced him that he carries with him the keen interest and the good wishes of scientific workers As already indicated, his appointment in here. Moscow is for about a year, and it should be clear from the note that has already appeared in Nature how well qualified Prof. Ashby is to act as a pioneer in a matter of close concern to the whole scientific world. Obviously a scientific attaché must be prepared to move across the frontiers of many different branches of science and to concern himself with the interdisciplinary questions involved in team-work and the corporate attack with different techniques on a common problem. Prof. Ashby aims at working in a laboratory for a time, but the U.S.S.R. and Australia have many problems in common, especially in agriculture and animal husbandry. By concentrating more or less on these problems at the start, Prof. Ashby may well find it easier to gain the experience and the sympathy and understanding which will assist the handling of more general and perhaps more delicate questions, whether of co-operative research or the exchange of personnel.

This appointment is only a start, and it should be obvious that the appointment of scientific attachés can never be fully successful unless the traffic is in both directions. Prof. Ashby hopes that one result of his mission will be the visit of a Russian man of science to Australia, not as attaché, but to work in one of the laboratories and to study Australian science in general; he hopes also, if the U.S.S.R. approve, to arrange for an Australian man of science to pay a like visit to Russia. Whether in fact such interchange can be arranged remains to be seen, but Prof. Ashby can be assured that his work in Moscow will be closely and sympathetically followed by fellow men of science in Britain.

There can be no illusions as to the difficulties in this experiment or the demands it may make on Prof. Ashby's tact and scientific and organizing ability. Much may be learnt from it, but scientific workers in Great Britain will be at one not merely in wishing Prof. Ashby success but also in the hope that we will not be slow to follow the example and enterprise of the Commonwealth of Australia. Only if such steps are taken in the near future can we hope to be ready to organize effectively, on the world-wide scale demanded, for scientific and technical co-operation in the attack on the problems of the post-war world; and on the continuous application of scientific knowledge to problems of human welfare, on both of which the realization of a new world order of freedom from want, disease and fear depends.