World climates, established contrasts between the predominantly tropical panicoid and the predominantly temperate festucoid grass types. Describing the phytogeography of Chinese species of Fraxinus, Shiu-Ying Hu stated that one species of a primitive group extended to Sumatra, two species from west and central China have close affinities with north American species, one from north China and one from Yunnan are close to European species.

For tropical floras, A. Liogier held that Cuba, although tropical, drew most of its species from subtropical and temperate North America. The present Cuban distributions suggest that the bulk of the flora came chiefly from South America through Central America during the Mesozoic and Cainozoic, when Cuba and Jamaica were united with Honduras. L. B. Smith described how the flora of south Brazil had its greatest source in central Brazil, there being continuous linkages with the Amazon, Andes and Argentine, discontinuous ones with the Amazon, North America, the Andes and Africa. The mountainous and the low-lying floras of tropical America were considered by F. Miranda to have had a greater

diffusion in past Tertiary periods. These floras were partially dominated later in tropical zones by a more macrothermic flora, and almost eliminated in North America by a more microthermic one.

Papers were provided by K. A. Chowdhury, E. Dorf, W. L. Fry, J. Gray, T. Jimbo and K. Rasky, describing angiosperms in various Tertiary floras of India, Wyoming, Canada, Oregon, Japan and Hungary respectively. C. A. Arnold and J. S. Lowther and J. F. Grayson and R. L. Pierce illustrated the low representation of angiosperms in two American Cretaceous floras. L. A. Kuprianova described how palynological studies suggested that Liquidambar already occurred in the Upper Cretaceous, that it is not a typical representative of the Arcto-Tertiary flora, and indicated ancient floral relationships between the Mediterranean, Central America and Eastern Asia. In a paper to the Taxonomy Section, J. Ewan reminded botanists that zoogeographical data may prove illuminating in the interpretation of existing floristic patterns, citing examples including that of the wood rat which persists together with the reliet Sierra Madrean flora on outlying Rocky Mountain summits. A. S. BOUGHEY

## THE NATIONAL HEALTH SERVICE IN BRITAIN

THE Acton Society Trust has produced a valuable survey of the National Health Service in Britain prepared by Sir George Schuster\*. Part of the report is a discussion of the general problems of leadership in a State service; this has been dealt with elsewhere (see *Nature*, October 10, p. 1087).

Sir George then returns to the National Health Service itself. He starts with two personal observations. With keen appreciation of the achievements of the National Health Service in Britain in these first ten years, and the belief that too little was far better than too much interference from the central authority, he believes that the time has come for a general overhaul and tuning-up of the administrative machine, for an interpretation of the lessons to be learned from the practical experience of these first ten years, and for a new effort, in the light of this practical experience, to understand what is required to ensure that the National Hospital Service can meet the true needs, individual and social, of the people of Britain in these times. Secondly, writing as one desperately anxious to see the best use made of this fine Service, he emphasizes the immense burden of current routine work now falling upon the senior staff of the Ministry. This has left them with far too little time to attend to many of the things he suggests need to be done.

This matter of overburdening the senior officials is not confined to the Health Service, and although its seriousness has often been admitted since the War, there is little indication that much has been done to relieve the situation. All these, however, are matters that could bear closely on the work of other sections of the public service, where the administration of highly technical matters and the control of technical and professional staffs are involved. It is to such major issues that Parliament might well have been

\*Creative Leadership in a State Service: a General Survey. (Hospitals and the State. Hospital Organization and Administration under the National Health Service, Sixth and Final Research Paper.) Pp. iii+80. (London: Acton Society Trust, 1959.) 48.

expected to give its attention; but apart from Sir Keith Joseph's reference to the need for a research or planning staff in the Ministry, they were unnoticed in the House of Commons debate on the National Health Service on July 15.

It is the quality of Sir George Schuster's thought and the character of his approach rather than his particular proposals that are of most general interest. While he has always conceived of the hospital service as a great fighting service, in which the heads of hospital boards should be entitled to expect from the Ministry something like the leadership and direction which army commanders would get from their com-mander-in-chief and his general headquarters, he stresses the paramount importance of keeping the Inadequate leadership, hospital service human. inefficient management, muddled organization can destroy all possibility of the workers in the service getting satisfaction from their work in a manner that keeps alive their enthusiasm and fulfils a sense of vocation. This, however, is an essential element in providing what the patients themselves require above all-efficient curative treatment-and Sir George is well aware that good organization is only a means to an end and he reminds us that in the widest sense the welfare of the patients means taking into account their comfort, peace of mind and all the psychological and social implications of stays in hospital.

Sir George does not devote space to the consideration of these issues. He is content to note them among the great needs and opportunities in this service which call for a combination of hard-headed administrative efficiency, highly developed working skills, single-hearted pursuit of scientific knowledge and human kindness. There are other fields in which the demands are no less, and even if in them it might be too much to assert that without human kindness the true purpose and value of the work must fail, without it full success or true efficiency are hard to achieve.

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Sir George believes, however, that a Government department can function as the directing authority of a great operating service like the Hospital Service in Britain, and the vast expenditure involved could not and should not be removed from the direct control of a Minister responsible to Parliament. If, however, the Hospital Service is to remain the direct responsibility of a Minister and a Government department, Sir George considers that more attention must be given to the staffing of that department and to the arrangements for liaison between it and the decentralized formations, and that a central intelligence organization must be provided. Further, he suggests that on all three points lessons can be learned from the experience of other Government departments which have responsibilities in relation to operating services.

On the first point, he does not see how the Ministry can give the understanding leadership which is required unless the highest posts on its staff are held by officers who have had practical experience of hospital administration at operational level, and in support of his argument he quotes the staffing arrangements of the Fighting Service Ministries and of the Colonial Office. Sir George pays tribute to the value of the work done by many officers appointed before such experience was available, and he does not advocate immediate wholesale change but rather exchanges of staff on the lines of the Colonial Office arrangements. His stress is laid on the quality of the officers available to fill the various posts and the need in the National Hospital Service for new administrative skills, for which there is at present no readily available source of supply. This last, as he recognizes, is a need which often occurs elsewhere to-day as a result of modern development, and the Hospital Service must take deliberate action to meet this need as private enterprise has done in the field

It might be observed here that if this need for statesmanship is to be met in the Health Service, in industry, or elsewhere, those who meet that need must be treated as statesmen. There is no place for the type of party politics which seeks to misrepresent opponents or those who may be entrusted with the execution of schemes or policies which are not in line with party doctrine. It is significant that in supporting the Acton Society Trust's proposal that the Minister in charge of the Health Service should have a seat in the Cabinet, Sir George stresses the danger of frequent change of office, and his own proposals would make the chief permanent official in the Ministry a professional man.

This does not mean that Sir George is here advocating that the expert should be permanently at the top; but his suggestion goes far beyond the claim that the expert should be considered for the highest administrative posts. It implies that the expert by virtue of his expertise is particularly suited to supply the type of specialized administration needed. must, of course, possess administrative capacity: there is nothing in Sir George Schuster's pamphlet to countenance incompetence in management or administration, but much to stimulate more thought about the way in which to meet the need for administrators and the type of training and experience they should receive.

On the second point, that of liaison between the Ministry and the hospital authorities, Sir George suggests that there are lessons to be learned from the best traditions of the inspectors of schools under the Ministry of Education; but here again Sir George pleads for constructive thinking and refrains from specific proposals. His stress on joint consultation at the centre and once again on the quality of the liaison officers clearly has implications far beyond the Health Service, and his strongest criticism is reserved for the perfunctoriness with which liaison is often treated. Positive measures and constructive thought are always required to provide an effective two-way flow of ideas.

Sir George Schuster's major proposal is in regard to his third point and, in line with a main recommendation of the Guillebaud report, he recommends the establishment of a central intelligence and statistical department. This, however, should be an integral part of the executive, with its own creative role as a detector of problems and a productive source of wisdom. Sir George has in mind something on the lines of the Office of Special Enquiries and Reports under the direction of Michael Sadler at the Ministry of Education, equipped with an intelligence staff which would keep under constant review the development of hospital practice, in its social as well as its medical setting, in Britain and other countries. and which would publish a series of reports which might be accepted throughout the world as authoritative. With such a staff the Ministry could not only carry out its own investigations, but could also provide valuable stimulants to work by the hospital authorities. Particularly in its social aspects, the research here required needs central guidance and co-ordination, and Sir George's own experience as chairman of a regional hospital board has convinced him of the great flow of evidence of clinical, human and social interest which requires recording, coordination and interpretation.

Beyond this Sir George points to the need for creative thought, such as demands the services of men of wisdom and comprehension, combined with knowledge of medical affairs. How to produce such men and women is one of the real challenges which this rapidly changing world makes on professional organizations to-day, and there is much indeed in Sir George Schuster's comments that deserves careful study by professional men and women of professions other than that of medicine. So far as the National Health Service in Britain is concerned, Sir George Schuster's investigation suggests that this is very seriously understaffed as regards first-class administrators in comparison with large industrial organizations, and some improvement here may well be the first step required to implement his more specific proposals to remedying the alleged weakness of the voluntary committee system and to promote the intensive expert study of the hospital cost structure, the full use of efficiency techniques by the hospital authorities, including the introduction of work-study methods, and the application of operational research to some of the problems of the hospital service.

These last are clearly proposals limited specifically to the Hospital Service and to some of them an interested group of members of Parliament is already giving attention. The Minister of Health has stated that the Ministry's present experimental organization and methods unit is to be enlarged and made permanent, and that he has accepted the offer of a group of management consultants to undertake a series of surveys, at their own expense, to demonstrate the economies and improvements in efficiency which could be achieved in the hospital service by work study.