

affairs, but also as affording an indication of the line along which it is at present the aim of the allied powers responsible for colonial dependencies to direct future and post-war policy in inter-State relations. The British Government, earlier in the present year, pledged itself to a policy of colonial development so far as conditions might allow during the continuance of hostilities; while, in administration, liaison arrangements with the French Colonial Empire had already been brought into operation before the collapse of France. This co-operation between Colonial Governments, Lord Lloyd stated, has not only begun but is also being deepened every day during the War, and will be continued afterward when all the Colonial Governments will be free from the daily fear of Nazi aggression.

In support of this statement, Lord Lloyd was able to point to the important economic agreements which have been negotiated with the Free French colonies in Africa and with the Belgian Congo. Further, the British Colonial Office has organized within the office to continue the liaison arrangements with the French Colonial Empire. Recent developments in relations with the Dutch colonial authorities are even more striking. The British and Dutch Governments have been so strongly impressed by the results of joint discussion of problems common to Malaya and the Dutch East Indies, which have taken place both in England and between Sir Shenton Thomas and the Netherlands authorities in Batavia, that regular machinery has been set up to ensure that liaison in the form of a joint Anglo-Netherlands Committee on Economic Matters.

While these measures to promote a liaison in the important sphere of economics are a substantial beginning in the promotion of co-operation in administration between Colonial Powers, which will prove of the greatest value in planning post-War development in the Colonies under British administration, Lord Lloyd referred also to measures which, if less spectacular, should nevertheless have the practical result of assisting them in the initial stages of coping with the difficulties of the present situation. For the moment, action is directed in the main towards keeping up essential supplies in so far as is necessary to avoid war-time distress and to maintain the standard of living. Apart from special forms of assistance, financial and other, this has entailed urging upon the Colonies to grow more and better kinds of food, and in the relation of exports and imports to ensure that cash provided should be turned into essential supplies from outside. In this connexion Lord Lloyd pointed out that, in the past, the Colonies have concentrated too much on the production of some profitable export crop and have relied upon imports for their necessary foodstuffs. His predecessors, he added, for some years past had urged upon Colonial Governments the importance of mixed farming, by which the soil would be enriched and a better balance secured in agriculture. It is to be presumed that no opportunity in the future will be lost to stress the advantages of a policy for which the argument is now so greatly reinforced by the urge of necessity.

Dr. F. B. Jewett

THE resignation of Dr. Frank B. Jewett, president of the National Academy of Sciences, from his post as president of the Bell Telephone Laboratories, Inc., in New York City, has recently been announced. He now becomes chairman of the Board of Directors, and will thus have more time to aid the U.S. Government as a member of the National Defence Research Committee. He will be succeeded as president of the Laboratories by Dr. O. E. Buckley, who has been executive vice-president. For the past twenty-four years, Dr. Jewett has been the operating head of the Bell System's research programme, and since 1930 has been responsible both for the programme and its execution. He will now continue as vice-president of the American Telephone and Telegraph Company, in charge of research, as such retaining his jurisdiction over these activities. Dr. Buckley, new president of the Laboratories, has been associated with telephone research since he entered the Bell System in 1914. He became director of research in 1933 and executive vice-president in 1936 (see also p. 824 of this issue).

Jacob Petersen

DR. JACOB JULIUS PETERSEN, a well-known Danish medical historian, was born at Rønne in the island of Bornholm on December 29, 1840. He studied medicine at Copenhagen, where he qualified in 1865. After a visit to Germany, where he worked under Virchow and Traube in Berlin, he settled in Copenhagen. Besides his activities as a communal doctor he delivered lectures on the history of medicine from 1874 onwards, but it was not until 1887 that he received official recognition as a lecturer, and in 1890 was appointed extraordinary professor of medical history in the University of Copenhagen. His chief publications were on the contagion of tuberculosis (1869), chief factors in the historical development of medical treatment (1876), the older history of clinical medicine (1889), cholera epidemics with special reference to Denmark (1892), Danish medicine in the years 1700-1750 (1893), and small-pox and vaccination (1896). He died on May 28, 1912.

Museums and the Public

THERE is an aspect of museum work and museum service to the community of which little is heard and which nevertheless occupies a considerable part of the duties of the staff and is of some national importance. It concerns minor inquiries of many sorts which can be answered only by a specialist, and the answers to which may be of some value to the inquirers. Some of the miscellaneous economic problems placed before the Department of Botany in the Free Public Museums of Liverpool are instanced by H. Stansfield in an article in the *Museums Journal* (40, 215; 1940). A young woman was given a cigarette, collapsed on smoking half of it and remained unconscious for two days. The cigarette had been home-made by a man who used the leaves of a plant growing accidentally in his garden; the botanist identified the plant as Indian hemp, the

source of "hashish"; and the plant had grown from the refuse of a parrot's cage containing remains of a mixture from a chance packet of bird-seed. A point of insurance was decided by the relative inflammability of teff grass and ordinary hay. Questions of adulteration in manufactured chicory, inquiries about possible new sources of iodine, about diseases of bulbs, the qualities of timber for various specific purposes, the control of weeds, the identification of consignments of unrecognized materials, indicate the variety of information which is expected of a museum botanist.

Textile Studies at Leeds

REPORTS on the work of the session 1939-40 in the Departments of Textile Industries and of Colour Chemistry and Dyeing at the University of Leeds show that, although the number of students, particularly of those from overseas, has suffered to some extent and the time-table has had to undergo considerable alteration to meet the special conditions arising out of the War, the work of both Departments has been actively carried on and an impressive list of successes in the examinations of the University and of the City and Guilds of London Institute has been achieved. The degree of Ph.D. was conferred upon three students, one gained the M.Sc. degree and sixteen others graduated with honours. Twelve diplomas were awarded, while no fewer than forty-seven students obtained first class passes in the examinations of the City and Guilds of London Institute, several of them gaining prizes and silver medals. Facilities for work by the students in factories during the vacation, which forms a valuable and highly appreciated part of the training, have of necessity been somewhat restricted though not altogether suspended. In addition to the normal work of the research laboratories, much of which is carried out in co-operation with various firms in different parts of Great Britain, much attention is being devoted to problems of immediate national importance. Research activity has increased in intensity, not merely on account of the War, but also because of the appreciation shown by the industry in their results. A long list of recent publications in scientific journals is appended.

Forest Research Programme at Dehra Dun

THE triennial programme of work, 1940-42, of the Forest Research Institute, Dehra Dun, India (New Delhi: Government of India Press, 1940) gives evidence of the great progress made in this respect in India during the last three decades. When the Institute was inaugurated in 1906-7, the five branches still in force were decided upon, namely: silvicultural, botanical, entomological, utilization and chemical. Some progressed more rapidly than others, notably utilization, as a result of the War of 1914-18 and the demands then made upon it. The present triennial programme shows, however, that advances in sound forest research have since made uniform progress in all the branches. The brochure is inevitably somewhat technical in many of the inquiries and research

being undertaken, but in the silvicultural branch investigations in various provinces are being carried on into that important subject in tropical forestry 'grazing combined with forestry'; also into erosion and soil-covering and its effects. The utilization branch has been for long subdivided into wood technology, timber testing, seasoning, wood preservation, paper pulp and wood workshop. Perhaps one of the surprising things about the Institute is that the minor forest products section, which is once again in 'cold storage', as it is expressed, owing to want of staff, has never received the serious attention which it so obviously seemed to demand. It would have been thought that from very early years in the functioning of the Institute, the Department and Government would have realized the enormous possibilities of research into the very large number of minor products of the Indian forests; lac and resin have already proved the value of experimental research work. It is difficult to understand this neglect.

Riveted Joints and Welded Joints

THE quarterly journal *Electric Welding*, issued by the Quasi-Arc Company, Ltd., Bilston, Staffs., is being discontinued. Advances which may occur in welded construction or technique will be published by distribution of technical circulars or by articles in technical or trade journals. The last issue of the journal (October) contains a paper by Prof. B. P. Haigh entitled "Riveted Joints and Welded Joints", who points out that riveted joints can be relied on to meet all ordinary requirements, provided that the working drawings of the structure provide the necessary scantlings. So firmly established is this faith in riveted joints that almost any failure in a riveted structure is attributed, if not to accident, then to faulty design of the structure as a whole. A riveted structure, if neglected, may be expected eventually to deteriorate by rusting. Water percolates between the plates and forms rust, forcing the plates apart between the rivets. The rivets become tighter for a time but eventually loosen or crack, and the structure falls asunder.

Welded structures may be expected to last longer in such circumstances because overlapping plates or rolled sections can be and commonly are very efficient from the mechanical point of view; thus channel sections welded back to back and welded all round the overlap, are so strongly joined that the rolled sections yield before the joints. The use of galvanized plates is not recommended either for riveting or welding, where full strength is required, particularly in vibration. At the high temperatures required for either riveting or welding, zinc is liable to penetrate between the grains in the steel, particularly when the metal is under tension, with the result that rivets and welds are then liable to crack in a brittle manner. When welds are made between galvanized plates of fair thickness, it is expedient to grind off the layer of zinc from the surfaces that will carry the fillets; but grinding is more difficult for riveted joints and is probably impracticable.