education at higher certificate level. They will become centres for cultural and technological development, for refresher courses, and for the encouragement of the arts and crafts. Generally, they are designed to be readily adaptable to meet the varying needs of the territories they serve. Although the reconstituted Fourah Bay College in Sierra Leone will differ in fundar

Fourah Bay College in Sierra Leone will differ in many respects from the new colleges in Nigeria and the Gold Coast, more particularly in that it will retain and develop its University Department, the committee will be ready to advise and assist it. In addition to offering advice on general development and the allocation of United Kingdom funds available for these Colleges under the terms of the Colonial Development and Welfare Act, 1945, the committee will also be responsible for advising on the selection of staff.

## Festival of Britain, 1951

In connexion with the Festival of Britain, to be held during May-September 1951, it has been recently announced that the display of British achievements in science and technology will be centred on four projects : South Bank Exhibition, London ; Travelling Exhibitions; 1951 Exhibition of Science, Science Museum, South Kensington, London; 1951 Exhibition of Industrial Power, Kelvin Hall, Glasgow. Details of the South Bank Exhibition have already been given (see Nature, December 24, 1949, p. 1083), and the two Travelling Exhibitions, which will be on the lines of that on the South Bank, will tour Great Britain by land and by sea; the latter will be fitted up in the escort carrier *Campania*. The theme for the South Kensington Exhibition is limited to the growth of the understanding of the nature and architecture of matter. The sequence will proceed from the study of matter (physical, chemical and biological) on a macroscopic scale down through the orders of magnitude to atomic and nuclear particles. This Exhibition is designed primarily for those who, though not necessarily trained in any specific science, have a general leaning towards things of scientific interest. Engineering machinery and the part it has played in shaping the British citizen's daily life will be shown at the Glasgow Exhibition, where the two principal topics will be coal and water. The former will cover mining, iron and steel, machine tools, power units, electric power generation and transmission, railways and shipbuilding; the latter will consider hydro-electricity, civil engineering and irrigation. The two themes will be integrated in the final section, which is on the future use of nuclear energy for industrial power.

# Systemic Insecticides and Swollen Shoot Disease of Cacao

THE director of the West African Cacao Research Institute, Tafo, Gold Coast, has arranged for a team of three men of science from Messrs. Pest Control, Ltd., Bourn, Cambridge, to work at the Institute on an investigation of the possible use of systemic insecticides to control the spread of swollen shoot disease of cacao in West Africa. The object of these experiments is, of course, not to kill the virus of swollen shoot disease but to kill the mealybug which is the vector of the disease. Thus, the most that the discovery of an effective systemic insecticide could achieve would be to prevent or reduce the spread of infection from trees infected with swollen shoot to healthy trees, and three or four years at least must elapse before any conclusion, positive or negative, can be reached. There is no known cure for a plant disease virus once it is established in a tree or plant, and the only way to kill the virus is to destroy the tree or plant itself. Cutting-out of diseased trees must, therefore, always remain an essential and fundamental part of any successful campaign to rid the cocoa-growing areas of West Africa of the scourge of swollen shoot disease (see Nature, 163, 15 and 271; 1949).

# Physics Today : Costs of Production

IT is announced in the editorial of the October issue of *Physics Today* that, beginning in January 1950, the free distribution of that monthly periodical to members of the American Institute of Physics will cease. The annual subscription will be 4 dollars for members of the Institute and 5 dollars for nonmembers. It had been hoped that Physics Today, which has appeared regularly for some twenty months (see Nature, 162, 988; 1948), would by 1951 be self-supporting; but it is now clear that, because of the increase in the number of members of the Institute, the rise in the cost of printing and the rather slow increase in the number of advertisers and subscribers, this cannot be achieved. It will be remembered that Physics Today is a general-interest journal on physics, a non-technical magazine limited to one science, but "in which physics and the things about it are put in a language which others can use for better understanding". There is a definite need for a medium through which news and discussion of what is going on in physics can be made known to physicists in general, to men of science working in other fields than physics and to the general public. Physics Today has so far admirably fulfilled this need, and it is to be hoped that it will continue to receive adequate support in spite of the increased cost to subscribers.

### Infra-red Discussion Group

A MEETING of people engaged on, or interested in, infra-red spectroscopy was held in the Royal Technical College, Glasgow, on January 20, in order to consider the formation of a discussion group on mutual problems and interests. It was decided to form an informal body to be called the Infra-red Discussion Group. Dr. A. E. Martin (Sir Howard Grubb, Parsons and Co.) was elected chairman, and Mr. K. S. Tetlow (Imperial Chemical Industries, Ltd., Nobel Division, Stevenston, Ayrshire) secretary. Membership (no fee) is open to persons, firms and organisations willing to co-operate, when possible, in the activities of the Group. The first meeting considered comparative extinction coefficient measurements, the reporting of spectra, definitions and instrumental matters.

#### Frank Knox Memorial Foundation Fellowship

A FELLOWSHIP, worth 2,400 dollars, of the Frank Knox Memorial Foundation is being offered for a male student from the United Kingdom to spend the academic year 1950-51 at Harvard University. The fellowship is open to students of all stages, preference being given to graduates or those about to graduate, and a major part of the year must be spent studying in one of the faculties at Harvard. Applications (by letter on quarto paper, five copies) should include full particulars of past career and prospective course of study, together with a testimonial of the candi-