

various activities of the station in the physics of cosmic rays, astrophysics and the physiology of high altitudes (laboratories have been installed for work in other fields as well). The initiative in the project is due to W. R. Hess, professor of physiology in the University of Zurich, who spent two years in the work of organization, interesting various institutions of other countries in the scheme, and obtaining the necessary financial support to carry it out. Several institutions have combined to endow the station with a small observatory specially well placed for research on spectroscopy and spectrophotometry in the infra-red and ultra-violet regions. The Observatory of Paris and the University of Paris, and also the Observatory of Uccle, have generously presented certain instruments to the station, and the Observatories of Geneva and Basle and the Institute of Astrophysics, Paris, have a scheme for mounting a 40-cm. Cassegrain telescope which will give astronomy an important place at the Jungfrauoch. The second article gives the results of ten years of astronomical observations and refers to the schemes for new research in various fields; it shows the intense keenness of the Director, and everyone will wish him great success in his programme. In concluding the article, he thanks all those who have contributed to the progress of the work, including a group of young students from the Universities of Basle and Zurich, some of whom are now teachers in different places. The list of publications, commencing in 1933, given at the end of the second article, shows the activities of the station and is very creditable to the Director and his staff.

### Geography in the Secondary School

At the request of the Executive Committee of the Geographical Association, two of its members have prepared a memorandum on the teaching of geography in secondary schools and, particularly, in modern schools. No young people, they suggest, ought to leave school without the fullest and most understanding picture possible of the locality, the land, and the world in which they will begin to earn their living and live their adult lives. These young people should have some real appreciation of man's dependence in all parts of the world upon the land in which he lives; upon the warmth and moisture without which his crops cannot grow; upon natural resources that he employs to meet his needs, whether simple or complex; upon the essential and irreplaceable few inches of soil which sustain him in his many millions throughout the world. In a world where great distances no longer separate men as they once did, geographical knowledge forms the background essential to an understanding of international affairs and to an appreciation of the differences of outlook which still divide peoples from one another. To help the geography teacher, the writers of the memorandum devote considerable attention to the content and organization of the geography course, the study of geography out of doors, and the use of equipment, including maps. The memorandum has been well conceived and carefully prepared; copies may be obtained from the Geographical Association, c/o the Park Branch Library, Duke Street, Sheffield 2.

### Use of Films in the University of Cambridge

THE fifth report of the Cambridge University Educational Film Council indicates that, besides regular film sessions in the Department of Geography, weekly sessions of Russian sound films are

now provided for students in the Department of Slavonic Studies during all terms. Considerable use is also made of the film for teaching in the Department of Zoology. An interesting development during the year was a further investigation on the use of 'silent' films in education which was carried out in the Department of Engineering. Although more experimental confirmation is required, the evidence provided by this investigation seems to show that, first, when members of an audience have been given the opportunity of comparing 'silent' films shown with and without musical accompaniment, their opinion of what has been the effect of the music on their attention is in general a reliable index of its actual effect, measured by tests made after the showing of the films; secondly, that more students are aided by accompaniment to silent educational films than are hindered; and, thirdly, that those who are aided are those most receptive to the visual film medium. Among the research films which have been made is that of the Cambridge Jotenheim Expedition showing glacier formations, and others on the fur seal of the Pribilof Islands and on the sea-urchin's eggs. The report also contains a complete list of all the films made in connexion with teaching or research at Cambridge.

### Current Trends of Physics in the United States

THE September issue of the *Journal of Scientific Instruments* (28, No. 9; 1951) contains, in addition to original contributions and other regular features, a special article by Dr. J. C. Overbeck, of the Northwestern University, Evanston, Ill., and is the latest in the series of articles which he has contributed at intervals during the past twelve years on experimental physics in the United States. In his illustrated article, Dr. Overbeck surveys, by selecting several topics from the papers published in American physics journals, the significant trends in the method and technique of experimental physics in the United States during the past two years. The topics chosen include the germanium phototransistor and the germanium rectifier; two new types of mass spectrometer, the one using a time-of-flight method and the other velocity selection; a diaphragm type of pressure gauge for very rapid transient pressures; a novel method of increasing the safe power input of an X-ray tube by twenty to twenty-five times but still retaining the sharp focal spot; photographing sound waves; and an ingenious method of magnifying a crystal layer to provide an image of its atoms. Dr. Overbeck considers the period under review to be one of development rather than of profound new discoveries.

### Thirteenth International Horticultural Congress, London

THE thirteenth International Horticultural Congress will be held in London during September 8-15 under the auspices of the Royal Horticultural Society. Three general lectures will be given on each of the following subjects: environment, soils and nutrition, plant breeding, and growth and development. In addition, about a hundred and forty lectures will be given at the meetings of the seven specialized sections, which are as follows: fruit growing, vegetable growing, ornamental plant growing, plant breeding, environmental control, seeds, and tropical and subtropical horticulture. The various meetings will be held in the halls of the Royal Horticultural Society, Vincent Square and Greycoat Street,