

into the supply of suitable films for children's performances. The Medical Panel has compiled a catalogue of British medical films and will issue supplements from time to time. The Scientific Research Panel is collecting material for a report on the extent to which the cinematograph is, and can be, used in the advance of scientific knowledge. The first Film Summer School for teachers was held at Scarborough last August. Ten local branches, known as Film Institute Societies, have been at work during the year, at Becontree, Bristol, Brighton, Chichester, Leeds, London, Manchester, Liverpool, Belfast and Salford.

#### Research and the British Academy

PROF. J. W. MACKAIL, in his presidential address to the British Academy delivered in July last (Oxford University Press, pp. 11. 1s. net), laid it down as a principle that "the products of the Academy as an organised body . . . are all, in their different ways, and from their different angles and lines of approach, means towards an end", which he went on to define further as including two interlinked motives: to maintain a standard of learning and to preserve the continuity of civilisation. This view of the functions of the Academy would lay a heavy burden of responsibility on any body, however august; but if the further dictum be accepted that it is by the first that the second may be most directly and most effectively attained, it adds an impressive weight to the opinion the president expressed at an earlier stage in his address, that the Academy's grant from the Treasury of £2,000, only recently restored to its full amount, is quite inadequate. In the field of pure scholarship, certain enterprises, it is true, have been able to make progress through the Academy's subsidy. Yet even here, in what might be regarded as the Academy's special province, in number they make a poor showing. In the vast and wider fields of humanistic studies the prospect is even less encouraging. In archaeological research, now that the excavations at Samaria have been brought to an end, apart from the contribution to the British School of Archaeology in Iraq, which stands in a special category, the only body to which the Academy contributes is the British School of Archaeology in Jerusalem. Archaeological research unfortunately falls between the two stools of science and letters, belonging to the one by its technique, to the other in the applications of its results. This contention apart, in comparison with Continental academies, the British Academy is second to none in the standing of its fellowship; but its material contribution, as a body, to the advancement of the subjects which have been brought within its purview is negligible.

#### Mining in Tanganyika Territory

WE have received an interesting pamphlet from Tanganyika Territory entitled "Mining Publicity Pamphlet", and issued by the Department of Land and Mines. It shows at the outset a useful map of the Territory, and after a short introduction there is full information for all prospective immigrants,

including such points as the customs duties and the mining and prospecting laws which have been adopted. There is an account of the geology and physiography of the Territory, and economic minerals and mineral production are fully described. We find, for example, that the value of mineral production has increased largely and in many cases has doubled since 1932 when Great Britain went off the gold standard, with a correspondingly rapid rise in the price of the precious metal; in fact, the value of all minerals has increased since 1932 with the exception of mica, which is less than half in 1934 what it was in 1932; whilst the value of the minerals produced is put down as close on £200,000 in 1932, in 1934 they had risen to close upon £364,000. Gold mining is, of course, a great attraction at present, although the pamphlet states that "it is to be anticipated that the internal prosperity it [gold production] is creating will exert its beneficial influence on other forms of mining within the territory". This is one of the few regions where the old-time prospector still finds work, and existing gold fields, containing both reef gold and alluvial gold, are fully described in the pamphlet in question. The pamphlet is of distinct use to immigrants proposing to enter Tanganyika Territory, and its perusal is strongly recommended to any who are proposing to go out, and especially perhaps to those intending to follow gold mining.

#### The Spahlinger Tuberculosis Vaccine

A JOINT committee on tuberculosis of the Medical Research Council and the Agricultural Research Council has issued in the form of a green paper (London: H.M. Stationery Office, 2d. net) observations on the experiment with Spahlinger vaccine in Northern Ireland, the report on which was issued some weeks ago. In this experiment, 11 calves were vaccinated with the Spahlinger anti-tuberculosis vaccine, and 7 calves were kept unvaccinated as controls. Six months after the vaccination, all the calves were given the same dose of virulent tubercle bacilli intravenously. The difference in the effect on the two groups was striking. Of the 7 controls five died of acute tuberculosis within 25-73 days. On the other hand, none of the 11 vaccinated animals died from the acute disease, one died on the 607th day, and the remaining 10 lived until slaughtered on the 783rd-890th day. All, except one, of these were in good condition although found to be tuberculous to greater or less extent. The joint committee concludes that a case has been made out for further investigation, that the number of animals used in the Irish experiment were not enough to give statistically conclusive results, and that the general use of the vaccine should be deferred until a thorough investigation has been made.

#### The Physique of Man in Industry

IN 1927, the Industrial Fatigue (now Health) Research Board published a report of an inquiry on "The Physique of Women". The results of this inquiry appeared to be of such value that the Board decided to institute an investigation of the same kind



amongst men. Prof. Cathcart directed the work, assisted by Messrs. Hughes and Chalmers, and in the analysis of the data by Miss Blair and Miss Werner, and their report has now been issued ("The Physique of Man in Industry". Med. Res. Council. I.H.R.B. Report No. 71. H.M. Stationery Office, 1935. 1s. 3d. net). It records the physical examination of 13,656 male volunteers aged fourteen years and upwards in fifteen areas in England and Scotland. The total includes 10,593 employed men, 1,328 unemployed men and 1,735 students. The data recorded were height, weight, grip (both hands), pull when standing, and distance of middle finger tip from the ground. The student group had the highest average height and weight, but were inferior in strength to those in manual occupations. The unemployed group was slightly inferior in weight, and definitely inferior in strength, to the employed group. No certain index of physical fitness, industrial or other, was discovered. From the average elbow height (43 in.) of the employed, it is deduced that the comfortable height of a working bench for the average man standing should be about 38 in.

#### Biological Control of the Mediterranean Fruit Fly

THE Mediterranean fruit fly (*Ceratitis capitata*) has, for many years, caused ravages among many kinds of edible fruits in the Hawaiian Islands. The introduction of several species of parasites from Africa and Australia has resulted in a very appreciable reduction in the abundance of the pest in question, but a sufficiently efficient degree of control, from the commercial point of view, has not so far been achieved. We learn from Science Service, Washington, D.C., that a scheme has been put in hand which involves further application of biological control methods. In order to carry out the project, the Hawaiian Planters' Association is sending two of its entomologists, along with others from the Department of Agriculture, to Africa with the object of searching for suitable parasites. Other entomologists are proceeding to Brazil with the same aim in view. The whole project is being administered by the U.S. Bureau of Entomology in conjunction with the leading local organisations concerned in Hawaii. The Hawaiian Islands are famous as being the territory where some of the most successful examples of the biological method of pest control have been achieved. The plan of campaign against the fruit fly is expected, if successful, to lead to great benefits to the small farmers of the territory by increasing the supply of fruits that grow so luxuriously in those islands.

#### New System for Nature Recording

AFTER much discussion, extending over two quarterly meetings, the council of the British Empire Naturalists' Association has agreed to form a special section to deal with field natural history records. A properly spaced system of observers is to be built up all over Great Britain, and eventually a committee of experts will be formed to decide upon the problems to be tackled, and the methods to be adopted. Plans are at present being made for a conference of

branch secretaries in London next April. For some ten years, the British Empire Naturalists' Association has worked a system of publishing in its quarterly journal, *Country-Side*, bird, plant and insect records of seasonal and statistical interest, grouped in the various counties. Not only was this incomplete, in that records were more quickly forthcoming from southern areas richest in resident naturalists, and other northern areas were neglected, but also in flora especially no complete review could be made owing to the necessity of finding room for other matters in the journal. The new scheme will be welcomed by historians of field natural history, who often have to go through masses of local and national publications for scattered field records of varying value.

#### A New Natural History Magazine

A NEW German periodical, edited by A. Benninghoff, K. Beurlen, K. Hildebrandt and K. L. Wolf, offering a variety and standard of contributions which ought to commend it to many readers, has recently appeared. The title, *Zeitschrift für die gesamte Naturwissenschaft*, suggests the breadth of its objective, the scope of which is extended by the inclusion of Nature philosophy and the history of Nature knowledge and medicine. The articles of the first issue (April) are not over-long—about fifteen pages—a short summary precedes each, and the matter, while avoiding too technical treatment, makes a serious contribution to the subjects discussed. K. Hildebrandt writes upon "Positivismus und Natur", and other major articles deal with "Morphologie und Erdgeschichte", "Bedeutung und Aufgabe geologischer Forschung", "Subjektbezogenen Nomenklatur in der Biologie", "Warum studieren wir Biologie?", to which the final answer is "Wir studieren Biologie, weil wir müssen". A variety of subjects are discussed in short contributions, and there are seven signed reviews of books.

#### Use of the Astrolabe

ALTHOUGH the astrolabe has found some support among surveyors, it has not been widely used by British astronomers. An extensive account in English of the practical use of the modern astrolabe has recently been published by Mme. Chandon and M. Gougenheim in the *Hydrographic Review* (12, No. 1). This account contains full details of the working and practical operation of various modifications of the astrolabe, and should be studied by all who are interested in the accurate determination of position. It may be hoped that this paper will stimulate astronomers to devise a means of eliminating personal equation from the astrolabe, so that the instrument may eventually compete with the transit circle in the accurate determination of longitude.

#### Pathological Investigations at Edinburgh

IN the annual report for 1934 of the Laboratory of the Royal College of Physicians of Edinburgh, by the curator, Sir Robert Phillips, an account is given of the research and other activities. Much work has