

but cannot do so because there are not the men with the requisite knowledge and common sense required for inspectorates. There are others that wish for research to develop so as to conserve existing industries as well as to discover new ones, and they, too, are compelled to mark time.

In default, or in spite, of the efforts of the schools of pure zoology, attempts are being made to set up special training schools in fisheries, in entomology, and in other economic applications of zoology. Each branch is regarded as a science, and the supporters of each suppose they can, from the commencement of a lad's scientific training, give specialised instruction in each. The researcher in each has to do the research which the economic side requires. But he cannot restrict his education to one science; he requires to know the principles of all sciences; he must attempt to understand what life is. Moreover, his specialist knowledge can seldom be in one science. The economic entomologist, however deep his knowledge of insects may be, will find himself frequently at fault in distinguishing cause and effect unless he has some knowledge of mycology. The protozoologist must have an intimate knowledge of unicellular plants, bacterial and other. The animal-breeder must know the work on cross-fertilisation of plants. The fisheries man requires to understand physical oceanography. The helminthologist and the veterinary surgeon require an intimate knowledge of a rather specialised "physiology." All need knowledge of the comparative physiology of animals in other groups beyond those with which they deal, to assist them in their deductions and to aid them to secure the widest outlook. It is surely a mistake, while the greatest scientific minds of the day find that they require the widest knowledge, to endeavour to get great scientific results out of students whose training has been narrow and specialised. Such specialisation requires to come later, and can replace nothing. This short cut is the longest way round. The danger is not only in our science, but in every science.

Surely the time has now come for us to lift our eyes from our tables of groups and families, and, on the foundations of the knowledge of these, to work on the processes going on in the living body, the adaptation to environment, the problems of heredity, and at many another fascinating hunt in unknown country. Let us teach our students not only what is known, but, still more, what is unknown, for in the pursuit of the latter we shall engage eager spirits who care naught for collections of corpses. My own conviction is that we are in danger of burying our live subject along with our specimens in museums.

As a result of the wrong teaching of zoology, we see proposals to make so-called "Nature-study" in our schools purely botanical. Is this proposal made in the interests of the teacher or of the children? It surely cannot be for "decency" if the teaching is honest, for the phenomena are the same, and there is nothing "indecent" common to all life. "The proper study of mankind is man," and the poor child, athirst for information about himself, is given a piece of moss or duckweed, or even a chaste buttercup. Is the child supposed to get some knowledge it can apply economically? Whatever the underlying ideas may be, this course will not best develop the mind to enable it to grapple with all phenomena, the aim of education. If necessary, the school teacher must go to school; he must bring himself up to date in his own time, as every teacher in science has to do; it is the business of universities to help him, for nothing is more important to all science than the foundations of knowledge.

Native Races of the Empire.

AMONG the resolutions adopted by the General Committee of the British Association during the recent meeting at Cardiff, several dealt with problems connected with the native races of the Empire. Of these one referred to the deplorable conditions now prevailing among the aboriginal tribes of Central Australia, of which an account was recently given in these columns (see NATURE, July 8, p. 601). The Association urged upon the Federal Government and the Governments of Western Australia and South Australia the desirability of establishing an absolute reservation upon part of the lands now occupied by the tribes within the jurisdiction of these Governments in order that they might be preserved from extinction. The resolution further emphasised the necessity of establishing a medical service for the natives in order to check the ravages of disease by which they are now rapidly being reduced in numbers. It may be hoped that the influence of the Association will add force to the movement which has already been set on foot in South Australia, and induce the Governments concerned to take action in this matter.

A second resolution of the Association dealt with the desirability of initiating an anthropological survey of the natives of Western Australia. In this State the natives are under the control of Protectors of Aborigines, and are, for the most part, either located on Government farms or stations, or, if employed by private owners, the conditions of their employment are strictly regulated by the Protectors. Notwithstanding the measures taken for their well-being and preservation, which include a medical service and an organised system of food-supply for times of scarcity, they are dwindling in numbers. At the same time, in the changed conditions, the memory of their tribal customs and traditions is being lost. In the interests of science it is, therefore, highly desirable that some record should be made of their language, customs, traditions, and beliefs, as well as of their physical characters, before the older members of the tribes die out.

During the past summer, it will be remembered, Gen. Smuts introduced into the South African Parliament a Bill dealing with the native population. This Bill has been described as embodying the most important proposals in reference to the native problem since the Glen Grey Act. Briefly stated, its main provisions aim at improving the position of the native, and at the same time meeting his claim to a voice in the regulation of his own affairs by developing a system of local government based upon the tribal social organisation. A further resolution of the Association pointed out that any attempt to bring the native population into closer touch with the social and economic development of the country as a whole—the crucial problem of native legislation in South Africa—could hope to be successful only if it were based upon an intimate knowledge of native psychology and customs, and to this end it urged upon the Government of the Union the necessity for the establishment of an Ethnological Bureau for the collection of data and the study of native institutions.

Relativity.

DR. C. E. ST. JOHN gives in the *Observatory* for July some remarks on the search for the Einstein effect in the solar spectrum which was made last year by L. Grebe and A. Bachem at Bonn, and alluded to with approbation in a letter from Dr. Einstein, quoted in NATURE for January 29