

inspection service which will be needed to ensure the maintenance of safe working within the Authority. It will provide technical advice in the legislative field and draft, with the committees, codes of practice in design and operation. The Authority has appointed Mr. F. R. Farmer to the post of chief safety officer in charge of the Safety Branch.

### Migration from the United Kingdom

MUCH has recently been written about the loss to Britain of skilled workers and technicians who migrate overseas. In a recent broadsheet ("Britain and Commonwealth Migration", *Planning*, No. 409), Political and Economic Planning sets out the basic data relating to migration. In the years 1953-55, the United Kingdom lost some 57,000 people on balance by migration over the long sea routes: the movement was made up of 132,000 emigrants and 75,000 immigrants. Most emigrants go to Canada, Australia, the United States and New Zealand; the four countries providing the bulk of immigrants are Australia, India and Pakistan, Canada and the British West Indies, respectively. It is clear that quantitatively the net loss to Britain of 57,000 persons in two years is not a serious matter in a population of 50,000,000, but emigration is selective, and among the emigrants, people in productive age groups and with high skills are represented out of proportion to their numbers in the population. Thus, of the women emigrants to Canada 66.3 per thousand were nurses, as against 7.2 per thousand in the general population. Among men, 22.2 per thousand were mechanical engineers as against 1.2 per thousand in the population.

The broadsheet poses a number of questions which need consideration. Do the benefits to the Commonwealth as a whole which result from a redistribution of labour offset the disadvantages which a loss of skilled men inevitably entails for Great Britain? Will migration result in long-term intangible benefits for the home country? To what extent will immigrants be capable of replacing emigrants to the Commonwealth? What are the social and economic problems raised by emigration? In the present state of knowledge no definite answers can be given to any of these problems. The broadsheet shows the need for a good deal more empirical research on this hitherto comparatively neglected problem.

### Trinidad Field Naturalists' Club

THE Trinidad Field Naturalists' Club was founded in July 1891. Soon afterwards the decision was taken to publish a journal, the first number appearing in April 1892. Thereafter, the journal appeared every two months for four years, running to two volumes of just over three hundred pages each. Publication ceased in February 1896; but the Club continued to flourish until 1907, when it lay dormant until July 1924; it was then revived and entered upon its second phase. Attempts were made to re-issue the journal, but these were not successful. The Club has now entered upon its third phase and plans have been made for the publication of an annual journal. The first issue contains a number of interesting articles. Among them is one describing a celebrated occasion in 1938 when a boa constrictor laid eighteen eggs, five of which developed; in a normally viviparous reptile this abnormal birth of young macajuels was almost certainly due to adverse physiological conditions. The journal may

be obtained from Dr. V. C. Quesnel, c/o Colonial Microbiological Research Institute, Port-of-Spain, Trinidad, at a cost of 0.55 dollar, B.W.I.

### Design of Equipment for Human Use

A MEETING on "The Design of Equipment for Human Use" was held at Cambridge in the Applied Psychology Research Unit of the Medical Research Council during March 26-28. There were sessions on the military and industrial aspects of work design, on the use and abuse of simulators, on equipment design for training and maintenance, and on automatic data analysis in human research. There were also twenty practical demonstrations of various aspects of this work, by members of the Applied Psychology Research Unit and also by visiting speakers. The meeting was attended by eighty representatives, who came from the three Services and the Ministry of Supply, as well as from industrial firms, university departments, and various nationalized industries and government organizations in Britain. A summary will be sent on request to the Medical Research Council, Applied Psychology Research Unit, 15 Chaucer Road, Cambridge.

### Conference on Extra-atmospheric Cosmic Radiation Research

A CONFERENCE of cosmic-ray physicists interested in the application of emulsion techniques and a number of engineers and government scientists interested in the scientific application of rockets was held in Baltimore on March 29 under the sponsorship of RIAS (2120 North Charles Street, Baltimore 18, Maryland). The main business of the conference was the consideration of the possibility of studying by the use of nuclear emulsions cosmic-ray primaries outside the atmosphere, and in particular, of detecting the presence of any hitherto unobserved component of a low penetrating power. Mr. R. Patterson and Mr. W. J. Benckert, engineers of the Advanced Design Department of the Martin Company of Baltimore, presented a preliminary design of a vehicle which would allow an oriented stack of 50 lb. of emulsions to be exposed for 40 min. with a total shielding of less than 0.1 gm./cm.<sup>2</sup> while outside the atmosphere. This vehicle, which is to be launched in a vertical shot, would be capable of preserving the emulsion during re-entry into the Earth's atmosphere and the eventual fall to Earth. During the discussion afterwards it became evident that such a vehicle could also be used to great advantage for a number of other experiments without interfering with the emulsion studies.

In view of the great scientific potentialities of such a cosmic-ray experiment, the physicists formed a committee to consider it in more detail and to arrange a programme of co-operative research by all interested scientists at such time as the vehicle is launched. The membership of the committee is: G. Groetzinger (chairman), M. F. Kaplon, S. A. Korff, E. P. Ney, W. J. Otting, A. Pevsner, M. Pomerantz, B. Rossi, M. Schein, M. M. Shapiro, S. Silverman and H. Yagoda. In a later meeting the committee adopted the title "The National Committee for Extra-Atmospheric Cosmic Ray Research" and decided to consider also the possibility of other new extra-atmospheric cosmic-ray experiments. At this meeting, J. A. Simpson joined the committee and W. A. Benckert was made a consultant.