

in the soundness of the argument that the universities are exclusively for brilliant men, for we do not see any reason why pass and honours men should not exist side by side. We conceive that it is in such co-existence and happy mingling of all talents and social qualities favouring good fellowship and toleration, that the service of the universities to the nation resides.

The Educational Advisory Board when it deals with the question of reforming the educational system in India, will be confronted with the difficult task of framing suitable proposals for educating the poor man and the pass-man, and the task, however difficult, must be satisfactorily solved.

"Science and Culture."

WE have pleasure in offering a warm welcome to *Science and Culture*, a new monthly journal of natural and cultural sciences, the first issue of which has reached us by the courtesy of the editor, and whose aim is to promote the cause of science by spreading scientific knowledge among the public. It is further explained that publication is promoted by a non-profit corporation of "some eminent scientists and educationists of India," whose identity will doubtless be revealed in a subsequent issue.

The subject-matter is varied and interesting. Following an editorial introduction which rapidly sketches outstanding events in the historical development of Indian civilisation, there comes a long and informing article on "Bengal Rivers and their Training" by Dr. N. K. Bose, who wisely advocates establishment of a river physics laboratory resembling those already operating in Western countries, where schemes connected with river-control may be tested before adoption. An article on the "Ultimate Constituents of Matter" by Professor M. N. Saha deals comprehensively and lucidly with modern views of atomic architecture, and concludes with an imposing list of the fundamental particles involved. Rai Bahadur Ramaprasad Chanda, under the title "Aryan, Indo-Aryan and Dravidian" traces the various authorities for different forms of *bhakti*, while "Some Reactionary Consequences of Psychoanalysis" are indicated by Col. Owen Berkeley Hill. A short contribution on "Susruta and Early Hindu Anthropometry", by Dr. Panchanan Mitra is

followed—abruptly as it may seem to some readers—by "Safety of Electric Installations in India" from Professor B. C. Chatterjee.

Other features are book reviews, obituary notices, a full description of the Indian Statistical Institute's foundation and purpose, a report of the U.P. Academy of Sciences April meeting, and letters to the editor. Support is given to the view of Lord Rutherford as expressed in his letter to *The Times* dated April 29, 1935, concerning retention of Professor Kapitza by the Soviet Government, and a useful outline of the distinguished captive's technical ingenuity is presented. Treatment of the subject would have gained piquancy—and perhaps proportion—if Lord Rutherford's contribution had been supplemented by the letter of Professor H. E. Armstrong, who considers that the restoration of Professor Kapitza to his homeland, so far from being a calamity, is merely a blessing in fancy dress; but then it must be remembered that this chemical veteran on a recently previous occasion stoutly opposed himself to the principle of imported professors.

From this brief survey it will be recognised that *Science and Culture* covers a wide range of material, and incidentally it may be stated that the printing and paper are excellent. It remains to consider whether the treatment of the subjects chosen is calculated to achieve the declared purpose of the promoters, namely, "dissemination of scientific knowledge amongst the public". A rough classification of the literate public in relation to scientific knowledge would reveal two main groups, namely, specialists in one or more branches, and a generally well-informed public whose members desire to keep themselves aware of such scientific discoveries and principles as may be assimilable without previous training in science. *Nature* and the *Scientific American* are probably the best known journals appealing to these two groups, respectively, and throughout the past three years we have consistently endeavoured to meet the needs of the former group in this country, with strict avoidance of partisan or territorial bias. Some aspects of *Science and Culture* are so similar to the corresponding features of *Current Science* that we confess to misgiving that its promoters have judged us and found us wanting. Actually, there is very little of the material presented in this first issue for which we would not gladly have

found space in our own columns. The question therefore arises in our mind, is there a large enough public for two similar journals; because, if not, we fear that both must languish, under-nourished in both material and support. On the other hand, there is ample room for a journal popularising

science, old and new. Therefore, while welcoming *Science and Culture* we take leave to hope that future issues may devote themselves more definitely to the declared policy of its promoters, and expand on lines complementary to—rather than competitive with—*Current Science*.

Nation Building and Scientific Research.*

EARLY during the Great War, in 1915, His Majesty's Government formed a Committee of the Privy Council for Scientific and Industrial Research, who were entrusted with the task of establishing a close link between science and industry. In the course of the next two years, this organisation developed into the Department of Scientific and Industrial Research under whose auspices a great number of researches of national importance are being carried out. The researches have an intimate bearing on some aspect of national life or industry. The cost of these investigations is being borne by co-operating firms in an ever-increasing measure, thereby showing that industry is appreciating the value of scientific research. The design of ship's hulls, the effect of waves on the resistance and pitching of ships, effect of wind resistances, the behaviour of rudders and the improvement of propellers—all problems connected with the national industry of shipping, are being investigated. The Building Research Station is conducting investigations on the design of steel frame buildings, on methods of increasing the resistance of concrete and mortar to chemical

attack, on heating and ventilation problems, on limes, bricks and clays and on cast concrete products—problems closely connected with the life of the nation. The Department has also interested in the development of new high temperature alloys, in discovering new outlets for low grade coals and in the problems of storage and transport of fruits, vegetables, fish and meat, which are of vital importance in securing an adequate supply of wholesome food for the nation. Interesting work seeking an answer to the question "why does one flour from one kind of wheat produce better bread and dough than another?" is being done by the Flour Millers' Research Association. The National Physical Laboratory is largely concerned with testing and standardisation of products manufactured by industrial concerns. The Leather Research Association, the Paint Research Association, the British Scientific Instrument Research Association, the Food Manufacturers' Association and other Research Associations are all co-operating with the Department of Scientific and Industrial Research in a programme of Nation-building activity, to the great advancement and prosperity of the nation as a whole.

* Report of the Department of Scientific and Industrial Research for the year 1933-34.