

in the graduation course and post-graduate study encouraged.

Dealing with researches in physiology Dr. Sarkar goes on to say that extensive research must be undertaken not only for the development of the subject but also for the solution of many urgent problems for the benefit of mankind. Researches in fundamental physiology are the bases on which Applied Physiology will grow and develop and the many problems on the applied side such as physiology of growth and development, physiology of reproduction, of regulation of body temperature, aviation physiology, physiological effect of radiation, industrial physiology, etc., call for immediate attention. Plans for future progress in all directions should be instituted so that posterity will benefit most from these investigations. Another problem which is very urgent is the solution of nutritional problem which is confronting people in every sphere of life all over India. It will be the duty of the

physiologists and the nutritionists to study the nutritional requirements of the people and the biological food values of available material and to devise a physiologically suitable diet from them.

The author concludes by saying that India will need a large number of well-trained physiologists to tackle her innumerable problems and the Department of Physiology will be required to supply these workers. This is only possible, the author points out, by treating physiology as an independent science subject of great importance. Dr. Sarkar appeals to all the physiologists to put their heads together, to prepare carefully plans for inaugurating and stimulating higher studies and extensive researches in physiology. He also appeals to the Government, the Universities and the learned scientific bodies to give their serious attention to this essential matter and help to develop this important science.

N. N. DE.

OBITUARY

JAMES HORNELL, 1865-1949

THE recent death of Dr. James Hornell in England has caused profound regret in India particularly among the fishery workers.

After a brief service in Ceylon in connection with investigations on Pearl Banks initiated by Professor W. A. Herdman, Hornell joined the Madras Fisheries Department as Marine Biologist in 1915. In 1918 he took over charge of the Directorate of Fisheries from Sir Frederick Nicholson. Though he could not put through many of his schemes on account of financial difficulties caused by the war of 1914-18, his regime was marked by conspicuous progress on all aspects of fisheries. Among some of the contributions of Hornell are the initiation of fisheries research, establishment of biological stations at West Hill, Krusadai and Ennore, a technological station at Tanur and of a fish cannery at Chaliyam, reorganisation of the chank fisheries, fish curing yards, the aquarium and the maintenance of fishery statistics

and the initiation of welfare work amongst fishermen such as general and technical education and co-operation. He retired in 1923 after a distinguished record of service.

From 1924 onwards he was engaged by the Colonial Office in England to study and reorganise fisheries in Palestine, Malta, West Africa and Fiji. He took an active part in a number of fisheries conferences and meetings including the Colonial Fisheries Conference held in England in 1946.

His contribution to the fishery literature is rich and varied. The *Madras Fisheries Bulletins* published by him are invaluable guides to fishery workers. His recent book "Water Transport" is a great contribution on the crafts of different parts of the world. The excellent pioneer work of Hornell in the field of fishery development and fishermen welfare will be long remembered in this country.

K. C.