

to be of the greatest interest and value. M. Blaringhem's account of his experiments forms a stimulating starting-point to such an inquiry, and should be read by everyone engaged in the experimental study of vital processes.

THE SUBJECT-MATTER OF ANTHROPOLOGY.

The Scope and Content of the Science of Anthropology.

By Juul Dieserud. Pp. 200. (Chicago: The Open Court Publishing Co.; London: Kegan Paul, Trench, Trübner and Co., Ltd., 1908.) Price 8s. 6d. net.

A PERUSAL of this book will convince most people that the terminology and classification of the subject-matter of anthropology is at present in a state of almost hopeless confusion. In England, early authorities like Hunt defined anthropology as the science of the whole nature of man, including the study of his anatomical, physiological and psychological characters, and this logical view has fortunately been maintained among the majority of anthropologists in this country up to the present day. In France also the original view, as expressed by Pruner Bey, was that anthropology embraces the study of man in time and space, and the great Broca took a very similar view of the scope of the science. In Germany, however, a beginning of the descent from this clear and reasonable definition of the science appears to have been made in 1879 by Müller, who divided anthropology into (1) physical anthropology and (2) psychic anthropology, and this cleavage was made wider by Grosse, who in 1894 completely separated the second of Müller's subdivisions from anthropology and gave it a new designation, namely, ethnology, or the culture of races.

Ethnology and its related term ethnography were henceforth widely applied, chiefly in Germany and America, to a new science dealing with the culture of races. It was excluded from the science of anthropology, chiefly, no doubt, because this study had increased more rapidly than other departments of anthropology, its material data being represented by large collections of tools, weapons, dress and pottery in museums, and its psychic data by numerous memoirs on manners and customs, religion and folklore. From a logical point of view it is difficult to see why the study of the psychological evolution of man, as expressed by the various products of his activity, should be excluded from anthropology—the science of the whole nature of man—and it is still more difficult to see why the term ethnology, which etymologically means the science of peoples or races, should be applied to this new science, for which the proper designation would appear to be that given to it by Achelis, namely, psychical anthropology.

This confusion in the terminology of anthropology is, however, now so widespread that it will take a long time to set it right, and Mr. Dieserud's book will, we fear, only tend to perpetuate the confusion. He shows himself throughout strongly in favour of the misuse of the term ethnology by excluding from its scope all somatic or physical anthropology, though

he very illogically compromises between reason and use, or rather abuse, by admitting physical subject-matter under the allied term ethnography.

The second part of Mr. Dieserud's book consists of a scheme of library classification for works on anthropology. He divides the subject into three main classes, namely, (1) general, (2) somatology or physical anthropology, and (3) ethnical anthropology. The second and third classes are further subdivided, and a comparison of some of these subdivisions will give some idea of the consequences of the irrational classification of anthropology which the author has adopted. For example, under class (2) we have a subdivision "racial psychology," and under class (3) a subdivision "ethnical or folk-psychology." The plain man will find it very difficult from the names to discover any difference between the two subclasses. There appears to be a great amount of apparent overlapping in other subclasses; for example, it is difficult to distinguish between palæoanthropology and palæoethnology or archæology, and yet these are separate and distinct subdivisions.

In the details of the physical anthropology section of his classification, the author evidently owes a great deal to the excellent scheme of Prof. Martin, of Zürich, and where he departs from this it is not often by way of improvement.

The subdivision of his third class, "ethnical anthropology (or psycho-socio-cultural anthropology)," is very minute, but apparently here also we have redundancy; for example, "gambling and its implements" and "gambling implements" are two different subdivisions, one of which appears to be unnecessary.

Part iii. of this work consists of a bibliography containing a list of a few important works on anthropology, with notes of their contents, and a list of the chief publications of leading anthropological societies and museums.

Though we cannot recommend Mr. Dieserud's scheme of classification either to librarians or anthropologists, his book is well worth reading, and contains much material that is of great value to the anthropologist who is interested in the question of the scope and content of his science. J. G.

REFRIGERATION.

The Mechanical Production of Cold. By J. A. Ewing. Pp. x+204; illustrated. (Cambridge: University Press, 1908.) Price 10s.

LOW temperatures are rapidly becoming of great industrial and scientific importance, so that the general principles of their application are necessary or useful to continually increasing numbers of people. In this book Prof. Ewing has brought the Howard lectures, which he gave to the Society of Arts in 1897, up to date in various directions by the addition of sections on the more important developments in the last ten years. In these attention is paid to such questions as the production of oxygen by the rectification of liquid air and the theoretical investigations