

of the masses. Ethnology, however, does not deal with the exceptional man; it deals with the masses, and with the characteristic forms of their thoughts. The extremes of the forms of thought of the most highly developed and of the lowest mind in the community are of interest only as special varieties, and in so far as they influence the further development of the thought of the people. It may, therefore, be said that the exoteric doctrine is the more general ethnic phenomenon, the investigation of which is a necessary foundation for the study of the problems of esoteric teaching.

It is, therefore, evident that we must not, in our study of Indian life, seek for the highest form of thought only, which is held by the priest, the chief, the leader. Interesting and attractive as this field of research may be, it is supplementary only to the study of the thoughts, emotional life, and ethical standards of the common people, whose interests center in other fields of thought and of whom the select class forms only a special type.

It has taken many years for the study of the culture of civilized peoples to broaden out so as to take in not only the activities of the great, but also the homely life of the masses. The appreciation of the fact that the actions of each individual have their roots in the society in which he lives, has developed only recently, and has led to the intensive study of folk-lore and folk-customs that is characteristic of our times. It seems peculiar that, with increasing knowledge of the more complex forms of Indian culture, we seem to be losing interest in the popular belief; that we look for the true inward significance of customs among the select few, and become inclined to consider as superficial the study of the simpler and cruder ideas and ideals of the common folk. If it is true that for a full understanding of civilized society the knowledge of the popular mind is a necessity, it is doubly true in more primitive forms of society, where the isolation of social groups is very slight, and where each and every individual is connected by a thousand ties with the majority of the members of the tribe to which he belongs.

Far be it from me to deprecate the importance of studies of the philosophies developed by the Indian mind. Only let us not lose sight of their intimate relation to the popular beliefs, of the necessity of studying the two in connection with each other, and of the error that we should commit if we should consider the esoteric doctrine, and the whole system of thought and of ethical ideals which it represents, as the only true form of the inner life of the Indian.

FRANZ BOAS.

*THE ROYAL SOCIETY'S CATALOGUE OF
SCIENTIFIC PAPERS.*

THE following memorandum has been issued by the treasurer of the Royal Society:

The Royal Society has been engaged continuously during the past forty years in cataloguing the various scientific papers which have been issued in all parts of the world since the beginning of the last century. The original scheme of the 'Catalogue of Scientific Papers' provided that the papers should be catalogued only under the names of their respective authors, arranged alphabetically. This 'Authors' Catalogue' has now been carried down to the end of 1883, and comprises twelve quarto volumes.

More recently it has been decided to prepare also a subject index of the same papers—that is to say, a catalogue in which the papers are indexed according to the subject-matter of which they treat. Considerable progress has been made with this subject index, though nothing has as yet been published.

The expense of this work has been very large, since, although a great amount of gratuitous labor has been readily given by fellows of the society, it has been necessary to employ a considerable permanent salaried staff upon the preparation of the copy for the press. At first the printing and publication were undertaken by H.M. Stationery Office, the treasury having determined that the catalogue should be printed at the public expense. In coming to this conclusion the Lords of the Treasury stated that they had regard 'to the importance of the work with reference to the promotion of scientific knowledge generally,

to the high authority of the source from whence it came, and to the labor gratuitously given by members of the Royal Society for its production.' This arrangement, however, came to an end after the publication of the first eight volumes. The treasury in 1889 informed the society that the catalogue could no longer be printed and published by the Stationery Office. The unsold volumes were, however, handed over to the society, and Parliament voted a sum of £1,000 to assist the society in continuing the printing and publication. The four subsequent volumes have been printed and published by the Cambridge University Press, which has received subsidies from the society for this purpose, and receives the sums arising from sales.

The total sum expended by the society upon the catalogue down to the end of June last has been £14,790 5s. 5d. Towards this expenditure a donation of £2,000 was made by Dr. Ludwig Mond in 1892. Sums amounting to £524 11s. 9d. have been received as the proceeds of sales of the volumes handed over to the Royal Society by the Stationery Office, and, as already stated, £1,000 has been received from the treasury. The council has also hitherto devoted the income of the Handley fund (which they have power to apply as they may deem best for the advancement of science) towards defraying the cost of producing the catalogue. The total sum received from this source has been £2,394 11s. 10d. A sum of £341 11s., arising from money invested until actually required, has also been available for the same purpose. These pecuniary aids amount in all to £6,260 14s. 7d. As will be seen, they have not been nearly sufficient to meet the whole cost, and the society has been compelled to make up the balance of £8,529 10s. 10d. out of its own general income.

As it became obvious that to permanently continue to prepare and publish catalogues of the ever-increasing stream of scientific literature was wholly beyond the means of the society, the council took steps to obtain international cooperation in this great work. Such cooperation has happily been secured, and the cataloguing of the scientific literature of the

present century is now in the hands of an international council. The Royal Society has, however, incurred large special responsibilities in connection with the matter, having undertaken, *inter alia*, to act as the publishers of the catalogue, and also to advance the capital required to start the enterprise.

The International Catalogue is concerned only with the scientific literature appearing after the commencement of the present century. The Royal Society's Catalogue, as already stated, is at present carried down to the end of the year 1883 only, and the subject index for that period is but partially dealt with. The foreign delegates, assembled to consider the establishment of the International Council, expressed their sense of the great importance of the Royal Society's Catalogue, and of the obligations which men of science in all countries were under to the society for having undertaken it. They also expressed the hope that the society would complete the catalogue up to the close of the last century, so as to bring it into line with the International Catalogue. Indeed, it may be said that the International Council is proceeding on the assumption that this will be done.

In order to complete the catalogue, it will be necessary to prepare and publish a catalogue of authors for the seventeen years 1883-1900, and to complete and publish the subject index for the whole of the past century. The council of the Royal Society are satisfied that this work must be done, and have not felt justified in refusing to undertake it. They have accordingly commenced operations, and it is hoped that the copy may be produced ready for the press in about five years. Owing to the enormous increase in the number of scientific publications at the close of the last century, it is estimated that to complete the catalogue, and to subsidize a publisher for undertaking the printing and publication, he retaining the proceeds of the sale, will cost at least £12,000.

The question now arises whether the funds of the Royal Society ought to continue to be burdened with any part of this expense. The activity and responsibilities of the society

have greatly increased in recent years, and it is much straitened by its inability to increase its expenditure, either on its own establishment, or in other directions, owing to the incessant demands of the catalogue. The council consider that the time has now come for them to appeal to those who are in a position to afford substantial financial assistance, to enable them to complete this great undertaking without devoting any part of their funds, so sorely needed for other purposes, to this object. They are thankful to be able to announce that Dr. Ludwig Mond, F.R.S., has been so impressed with the importance of the catalogue, with the necessity for producing the subject index of the scientific literature of the past century so far as possible in the same complete form as that adopted by the International Council for the literature of the present century, and with the justice of the view that the Royal Society ought for the future to be relieved of the cost of producing the catalogue, that he has most generously added to his previous gift of £2,000 the munificent donation of £6,000, payable in four annual instalments of £1,500.

The president and council have also much pleasure in stating that Mr. Andrew Carnegie, fully appreciating the value of the society's undertaking and the claims that it has on the liberality of those who, though not fellows of the society, are interested in the promotion of natural knowledge, has contributed the handsome sum of £1,000 towards its accomplishment. They venture to hope that others may be willing to contribute towards a fund to provide for the total cost of this national work.

SCIENTIFIC NOTES AND NEWS.

THE Royal Society has this year awarded medals, as follows: The Copley medal to Lord Lister in recognition of his physiological and pathological researches in regard to their influence on the modern practice of surgery. The Rumford medal to the Hon. Charles Algernon Parsons for his success in the application of the steam turbine to industrial purposes and for its recent extension to naviga-

tion. A Royal medal to Professor Horace Lamb for his investigations in mathematical physics. A Royal medal to Professor Edward Albert Schäfer for his researches into the functions and minute structure of the central nervous system, especially with regard to the motor and sensory functions of the cortex of the brain. The Davy medal to Professor Svante August Arrhenius for the application of the theory of dissociation to the explanation of chemical change. The Darwin medal to Mr. Francis Galton for his numerous contributions to the exact study of heredity and variation contained in 'Hereditary Genius,' 'Natural Inheritance,' and other writings. The Buchanan medal to Dr. Sydney A. Monckton Copeman for his experimental investigations into the bacteriology and comparative pathology of vaccination. The Hughes medal to Professor Joseph John Thomson for his numerous contributions to electric science, especially in reference to the phenomena of electric discharge in gases.

At the meeting of the National Academy of Sciences, held in Baltimore November 11 and 12, a grant of eight hundred dollars was made from the income of the J. Lawrence Smith bequest to Dr. O. C. Farrington, of the Field Columbian Museum, Chicago, to enable him to conduct certain investigations upon the meteoric bodies of America.

THE daily papers state that Major Ronald Ross, of the Liverpool School of Tropical Medicine, will receive the award of a Nobel prize.

Nature gives the following list of those who have been recommended by the president and council of the Royal Society for election into the council for the year 1903 at the anniversary meeting on December 1. The names of new members are printed in italics: President, Sir William Huggins, K.C.B., O.M.; treasurer, Mr. A. B. Kempe; secretaries, Sir Michael Foster, K.C.B., and Dr. Joseph Larmor; foreign secretary, Dr. T. E. Thorpe, C.B.; other members of the council, Mr. W. Bateson, Dr. W. T. Blanford, *Professor H. L. Callendar*, *Mr. F. Darwin*, *Professor H. B. Dixon*, Professor G. Carey Foster, Right Hon. Sir John E. Gorst, *Professor J. W. Judd*,