that every advance in the study of fossils reveals more problems than it solves. During the last two decades the progress in our knowledge of the extinct backboned animals has been truly astonishing. thanks especially to the great explorations in North America, Patagonia, Egypt, Madagascar and South Africa. Whole groups have been traced a long way towards their origin; but with them have been found a number of previously unknown groups which complicate all questions of evolution to an almost bewildering extent. Animals formerly known only by fragments are now represented by nearly complete skeletons, and several which appeared to have a restricted geographical range have now been found over a much wider area; but while this progress has been made, numerous questions have arisen as to the changing connections of certain lands and seas which previously seemed to have been almost settled. The outlook both of zoology and of geology has, therefore, been immensely widened, but the only real contribution to philosophy has been one of generalities. Some of the broad principles to which I have referred are now so clearly established that we can often predict what will be the main result of any given exploration, should it be successful in recovering skeletons. We are no longer bold enough to restore an entirely unknown extinct animal from a single bone or tooth, like the trustful Cuvierian school: but there are many kinds of bones and teeth of which we can determine the approximate geological age and probable associates, even if we have no exact knowledge of the animals to which they belong. A subject which began by providing material for wonder-books has thus been reduced to a science sufficiently precise to be of fundamental importance to both zoology and geology; and its exactitude must necessarily increase with greater and greater rapidity as

our systematic researches are more clearly guided by the experience we have already gained. A. SMITH WOODWARD THE BRITISH MUSEUM

ENTOMOLOGICAL RESEARCH¹

In view of the intimate relation which is recognized as existing between certain insects and the propagation of diseases of both man and animals in tropical Africa, and of the similar relation between insects and economic plants, which is becoming more evident as settlement in the continent progresses, Lord Crewe has appointed a scientific committee, whose object it will be to further the study of economic entomology with special reference to Africa.

This body will be known as the African Entomological Research Committee; and Lord Cromer has kindly consented to act as chairman. The other members of the committee are:

Colonel A. Alcock, C.I.E., F.R.S., of the London School of Tropical Medicine.

Mr. E. E. Austen, of the Natural History Museum.

Dr. A. G. Bagshawe, director of the Sleeping Sickness Bureau.

Dr. J. Rose Bradford, F.R.S., secretary of the Royal Society.

Colonel Sir David Bruce, C.B., F.R.S.

Dr. S. F. Harmer, F.R.S., keeper of zoology, British Museum (Natural History).

Dr. R. Stewart MacDougall, entomological adviser to the Board of Agriculture.

Sir John Macfadyean, Royal Veterinary College. Sir Patrick Manson, K.C.M.G., F.R.S.

Mr. R. Newstead, of the Liverpool School of Tropical Medicine.

Dr. G. F. Nuttall, F.R.S., Quick professor of biology, Cambridge University.

Professor E. B. Poulton, F.R.S., Hope professor of zoology, Oxford.

Lieutenant-Colonel D. Prain, C.I.E., F.R.S., director of the Royal Botanic Gardens, Kew.

Mr. H. J. Read, C.M.G., representing the Colonial Office.

The Hon. N. C. Rothschild.

Dr. D. Sharp, F.R.S.

Dr. A. E. Shipley, F.R.S., Cambridge University.

¹ From the London *Times*.

Mr. S. Stockman, chief veterinary officer to the Board of Agriculture.

Mr. F. V. Theobald, of the Agricultural College, Wye.

Mr. C. Warburton, Cambridge University.

Mr. A. C. C. Parkinson, of the Colonial Office, is acting as secretary to the committee, and Mr. Guy A. K. Marshall as scientific secretary.

Arrangements are now being made to despatch a trained entomologist to the east side of tropical Africa and another to the west, for the purpose of stimulating official and other residents to collect and observe noxious insects, and of affording instruction in the use of scientific methods. By this means it is hoped to obtain throughout these territories an organized body of investigators who will communicate all their collections and observations to the committee. These collections will be classified by a number of British and in some instances continental entomologists, and named specimens will be distributed to such institutions as may require them for purposes of instruction, both at home and in Africa. The committee will also keep in touch with the work which is being done in this branch of science in Egypt and the Sudan and in South Africa. The scientific results, including all observations and experiments made by the collectors, will be published from time to time in a journal or bulletin to be issued by the committee. It is hoped that by such organized cooperation the knowledge of these matters will be materially increased, so as to render possible the application of effective remedial measures. Offers of cordial assistance have been received from such institutions as the British Museum (Natural History), the London and Liverpool Schools of Tropical Medicine and the leading universities, in all of which valuable work has already been done in the same direction.

SECOND INTERNATIONAL CONGRESS FOR THE REPRESSION OF ADULTERATION AND FRAUDS IN FOOD AND DRUGS

THE Second International Congress under the auspices of the White Cross Society will be held in Paris, October 17-24 (inclusive), 1909. The meeting will be held under the patronage of the Minister of Agriculture: the Minister of the Interior, President of the Council; the Minister of Commerce; the Under Secretary of State for the War Department; the President of the Municipal Council of the City of Paris and the President of the General Council of the Department of the Seine, Paris. The president of the congress is Dr. Bordas, director of the laboratories of the Ministry of Finance: the vice-president is Dr. Eug. Roux, Chief of the Service for the Repression of Adulteration, at the Ministry of Agriculture; the general secretary is M. Ch. Franche, 16 Place Vendome, Paris, France, to whom all communications relating to papers should be addressed.

The congress is divided into three sections: First Section, alimentary technology; Second Section, hygiene; Third Section, crude drugs, essential oils and crude aromatic substances, chemical products and mineral waters.

There are three classes of members, first, donating members, those paying 100 francs (\$20) are enrolled as such; second, titulary members, any person, society or corporate body having paid twenty francs (\$4) is entitled to become a titulary member; third, associate members, any person, belonging to the family of a donor or titulary member, who pays the sum of ten francs (\$2) may be an associate member. Associate members do not receive the publications of the congress, nor participate in the voting or debates. They are, however, invited to all official fetes and receptions and are entitled to any rebate for traveling expenses and to attend the sittings of the congress.

Important questions concerning the adulteration and misbranding of food and drugs will be discussed in the congress and actions taken thereon. State Dairy and Food Commissioners, food and drug officials of the various states and municipalities and manufacturers of and dealers in foods and drugs are invited to become members and take an active part in the proceedings of the congress by attendance in person, presentation of papers or otherwise.

Dr. H. W. Wiley has been designated as