intestinal amoebas, with several species of intestinal flagellates, with hookworms and from two to four other species of worms, and externally with several species of parasitic insects. Undoubtedly the tropics offer a happy hunting ground for medical zoologists as well as for public health workers. Here are vast areas that may be made habitable by the introduction of control measures that have already been perfected and are very simply put into operation.

Before concluding my lecture I should like to say a few words about where work in the field of medical zoology is being done. In the first place, much of the subject known as tropical medicine is devoted to the study of diseases due to animal parasites, hence we find medical zoology the most important subject in schools of tropical medicine such as those at London, Liverpool, Brussels, Amsterdam and Hamburg. In this country investigators in the field of medical zoology are working in the U. S. Public Health Service, the U. S. Department of Agriculture, in various institutions, such as the Rockefeller Institute, and in colleges and universities. Physicians, especially those living in tropical or semi-tropical countries, are also continually adding to our knowledge of animal parasites and human disease.

The successful control of such diseases as malaria, yellow fever, hookworm disease, plague, Katayama disease and many others is very gratifying to medical zoologists, since millions of human beings have thus been saved from suffering and death. But there are still many diseases that are only partly under control and about which very little is known. Even malaria, which has been studied for many years by some of the best of our scientists, still offers many problems for solution. It sometimes seems that we will never know all there is to be learned about any one of these diseases, but as Pasteur, who was at least in part a medical zoologist, remarked, "To travel hopefully is a better thing than to arrive, and the true success is to labor."

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THE RUMFORD FUND

THE following is a brief history of the Rumford Fund, as well as of the purposes for which it was created and has been maintained.

Benjamin Thompson was born at Woburn, Mass., in 1753, and studied at Harvard College, being much interested in scientific subjects. He was a teacher in schools at Wilmington, Mass., and at Rumford, N. H. He went to England in March, 1776, and carried on there a series of scientific studies, the results of which were communicated to the Royal Society. He was elected a fellow of that society in 1779.

In 1785, he entered the service of Prince Maximilian, the Elector of Bavaria. He introduced a number of important reforms into that country, while also carrying on an important series of scientific researches. One result of these researches was a demonstration of the equivalence between heat and mechanical work. He reclaimed a large area of barren land at Munich, and formed it into a fine park, which he subsequently gave to the city and which is still known as the "English Garden." In 1791, he was invested with the rank of a Count of the Holy Roman Empire, and chose the title of Rumford, the New Hampshire village in which he had taught as a youth, and in which the family of his wife had resided.

In 1802, he removed to Paris, where he met and married his second wife, who was the widow of the celebrated chemist, Lavoisier. It was in 1794 that the French revolutionary government had sentenced Lavoisier to death under the guillotine, at what is now the Place de la Concorde in Paris.

Count Rumford founded the Rumford Research Medals of the Royal Society in London and of the American Academy of Arts and Sciences in Boston. He also founded a Rumford professorship in science at Harvard University. During his life, he made numerous contributions to economics, physics, meteorology and chemistry. He died at Auteuil, Paris, in 1814.

The American Academy of Arts and Sciences has continued to administer the Rumford Fund, by awarding premiums and grants, in aid of researches in light and heat. The academy maintains a standing committee of seven fellows, known as the Rumford Committee. This committee, from time to time, recommends to the academy the award of the Rumford premium or medal to persons in North America or any of the American islands, who have notably contributed to the sciences of heat or light. The committee also considers all applications for grants from the income of the fund in aid of research connected with those sciences.

Since 1839, the academy has made thirty-two awards of the Rumford premium to scientific investigators. It has also made nearly 250 grants of money to researchers, varying in amount between $25 and $750, but averaging about $260 each. These grants are for apparatus, materials or experimental equipment. They are also made towards costs of printing in the publication of researches. Only in very rare cases have grants been made towards the payment of assistants in carrying on such researches.

The subjects of research aided by the Rumford Fund are light and heat. More recently, the subject of X-rays has been accepted as coming within the scope of the fund.

Recipients of grants for investigations are ex-

pected to report annually to the committee as to the progress of the work for which the grant was made.

Researches carried on with aid from the Rumford Fund may be published in any place or form, with the proviso that due recognition be made of the grant as from the Rumford Fund of the American Academy of Arts and Sciences. It is expected that a complete copy of every such publication shall be presented to the academy.

Persons making application for grants from the Rumford Fund are expected to inform the committee of any similar applications made by them for grants from other funds in aid of the same research, or of related researches.

Applications for grants should be addressed to the Chairman of the Rumford Committee, Care of the American Academy of Arts and Sciences, 28 Newbury Street, Boston. Such an application may be made by any duly qualified person in North America or in any of the American islands. It should specify the nature of the research and the particular aid desired.

A. E. KENNELLY,
Chairman of the Rumford Committee

EDMUND OTIS HOVEY (1862–1924)

THE unexpected death of Dr. Edmund Otis Hovey, for many years curator of geology of the American Museum of Natural History, New York City, came as a severe shock to the geologists of America. For a generation he had been a familiar figure in the councils of the leading organizations fostered by investigators in the science of geology, and his service in them has left an impress that will last for many years. Few men had a greater number of personal friends in his own field or a wider acquaintance in his science the world over. His passing has given a distinct sense of personal loss to a host of people, far beyond the bounds of intimate family ties and friend-associates. It is well to stop and pay tribute to the memory of such a man.

Edmund Otis Hovey was born of New England parents, in New Haven, Connecticut, September 15, 1862. After a career of great usefulness and activity, which continued unto the very day of his death on September 27, 1924, his life work came to a sudden end in the midst of a busy day, almost as any very active man might wish.

By inheritance, training and subsequent opportunity, Dr. Hovey was marked for geological service, and few men in the field of geology in America have filled their niche better. His father, Horace Carter Hovey, before him, was deeply interested in geologic phenomena, but was a minister of the gospel by profession, a calling which he followed all his days. The scholarly atmosphere of the parsonage, coupled with a deep love of scientific investigation, furnished a favorable environment.

To this helpful environment of youth and to his native talent were later to be added a training that could not readily be surpassed and an opportunity far superior to that vouchsafed to most men of scientific bent. It is true that his preparatory education was somewhat broken by the many moves of the family to different places in the Middle West and in New England, but the cities and towns to which his father was called to preach were among the better places of those days. Even this experience was but a foretaste of travels to many distant lands that it became his own lot to visit and study in later years.

He attended Yale College in the days of the elder Dana, one of the great masters of earth science in America and it was in such surroundings that he began to formulate plans for a scientific career. After finishing his college course he was for two years a teacher and principal in the schools of Minnesota; but was not content to follow that call, and in 1886 he returned to Yale for graduate study in geology and mineralogy, securing the degree of doctor of philosophy in 1889. Additional years of teaching and school administration were followed by travel and study abroad, where he came in touch with some of the most famous scientists of Europe, notably with Professor Rosenbusch, the most eminent petrographer of his day, whose influence seems to have followed him the rest of his life. From that time he devoted himself to scientific work in his chosen field, to the organizing of geologic data for educational purposes and ultimately to very distinguished service as an editor and as the chief responsible officer of one of the greatest scientific societies.

The first step was taken in 1893 when he was placed in charge of the Missouri State exhibit of minerals at the Columbian Exposition in Chicago. The ability displayed in that engagement attracted the attention of museum directors; and at the invitation of the American Museum of Natural History, New York City, he accepted a position on the geological staff of that institution, where he served the rest of his life. It was neither luck nor favor, but a perfectly natural outcome for a man who had already proved his mettle and had made good on the first opportunity presented.

His years at the American Museum carried him through all grades and many kinds of service to a curatorship in charge of the department of geology, one of the highest scientific responsibilities in that organization, which post he held for fourteen years. In the course of his service at the museum an enormous amount of work had to be done in making the immense collections of that institution of greatest usefulness both to scientists, who look to it for com-