mansoni would appear to be far better than those in the case of *S. haematobium,* since the former has become established and has flourished in parts of the New World, whereas the latter, though probably repeatedly introduced in the same areas by the same means, has never been able to maintain itself. Further, planorbid snails in the continental United States are more closely related to those species carrying *S. mansoni* than they are to those carrying *S. haematobium.* In the case of *S. japonicum,* members of the genus *Tironius* in Utah and California might serve as intermediate hosts, although these forms differ somewhat in their biological requirements as compared to known carriers of this species.

To summarize the case for the schistosomes, we may conclude that there is a possibility of their establishment in the continental United States and that this possibility is more pronounced in the case of *S. mansoni.* This conclusion presupposes the occurrence of fortuitous circumstances involving large numbers of returning troops infected with the parasites, the concentration of considerable numbers of infected individuals into given areas, particularly rural areas in the southern states, where conditions would be most favorable for the propagation of the parasites, and the presence of suitable intermediate snail hosts.

Military authorities have already agreed to take such steps as are practical to limit the return of carrier cases to their home communities. In view of the lack of information on small hosts, the National Institute of Health is carrying on experiments to determine whether domestic species of planorbid snails can be infected with the various species of schistosomes. If such species are found, the situation would warrant extensive studies on the ecology and distribution of the incriminated forms.

THE INTRODUCTION OF DISEASE VECTORS

The catastrophic consequences of the introduction of *Anopheles gambiae* into northeastern Brazil are too well known to need reiteration. This circumstance, however, has served to emphasize to a marked degree the potential hazards with which the United States is faced in view of our accelerated world-wide air travel. The establishment of more efficient vectors of malaria in our present extensive endemic areas would be followed by disastrous effects on the welfare and economy of the South and might hinder tremendously our war effort. The introduction of exotic diseases by returning troops will render us even more vulnerable to any vectors which might be able to gain a foothold here. Needless to say, the United States Public Health Service is alert to all the potential possibilities in the situation and in cooperation with our military services is exerting every effort to guard our shores against the introduction of disease transmitting species.

One can not leave this general subject without calling attention to the need for training in tropical medicine on the part of public health workers and practising physicians. Our armed forces have done excellent work in better implementing service physicians through the inauguration of basic courses in tropical diseases. After the war is over many of these men will no doubt return to practise with an adequate background in this field and will be capable of diagnosing and treating cases of exotic disease which will come to them.

Likewise, a commendable effort has been made in providing more and better instruction in tropical medicine in our medical schools. Little has been done, however, in furthering knowledge of tropical diseases among physicians remaining in civil life and among public health workers who may be called upon to assume responsibility for the control of any such diseases which may be introduced as a result of our participation in the war. This latter problem would seem to lie within the sphere of influence of this association and might well serve as a subject for further discussion, planning and accomplishment.

OBITUARY

EDWARD BENNETT MATHEWS

DR. EDWARD BENNETT MATHEWS, emeritus professor of mineralogy and petrography at the Johns Hopkins University, died on February 4, 1944.

Dr. Mathews was born in Portland, Maine, on August 16, 1869. He received the bachelor's degree at Colby College in 1891, and was awarded the honorary degree of doctor of science in 1928 as one of its most distinguished alumni. The fact that his family was engaged in slate quarrying in Maine doubtless influenced his choice of a geological career, and led him to study mineralogy and petrography under George Huntington Williams at the Johns Hopkins University. He was awarded the degree of doctor of philosophy in 1894 and was immediately appointed instructor in mineralogy and petrography upon the untimely death of his eminent teacher. As field assistant in the U. S. Geological Survey from 1891 to 1894, he had served invaluable apprenticeships under another great teacher, C. R. Van Hise, in the Marquette district in Michigan, and under the renowned Whitman Cross and R. A. F. Penrose, Jr., in the Pike's Peak region in Colorado. Before beginning his teaching career, he also spent some time in Germany in the laboratory of another

of the great teachers of that day, Harry Rosenbusch. No more discriminating selection of teachers and geologists under whom to train could have been made. At the Johns Hopkins University, he was promoted to the rank of associate in 1895, to associate professor in 1899 and to professor in 1904. Upon the death of William Bullock Clark in 1917, he became chairman of the department of geology, which position he held until his retirement from active university duties at the age of 70 in 1939. None of his colleagues on the teaching staff served the university in more diverse capacities and with more unselfish devotion. He was especially helpful in planning the transfer of the university from down-town Baltimore to the outlying site at Homewood. No one had a greater store of information concerning persons and events in the history of the university.

Soon after the Maryland Geological Survey was established in 1896, he became assistant state geologist, and in 1917 he succeeded William Bullock Clark as state geologist, a position which he held until compelled to retire on account of ill health in 1943. Outside of his university teaching, the greater part of his geologic activity was devoted to the work of the Maryland Geological Survey. The excellent editorship and workmanship of the publications of that survey are mainly the product of his careful attention and his understanding of the arts of printing and engraving. His wide range of interests in many fields of knowledge was instrumental in giving to the publications of the Maryland Geological Survey an unusually wide scope which covered collateral and related fields beyond the customary limits of strictly geologic work. He was an important contributor to most of the volumes published by the survey from his "Bibliography and Cartography of Maryland in Volume 1, published in 1897, to the "Gazetteer of Maryland," published as Volume 14 in 1941. His contributions to the geology of Maryland covered such subjects as the petrography and structure of the piedmont, the building and ornamental stones, the limestones, the coals, the surface and ground waters, the mineral industries, the clays and the physical features. Keen interest in history, bibliography and cartography is reflected in such works as the "Bibliography and Cartography of Maryland," the "Catalog of Published Bibliographies in Geology," "The Counties of Maryland and their Origin," "Maps and Map Makers of Maryland," the report on the resurvey of the Mason and Dixon Line and the report on the location of the boundary line along the Potomac River between Maryland and Virginia. It was this sort of interest that led him throughout the years of his teaching to accumulate analyses of igneous rocks from all over the world, which culminated in the last years of his career as a Geological Society of America project under which he completed a search of geologic literature to assemble all existing analyses of igneous rocks and arrange them geographically by latitude and longitude and by classes. It is to these same interests in history, bibliography and cartography that the department of geology of the Johns Hopkins University owes its excellent geologic library which is so rich in classical and foreign literature and its large collection of foreign maps. The people of the State of Maryland have benefited from his love of cartography through the many useful maps published by the Maryland Geological Survey. Maryland is perhaps the only state provided with county topographic maps of all its counties. Under his direction, the Survey has also published soil maps of all the counties on the topographic base. In addition geologic maps of nearly all the counties have been published and forestry maps of a number of the counties. Other much-used maps prepared by Dr. Mathews are various types of general maps of the state and two editions of a geological map of the state. He also prepared large-scale maps of the principal cities of the state. Especially useful in building projects and public works are his maps of Baltimore City showing respectively the original shore lines and drainage, the configurations of the underlying rock floor and the amount of overburden covering the underlying rock. One of his fellow state geologists in appraising his work closed with the tribute, "He lived a long and fruitful life and Maryland has many things to thank him for."

Dr. Mathews not only served his adopted state as State Geologist, but in many other capacities. He was director of the Maryland Weather Service from 1917 to 1933, executive officer of the State Board of Forestry from 1917 to 1925, member of the Maryland State Development Commission since 1929, member of the Water Resources Commission from its establishment in 1933 until it was merged in 1941 with the Maryland Geological Survey into the Department of Geology, Mines and Water Resources, of which he became director, and member of the Board of Natural Resources since its establishment in 1941. He was also, since 1914, secretary of the Maryland Historical Society Library.

Outside of Maryland, he served for many years as chairman of the advisory council of the U. S. Board of Surveys and Maps, as chairman of the Division of Geology and Geography of the National Research Council from 1922 to 1925, as vice-president and treasurer of the Sixteenth International Geological Congress, and as treasurer, member of the finance committee and councilor of the Geological Society of America since 1917. He was also president of the American Association of State Geologists from 1921

to 1923 and vice-president from 1918 to 1920, 1924 to 1925, and 1930.

His wide human interests and love of geography made him an eager traveler and student of the classic geologic areas of Europe and other parts of the world, experiences that greatly enriched his knowledge of geologic history, places and persons. This wealth of knowledge and experience he was ever ready to share with friends, colleagues and students, who found him an unending and never-failing source of information.

The stimuli to such a wide range of activities and interests were an innate intellectual curiosity and an unselfish desire to be useful to others, and never an urge to display unusual wisdom or to bring himself into the forefront. He adroitly avoided public and formal exhibition of the versatility and range of his knowledge and experience, but he was always ready and happy to share their fruits unobtrusively and informally in friendly conversation. The character and personality of Dr. Mathews can not be more appropriately described than in the words of a colleague of long association who said, " I have never known him to do an unkind or unfair act" and of another fellow geologist who wrote, "All of us who knew Professor Mathews personally had a real affection for him and we had a deep appreciation of his able and unselfish devotion in his chosen field. We shall greatly miss him."

JOSEPH T. SINGEWALD, JR.

RECENT DEATHS

PROFESSOR WILLIAM EDWARD TOTTINGHAM, associate professor of biochemistry at the University of Wisconsin, died on March 2. He was sixty-two years old.

DR. FREDERIC WILLIAM SCHLUTZ, Richard T. Crane professor of pediatrics and chairman of the department at the University of Chicago, died on March 9 at the age of sixty-three years.

DR. HELEN COPELAND COOMBS, instructor in physiology at Brooklyn College, died on March 4 at the age of fifty-two years.

THE death is announced of Dr. H. F. Newall, F.R.S., from 1909 until his retirement with the title emeritus in 1928 professor of astrophysics at the University of Cambridge.

DR. JOHN WILLIAM HENRY EYRE, emeritus professor of bacteriology at the University of London, died on February 17 in his seventy-fifth year.

SCIENTIFIC EVENTS

CHINESE SCIENTIFIC SOCIETIES

IN an account of the joint annual meeting held last July of scientific societies in China, including the zoological, the botanical, the meteorological, the mathematical and the geographical societies, under the presidency of Dr. Wong Wen-Hao, *Nature* reports that Dr. Joseph Needham, Sir William Dunn reader in biochemistry at the University of Cambridge, England, was elected an honorary member of the Science Society of China, in appreciation of "his distinguished academic work and his service in promoting cooperation between Chinese and Western science, which had been so effectively carried on during the previous six months."

The six societies spent two mornings in communicating original papers dealing with their respective sciences; more than three hundred papers were read. Brief abstracts of these papers will be published shortly in Chinese with additional English titles.

One of the two remaining afternoons was devoted to a discussion on "Science and National Reconstruction," with special reference to the problem of how science is to be promoted in China. Opinions were formulated on the following four points, which were presented to the Chinese Government for immediate adoption.

(1) The government is requested to provide a large fund in the forthcoming national budget for, and only for, the furtherance of scientific research and of the scientific education of the masses.

(2) The personnel and equipment of the leading science institutes, such as those of Academia Sinica, must be materially augmented.

(3) The government must endeavor to establish cooperation between the scientific workers on the one hand and officials in charge of national planning on the other, so that the resulting plans may be more practical and fruitful.

(4) While the government is considering sending a large number of young men of science abroad, it is deemed appropriate that such opportunities should be extended to mature scholars also. Here again, the government is requested not to neglect pure science in favor of applied sciences and technology. There was a discussion on "International Science Cooperation," and an address by Dr. Needham entitled "International Science Cooperation in War and Peace" was read by Dr. H. C. Zen, president of the Science Society of China. A scientific exhibition intended for the general public was arranged.

ADVANCED INSTRUCTION AND RESEARCH IN MECHANICS AT BROWN UNIVERSITY

BROWN UNIVERSITY has issued an announcement of the program of advanced instruction and research in mechanics, covering the period since its inauguration