habits of organs seem more important than those of animals. Cushny remarked as long ago as 1915 that all the great therapeutic discoveries of the preceding 50 years had stemmed from the laboratory. Nevertheless medical science now derives strength more than ever from the study of life in the lower forms. It is not merely that cows have tuberculosis and pigs influenza. There exists a physiological kinship amongst organisms of the most incongruous kinds. The realization that Nature does not conform with man's meager imaginings but far exceeds them has always been one of the chief delights of the investigator. Could common sense have prophesied that observations on certain cells wandering within the negligible body of a skipping little crustacean, a waterflea, would tell how bacteria can be met and destroyed when they invade the human being? To find out anything from tobacco plants that will apply to human virus diseases seems a wild thought. Yet one can and does. It has dawned upon us, somewhat more than dawned, that the happenings in animals and plants have far greater meaning for us than their forms would imply. These overemphasize the differences in a most deceptive way; for living creatures are joined by their functional principles into a sort of vertical union. The same insulin that works in the cod-fish will save a diabetic man. What takes place within animals and plants is our own vital concern; no natural science but is in some sense our province. And the further the doctor peers amongst organic phenomena the more twos and twos can he see ready to be added up into fours.

Nothing in medicine has bettered so much throughout the years as the doctor's relations with Nature. Now he is more of a naturalist than ever. It may be urged that the change has been quantitative, that Hippocrates would find himself on easy terms with the good physician of to-day. Granted. Yet there are alterations which, though intrinsically quantitative, are qualitative in effect: they make the world look different. And the world of the body looks different now to the doctor, though it is only himself that has changed.

# **OBITUARY**

# IN MEMORY OF OTTO HILGARD TITTMANN

AT a meeting of the Board of Trustees of the National Geographic Society held on October 27, the following resolution was adopted on the death of Dr. Otto Hilgard Tittmann, one of the founders of the society and its president from 1915 to 1920:

With profound sorrow, the Board of Trustees of the National Geographic Society records the death on August 21, 1938, of Dr. Otto Hilgard Tittmann, a founder member of The Society.

A member of the Board since 1888, and President of The Society from 1915 to 1920, Dr. Tittmann had an important part in building The Society from a small group of pioneers to the world-wide organization of to-day. His keen scientific mind, his administrative ability, and his loyalty to The Society are recognized by this Board as vital factors in The Society's fifty years of progress.

Dr. Tittmann was an outstanding geodesist of his day. At seventeen years of age, in 1867, he began his scientific career as a member of field parties of the Coast and Geodetic Survey studying the Atlantic and Gulf Coasts. His frequent elevation to higher posts of responsibility in the Survey and his excellent work on special scientific assignments by his Government in the fields of geodesy and astronomy finally won for him, in 1900, the appointment of Superintendent of the Coast and Geodetic Survey.

At the early age of twenty-four years, he was assigned as assistant astronomer of an expedition to Japan to observe the transit of Venus. On his return to this country he continued his field work on the Atlantic and Pacific Coasts, and in 1887 was appointed Chief of the Office of Standard Weights and Measures, then a part of the office of the Coast and Geodetic Survey.

Outstanding among his achievements was his work in connection with the marking of boundaries between the United States and Canada and Alaska and Canada which covered the period from 1893 to 1911, and his researches in the field of geodesy.

In recognition of the valuable contributions of Dr. Tittmann to the National Geographic Society, of his important scientific achievements, of his inspiring leadership, be it resolved that this expression be spread upon the minutes of The Society and that a copy be transmitted to his family.

#### RECENT DEATHS AND MEMORIALS

Dr. Edwin Herbert Hall, professor emeritus of physics at Harvard University, died on November 20 at the age of eighty-three years.

Dr. John C. Phillips, research curator of birds in the Museum of Comparative Zoology of Harvard University, member of the faculty of the Peabody Museum of Harvard College and president of the Peabody Museum at Salem, Mass., died suddenly while shooting in the woods of New Hampshire on November 14. He was sixty-two years old.

Dr. Howard A. McCordock, professor of pathology at Washington University School of Medicine, known for his work on sleeping sickness, died on November 13 at the age of forty-three years.

Dr. HIRAM MILLER SHOWALTER, professor of biology at King College, Bristol, Tenn., died on Novem-

ber 12 at the age of thirty-five years. His published papers have been concerned with the cytology and genetics of Mirabilis. For several years prior to his death he was engaged in a cytogenetical survey of the Tradescantias of the Great Smoky Mountains of Tennessee and North Carolina.

FREDERICK CLEMENS ZEISBERG, technical investigator of the development department, E. I. du Pont de Nemours and Company, and president, American Institute of Chemical Engineers, died on November 12 at the age of fifty years.

GLEN P. VAN ESELTINE, associate in research in the division of pomology at the New York State Agricultural Experiment Station, Geneva, died on November 15 at the age of fifty years.

A CORRESPONDENT writes: "William Hudson Behney died on October 28. He was assistant professor of zoology at the University of Vermont, with which university he had been connected for ten years, as research fellow, assistant in zoology, instructor and associate professor. He was granted in May, 1938, a year's leave of absence to work for his Ph.D. degree, having received his master of science degree from the university in 1930. But in September last he was appointed director of the Fish and Game Service of Vermont. Hardly had he begun the duties of this new position, still retaining his connection with the state university, when he was stricken with a serious illness, malignant peritonitis, which three weeks later brought about his death. A young man of only thirty-six years, of remarkable promise and accomplishment, especially in the field of stream ecology and fish biology,

Behney's untimely passing has deprived the country of one of the most zealous and devoted naturalists of his generation."

A MEMORIAL meeting of friends, associates and former students of Dr. Abram T. Kerr, who until his death last August had been secretary of the Medical College of Cornell University at Ithaca for thirty-six years, was held on October 30. Dr. Benjamin F. Kingsbury, professor of histology and embryology at Cornell University, presided and spoke of Dr. Kerr's long service at Cornell University; Dr. Dean F. Smiley, medical adviser, spoke of his influence in establishing hygiene instruction, and Professor Simon H. Gage, professor of histology and embryology, emeritus, spoke of him as former student.

An oil portrait of the late Dr. Charles H. Herty will be presented by the Alumni Society of the University of Georgia to the university, where he was a member of the class of 1886 and where he taught chemistry for many years.

It is reported in *Nature* that the Council of the Royal Society of Edinburgh, with permission of the Hon. Lord Robertson, have caused to be incised on the house at 14 India Street, Edinburgh, the following inscription:

JAMES CLERK MAXWELL NATURAL PHILOSOPHER BORN HERE 13 JUNE 1831

A NEW statue of Carl Linnaeus, father of modern systematic botany, has been erected near the University of Lund, Sweden.

### SCIENTIFIC EVENTS

## THE ESTABLISHMENT IN THE DEPART-MENT OF STATE OF A DIVISION OF CULTURAL RELATIONS

The Secretary of State, the Honorable Cordell Hull, has signed the following departmental order establishing in the Department of State a Division of Cultural Relations:

For the purpose of encouraging and strengthening cultural relations and intellectual cooperation between the United States and other countries, it is hereby ordered that there shall be established in the Department of State a Division of Cultural Relations.

The division will have general charge of official international activities of this department with respect to cultural relations, embracing the exchange of professors, teachers and students; cooperation in the field of music, art, literature and other intellectual and cultural attainments; the formulation and distribution of libraries of representative works of the United States and suitable translations thereof; the preparations for and manage-

ment of the participation by this government in international expositions in this field; supervision of participation by this government in international radio broadcasts; encouragement of a closer relationship between unofficial organizations of this and of foreign governments engaged in cultural and intellectual activities, and, generally, the dissemination abroad of the representative intellectual and cultural works of the United States and the improvement and broadening of the scope of our cultural relations with other countries.

In fulfilling its functions, the Division of Cultural Relations will direct the conduct of exhaustive studies and have responsibility for the elaboration and the carrying into effect of a comprehensive and coordinated plan of activity in this country for the strengthening of international intellectual and cultural relations; it will assist in the preparation and interpretation of treaties in this field; it will supervise the formulation of regulations and procedure necessary for the fulfillment of obligations under the Convention for the Promotion of Inter-American Cultural Relations and other treaties and conventions relating