

ganized, widespread and dangerous movement on foot to discredit the medical profession, to procure legislation which will prevent the progress of medicine and surgery, to break down the bulwarks of preventive medicine, and thus expose our people to the attacks of diseases which are now held in check by science, but which formerly took frightful toll of human life. This anti-medical campaign is being conducted by a considerable number of organizations professing various aims, such as antivivisection, anti-vaccination and "medical liberty," but all seeking by fair means or foul to bring into disrepute scientific methods of combating disease, and to substitute therefor every known form of pseudo-science and quackery.

The present headquarters of the Society are at 28 Newbury Street, Boston, Mass., in the house of The American Academy of Arts and Sciences by kind permission. The Society has a large quantity of educational literature available for distribution and sincerely hopes that every layman as well as every medical and biological investigator in America who may read this announcement will correspond with Miss Mary Lee Thurman, 28 Newbury Street, Boston, Mass., with a view to becoming a member of the Society and not only this but that they will give the Society whole hearted encouragement and support.

THOMAS BARBOUR

## JOHN THOMAS GULICK, MISSIONARY AND DARWINIAN

JOHN THOMAS GULICK, son of a missionary, was born in Hawaii in 1832, and died recently in Honolulu at the age of ninety years. He has been widely and very favorably known as a student of the land snails of Hawaii (*Achatinellidae*), and of the lessons in evolution to be derived from their nature and distribution. He was greatly impressed, seventy years ago, with Darwin's account in "The Voyage of the Beagle," of the birds and reptiles of the Galapagos Islands, and the suggestion of localization as a moulder and determinant of forms. He found conditions even more striking existing in Hawaii. The many species of land snails on those islands occupy each a restricted area separated by barriers of stream or meadow which these slow-moving creatures practically never crossed. As he recorded the multitude of forms, the conviction grew with him that the relation of these geminate species of shells "was a marvelous self-revelation from the hand of the Creator himself and that if we could but learn the alphabet we might read from them the story of His method of creation."

Dr. Gulick, a graduate of Williams College (1859),

spent most of his life as a missionary in China and Japan. Even before he had read "the Origin of Species" he had reached the conclusion that "many genuine species had been derived from descent from one original stock or species." To find out the range of this possibility and how it came about he devoted his spare time for many years. His first paper: "The Variation of Species as related to their Geographical Distribution," was published in *Nature* in 1872. Numerous other papers on the formation of species through isolation and segregation followed, the most extensive being a volume, "Evolution, Racial and Habitual," issued by the Carnegie Institution.

Nearly all Dr. Gulick's scientific work relates to the multitude of genera and species of these tree snails of a family peculiar to small groves and thickets. No one considering the wealth of illustration given by Dr. Gulick can fail to recognize that isolation has been the immediate occasion of the moulding of each of the various forms; and while the evidence in most other groups of plants and animals is not so clearly visible, every competent field-worker finds the same factor in the origin of practically every species whatever. Adaptation is produced by Natural Selection: the final differential moulding by isolation and segregation.

In the details of his work Dr. Gulick was far ahead of his time, not many laps indeed behind Darwin, and in general conception of methods of evolution he is still in advance of many able workers who are prone to forget what they have not themselves seen. The internal factors in evolution, heredity and variation, are recognized by all authors. The external factor, selection, has been fully illustrated by Darwin, and can apparently be questioned only through ignorance or perversity. Another external influence, isolation with segregation, was regarded by Darwin as a feature of natural selection, its vital importance being overlooked by naturalists who have not studied wild life in nature's own workshops.

It is worth noting in these days of conflicts between knowledge and prejudice that Dr. Gulick was a thoroughgoing Darwinian, as well as a Christian missionary. His scientific studies were to him a reverent duty, a study of the actual ways of the Creator in His actual handiwork.

Dr. Gulick, after a happy and successful life, attained a happy old age. One of the red-letter days of the present writer was in 1922, when he received an invitation to Gulick's charming home in Honolulu, where, himself a champion of "*räumliche Sonderung*" as a necessary factor in evolution, he was privileged to stand by Gulick's side when one who had studied with both of us took our photograph together.

DAVID STARR JORDAN