

But the most needful change in the pension policy of the foundation is a cessation of change. The worst possible trait in any system of annuities or insurance is the trait which has hitherto conspicuously characterized the administration of those who have had Mr. Carnegie's great gift in their charge—untrustworthiness. Whatever else it is, a pension system should be a thing which can be depended upon, to which men can adjust their plans with confidence. All its dealings should be marked by an *uberrima fides*. Its rules should be definite and comprehensive; and they should not subsequently have read into them meanings contrary to their natural sense. It is imperative, therefore, that the foundation take the necessary measures to ensure the stability of its policy. It should first of all determine with the utmost care and thoroughness what it is financially able to do. It should thereafter confine its promises within the limits of its possibilities. It should then keep the promises it makes.

ARTHUR O. LOVEJOY

GEORGE HAROLD DREW

GEORGE HAROLD DREW, B.A., of Cambridge, one of the most brilliant of the younger biologists of England, died suddenly on January 30, 1913.

He was the only son of George Samuel Drew, Esq., of Paignton, Devon; and was born on October 23, 1881, and educated at New College, Eastbourne.

He was entrance exhibitor at Cambridge in 1900 and was elected in June, 1901, to a scholarship in the university, where he paid special attention to the natural sciences and to the more scientific aspects of the medical courses. In 1906 he obtained a scholarship in St. Mary's Hospital, and in 1908 he studied in the Marine Biological Station at Plymouth and was also lecturer in biology in the Plymouth Technical School. In 1910 he was appointed Beit memorial fellow in medical research for the zoological department of cancer, and in 1912 he was elected to the John Lucas Walker studentship for pathology in the University of Cambridge, and on January

1, 1913, he was appointed research associate in the department of marine zoology of the Carnegie Institution of Washington.

He was distinguished not only for his remarkable breadth of knowledge, but even more so for a rare aptitude and insight into methods of research which, had his life been spared, would have led to his name being known among the very few of England's great men of science; but in the springtime of his high promise he passed away and the all but unheeding world has lost a great leader who was to be.

He was the author of only fifteen papers, yet among them are some notable contributions to science.

In coral reef regions naturalists have long been familiar with the vast areas covered with finely divided limestone which has commonly been called "coral mud." In 1910, however, Vaughan stated that these limestone muds appeared to be of chemical origin, and in 1911 Drew discovered that there is in the warm surface waters of the tropical Atlantic a bacillus which is exceedingly abundant and which denitrifies the sea water, thus enabling the dissolved carbon dioxide to combine with the calcium and to form a precipitate of calcium carbonate.

Thus the vast beds of limestone which in coral reef regions are often hundreds of feet in thickness and thousands of square miles in area are formed mainly through the activity of Drew's bacillus.

Moreover, the presence of this denitrifying bacillus in tropical seas accounts for the paucity of sea-weeds in the warm oceans, and the blue color of "coral seas" may in some measure at least be due to the presence of the finely divided particles of calcium carbonate suspended in the water.

Recent studies by Vaughan appear to indicate that oolite is ultimately formed from this precipitated calcium by attraction of the particles to the films of gas bubbles, or to solid nuclei, in the manner described by Linch.

Drew's interest, however, extended to subjects other than those of oceanography; for

his remarkable work in the production of ciliated cysts, and other abnormal growths due to artificial stimulation in *Pecten* and other marine invertebrates led to his being appointed to the Beit fellowship for the study of cancer.

He was, however, far more than a young man whose ability, training and energy inspired confidence respecting his ultimate high position in attainment, for he was an English gentleman, simple in manner, generous in spirit; a charming, brilliant companion, a warm-hearted friend, and above all one whose aim it was to give to the world all that lay within his power to bestow as a servant of the high ideals of civilization.

ALFRED G. MAYER

FUR SEAL LEGISLATION

THE following letter has been addressed to members of congress under date of March 31, 1913:

The fur seal legislation of the 62d Congress has been left in very unsatisfactory shape. A treaty was entered into on July 7, 1911, by the United States, Great Britain, Japan and Russia, for the suspension of pelagic sealing for fifteen years. This treaty provides protection for the mother seal on her migration and feeding journeys and guarantees the future prosperity of the herd. The treaty was promptly ratified by the Senate, but in the act of August 24, 1912, designed to give effect to this treaty, was included an amendment suspending land sealing—the killing of the superfluous males—for five years. The significant relation of this amendment to the treaty is that the United States agreed to share its land catch with Great Britain and Japan in return for the abandonment by their citizens of the pelagic industry. We are as firmly bound to continue land sealing and share its product as are Great Britain and Japan to prohibit pelagic sealing. Dissatisfaction naturally results from our action. Abrogation of the treaty would be followed by resumption of pelagic sealing, with ultimate destruction of the herd. Even if the treaty be not openly broken, our indifference to our obligations warrants like indifference on the part of our neighbors in enforcing prohibition, leading to illicit open sea sealing.

The final act of the 62d Congress is not less inimical to the welfare of the herd. This was to cut from the Sundry Civil Bill the appropriation for the maintenance of the government force of agents on the fur seal islands, reducing this force to a single care-taker for each island. This is in effect a notice that we have weakened the land defenses of the herd. It is an invitation to the lawless element, largely present among the pelagic sealers, to raid the islands and attack the herd upon its breeding haunts. The natives on the islands are effective defenders only under intelligent and courageous direction. One man can not guard twenty-five miles of shore, for the most part difficult of access through absence of roads and means of transportation. It will not be forgotten that in 1906 Japanese sealers landed upon the rookeries in spite of the active revenue patrol, and were only prevented from inflicting heavy damage upon the herd by the prompt and courageous defense of the resident agents and the natives, a dozen or more of the raiders being killed before the attacks were finally warded off. Reduced to a single care-taker on each island—they are forty miles apart—the island force can make no adequate defense.

The property interests thus being trifled with are of great value, capable of yielding a land catch in 1913 worth not less than \$400,000, and this income will grow steadily. To maintain the herd requires protection for its breeding stock on the high seas and upon the breeding grounds. The treaty of July 7, 1911, guarantees the first, the island guards, the second. It is the duty of the 63d Congress to repeal the provision of the law of August 24, 1912, suspending land sealing, and to restore to the appropriation bills the sum necessary to maintain intact the force for island defense.

Respectfully submitted,

DAVID STARR JORDAN, *Commissioner
in Charge of Investigations, 1896-7.*

GEORGE ARCHIBALD CLARK, *Secretary
of Commission, 1896-7,
Special Investigator 1909 and 1912.*

THE EUGENICS RECORD OFFICE

THE Eugenics Record Office, which was established at Cold Spring Harbor, Long Island, in October, 1910, by Mrs. E. H. Harri-man and which has ever since been active in this field, with the additional assistance of Mr.