involved in measures required to secure the facts which are to be recorded.

Any one with experience in biological publications must realize the complexity and difficulty involved and so would hesitate to suggest a definite remedial plan. Certainly I have no intention of presenting one. What I would plead for is a sustained, careful study of the problem with the gradual introduction of such features as from time to time justify themselves. Our societies are not by nature well adapted to the execution of concrete projects, but for the study of such questions as the means of making most available and useful the common store of knowledge in a subject it seems to me they are peculiarly suited. Is it too much to hope that our biological organization may meet constructively what, to many of us, seems to be an approaching crisis in a major department of our activities?

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UNIVERSITY OF PENNSYLVANIA

HENRY BURCHARD FINE

IT is with profound regret and a sense of the loss which has been sustained by the academic world that we record the death, on December 22, 1928, of Dean Henry Burchard Fine, of Princeton. In the evening of the previous day, the bicycle which he was riding was struck by a motor car and he was thrown with such violence to the roadway that his skull was fractured. He never recovered consciousness and died early next morning. He was in his seventy-first year, but in full mental and physical vigor, and there seemed every prospect that many years of usefulness still lay ahead of him.

Fine had been connected with Princeton University either as student or teacher for over fifty years. He entered as a freshman in 1876, and at once took a leading place in his class and eventually in the undergraduate body, by the force of his intellect and the vigor of his personality. As happens so often, his first interests were not those which afterwards attracted him. In his earlier college days he was an ardent student of the classical languages, and when he took up the study of Sanskrit the career of a philologian seemed marked out for him. Later in his course, however, largely owing to the influence of George Bruce Halsted, who had a very stimulating effect on the men who came in contact with him, he was attracted to the exact logic of mathematics. After a graduate year spent as fellow in physics, he was appointed an instructor in mathematics. He spent a year and a half, on leave of absence, in Leipzig, working under Felix Klein, and there took his doctor's degree in 1885, with a thesis on a subject connected with Grassmann's "Ausdehnungslehre." His interest in the foundations of mathematics, which was heightened by this investigation, bore fruit a few years later in the publication of his "Number System of Algebra," a little book which was perhaps not suited to the general run of elementary students, but was extremely fascinating to those who were interested in abstract thinking. The same accuracy of logic and the same instinct for perfection of statement appear in the two text-books on algebra and the calculus, which were published later in his career, the last one in fact appearing only the year before his death. In 1891 Fine was appointed to the Dod professorship of mathematics, and from that time on his position as leader of the mathematical department in Princeton was recognized. It was his settled policy to introduce into that department only men of proved abilities in research, and under his guidance the department has been continually strengthened and its productivity increased. Whatever reputation Princeton now has as a center of mathematical activity is due largely to his firmness of purpose and his wisdom in the choice of men.

Fine was a member of the American Mathematical Society from its foundation, and for a term served as its president. He was also a member of the American Philosophical Society.

As an administrator Fine rendered great service to his university. In 1903, early in the presidency of Woodrow Wilson, he became dean of the faculty, with charge of the scholarship and discipline of the undergraduates. He introduced the policy of establishing fixed rules governing the standards of scholarship, which were generally recognized as reasonable, and of enforcing these rules rigorously and almost automatically. This policy has been followed ever since with good effect. From time to time, as the opportunity offered itself, the standards have been raised, but the method of administering them has remained unaltered. Fine's impartiality and his sympathy with other men's points of view contributed to his success in the establishment and development of his policy.

In 1909 Fine was given by President Wilson the task of supervising the development of the school of engineering, and the organization of the various scientific departments, with the title of dean of the scientific departments. He retained this position when he resigned the deanship of the faculty, and by his initiative and helpful advice he was largely instrumental in the development which those departments have had in recent years. He had an important part in the negotiations with the General Education Board which resulted in the gift to Princeton University from the board of one million dollars for the endowment of research in science, and the additional two million

dollars which had to be raised as a condition of receiving this gift was very largely contributed by personal friends of his, as a token of the confidence and affection which he had inspired in them. He had the satisfaction before his death of seeing this fund completed.

Fine was one of the type of scholar developed before the days of extreme specialization. While he was familiar with the work that was being done by the other members of his department, and while he kept abreast of the general progress of mathematical science, he did not forget his earlier interest in the classics and philosophy. He was well read in general literature, and had an excellent style in writing. He had valuable and well-grounded opinions on all questions of university policy and of general education. He enjoyed the students' sports, and for nearly the whole of his professional career served on the university committee on athletics. In his early days he played well on the flute, and he had throughout his life an extensive knowledge and a fine critical judgment of music.

In all matters to which he gave his attention he was a clear thinker, a most persuasive though not a ready debater, and an excellent negotiator. If he had accepted the post of ambassador to Germany which was offered him by President Wilson he would have shown on a larger stage that he had the qualities of a great diplomat. In personal intercourse he was singularly genial and winning. His circle of friends, both old and new, was large and bound to him by sincere affection. He will be long mourned by those who loved him and have looked to him as an example of the highest type of scholar and teacher.

W. F. M.

PRINCETON UNIVERSITY

HARRISON GRAY DYAR

A MAN died in Washington on January 21 who was known personally to comparatively few scientific men although his work had made him famous in a growing field. Dr. Dyar was born in New York City, February 14, 1866. His father was a famous inventor, who is said to have disputed the priority of S. F. B. Morse's invention of the electric telegraph, and who undoubtedly made a fortune by inventions relating to dyes. Young Dyar was educated at the Roxbury Latin School, at the Massachusetts Institute of Technology and at Columbia University. He took his bachelor's degree at the Massachusetts Institute in 1889. In 1893 he returned and took the last year of its biology course, going the next summer to Woods Hole. He then went to Columbia University, gaining his A.M. in 1894 and his Ph.D. in 1895. In 1894 he published an important paper on the classification of Lepidopterous larvae, and in 1895, after research work in bacteriology, he published his thesis, which was entitled "On Certain Bacteria from the Area of New York City." This study pointed out certain things with regard to the supposed specificity of bacteria and their variability which were not in accordance with the general opinion of that time. Recent writers, however, have changed the general view and refer to this early paper of Dyar's with distinct approval.

His work on Lepidopterous larvae attracted the attention of entomologists, and, meeting him in 1897, the writer invited him to come to Washington. The invitation was accepted, and he became custodian of the collection of Lepidoptera in the U. S. National Museum, a position which he still held at his death. For a comparatively short period he was in charge of the whole of the insect collections of the museum.

When the attention of the world became turned to mosquitoes as the result of the discoveries concerning their disease-bearing function, he began to study mosquito larvae—at first because they were larvae and he had been studying intensely the larvae of another group of insects. Later he saw the importance of this stage to a thorough understanding of the Culicidae, and from this he became interested in everything about mosquitoes.

When the Carnegie Institution of Washington made its first grant to the present writer for the preparation of a monograph on the mosquitoes of North and Central America and the West Indies, Dyar was chosen to do the work on the larvae; Frederick Knab was later associated, and the two in collaboration are mainly responsible for the taxonomic portions of the extensive four-volume work on this subject published from 1912 to 1917 by the Carnegie Institution.

Dyar's financial means were such that he was not hampered in his work by salary necessities, and during the major part of his thirty-one years of life in Washington he received no compensation for his work, although for a few years he was on the rolls of the Bureau of Entomology of the Department of Agriculture. He was consequently able to take long field trips at his own expense, to investigate regions where field study was needed, and he thus became acquainted with local conditions over a vast extent of territory. He adopted in his taxonomic work the plan of introducing synoptic tables of the larvae and of the male genitalia as well as the other structural features of the adult, and thus brought about very largely a fixity of classification little known in many other groups.

In the years between 1917 and 1927 there was great activity over the world in mosquito study. New forms came to light, not only in the regions included in the