

interesting to his audience and where they would find their difficulties in mastery. He represented an earlier mathematical generation than a body of teachers whose inspiration came from Germany and who insisted on accuracy to the last detail. Neither in his textbooks nor his classroom did he carry rigor of proof to the furthest possible stage. He felt that a meticulous exactness which killed the pupil's interest was bought at too high a price. From Peirce he had received inspiration. Through his teaching and writing he passed on inspiration in ample measure to a large number of grateful pupils who paid him in return with love and reverence.

J. L. COOLIDGE

HARVARD UNIVERSITY

DAVID CLINTON GILLESPIE—IN MEMORIAM

David Clinton Gillespie, professor of mathematics at Cornell University, died at Ithaca, N.Y., on October 31, 1935, after but one day's illness.

Gillespie was born at Knob, Tazewell County, Virginia, on December 13, 1877. His undergraduate training at the University of Virginia, centering about the sciences and the classics, was completed in 1900. After one year of study in mathematics at the Johns Hopkins University, he went to Göttingen; there he received the degree of Ph.D. in 1906, with a thesis entitled *Anwendungen des Unabhängigkeitssatzes auf die Lösung der Differentialgleichungen der Variationsrechnung*. He then came to Cornell University, at which he spent his whole teaching career; he was appointed instructor in 1906, assistant professor in 1911, and professor in 1924.

Gillespie's special field in mathematics was always analysis, though he had also a lively interest in applied mathematics. His initial training was predominantly formal; but questions of rigor and logic soon aroused his interest, and at an early period of his activity he began to emphasize the insistence on accuracy which he maintained throughout his life. Fundamental questions particularly concerned him; he preferred to make deeper inquiry into the beginnings of analysis rather than to extend its superstructure; typical of this interest are his papers on the equivalence of the Cauchy and Riemann definitions of the integral, and on the inversion of the order of repeated integration. However, he was easily led to a live participation in the study of more sophisticated problems. It was he who furnished the essential ideas which made possible his joint paper with the present writer on the uniform summability of a bounded sequence of continuous functions converging to a continuous function. He left behind him a considerable bulk of manuscript on the solution of an infinite set of linear equations in an infinite set of variables, containing some novel and interesting developments which it is hoped may contain sufficiently definitive results to be prepared for publication.

Closely allied to his interest in fundamentals was his attitude toward the process of demonstration. He preferred to think less in symbols than in ideas themselves. Preliminary lists of postulates or axioms were for him only to be used in a final verification, not to be remembered as consciously formalized separate steps in establishing a theorem. He was never satisfied with a proof

until he could carry through every detail of it mentally in terms of concepts alone, without figures, symbols, or even (beyond indispensable essentials) equations.

In his teaching and in his conferences with students, both elementary and advanced, he displayed the same characteristics as in his own work. He was always eager to hear and discuss results obtained by his students and colleagues; but he insisted on being told unequivocally what his informant meant; muddled or incoherent presentations soon lost his interest. The careless or inattentive student frequently feared his scorn; but the earnest student found him a kindly and sympathetic friend. He was amazingly tolerant of ignorance, even of stupidity; but impatient with laziness or pretence.

Gillespie had much concern with the various interests and duties of academic life; although he had little liking for the irksome details of faculty committee service, he always performed such tasks faithfully. Under the form of organization of the department of mathematics at Cornell, in which business is conducted by an executive committee of the professors, he was chosen as chairman of the department for the term 1932–1935; he accepted this responsibility without enthusiasm, but discharged it with the most scrupulous conscientiousness and painstaking attention to detail. At all times, his sound judgment and uncompromising integrity have exerted a wholesome influence on his colleagues.

He was a member of the American Mathematical Society and the Mathematical Association of America, as well as of similar foreign organizations, and several honor societies. At various times he served on the editorial boards of the *American Mathematical Monthly* and the *Annals of Mathematics*.

Gillespie had a peculiar charm of manner which endeared him to his associates. The sudden softening of the lines of his face and wide smile of appreciation to show his approval of a suggestion will be remembered vividly by everyone who had contact with him. His social interests were wide. He was married in 1911 to Miss Joie Brittain. He and his wife both belonged to old Virginia families, and they brought all the traditional southern hospitality to their home. They participated in all important local movements, and at alumni reunions and other home-comings the Gillespie house was an eagerly-sought meeting ground.

With his death, a rare character and fine personality passed from among us. It is significant that several of his former graduate students and colleagues wrote in almost identical words, "I feel that I have lost the best friend I ever had." His loss is deeply felt and sincerely mourned by all his colleagues.

W. A. HURWITZ