

## IN MEMORIAM: ELLERY WILLIAM DAVIS.

BY PROFESSOR E. R. HEDRICK

(Read at the Chicago meeting of the American Mathematical Society  
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At the invitation of the committee on the programme I have the honor to pay brief tribute to the friend and counsellor of many of you, and of mine, our late colleague, Ellery William Davis. It is fitting indeed that this Society pause in the midst of our scientific session to mark the passing of such a life.

He was a mathematician of insight and power. His published works contain many titles of lasting interest. Among those of technical mathematical interest may be noted particularly the following:

1. "An expression of the coordinates of a point on a binodal quartic curve as rational functions of the elliptic functions of a variable parameter." *American Journal of Mathematics*, volume 5 (1882), pages 333-336.
2. "Geometrical illustrations of some theorems in number." *American Journal of Mathematics*, volume 15 (1893), pages 84-90.
3. "A note on the invariance of the factors of composition of a group." *American Journal of Mathematics*, volume 19 (1897), page 191.
4. "On the sign of a determinant's term." *American Journal of Mathematics*, volume 19 (1897), page 383.
5. "Note on special regular reticulations." *Bulletin of the American Mathematical Society*, volume 4 (1897-1898), pages 529-530.
6. "The group of the trigonometric functions." *Bulletin of the American Mathematical Society*, volume 5 (1898-1899), pages 380-381.
7. "Some groups in logic." *Bulletin of the American Mathematical Society*, volume 9 (1902-1903), pages 346-348.

Other papers, less well known, which have appeared in journals not wholly mathematical are:

8. "A definition of mathematical probability." Baldwin's *Encyclopedia of Philosophy and Psychology*, 1902, pages 344-353.

9. "The elliptic functions and the general symmetric group in four letters." *Nebraska University Studies*, volume 4 (1904), pages 231-247.
10. "The imaginary in geometry." *Nebraska University Studies*, volume 10 (1910), pages 1-58.
11. "Cantor's leap into the transfinite." *Mid-West Quarterly*, volume 4 (1917), pages 239-250.

Among other publications, two of his books have exerted influence on mathematicians and the teaching of mathematics. One of these, "The Logic of Algebra," should find a place in every mathematical library. This he himself regarded as his most important work and it is certainly worthy of a lasting place in mathematical literature.

Finally his text on the Calculus is one which is peculiarly stimulating and will probably affect the teaching of that subject for a long time.

Though this work was good, it alone would not account for the high esteem in which he was held. One lesson to us all is that his gift for friendship, his warm humanism, his broad sympathies, even more than his direct mathematical productiveness, are the bases of that strong feeling of respect and admiration which he so generally inspired. I have seen a number of notices of his passing which I should be glad to read to you, but I shall leave them with the remark that men of all classes have felt what I have expressed in this paragraph.

I might quote from two letters which I received after the programme for this meeting was printed. One of them from a well known woman says: "I am impelled to write to you to say that I count my three years experience in teaching in his department a very rich memory. . . . In particular, I should emphasize his pains in giving a young instructor free scope in whatever field the instructor might be interested. He was unselfish and a very generous spirit." The other is from a man recognized as among the first of American mathematicians. He says: ". . . I feel like saying that few other American mathematicians have encouraged me more by their sympathetic interest than Ellery Williams Davis did."

One illustration of his keenness of vision is now particularly noteworthy, his attitude toward this war and toward Prussianism. Early in the struggle in 1914 he voiced the opinion that this was our war and that the defeat of Prussia was essential to the preservation of liberty and democracy throughout

the world. To us this is significant as a striking instance of his vision and of his unhesitating support of right and high morality regardless of the immediate effects upon his own personal interests. In mathematical circles the same fearlessness of vision has led him to support warmly those projects or innovations which seemed dangerous to the more timorous. I may mention his attitude toward maintaining requirements in mathematics where real grounds exist and for abolishing the requirements otherwise. His attitude toward those reforms which started with the Perry movement and which have since broadened to much wider scope is well known. Finally, his support and sympathetic interest in the Mathematical Association of America is known to all who were interested in that movement.

Ellery Williams Davis was born in Oconomowoc, Wisconsin, on March 29, 1857. He died in Lincoln, Nebraska, Sunday, February 3, 1918. He was graduated with the degree of A.B. at the University of Wisconsin and with the degree of Ph.D. at Johns Hopkins in 1884. On June 20, 1886, he was married to Miss Annie T. Wright, who with four sons and a daughter survives him.

He was professor of mathematics at Florida Agricultural College from 1884 to 1886, at South Carolina College from 1886 to 1893, and at the University of Nebraska from 1893 to 1918. He was also dean of the department of liberal arts at Nebraska from 1901 to 1918.

In closing, let me put into words sentiments that I know are in the hearts of all who knew him. In his death we feel a personal sense of loss and we believe that university spirit and mathematical science in this country, which he so loyally upheld and furthered, have suffered through his passing.

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#### A CORRECTION.

I WISH to call attention to the following errata in my note, "Some theorems of comparison and oscillation" in the April BULLETIN.

(1) On page 331, among the conditions under Theorem I, " $\alpha_2(x)/\alpha_1(x)$  never decreases" should read " $-\alpha_2(x)/\alpha_1(x)$  never decreases."