

VIRGIL SNYDER

1869–1950

Professor Virgil Snyder of Cornell University, President of the American Mathematical Society in 1927 and 1928, died on January 4, 1950, at the age of eighty-one. It is appropriate, therefore, to record at this time some account of his services to the Society and of his contributions to mathematics over his active career of forty-three years. Since a biography of Professor Snyder appears in Volume One of the Semicentennial Publications of the Society,¹ the following account is devoted more particularly to his activity in research.

Professor Snyder began his work at a time when geometers were exploring the superstructures of their subject, particularly in space and hyperspace. By adding the radius of a sphere to its coefficients, Lie had defined a sphere by six homogeneous coordinates subject to a non-singular quadratic relation. This situation also occurs with the Plücker line-coordinates so that the parallel between line geometry in three-space and Lie's "Kugelgeometrie" was apparent. Snyder's doctoral dissertation (Göttingen, 1895) was concerned with linear complexes of spheres. Of twenty-one papers he published in the next ten years, twelve were concerned with the metric side of this parallel and dealt with annular, tubular, and developable surfaces, their asymptotic lines, and lines of curvature, or with the development of collateral algebra. In [3] he gives a metric classification of the Dupin cyclide, the envelope of a quadratic system of spheres. The other nine have to do with algebraic ruled surfaces or scrolls, largely from the line geometry, or projective, point of view. After a preliminary check on a classification by Schwartz of quintic scrolls he undertook in three papers [18, 19, 20] in vol. 25 of the American Journal the classification of sextic scrolls according to the multiplicity of directrix curves. This classification yielded 68, 32, 11, 5, 2 types of genus (genus of a plane section) 0, 1, 2, 3, 4, respectively. Two years later in vol. 27, two papers [22, 24] amplified and corrected this classification with reference to earlier works of A. Wiman. This initial preoccupation with line geometry colored much of Snyder's thinking in later years, particularly in connection with a variety of birational and Cremona transformations which he introduced.

¹ Pp. 218–223. To this biography there is appended a bibliography with eighty-five numbered entries. For brevity we use the brackets [] to indicate the number of a specific item in this bibliography and add thereto [30A], *On birational transformations of curves of high genus*, AJM, v. 30, 1908, pp. 10–18.