

a conic through A, B, C . Since the circular points pass into each other, the line ∞ becomes the circle ABC . Thus the behavior of a line with respect to this circle determines the nature of the conic found by transforming the line. This is, in effect, Dr. Schwatt's starting point. He then discusses in detail the form of the conic for special lines connected with the triangle. As a specimen hyperbola, the isogonal conjugate is taken of that diameter of the circle ABC which passes through the point called by different writers the symmedian point, Grebe's point, and Lemoine's point. It is enough here, to characterize this point K , to say that $ABCK$ is a "Polviereck" or conjugate tetrad of the circle. As a specimen ellipse, the isogonal conjugate of the polar of K as to the circle is considered in detail. This ellipse also has aliases, being called here Steiner's ellipse, but being also called the maximum circum-ellipse.

The properties of Simson's line are also considered, and many details are given as to various points, lines and triangles connected with the given triangle. The method employed is for the most part that of Euclid. The nomenclature used differs a good deal from that of Casey. In one instance the same name is applied differently; Kiepert's hyperbola is with Casey and others a definite hyperbola, but with Dr. Schwatt it is any hyperbola through ABC .

The question of giving references, when dealing with matter both fairly recent and elementary, is an open one. In this case none are given; but it seems a pity not to give a short list of works on the subject, and a critical, or expurgatorial, list would be useful.

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The *Annuaire* for 1897, which has just appeared, contains 738 pages of tables and descriptive matter and 175 pages of appendices. The astronomical data, which are as usual, very complete, include the comets discovered up to the end of 1895 and the asteroids up to 1896, September 7th; the latter were then 431 in number. A new double star orbit, that of Σ 1879, is introduced, and some new determinations of previously known orbits are added. There are, however, some further changes which might have been made. On p. 159 the value $8''.86$ is used for the solar parallax in preference to the now generally accepted value of $8''.80$ which is merely mentioned in a foot-note. In the same place the mean distance of the earth from the sun is given to *eight*