

I say the best method, referring to von Staudt's. It certainly seems at present the best not only of those known, but of any which may be invented. For what more or better could be expected of any purely synthetic method than that which is afforded by the two above mentioned salient advantages of this. It seems scarcely possible that any synthetic method should treat a more general class of conics or treat them in a more concise and germane manner.

ÉCOLE NORMALE SUPÉRIEURE, PARIS,
November, 1902.

BROWN'S LUNAR THEORY.

An Introductory Treatise on the Lunar Theory. By ERNEST W. BROWN, M.A. Cambridge, Eng., The University Press, 1896. xvi + 292 pp.

THE lunar theory, besides containing inherent difficulties of a very serious character, involves such a mass of details that it is only with a great deal of labor that one can get a satisfactory idea of it from the original memoirs. The essential relations and differences of the various methods are obscured as they come from the hands of their authors by the differences in the choice of variables and notations. In view of the intrinsic value of the subject and of its great importance as the best test of the newtonian law, and the fact that advances in it can hardly be hoped for from one who is not familiar with what has been done in the past, the desirability of a treatise starting at the very foundations, pointing out the difficulties which are encountered and the methods which have been used to overcome them, and giving the essentials of the most important processes employed by the various investigators without including the almost endless details, can easily be appreciated. This book has evidently been written to fill this need, and it may be said at once that Professor Brown has attained a very high degree of success.

The only other book of at all the same character is the third volume of Tisserand's *Mécanique céleste*, which is devoted to the theory of the motion of the moon. Tisserand's ideal is somewhat different, in that he aims to give a fairly complete account of all the lunar theories of particular merit which have