

A.F. 11. I. 8.
Recd. MSMA 28 Sept 37

ANALYTIC INDEX.

CHAPTER I:

Introductory

Page

1-10

Historical sketch. The scope of the thesis

- Fundamental** § 1. A theorem of roulettes.
- Conceptions.** § 2. Definition of the terms epicycloide and hypocycloide.
- § 3. The cardioide an epicycloide; its polar equation.
- § 4, 5. Some cardioide properties.
- § 6. The cardioide, an epicycloide (second mode of generation). Two other possible definitions.
- § 7. The cardioide as pedal of a circle; a theorem of Quetelet.
- § 8. Analogous modes of generation of the cardioide, to those of the conchoide of Nicomedes and the cissoide of Diocles.
- Deductions** § 9. Relations of the cardioide with the cissoide of Diocles and the conchoide of Nicomedes.
- therefrom.** § 10. The evolute of a cardioide is a cardioide. Two related strophoides. The sextic $r = 2a \left(1 - \frac{\cos 2\theta}{\cos \theta} \right)$.
- § 11. Nine-point circles and Maclaurin Trisectrices.