7. Graphical solution of $x^2 - 2x = 0$, $4x^2 - 8x + 3 = 0$, $x^2 - 2x + 1 = 0$ and other special cases, as in (2) and (3), *still from the same graph.*

Algebraical solution of these equations by using factors.

8. Rules for the calculation, by Algebra, of the roots of quadratic equations.

<div align="right">P. PINKERTON.</div>

**The Theorem of Pythagoras.**—The parts of the figures are numbered to indicate a proof of the theorem by dissection. The congruence of parts on which the same number is marked can be demonstrated by geometry. The steps of the proof are in order (i), (ii), (iii). Sufficient importance is, perhaps, not attached to (i) and (ii) at this stage; for they give (1) the construction of a square equal to a given rectangle (2) the graphical construction of $\sqrt{2}$, $\sqrt{2} + 1$, etc.
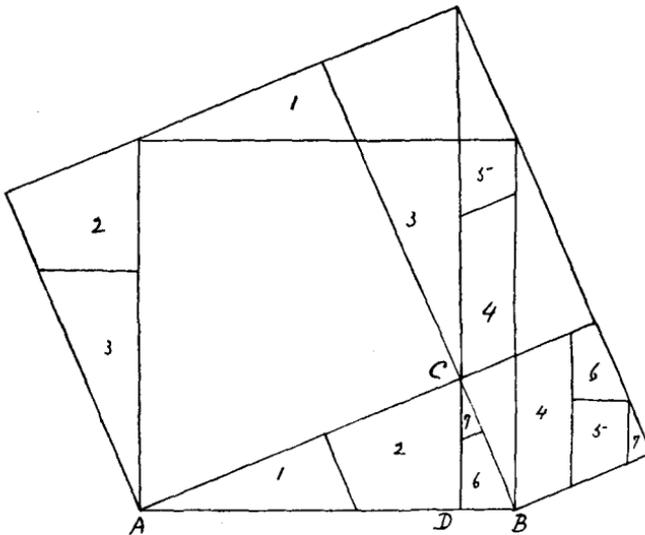


(i) $AC^2 = AB . AD$; (ii) $BC^2 = AB . BD$; (iii) $AC^2 + BC^2 = AB^2$

<div align="right">GEORGE A. GIBSON.</div>