

ique circumstances, and with a minuteness of evidence relative to the social condition and the vital characteristics originally pertaining to her whose sepulture was involved in the ravages of the Crimean war, which led to its acquisition: the facts recorded in this paper, may possess some slight value as a contribution to data now accumulating from the labours of many independent workers, and destined ultimately to establish physical ethnology on a sure and well-determined basis.

GEOMETRIC PROBLEMS RELATING TO CURVES HAVING DOUBLE CONTACT.

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Given a circle and a point o inside it; if a line passing through o and cutting the circle in the points a and b be divided externally in m , so that $\frac{(ao \times bm)}{am \times bo} = \frac{co}{c'o}$ segments of fixed chord passing through o then tangent to circle from m will be to perpendicular from m on rt the polar of o as secant of angle which cc' makes with diameter of circle passing through o to unity.

If ac bc' be produced, they will meet at p , a point on rt ; and if from p we draw a line parallel to cc' it must pass through m , the anharmonic ratio of the pencil $p. a o b m$ being as $co:c'o$, and as the angle $bpm = bc'o = bap$ $(pm)^2 = am \times bm = \text{square of tangent to circle from } m$, locus of m is $s - e^2 a^2 = 0$, $s = 0$ being equation of circle, and $a = 0$ that of the line rt . In like manner, if p be joined with middle point of cc' joining line meets ab in m' . So that $\frac{ao \times bm'}{am' \times bo} = \frac{co}{c'o}$ and locus of m' is $s + e'^2 a^2 = 0$, e' being $=$ to cc' divided by sum of perpendiculars on rt from c and c' . The conics $s - e^2 a^2 = 0$, $s - e'^2 a^2 = 0$, are polar reciprocals. The lines coc' , $fo f'$, each of which makes with diameter of circle passing through o , an angle whose secant $= e$ are parallel to the asymptotes of the conic $s - e^2 a^2 = 0$, and polars of the points where the asymptotes cut (rt) , while the line joining their