This process may evidently be continued. We may then state the following

Theorem: The rth polar of B with respect to C_n is C_{n-r}.

II.

Again let there be three distinct points A, B, and C on the same straight line l, and through the point C let the line l_1 be drawn perpendicular to l. Let lines l_2 and l_3 be drawn through A and B respectively, and let l_2 and l_3 intersect on l_1. Let l_2 make an angle α with l, and l_3 make an angle β with l, and let a line l_4 be drawn through B, making an angle $n\beta$ with l. Let l_2 and l_4 intersect in D. Then just as in section I, the equation representing the locus of D is

$$(7)\quad \begin{aligned} &k\left[x^n - \binom{n}{2}x^{n-2}y^2 + \cdots\right] \\ &\qquad = (x-c)\left[\binom{n}{1}x^{n-1} - \binom{n}{3}x^{n-3}y^2 + \cdots\right], \end{aligned}$$

where $k = (a - c)/a$ and $a = AC$, and $c = AB$.

It is then evident that the theorem in section I holds for the curve represented by equation(7).

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ON THE RECTIFIABILITY OF A TWISTED CUBIC.

BY DR. MARY F. CURTIS

(Read before the American Mathematical Society, April 27, 1918.)

GIVEN the twisted cubic

$$(1)\qquad x_1 = at, \quad x_2 = bt^2, \quad x_3 = ct^3, \quad abc \neq 0;$$

to show that the condition that it is a helix is precisely the condition that it is algebraically rectifiable.

If (1) is a helix, then T/R, the ratio of curvature to torsion, is constant. Denoting differentiation with respect to t by