$$(-)^{n/2}\frac{m!\,n!}{2^{m+n}}\times \text{the coefficient of } \alpha^m\beta^n \text{ in}$$

$$\exp\left[\sum_2^\infty (-)^r\frac{s_r}{r}\{(2\alpha)^r-(\alpha+\beta)^r-(\alpha-\beta)^r\}\right].$$

This generating function is, to a few terms,

$$\exp\,[s_2(\alpha^2-\beta^2)-2\,\alpha s_3(\alpha^2-\beta^2)$$
$$+\tfrac{1}{2}s_4(7\alpha^4-6\alpha^2\beta^2-\beta^4)-2\,\alpha s_5(3\alpha^4-2\alpha^2\beta^2-\beta^4)+\,]$$

or

$$1+s_2(\alpha^2-\beta^2)-2s_3(\alpha^3-\alpha\beta^2)$$
$$+\frac{s_2^{\,2}+7s_4}{2}\alpha^4-(s_2^{\,2}+3s_4)\alpha^2\beta^2+\frac{s_2^{\,2}-s_4}{2}\beta^4$$
$$-2(s_2s_3+3s_5)\alpha^5+4(s_2s_3+s_5)\alpha^3\beta^2-2(s_2s_3-s_5)\alpha\beta^4+\cdots$$

Thus, in tabular form, a few values for

$$\frac{2}{\pi}\int_0^{\pi/2}(\log 2\cos\varphi)^m\varphi^n d\varphi$$

are :

$n=$	0	2	4
$m=0$*	1	$\frac{1}{2}s_2$	$\frac{3}{4}(s_2^{\,2}-s_4)$
1	0	$-\frac{1}{2}s_3$	$-\frac{3}{2}(s_2s_3-s_5)$
2	$\frac{1}{2}s_2$	$\frac{1}{4}(s_2^{\,2}+3s_4)$	
3	$-\frac{3}{2}s_3$	$-\frac{3}{2}(s_2s_3+s_5)$	
4	$\frac{3}{4}(s_2^{\,2}+7s_4)$		
5	$-\frac{15}{2}(s_2s_3+3s_5)$		

ON THE ALGEBRAIC POTENTIAL CURVES.

BY DR. EDWARD KASNER.

(Read before the American Mathematical Society, February 23, 1901.)

THE object of this paper is to derive the characteristic geometric properties of a class of curves which are of in-

* The row for which $m=0$ is of course merely a verification, leading to the known values

$$s_2=\pi^2/6,\quad s_4=\pi^4/90.$$