angular acceleration, prove that the masses will start to slip at times which are inversely proportional to the square roots of their distances from the axis of rotation, these times being measured from the instant at which the plate starts to move."

Since the angular velocity is increasing, the transverse acceleration is $r\ddot{\theta}$ and the radial acceleration is $-r\dot{\theta}^2$.

Hence the resultant acceleration is $\surd(r^2\ddot{\theta}^2+r^2\dot{\theta}^4)$.

But $\ddot{\theta}=\lambda$, a constant.

Hence $\dot{\theta}=\lambda t$, since plate starts from rest.

Thus resultant acceleration is $\lambda r\surd(1+\lambda^2 t^4)$.

Slipping will occur when

$$m\lambda r\surd(1+\lambda^2 t^4)=\mu m g,$$

that is, when

$$t^4=\left\{\left(\frac{\mu g}{\lambda r}\right)^2-1\right\}\bigg/\lambda^2$$

$$=\frac{\mu^2 g^2}{\lambda^4 r^2}-\frac{1}{\lambda^2},$$

and

$$t=\left(\frac{\mu^2 g^2}{\lambda^4 r^2}-\frac{1}{\lambda^2}\right)^{\frac{1}{4}},$$

and is *not* proportional to $1/r^{\frac{1}{2}}$. F. T. CHAFFER.

CORRESPONDENCE.

To the Editor of the *Mathematical Gazette*.

SIR,—It is better to let other people see you helping yourself to humble pie than to live in the expectation of having a large piece handed to you one day. The method of obtaining the group of partial fractions associated with a multiple quadratic factor in the denominator of a rational function which I described in 1922 in the *Gazette* (vol. XI, p. 10) and the *Messenger of Mathematics* (vol. LII, p. 39), was given in 1861 in the *Quarterly Journal* (vol. V, p. 39), by Joseph Horner; the article has the title "Decomposition of Rational Fractions", and is dated October, 1860. The writer remarks that the method of determining the fractions corresponding to $x-a$ in $f(x)/\{(x-a)^n F(x)\}$ by direct division of $f(a+y)$ by $F(a+y)$ has not become general "notwithstanding its decided arithmetical superiority to any other", and although it is now half a century since Chrystal advocated the method in the first volume of the treatise to which we all pretend to pay homage, the complaint is as well grounded as it ever was. Yours etc.,

E. H. NEVILLE.

The University, Reading,
May 13, 1936.