Professor C.G. Darwin, F.R.S.,
    Newnham Grange,
        CAMBRIDGE.

Dear Prof. Darwin,

I enclose a reprint giving rather more fully the mathematics of the worst part of chapter IV, besides a quite unsuccessful letter to "Nature".   In trying to avoid mathematical complications I am afraid I slurred over the actual method of calculating the differential coefficient

$$\frac{d^k y}{d u^k}$$

at $u = 0$.   The numerical values of v itself in this neighbourhood would really have been nearly useless unless I had worked them to 20 figures or more, as I found when I worked them to 10 figures. The behaviour of the "remainder" in the table is really rather reassuring.   I do not think the constant $.0146860717$ can be expressed in terms of $\gamma, \log 2$ etc., and this is the more likely as the function u_v is really a very odd one.   Taking $u > 1$, it increases ultimately more rapidly than e^v or e^{e^v} or anything with a finite number of e's in it.

Yours sincerely