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R. I. E. College,
Casper Hill,
July 14 or 15.

Φ ,

You have *Summing's Electricity*.
Near the words of wisdom on a few points.
You will find in pp. 71, 73, &c. several
propositions relating to the resultant attraction
of two Condensing plates. When the plates are
very close, I grant that the force produced
by one plate on a unit of electⁿ on the
other (except at the edge) is $2\pi p$; but I entirely
deny the legality of such a discussion as
that in Prop. XIV, p. 78 which assumes this
to hold when one plate is drawn out
indefinitely from the other, because if the
distance of the attracted particle is not very
small, we cannot consider that it is attracted
by an indefinite plate.

Again, what business has Summing to
assume the Capacity of a system of two Leyden
Jars to be = Sum of their separate Capacities?
The Capacity of a Conductor is a thing entirely
dependent on its relative position with respect
to other Conductors (charged or not), and
certainly the Capacity of a number of Conductors
placed *vis à vis* is not the sum of ~~them~~ ^{the}
Capacities which they would severally have
if placed apart. Hence I deny his
expression for the Common potential
of two Conductors which are connected.
Given two Conductors at potentials V_1 and V_2 ,
respectively, what is their Common potential
if they are connected? I don't know;
do you?

Again, in p. 82, § 103 he says that he has
proved the theory of electric images. Now,
in the name of fortune, does his proof
show that an electric charge on a closed surface
can be replaced by external masses
~~so~~ which will annul at internal

points the effect of the electrification?

I am beginning to suspect that
Summing is an impostor, more especially
as he seems to think that the proof
of a null internal attraction produced
by a shell bounded by similar Surfaces
is due to Todhunter!!!!!! (see p. 91).

Reply promptly, appreciatively,
and adequately.

M.

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