

University College of North Wales,
Bangor.

9/36

May 16, 1894

Dear Fitzgerald

Perhaps I ought not to bother you with the enclosed. If you do know of any important papers dealing with Bessel Functions perhaps you will kindly indicate them if they are not included in the list. As stated in the circular we have not given in this list the titles of physical memoirs in which Bessel Functions are used, but if you should know of any good applications you can lay

Your hands on, we should be extremely glad to have references. Of course the papers of Lord Kelvin Stokes and Rayleigh O. Heaviside &c are referred to in the text and will appear in the separate list referred to in the circular.

I am very busy with the book I think I all mentioned to you in which I am trying to give an account of the phenomena of Magnetism and Electricity from the point of view of action in the medium. I am in hopes that after you see this you will like it, but of course I may be too sanguine. My idea is to give in

each case (Magnetism & Electricity)
an account of the obvious facts
and the obvious but incomplete
theoretical conclusions, then to
connect them with motion and
displacement in the medium.
The core of the whole thing will
be the action of a galvanic
current, regarded as the (vortex)
origin of the field around it.
Sometimes I am very much dis-
couraged by the task as it
grows and difficulties develop,
but I think I will get through
it, with some kind of result
which may in part justify the
labour spent.

Have you seen Duhem's
Leçons sur l'Électricité et le
Magnétisme? He claims in the
most arrogant manner to have
shown that Maxwell's electro-
magnetic theories are erroneous.

I heard a short time ago
that you had not been very well.
I trust you are now quite re-
stored to health.

Yours very faithfully
9/36 A. Gray
Prof. G. F. Fitzgerald, F.R.S.