UNIVERSITY COLLEGE, LONDON.

GOWER STREET. W.C.

20th March, 1896.

My dear Fitzgerald,

I intended to write to you yesterday, but had no time, as we were dining out, & I got home late, after a paper at the R.S. It was very good of you to support me as an honorary member of the Royal Irish Academy, & I am very much obliged to you. Really the honours are far more than I deserve. I feel as if I had pushed into all these good things quite shamelessly; such a lot of better men than I, who have done far more useful work not of so flashy a kind are left out in the cold. However it is not for me to reprine — on the contrary I am very grateful, & do. You among the rest. The only thing to do to prove one's gratitude is to go on; & I am trying. I have an apparatus for fractionating Him & solubility; & in case it does not do, I am building another for fractionating by difference. The first, however, appears to separate all into its constituents very easily. It has gone back for some slight alterations which will make it more handy.

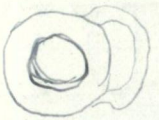
I send you a rough copy of the paper of yesterday as densities. They give some small hope of success in separating.

By the way, poor Ostwald has broken down, & has been ordered to take a long holiday. He has been overworking himself for years, & this is the result. He always used to preach against overwork, & it is curious that he should fall into the mistake against which he warned others.

8/69

I have finished a great portion of the book of which you saw the syllabus; and I am now at a chapter on the Structure of the atom. I am pretty clear as regards all the rest, but I must come down on you & Hicks, & J.J. for help in this part. Will you let me send you the first rough draft in a few weeks — possibly months — to criticise? I wish that you would put in an intelligible form the modern ideas of ether waves. Surely some sort of diagram could be contrived which would represent your notions. For my part I have the haziest & hazy notions of the kind of vibration which would propagate light. Perhaps the matter is not far enough forward yet for that to be done; still would it not be possible to give an outsider like myself some notion of what is meant? You must form some mental picture in your own mind; can't you transfer it to another? Hicks too had some idea of accounting for valency by imagining vortex filaments connecting atom with atom; if necessary they might form "closed bonds" & salvate themselves thus

Is it necessary to postulate rigid atoms of solid material to end off the filaments, & could such filaments enter & leave a vortex ring? Thus: —



or in any other way? Is there any practical limit to the number of such vortex filaments? Have you thought of Burton's theory of stresses? Is that any good? There's a bundle of queries the answers to which would fill a book. Don't answer unless you feel inclined.

We are all well: May read all right again.

Yours ever sincerely

W. Ramsay.