After hunting about, they found it, & it was shoved at arm's length into a large passage outside. It stunk out the Corridor!
I brought it home, & deposited it in the study. It stunk out the house, & Mrs. Minchin rebelled.
I hid it in the ivy outside the Verandah, & all the visitors to the house, & the neighbours complained.
I removed it, & buried it at the foot of a tree in the garden. I have not yet found any sick birds near it.
I forgot to mention that I had previously hidden it in Prof. Seeley's room among his fossils. He thought that the students had been filling his room with rotten apples, & he cleared out!

With much love,

M.

I am asking Bell to forward to you a very short paper on the kinetic theory of gases in wh. the author (our friend) deduces the value $\frac{5}{3}$ for $\frac{C}{c}$ (ratio of specific heats). I am not satisfied here & there with his reasoning, so if you even think it (wh. you can do in 10 minutes) let me know if you think it sound.

D/134

3×10^{10} cm per sec
$= 3 \times 10^{5}$ cm.
$= 3 \times 10^{3}$ sec
$= 3$ kilometers

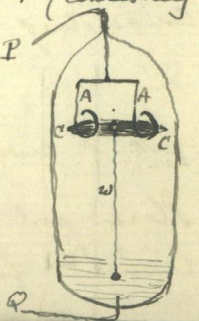
Coopers Hill,
Dec. 30/99.

Φ,

I had intended to write to you before this to congratulate you on your medal, and to tell you of the very enthusiastic way in which Lord Rayleigh spoke of you at the dinner, as well as the very marked preponderance of applause accorded by the company to your name & work.

Are you coming over soon?
I hope that your household sicknesses are over, although the weather does not render that probable.

The "receiver" for the Hertzian waves (consisting of an alumn. wire AA, holding horizontally a little carbon cylinder CC from wh. a platinum wire, W, dips into mercury at the bottom of a glass tube wh. contains the whole affair) is extremely sensitive & constant,



particularly (it would seem) if the tube is exhausted so that it contains only Hg vapour & a very little air. But if the tube is deprived completely of air, & filled with helium, it does not answer at all! The action evidently depends on the thin oxide layer on the aluminium penetrated by the impulse & instantly so renewed, so that when helium is in the tube the layer is not replaced, & the receiver is always too good a conductor.

10 | 13 Cr

I am going to ask Ramsay to fill another tube in wh- I shall have a sliding wire with a knob as one electrode, the other being a fixed platinum wire terminating in a point. I can then have the electrodes inside the tube as close or as distant as I like & I shall depend on the helium gap for conducting the current of my auxiliary battery. This battery may have to be very strong to give a current in the tube.

Please put on paper your notion as to what is required for the direct talking of which we were speaking last Summer, & I shall see if I can carry it out. Hertzian waves operated in some way by the voice, instead of by a key, is what we want. (The voice might be in a high key, though.)

I have got the Nernst Electrometer from Berlin. It gives about 230 scale divns for $\frac{1}{10}$ of a Volt.

I have added a few new liquids to those suitable for photo cells. Lactic acid, lactate of ethyl, lactate of methyl.

I got a small bottle of valerate of ethyl to try. It was no good; but after 1 second it stunk out Stocker & the whole Physical Lab. I took it (well corked up) & hid it in the Chemical Lab. It was scented out & expelled in 5 minutes. I hid it in the Bursar's office, in his absence, at the top of a Cupboard. When he returned, he smelt drains (he said) & found it out. He shoved it into the Chem^{l} Lab again. It was ousted again, & I hid it in a drawer in Mr Eloquence's room. That night there was a dance in the College, & he brought some ladies to the room. They swore to dead rats!!