

A METHOD OF OBSERVING AIR DISTURBANCES PRODUCED
BY THE BEATING OF THE WINGS OF A HOVERING FLY
WITH A PROPOSED APPLICATION TO OUR WORK: by
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(Dr. H. A. Cobb of the Department of Agriculture has been visiting at Beinn Bhreagh and has kindly consented to dictate a few notes for the information of the members of the A.E.A. concerning his method of observing the air disturbances produced by the hovering of a peculiar fly found in the Hawaiian Islands. He thinks that the method may possibly be of assistance to us in our work by enabling us to ascertain the nature of the disturbances produced by a rotating propeller etc. A rough diagram is appended illustrating the fly-box used by Dr. Cobb. The top and four sides of the box were of glass upon a baseboard of wood. The fly hovered in the middle of the box for considerable periods of time without touching the sides. The box was taken into a dark room and held in the path of a beam of sunlight admitted through a small hole. The arrow-head represents the beam of sunlight which passed through the box, and was received upon a screen of black absorbing material. Chalk-powder was then introduced into the box so as to make a smoky atmosphere. The diagram indicates the vacuous space observed surrounding the hovering fly. Dr. Cobb has thrown his notes and suggestions into the form of a letter as follows:-A.E.A.).

Beinn Bhreagh, Aug. 31, 1908:-Dear Dr. Bell:- I am writing this as the result of a suggestion following on one of our recent conversations.

Whether these remarks have any interest and value in aeronautics depends on how important it may be to have an accurate knowledge of what is taking place in the air during flight.

Up to the present our observations have been confined largely to the machine, that being the one thing that was easy to see, and, to a limited number of actual navigators, to feel.

During my observations on the flight of flies, as I have told you during our conversations, I chanced to notice a fly of the genus Volucella, standing still in the air under a tumbler in which it was held captive. This was a sort of