sea." This beats one of our own London Particular fogs, which are not *quite* so substantial as all that.

Well, I won't labour the point beyond saying the book is most interesting as an example of how not to do it, and when I write my first book on aviation, I hope I shall be as fortunate as the author of "Aircraft" in finding a publisher, and not so unfortunate as he in producing a humorous work when one of an entirely different type was intended.

By way of a "final" gem, how is the following?: "A cricket ball thrown into the air could, by reason of its own momentum, continue on for ever, were it not for the resistance of the air, which soon brings it dropping to the ground.

"This same condition applies to the aeroplane, and more so."

If gravitation was inoperative in the theory of the author's cricket ball, it was very much in evidence with regard to his volume on its way to the W.P.B.; it fell like a ball—and more so.

ANSWERS TO CORRESPONDENTS

B. P. (New Southgate).

Your question is not quite clear. You state that the weight of the machine is 1,500 lbs. and the area 300. Obviously, therefore, the lift *must* be 5 lbs. per square foot at any speed if the machine is to proceed on a horizontal flight path, *i.e.*, neither ascending nor descending. We take it that what you really want to know is what lift coefficient will be necessary for such a machine to fly at the speed mentioned of 40 m.p.h. Since lift per square foot $= C \times 0{\cdot}0051 \times V^2$, where C is the lift coefficient, and V is the speed in m.p.h., the required value of C is obviously: $C = \frac{\text{lift per sq. ft.}}{0{\cdot}0051\ V^2}$

$= \frac{5}{0{\cdot}0051 \times 40^2} = 0{\cdot}6$ approx. In a modern wing section such a lift coefficient is quite possible, but scarcely at an angle of incidence of 2 degrees; more probably at about 12 or 14 degrees. The lift at any other speed can be found by substituting other values for V in the equation.

A. H. C. (Golders Green).

The weight complete of a 50 h.p. Gnome is about 170 lbs. Petrol consumption about 5 gallons per hour and oil consumption about 1 gallon per hour. The weight of a suitable mounting and cowl would probably be approximately 50 lbs. and the propeller for it would weigh about 20 lbs.

E. E. H. (Kettering).

We have heard of no recent experiments with Hertzian waves as utilised for counteracting the force of gravity. You might obtain some information on the subject from the editor of *The Wireless World*, Marconi House, Strand.

C. A. D. W. (Maidenhead).

You had better wait for a few months and then apply for a commission in the R.N.A.S. In the meantime you should study the subject as much as possible.

J. F. (Wakefield).

You had better inquire of Major Mitchell, The Polytechnic, Regent Street, London, W., who is the recruiting officer for the R.F.C., as to whether there are any vacancies in your trade at present. Thanks for the photograph of your model, which we will use shortly.

E. J. S. (Tidworth).

Those who meet with accidents are not entitled to wear the gold stripe. You might be entitled to gratuity, but it is impossible to say without knowing the details.

A. L. G. (Ripon).

The manuals you mention are for official use only, and are not on sale to the general public.

J. J. (Croydon).

Your age would almost certainly debar you from obtaining a commission in the R.F.C., and it is doubtful whether you would be accepted as a mechanic. You should write to Major Mitchell, The Polytechnic, Regent Street, London, W.

R. H. (Leicester).

Apply to Adastral House, London, E.C., for the necessary form, and having filled it up send it in. There are no fees. If accepted you would be sent to one of the flying schools for training. It is impossible to say how long the training would take.

THE BRITISH FORCES IN MESOPOTAMIA.—A seaplane base with its Monitor guards.