



machine. Anyone who does so should make a point of purchasing a "Sebur" propeller from A. E. Jones for same. I am now engaged upon a machine similar in design with a 6 ft. braced plane, and if she turns out successful will let you have particulars later of her performances. In conclusion, let me say that "FLIGHT" was the means of introducing me to one of the most fascinating pastimes I have ever engaged in and to one of the best men I have "never" met, for although Mr. Burchell and I have never seen each other—we hope to do so ere long—we are now the firmest of friends and correspond regularly."

A Twin-Pusher Canard.

WITH a view to assisting other model makers, Mr. H. G. Pickering, of 71, Willmore Road, Perry Barr, Birmingham, sends particulars of a model aeroplane he has recently constructed, embodying his own ideas, and which has proved very successful in its trials.

"The model is of the 'V-shaped' kind, and flies with the small plane first, as will be seen from the accompanying scale drawings:

"Silver spruce, 1/4 in. sq., is used to form the framework, which is 3 ft. long and 8 1/2 ins. wide at the rear. The cross-stays are 1/4 in. by 1/8 in. in section, and are 3 1/2 ins. and 7 1/2 ins. long respectively. The large one is 1 1/2 in. from the rear of the machine, and the small one 16 ins. from the nose, and they are bound and gummed on to the main spars.

"Eighteen gauge steel piano wire forms the framework

of the planes, dimensions of which can be obtained from the drawings. The joints are made at the rear edge of each plane, and they are bound with thread. The ribs, four in number, have a camber of 1/4 in., and the ends are bent round and fastened with thread likewise. Solder is not used.

"The planes are then covered with oiled silk. As will be seen, they are slightly V-shaped, and the leading edge of the small one is bent up to give the rise.

It is best to bind the planes on with elastic so that they can easily be moved about to get them in the correct position for flying, but roughly the rear edge of the main plane should be 6 ins. from the end of the machine, and the small plane 2 ins. from the nose. Also a wedge may be used under the small plane to give more lift, if necessary.

"The propellers, of the 'bentwood' type, are composed of satin walnut, 1/8 in. thick, and the blades are bent at an angle of 30 degrees (see detail), by steaming. They are formed to revolve outwards when flying.

"Piano wire is used for the axles, both ends of which are softened, one to form the hook, the other to go round the propeller, which is bound. It is wise to slip a piece of thin rubber tubing on the hooks to protect the elastic.

"The motive power is six strands of 1/4 in. strip rubber (A. E. Jones, Ltd.) for each propeller.

"When winding up, each propeller should have 600-700 winds. Length of flight, 200-300 yards.

"Wheels have also been used on this model with good results."

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SIDE-WINDS.

It should be noted that the London offices of the Aircraft Manufacturing Co., Ltd., have now been moved to 27, Buckingham Gate, S.W. 1. The London offices of the Gnome and Le Rhone Engine Co., Ltd., and Airships, Ltd., have also been transferred to 27, Buckingham Gate, S.W. 1.

FROM MESSRS. C. A. Vandervell and Co., Acton, W. 3, comes a new edition for December of the C.A.V. moon chart, compiled by Mr. A. H. Midgley, chief engineer of the company. Anyone who would like a copy should drop a line to the firm as above.

ONE of the few firms who previous to the war laid themselves out to supply aeroplane fittings and parts was the Rotax Motor Accessories Co., Ltd., and so when war broke out they were not unprepared to meet the great demand which immediately grew up. For the convenience of aeroplane builders the firm have published a booklet illustrating the A.G.S. and other aircraft fittings which they supply. Although it is not very large, it is a useful publication, and all who have to do with the purchase of such material would do well to secure a copy. All that is necessary is to send a card to the Rotax Company at Victoria Road, Willesden Junction, N.W. 10. Most of the items listed are clearly illustrated, and the prices of the various sizes are set out in table form.

It is a feather in the cap of the Palmer Tyre, Ltd., that in spite of a considerable amount of opposition the American Society of Automotive Engineers, sitting in Washington, has adopted the Palmer rim and wheel as standard for aeroplanes for military use. This action makes it possible in the event of an accident to either a British or an American machine while landing, to replace immediately a shattered wheel with a

standard one. The B. F. Goodrich Rubber Co. is, we understand, the sole licensees of the Palmer tyre in the U.S.A. country, and it was at the suggestion of the Goodrich Co. that the society unanimously accepted the British rim and wheel for recommendation to the Government. The Goodrich Co. has sent to all U.S. wheelwrights and manufacturers copies of the specifications, and received replies assuring co-operation in hastening the construction of the wheel. The Goodrich Co.'s act in distributing plans to the leading wheel and rim makers was warmly commended by the S. A. E., and indicates clearly how strongly the big industrial corporations have placed their resources and ingenuity at the disposal of the U.S. authorities.

FROM Mr. Clarence Winchester, who is so well known in connection with Shoreham and Hendon aerodromes, we learn that he has been appointed to the editorial staff of the *Daily Mail*, with a view to keeping an eye upon all matters relating to flying. Incidentally, we understand that Mr. Winchester has a book of poems coming out shortly, and no doubt some of them will deal with flying.

ONE of the worries which beset aircraft manufacturers is that of transport, and many of them have proved the advantage of having their own facilities. The fact that a number of aircraft firms have selected the Palladium lorry goes to show that it possesses special fitness for this class of work, and those in the Midlands who contemplate either putting a lorry into service, or of increasing their fleet of vehicles should get into touch with Mr. Edward G. Brown, of 5-7, Great Hampton Street, Birmingham, who will be pleased to send particulars of the 4-5 ton lorry, and to arrange for a demonstration run, &c.

and to give the Commission an opportunity of inspecting the aerodrome.

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The London Aerodrome, Hendon.

BEFORE the War Losses Committee on November 28th the Grahame-White Aviation Company claimed compensation for damage sustained to their aerodrome at Hendon during Admiralty occupation. Mr. Grahame-White said that when the war broke out he was particularly anxious that the Admiralty should utilise his aerodrome. The Admiralty took over a shed and housed a large number of aeroplanes. They were charged £125 a year for the shed—a sum much below the usual figure. Subsequently the officials picked out the best portion of land in the aerodrome, comprising some 800 acres, and took it all over, including the sheds on it. This resulted in a considerable loss to the aerodrome. The Admiralty, in fact, assumed domination over the whole place, stationing sentries outside the gates, prohibiting him from taking pupils, and refusing the public admission. This put an end to his most lucrative business of giving demonstration flying, for which he had received as much as £1,500 in one day. The claim was a very moderate one, for they were only asking for £25 per week. The case was adjourned in order that the Admiralty might be legally represented

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PUBLICATIONS RECEIVED.

Industrial Engineering: Present Position and Post-War Outlook. By F. W. Lanchester. London: Constable and Co., Ltd., Price 1s. net.

Steels used in Aero Work. By W. H. Hatfield, D.Sc., A.F.Ae.S. Aeronautical Reprints, No. 1. London: The Aeronautical Society, 7, Albemarle Street, W. Price 5s.

Methods of Measuring Aircraft Performances. By Capt. H. T. Tizard, R.F.C. Aeronautical Reprints, No. 2. London: The Aeronautical Society, 7, Albemarle Street, W. Price 1s. 6d.

The Screw Propeller in Air. By M. A. S. Riach, A.F.Ae.S. Aeronautical Reprints, No. 3. London: The Aeronautical Society, 7, Albemarle Street, W. Price 2s. 6d.

Catalogue.

Gamage's Xmas Bazaar: 1917. A. W. Gamage, Ltd., Holborn, E.C.