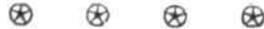


4. As regards precautions against fire, either in the air or on the ground, the first step to be taken in the arrangement of the relative positions of petrol pipes and tank and ignition wires and exhaust exits or pipes, so that the petrol is kept as far away from danger of ignition as possible. The next is to provide means for readily shutting off the petrol supply, in an emergency, close to, if not actually within the petrol tank itself. Fire originating in the carburettor through the engine firing back can probably be prevented by a suitable arrangement of metal gauze discs in the induction pipe, acting on the well-known principle which is used in the Davy Miners Safety Lamp. The agony of mind and body suffered by a pilot who, after a fall, is imprisoned in the aircraft owing to

breakages or the position the aircraft has taken up on falling and is then enveloped in flames due to escaping petrol having become ignited, is too horrible to contemplate. Unfortunately, this form of accident has happened only too often, and it is difficult to see how it can be entirely averted. I know of no means at present.

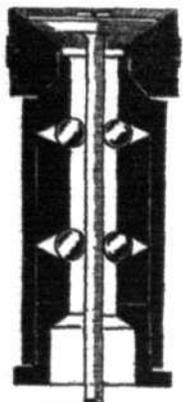
In conclusion, I should like to call the attention of those more particularly interested in the design and construction of aircraft to the very excellent and complete series of recommendations made by the Departmental Committee on the Accidents to Monoplanes, 1912, and to be found in their report on p. 11. The recommendations in question are well worth careful study.



SOME ACCESSORIES AT OLYMPIA.

The British Petroleum Co., Ltd. (109), 22, Fenchurch Street, London, E.C. To "describe" the exhibits on this stand would be hopeless, in spite of the invaluable nature of them, for there is not much of interest in tin cans—mostly red! "Shell" spirit, however, is so well known that it is hardly necessary to remind readers that nearly "everybody uses it." The models shown on this stand are interesting; they consist of silver models of such famous aeroplanes as the late S. F. Cody's biplane, Hamel's Dover-Cologne Blériot, the Grahame-White biplane which won the "Shell" Trophy at Hendon last year, whilst a model of one of the large tank steamers used for conveying "Shell" spirit to England is also worth inspecting.

Brown Bros., Ltd. (6), Great Eastern Street, London, E.C. The "Rapid" valve truer, which is illustrated by the accompanying sketch, shown amongst numerous other accessories and tools on this stand, is a really useful article for the aviator—to say nothing of the motorist, motor-cyclist and motor-boatist—especially if the engine has to be looked after personally. As its name implies, it is a device for quickly and easily truing or re-seating the engine valves. It consists of a tubular casing screwed into one end of which is a conical cutter, whilst fitting inside is a double-coned piece and a single-coned piece which



BROWN BROS.

form ball races for two sets of balls. The size of these races is varied by an adjusting nut, which screws in or out of the other end of the casing. The valve stem is inserted through the centre of the cutter and casing, and is held firmly, but free to rotate, in the ball-bearing, by tightening the adjusting nut. Some thick oil is then applied to the surface of the cutter and the valve head is pressed gently down on the cutter and rotated in a clockwise direction by means of a screwdriver, as in grinding valves. A few turns will produce a true face as good as new. Before inserting the valve, all carbon should be removed by means of a special carborundum cutter provided with the truer. It will be seen that by adjusting the size of the ball races, any size of valve stem, within limits, can be inserted and held in this device. After the valve has been trued it is advisable to place a small quantity of cutting compound between the valve and the seat in the engine and grind the valve in the usual way. The price of the device is £1.

Cellon, Ltd. (104), 17, Old Broad Street, London, E.C.—"Sell on, Cellon," is what

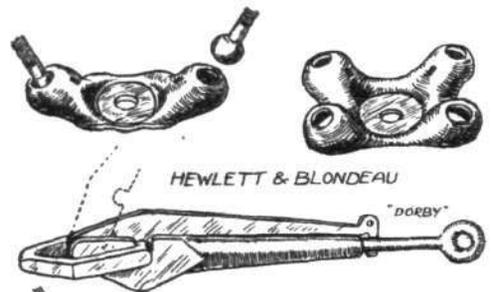
B. C. Hucks wrote on a signed portrait of himself which forms one of several interesting photographs to be seen on this stand. That it does sell on is evinced by the fact that among the users of Cellon dopes and varnishes are the Admiralty, the War Office, the Australian Government, the Aircraft Manufacturing Co., Ltd., British and Colonial Aeroplane Co., Ltd., W. H. Ewen Aviation Co., Ltd., Handley Page, Ltd., A. V. Roe and Co., Ltd., Short Bros., Sopwith Aviation Co., Vickers, Ltd., White and Thompson, Ltd. (Curtiss), &c., and many private aviators as well. Another very large order has just been received from the Government. Cellon dopes are made in several solutions to suit various purposes, but the most important ones are the fire-proofing solutions and the special finishing coat. The former renders the fabric absolutely fire-proof, and the latter can be used for both fabric and woodwork (floats, &c.). Cellon dopes and varnishes are also made for use on models, J. Bonn and Co., Ltd., of 97, New Oxford Street, W.C., being the sole agents for this branch. Cellon transparent sheets are another speciality. They are non-flammable, impervious to the effects of water, petrol, oil, &c., and are brilliantly clear. Those visitors to Olympia who have not yet witnessed aerial looping the loop should go to the Cellon stand and ask to see a Cellon looper, which are being sold at a few pence each for the benefit of Marcel Desoutter, and have already brought in something well over £5.

A. Dunhill, Ltd. (45), 359-361, Euston Road, London, N.W. A very complete range of clothing is displayed on this stand, of which special mention may be made of the one-piece overalls, made either in Dungaree or leather. Various forms of safety helmets and woollen caps can also be seen. Goggles, gloves and wraps are, of course, included in the display, whilst the lady aviator is also specially catered for. Besides clothing, the visitor may inspect a large selection of accessories for the aeroplane itself, such as compasses, watches, aneroid barometers, maps and map cases, tools and tool-kits.

The General Aviation Contractors, Ltd. (48), 30, Regent Street, London, S.W. As noted in our preliminary report last week, no exhibits are to be seen on this stand, which takes the form of a reception room, where all particulars are willingly given in connection with the various concerns associated with the "G.A.C.," viz.:—The British Anzani Engine Co., Ltd., and the British Emaillite (dope) Co., Ltd., of London, and the Societa Anonima Costruzione Aeronautiche "Savoia" of Milan (the sole concessionaires and manufacturers of the Henry and Maurice Farman aeroplanes in Italy and the Italian colonies), and the Agenzia Generale Forniture Aeronautiche of Milan, which is the

Italian branch of the "G.A.C." The stand is most artistically decorated and arranged, while on the walls are hung a few photographs (closely connected with G.A.C. matters). The furniture is both in keeping with the scheme and comfortable, and we confidently advise all visitors who are interested in the practical side of aviation on no account to miss this stand, but to call and obtain all the information they can possibly require in reference to "G.A.C." specialities and aeronautical matters in general.

Hewlett and Blondeau (73), Vardens Road, Clapham Junction, London, S.W. There are not many fittings required in the construction of an aeroplane that cannot be obtained from this well-known firm of aeroplane constructors. On the stand are displayed a number of such fittings, and three that are of special interest are shown in the accompanying sketches. The latest pattern of the quick release wire strainer (Dorby patent) is both simple and effective. To release the cable the hooked end of the hinged arm is released from engagement



HEWLETT & BLONDEAU

"DORBY"

with the eye bolt and the cable-eye can be slipped off the arm. The stamped eye plates shown above the strainer are fitted with ball and socket joints for the strainer screws. The advantages of this form of joint are obvious, vibration is diminished, and the mounting of the cables is rendered both simple and quick. The strainer, which can be obtained in any size, can be fitted to the bolt at any angle ranging up to 50°—another advantage. Special attention must be drawn to the welding by the Oxy-Acetylene system and other metal work shown. Another excellent piece of metal work consists of a length of drawn steel tubing which has been so rolled that it tapers from the centre towards each end and then opens out again at the extremities. The main point about this job, however, is that the amount of metal is not reduced as the section gets smaller, so that the strength is where it is most required. All kinds of work of this description is taken up by Messrs. Hewlett and Blondeau, and steps are being taken to manufacture all the various fittings supplied in the country. Other specialities seen on this stand are wire and cables, stranded or otherwise, and S.P.L.A. dopes.