

up against the sides of the cabin. The back rest folds forward on to the seat, and the whole then turns on longitudinal hinges, folding upwards and outwards, as shown in two of our sketches. Should it be desired to use the machine for carrying goods, the seats may be easily removed, each being held in place by two bolts only.

A feature of the cabin is the great amount of head-room, about 8 ft. This results from the *monocoque* construction and the elliptical cross section of the *fuselage*. In front this head-room is somewhat smaller, owing to the projection of the pilot's cockpit into the front part of the cabin. At the rear a smaller portion is cut off by a locker or luggage space in the roof, but there is still plenty of room for even a tall man to stand upright.

In the front wall of the cabin there is a small door on each side, through which the pilot may communicate information to the passengers. Between the two doors is a narrow panel enclosing the two vertical tubes of the *aileron* control. The top of this panel is left open so that the attachment of the tubes to the cranks is always exposed and easily accessible for adjustment. Incidentally, a passenger who knows something about flying may, by watching these tubes, get an idea of the amount of use being made of the *ailerons*.

Behind the cabin, and separated from it by a transverse bulkhead, is a compartment divided into two. That on

the port side is a diminutive lavatory, while on the starboard side is the luggage compartment. The latter is divided into two "stories," the upper of which is reached from the cabin through a door in the rear wall, and evidently meant for "wanted during the journey" luggage. The lower luggage compartment, which has a portion projecting forward under the double seat on the starboard side, is reached through a door in the starboard side of the *fuselage*.

By the time this issue of *FLIGHT* is distributed, the first of the "Vulcans" should have been in the air on its preliminary tests. It will then, probably, go to Martlesham for type tests, and should be on the London-Paris service (Instone Air Line) in a couple of weeks. The main characteristics of the "Vulcan" are as follows: Engine, Rolls-Royce "Eagle VIII"; length of machine o.a., 37 ft. 6 ins.; height o.a., 14 ft. 3 ins.; span, 49 ft.; chord, 9 ft. 3 ins.; maximum gap, 8 ft.; area of main planes, 840 sq. ft.; wing loading, 7.3 lbs./sq. ft.; power loading, 17 lbs./h.p. weight of machine empty, 3,775 lbs. (pilot, 180 lbs.); 72 gallons of petrol, 510 lbs.; 5 gallons of oil, 45 lbs.; reserve water (2 gallons), 20 lbs.; W/T, 100 lbs.; eight passengers at 160 lbs., 1,280 lbs.; luggage or freight, 240 lbs.; total loaded weight, 6,150 lbs. Maximum speed near ground (estimated) 105 m.p.h. Cruising speed (estimated) 90 m.p.h. Landing speed (estimated) 40 m.p.h. Climb to 6,000 ft. (estimated) 14 mins.

ROYAL AIR FORCE CADETSHIPS. FORTHCOMING ENTRANCE EXAMINATION

THE Air Ministry announces that an examination for entrance into the Royal Air Force Cadet College, Cranwell, will be held on June 27, 1922, and following days. The number of Cadetships open to competition at this examination will not be less than 20 inclusive of King's Cadets or Honorary King's Cadets, and will include the award of not less than one prize Cadetship.

In addition, one Wakefield Scholarship of the value of £75 per annum is offered for competition among candidates whose parents or guardians are in reduced circumstances, with preference to cases due to the late war.

Candidates must have attained the age of 17½, and not exceeded the age of 19 on July 1, 1922, the only exception being in the case of candidates with previous service prior to

January 1, 1920, or service in the Senior Division of the O.T.C. prior to March 1, 1919, in which case the upper limit of age will be 21.

Candidates must apply in writing to the Secretary, Civil Service Commissioners, Burlington Gardens, London, W. 1, for forms of application, and the forms should be completed and returned not later than May 11 next. No application received later than May 25 will be accepted under any circumstances.

The competition will be conducted in accordance with the Regulations for the Royal Air Force (Cadet) College; (Air Publication 121), which may be obtained from His Majesty's Stationery Office, Imperial House, Kingsway, W.C. 2. Price 9d.

ROYAL AERONAUTICAL SOCIETY NOTICES



Lectures.—The following programme of lectures has been arranged for next Session:—

October 5.—Prof. L. Baird, Fellow, "The Work of S. P. Langley."

October 19.—Mr. J. D. North, Fellow, "The Metal Construction of Aeroplanes."

November 2.—Major A. R. Low, Fellow, "A Review of Airscrew and Helicopter Theory, with Aeroplane Analogies."

November 16.—Mr. R. McKinnon Wood, Fellow, "The Co-relation of Model and Full Scale Work."

December 7.—Prof. C. F. Jenkin, "Fatigue in Metals."

January 4.—(To be announced later).

January 11.—Juvenile Lecture, Mr. R. A. Frazer, "Testing of Model Aeroplanes."

January 18.—(To be announced later).

February 1.—Mr. G. S. Baker, "Ten Years' Testing of Model Seaplanes."

February 15.—Wing-Commander Cave-Browne-Cave, "The Practical Aspects of the Seaplane."

March 1.—Major F. M. Green, "Helicopters."

March 15.—Prof. B. Melville Jones, "The Control of Aeroplanes at Low Speeds."

Representatives on other bodies.—The following representatives on other bodies have been nominated for the year ending April, 1923:—

Conjoint Board of Scientific Societies.—Lieut.-Col. M. O'Gorman.

Aeronautical Research Committee.—Lieut.-Col. A. Ogilvie.

Advisory Committee on Aeronautical Education.—Prof. C. F. Jenkin.

British Engineering Standards Association Aircraft Committee.—Lieut.-Col. M. O'Gorman.

B.E.S.A. Aircraft Sub-Committee No. 1 (Nomenclature).—Prof. L. Baird, Lieut.-Col. M. O'Gorman, Dr. Sutton Pippard, Mr. J. D. North, Major R. V. Southwell, Lieut.-Col. W. Lockwood Marsh.

Civil Aviation Advisory Board.—Lieut.-Col. M. O'Gorman.
International Air Congress, 1923; Organising Committee.—Mr. Griffith Brewer, Lieut.-Col. M. O'Gorman, Lieut.-Col. A. Ogilvie, Lieut.-Col. W. Lockwood Marsh (Technical Sec.).

W. LOCKWOOD MARSH,
Secretary

THE LONDON AERO-MODELS ASSOCIATION

At the Meeting held on April 27 it was decided that all members must put protectors on their machines. On Thursday, May 4, an important meeting will be held at Headquarters, and members are particularly requested to attend.

Sunday, May 7, R.O.G. Competition on Wimbledon Common (see last week's *FLIGHT* for full particulars).

On Saturday, May 20, a Smoking Concert will be held at Headquarters at 7.30 p.m., Mr. J. E. Louch most kindly making all arrangements and providing an excellent array of artistes. It is earnestly hoped that members will show their appreciation by attending.

On Sunday last there was a special muster of members on Wanstead Flats to give a flying demonstration. Unfortunately, the wind was of a downward trend, and it was impossible to get models up very high. Mr. Bedford was flying an enclosed model somewhat resembling a Blériot type, getting excellent results from same. Mr. C. Hersom had an enclosed model, the body resembling that of a flying fish. Mr. C. A. Rippon was very prominent with a large spar model. Mr. S. Holton was making excellent progress with a new model. About ten other members were flying models, Mr. Bedford concluding a most enjoyable meeting by demonstrating the flying of his twin pusher hydroplane. Three new members were recruited.

Meetings are held at Headquarters, 20, Great Windmill Street, Piccadilly Circus, W. 1, every Thursday at 7.30 p.m. All interested in model aeronautics are cordially invited.

Hon. Sec., A. E. Jones, 48 Narcissus Road, West Hampstead, N.W. 6.