

## NOTES FROM FARNBOROUGH

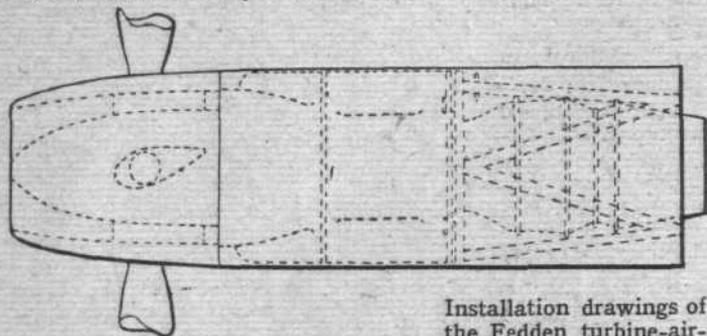
the speed of the Hernet III fighter was listed as only 450 m.p.h., whereas we are assured by the manufacturers that the hitherto published figure of 470 m.p.h. remains valid.

According to other figures issued at R.A.E. the Spiteful XIV with its speed of 475 m.p.h. at 26,000ft. is the fastest of all British airscrew-driven types. It may be wondered why it was necessary to develop the Spiteful—an entirely new aircraft—when the Spitfire 24 achieves only 15 m.p.h. less, carries the same armament, and has roughly the same range.

Doubtless the apparent discrepancies in the programme can in some cases be explained by omission to quote conditions, but it is regrettable that the characteristics of all aircraft—certainly the military types—could not have been tabulated according to a standard set of conditions.

Of the scale-model aircraft exhibited, the most striking was perhaps the Miles M 52 built to specification E24/43. The most daring departure is the use of an annular intake to the special Power Jets gas turbine; this intake is located to the rear of a sharp nose cone in which the semi-reclining pilot is accommodated, feet forward. The cone can be ejected in emergency and landed by parachute.

The idea of using an annular intake on a jet propelled aircraft is not entirely new. Campini had early patents cover-



Installation drawings of the Fedden turbine-airscrew unit, showing the configuration of this interesting power plant and alternative methods of installing it. In one the efflux is over the trailing-edge; in the other below the wing.

### FREDERICK KOOLHOVEN

ALL those who were connected with aircraft design and manufacture during the "hard" inter-war years, will learn with regret of the death, on July 1st, of Frederick Koolhoven at the age of sixty years. The modern generation may remember the original and, for their time, extremely efficient aircraft built by the Koolhoven concern in Holland during that period. For others he was probably best known for his design work both during the first European war with Armstrong Whitworth's and in the earlier peace years with British Air Transport. One of the most notable early civil types was the BAT FK-27, while another of his outstanding designs of the time was the BAT Bantam fighter.

Frederick Koolhoven learned to fly in the 1910-11 period, on a Farman, and came over to this country two years before the first European war.

### THE WAYFARER LOSS

AS part of the series of demonstration flights planned by the Bristol Aeroplane Company, and outlined in the issue of June 27th, the first production Wayfarer left on June 28th on its flight to South America. In charge were Mr. E. H. ("Biffy") Newman, of Airwork, Ltd., and Mr. R. Ellison, one of the Bristol Company's test team.

Everything went well during the first stages of the flight to Buenos Aires, but unfortunately—and owing, it is understood, to the failure of the radio compass—the Wayfarer had to be "ditched" during the South Atlantic crossing. The aircraft was 400 miles off course before the error was discovered and, at the moment of ditching, had been in the air for 15½ hours—much over the period required for the 1,840-mile run. To provide the necessary range the Wayfarer had been fitted with three 300-gallon overload tanks which should normally have provided an ample margin

ing this feature and it has been reported that a Russian fighter has a similar arrangement, though in this case the nose cone houses the guns, the pilot being seated well aft in the main fuselage.

Equally ingenious in its way is the power plant layout of the Saunders-Roe jet propelled fighter flying boat with two Metropolitan-Vickers axial-flow units in the sides of the hull fed from a single intake high in the bow. It will be interesting to see what effect the jet efflux has on the hydrodynamic qualities of this aircraft. The planing bottom extends almost the whole length of the hull.

It was made clear during the war that efficient freight aircraft must be of highly specialized design, provided with adequate loading as well as stowage facilities, and it was interesting to learn that Airspeed have received an order for the AS60, a high-speed military transport development of the Ambassador, and incorporating a particularly ingenious scheme for quick loading and discharging. The bottom line of the fuselage sweeps up in a very pronounced curve to the tail, and this lower curved portion comprises two very large clam-shell doors which hinge upward, permitting large vehicles to be driven up the short ramp attached to the fuselage floor forward of the doors.

Intermediate power-plants, between the highly developed piston engines and the straight jets, were the Armstrong Siddeley Python, Bristol Theseus and Rolls-Royce Trent gas turbines driving airscrews. It was noted that Bristol's refer to the Theseus as a 2,000 h.p. unit. Specifically the power figures are 1,950 b.h.p. + 500 lb jet thrust (I.C.A.N. sea-level static conditions), 2,350 equivalent b.h.p. (sea level, 300 m.p.h.) and 1,500 equivalent b.h.p. (20,000ft, at 300 m.p.h.). Under maximum power sea level conditions at 300 m.p.h. the fuel consumption is 0.57 lb/equiv. b.h.p./hr.

Power figures for the projected Fedden turbine-airscrew unit were published last week. Installation drawings issued by the company show that this promising unit measures 7.75ft from the mounting points to the tip of the spinner, and that the overall installed diameter is 27 inches.

The Farnborough exhibition provided an opportunity to collect data on some items of service equipment, notably on deley Ppthon, Bristol Theseus and Rolls-Royce Trent gas turbine cordite-operated accelerator, from which a Seafire was launched, is capable of handling machines of up to 16,000 lb. The maximum launching speed is 64 knots (73 m.p.h.), acceleration run 65ft and buffer stroke 5ft.

The rocket-operated catapult, likewise demonstrated, will launch aircraft of up to 10,000 lb at 75 m.p.h. The acceleration stroke is 70ft and the buffer stroke 2½ft. Sixteen or eighteen 3in rocket motors give a thrust of 40,000 lb.

### FOUR FAMOUS MEN

FOUR men whose work made valuable contributions to the advance of aviation as well as to the technical development of the motor car were among the names selected for tribute at the recent quadragenary celebrations of the Institution of Automobile Engineers held in the premises of the Society of Motor Manufacturers and Traders at 148, Piccadilly, London, W.1.

The first tribute was paid by the Institute's senior living past-president, Lt. Col. T. B. Browne, to the late Dr. F. W. Lanchester who died in March of the present year when his life's work was reviewed in *Flight*. Col. Browne sketched the career of this famous engineer and scientist and pointed out that he began his study of aerial flight in 1893, was the first person to lay down the basic theories of flight, and always regarded his work on the automobile as a stepping stone to aeronautical development.

The late Montague S. Napier's contribution to automotive engineering and aviation was outlined by Major E. G. E. Beaumont who said that he produced the first six-cylinder car in 1903, and the firm bearing his name began production of aircraft engines in 1919. Napier himself had already turned his attention to the advancement of the aircraft engine when he went to live in the South of France, for health reasons, in 1911.

That the late Sir Henry Royce began his career in railway engineering, put in a spell among machine tools, and then worked for nearly 25 years in electrical engineering before turning his attention to motor cars was probably news to many who listened to Mr. A. G. Elliott's tribute to the man responsible for the Rolls-Royce car and aircraft engine.

Finally, Dr. H. R. Ricardo, whose work in the development of the internal combustion engine has led to many important developments, was paid a tribute in a speech by Major A. T. Evans.