



AIRCRAFT DESCRIBED No. 125 by G. R. DUVAL

THE H.M.14 POU-DU-CIEL made its first flight in France on September 6th, 1933. Designed by M. Henri Mignet, and of highly unconventional layout, the Pou was intended by simplicity and low-cost production to bring flight within reach of those who believed in flying for fun, but could not afford the high cost normally involved.

Virtually a "flying slot", the machine was controlled in pitch by a variable incidence front wing, and in yaw by a large rudder, both functions operated by a single control column, with fore and aft movement for the front wing, and sideways movement for the rudder. Turns were made by rudder alone, there being no ailerons, dihedral stability preventing a spiral dive. To assist would-be constructors, M. Mignet's book "Le Sport de L'Air" contained instructions and drawings.

Interest in the Pou proved to be world-wide and immediate. In Britain, the Air League of the British Empire sponsored the machine, selling six thousand translated copies of Mignet's book in the first month and further, succeeded in freeing the Pou from air-worthiness regulations, replaced by issue of Permits to Fly against Third Party insurance.

The first British machine flew on July 14th, 1935. Built by Mr. S. V. Appleby at Heston and registered G-ADMH, it was fitted with a 30 b.h.p. Ford car engine modified by Sir John Carden for aviation use.

By April, 1936, some eighty Flying Fleas, the name delicately mis-translated, were complete or under construction in this country. Many of them were sadly under-powered, with impossible C. of G. positions, and failed to fly, but a few, properly built and with good engines, performed reasonably well. Among the latter, Mr. Appleby's G-ADMH was probably the most efficient, for minor crash damage gave the noted sailplane designer, Mr. L. E. Baynes, an opportunity to analyse and remedy its design defects. The modified 'MH' was rebuilt by Abbott-Baynes Aircraft at Farnham, Surrey,

and flown by its owner at Heston on October 2nd, 1935. The Carden/Ford engine was retained, the most obvious changes being an increase in front wing span from 17 feet to 22 feet, a slightly lengthened fuselage and a faired-in nose. The Abbott-Baynes Flea was advertised at £198 ex-works and air tested, or as a kit of parts for less than half this figure.

On April 20th, 1936, disaster struck. G-ADVL dived into the ground at Renfrew, killing its pilot. Two weeks later, a Royal Air Force pilot lost his life in G-AEEW, and on May 21st, a brother officer was killed in G-AEBS at Digby.

Blind enthusiasm chose to ignore these accidents. Three examples of an improved Abbott-Baynes machine were built and flown at Heston. Known as Cantilever Poux, these machines were strut-braced, push-rod controlled and utilised the reliable Carden/Ford power unit.

On September 20th, 1936, yet another fatal accident at Dyce, brought matters to a head. Full scale wind tunnel tests at R.A.E. Farnborough, and at Villacoublay in France, proved without doubt that a design fault had led to the accidents. By virtue of its layout, the Flea's flight attitude was roughly parallel to the ground at all times. This, combined with low forward speed, induced experienced pilots to put the nose down to prevent a stall. In so doing, the front wing incidence was reduced towards a critical angle, where the vital slot-effect vanished and the elevator function became ineffective. The result was an out of control dive into the ground.

M. Mignet took immediate steps to correct the design, but it was too late. His improved designs met scepticism, and in Britain the machine was finally banned. For all this, Mignet continued to design and build his machines. Modern Fleas now exist in America, France, Japan and elsewhere, while in this country non-flying relics of the "Flea Craze" are still to be seen in odd corners.

Top Left: Frank Easton's U.S. Flea with Continental A-40 engine which has been seen at many "Fly-in" meetings of the Experimental Aircraft Association etc. Top right: "Flight" photo of the Cantilever Pou which had struts replacing main bracing wires and unbraced rear wing. Below is the fascinating folding wing H.M.280 recently presented to the Musee de l'Air, Paris by its owner who operated throughout the war with the Maquis. Colour is light blue overall with French cockades. Co-operation of the Musee de l'Air, A. J. Jackson, Maurice Bayet and K. W. Hamilton, U.S.A. is gratefully acknowledged for preparation of this feature



