

A Foreign Plane for Clubs

By Lloyd S. Graham

WHEN Leslie L. Irvin, chief engineer of the Irving Air Chute Co., Buffalo, N. Y., recently returned from his English factory he brought with him to the Buffalo Airport an English plane which has attracted much interest among pilots passing through the port.

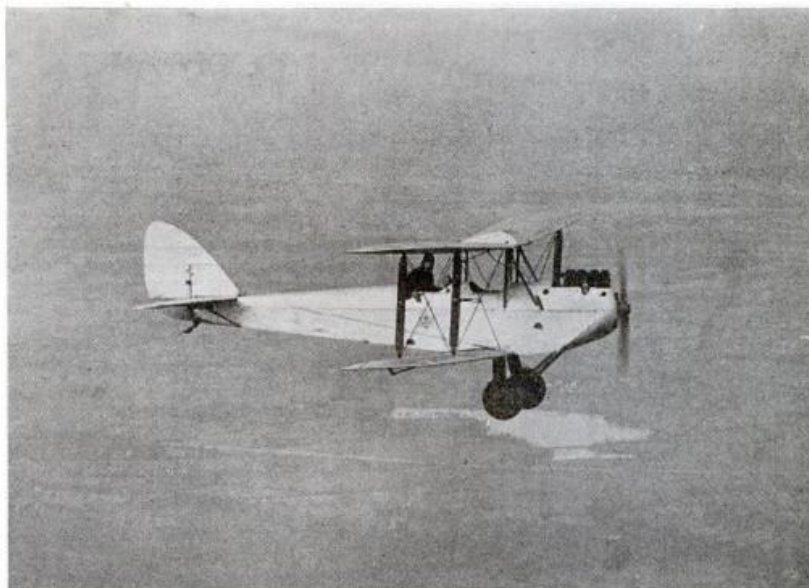
When Col. Charles L. Lindbergh was in Buffalo on his country-wide tour he looked the plane over and wanted to fly it, but was too busy. He contented himself with saying that he was coming back to Buffalo after his tour and wanted a chance to fly it then.

We have had cameras which would fold up and go into vest-pockets for many years, but this plane of Mr. Irvin's is the first plane at the Buffalo Airport which can be folded up and run into an ordinary garage. Moreover the folding and unfolding can be done in a couple of minutes.

For some time Mr. Irvin has used the plane in England, where he has been looking after the operations of his company. So far as he knows, his plane is the first and only one of its kind to be actually used in flying on this side of the Atlantic.

A word about Mr. Irvin himself by way of introduction to those who don't know him: He started his air career when he was fourteen years old by parachute jumping in California. Since then he has been in the air much of the time making literally hundreds of parachute jumps. He has ridden in and driven all sorts of planes. Luckily all of his jumps have been premeditated, that is, in the interests of tests and for exhibition purposes and not from necessity.

This plane is known as the DeHavilland "Moth" and Mr. Irvin says it is used chiefly in England by private owners and also in the light plane clubs which are subsidized by the government for the training of civilian flyers.



The local aero clubs now forming will be interested in the story of the "Moth"—a popular plane among the English Light Plane Clubs. The design is nearly ideal for the purpose required, and some of the English statistics on upkeep are so low they look wrong.

The best thing about the plane, from Mr. Irvin's standpoint, is that it has a "heavy" feel in the air. That is, it feels like a much heavier plane and does not have the delicate "light" feel to the pilot which is common in most light planes.

The length of the "Moth" is twenty-three feet and a half, while the wing span is twenty-nine feet. However, these wings are readily folded up to a width of nine feet and eight inches. It stands about eight and one-half feet off the ground. The weight of the plane, without passengers, fuel or oil, is a trifle more than 800 pounds. There are cockpits for one pilot and one passenger with dual controls. In the air with two persons, oil and gasoline the weight is about 1,265 pounds, figuring the weight of each passenger at 160 pounds.

The power plant in the "Moth" is a four-cylinder, air-cooled "Cirrus." Mr. Irvin says that this motor produces a rate of climb of more than 600 feet per minute near sea level with a ceiling of 15,000 feet. Ordinary cruising

Irvin's Moth in flight with the pilot standing in the cockpit with his hands off the controls.

speed is 75 miles per hour, but he has been able to crowd it on occasion up to 95 miles per hour. The motor is rated at 30 to 80 h. p.

In detail Mr. Irvin says that the motor has a stroke of 130 mm. and a bore of 110 mm. The cylinders are of cast iron and fitted with aluminum alloy heads. There are the usual cooling fins. Valves are of the overhead rocker type. Pistons are aluminum alloy. Piston rings are cast iron. Connecting rods are Duralumin stampings of H section, the bearing at the big end being white metal in a bronze shell. There is a five-bearing crankshaft, front and rear bearings being roller and the other three bearings white metal in phosphor bronze shells. The propeller is mounted directly on the crankshaft. There is a force-feed lubrication by means of an oil pump located in the bottom of the oil base. There is dual ignition with two magnetos and two sets of spark plugs. There is a dual Zenith carburetor with altitude control.

The gasoline tank is above the cockpits, forming the center and stationary section of the upper wing. It holds fifteen gallons, English measure, and gives the plane a cruising radius of about 300 miles. Oil consumption is figured about one pint an hour.

Mr. Irvin says that one of the chief uses of the "Moth" in England is for training civilians in the light aeroplane

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Plane for Clubs

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clubs, of which there are many at various points throughout the island.

The English government is interested in this project, that it may have a large group of civilian flyers available in time of war. By subsidy the government makes it possible for civilian flyers to become pilots at comparatively low cost. In England the cost of becoming a pilot through training in a commercial school ranges from \$750 to \$1,000.

In joining a light aeroplane club the civilian who wishes to learn to fly pays a membership fee of about \$15. A

Leslie L. Irvin, of Buffalo, N. Y., who has brought a D-H Moth to America.



The Moth with the wings folded, showing how compact the plane can be made for housing.

charge of approximately \$7.50 an hour is made for flying instruction. This applies either to solo or dual flying. A minimum of eight hours dual instruction is compulsory, but after that the amount of instruction depends upon the pupil. Most civilians can learn to fly, however, for from \$100 to \$150 in this way. When the pilot-instructor thinks the beginner is sufficiently capable, the latter may take the tests necessary to obtain a license. These tests include those of performing solo, a physical examination and an oral examination.

In addition to this the government also subsidizes the club itself, providing an initial sum of about \$10,000 for equipment and an additional \$5,000 per year for two years. In case of a complete cracking up of equipment the government also provides half the cost of replacement should there be a complete loss or "write-off."

After members have learned to fly in club planes with club instructors, they can buy their own planes or occasionally use those of the club. Naturally these club planes are held more or less in reserve for the pilot instructors and their pupils and sometimes their schedules are filled for days in advance of flying time. This plan of instruction is quite popular and at the time Mr. Irvin left England the demand for instruction was greater than the facilities available.

Well Known Engineer

Walter H. Barling, internationally known aeronautical engineer, who was selected by the United States Government to design and build the Barling Bomber, the largest bombing plane in the world, is now in commercial aeronautics devoting his time entirely to the advancement of private and industrial flying.

Mr. Barling, its builder, was for four years in charge of aeronautical engineering for the British Royal Air Force at the Royal Aircraft Factory. He is a Fellow of the Royal Aeronautical Society, a member of the Society of Automotive Engineers, a Bachelor of Science, a Whitworth Exhibitioner and is the author of many aeronautical papers published by the British Government.

Mr. Barling is now in commercial aeronautics being head of the Engineering Department of the Nicholas Beazley Airplane Company of Marshall, Missouri, the largest aeronautical supply dealers in America. This firm, during the past two years has sold and delivered over 1,800 new engines to commercial manufacturers in addition to building and selling nearly 400 new airplanes. They are also affiliated with the Marshall Flying School of Marshall, Missouri, and have trained hundreds of pilots and airplane and engine mechanics.

