

TWO-SEATER FIGHTERS

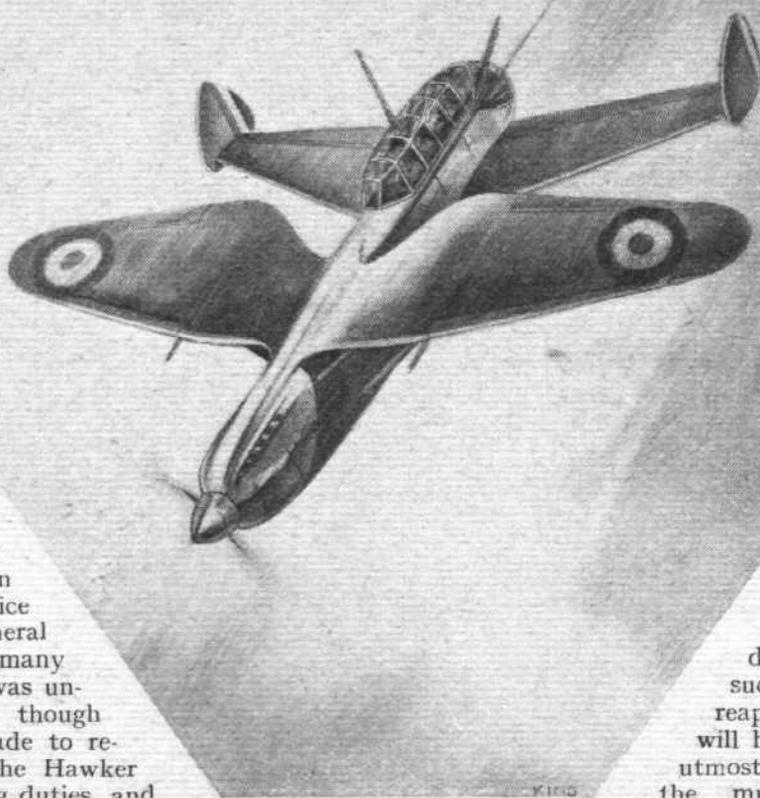
—will they survive?

Thoughts on the Potentialities of the Class

By H. F. KING

VERITABLY a Cinderella among aeroplanes, the two-seater fighter has a unique history. It is generally conceded that the Bristol Fighter, introduced in 1916-17, was a major factor in establishing the eventual Allied superiority in the air, but after the Armistice the type was relegated to general purpose duties, and for very many years the two-seater fighter was unknown to R.A.F. squadrons, though spasmodic attempts were made to revive it. Seven years ago the Hawker Hart was adapted for fighting duties, and under the name of Demon became the standard two-seater fighter of the Royal Air Force.

Demons, but slightly modified, were in production until very recently. As at present standardised the type has two fixed guns and a free Lewis gun in an hydraulically operated Nash and Thompson turret. It was, incidentally, the first Service type to incorporate this latter refinement, though the fullest advantage can hardly be gained at speeds around 185 m.p.h. which is something like the maximum of the Demon with the de-rated Kestrel V engine. Equipment includes two-way wireless, night-



The unorthodox French Delanne now under construction. A top speed of 370 m.p.h. is calculated, with an Hispano Suiza Series Y engine. The excrescences are a shell-gun and a radio mast.

flying gear and racks for four or eight 20 lb. bombs.

Up to the moment no Demon replacement has been announced, though, considering the numbers of Demons in service, it is hardly to be expected that the two-seater fighter will disappear from the R.A.F. as suddenly as it made its belated reappearance. But the type will have to be developed to the utmost if it is to survive against the multi-seater, multi-engined arsenals as now being tested abroad.

Whether the next standard British two-seater fighter will be a single- or a twin-engined model is still an Air Ministry secret. With engines of 1,500 h.p. and more on test, lack of a suitable power plant for single installation is not likely to be the deciding factor in the adoption of "twins." Rather the issue is likely to centre on the questions of armament mounting and forward vision; and as the forward-firing armament is likely to take the form of shell-guns with a limited arc of movement a third man may be required to operate the rear weapons. So it does seem that the two-seater may be retained as a powerful single-engined type with fixed guns for the pilot and axially restricted armament for the man in the back seat, for any hope of broad-



A Hawker Demon with Nash and Thompson gun turret. The Demon has been the standard R.A.F. two-seater fighter for seven years.

side fire seems more assuredly doomed as speed increases—in other words, the question of broad-side fire is affected by the high speeds now attained, as was explained in a note a few weeks ago (in our Service Aviation pages) on the "Cazaux effect"; serious deflection of bullets or shells occurs, and the only obvious remedies appear to be the unsatisfactory ones of either increasing the charge or lengthening the barrel.