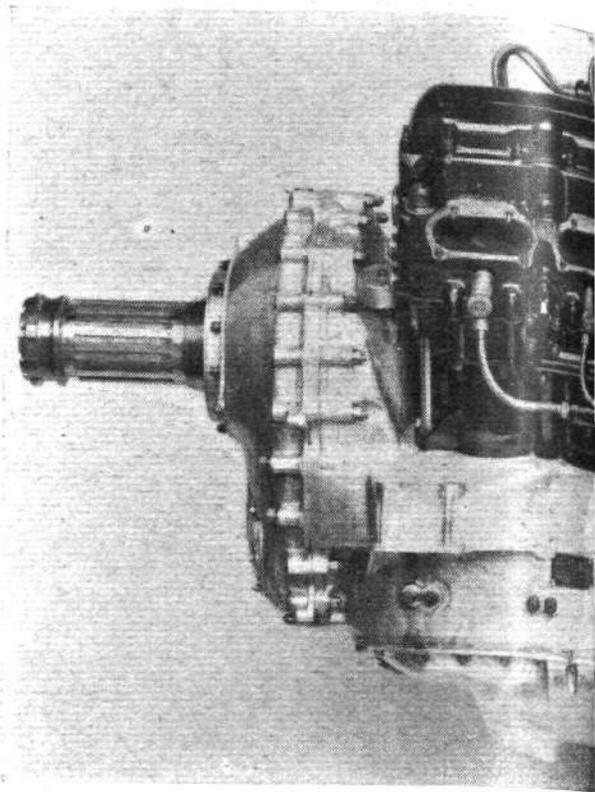
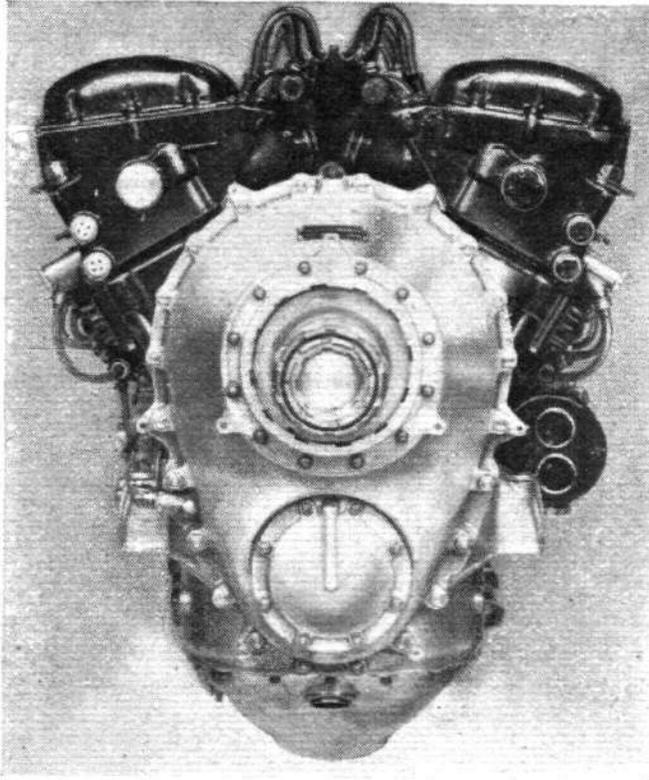


The Merlin I, with detachable cylinder heads and flat-topped cam covers. The external appearance also differs from that of the Merlin II in the cast coolant pipes.



## VEE-TWELVE PAR EXCELLENCE

*First Details of Rolls-Royce Merlin I and II : Latest Model Has Non-Detachable Cylinder Heads : 1,030 h.p. at 16,250 ft.*

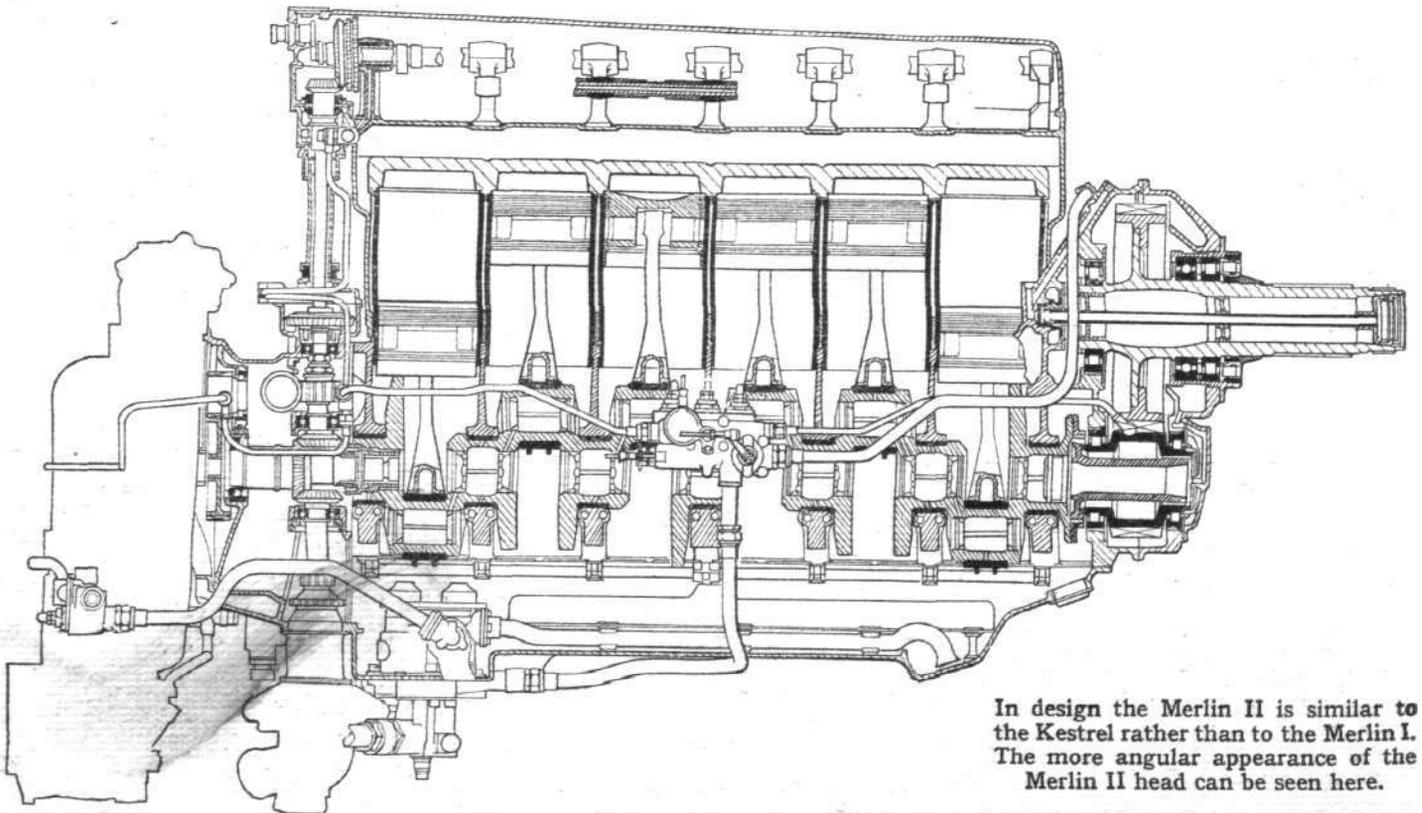
THE past year or two has seen the familiar Kestrel-engined biplanes slide into obsolescence and new, cleaner monoplanes take form, fly and reach the production stage. Several of these newcomers, powered with Rolls-Royce Merlin engines, have retained the characteristically sleek nose associated with a Rolls-Royce power unit. Later a more "snub" cowling may be supplied for the Merlin if the nose-position pressure radiator cowling as fitted to the Hawker Henley is deemed to be preferable to the mid-ventral or ventral installation. There are at present high-performance fighters and bombers featuring each of the three systems.

The time has now come when the origin of the many

"horses" beneath these cowlings may be investigated, and the Merlin engine, which has already earned itself a world-wide reputation, can be discussed in detail.

Merlin I and II engines have now flown for over 2,000 hours and exacting tests have shown a marked superiority over the early Kestrels, particularly in respect to the harsh treatment they will stand. It is claimed that no serious breakage has ever occurred in a Merlin II engine even under extreme flying conditions.

The chief difference between the Merlin I (or F) and II (or G) lies in the cylinder heads. Detachable "ramp" heads were used on the Merlin I's, while the Merlin II's have blocks and heads cast in a unit, following



In design the Merlin II is similar to the Kestrel rather than to the Merlin I. The more angular appearance of the Merlin II head can be seen here.