

Controllability is but one of the many strong points of the Hampden. Here Major Cordes shows it "forming" at 65 m.p.h. with wheels and flaps down.

used wherever the gauge makes an extrusion economical. In the lighter gauges this would not be so, and there bent-up sheet metal strip is used instead of extrusions. Apart from their good mechanical properties, the use of extruded sections has the advantage that a good deal of work in the aircraft factory is saved. The drawback is, of course, the very obvious one that the aircraft constructor is entirely dependent on the manufacturer of extruded sections for his supplies. If there is any delay in delivery, the production in the aircraft manufacturer's shop is inevitably held up.

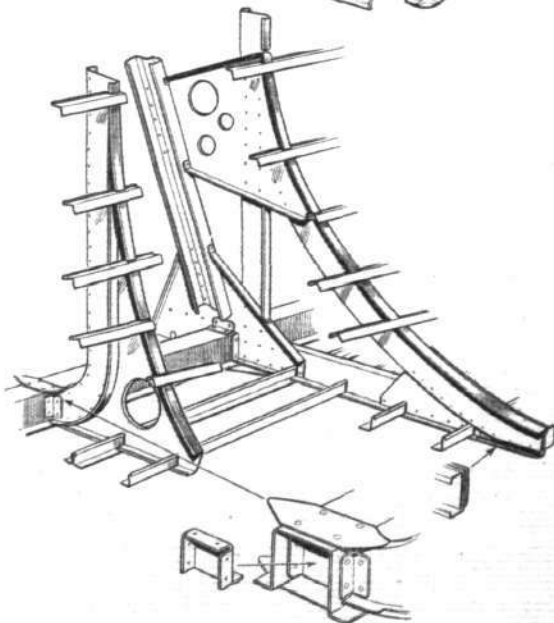
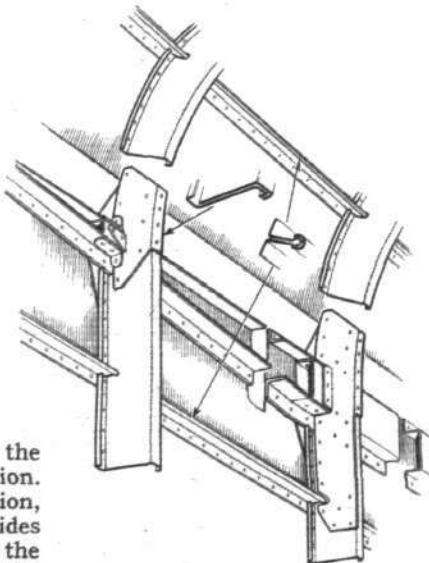
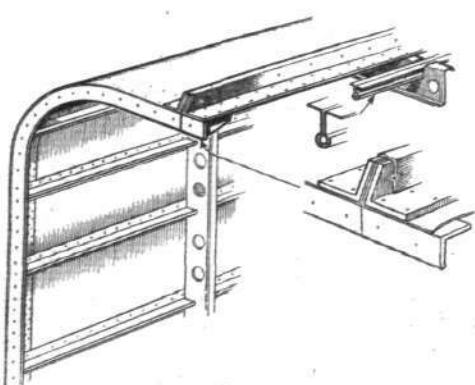
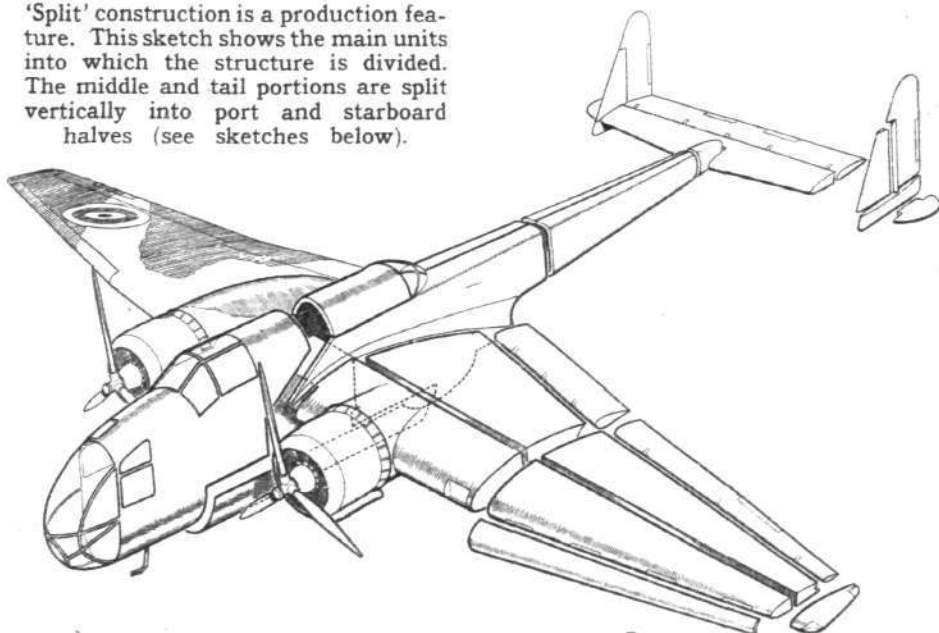
In these notes we do not propose to devote much space to the actual forming and manufacture of the small components. The usual processes are employed for pressing and drawing sections, and the Handley Page works do not differ materially from others in this respect. Where they are unique is in the system of assembly, and it is to this aspect that we propose to devote most of the space available.

### The Fuselage

As already mentioned, the fuselage of the Hampden is made in three main units, of which the central and rear portions are

again divided into two halves, port and starboard. The nose portion is not so divided, because during its assembly it is open at both ends and partly at the bottom, so that the men can get at the inside quite comfortably, and there was no real necessity to split it into two halves. The hoops, formers and stringers which compose its skeleton framework are manufactured in the shop, and the appro-

'Split' construction is a production feature. This sketch shows the main units into which the structure is divided. The middle and tail portions are split vertically into port and starboard halves (see sketches below).



Fuselage details of the Hampden. On the left, the construction of the split tail portion. In the centre, details of the middle portion, showing how the decking locks the sides together. On the right, the structure of the wing-fuselage fairing, built integral with the fuselage.