a bonzer bonanza

LAST year Dinky Toys produced an excellent little model of that world-famous business plane, the Beechcraft S35 Bonanza. I have long believed that it is possible to build in Meccano a model of almost anything that Dinky Toys turn out in die-cast metal, and the Meccano Beechcraft Bonanza featured here, proved my point. Admittedly it is rather larger than the Dinky version and may not be quite so detailed, but it is still a good representation.

Construction is not difficult. Each side of the fuselage is built up from a 12½ in. Strip 1, extended four holes by a 3½ in. Strip 2. Attached to Strip 2 at the front are a Fishplate 3 and a 4 in. Stepped Curve Strip 4, to which a 4½ in. Strip 5, extended by a 7½ in. Strip 6, is bolted. All the Strips are arranged as shown in the illustrations and the intervening space is filled in, working backwards from the front, by a 3½ in. by 1½ in. Triangular Flexible Plate, a 5½ in. by 1½ in. Flexible Plate, another 3½ in. by 1½ in. Triangular Flexible Plate and a 2½ in. by 1½ in. Triangular Flexible Plate.

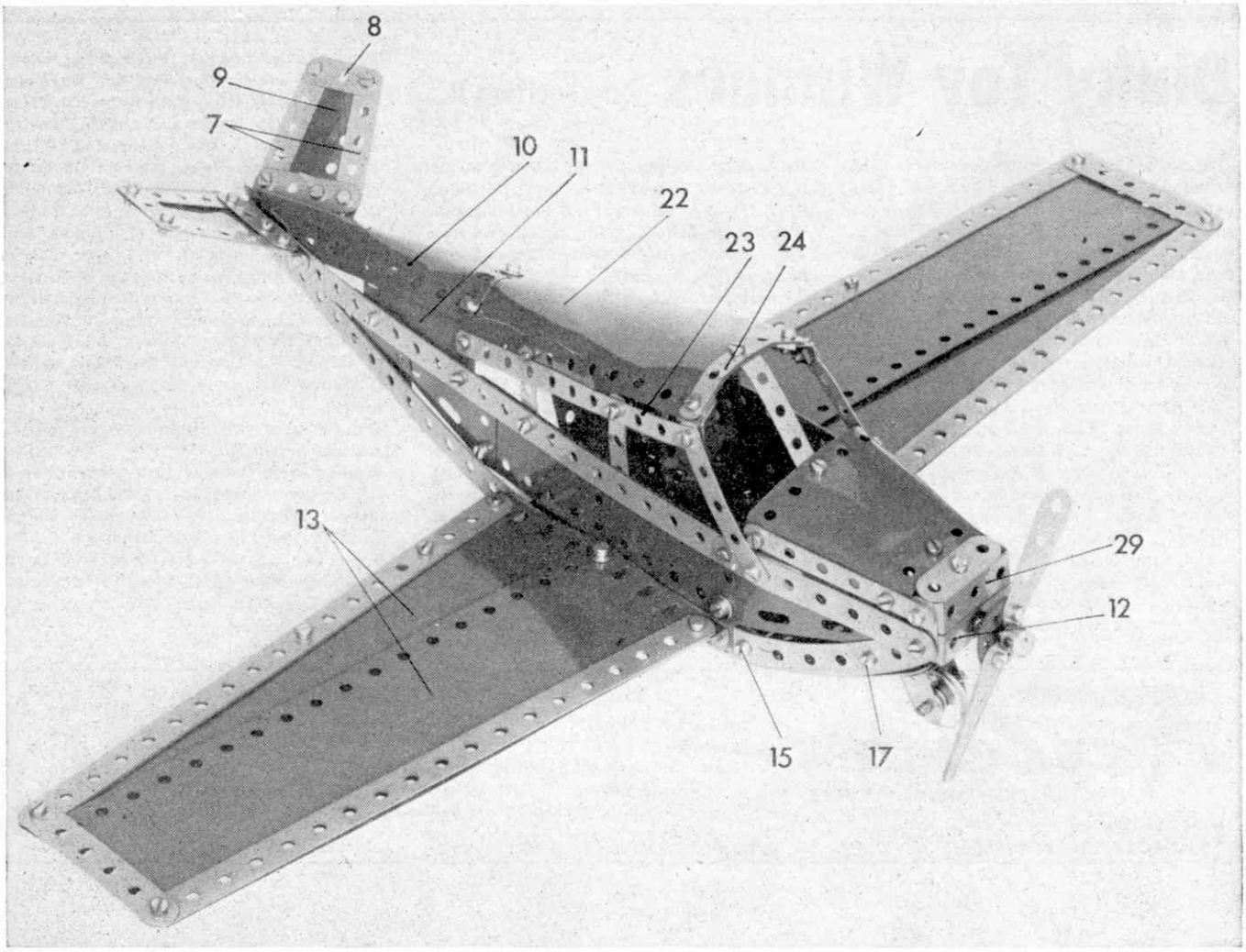
Both tailplane sections should now be completed, each being similarly built. Two 2½ in. Strips 7 are bolted to a 2 in. Strip 8, at the same time fixing a 2½ in. by 1½ in. Flexible Plate 9 in position. The two tailplane sections are then connected to the fuselage, as shown, by Obtuse Angle Brackets.

A single ¼ in. Bolt is used to fix both rear Obtuse Angle Brackets to the fuselage, at the same time securing a 5½ in. by 1½ in. Plastic Plate 10 in position. A 2½ in. by 1½ in. Plastic Plate 11 is bolted to each Strip 1 and, at the front, Strips 2 are joined by a 1½ in. by ½ in. Double Angle Strip 12.

Each wing is built up from two 9½ in. by 2½ in. Strip Plates 13, edged by two 9½ in. and one 3 in. Strip. Angle Brackets are used to connect them to the fuselage, at the same time fixing two 2½ in. by ½ in. Double Angle Strips in position between Strips 5. A 4½ in. by 2½ in. Flat Plate 14 is bolted to these Double Angle Strips. Another 2½ in. by ½ in. Double Angle Strip held by Bolts 15 is added between Stepped Curved Strips 4 and secured to this are two 3 in. Strips and a 3 in. by 1½ in. Flat Plate 16. The Plate and Strips are also fixed to Curved Strip 4 by a Compound Double Angle Strip, held by Bolts 17, built up from two 1 in. Angle Brackets.

It is best to now fit the propeller assembly, before the top of the fuselage is added. The propeller, itself, is composed of two 2 in. Strips, twisted to shape

The Beechcraft S35 Bonanza—In Meccano

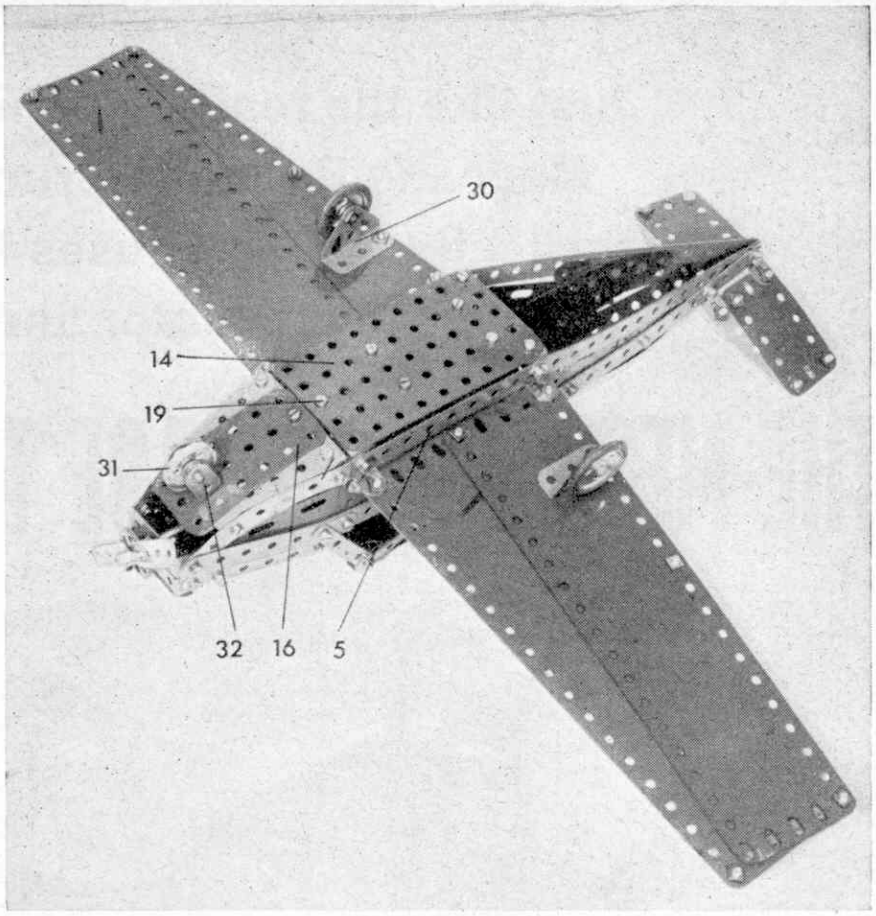


and bolted to a 1 in. Bush Wheel 18 (Elektrikit Part No. 518). This, in turn, is mounted on a 4½ in. Rod journalled in Double Angle Strip 12 and another 1½ in. by ½ in. Double Angle Strip, secured in a vertical position by Bolts 19, to the Double Angle Strip held by Bolts 15, a Collar behind the Double Angle Strip holding it in place. A second Collar is added at the front to act as a spinner.

Inside the model, two seats are fitted, each being built up from a 1½ in. Flat Girder 20, attached to a 2½ in. by 1½ in. Flexible Plate 21 by two Angle Brackets. The Flexible Plate is attached to Flat Plate 14, also by Angle Brackets.

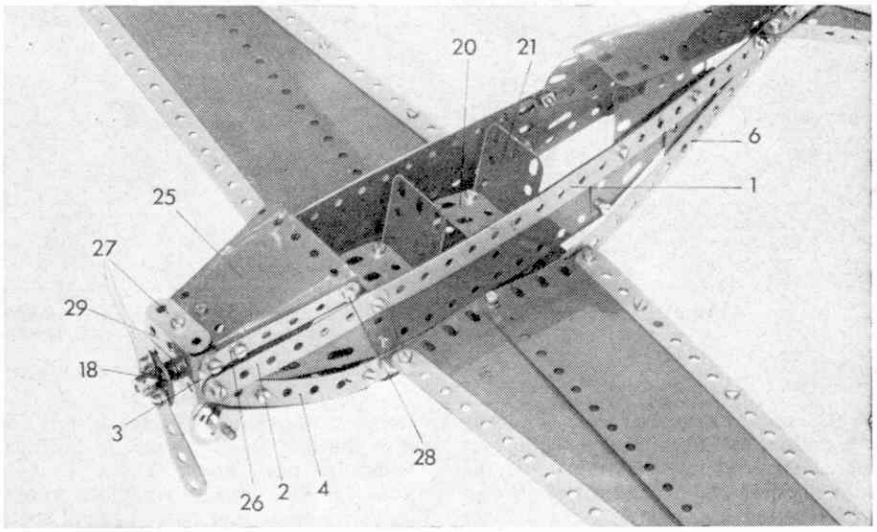
The cabin is easily constructed from a 5½ in. by 2½ in. Plastic Plate 22 to which two 5½ in. Narrow Strips 23 are fixed by Obtuse Angle Brackets, at the same time securing a shaped 2½ in. Narrow Strip 24 in position. Plastic Plate 22 is then bolted to Plastic Plates 10 and 11, after which the cabin roof is connected to the fuselage by six 2½ in. Narrow Strips, as shown.

An engine cowl is built up from a 3½ in. by 2½ in. Flexible Plate 25, bent to shape and overlayed by two 3 in. Narrow Strips 26, one at each side. The Strips are bolted through the end elongated holes at the rear of Plate 25, and through the respective second holes at the front. A 1½ in. Strip 27 is attached to Plate 25 by a Fishplate, then another two Fishplates are added, being held on the inside by Bolts 28. These are fixed to the fuselage, while, at the front, Strips 26 are bolted to Fishplates 3, along with a 1½ in. by ½ in. Double Angle Strip 29.



Above: an underneath view of the aircraft showing the underside of the fuselage and the tricycle undercarriage

Below: the model with the cabin removed to show the seats



Motorised?

All that now remains to be fitted is the undercarriage. Like the full-size aircraft, this is of the tricycle type, the two main landing wheels being fixed to the wings, with the smaller third wheel beneath the nose. Each main wheel is composed of a 1 in. loose Pulley with Rubber Ring free on a ⅜ in. Bolt which is lock-nutted through the apex hole of a Trunnion 30. The nosewheel is another 1 in. loose Pulley 31, mounted, together with three Washers and a Collar, on a 1 in. Rod, journalled in a 1 in. by ½ in. Double Bracket 32. The Double Bracket is bolted to Flat Plate 16.

This, then, completes the model as it is illustrated in the accompanying photographs, but there is no need to stop here. I have often mentioned the increased enjoyment and satisfaction that can be obtained from making your own modifications or additions to basic structures and this aircraft is no exception. For example, it would be a comparatively easy matter to motorise at least the propeller which would result in a very realistic effect. The seats would need to be removed, of course, but this is a simple job and, once out, the space could easily accommodate an Emebo Motor or even the new Power Drive Unit. There might also be enough room for one of the small 4½ volt flat batteries, from which either Motor can be operated.

With the Motor in position, I do not think it would be difficult to couple up the propeller shaft in some way. As this is only a suggestion, however, and I have not actually tried the modification, I cannot give any exact instructions but you should be able to devise an effective method. I think it is well worth trying, anyway.

Spanner

Parts required

2 of No. 1	1 of No. 18b	2 of No. 155
4 of No. 1a	3 of No. 22a	4 of No. 188
2 of No. 1b	102 of No. 37a	2 of No. 189
2 of No. 2a	97 of No. 37b	1 of No. 190a
2 of No. 3	13 of No. 38	2 of No. 194
4 of No. 4	3 of No. 48	1 of No. 194d
4 of No. 5	3 of No. 48a	1 of No. 194e
6 of No. 6	1 of No. 53a	4 of No. 196
3 of No. 6a	3 of No. 59	2 of No. 221
5 of No. 10	1 of No. 73	4 of No. 224
1 of No. 11a	2 of No. 89b	8 of No. 235
12 of No. 12	2 of No. 103h	2 of No. 235a
2 of No. 12b	1 of No. 111a	2 of No. 235f
6 of No. 12c	2 of No. 111c	1 of No. 518
1 of No. 15a	2 of No. 126	