

Based on a between the Wars Breguet biplane, this simple Meccano model was designed and built from a No. 3 Outfit by our associate company in France. On opposite page: Viewed from this angle, the Meccano Breguet biplane presents an appealing and realistic picture.

BIPLANE FROM FRANCE by Spanner

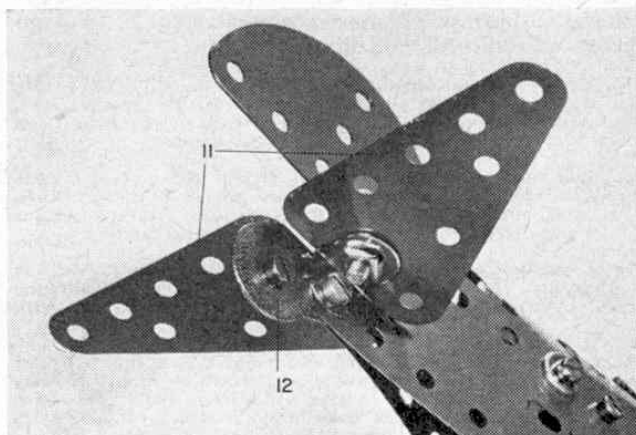
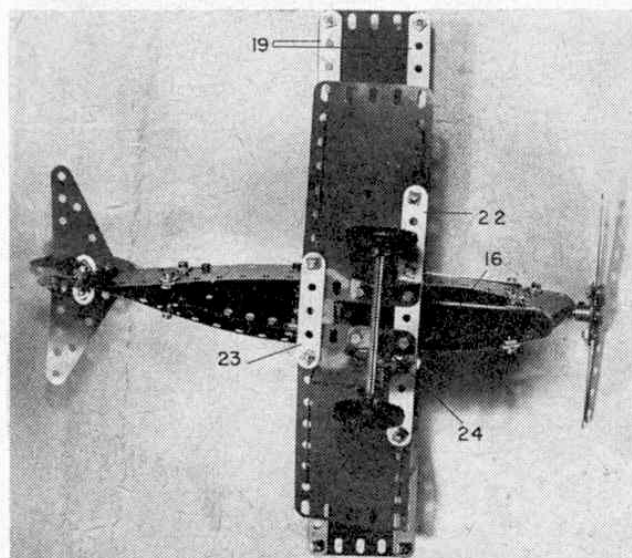
An overseas Meccano model built with Outfit No. 3

MECCANO, AS a product, is completely British having been invented by an Englishman and manufactured in Liverpool since the very beginning of its existence in the early nineteen-hundreds. This does not mean, however, that Meccano has always been made *exclusively* in Liverpool and nowhere else. On the contrary, it has been produced in no less than three other countries around the world: by a subsidiary company in America; by an associate company in France and, under licence, by a separate company in Spain. As far as America is concerned, the manufacturers, The Meccano Company Incorporated, went

out of existence in the 1920's, but the French and Spanish manufacturers are still very much in business.

Although the full standard Meccano range is produced by our French associate company, the company operates entirely independently of the Liverpool concern. The two companies, however, co-operate fully with each other and the model featured in this article is just one example of such co-operation. Based on a between-wars Breguet biplane, it was sent over to Liverpool recently by Meccano-Tri-ang, as the French company is now called, for possible publication as a No. 3 Outfit model. As far as I am concerned, it is well worthy of publication, especially as it captures more than a few of the lines of a very difficult original subject.

Below, left: This underside view shows construction of the lower wing. Below: A close up of the fin and tailplane assembly as seen from beneath. Note the tailwheel construction.



It is best to begin construction with the fuselage, each side of which consists of a $2\frac{1}{2} \times 1\frac{1}{2}$ in. Flexible Plate 1, a $5\frac{1}{2} \times 1\frac{1}{2}$ in. Flexible Plate 2 and a $2\frac{1}{2} \times 2\frac{1}{2}$ in. Flexible Plate 3. Bolted between Plates 3 at each side is a $2\frac{1}{2} \times 2\frac{1}{2}$ in. Plastic Plate 4, extended by a $2\frac{1}{2} \times 1\frac{1}{2}$ in. Plastic Plate 5, the joins between Plates 3 and 4 being overlaid in each case by a $2\frac{1}{2}$ in. Strip 6. The nose is completed by a vertically-mounted U-section Curved Plate 7 bolted as shown between Plates 3. Plates 1 and 2 at each side are connected, as shown, by a $2\frac{1}{2} \times 1\frac{1}{2}$ in. Plastic Plate 8 and a $2\frac{1}{2} \times 2\frac{1}{2}$ in. Plastic Plate 9, and also by a Fishplate attached to Plates 2 by Angle Brackets held by Bolts 10.

At the rear of the fuselage, Plates 1 at each side are joined directly together, the upper securing Bolt also fixing a Semi-circular Plate in position to represent the fin, while the lower securing Bolts hold two Angle Brackets in place as well as a Fishplate, the latter angled rearwards. Two $2\frac{1}{2} \times 1\frac{1}{2}$ in. Triangular Flexible Plates 11, serving as the tailplanes, are bolted one to each of the above-mentioned Angle Brackets and a $\frac{3}{4}$ in. Washer 12 is lock-nutted to the Fishplate to act as the tail-wheel. A machine gun is represented by a 2 in. Rod 13, held by Spring Clips in the lugs of a Double Bracket bolted to the top of Plastic Plate 9.

If everything has so far been correctly built, a space should remain in the fuselage for the cockpit. Fixed by Angle Brackets inside this space are two Flat Trunnions 14 and 15, the former positioned at a slight angle in the centre of the cockpit, and the latter mounted vertically against Plate 4. Journalled in the apex hole of Flat Trunnion 15 and in Plate 4 is a $4\frac{1}{2}$ in. compound rod, built up from one 1 in. and one $3\frac{1}{2}$ in. Rod joined by a Rod Connector 16 and held in place by a Spring Clip and an 8-hole Bush Wheel. A $5\frac{1}{2}$ in. Strip 17 is bolted across the Bush Wheel to serve as the propeller.

PARTS REQUIRED

2-1	2-22	2-48a	2-190
2-2	2-22a	2-111c	3-191
3-5	1-24	2-125	2-192
2-10	3-35	2-126	2-193
1-11	57-37a	2-126a	2-193a
10-12	55-37b	2-142c	1-199
2-16	17-38	2-155	1-213
1-17	1-38d	2-188	1-214
1-18a	1-40	2-189	1-221

Being a biplane, two wings are of course fitted to the model. The upper wing consists of a $12\frac{1}{2} \times 2\frac{1}{2}$ in. compound flexible plate 18, obtained from two $5\frac{1}{2} \times 2\frac{1}{2}$ in. Flexible Plates joined by a $4\frac{1}{2} \times 2\frac{1}{2}$ in. Flexible Plate. Both the leading and trailing edges of the wing are strengthened by $12\frac{1}{2}$ in. Strips 19, bolted to the underside of the compound plate, bracing struts being provided by two $2\frac{1}{2} \times \frac{1}{2}$ in. Double Angle Strips 20 fixed between the fuselage and front Strip 19. Two 1 in. Pulleys without boss, each carrying a Rubber Ring, are bolted to the top of the wing to represent identification roundels.

The lower wing consists of two $4\frac{1}{2} \times 2\frac{1}{2}$ in. Flexible Plates, joined, with a distance of one hole separating them, by a $5\frac{1}{2}$ in. Strip 22 and a $2\frac{1}{2}$ in. Strip 23. Note that Strip 22 is positioned beneath the leading edge of the wing and that two of the securing Bolts help to fix two Trunnions 24 in position. Two $\frac{1}{2}$ in. Reversed Angle Brackets are fixed one to the apex of each Trunnion to provide bearings for a $3\frac{1}{2}$ in. Rod held in place by two 1 in. fixed Pulleys 25 fitted with Motor Tyres, serving as the undercarriage.

The finished wing is attached to the fuselage by Angle Brackets then, finally, bracing wires, arranged as shown between the wings, are represented by Meccano Cord.

