

TRIX MASTER MODELS.

AIR LINER "HERACLES"

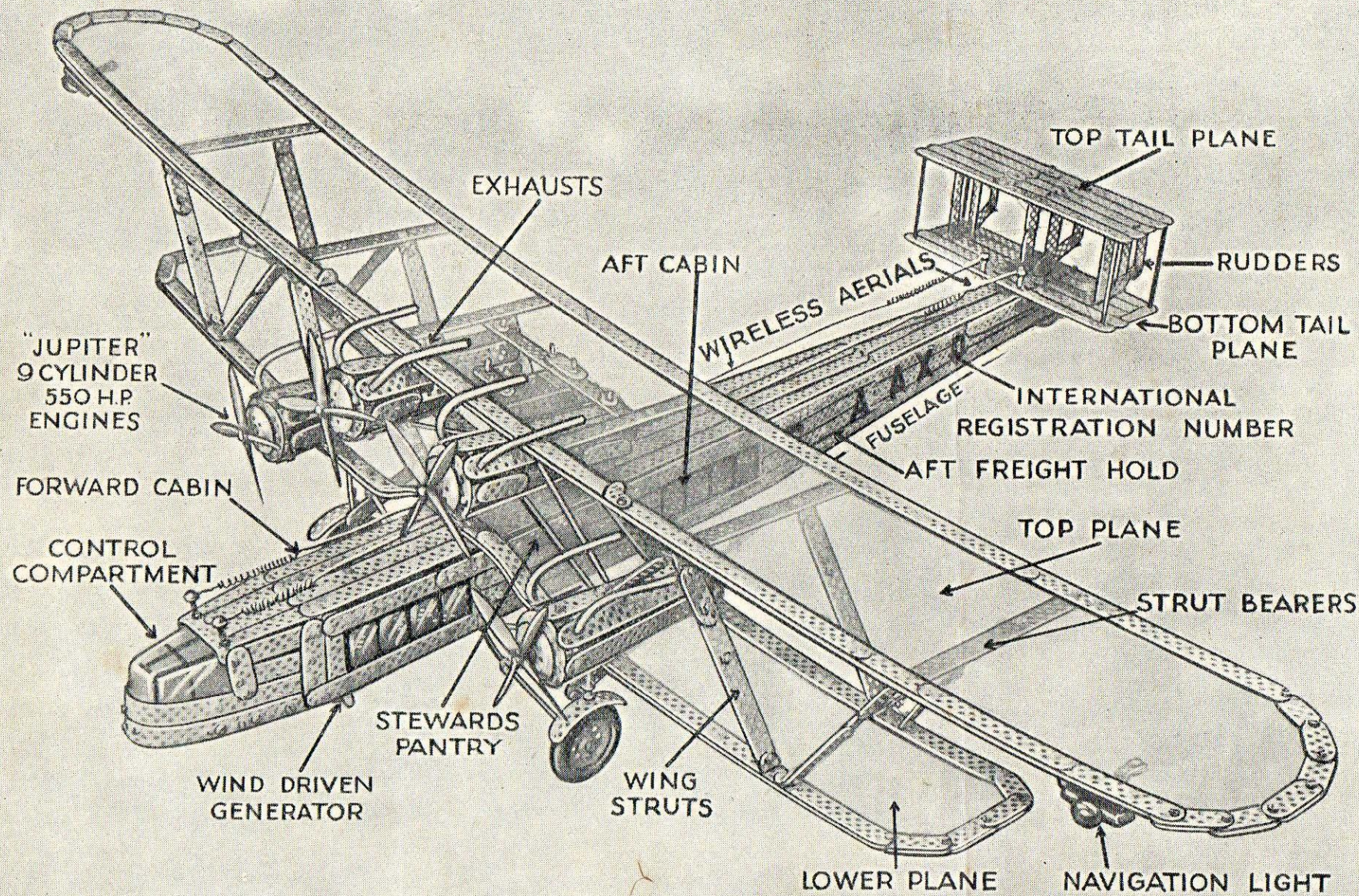


Fig. 1. General view of "Heracles." Wing span, 4 feet.

This fine model can be built with 33 sets TRIX No. 1, 21 sets No. 1A, 7 sets No. 2A, and 1 TRIX Permag Motor.

ALL TRIX enthusiasts can build a scale model of this famous Air Liner.

The "Heracles" class is perhaps the best known of all Imperial Airways great fleet of aeroplanes and flying boats. These aeroplanes are the largest, the most powerful, and the most luxurious passenger air liners in the world. The "Heracles" is fitted with four "Jupiter" 9-cylinder air-cooled Radial Engines, developing a total horse power of 2,200.

"Heracles" is the class which is used on the Paris-London services—the Silver Wing—the best known air service of to-day. Leaving the Air Port of London (Croydon) daily at 12.30 p.m., and the Air Port of Paris (Le Bourget) at the same time, the crossing takes only 2½ hours—the fastest cross-channel service—and during that time lunch is served aboard.

These great aeroplanes seat up to 38 passengers and carry a crew of four, including stewards. Forward is the control compartment, in which sit the Captain and First Officer.

There are forward and aft saloons for passengers, two lavatories, a buffet and two luggage holds with ample room for Royal Mails, for passengers' baggage and for merchandise.

The passenger saloons are very similar to first class Pullman cars of English and

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Continental trains—walls inlaid with wood, deep arm chairs, shaded electric lights, pure warm air scientifically regulated, small tables and attentive stewards—everything with an atmosphere of quiet luxury about it.

Conversation can be carried on without raising the voice, and undisturbed by noise or throb of engines. The large Pullman windows open on endless scenes of sea, country, hill and valley.

Such is the marvellous air liner we are about to model.

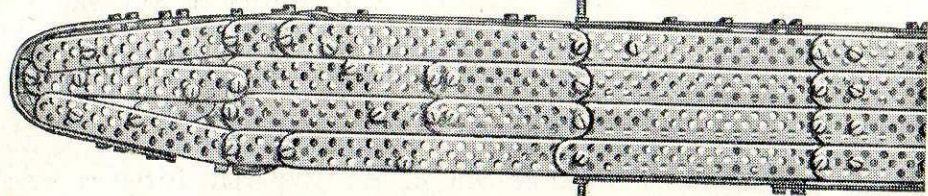


Fig. 2. Fore section of fuselage from below, showing wing stays and under-carriage supports.

THE TRIX MODEL AIR LINER.

PARTS REQUIRED.

83 of A 1	84 of F 17	8 of S 55	12 of U 3
656 „ B 1	1,136 „ N 1	14 „ S 87	10 „ V 35
125 „ F 5	16 „ P 29	10 „ SU1	30 „ W 10
130 „ F 9	4 „ P 49	24 „ U 1	8 „ W 16
66 „ F 13	34 „ S 25	8 „ U 2	2 small tyres.

The TRIX Model Air Liner is built with 33 sets No. 1, 21 sets No. 1A, 7 sets No. 2A, and 1 TRIX Permag Motor.

INSTRUCTIONS FOR BUILDING.

THE FUSELAGE.

The easiest course, when building this impressive TRIX model air liner, will be to start with the body, beginning with the control compartment. The two strips forming the nose are F 17's bent from the centre, until the ends are $2\frac{1}{2}$ inches apart. As seen from Fig. 4, they are joined by two F 5's and one F 9. Two F 9's are fitted upright to form the window frames. Next comes the forward cabin, which consists of F 17's.

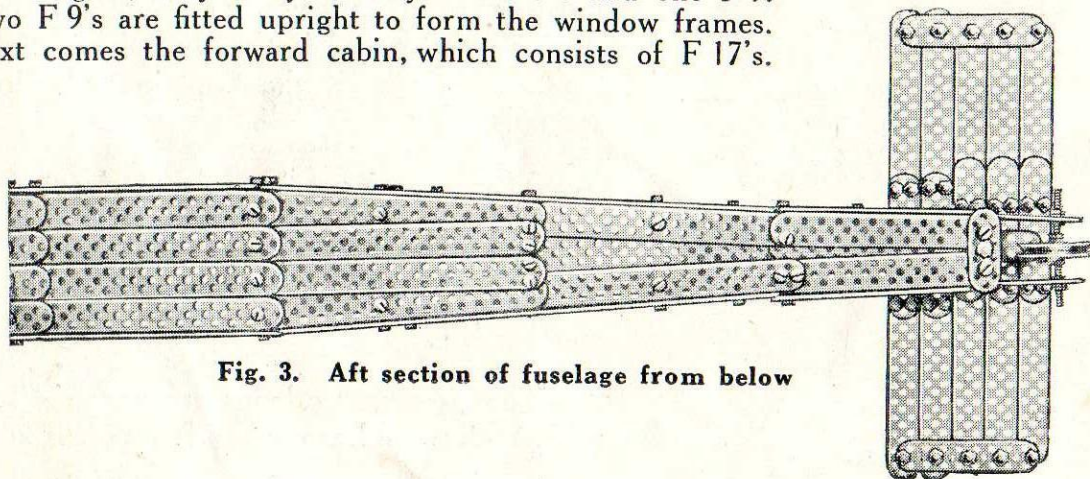


Fig. 3. Aft section of fuselage from below

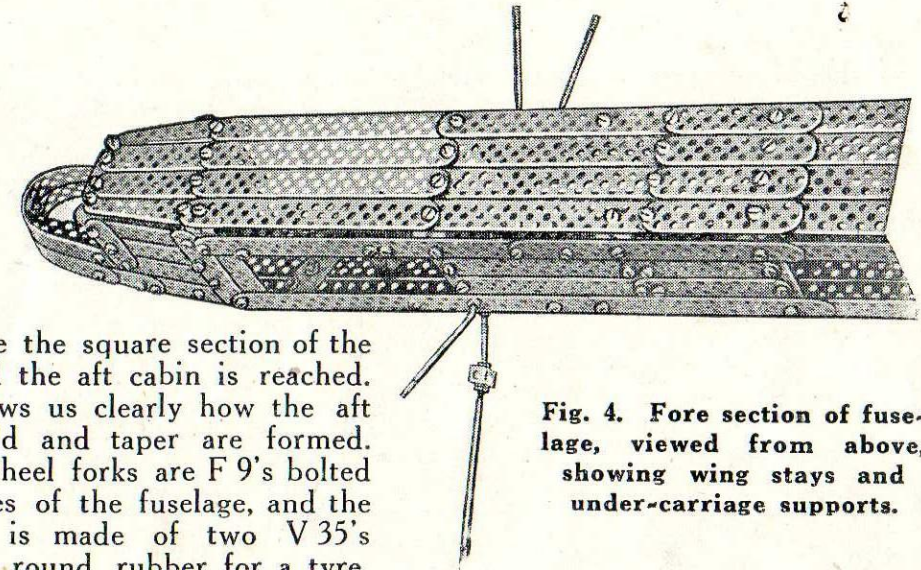


Fig. 4. Fore section of fuselage, viewed from above, showing wing stays and under-carriage supports.

U 3's make the square section of the body, until the aft cabin is reached. Fig. 5 shows us clearly how the aft freight hold and taper are formed. The tail wheel forks are F 9's bolted to the sides of the fuselage, and the tail wheel is made of two V 35's with solid round rubber for a tyre.

THE TAIL.

The top and bottom tail planes are made in the same way and are spaced by S 87's. These planes have three rudders, each composed of two A 1's, seven F 5's and one F 9, hinged between them by S 25's.

THE UNDER-CARRIAGE.

Fig. 11 shows the under-carriage. One S 55 coupled with an S 87 forms the bottom rod. The top single S 87 is bent to form the wing stay. The under-carriage wheels are fitted with small rubber tyres.

THE LOWER PLANE.

The exact length of the lower plane, before it is set for fitting, is $34\frac{1}{2}$ inches, and the width is $4\frac{1}{2}$ inches. An F 13 gives the exact width if fitted across the centre holes of the length strips. The whole wing is made of overlapped F 5's,

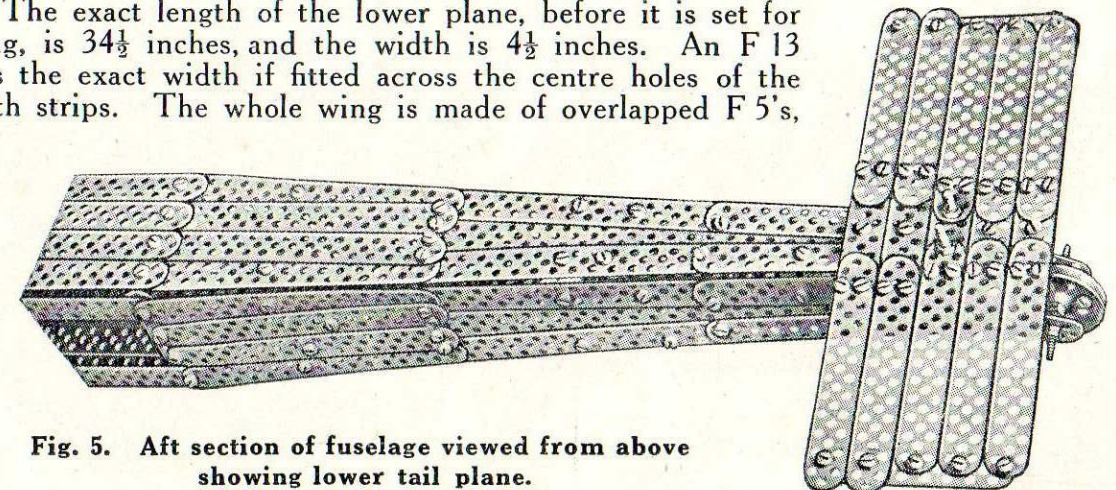


Fig. 5. Aft section of fuselage viewed from above showing lower tail plane.

F 9's and F 13's. Fig. 8 shows the lower wing fitted. Two S 25's are fastened on the top of the forward cabin. An F 9 dropped over the spindles acts as a spacer between the fuselage

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and wing. Fig. 9 shows the rear fitting which is similar. One U 2 is bolted on top of the wing to take the wing struts. The under-carriage can now be connected to take the wing strain. The top and bottom planes can be finished with either celluloid or cardboard.

THE "JUPITER" ENGINES.

(See Fig. 6.)

The Engines are each made of six F 17's and four F 5's joined by angles to a P 49 in front, and connected up at the back by U 1's and A 1's, flattened slightly. The eight exhaust pipes from these engines are made up of S 55's and, to give a realistic effect, rubber tubing, with $\frac{1}{8}$ -in. hole, is pushed over them. Clearly shown in Fig. 11 is the fitting of the lower "Jupiter" engines. They are fixed to the wing by two S 25's, one in the sixth hole from the front and one in the opposite end hole. When the top plane is fixed the propeller shafts are approximately $4\frac{3}{4}$ inches apart. A suitable wooden four-bladed propeller is $4\frac{1}{4}$ inches diameter, but a cross of F 9's can be used in the place of these.

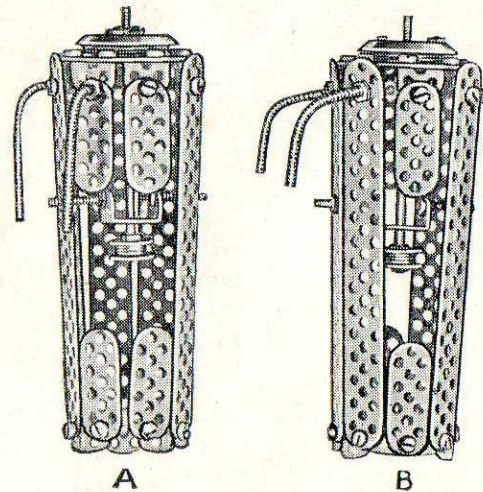


Fig. 6. "Jupiter" Engines in the course of construction, showing exhausts. The two lower engines are as A and the upper ones as B in the illustration.

THE TOP PLANE.

The span of the top wing is 4 feet with a width of 6 inches. Careful notice should be taken of the correct spacing of the strut bearers in this wing. These bearers consist of an F 13 and F 9 joined in the third hole. These should be fitted as the wing is under construction, in order to keep the width equal all the way through. The first struts to be fitted are those at the extreme ends.

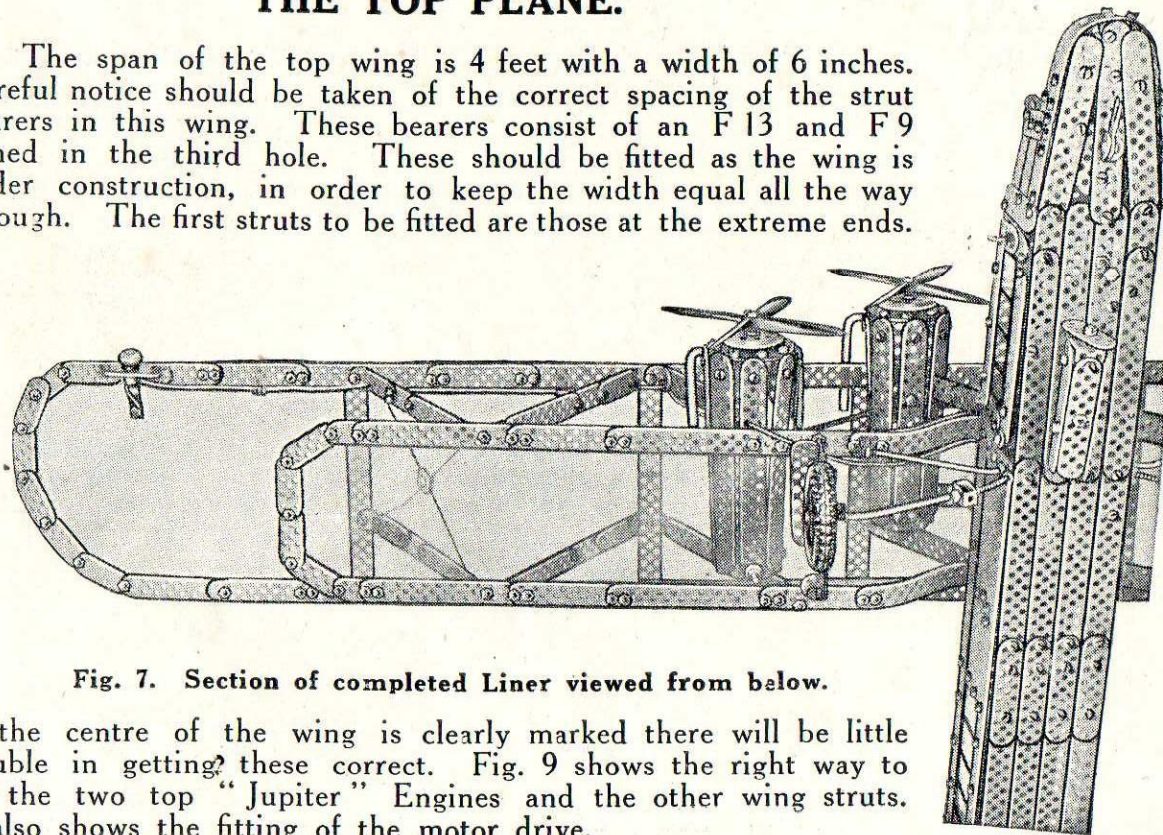


Fig. 7. Section of completed Liner viewed from below.

If the centre of the wing is clearly marked there will be little trouble in getting these correct. Fig. 9 shows the right way to fix the two top "Jupiter" Engines and the other wing struts. It also shows the fitting of the motor drive.

Fig. 8. Centre section of completed Liner viewed from above.

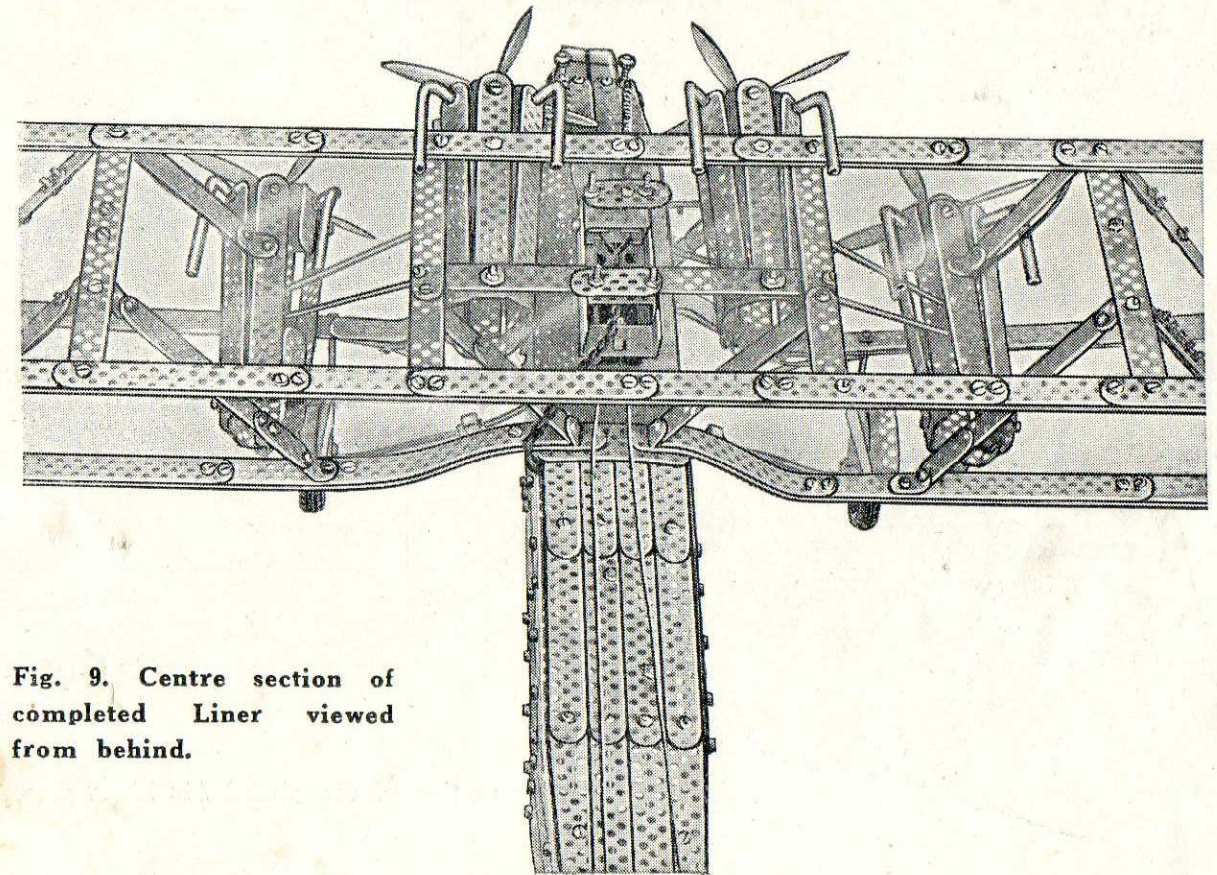
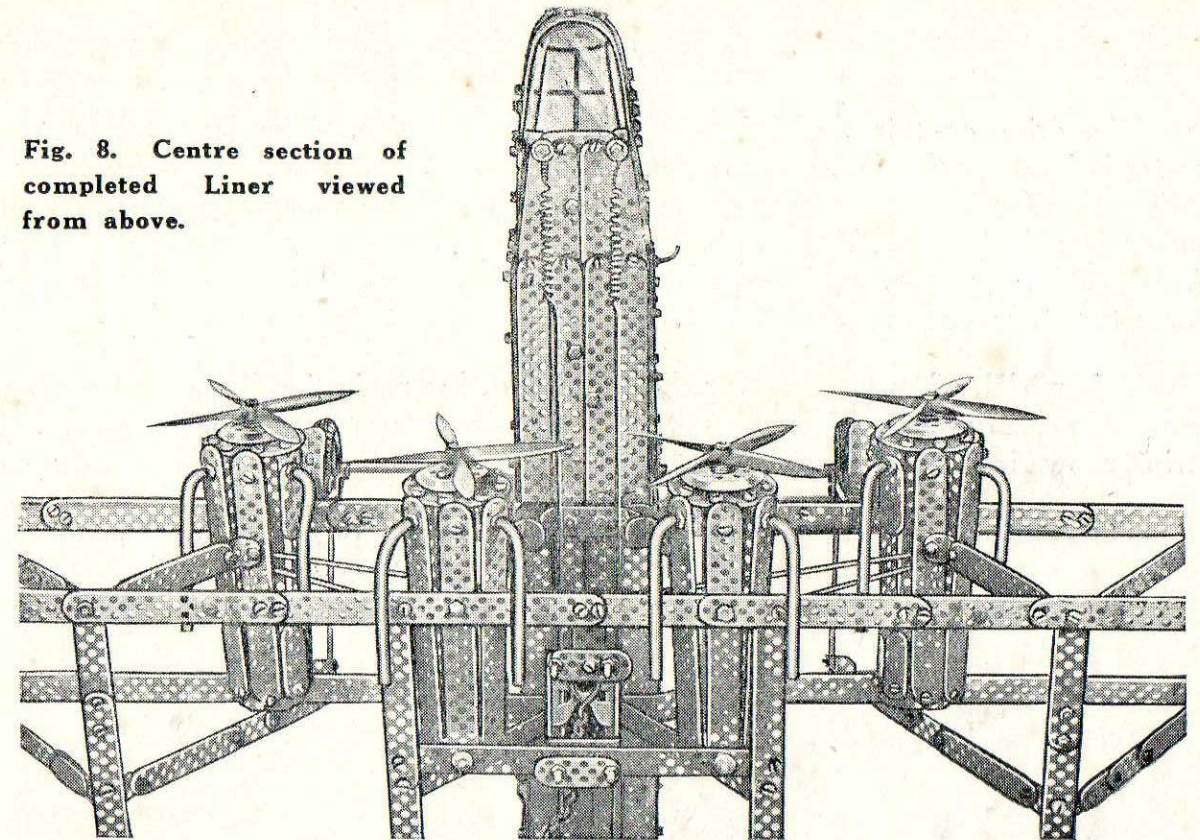


Fig. 9. Centre section of completed Liner viewed from behind.

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THE MOTOR DRIVE.

The drive on this model is very simple but effective. The small TRIX Permag motor is ideal for this job, and uses very little current. The batteries are easily hidden inside the forward cabin by means of the window door shown in Fig. 11. The motor is bolted by U 2's to the under side of the top plane in an inverted position. A $\frac{1}{8}$ -inch rubber cord, cut to length and solutioned, drives all four engine pulleys and turns the air-screws at a good speed.

This model, when fitted up for show purposes, has navigation lights, and the cabins can also be electrically illuminated. The wings and wing struts are strengthened by additional strips, shown in our illustrations, but this structure is not necessary for ordinary purposes.

The Air Liner, when completed, can be made to look very realistic by painting the

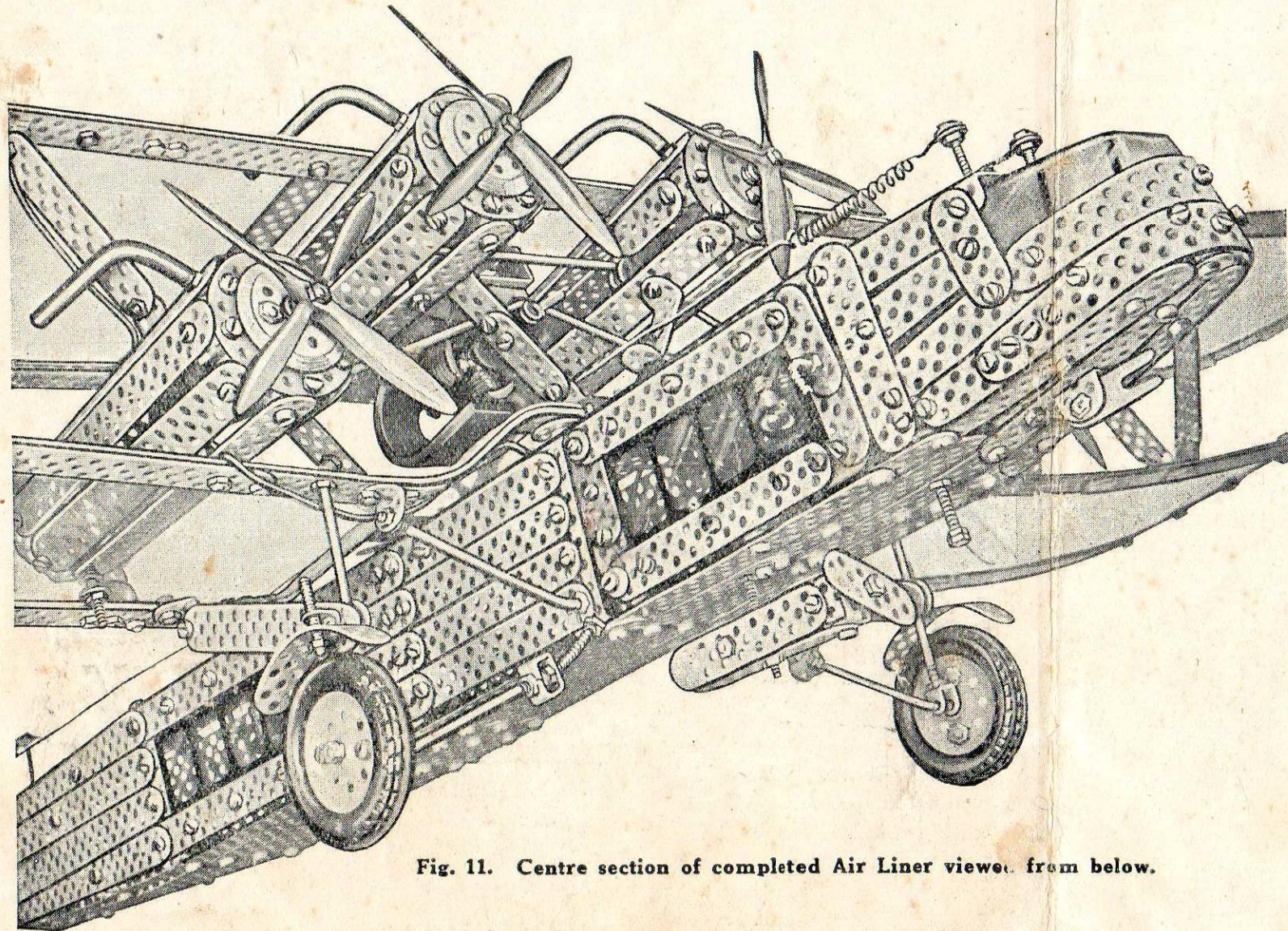


Fig. 11. Centre section of completed Air Liner viewed from below.

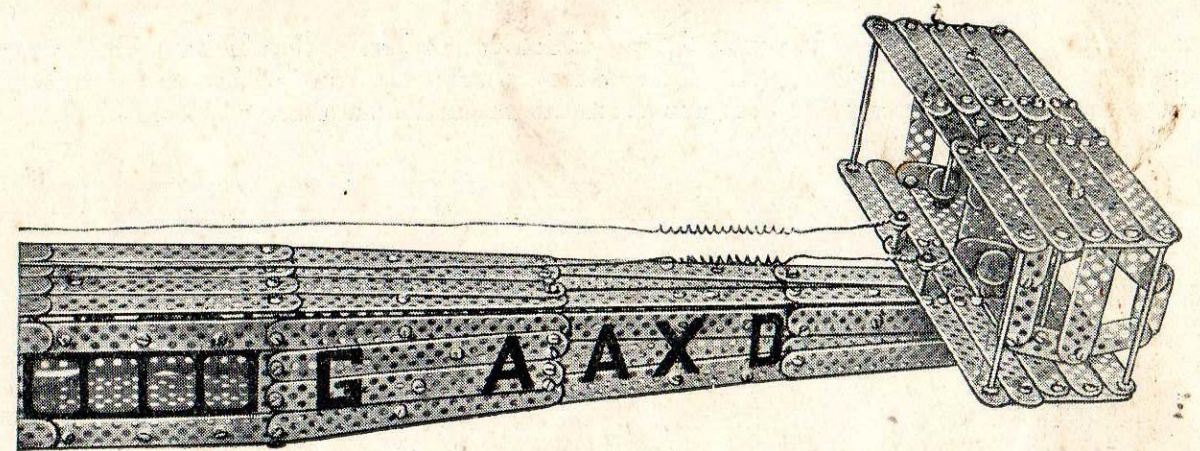


Fig. 10. Rear fuselage and tail of completed Air Liner.

celluloid fore compartment and cabin windows. The international registration number G AAXD can be painted on as shown in Fig. 10. The three extra parts that are seen under the nose of the liner are: (1) the Wind Direction Indicator, fitted foremost, (2) the Trailing Aerial Tube, made of an S 25, and (3) the Wind-driven Generator. The wireless aerials run from two S 25's fixed above the control compartment to two S 25's on the lower tail plane.

NOTE.—In constructing the Air Liner, F 5's and F 9's can be joined together to take the place of F 13's where necessary.

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