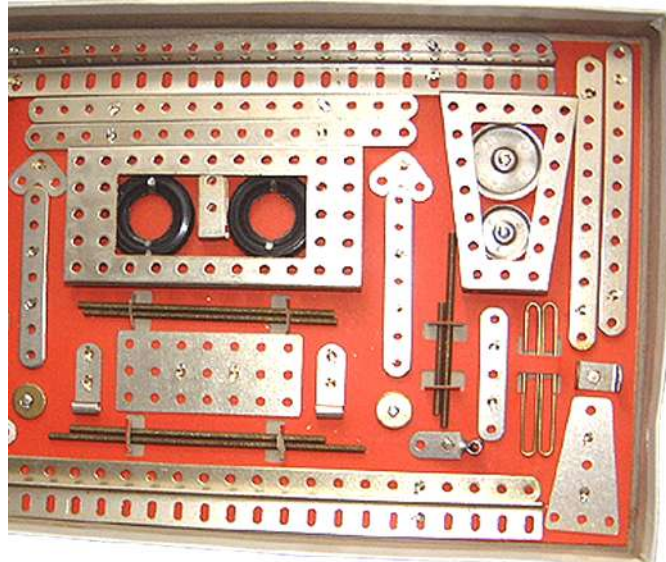


**EDITORIAL** Apologies if this issue is a little later than usual getting to you, and for any slippages in future Newsletters which may occur. My enthusiasm remains undimmed, but less gets done each day as the years roll on, and I am finding some difficulty in producing an issue every six months. No need to make any decisions at the moment but perhaps one day it may be necessary to increase the interval between issues, or change to OSN appearing irregularly as each issue is completed. I'll give details on the OSN web site if significant delays in future issues are likely to occur.

## Shorter NOTES, with thanks to all contributors.

1. On **TECO**, see 34/1027, Jacques Pitrat has the No.IV Ebay set and confirmed that it is very similar in content to a STABIL Nr.51, with a second main card of parts, as below (symmetrical left & right). All the parts on it look like STABIL except that the Pulleys have no face holes. There are 4 of each size of



Flexible Plastic Plates on the small card. The parts are well made except that the gold paint is flaking off the 14 & 28t metal Gears. As might be expected from a STABIL inspired system the holes are 4.2mm Ø at 12.5mm pitch, and the thread is 5/32" BSW. The hex Nuts though are a little larger than STABIL. No Trunnion of any sort was in the Set.

**TECO: S3** [35/1036]

2. Jacques also sent a reference to an excellent web site about **MIGNON**: [www.mignonbaukasten.de/](http://www.mignonbaukasten.de/). It has pictures of all the sets, manual pages, leaflets, etc, as well as a history of the system, and photos of many attractive non-manual models. I hope to include a brief summary of the history at a later date.

**MIGNON: S1** [35/1036]

3. Another web site worth mentioning, [www.merkur.co.uk](http://www.merkur.co.uk). The M8 set (see 21/613 & 27/790) is on sale there and full details of the set are shown, with excellent photos of the trays of parts, and all the pages of the manual including the illustrated set contents.

**MERKUR[1]: S4** [35/1036]

4. **Snippet. 'New' System: WIMA.** Below the Ebay photos



of this small German system, said to be incomplete. I'm not sure if the red mark on the boy's sleeve is a tear in the label or a 'blot'. Most of the parts look conventional: 5 & 11h Strips, DAS, Angle & Flat Brackets, a 5\*11h Flgd Plate, 2h Ø Pulleys, Axles, small hex Nuts, fillister Bolts, and a Spanner. There are 2 possible 'foreigners'. One, the two circular parts that look like ballraces, even if the Wheels of the Crane on the lid do seem to have some face holes. The other is the 'strip' whose end can be seen poking out aslant from below the end of the top 11h Strip in the photo. It looks to be flat on the bottom of the box and if so its holes are much nearer the edge than in the other Strips. Also 6 & 10h Strips can be seen on the lid but that may be artistic licence.

**WIMA: S1** [35/1036]

5. Don Redmond wrote that he has seen **MEKANIX** sets (see 34/1009) in Canada with the name DOLLARAMA (a chain of 'dollar stores') on them and a Montreal postcode H4P 1M2. Also China as the country of origin. The boxes are 16½\*11½\*2½cm and the inside packaging is similar to that of the OSN 34 sets.

**POLYLONG (MEKANIX): S8** [35/1036]

6. Also from Don, after a discussion with Kendrick Bisset. Tinplated Strips & Brackets, instead of nickel parts, may be found in **U.S. MECCANO** sets prior to the Elizabeth Meccano factory opening (and making tinplated parts) in 1922. They



would have come from the stock of STRUCTO parts that Meccano bought in 1918 (when Structo ceased selling their general purpose sets after Hornby's legal action against them.)

**U.S. MECCANO: S3** [35/1037]

7. 'New' UK System: **METAL CONSTRUCTION and BUILDING OUTFIT** Malcom Hanson showed me the set below some time ago but I lost track of the photo for a while. The parts are aluminium and the holes are about MECCANO size at 1/2" pitch. The 5\*11h Flanged Plate has square corners



and the 5\*5h Plate is fully perforated. The black part is a Spandriver similar to VOGUE. The set bears no number but the models on the lid include parts not in the Set: the Curved Strip, and the Trunnion in the Truck, can be seen clearly. The red parts on the lid may I suppose indicate an earlier intention, or hope for the future, or just be artistic licence. There was no manual with the Set but the lid models are numbered, with the highest, the Garden Seat, Model 23.

**METAL CONSTRUCTION and BUILDING OUTFIT: S1** [35/1037]

8. **Snippet: METALTECHNIK** 27/809 had photos of a No.4 METALTECHNIK (no 'H'), thought to be Hungarian, and since then a matching No.1 has been seen on Ebay. The No.2 set at the head of the next column (with the 'H') is clearly from the same stable and like both others has 'metalcars' on it, though this time it is on the lid's apron. Also the red Battery Operated flash is common to both the No.2 & 4 (the No.1 doesn't have the Motor). Why the extra 'H'? A set for a different market?



But the red flash is in English in both cases. Referring back to OSN 27, the Flanged Plate does have slotted holes, but the hole pattern in the Triangular Plate (it probably has a flanged base) still isn't clear. Also I think there was a colour cast on the OSN 16 photos and the plastic tray was most likely white, or nearly so.

**METALTECHNIK: S1** [35/1037]

9. **Snippet: MEKO** This system is mentioned in Baukästen but all that is said is that it is believed to be German, to date from 1947, to have a box made of wood & cardboard, and to



have a manual in 3 languages. Now above, an Ebay photo of most of a lid. The Crane on it is made mainly of Strips but the base is a Flanged Plate with centre cutout and there looks to be a Disc and perhaps another Plate at the top of the tower.

**MEKO: S1** [35/1037]

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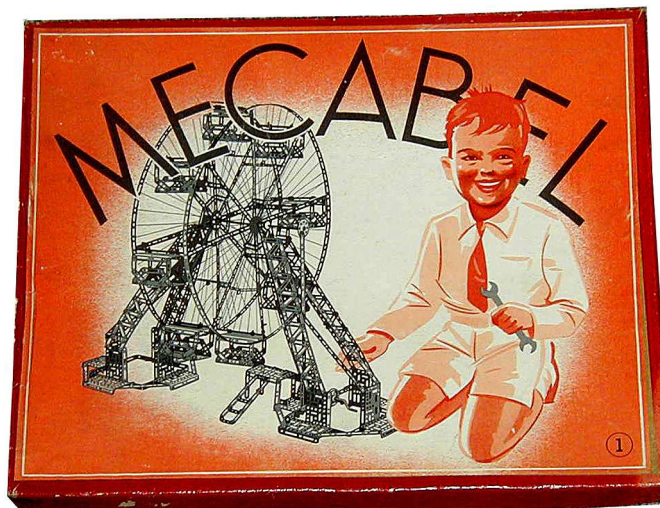
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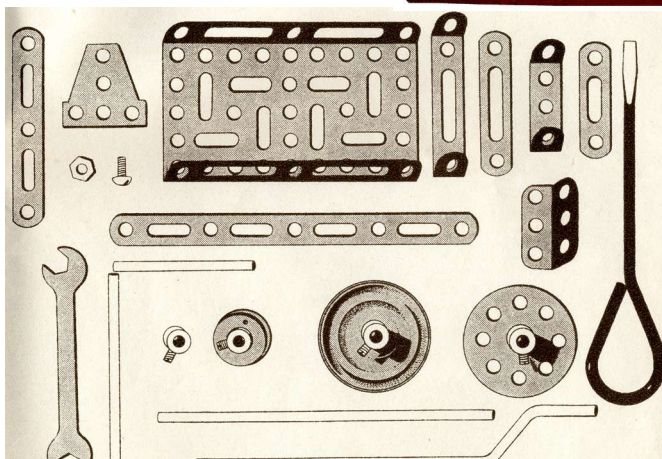


**MECABEL** These notes are based on a few loose parts & an unused No.1 outfit with the lid right. MECABEL's maker isn't known but in MCS it is said that it might be Belgian. The manual supports this to the extent of having a model called 'Wagon Métallique belge', and text in French, English, and Flemish/Dutch. No dates are known either but the 1940s is suggested in MCS. Sets I, II, & III are mentioned in the manual, but without details of their contents.

**The Parts** Below the manual's Illustrated Parts, and



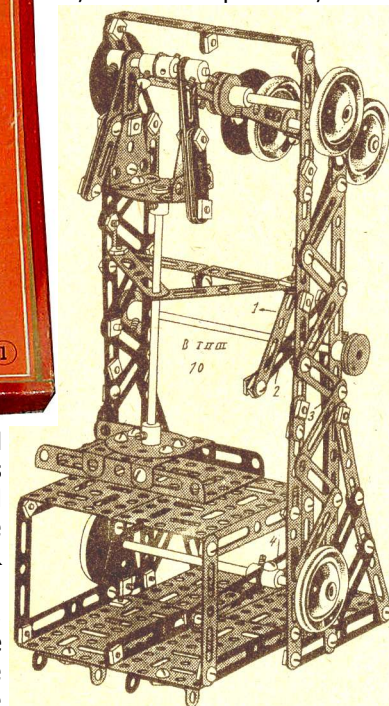
Crane on p3 to Boringmachine on p5. **Set 3:** 12 models from 1, Balance on p6 to 11, Wind-



and 80mm long, with sheared ends. The **Screwdriver** is made from Axle diameter rod and is 127mm long o/a. The **Spanner** is 79mm long & 2mm thick.

**The Set** The box is red, 29½\*23½\*2¼mm. There are labels inside the lid & in the bottom of the box, under the parts card. They are identical with a short Intro to the system in the centre, and the 6 Set 1 models from the manual around it, with the same illustrations. The parts are strung individually to the green card with thin white cord.

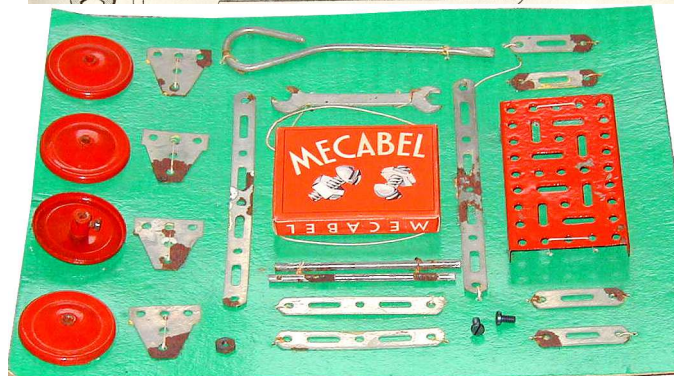
**The Manual** It has 16 unnumbered pages 179\*132mm, plus covers. The front is identical to the lid label except for the absence of the '1' in the bottom right corner. C2 & C4 are blank; C3 has the Illustrated Parts. All the other pages have 3 models on them, with one drawing for each & an auxiliary view for



Machine à gauffer (tissus et cuir)  
Printing-machine (for leather and textures)  
Wafel-machine (leder en stoffen)

pump on p9 (No.10 of the 12, the model above, is labelled for Sets 1 2 3). **Sets 1 2:** 9 models from 1, Swing on p10 to 10, Repairs-car on p12. **Sets 1 2 3:** 12 models from 3, Automatic-hammer on p13 to 11, Tank on p16.

There is a good selection of models but the drawings are often too small & too dark to see all the detail. The Printing Machine is one of the better looking ones and the Breakdown Lorry below has the centre-pivot steering used on the vehicles. Both are natural size & show as much detail as the originals.

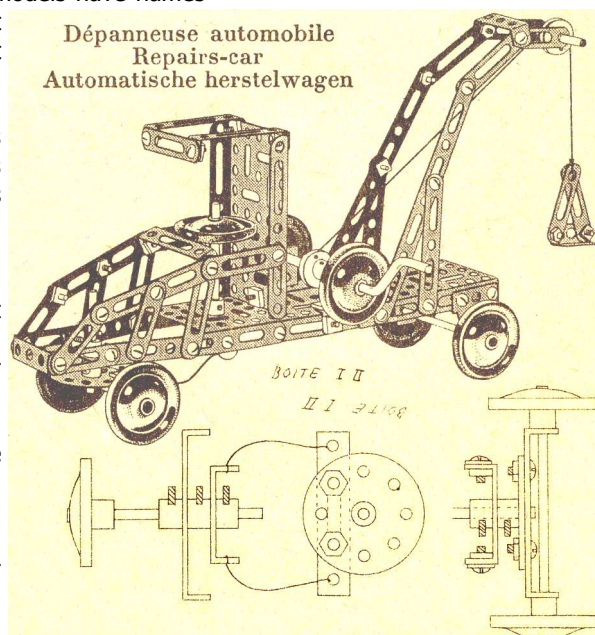


underneath the parts in the Set. The Nut & 2 Bolts in the foreground are from the 10 of each in the red card box. **Holes** are 3.9mm at 10.0mm pitch. The grey parts have a dull 'rustproof' finish; the red paint is very thick and cracks off easily but the paint on the Plate in the loose parts is normal, and reasonably durable. **Strips** are 10.0-10.2mm wide and about .8mm thick. The **Road Wheel** is 40mm Ø; its painted steel boss is 8.2mm o.d., 3.5-3.6mm bore, & double-tapped with a 3x.6mm thread. The **Set Screw** is blackened steel, 5½mm u/h, with a 5.2mm Ø CH. The **N&B** have the same black finish but their **thread** is 3.5x.8mm, the same as early TRIX. The **Bolt** has a 6.0mm Ø CH & is 6½mm u/h. The hex **Nut** is pressed, 8.4mm A/F & 2mm thick. The **Axle** is 3.40mm Ø,

some, drawn very faintly. The models have names and for most, in tiny, faint letters, an indication of the set (s) needed, with BOITE (or B) followed by either 1, 2, III, I II, or I II III. From this it is supposed that there were 3 sets sold and the larger models needed a combination of them. For many models there is also a model number.

The model numbers aren't all in sequence and below the first & last models shown for each set or sets, using, for simplicity, Arabic numerals throughout. Reasonable guesses have been made where the manual has no Set/Model No.

**Set 1:** 6 models from 3, Turnstile on p1 to 6, Race-car on p2. **Set 2:** 9 models from





**The PIONIR Patents** PIONIR, mentioned in 15/417, was a very early German metal architectural system. It was patented in the same year as MECHANICS MADE EASY but was not marketed until 1903 and though novel, had it seems, only a short life. Now Jacques Pitrat has kindly sent an account of his No.2 outfit, the largest set produced, but before going to that it will be useful to describe the patents for the system.

Two are to hand, thanks to Werner Sticht for the original German version, Nr.131541 dated 2 August 1901, and to David Hobson for the UK one, No.16200 with an application date of 12 August 1901.

Both are in the name of Otto Nentwig of Neustadt in Upper Silesia (now Prudnik in Poland, a smallish town south of Wroclaw, ex-Breslau). The two are very similar but the UK version has some small additions, and in it Otto is described as a sheet-metal worker. One of the main claims is that unlike the stone systems then well established, PIONIR models can be safely moved without falling to pieces. The Keller metal system (see 26/778), though not mentioned by name, is also found wanting because the built-up sides are not positively connected to the floor.

The basic features of the system can be seen in Fig 1. The footings are made from lengths of channel, some straight and some with angled ends for the corners (Figs 12,13).

The channels are joined by T-section parts (Figs 14,15), or doors (Figs 2-4), which slide into them, and at each corner by a post (Figs 8-11) that has feet to slide into the channels. The post is extended upwards by a Fig 8 part that has a tenon at one end which pushes into Fig 10. Further Fig 8's can be used to give the required height and then the top of the post is a part similar to Fig 10 but with a tenon end.

Then the walls are completed with various size panels (Figs

5-7) or windows, all of which have tongued or grooved edges that push into each other, or onto the T parts, or onto the sides of the posts.

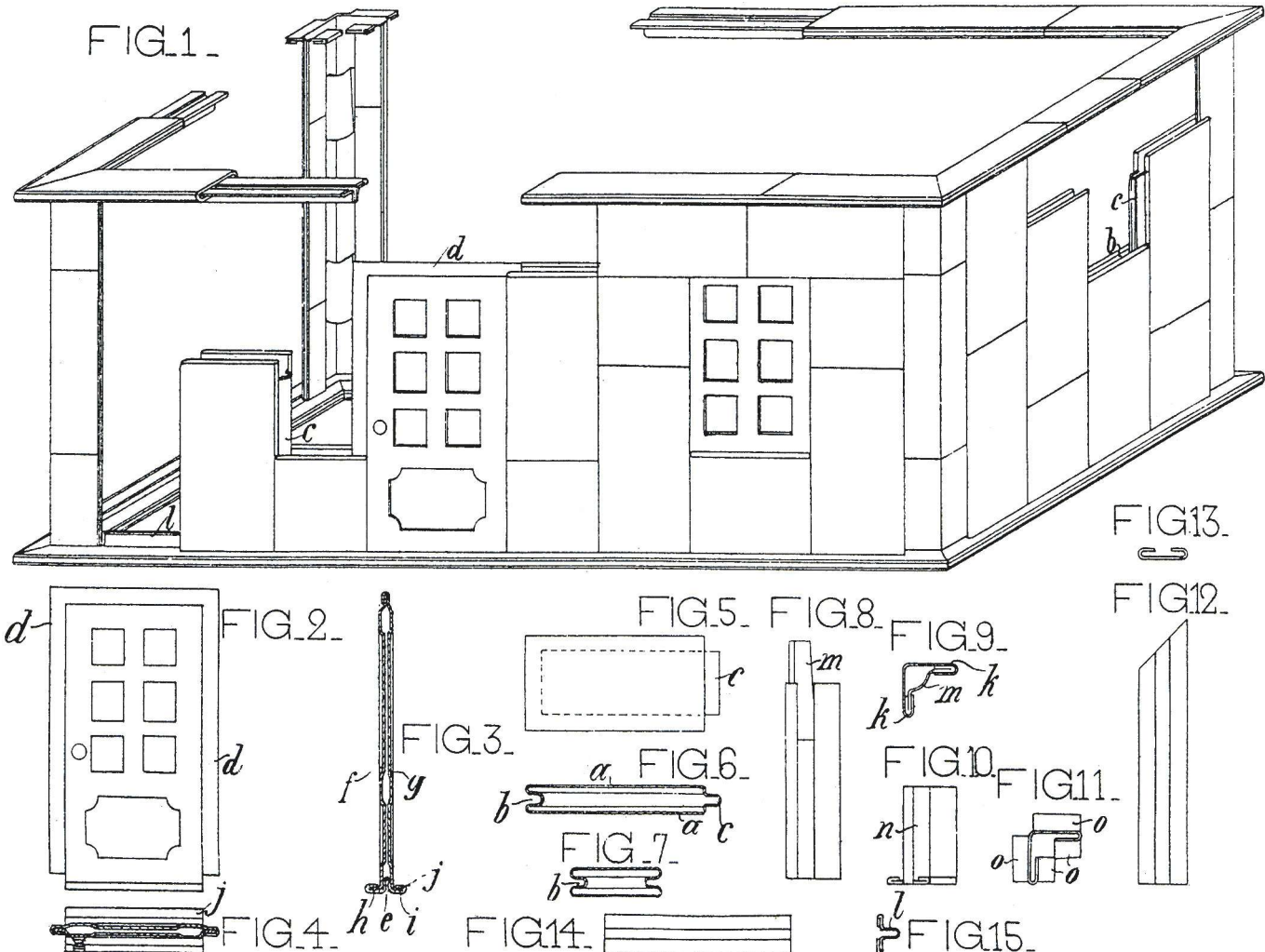
The top of the wall is capped by more T parts and channels, to match the footings.

It is said that the panels could be made of wood, stone, or from metal as shown. The doors and windows are made from parts f & g which slide together; they are flanged at the bottom so that they can be joined by a T section j. Said section has a groove, e, which matches that of the panels. The doors & windows can be taken apart and a coloured glass or transparent sheet placed between the two sides.

Fig.16 shows a simple pitched roof sitting on the top of a substructure, but not positively attached to it. The ends (barge boards) and eaves are made like the footings, and corner posts form the ridge. The infill can be panels or tiles, u, with lugs to clip them onto the frames, r. No infill for the gable ends is suggested. As shown panels holds the eaves and the barge boards together at the corners but I suppose that the T piece with hinged tongue shown in Fig.17 could also be used.

Fig.17 shows an arched structure using curved versions of the appropriate basic parts. The arch is joined to the flat ends by special T parts with a tongue p, hinged at q by means of a small bolt, which pushes into the end of the curved T.

A hipped roof is shown in Fig. 18. It is made of roof panels, r (Figs 19-21) with corner panels, s (Fig 18,22), all joined by channels. Figs 23-26 show typical tiles. On fixing the roof it is said 'A firm connection with the substructure seems unnecessary in this instance; it may, however, be effected without difficulty by hooks or clamps fixed to the roof and taken below the upper frame of the substructure'. Not sure myself about the 'without difficulty'.





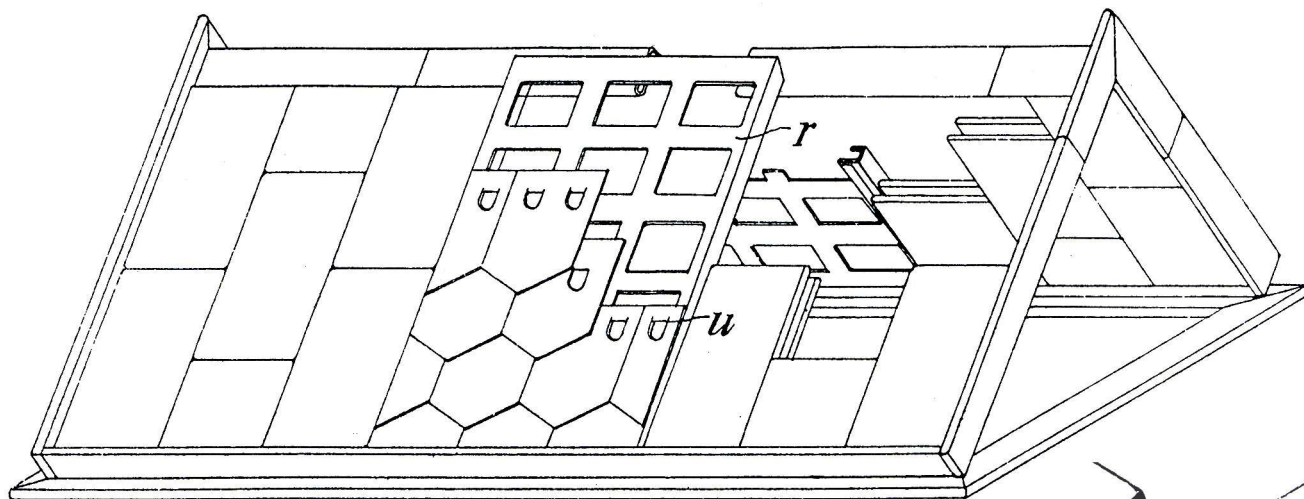


FIG. 16.

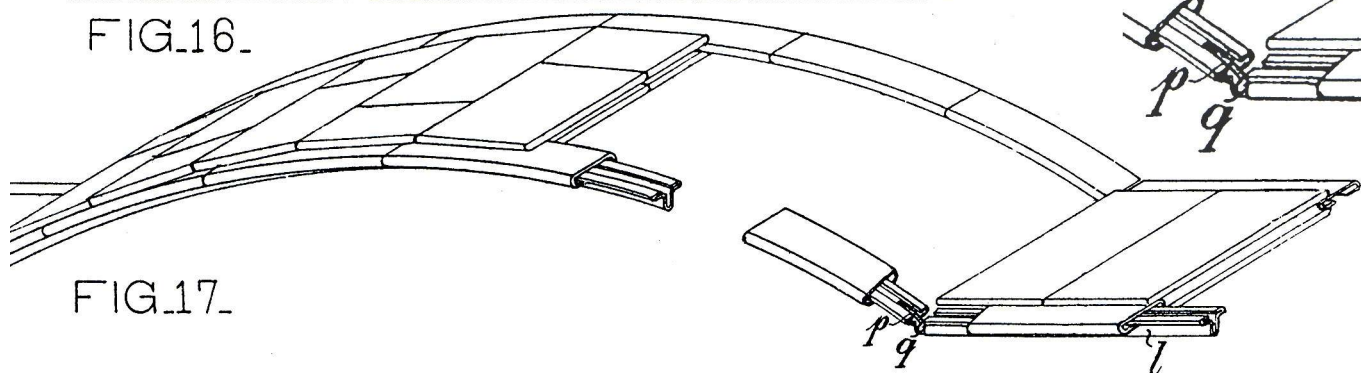


FIG. 17.

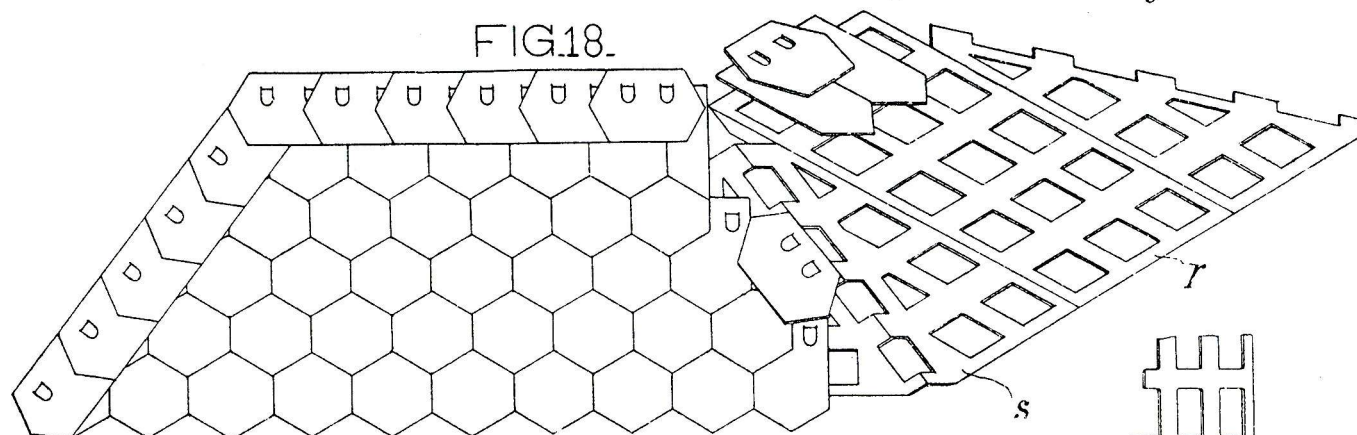


FIG. 18.

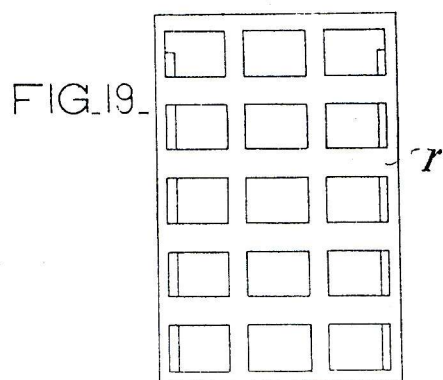


FIG. 19.

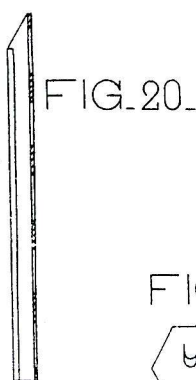


FIG. 20.

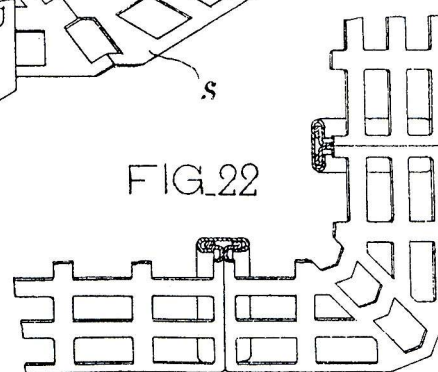


FIG. 22

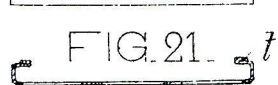


FIG. 21.

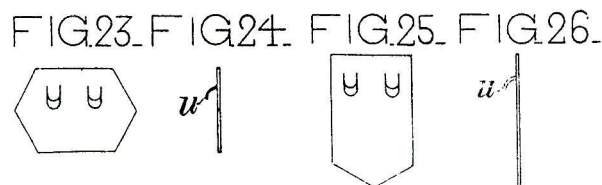


FIG. 23. FIG. 24. FIG. 25. FIG. 26.

As will be seen neither the curved parts in Fig 17 nor the special roofing parts were included in the No.2 set and as far as is known they were never produced.

The German patent doesn't have Figs 23-26 but the tiles are of course used in Fig 18. The other difference between the two versions is that where the German one refers to 'T' parts the

English one often has 'T & L' parts. Nothing is otherwise said of the L parts but it can be imagined that they might be a simpler form of the T pieces.

The No.2 set is described overleaf.





### A PIONIR No.2 Outfit

by Jacques Pitrat

PIONIR was a German architectural system with two main sets, 1 and 2, plus a complementary set 1A. It allowed not only the construction of various kinds of buildings, but also bridges and other metal structures.

A picture of Set 1 is in Baukästen but we can only see the lid, not the contents of the box; much more information is given in Eisenzeit including pictures of a Set 2 and its contents. PIONIR's inventor was Otto Nentwig from Neustadt in Oberschlesien (now Prudnik in Poland) and the patent was taken out on 2 August 1901. It was manufactured from 1903 to 1905 and no advertisements have been found after 1905. The information that follows is based on my Nr.2 set.

**The Set** is in a wooden box covered with black paper, its size is 27x19x4cm (for Set 1, Baukästen gives 23x17x4cm). The label, above, occupies the whole of the lid for Set 1 & has a surround of the black paper on the Nr.2. The picture shows a landscape with many buildings and metal structures including a large railway station, bridges, houses, & factories, all built with PIONIR parts. The roofs of several buildings are made with parts which are in the patent but not in the sets. Other parts not in either include the arches on the Station's front. No doubt it was intended to improve the system with these later.

An insert in the bottom left corner depicts 3 children & an older female playing with PIONIR - the latter might be an older sister, of even mama, but her dress & hairstyle are rather plain for a well-to-do family of the period, so perhaps she is a governess. PIONIR would have been an expensive toy and a family who could afford it might well have had a governess.

Under the two lines that say Metallbaukasten and PIONIR, a third line has been erased, and curiously enough the same line has been erased on the lids of the sets displayed in Baukästen & Eisenzeit. I have a feeling, looking at what can still be seen, that the erased line began with 'Otto Nentwig' and ended with

G.M.B.H. It certainly begins with the letter 'O' and ends with 'H.' The Patent No. has been printed in black over the erased part: D.R.P. No.131541 though even on the actual lid the last two numerals are barely distinguishable ('D.R.P.' stands for Deutsches Reichspatent).

The open box is shown below. The largest of its three



compartments has a yellow painted metal tray in it, formed to give 11 sub-compartments, each with a convex bottom. Inside the lid a picture indicates which parts are in each compartment, and their quantities.

**The Parts** The different types that are in the Set are shown at the top of the facing page. Virtually all the parts are very similar to those in the patent, both in design and how they are used. There follows a list of the parts with the PN first, sizes & notes where needed, and the quantities given inside the lid in brackets. The illustrations used are taken from the Manual. All the parts except the Panels are blackened steel.

**Panels.** There are 44 of these steel parts painted red or





yellow. They are 6mm thick. The back side of a typical part is shown at 'a' above. The inside of the part is nicked and the yellow-brown colour between the folded-over edges is reflected light from the flash.

1: 2x2cm. 1 tongue. Red(2), Yellow(2).

2: 2.5x2cm. 1 tongue. Red(2).

2a: 2.5x2cm. No tongue. Red(2).

3: 3x2cm. 1 tongue. Red(2).

3a: 3x2cm. No tongue. Red(2).

4: 4x2cm. 1 tongue on long side. Red(11). The back side of this part is shown above at 'a',

4a: 4x2cm. 1 tongue on short side. Red(9), Yellow(4).

4b: 4x2cm. No tongue. Red(4), Yellow(4).

There are 2 **Doors** (6x3cm) & 2 **Windows** (4x2.5cm). They cannot be opened. The insert sheet to form the panes may be celluloid; it is red in the Windows, clear in one Door and light red with a pattern in the other.

#### Corner Post parts

**W.** They are angle girders used to build the corners of walls or roof ridges. Their sides fit into the grooved sides of the Panels.

W1: 2cm long. (8).

W1a: 2cm with a 0.5cm long tenon. (8).

W2: 4cm with a 1cm tenon. (8).

W2: 4cm. It has the same PN as the preceding part and is identical except that it has no tenon. It is necessary at the end of a roof ridge so that nothing protrudes. It is not shown in the Illustrated Parts but is in the set contents on the lid and is used in some models. However it is not included in my set which contains 9 of the standard W2. Was this a mistake made in filling the box? Or perhaps this part had not been manufactured. (1).

W3: 5cm + 1cm tenon. (5).

W4: 6cm + 1cm tenon. This part and the following one are in the Illustrated Parts in the manual, but they appear neither in the contents nor in the models. (0).

W5: 6.5cm + 1cm tenon. (0)

**Footing parts F.** They are 1cm wide. F5 to F7 are cut at 45° at one end, and are thus handed. 'b-b' in the photo above are

the top & bottom of the same part. Overall lengths are given.

F1: 4cm. (10)

F2: 6cm. (14)

F3: 8cm. (10)

F4: 10cm. (8)

F5r (10) & F5l (l for linke, left) (10): 2.5cm.

F6r (4) & F6l (4): 4cm.

F7r (6) & F7l (6): 5.5cm.

**T-section parts.** Their width is 0.8cm so that they can slide inside the F parts. Their upper part fits the grooves in the Panels. Parts T5 to T7 have one or two brass tongues which can be inserted into the parts T1 to T4. The tongues are 1cm long and are riveted to the basic part, but are free to rotate. Thus parts can be linked at any angle up to 90°, and another use is to lift the rod of a Railroad Crossing.

For these parts I give the length without the tongues.

T1: 2cm. (42)

T2: 3cm. (20)

T3: 4cm. (8)

T4: 8cm. (8)

T5: 2cm with 1 one tongue. (4)

T6: 3.5cm with 2 tongues. (8)

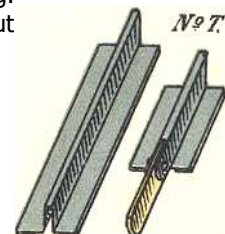
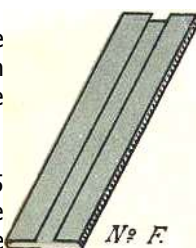
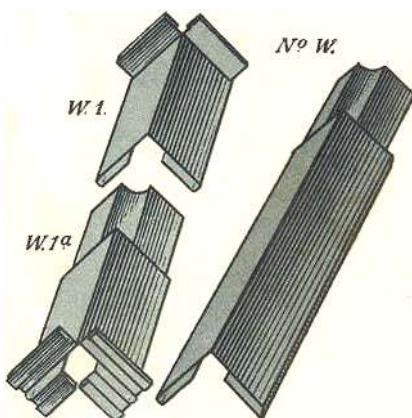
T7: 5.5cm with 2 tongues. (2)

**Baluster** (16). This part, used to make balustrades, is not mentioned in the patent. Its width at both ends is 1.5 cm and it is 4cm long. It is held in place by its 4 corner, each of which pushes into the upright end of a T part next to it. This can be seen in the Bridge overleaf with T1 parts on either side of the Balusters, top & bottom, sitting inside the F3 parts as usual.

**Set 1** I have not the list of contents for this set. It seems that it contains almost as many Panels as the No.2 since the largest model for Set 1 uses 37 of them, many more than any model for Set 2! There are also 2 Doors & 2 Windows. Thus there are probably many less black steel parts, for instance no T parts with a tongue. On the whole, Set 1A probably included comparatively few parts, models made with Set 2 do not look very much larger than those made with Set 1.

**Instruction Books** There is one for Set 1 and another for Set 2. Their covers, 20\*14cm, are similar and the Nr.2 is shown overleaf. These manuals look like Richter manuals, however the explanations in the PIONIR manuals are only in German and Gothic letters are used instead of Roman. Both PIONIR manuals have 16 coloured pages plus covers, and explanatory text is confined to the C2 & C3 covers.

The Set 1 manual has 2 pages showing the parts and 4 pages with step-by-step illustrations showing how to build two





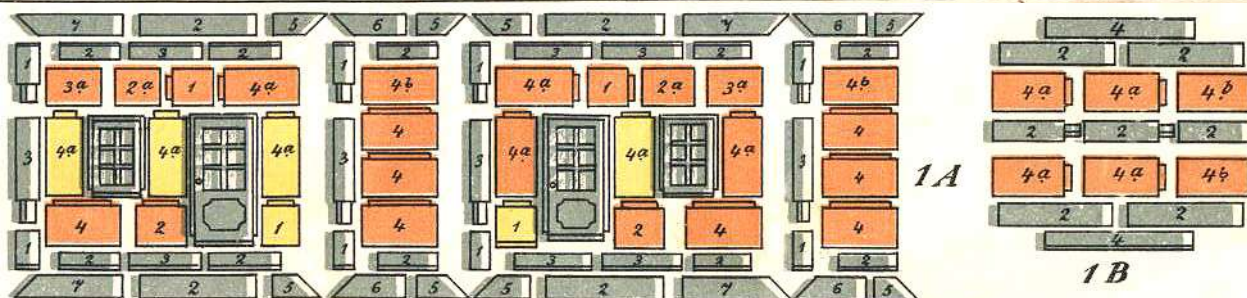
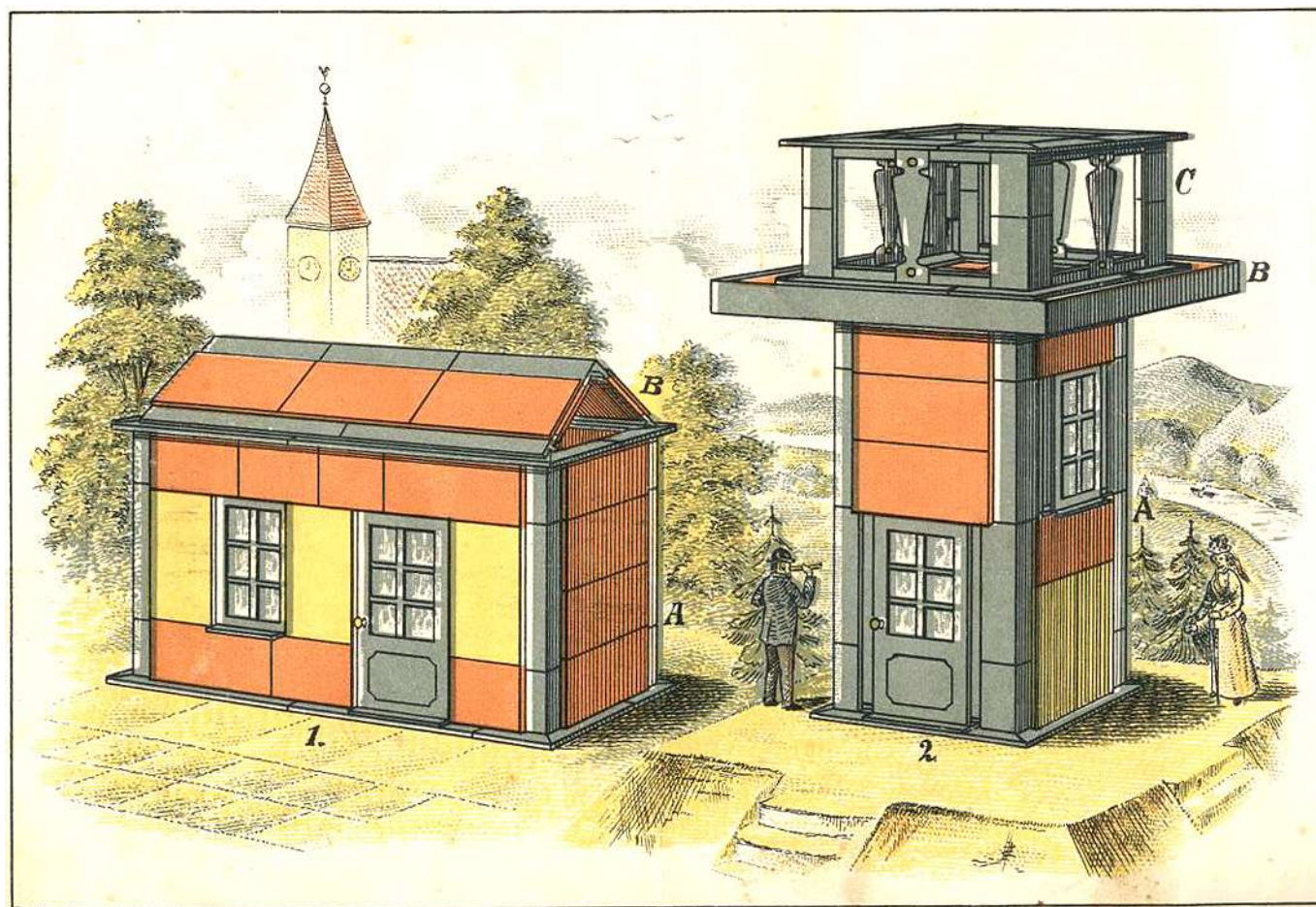


of the manual models. The models comprise 6 simple ones - 3 Tables, a Bench, a Kennel & a Sentry Box - on a double page, and 4 double pages with 2 models featured on each pair. They are shown in a landscape setting with people on the lefthand page, while on the right page the parts used for the buildings are shown with their relative position and their PNs. Their initial letters are omitted as the type of a part is clear from its outline. In the example below the complete left page is shown with the parts for Model 1 underneath (1A & 1B), from the righthand page. This method of description does not indicate

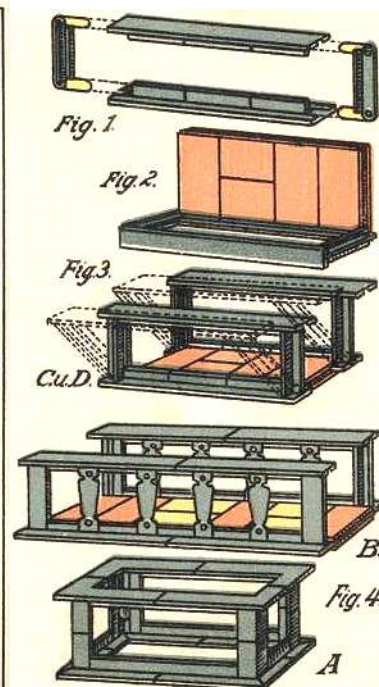
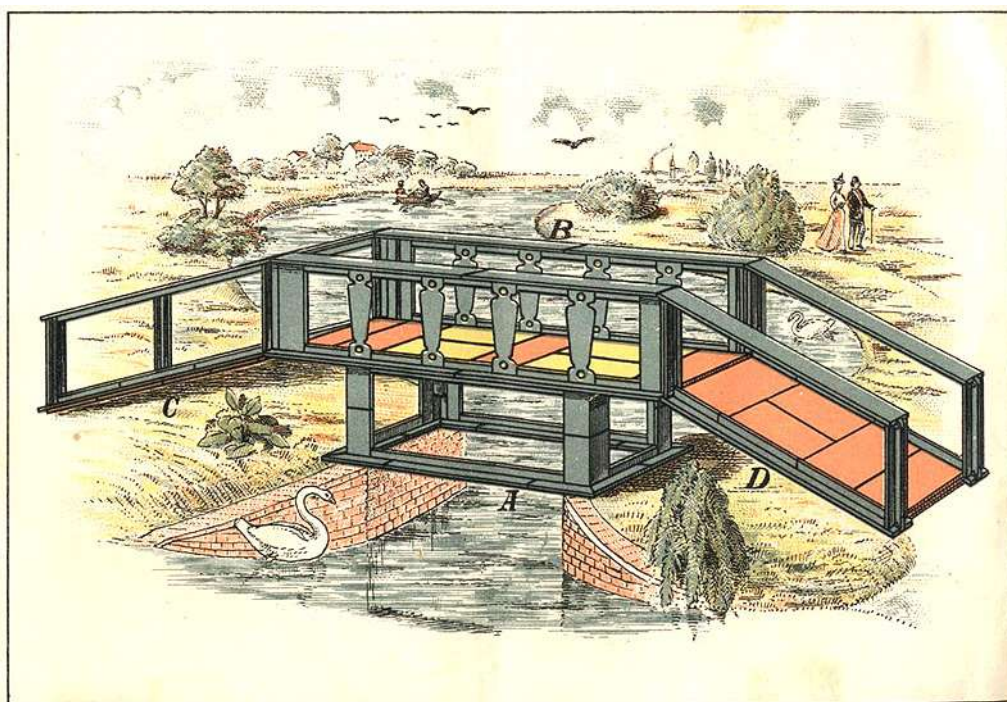
whether a part is vertical or horizontal in the model, but this is obvious. The pitched roof of the '1' model is as envisaged in the patent. The '2' model has a flat roof which sits on the top of the walls. It is in effect a wall turned to be horizontal, and this method was not mentioned in the patent.

The Nr.2 manual has 8 models with the same double-page presentation as above but with only 1 model per double-page. 2 of the lefthand pages are shown on the facing page, about  $\frac{3}{4}$ -f.s. The Figs 1-3 alongside the Bridge show how the approaches C & D are made, and Fig 4 the centre sections. The parts are shown under the main illustration (except those for D which are of course a mirror image of C). The lower model of a Railway Station is perhaps something of a disappointment after the one on the lid.

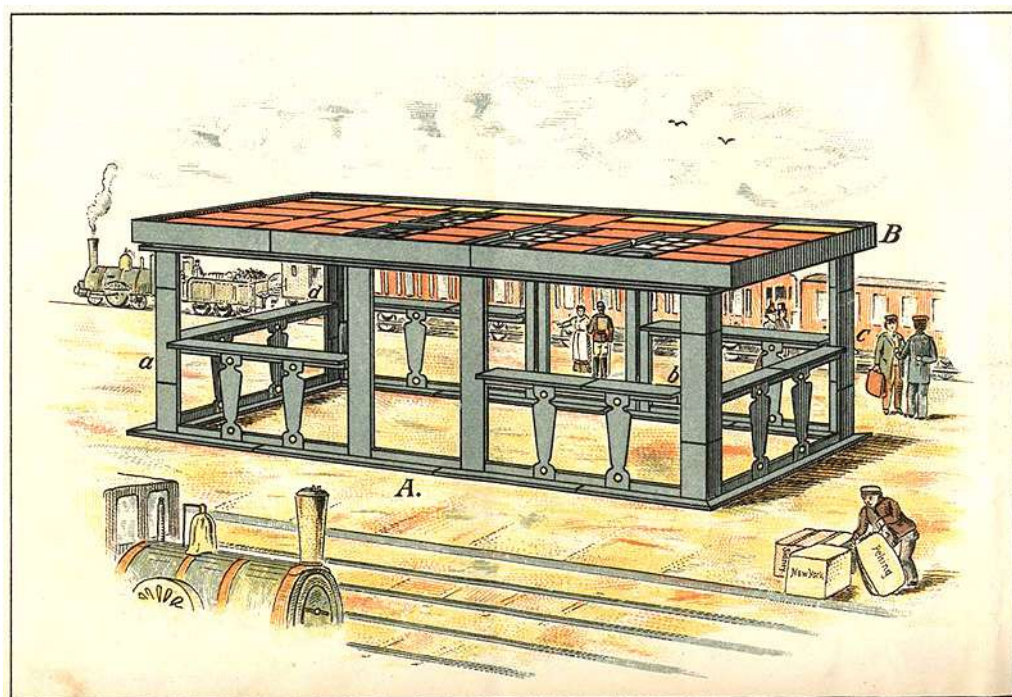
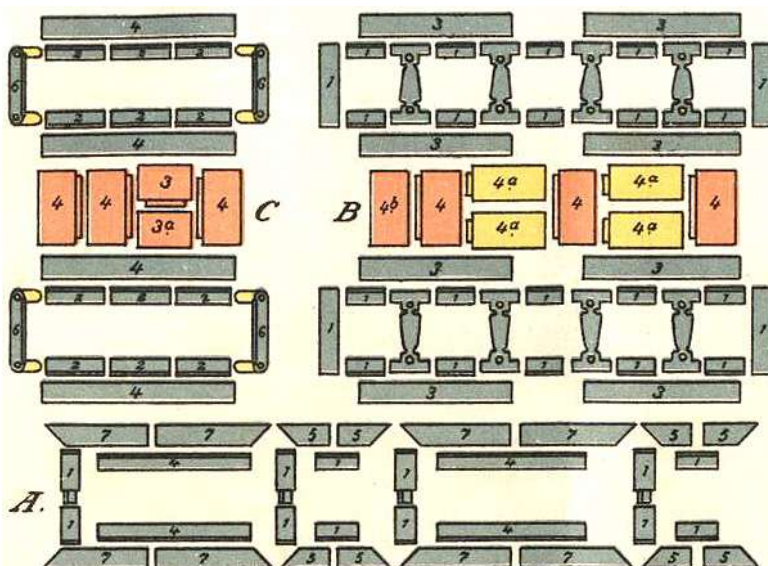
**Discussion** The parts are well made and are still in excellent condition more than 100 years after they were made, only a few of them have some traces of rust. The box is sturdy and the manuals are also well made. One weak point was in filling the boxes. There are several mistakes in my set, for instance there are 10 W1 parts and 6 W1a parts instead of 8 and 8. This is a serious drawback as these parts are used in most models and a building is flimsy if for 2 of its eight pillars, there is no tenon to join two of the parts. This is not the only case where the quantities of similar parts is incorrect but the total number is correct. Another weakness is the lack of any







means of positively attaching the various parts of models to each other. This is perhaps acceptable for roofs but is less so for buildings more than one storey high, and quite unsatisfactory for the different parts of the Bridge on the facing page, especially for its approaches. Perhaps though this was not a major consideration for potential purchasers since the 1895 Richter Bridge Set with parts that were bolted together (see 10/260 - an actual set was found in 2004) does not seem to have been popular. Overall PIONIR can be said to be an excellent system and it is a pity that it did not last for more than 2 years. Ten years later, Wenebrik, a comparable system, was very successful and lasted more than 15 years. It was perhaps more developed than PIONIR in some ways but was less versatile, without the possibility of making bridges for instance. One of the reasons for PIONIR's failure may have been that the biggest set was not very large and the biggest PIONIR models are not very impressive. The No.2 had only 268 parts while the largest Wenebrik set contained 1168, including 4 doors & 28 windows. However, I believe that the main reason was that Richter was a powerful competitor strongly established in Germany & in the rest of the world. With the excellent quality Anker sets, the user could buy a sequence of complementary sets to allow spectacular buildings to be built. Moreover, Richter had recently introduced the clip-together metal parts, so it was also possible to build bridges. Later on MECCANO & STABIL were able to compete with ANKER because they broke new ground and could therefore survive on their merits. Unfortunately for the inventor of PIONIR it was not easy to be a pioneer!





**More AUTO-CYCLE Aeroplanes** At the time of the article in 32/954 the only illustrations of the Aero models were those in a manual, & the model which included the C/W Motor was rather strange in that the drive was to a single, offset rear Wheel. Now photos of a model from Philip Woodcock are available plus Ebay photos from 4 lots. In all they show some changes to the parts & models, and a hitherto unknown outfit.

Before going to the 'new' models a recap of the features of the **Manual model in OSN 32** (p955). The Upper & Lower Wings are of different lengths and the Upper Wings are joined by a raised Centre Section. Both the Wings and the Tailplane have square ends. Compared to the Sidecar model on p956 the Motor is turned back-to-front so that the output shaft, with the offset Wheel, is at the rear. The steerable front Wheels would allow the model to run around in circles on the floor provided the linkages were tight enough to maintain their setting.

The **first Ebay model** is identical to the Manual model above. **Philip's model** is the same except that its Fin is missing and its Wings & Tailplane (but not the Centre Section) are red plastic, Sicalite presumably.

The **second Ebay model** is all metal and generally similar but doesn't have a Motor, and the rear Wheel is central - it looks to be in about the same position as the one in Fig 3 but its mounting can't be seen. There was a 36-page manual in this lot, with a cover identical to the one on p955.

The **third Ebay model** is shown in Figs 1-3. The Upper & Lower Wings are the same length and the Centre Section is just a short length of Wing, no longer raised. The Wings & Tailplane now have impressed ribs and shaped tips, and the Wings look as if they may have a little camber. The Motor is mounted as in the Sidecar but has the output shaft extended so that both front Wheels are driven. (The ends of the output shaft are threaded and Nuts are used to lock the Wheels to it.) As can be seen the rear Wheel is mounted in a Fork Piece, probably a Cycle part, and other photos show it free to turn on its mounting Bolt, presumably to provide steering now that the front Wheels can only point straight ahead. In passing, the pitch of the gear teeth in the Fig 3 Motor is much finer, by a factor of two perhaps, than in a Motor in an Ebay Sidecar lot.

Finally the **AUTO-CYCLE Junior outfit**. Figs 4 & 5 show the box lid & Monoplane model, a little the worse for wear, along with a Key & Spanner sitting on a model leaflet in Fig 4. The fuselage & tail look like those in Figs.1-3 but the Wings are tapered and have rounded tips. The span was given as 32cm & the length as 23cm, compared with 29 & 26cm given for the Figs.1-3 model. For the length it does appear that the Tailplane in Fig.5 is a little forward compared to Figs 2 & 3. In a photo of the underside not shown here, the fuselage, Motor, and the rear Wheel & its mounting, all look identical to Fig 3.

The name **Fontaine, Rigot & Cie**, the likely AUTO-CYCLE company, is mentioned in two Ebay items, with the address

given in OSN 32. The only other point of interest is that in one Ebay item, a Sidecar model, an unspecified 6-page document was said to be in French & German.

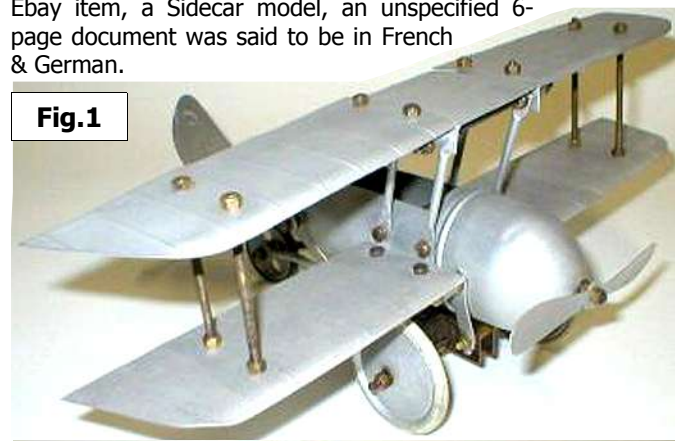


Fig.1



Fig.2

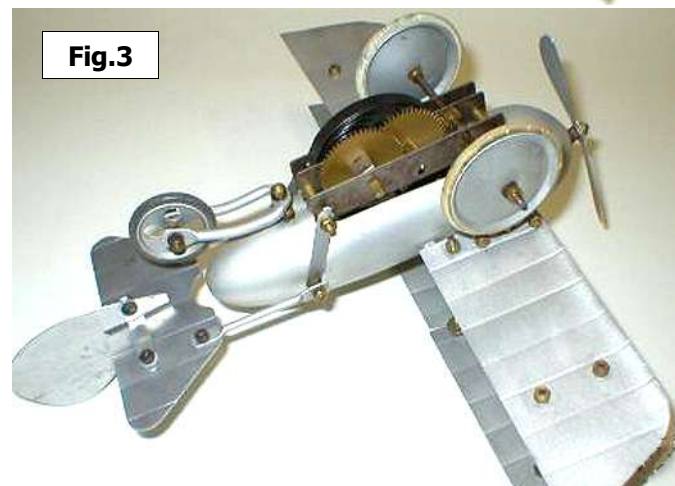


Fig.3



Fig.5



Fig.4



**Snippet: TECNIKIT** Some notes on TECNIKIT/MECANIKIT were given in 10/250 & 19/554. Since then nothing new has appeared until 2 sets were offered on Ebay recently. One, a No.3, was in the OSN 10 type of box with the same blue & red label; its contents will be listed later. The other was the No.2 right with identical looking parts and a similar manual cover, but with an entirely new box lid.

Said lid, now in red & green to match the parts, looks to be printed in colour, and 'MADE IN ENGLAND' replaces the 'AN L.J.T PRODUCT LUTON'. The only part that looks in any way different is the green 1" Pulley (amid the 3h Strips) - previously it was plain aluminium like the small Loose Pulley (below the Flat Trunnions). Parts probably missing are a Screwdriver and an envelope of N&B. The front of the manual looks like the one in MCS except that 'BOOK' after 'INSTRUCTION' has been changed to 'BOOKLET No.2'. (Inset bottom right in the photo are the words in the heading of the cover, taken from another photo.) A similarly marked MECANIKIT manual called 'BOOKLET No.0' was with the No.0 set in OSN 10.

The main parts in No.3 follow, with those in the No.2 in curly brackets: • 4,2,4,4,2 {4,2,4,4,0}x 3,5,9,13,25h Strips.



• 4 {0} Curved Strip. • 2 {0}x 1\*3\*1h DAS. • 4 {4} A/B. • 2 {0} Dble Brkt. • 1 {1} 5\*11h Flgd Plate. • 1 {1} Flgd Sector Plate. • 2 {2} 3\*5h Flgd Plate. • 2 {0}x 3\*3h Perf. Plate. • 2 {0}x 5\*5h Flex Plate. • 4 {4} Flat Trunnion. • 4 {4}x 1½" Road Wheel. • 2 {1}x 1" Pulley. • 1 {1}x ⅝" Loose Pulley. • 1,2 {1,2} x 1",4" Axles. • 1 {1} Crank Handle. • 4 {4} Spring Clips.

The No.4 Contents are in MCS - compared to the No.3 it has 4 each of the Strips, 2 Reversed A/B, and 2 each of 8,12h A/Gs.

**TECNIKIT: S1**

**OSN 35/1046**

### Snippets: MARKS & SPENCER

M&S have been selling specially packaged MECCANO sets during the last year or two and now three examples of non-MECCANO M&S sets have been seen on Ebay. All have 'CONSTRUCTION' on the lid and from the look of the parts they come from Eitech or Polylong. The set right has 167 parts to make the 3 models one at a time, and far right a 30 piece set for the little Digger. The third outfit, in blue packaging similar to the 3 model set, has 86 parts to make an F1 Racing Car with the same small Wheels. The usual style Eitech/Polylong model leaflets are shown in the Ebay photos for both the blue-boxed sets.

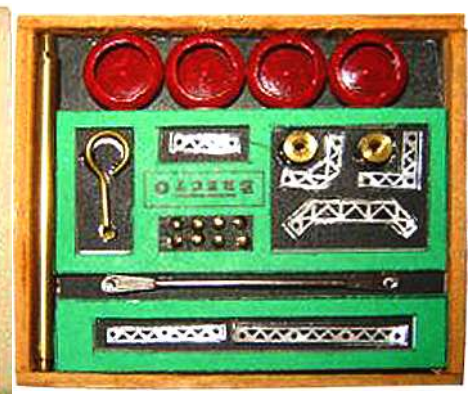
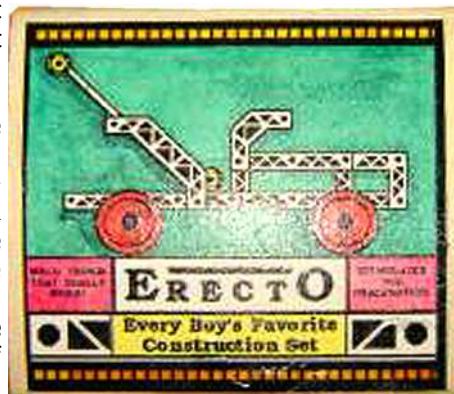


**MARKS & SPENCER: S1**

**OSN 35/1046**

### Snippets: More Miniatures

A short account of a 'MECCANO' doll's house set was given in 21/619 and since then a similar ½-scale 'TEMSEI' set has been seen on Ebay. Another Ebay offering, the ERECTO set on the right, was described as: '1½\*1½". ½-scale. By Bufton.' Presumably it is meant to look like ERECTOR but with some 'new' parts as well, the angled Frames for example, and the silver Rod with a flattened end (the jib in the model I suppose). Not sure what the brass looking rod down the left side of the box is though.



**ERECTO: S1**

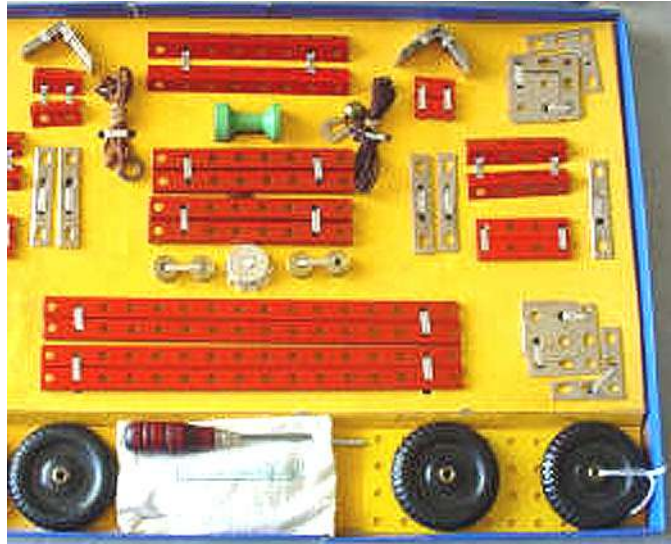
**OSN 35/1046**



**Snippet: TECHMASTER** Since the photo of the No.2 set with coloured parts in 33/997, another set, much more complete, has been seen on Ebay. Its size isn't known but it is probably a No.1 because its box is slightly smaller than the No.2, and it has 4 Road wheels instead of the 6. The lid label is identical for both sets and covers the whole of the No.1 lid. The manual cover too is identical.

The left side of the open box right is a mirror image of the right. The parts that can be seen are as follows (many are illustrated in 13/346): • 2,4,8,16h **Channel Girders** (the 2h are under the 4h A/Bs top right). • 2,4,8h **A/Gs** (the 2h are under the 4h A/Bs top left). • **4h Strips**. • **5h Corner Brackets** (2 in each corner). • **4h Plates** (1 in each corner). • **4h A/Bs**. • The green **Spool** with a **Sling** to its left (cord with Rings at each end), and a **Cable** to the right (cord with Ball Weight & Hook at one end). • 4 small brass **Pulleys** below the 8h Channels with a larger **Pulley** between them, and it may be sitting on the **Ratchet**. • The **Road Wheels**, with what looks like a yellow 4\*8h **Perforated Plate** under the righthand pair (a similar 'mystery' part was seen in the No.2). • A **Screwdriver** and white packet.

Most of the parts look to be tied down individually but if so their quantities would be insufficient to build the Tier Lift in 13/



346, a model 'Made from Techmaster Sets 1, 2 & 3' (assuming that means any one of the sets). The model is said to need 8x 4h Strips, 8x 4h A/B, 10x 5h Corner Brackets, & 6x 4h Plates.

OSN 35/1047

TECHMASTER: S2

**Snippet: Another METALCRAFT Set** You may recall that British METALCRAFT is a single-set, VOGUE-like system, similar to PIONEER. One set was described in 30/906 and it had a typical VOGUE lid with a few idealised models in the foreground & a realistic scene as backdrop. Now a set with an entirely different lid (right) has been seen on Ebay. The models are from the manual though some of the parts are red instead of green & vice-versa. The box is 20" long, 4" more than the OSN 30 set, and the backing card for the parts is green, the only one of that colour in any known 'Vogue' outfit. Compared with the likely contents given in OSN 30 (which should have included 2x 1\*3\*1h) this set is not complete, with no 25h Strips for example, but at the same time there are too many of most parts, and 4x 11h A/Gs which shouldn't be in a METALCRAFT Set at all. They suggest an admixture of parts from one or more other 'Vogue' outfits. The parts themselves are as expected except that all of the 6 Semi-Circular Plates have 2 extra holes, see



15/421. The cover & two model pages of the manual were shown on Ebay and they match exactly the 25/740 manual. The manual cover is the same as in the OSN 30 set, so it seems most likely that the present set came after it.

OSN 35/1047

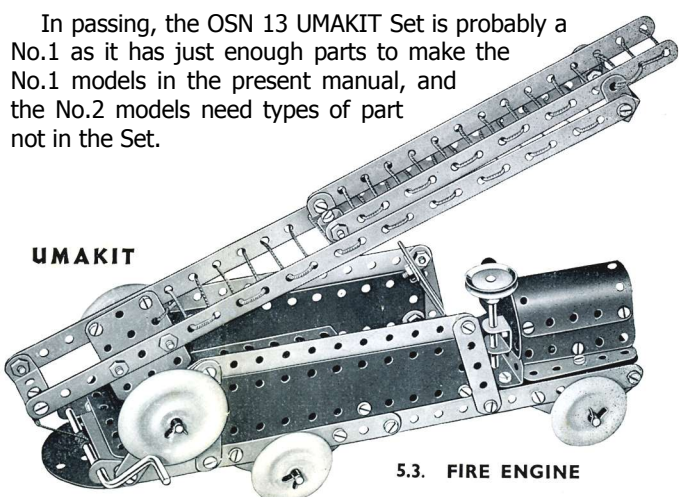
METALCRAFT [2]: S3

**A UMAKIT Manual** Notes on some pages of a UMAKIT manual were given in 30/907 and now, thanks to David Hobson, I've been able to see all of it.

It has 8 art paper pages, 265\*217mm, and from the look of the staples there were probably no covers. The first 4 pages are as described in OSN 30, and the models on the other pages are as follows: 4.1 FIRE ENGINE on p5 to 4.5 LIGHT CRANE on p6; 5.1 LIFTING BRIDGE on p6 to 5.5 GANTRY CRANE on p8. Again there is one (excellent) halftone for each model, and again all the models are very similar to MECCANO, as in the example right (about half-size).

A number of the models are in the CONSTRUCTO manual described in 25/740 but some of them are for a set one size larger than in CONSTRUCTO.

Curiously of the 4 models on the lid of the UMAKIT set in 13/339, only the Tower Wagon is in the present manual (No.4.2), but all four are in the CONSTRUCTO manual above.



OSN 35/1047

UMAKIT: S2



## A Fri-Die-Metallbaukasten

by Jacques Pitrat  
FRI-DIE was mentioned in 17/477 and Baukästen has a picture of a set on p218. It is a German system and the name appears to come from the first letters of its maker's names: Fritz Diestelkamp, Gütersloher Strasse 27, Brackwede, i.W. Brackwede is a small town in Westfalen and "i.W." probably stands for "in Westfalen".

There is no indication of date and none of the models could have existed only after WW2. Baukästen has '1920s' but with a question mark, and the 1930s or post-WW2 seems more likely.

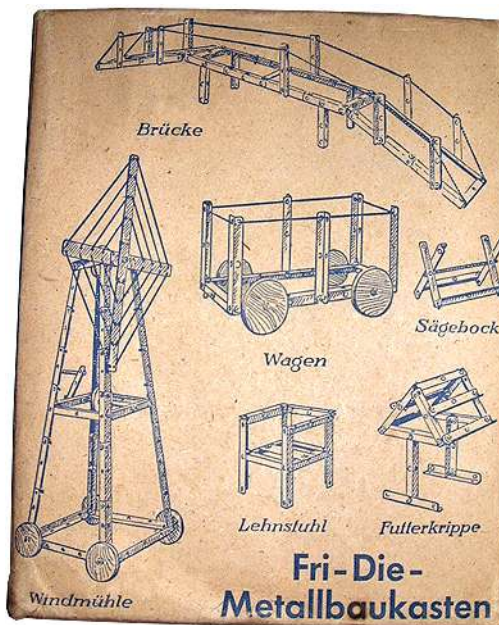
The **box** of my set is plain cardboard, 21\*17cm, with the lid right. Inside it is partitioned by 6 trays, 3 rectangular & 3 smaller square ones along the bottom. The Baukästen box is basically the same but not so rough: the lid is red with a label which covers nearly all the top and shows the same 6 models. It is likely that there was only one size of outfit - mine is not numbered, there is no mention of any others, and the various parts match those in the Baukästen set. There is no parts list & as my set is certainly incomplete no quantities will be given.

The different **parts** from my set are shown below. In add-



ition a 10h Flat Girder & 2 shorter Threaded Rods can be seen in the models, and in Baukästen. Most of the holes are 3.8mm Ø but those in the Wheel & Pulley Discs, and the centre holes in the 4h long Angle & Flat Girders are 3.0mm. No holes are elongated. The hole pitch is 15.5 mm. The thread is 3mm Ø.

The main parts are the 4, 5, 6 & 10h **A/Gs**. The 4h with the



smaller centre hole (not in line with the others) is used as a bearing in the Windmill model. There are many 5h A/Gs, with 39 still in my outfit. • The **Hook**, oddly, does not appear in any of the models, not even in the two Cranes. • The **Wheel Disc** is 26 mm Ø, & the **Pulley Disc** 25mm Ø. • The one remaining **Threaded Rod** is 117 mm long. In some models the shortest Rod is used as a Threaded Pin, fitted to a Wheel Disc. • The **N&B** are nicked steel. There are two sizes of Bolt: the RH is 9mm & the CH 6mm u/h. The Nut is 6mm A/F & 2.5 mm thick. • The two tools are a **Screwdriver**, 14cm long o/a, with a wooden handle, and a **Spanner**, length 8cm.

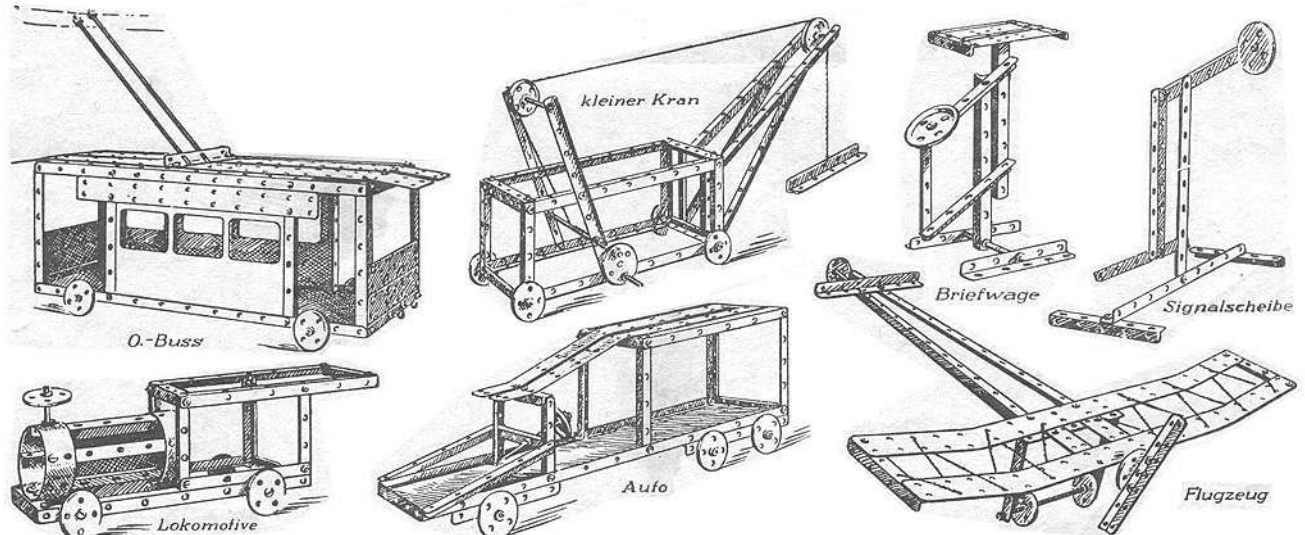
The parts are steel and well made except that the small hole in the Girders is often too small for the Bolts or Rods.

They have a blackened finish but the same parts in Baukästen are painted red, pinky-red, or blue.

The **model sheet** is 207x297cm. The front has the maker's name & address, and the same 6 models as on the lid. The reverse has 10 models from Strassenbahn (Tramcar) top left, to Signalscheibe (Railway Disc Signal) bottom right. 6 of these are shown below about 2/3 f-s. The pictures of the models are poorly drawn: the 5h A/Gs are often shown with only 3 holes, especially in the models on the lid. Also it is not easy to find where an A/G begins when more than one are in the same line, and many details are not clear, for instance how the ramp of the Bridge is tied to the platform. The lid models have what look like wooden Wheels, and so perhaps they were used in a first phase, or it was intended to use them when the models in question were drawn.

The major **drawback** of this system is that there are no Strips, and the models often have an unpleasing look because the sides of the A/Gs protrude. Moreover, as the Girders have no elongated holes it is not always easy to make the necessary adjustments, though minor adjustments are possible because the holes are larger than the diameter of the Bolts.

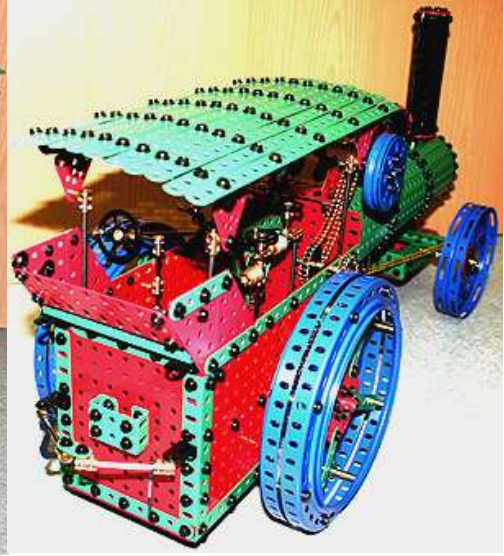
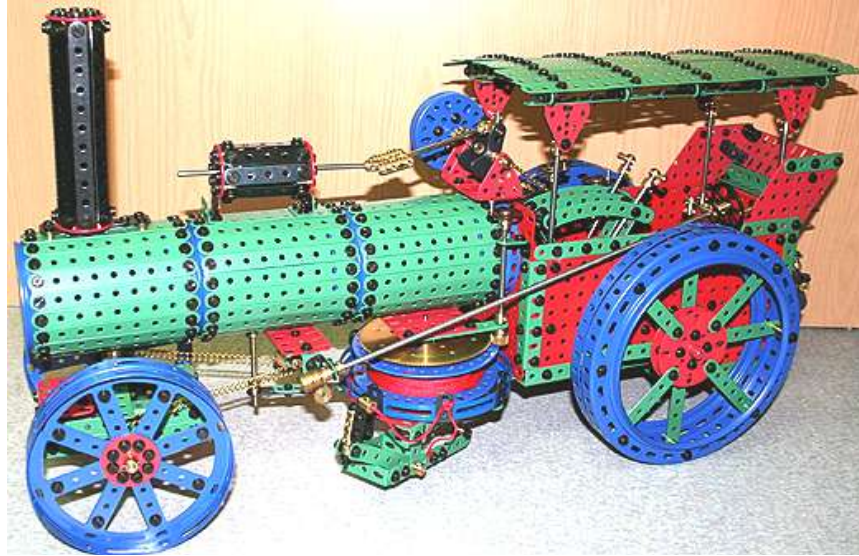
Presumably one reason for the use of the A/G as the main structural element was to avoid the need for A/Bs &/or DAS. It would also give relatively strong frameworks but there are obvious disadvantages and these, combined with the system's poor design in other ways, make it a little surprising that FRI-DIE lasted long enough to go through 2 phases, one with a rough box & black parts, and one with a well-made box & coloured parts.





**The METALLUS Ottomeyer Dampflokomobile** This is a new set from Metallus to make the Ploughing Engine below. Ottomeyer made such machines and the one right could have inspired the model. It was built in 1958 and was one of the last, and the most powerful example ever built. The English name given in the German/English instructions for the Dampflokomobile is Steam Locomobile, though Traction Engine would perhaps be a more normal translation. The set consists 3070 pieces in 2 cases 49\*49\*6½cm, each with the parts fitted into a white block, and the official factory price is €485.

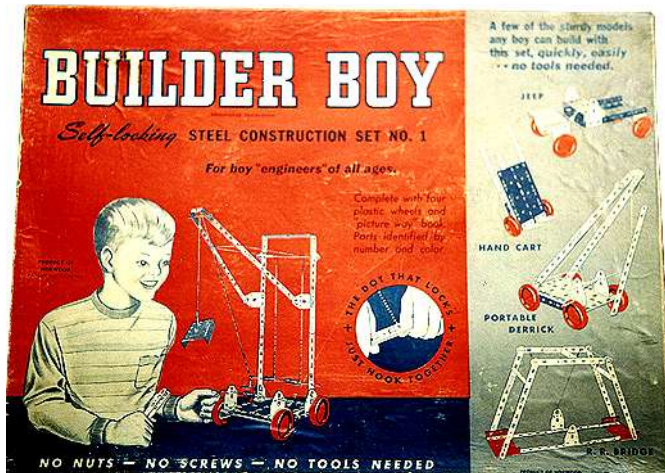
The model is 470mm long & weighs 15kg. It isn't powered and looks simple mechanically with two chain drives linking the crankshaft to the rear axle, a simple linkage to the piston rod, the usual steering, and a hand-operated, geared drive to the drum - the Handwheel is just below the crankshaft brackets. It's not clear if the two levers in the cab do anything.



OSN 35/1049

METALLUS: S3

**Snippet: NORWOOD aka BUILDER BOY** The lid of the BUILDER BOY No.1 set described in 12/307 is shown



above. The manual with it made no mention of BUILDER BOY and had 'NORWOOD Self-locking STEEL CONSTRUCTION SET No.1' on its cover. Now a similar Ebay set has been seen with

the same manual, but the lid has the name panel below (as on the manual), instead of BUILDER BOY & the two lines under it. The words at top right are 'For boy engineers of all ages', the slogan third line down on the BUILDER BOY lid. All the other areas of the two lids are identical.



The NORWOOD set has some parts missing but the main ones are there and probably the two had the same content. The NORWOOD lid isn't as eye catching as the BUILDER BOY and at a guess it was the earlier, with the BUILDING manual. Then when the change was made it wasn't thought necessary to change the manual.

Since OSN 12 some parts, nearly all of a No.1, have come my way and the bright pieces are nickel plated. The parts are fairly easy to clip together and the joints are quite rigid with little slop. I made a Crane with a 16" Jib and by using the 'X' Strip in the base it was possible to add slewing to the luffing & hoisting movements. Though it was reasonably successful I wasn't tempted to try to make any other models.

OSN 35/1049

BUILDER BOY: S1

#### SMALL AD

[34/1005]

**For Sale** at modest prices after sorting collection: **Lot 1**, PRIMUS No.3 sets (2 available), sound but poor boxes, some parts have rust, manuals with photocopied covers; **Lot 2**, PRIMUS Nos.1, 2, 1s, 2s, boxes/incomplete sets; **Lot 3**, 1930s TRIX boxes only (some with parts envelopes), No.3

and No.2 (3 with different styles of label) sets, Units 1, 1A, 2A & Gears Set; **Lot 4**, post-war TRIX boxes only, Units A to G (about 30, some with parts envelopes), also Elementrix, Moto Trix 347, and TricyTRIX 163 boxes. Contact David Hobson for further details, Woodington, Edford Green, Holcombe, Radstock, BA3 5DB; email: dvdhbsn8@aol.com.



### 'New' System: AVIONS-CONSTRUCTION

A set of this name came to hand recently, and it has parts to make simple aero models which bear a strong resemblance to another, much better known, French aero system, MÉCAVION (see 26/754).

**The BOX** is blue and measures 45\*30½\*4cm. The lid is shown right. The parts were attached to a blue card with pressed through tabs to hold some and stringing holes for others.

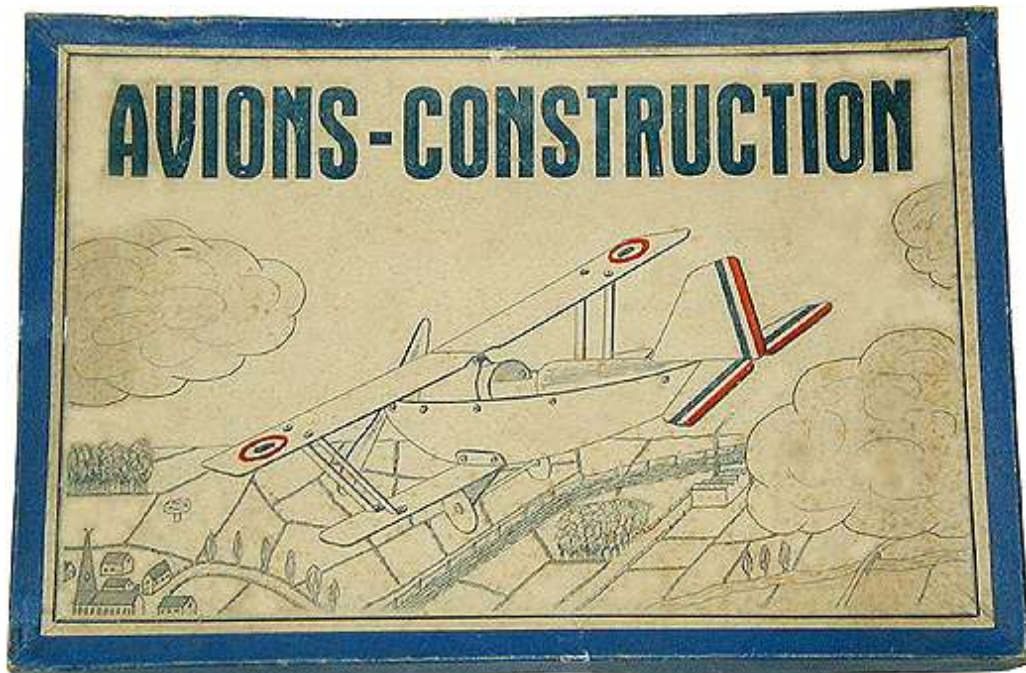
**The PARTS** All the parts in the Set are used in the model below, the one shown on the lid. Compared with MÉCAVION (MÉC hereafter) the most obvious differences are that the parts are plain aluminium instead of painted steel, the holes are (typically) 4.2 instead of 3.6mm, & the Bolts are 4mm instead of 3.5mm. Apart from that many of them look identical, but the dimensions vary slightly, though often by less than 1mm. Below a list of the parts found in the Set with the few significant differences in the design of the parts noted. Where necessary the MÉC PN is given in brackets.

**Fuselage.** • 2 **Sides.** • 1 **Top, Front,** deeper than the MÉC part, especially at the nose (by about 5mm), because the top curvature is semi-circular. • 1 **Top, Rear,** with slightly more curvature making it a little deeper. • 1 **Nose/Underside** - it is about the same size as the MÉC part [#21] but because the Top, Front is deeper, there is a 5mm gap above it.

**Wings.** • 1 pair **Large Wings** [#1] giving a span of 404mm. • 1 pair **Small Wings** [#2]. With these attached flange upper-most, as on the lid, the Wheels foul the underside. • 1 pair **Centre Supports** [#22,23], like the MÉC parts but with out no centre cutout. • 4 **Interplane Z-Struts** [#10], 11mm wide instead of 8mm.

**Tail.** • 1 **Fin,** without the MÉC alternative higher hole for mounting the Tailplanes. • 1 pair of **Tailplanes.**

**Undercarriage.** • 1 pair **Legs** [#7], • 2 **Wheels,** quite



unlike any MÉC part. They are discs, 44mm Ø, coned to a depth of 5mm. • 1 **Axle**, 3.9mm Ø, threaded over 18mm at each end. 1 **Tailwheel.** A 15mm steel disc (the only steel part) riveted, but free to turn, to one end of a 30mm long tapering arm with a mounting hole at its other end.

1 **Propeller** [#8], 136mm Ø. It is free to rotate on a Bolt locknutted to the front of the Nose/Underside.

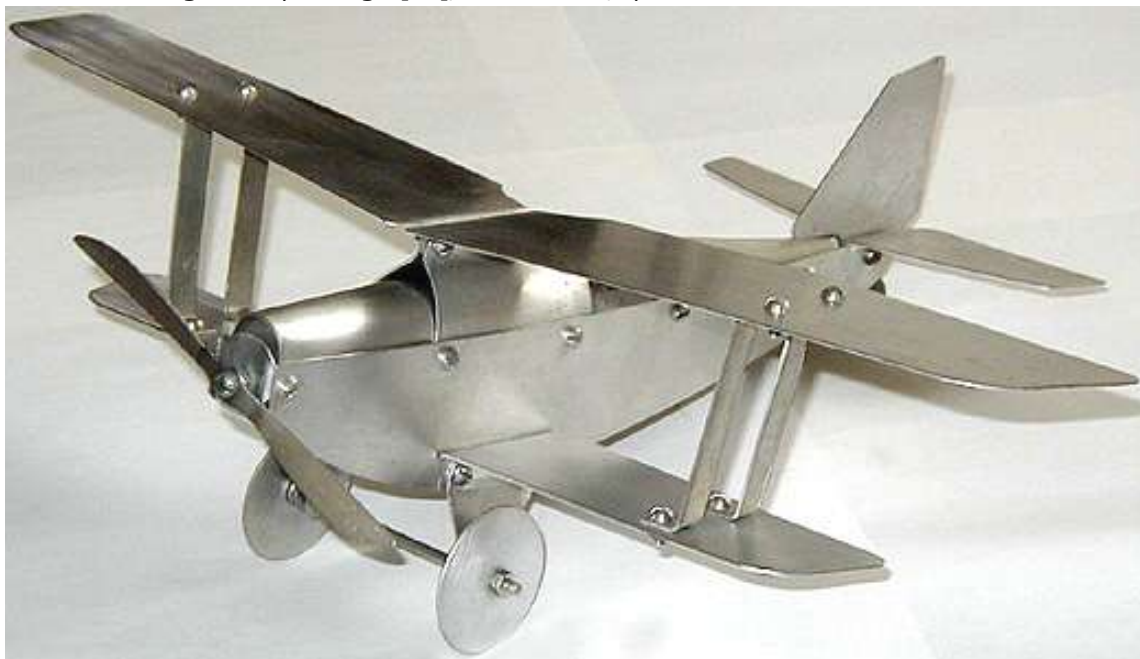
**N&B** 4mm Ø with a .75mm pitch thread. • 28 **Bolts** with a 7.1mm RH: 15x 8mm u/h & 13x 10mm u/h. • 33 machined hex **Nuts**, 7.0mm A/F & 3mm thick.

**The INSTRUCTIONS** are on a 20½\*13½cm label pasted inside the lid, and 3 models are described in words. The first can, it says, be made from the drawing on the top of the lid and is a model of a machine built to be a distance record-breaker. No.2 is a touring monoplane made by removing the top wing and supporting struts from the No.1. No.3 is a bomber and is like No.1 but with the top & bottom wings interchanged. All three are models for the Standard Set in the OSN 26 MÉC manuals, although the Large Wings are used on the Low Wing Monoplane.

**The MODEL** The parts are well made and fit together easily apart from the hiccup with the Lower Wings already

mentioned. Compared with MÉCAVION the models looks a little clumsy, mainly due to the Struts & larger Bolt heads.

**HISTORY** Nothing is known of when the Set appeared, its manufacturer, or even where it was made. I wondered when I first saw it if it might have been the forerunner of MÉCAVION, but I suppose it's much more likely that it was a short-lived copy from the early post-WW2 years.





**AVIADYP** This unusual French 'Aero' system is said to be from the 1950s, but as will be seen it may have existed in the late 1940s. 3 different periods (which I'll call Phases 1-3) can be distinguished and in each there were some 50 anodised aluminium parts. Many were common to all phases but there were significant changes. A few N&B are used in the models but mostly the parts push, slide, or clip together. The small range of models possible generally look very smart and realistic, and later included jet as well as propeller machines.

This account is based on • A No.2 Phase 1 set, complete, and with many parts unused. • 2 lots of parts, mostly Phase 2, lent by David Hobson; some of them were made up into a slightly incomplete Phase 2 model. • The MCS pages, which show the parts in a No.2 set from Phase 2. • Details of an unused Phase 3 No.4 set from Jacques Pitrat. • Numerous Ebay pictures from the different Phases. My thanks to both David & Jacques for all their help.

The name Aviadyp is something of a puzzle. 'Avia' would denote aviation of course, and as will be seen, a cartoon boy figure called 'Bébé DYP' was featured in Phase 1. But all that Google yielded was that DYP was the initials of a Turkish political party, or standing for 'draw your partner' in team games.

The manual with the Phase 1 No.2 set has an intro signed by 'Bébé Dyp' with two addresses underneath. The first is 'Société Sofic, 4 rue de Ponthieu, Paris' (near the Champs Elysées) but a rubber stamp has been used to cross it out and add '9 Rue de la Liberté, Argenteuil' (a north-western Paris suburb). 'DISTRIBUE PAR S.O.F.I.C.' was also on the Set's lid but a piece of thin card has been pasted over it. Another lead is from an Ebay item, a small box containing a pair of Under-carriage Legs & Wheels, and stamped '----? & Accessoires, É?---? (possibly Établ.) AVIADYP, 104 rue Daniella Casanova, Aubervilliers (Seine)', an address in the north-eastern outskirts of Paris. Louis Petit is mentioned in several Ebay items but



Fig.1

probably because his signature is on some AVIADYP artwork.

The only indication of a date comes from the Phase 1 manual. It contains a ditty which starts 'C'est le jouet DYP de Paris / Dont les J3 sont ravis' (It's the DYP toy from Paris / That the J3's adore). The 'J3' was a puzzle until Jacques explained that during WW2 and for a few years after, J3 was the designation of ration cards for youngsters (J for jeune) from 13 to 21 years old, and between 1940 & 1950 teenagers were commonly called 'les J3'.

Since no firm dates are known the order that will be assumed for the sets & parts is based on changes & improvements that can be seen in the parts & models. In Phase 1 low wing, parasol wing, & biplane models can be made, all with a propeller. The Phase 2 models are all low wing and probably include jet as well as propeller types. Also the method of

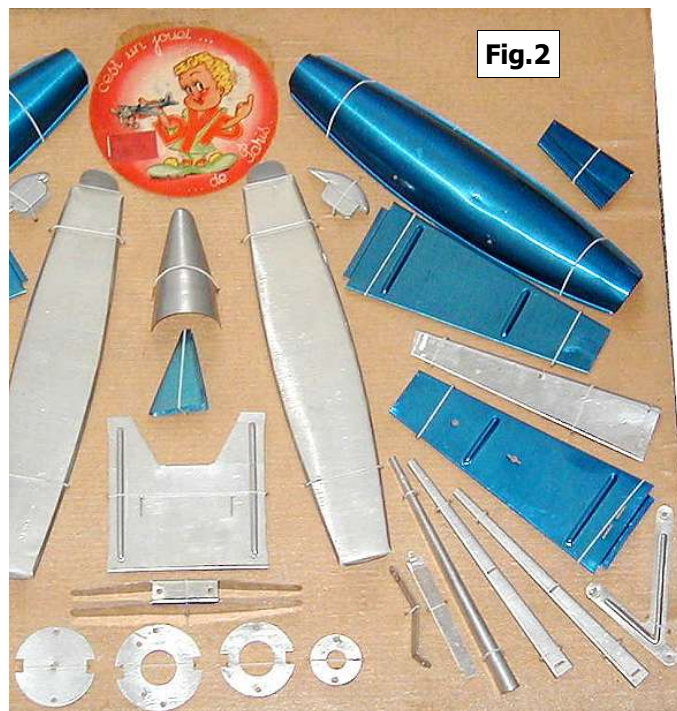


Fig.2



Fig.3



making the fuselage is changed completely and greatly simplified. Phase 3 has an improved method of attaching the wings, a nose-wheel undercarriage (U/C hereafter), a C/W motor to drive the main landing wheels, and later, plastic parts for the empennage (tailplane, elevators, fin, & rudder).

To aid future reference all sets, models, etc described will be given a reference: Av1-1 for the first in Phase 1; Av2-3 for the third in Phase 2; etc.

### PHASE 1

There were 2 basic outfits, Nos.1 & 2, and 2 linking sets, 1A & 1B. The 6 models that could be made with the No.2 are shown on the lid, see Fig 1. Only the Low Wing Monoplane with the wheeled U/C can be made with Set 1. Set 1A adds Floats and parts to convert the 2 Wings into a parasol wing. Set 1B then adds the 2 more Wings needed for the biplane models.

**No.2 Set [Av1-1]** (Figs 1-12) The stout cardboard box, 50½\*40½\*6¼cm, has a hinged lid. It has faded and originally it probably looked similar to the small parts box in Fig 4 below but with wider bands of blue & grey. Fig 1 is the lid label, 30\*26cm, and as already mentioned it shows the 6 models that can be made from the Set. It is signed by Maurice Roubaud. The logo has 'C'est un jouet de Paris' around the edge and the brown pasted slip under the model hides the S.O.F.I.C. name. The parts are on 2 cards, one (Fig 2) clips inside the lid & the other (Fig 3) is in the bottom of the box. Both of these photos show the centre & righthand sides of the cards; with minor exceptions noted later they are symmetrical. Most of the parts are individually tied down with white elastic cord but the Wheels are clipped on & the small parts box is glued to the card. It is 5\*5\*1½cm and is shown below with samples of the parts in it on top.

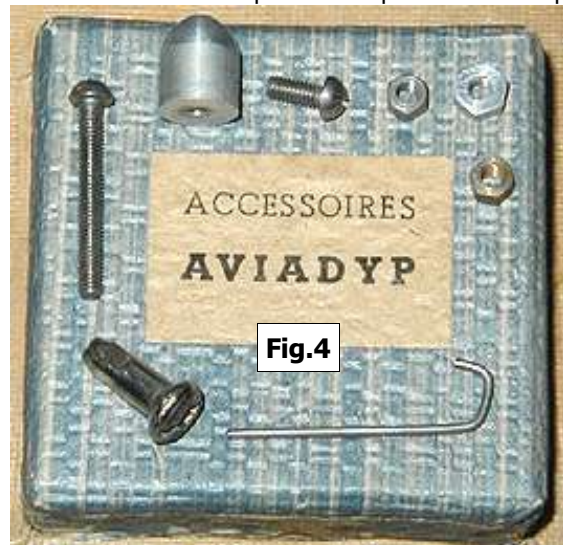
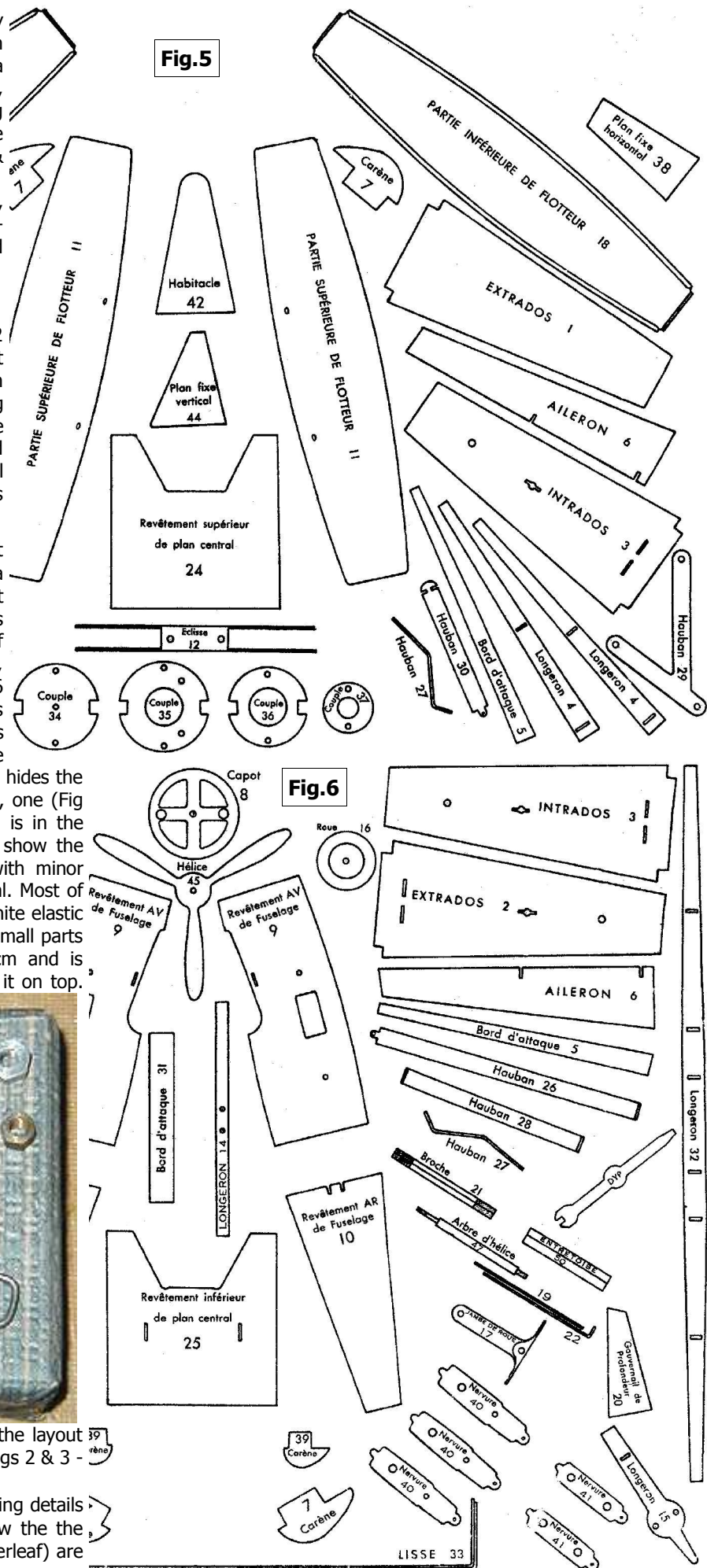


Fig.4

Figs 5 & 6, taken from the manual, show the layout of the parts on the cards & correspond to Figs 2 & 3 - again the LHS has been omitted.

**Assembling the Models** Before giving details of the parts it will be best to describe how the models are built. The 8 stages in Fig 7 (overleaf) are





from the manual, slightly enlarged, and each is supplemented there by thorough notes.

In **Stage 1** the Wing Bracket #12 is bolted to the Frame #35 and the Propeller Shaft #47 to the Frame #34. Then the straight ends of the wire Longerons #33 are passed through the Tail Spar #14, the Fin Spar #15, and the 4 Frames. The parts are spaced apart by Tubes #48-50 and a Special Nut #51 is screwed on to the end of each Longeron.

In **Stage 2** the Tailplane Leading Edge Wire #19 is fitted through holes in the upper of the two Rear Fuselage Skins #10 and then the latter are pushed together, with an overlap along their horizontal join, and pushed into the circular recess of the Fin Spar. The handed Front Skins #9 overlap the Rear Skins except that a tab top & bottom goes under them. They also overlap each other along their top & bottom joins, and the two Studs #21 hold them in place.

**Stage 3** consists of removing the Nuts #51 to allow the Engine Cowling #8 to be pushed over the Front Skins; replacing these Nuts, sliding the Propeller #45 onto the Prop Shaft; screwing on the (non-rotating) Spinner #46 to retain it; and springing the tabs on the Cockpit Canopy #42 into slots in the fuselage.

**Stage 4.** The Fin, Rudder, Tailplanes & Elevators are mounted. All these parts are based on formed U-sections, & Figs 8,9 below (not to scale) are sketches of their assembled



cross sections. The Fin #44 springs into the Fin Spar (Fig 8), and the latter has a pressed out lug which passes into a slot in the Rudder's leading edge. A Wire #22 is pushed through a hole in the lug and one in the lower flange of the Tail Spar to retain the Rudder and allow it to pivot. Each Tailplane #38 slides onto the Tail Spar and the Wire #19 helps to locate their leading edges. Each Elevator pivots individually on the right angled end of a Longerons #33.

**Stage 5** is the assembly of a low wing (see also Fig 16 though this is from Phase 3 & has different PN's - also in Phase 1 both Spars should be like the #23). The Ribs #40 & #41 push into the U-section Spars #4. The Lower Skin #3 is then added with its folded over edges sliding over the arms of the Spars. The U/C Leg #17 passes through the slot in the Skin & is bolted to the Rib. The Upper Skin is slid on in the same way as the Lower one. The Leading Edge springs into the Front Spar and the Elevator pivots on the Wire #23 which passes through the holes in the lugs on the end of the Ribs which poke through the Spar (similar to the Rudder but with 2 lugs). In order that the Aileron will stay in any position it is moved to, the Wire must be curved to spring it against the Spar. To complete the wing the Wing Tip #7 is pushed in and then the wing pushes onto the Wing Bracket #12 - the Inboard Rib is cut back top & bottom (see Fig 17) to allow the tongues of the Bracket to fit between it and the Wing Skins. All that remains to complete the low wing model is to attach the Wheels #16; each is free to turn on a Long Bolt lock-nutted to a Leg #17.

**Stage 6** shows how the floats are mounted. They are spaced apart by Interfloat Struts #28 bolted to the Float Tops #11; the same Bolts are used for the 4 Fuselage Struts #27, their other ends are nutted onto the cross-fuselage Studs #21. The Float Bottoms #18 have turned over sides and these clip over the formed edges of the Float Tops.

**Stages 7 & 8** shows how the wing for a parasol wing model is made & attached. 2 Ribs #40 are fitted in the centre section between the 2 Full-span Spars #32, and the Lower Centre Skin #25 is slid on over the Spars. One end of each V-Struts #29 passes through a slot in the Skin and is bolted to a Rib. The Ribs in each outer wing are put in place and the Top Centre Skin #24 is slid on, also the Centre Leading Edge #31. Each outer wing is built in the same way, as follows. The

Lower Skin slides on and a Wing Strut #26 is attached to it - its small lug passes through the round hole in the Skin and a Wire Pin #52 is pushed through the small hole in the lug to hold it in place. The Top Skin slides on with its joggled end under the Centre Skin #24. That completes that side of the wing apart from adding the Leading Edge & Aileron. To mount the completed wing the ends of the V-Struts & Wing Struts are nutted onto Studs #21. Also on these Studs, the U/C Legs #27, and they are joined at the Wheel end by Strut #28, the part also used for the floats. The Wing Bracket #12 is of course omitted from the fuselage for the parasol wing model.

For the Biplane (see Stage 7) the upper wing is as above except that on each side the Wing Strut is replaced by an Interplane Strut #30. The semi-circular end of the latter is first put into the hole/slot piercing in the lower wing and turned through 90° to keep it in place. Then the lug end fits through the hole in the upper wing and is again held by a Pin #52.

**The Completed Model** I made the Biplane with Floats shown below. On the whole the parts fitted together well though the assembly was tricky in places and a fair degree of force was needed at times. To push the Wing Skins on for example, and removing them was very difficult indeed. The finished model is impressive in many ways, and a joy to behold, but there are 3 weak points. First, the Wing Panels are rather thin and when found often have little dents in them. Second: the method of attaching the lower wings is unsatisfactory; they are unlikely to fall off but can easily be knocked out of true fore & aft, particularly in the case of the



low wing model. (Each of one pair of David's Upper Wing Skins has a 3.5mm hole near the root and if extended through to the Lower Panel it would pass through the tongues of the Wing Bracket #12. The holes are a little rough and were perhaps a 'DIY' job by someone who wanted to bolt the wings in place. But notice that in Fig.15 there is a dot, which could be a hole, in the tongues of the Wing Bracket #6, and matching dots in the Wing Panels #19 next to it.) This problem disappeared in Phase 3 with the advent of the Full-span Spar for the low wings. Third: the wing/fuselage junction is unsatisfactory. The wing's Leading Edge & Aileron end well short of the fuselage, as in Fig 20, and this is the more noticeable because of the small square cutouts at each end of the root of the Wing Panels (needed to make a neat joint between the Centre and Outer Skins in the top wing). Matters are worse underneath, as in Fig 20a, because the curvature of the fuselage increases the gaps (the blue parts are the Upper Wing Panels tight against the fuselage. Eventually, at some point in Phase 3, the cutouts were dropped and the length of the Lower Wing Skin increased by 5mm.

**Phase 1 Parts** A list of those used in the different parts of the models follows, with my English names and a few notes about them. Apart from the steel wires, and unless otherwise stated, all the parts are aluminium. Threaded parts are M2.5



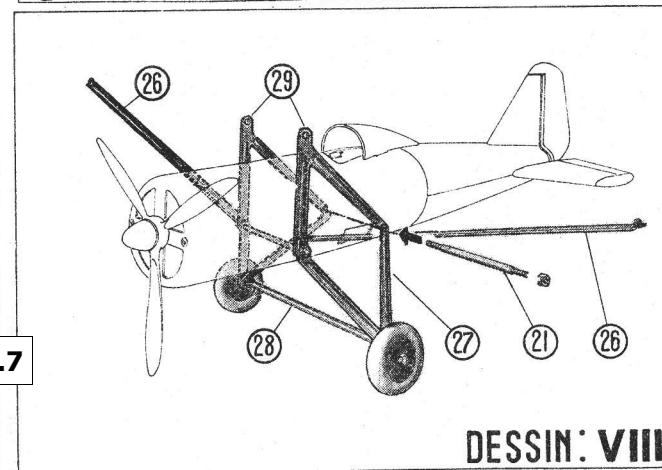
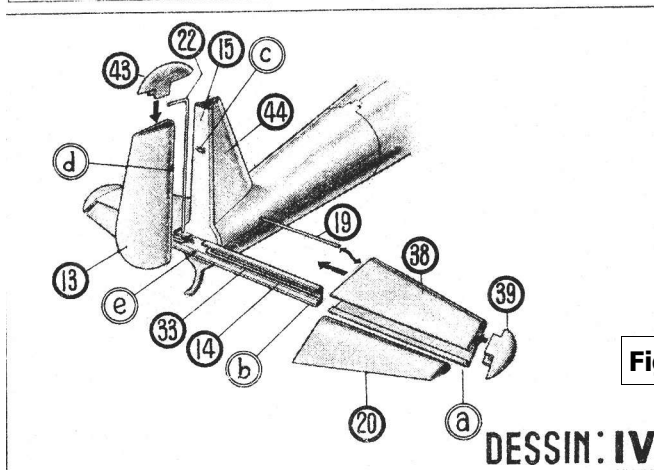
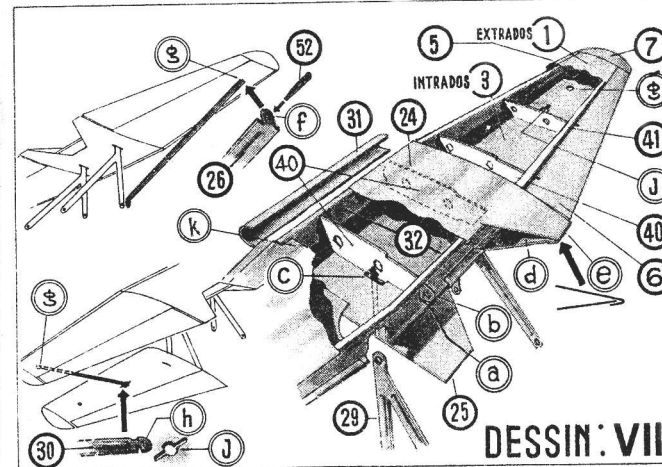
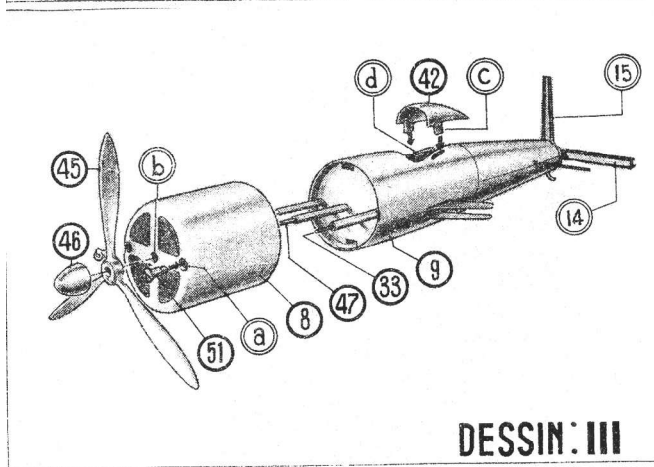
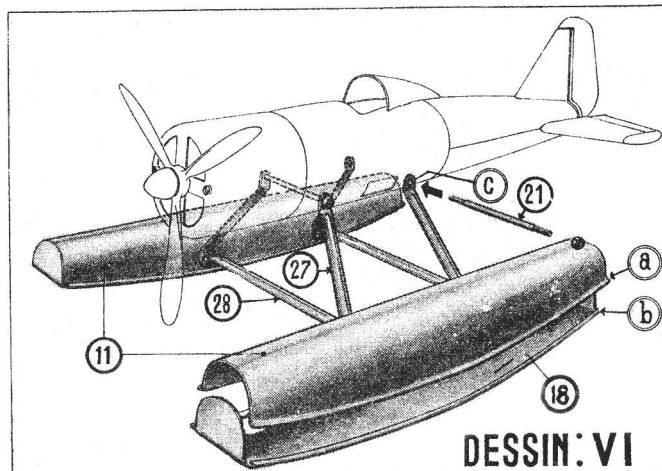
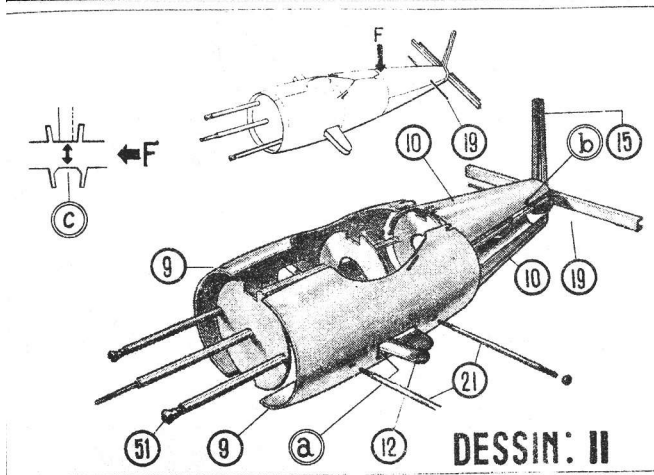
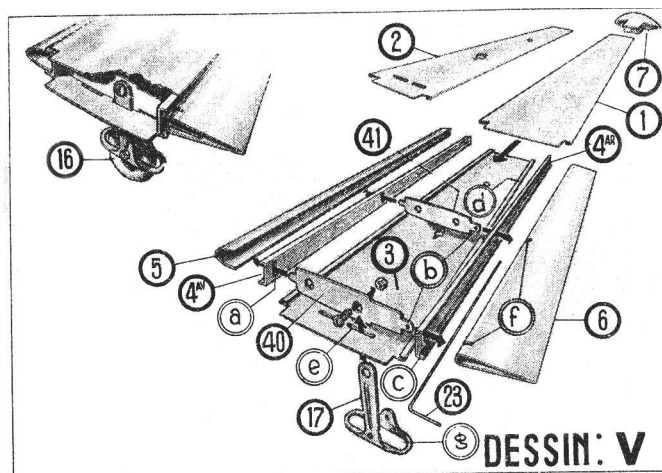
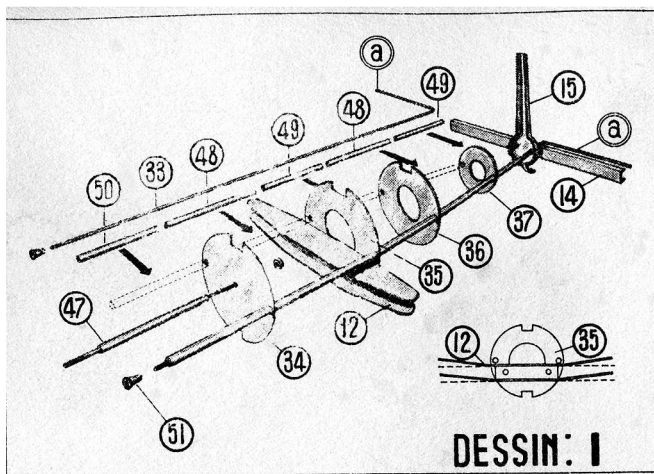


Fig.7

except for the fuselage Longerons.

**Fuselage:** #8 Engine Cowling. A one piece spun part, 42mm Ø. #9,10 Fuselage Skins, Front & Rear. #12 Wing

Bracket. #21 Stud. 56mm long, threaded at each end. #33 Longerons. Actually a 1.7mm Ø wire some 26cm long, threaded M2 at the straight end. #34,35,36,37 circular Frames. #42



Cockpit Canopy. **#45** Propeller. A casting with a slightly rough surface. **#46** Spinner, 8mm Ø, see Fig 4. **#47** Propeller Shaft. 4mm Ø with the ends turned down and threaded. **#48,49,50** Tubular Spacers. (#48,49 are on the LHS of the parts layout instead of the #21 & #50 on the right side.) **#51** Special Nut for #33. It has a head & shank but an internal thread, see bottom left in Fig 4.

**Tail:** **#13** Rudder. **#14** Tail Spar. **#15** Fin Spar. **#19** Tail Cross Wire. **#20** Elevator. **#22** Rudder Pivot Wire. **#38** Tailplane. **#39** Tail Tip (A one piece pressing, like all the other Tips). **#43** Fin Tip. **#44** Fin.

**Wings:** **#1,2** Top Wing Skins. #2 is identical to the Bottom Skin #3 except that, like #1, it is anodised blue. **#3** Bottom Wing Skin. **Note:** some of David's Skins do not have the impressed chordwise ridges. **#4** Short Spar. **#5** Leading Edge. **#6** Aileron. **#7** Wing Tip. **#23** Aileron Pivot Wire. **#24,25** Centre Top, Bottom Skin. **#26** Strut for parasol wing. **#29** Centre V-Strut to support upper wing. **#30** Interplane Strut. Below an alternative form of this part found in David's

Fig.11

lot. It would bolt to both wings & is probably an earlier version because although it would make the model more rigid, it would make assembly even more difficult. **#31** Centre Leading Edge. **#32** Full-span Spar. **#40,41** Long, Short Wing Ribs. **#52** Wire Pin to hold #26 & #30 to the upper wing, see Fig 4, bottom right.

**Landing Gear:** **#11** Float, Top. 21cm long. **#16** Wheel. 28mm Ø solid casting. **#17** U/C Leg, wing mounted. **#18** Float, Bottom. **#27** Z-Strut: fuselage to floats or fuselage mounted wheeled U/C. **#28** Interfloat Strut, also used to space the bottom end of the fuselage mounted U/C legs.

**N&B** with quantities in curly brackets. The parts are shown in Fig 4. The **Bolts**, 6 & 20mm u/h, are plain steel with 4.5mm Ø heads {17,2}. The longer ones are used as axles for the Wheels. The **Nuts** are brass (plus 1 steel), 4.0mm A/F & 2.7mm thick. {21}. The larger Nut, 5.0mm A/F, is aluminium {2}. Its intended use isn't known. The **Spanner** is stamped from thin steel and is 70mm long {2}. One end fits the 4mm Nuts and the other the 5mm.

**The Manual** It has 20 unnumbered pages including covers, 134\*180mm, and is printed in blue with touches of red. C1 is shown in Fig 12. C4 has the DYP boy on it and the printer, CH. Vilers. IMP. PARIS. Otherwise C2-4 are plain but a pocket inside the front cover takes the single-sided sheet, PLANCHE DE LA BOITE No 2, 240\*308mm, which shows the

layout of the parts in the set, and the back cover has another sheet glued to it on the inside, which folds out to show the drawings for the various stages of constructing the models.

pp3-4 has an Intro; pp5-6 have notes on the sets in the system and on the realism of the names used for the parts, and of the construction methods used. Apart from the ditty on p18 the rest of the manual has the building instructions for the 6 models. Model D1 MÉTÉORE, the Low Wing Monoplane, and the only one with a name, is on pp7-11, & D2, the same model but with floats is on p12. The Parasol Wing models D3 & D4, with wheels and floats respectively, are on pp13-14 and p15; the corresponding Biplanes are on p16 and p17.

**No.1 Set [Av1-2]** (Fig 13) Like most sets from all periods this Ebay set has a blue box, and again like most, there are 2 layers of parts. The lid label below shows one model from the 6 on the No.2 lid, the only one that can be made with the No.1

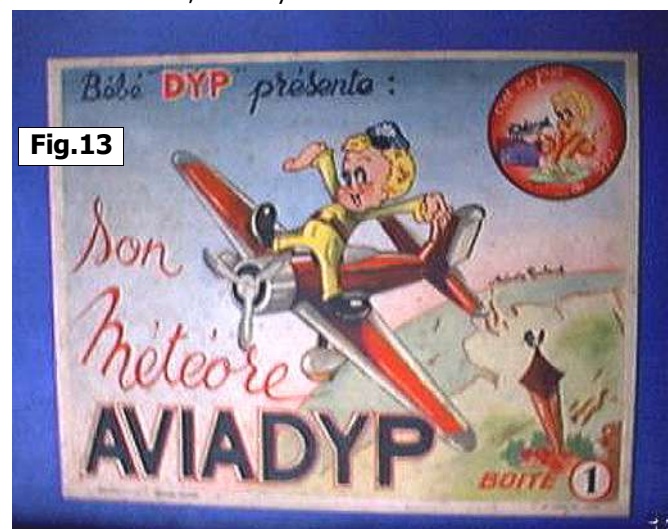


Fig.13

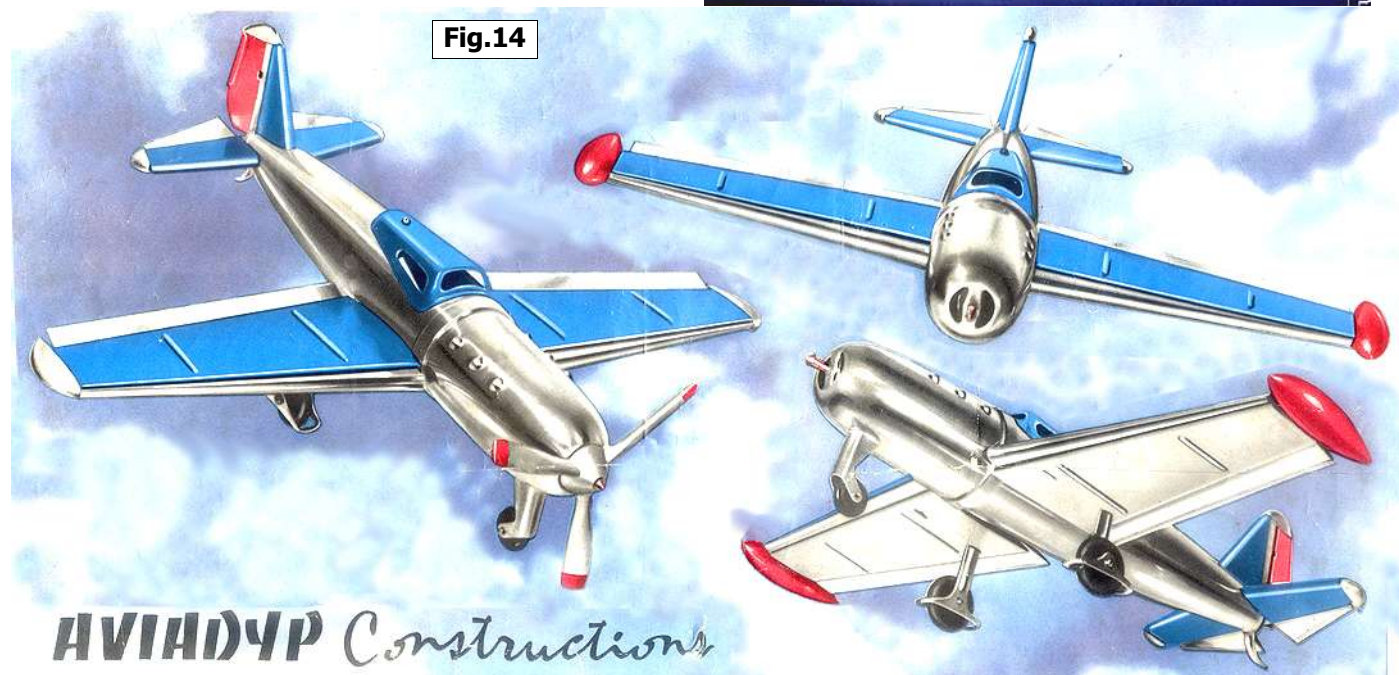


Fig.14



set. The cards for the parts look very similar to those in the No.2 with the same printed designs along the top of the one in the lid. The parts are in the same colours as those in the No.2, and are again attached with white cord.

## PHASE 2

Fig 14 is a publicity sheet showing the basic Phase 3 models, with the propeller machine on the left and the jet version on the right. Apart from not having a nose wheel, the Phase 2 equivalents are similar although in the limited amount of Phase 2 material to hand there is nothing to prove that the jet model was actually in the manual at the time. However the only significant difference between the basic jet and propeller machines was the omission of the Propeller in the former case. The models are about 30cm long with a wing span of 33cm, so virtually identical in size to the comparable Phase 1 models.

Before going into details it is again worth explaining how the basic Phase 2 model is built up.

**Assembling the Basic Model** Figs 15-17 are actually from Phase 3 but are valid for Phase 2 except that both Wing Spars are #23.

The fuselage consists of 2 spun tapering cylinders that push together (just forward of the Cockpit Canopy). They are held by Nuts at either end of a Rod #10 which passes along the centre of the fuselage, from nose to tail. Then for non-jet machines the Propeller is fitted on the front of the Rod. At the back the following are added before the Nut #43: the vertical shallow U-section Fin Spar #9, (with its lower part formed into a tail skid), the shallow U-section Tail Spar #8, & the Elevator Pivot #42. The Canopy #5 is bolted to the fuselage.

The empennage is the same as in Phase 1 except that the pivot #42 is used for the Elevators, and there are 2 lugs in the Fin Spar for the Fin Pivot Wire #18. The wings, see Fig 16, are identical to Phase 1. Fig 17 is the Inner Rib full-size.

**Phase 2 Parts** Figs 18,19 overleaf are the Set 2 parts copied from MCS, but with the left sides removed because the layout is symmetrical through parts #7-45 in Fig.18 and #26-8 in Fig.19 (there are enough parts to make 2 basic models or one with twin fuselages). A list of the parts follows, with again my English names and a few notes about them. Where no comment is made the parts are probably as Phase 1.

**Fuselage:** #1 Propeller. #2,3,4 Forward, Centre, Rear Fuselage. #3 & #4 were soon combined to be one part, as in Fig 15. #5 Cockpit Canopy. An aluminium pressing. #6 Wing Bracket. #7 Circular Frame. #8 Tail Spar. #9 Fin Spar. #10 Fuselage Centre Rod. #41 Axe de l'hélice, not seen. Possibly a sleeve on Rod #10, perhaps locked to it with Nuts, on which the Propeller is free to turn.

**Empennage:** #11 Rudder. #12 Elevator. #13 Fin. #14 Tailplane. #15,16 Tail,Fin Tip. #17 Elevator Leading Edge Wire (see Fig.15). #18 Rudder Pivot Wire, see Fig.15. #42

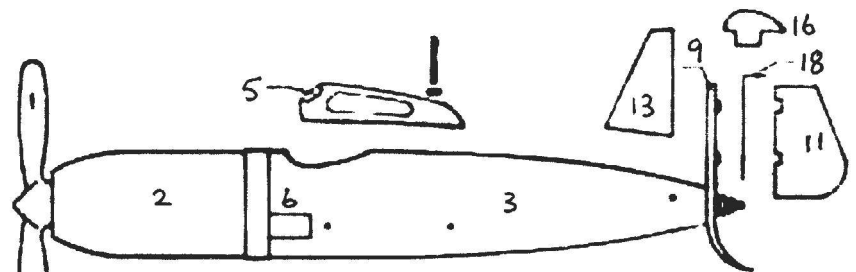


Fig.15

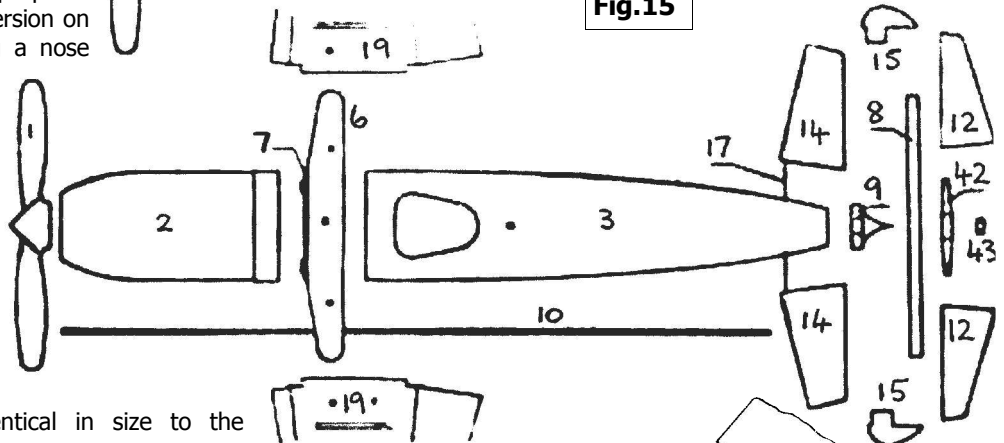


Fig.16

Tailplane Pivot, not seen but see Fig 15 and bottom left in Fig 26.

**Wings:**  
#19,20 Upper,  
#21,22 Lower



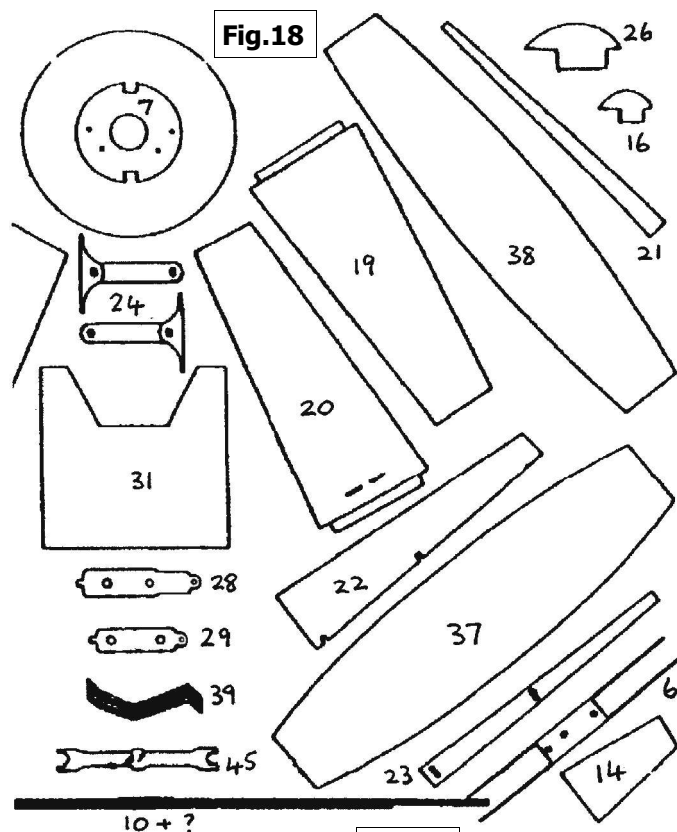
Fig.17

Lower Wing Skins.

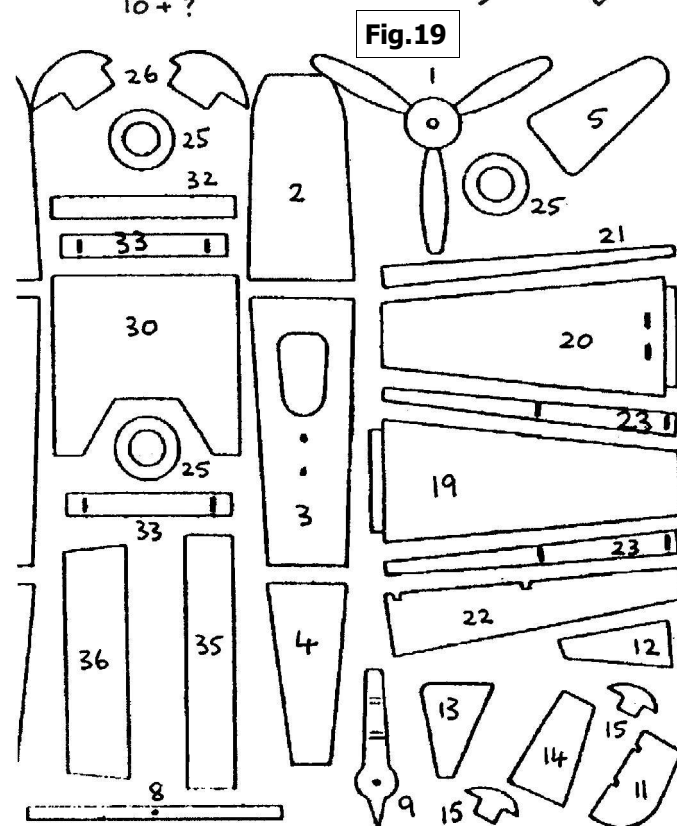
#21 Leading Edge. #22 Aileron. #23 Short Spar. #26 Wing Tip. #17 Aileron Pivot Wire. #28,29 Inner, Outer Wing Ribs.

**Centre Parts** used in the 'twin-fuselage' models, an example of which is shown in Fig 22: #30,31 Upper, Lower Centre Wing Skins. #32 Centre Wing Leading Edge. #33 Centre Wing Spar, 7.5cm long. **NB.** The 2 Centre Wing Spars, 7.5cm long, are spaced by 2 Ribs #28. #34 Traverse d'assemblage, not seen or shown in MCS but probably a Brace





**Fig.18**



**Fig.19**

to join the Tail Spars #8 in the 'twin-fuselage' models. #35 Centre Tailplane. #36 Centre Elevator.

**Landing Gear** #24 Undercarriage Leg. #25 Wheel. #37,38 Float Upper, Lower. #39 Z-Strut, 2 for each float. One end was bolted to the inner face of the Upper Float, and at first the other was bolted to the Centre Fuselage, probably to the Phase 1 Studs. Later, but perhaps not until Phase 3, the Struts were bolted to the Wing Rib #28 as in Figs 28 & 29. This change necessitated a change to the slots in the Lower Wing Skin to suit the holes in the float, 34mm apart. - in Phase 1 they are at 12mm centres, as in Fig 5 & 6. The Rib in Fig.17 with holes at 25mm would seem to be an intermediate stage.

#40 Broche, not shown in MCS but probably the Phase 1 Stud #21. No mention is made of the Phase 1 Interfloat Strut.

**N&B:** #43 Nut. #44 Bolt. #45 Spanner. None of these parts have been seen.

**The Sets & Models** As in Phase 1 there were two basic sets, Nos.1 & 2. No.1 was broadly equivalent to the Phase 1 outfit and allowed the propeller, and probably, as explained earlier, the jet variant of the Low Wing Monoplane to be made. Set 2 was very different to the earlier outfit. It included floats but otherwise the extra pieces were another fuselage and sufficient parts to allow two basic models to be made at the same time, or a twin-fuselage model similar to the type in Fig 22.

**No.1 Set [Av2-1]** (Fig 20) The Ebay photos show a 2-layer set in a blue box with a label identical to the No.1 of Phase 1 (Fig 13). Unusually the parts in it are all silver. Fig 20 shows a



**Fig.20**

**Fig.20a**

model made from similar parts. It has the 3 section fuselage & is similar to David's model apart from the colour of the Upper Wing Skins. As mentioned earlier Fig 20a (David's model) shows the gap between the wing & fuselage on the underside (the blue parts are the Upper Wing Skins tight against the fuselage). The Set's manual has a cover exactly like that in Phase 1. It also has a sheet showing the layout of the 2 layers of the parts in the box.

**Two No.1 Sets [Av2-2]** These appear identical to Av2-1 except that the Upper Wing Skins, the Canopy, the Fin, & the Tailplane are anodised blue, and the Rudder red. Coloured parts are seen in nearly all sets, sometimes red but much more often blue. A parts layout sheet, like the one in the Av2-1 set above, can be seen with one of the sets.

**No.2 Set [Av2-3]** (Figs 18,19) The parts in this outfit are shown in MCS but no actual set has been seen. One wonders what lid label was used for it. The Phase 1 No.2 label would hardly have been appropriate since the models possible with the two sets are so different.

### PHASE 3

Changes to the packaging occurred at or about the time, no doubt when the new parts, sets and models were introduced. Initially the main changes to the models were the nose wheel U/C, a full-span Wing Spar, a C/W Motor, and a second type of fuselage. Also various parts were no longer metal. Later more plastic parts were introduced, notably for the empennage, and there was a third variant of the fuselage.



Only Sets 3 & 4 are known from this Phase. All those seen, save Av3-1, have a 2-piece fuselage, a Wing Spar #50, a C/W Motor, Wing Tip Tanks as well as Tips, & the nose wheel U/C. The No.3 is basically the equivalent to the Phase 2 No.1 except that it has a Motor. The No.4, aside from what may be an early example (Av3-2), is an extension of the No.3 with floats and a different second fuselage, but none of the centre wing & tail parts that were in the Phase 2 No.2, and only enough of the main wing & tail parts to make one model at a time. Presumably sets smaller than the No.3 existed, and perhaps did not include a Motor.

**The New Parts: #46** Nose Wheel Leg. It is shown in place in Fig 21; the Rod 10 passes through a hole in the upper part of the Leg but it isn't clear if Nuts are used to hold it in place. **#48** Wing Tip Tank, plastic and often called 'Rockett' in the instructions. **#50** Full-Span Wing Spar. It is probably a little shorter than the #32 in Phase 1. **C/W Motor** It drives the Wheels and can be seen in place above. It can only be fitted to fuselages that have a special large hole in their underside, see the left fuselage in Fig 26. The Rod 10 passes through holes in the casing, but again it isn't clear if it is held fast on it. The Motor unit has Wheels, often 2 on each side, and of course replaces the standard wing-mounted undercarriage. • The various **fuselages** will be described as they occur, but apart from the two main changes, many variations in the cutouts & pressed through 'bobbles' (air intakes, exhaust stubs, etc.) in the Nose Section are found. • A plastic **Propeller**. • Rubber **Wheels**. • The Phase 2 **Cockpit Canopy** was used at first but was then replaced by a clear moulded bubble canopy. • A plastic **Nose Cap** to fit to the jet model.

In the sets & models which will be described the new & modified parts once mentioned, continue in later items unless otherwise stated.

**Packaging** There were two main changes. a) The new lid label shown in Fig 25, with the Set No. in small letters after the name. b) The cards for the parts, yellow usually, with the outline shapes of the parts, and their names & PNs, printed on them. This no doubt obviated the need for a Sheet showing the layout of the parts.

**No.4 Set [Av3-1]** (Figs 22,23) This outfit is in a blue repro box with a new style label. The parts, on 2 plain yellow cards, seem to be similar to a Phase 2 No.2, except that only one set of wing & tailplane/elevator parts can be seen, and only one Centre Wing Skin. If the Set is complete, as was claimed, the 2 Centre Skins must be one on top of the other, and if so other parts could be similarly stacked. But even then there are only 2 main U/C Legs and so if two models at the same time were possible one would have to be a floatplane. Of the new Phase

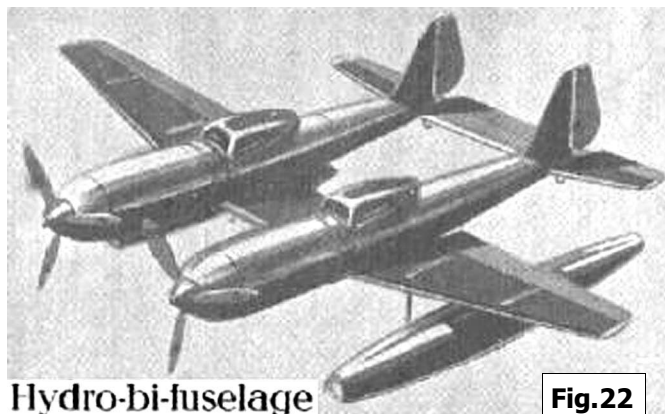


Fig.22

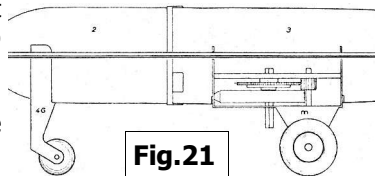


Fig.21

3 parts only 2 Nose Wheel Legs & 2 Wing Tip Tanks can be seen. The Set is suspect because of its repro box, & the backing cards may not be original either, but if the lid label is the right one for the set, and if the contents are genuine, it could date from very early in Phase 3.

The booklet with the Set is shown right and B&W photos of models can be seen inside it, 2 to a page. One is shown in Fig 22, and other model names mentioned are Chasseur à Réaction and Chasseur Météore for the Low Wing Jet and Propeller models; and Chasseur Thunderjet. Also shown was a sheet with detailed instructions including the drawing at Fig 15.

**No.3 Set [Av3-2]** This No.3 has 2 layers of parts in a blue box 28\*38cm. It has a Motor but also the normal U/C Legs. 4 black Wheels, no doubt rubber, are included and 2 are to be used on each side of the Motor. The Wing Tips & Tanks look to be plastic, but the Cockpit Canopy is metal. A change to the wings: the small square cutouts at the root of the Upper Wing Skin have disappeared & the root of the Lower Wing Skins is shaped to fit around the Motor (see Fig.26). Also the Lower Skin is 5mm longer to reduce the unsightly gap between wing & fuselage.

**No.3 Set [Av3-3]** A similar set to Av3-2, but in a red box, with red Upper Wing Skins & Rudder, and a Clear Canopy. The Propeller is red and probably plastic.

**No.3 Set [Av3-4]** Another No.3 similar to Av3-3 but in a blue box with the coloured parts blue rather than red, and it has a plastic Nose Cap to fit in place of the Propeller on the jet models. The box is 38\*28cm.

**No.3? Model Leaflet [Av3-5]** (Fig 24) This is an orange sheet 53½\*36cm folded unequally into six. One side has just the cover right, 18\*24½cm, on it; the other has instructions for the basic low wing jet and propeller models, called respectively Chasseur Météore and 'Réacteur F84 F106' There are clear line drawings for the propeller version and written explanations which also cover the jet variant, including fitting the Nose Cap. Both types of Cockpit Cover, metal & clear, are mentioned. The wing shown (Fig 16) has the Full-span Spar. This Leaflet was with some of David's parts and seems to fit the parts in the No.3 sets Av3-2, Av3-3, & Av3-4.



Fig.24

**No.4 Set Av3-6** (Figs 25-29) This is Jacques' No.4 set - the lid label and the parts are shown overleaf. The box is 45\*35½\*5cm and the upper layer of parts (Fig 27) are on a card 35\*34½cm. The contents are an extension of the No.3, with floats and an additional fuselage. But not two sets of wings & tails, and none of the centre parts. So one model can be made, jet or propeller, with floats or wheels, and using either of the 2 fuselages. The fuselage on the right is the normal 2-piece type; the left one (with the same PN) is called a 'Transport' fuselage. It is upside down in the box so the large hole is for the Motor and the one towards the nose is for the Nose Wheel



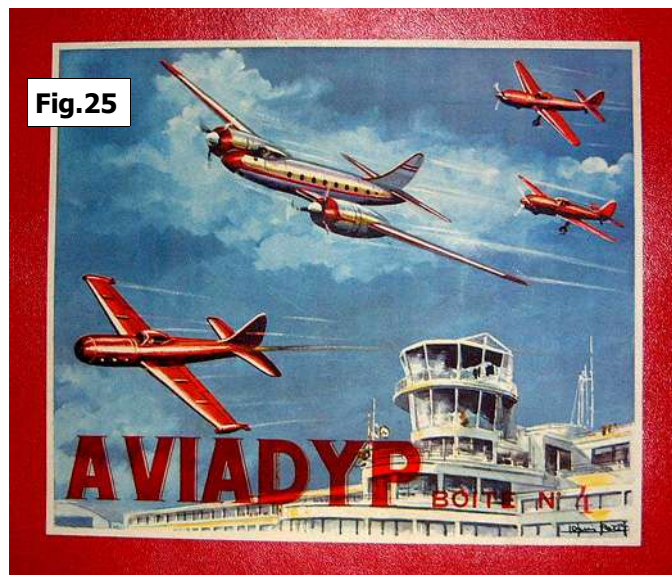


Fig.25



Fig.26



Fig.27

Leg. There is no cockpit opening but instead the Forward Fuselage is pierced with 3x 5mm Ø windows along each side, and an elongated hole across the nose as a cockpit window (not as shown in Fig 29). The Rear Fuselage has a row of 4 matching 5mm Ø windows on each side. The Propeller, yellow with red tips, is plastic. No provision was originally made for

the Motor on the backing card; a Wheel is printed on the card under it and 6 new holes have been made to take the rubber bands which hold it in place.

There were 2 model sheets with the Set. One is the Av3-5 item already described. The second is a sheet 48½\*31cm, folded in 4, with a similar front panel. One side has the

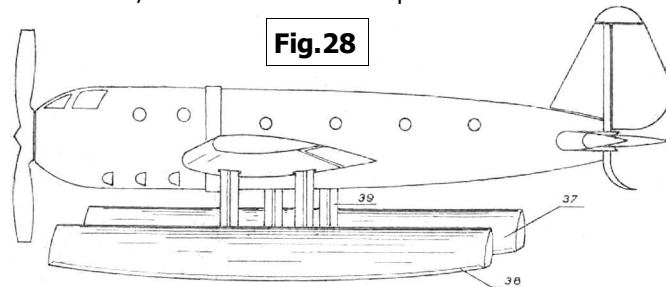


Fig.28

instructions for the models in the first Leaflet; the other those for 2 Floatplanes using the two different fuselages. The model with the Transport fuselage is shown here (though the window piercings are different in the actual parts). As can be seen the floats are attached by Z-Struts bolted to the Wing Ribs and there is no Interfloat Strut between them.

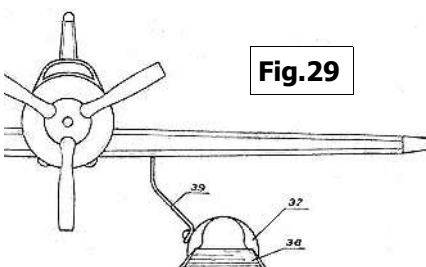


Fig.29

**No.3 Set [Av3-7]** (Figs 30,31) The box lid and a model made from it are shown below. The main change here is to the



Fig.30

tail which is quite different & looks to be plastic. In another photo it can be seen that a tongue at the bottom of the yellow Fin pushes into a slot in the top of the fuselage & then slides along into position. The green part may be a separate Rudder. The green, one-piece Tailplane probably pushes onto the back of the Fin, & there is no indication of separate elevators. The Front Fuselage is fitted with the Nose Cap. To my eyes the yellow & green parts don't improve the look of the model. The Leaflet (or booklet) right was with this Set. As can be seen its front is new and no doubt it includes instructions for the new-style tail assembly.



Fig.31

**No.3 Set [Av3-8]** (Fig 32) This No.3 (see Fig 32) has a box with what seems to be one layer of parts but its size is 28\*38cm as before. The main change is that the cockpit opening is in the Front Fuselage. The tail is the new type with a yellow Fin (it partly overlays the Meccano box), a tricolour





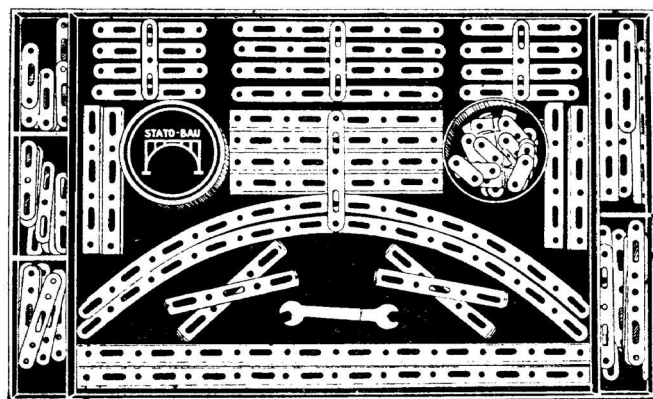
Fig.32

AVIADYP: S10

OSN 35/1060

**STATO-BAU** This is about what little is known of this small German system. The maker was H.G. Schöneberg of Dünne-Bünde I.W. Baukästen gives the name as Heinz-Georg Schöneberg, and says that the company existed from '(1938) to 1960', but technical toys were not produced after 1953. Also that there were sets in 7 sizes with nickel parts. One small set is shown and will be described later.

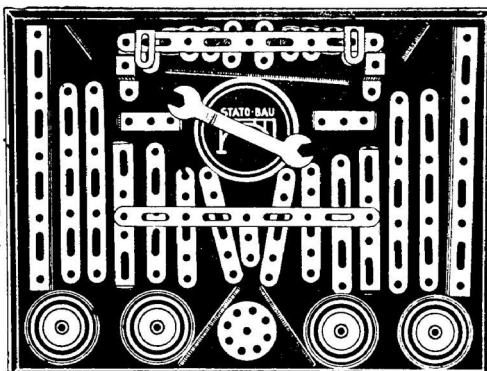
A brochure to hand lists 3 main sets: No.47 with 303 parts, 48 with 474, & 49 with 574; plus connecting sets 47a & 48a. All were available with either nickel or coloured parts but no specific colours are mentioned. There are no pictures of the sets but the layout of the parts in Nos.47, 47a, & 48 are shown, as below for the first two. The parts at each end of the



Nr. 47



Nr. 47a



top row in 47a are Double Bent Strips - they can be better seen in the No.48 but otherwise all its parts are clearer in the sets above. It has two of the small parts boxes. MCS gives the hole size/pitch as 3.5/10mm, and the number of different parts as 27. The axles appear to be Threaded Rods.

The Baukästen set has nickel parts and is said to be from 1948. It has a different mix of parts to the sets above, with Strip parts, a Wheel Disc, but no Wheels. Two of the small

flash on the 'Rudder', and a red Tailplane. The Set seems to be fairly complete except that no Motor or Main Undercarriage Legs can be seen.

**No.3 Set [Av3-9]** This Set is very similar in content to Av3-7 but the parts are packed in one layer. The box is red and so are the Upper Wing Panels. All the expected plastic parts can be seen but their colours are mostly different with a blue Fin & yellow Tailplane. The Set looks complete & the Motor has 2 Wheels on each side. No separate main U/C Legs can be seen.

**Model [Av3-10]** This model has the cockpit opening in the Front Fuselage and could have been made with the parts in the the Av3-8 No.3 set except that the Rear Fuselage has 3 of the round 'windows' along each side.

parts boxes are included with lids as in the brochure sets, in light blue. The manual cover is like the one below (an Ebay



snip). The lid is edged in yellow; on the right inside this frame is the same scene as on the manual but in B&W, and a white panel on the left has the firm's bridge logo on it in black.

The manual cover doesn't bear the STATO-BAU name unless it's under the tiny black logo in the bottom left corner. The same manual was with the only other set seen, another Ebay item with the lid below. It's too blurry to see much detail but perhaps the Bridge is made from STATO-BAU parts, including those long Curved Strips. Again the STATO-BAU name can't be seen - the words under METALLBAUKASTEN are probably the slogan on the manual cover: für den kleinen Ingenieur. I can't work out what the boy is doing, or the words over his head. The base belonging to the lid is in matching purple and had a few straight Strips in it, plus two of the light blue parts boxes, but no circular parts.



STATO-BAU: S1

OSN 35/1060



**ELECTROLYNX** David Hobson kindly lent me a recently acquired, still strung, & hitherto unknown, LYNX outfit with the ELECTROLYNX name on a pasted-on label on the lid (right). The words under the name are 'The New Constructional Toy with the Electric Motor'. There were 8 identical model leaflets, or possibly fliers, with the Set.

The Set is thought to be from Phase 4 (see 16/439 & 19/552). One reason is that the maker's name on the Leaflet is Lynx (Toys) Ltd., Sefton Road, Morecambe, Lancs. Also since OSN 16, a No.5 set from Phase 4 has been seen: its box is similar in size to the present one, 15½\*8½", it has an identical label, and like the Electrolynx set it has the small green label top right which offers the set's owner a free gift on his or her birthday. The packaging is also the same and some of the parts are unusual and common to both sets. A piece of newspaper dated May, 1952 was found in the bottom of the No.5 box.

The main parts in **the Set** are shown right and those in the small yellow box, below. This box was originally strung but the cardboard box on its left, which houses the Motor, was stuck to the backing card. The parts in an inventory given in the Leaflet are listed below, and apart from a few packing errors they correspond to the actual contents. The names for the parts are as used in earlier articles and it will be noted if the parts differ from the LYNX norm. All the parts except the Hook, but including the d/t bosses, are steel.



- 4,10,2,2x 11,4,3,2h **Strips**. The 4h are red in the No.5.
- 2x 1\*3\*1h **DAS**.
- 6x 2\*2h **A/Bs**.
- 2 **Double Brackets**.
- 1x 5\*7h **Flanged Plate**.
- 4x 3\*7h **Girder Plates**.
- 3x **Slotted Wheels**.
- 2x 1" **Pulleys**. They are

brass plated like those in the No.5, a finish not seen before.

- 2 **Balloon Wheels**. 1¼" Ø, but 1½" in the No.5.
- 4 **Discs**. 1½/16" Ø as in the No.5.
- 1 **Crank Handle**. • 2 **Axles**.
- 24 **N&B**. Plain steel. • 4 **Spring Clips**. Nickel.
- 1 **Hook**. Brass wire, flat, 22mm long o/a. The flat sheet metal type is shown on the models in the Leaflet.
- 1 **Screwdriver**. The No.5 has the small electrical type.
- 1 **Spanner**.
- 1 **Electric Motor**, below, to be used with a 4½v battery. Its

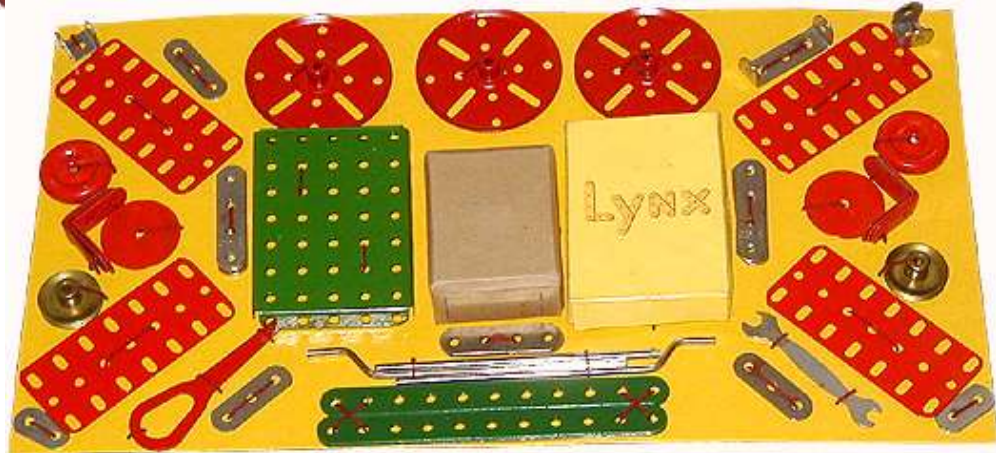
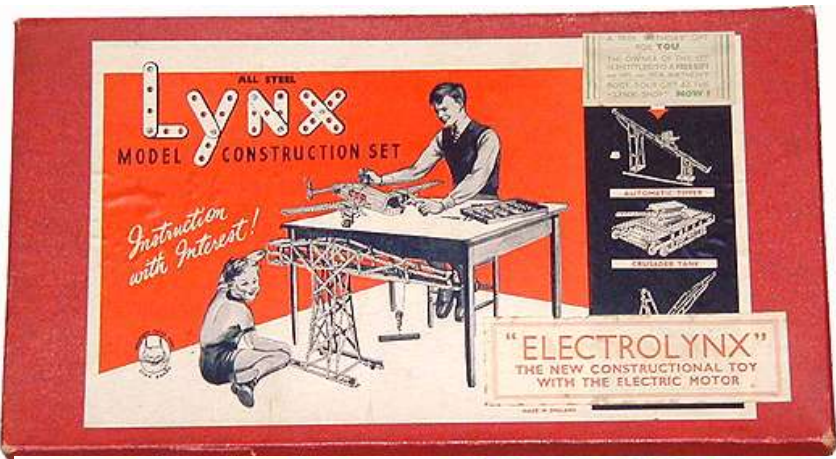


body is 1" Ø & 9/16" long, and the mounting holes are at 1 & 1½" centres. The brass pulley, 10mm o.d. with a 2mm Ø throat, is fastened with a tiny grub screw.

• 1 **Manual**. This may be the Leaflet already mentioned, it has details of 11 models in it. A standard Phase 4 manual is shown with the Set in a photo of it in the Leaflet, but with the limited range of parts in the Electrolynx, only a few of the standard manual models would be possible.

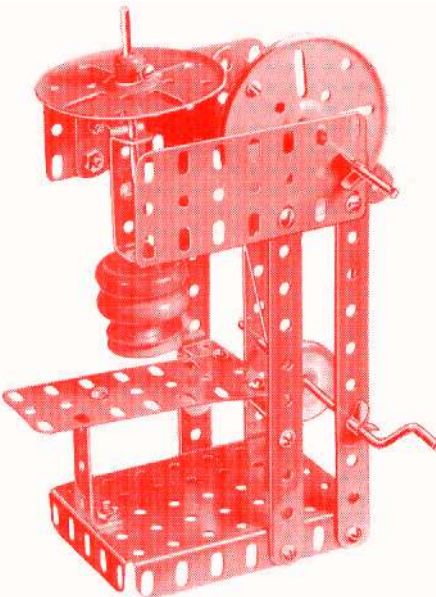
• Also in the Set but not in the inventory, a small knot of red **Cord**, like the stringing cord.

The **Leaflet** is a sheet 213\*270mm, printed in red, and folded in two. The front has a plug for the the Set -The



SENSATION of the Year' and one model, the POWER PRESS below, actual size. Inside are 8 models from WINDMILL to LIGHT LIFTING CRANE. On the back are 2 models, POWER CIRCULAR SAW & FAIRGROUND DIVE BOMBER, the inventory, and the photo of the Set. There is a photo for each model, mostly rather dark, and a Parts Required list. All the models are about the same size and complexity, and none show the Motor or how it could be mounted. Some have a 1" Pulley that could be driven from the Motor, but not all, and in some both of these Pulleys that are in the Set are used for other purposes. I would guess that at a minimum the little Motor would need to drive a pulley made from 2 of the Slotted Wheels, but this would only be possible in a few cases.

According to pencilled prices on the boxes the No.5 cost 38/3 & the Electrolynx 27/6. In 1952 a No.3 MECCANO cost 27/11 but no small electric motor was available until the EMEBO in 1962, when it cost 19/6.



### Power Press

#### Parts Required :

- 1 Baseplate
- 4 11-Hole Strips
- 3 7 x 3 Girderplates
- 3 Slotted Wheels
- 2 Pulleys
- 2 Balloon Wheels
- 2 5-Hole Brackets
- 4 4 Hole Brackets
- 2 3-Hole Strips (Fitted to double slotted wheel for lifting ramp).
- 1 Crank Handle
- 2 Axle Rods
- 4 Spring Clips
- 24 Bolts (4 in wheel bosses)
- 20 Nuts
- Twine or Rubber Band for Driving Belt.



**CONSTRUCTION in 2006** Compared with 2005 (see 34/1023) the 2006 brochure has 8 new sets & 2 have been dropped. The current range of sets, with the new ones asterisked, is 02,04,06,07,08,09,10,12,14,16\*,18\*,22\*,30,31,32,51\*,52\*,53\*,54\*,60,61,62,64,66,72,74,75,76,81,84\*,85,86,87,89,90,115,155. No.115 is one of the Parts Packs but since it appeared in 2003 it has also been listed as an add-on for the No.31 Loco outfit (see 27/795). It has a selection of parts including a small Motor, a Battery Box, Gears, & 4x 25h A/Gs; enough perhaps to make a length of track and make the wheels go round with the model raised above it. The new sets have the dark background style of box, as No.16 below right, & the boxes of Nos.61,62,75 have been changed to this type.

**Sets deleted** are **No.15**, a medium sized set with a Motor to make fairground models (see 14/383), and **No.88**, a small set for Lorries using the smallest Road Wheel (see 31/910).

**New Sets Nos.51-54** are very small outfits with one model shown for each, a Helicopter, Biplane, Lorry, & Loco respectively. All run along on the smallest Road Wheels and are probably about the smallest models possible using them. **No.16** has 230 parts and uses same size Wheels but the 4 featured models are quite realistic looking. Said models can be seen on the box lid right, and the model below shows the new



(I think) plastic body parts. Notice on the lid the two Spanners on the left. The bottom one is the usual Eitech pattern; the one above it has the ring end encased in red plastic with a hex opening on one face and a circular one on the other - thus it

PS A new 'supermodel' has been added to those in the 2005 catalogue, a very large and detailed model of Tower Bridge, with all nickel parts.



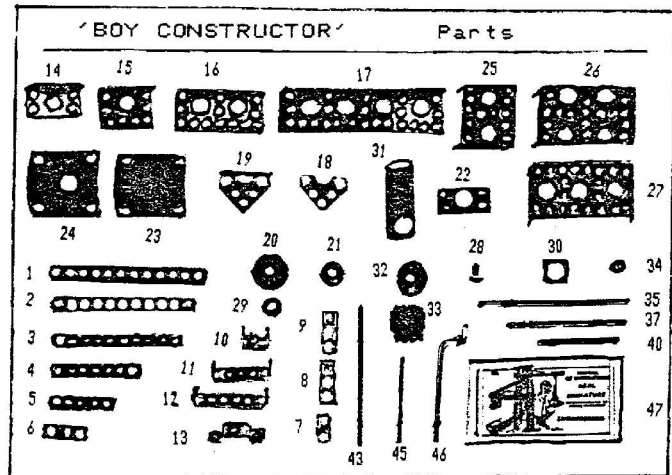
can be used as a nut carrier. **No.84** has 200 parts and the lid shows 3 fairly simple Tractor/Loader models, all with the medium Road Wheels. **No.18** is a 500 part set for Cranes. As can be seen in the model below the innovations are a Cab with a little Figure in it, the long Tracks, and a Geared Ball Bearing. **No.22** is the main new addition, a set to make one of 3 radio controlled vehicles. An example is shown bottom left; the others have slightly different bodies. Like the current MECCANO product all look to be built up on a Unit which contains the motor plus the drive & steering mechanisms. The radio is 2-channel (27/40MHz) with on/off switches. In August new sets were being offered on German Ebay from €50 to €75.

**Parts Packs** These continue as before but with 2 additions. **No.121** has 2 LEDs in holders and a 2x AA Battery Holder; **No.122** has a 1m length of Ladder Chain, shown around a blue plastic Gear, with 1 link per 2 teeth probably - a very useful and long needed addition to the system.

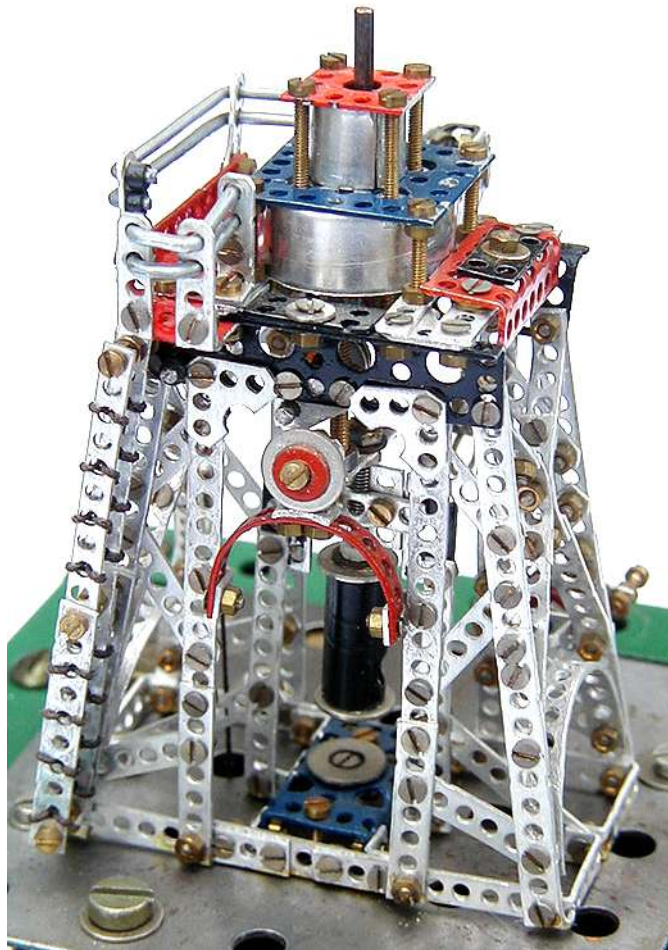
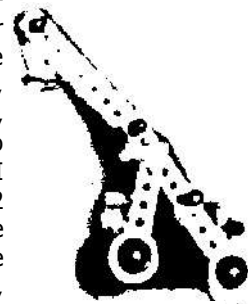
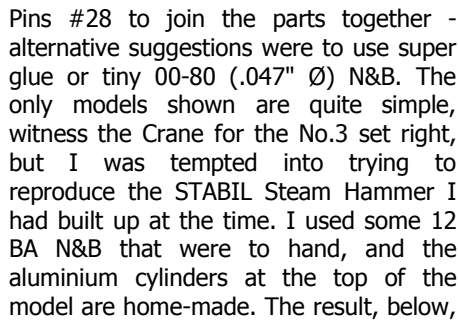




The 50 or so parts in BOY CONSTRUCTOR are shown below



and are listed in the set contents at the bottom of the page. All are aluminium, some painted, and as can be seen they include Strips, Flanged Plates, DAS, Brackets made from the Strips, Wheels, Axles, a Boiler, & a Digger Bucket. Holes are from .05 to .06" Ø at a pitch of  $\frac{3}{32}$ " (2.4mm, about 11 holes/inch). The Strips are about 3mm wide; the Wheel is a 7mm disc with a smaller red disc glued to it; and the large holes in the Plates are  $\frac{1}{8}$ " Ø. The basic parts have a distinctive (and to me attractive) look. Of the 'special' parts I've only seen the the #33 Boiler and at 13mm long it looks too small in relation to the basic parts, more like a MECCANO Cylinder. #34 Plastic Stopper is a short length of plastic tubing to act as an Axle Stop and it was suggested that these might be used with the



'BOY CONSTRUCTOR'						Contents of Sets.					
Part No.	Description.	Set No's	3	7	10	Part No.	Description.	Set No's	3	7	10
1	Strip 12 hole.(Red)		-	5	1	24	Curved Plate (12.7mm Square, Red With Hole)		-	1	1
1a	(Alum)		3	-	6	25	Flanged Plate (3 x 4 Hole, Blue)		1	-	4
2	' 11 ' '		5	5	7	26	' (3 x 7 ' ' )		1	-	4
3	' 10 ' '		-	2	20	27	' (8 x 4 ' ' )		-	1	-
4	' 7 ' '		4	2	11	28	Pins		5	8	8
5	' 5 ' '		6	4	26	29	Washers		10	8	10
6	' 3 ' '		5	4	18	30	Small Square (Brass, holed)		4	4	4
7	Angle Bracket (1 x 1 hole)		18	4	20	31	Boiler (Black)		-	1	-
8	' (1 x 2 ' ' )		2	2	4	31a	(Alum)		-	-	1
9	' (2 x 2 ' ' )		-	-	4	32	End (Red)		-	1	1
10	Double Angle Strips (1 x 1 hole)		2	2	8	33	Digger Bucket (Black)		-	1	1
11	' (1 x 3 ' ' )		2	2	4	34	Plastic Stoppers (Black)		10	15	20
12	' (1 x 4 ' ' )		-	1	2	35	Axle Rods (32mm x 1.5mm)		-	-	1
13	Stepped Double Angle.		1	1	2	36	' (28mm ' ' )		-	1	1
14	Angle Girder (1 x 1 x 4 hole Yellow)		2	-	4	37	' (25mm ' ' )		1	-	1
14a	' (1 x 1 x 4 ' Alum)		1	-	-	38	' (22mm ' ' )		-	1	1
15	' (1 x 2 x 4 ' Red)		-	4	4	39	' (19mm ' ' )		2	2	10
16	' (1 x 2 x 7 ' ' )		-	4	-	40	' (12mm ' ' )		2	8	10
17	' (1 x 2 x 13 ' Black)		-	2	2	41	' (10mm ' ' )		-	2	2
18	Flat Trunnion (Red)		-	-	2	42	' (6mm ' ' )		-	6	2
19	Bent ( ' ' )		4	4	4	43	' (32mm x 1.2mm)		2	-	3
20	Wheels (Red/Alum)		4	4	4	44	' (19mm ' ' )		5	-	4
21	Pulleys (Brass)		2	2	4	45	' (12mm ' ' )		4	2	6
22	Flat Plate (2 x 4 hole Black)		2	-	9	46	Crank Handle		2	2	2
23	Curved Plate (12.7mm Square, Red)		-	1	1	47	Instruction Manual (Imitation)		1	1	1



was quite satisfactory though considerable patience was needed with the tiny parts. The model is mounted on a base made of VOGUE which houses a commercial motor, and a simple home-made mechanism to operate the tup (the black Boiler which can be seen through the opening at the front of the model, raised a little above the Wheel acting as a platten). The tup & piston rod slide in a crosshead at the bottom and a bearing at the top; they are raised & dropped by a cord from the top of the tup which runs over a pulley down into the base. It all works surprisingly well. There is a hoist at the back of the model hand operated by a crank which can just be seen on the right side.

The 3 sets produced were packed in small red boxes, 1\*1½" in cardboard for the No.3, 1\*2" in wood for the No.7, & 1½\*2" in metal for the No.10.

In a 1987 catalogue only the No.3 & No.7 sets are listed and they are called **MICRO-BUILDER**. The boxes are different too, both 1\*2", in cardboard for the No.3, and wood with a hinged lid for the No.7. Later on after BRIAN BUILDER with entirely new basic parts was introduced (see below), one **BRIAN BUILDER** set with BOY parts continued to be listed. In 1993 it was called Set 10 (it may have been Set 0 earlier) and was in a cardboard box 1\*1½\*4". In 1998 it was called the M-1 Micro Set, and was in a red cardboard box, 18\*28mm.

**BRIAN BUILDER** Around 1989 a range of new sets of this name, with completely different basic parts, replaced BOY CONSTRUCTOR. Details are shown across the bottom of the page and the basic parts are totally different in character with 4.0mm holes at ½" pitch, and 6-32 N&B used to join them. The models are still quite small but only because they are in

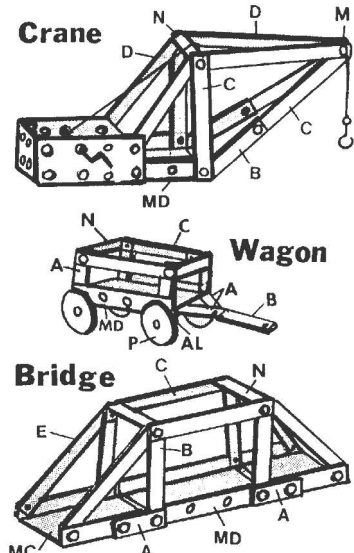
the nature of 'simplicity' models.

All the parts are steel and are nicely enamelled, but in a mix of colours, yellow, red & blue, something of a contrast with the more restrained BOY colour scheme. I have only seen a few basic parts - the Strips are .28" wide, the Disc Wheel P is ¾" Ø, and PO is a 6-32 Washer. TH is a Screwed Rod and the Crank Handle is supplied with a Collar.

The first outfits with the new parts were the No.1, the No.7 Steam Shovel Set, & the No.10 Master Builder Set. 1 & 7 were in red cardboard boxes, 1.5\*2.5\*9" & 2.2\*3.2\*1,4" respectively. The No.1 contents are: 1x M,MD,CR,HK; 2x MA,N,ME,MF,MEO,MFO,MC,PO; 4x A,D,E,AL,P; 8x B,C; 17x SC; 21x NT. No details are to hand for the other sets.

The Set 1 manual has 8 landscape pages including covers, 137\*102mm, with the Bridge below right on the front. Details of the sets & parts (as below), & the No.1 inventory take up all but 2 of the other pages. The models are 7 small items of furniture for the No.0, and 2 more for the No.1 plus the three models right.

The only No.7 model I've seen is the Digger shown below left.



## Micro CONSTRUCTION SETS

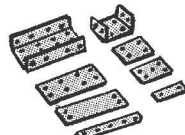


Hello boys!

My dandy little construction sets have tiny steel parts painted in brilliant colors and can be assembled into miniature models with real nuts and bolts.



MICRO STEAM SHOVEL, SET No. 7



No. 0... SPECIAL MICRO SET, builds tiny doll furniture.

No. 1... MICRO CONSTRUCTION SET, with tiny strips and plates.

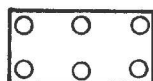
No. 7... MICRO STEAM SHOVEL SET, tiny shovel and boiler parts.

No. 10... MICRO MASTER BUILDER CONSTRUCTION SET, includes all No. 7 parts plus Ferris Wheels seats, clam shell bucket.

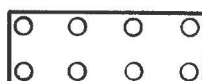
### Plates



MA



ME



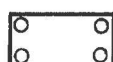
MF



MAX



MO



MEO



MFO



TP



TE



MC



MCO



MD



MDO



TC



TD

TA

### Misc.



W



T



U



BT



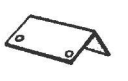
P



PO



PR



R



RX



FW



Y



X



CR

TH

HK

### Details of Construction



BRACE



BRACE



WHEELS



WHEELS



CRANK



By about 1992 the No.1 & No.10 had been replaced by No.100 & No.1000, both in cardboard boxes, 2.3\*1.7\*9" & 7.5\*7.5\*1.4", and both probably with more parts (their prices had increased, the 10/1000 from \$95 to \$169). The No.7 continued as before and had been joined by a No.8 Ferris Wheel Set in the same size box as the No.7.

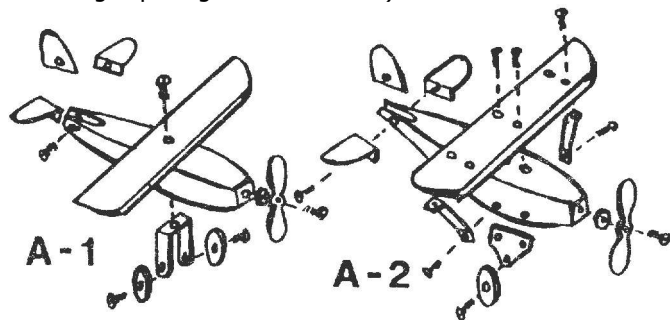
Another list, perhaps from 1993 has (apart from the M-1 with the BOY parts already mentioned) a C-10 set, with no details, and a C-100 set in a cardboard box 40\*60\*20mm. A photocopied list from 1998, possibly incomplete, has only the M-1 and the C-100.

**The AIRPLANE SETS** There were a number of these which made models that looked similar but differed in size, from 1.6" to 20" span, in paint finish, and in the types of model possible. All have steel parts joined by N&B, Wings with camber, and all but a set called BRIANNO seem to have a one-piece Fuselage. The first set dates from 1987 and the last is probably BRIANNO. To hand are 2 brochures from in between, each with a rather different range of sets, but I can't tell which came first. I'll give the prices for the Sets as a possible future aid to dating them.

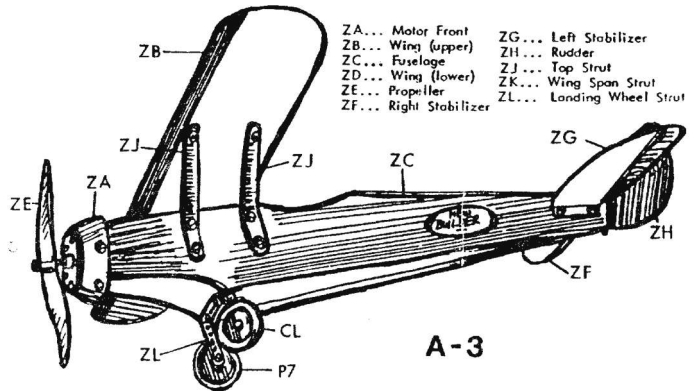
**The one set in 1987** (\$24.50) was called **ZP** and a Biplane is shown with a 12" span. It looks like the A-3 model in the next column but the illustration is too small to be sure of the details.

**The assumed next stage** saw 4 series of sets, A-1 to A-4, to make models of different sizes. Typical catalogue illustrations are shown in the notes that follow.

The smallest was the **A-1** (\$15) with silver painted parts & 2-56 Screws to make a 1.6" span model. Set A-1a (\$17) was similar but with a blue Fuselage and the other main parts yellow. The A-1H (\$29) had parts for both the Airplane & a Hanger (with gabled front & back walls, a red roof, no doors, but a large opening in the front wall).

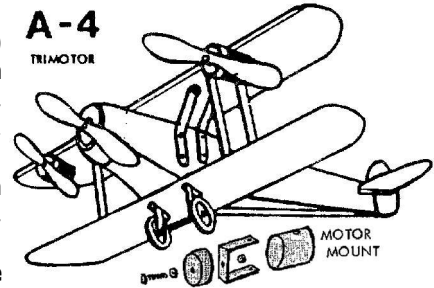


6-32 Screws. The Nose was red, the Fuselage blue, and the Wings & Tail yellow. The A-3a at \$138.50 was identical except



that the parts were painted silver. A flyer shows the same model under the heading: New BUILDER all metal Airplane // Johnson '87.

The **A-4** (\$349.50) made a 20" span 'Monoplane, Biplane, Twin Engine, Trimotor, Low Wing, or Bomber'. Again a blue body with yellow Wings & Tail, but 8-32 Screws.



**The second range** was listed as **Brian Builder Airplanes**. Compared with the A series sets, the prices are much lower.

**Set L** (\$9) looks similar to A-2 but is shown with a Radial Engine. 'Builds Spirit of St. Louis Monoplane & 3 other models'.

**Set A** (\$19). Builds 7" span Monoplane & 3 other blue/yellow models.

**Set B** (\$29). As A-3. Below the single-engined Biplane model.

**Set C** (\$99). It seems to be similar to Set B but the models are 20" span and painted silver.

**Set D** (\$39). It appears to be similar to A-4 but 14" span and 6-32 N&B. The 'Instruction booklet shows 25 models'.

**Set CX** (\$29). 'Ceiling Mount and Electric Motor, fly model from wire.' Not illustrated.

**Finally the BRIANNO sets.** The No.0 with built-up fuselage and a Pilot is shown below. The No.1 has the same model on the lid as the No.0; the No.2 has a Biplane with Wheel Spats and a Radial Engine with Fairing Ring.





## The ZEPPELIN SETS

The 1987 catalogue listed Sets ZX & ZM (along with the ZP Airplane outfit), and they were probably newly launched at that time.

### The ZX Deluxe Zeppelin

**Kit** (\$169.50) contained most of the parts needed to make the model right, essentially a replica of the 4 feet long, 1929 ERECTOR original. Not included were the necessary ERECTOR Girders - in the original 50x10" were used for the 10 longerons and 25 formed 5" for the 5 main Frames. Also not provided, the Motor in the middle Gondola (it wasn't shown in later illustrations), & it's not clear if the necessary N&B were in the Kit. The model is mostly silver with a red Nose Cap & touches of red elsewhere. The silver fabric Cover HO has a logo in red & gold; the alternative, \$10 cheaper, HOX was plain. The parts not shown in the drawing are the paper Red Star ZS & the 6" Ø Rear Ring HP, the rearmost frame.

The **ZM Mini-Zeppelin Set** (\$29.50) made a 1 foot long model. No other details are given but perhaps the model was similar to the later Mini-Zeppelin described below.

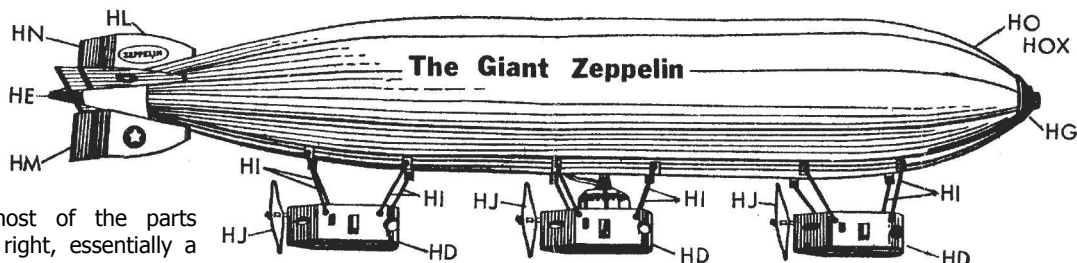
3 Zep outfits are shown in the brochure which has the L,A,D,CX Airplane sets. The first is the **Z Deluxe Zeppelin Set** (\$170) and it seems to be the same as the ZX although it is said that it 'includes parts for use with Erector 10" girEders (not included) to build ....' - so perhaps parts for all the frames were in the Outfit.

The second outfit is the **SZ Zeppelin Set** (\$99) with over 50 silver painted steel parts to make the 18" model right. It is basically similar in construction to the METALCRAFT Zeppelin models, see 24/690.

The last outfit is the **MZ Mini Zeppelin Set** (\$39) with all the parts, including a silver Cover, to make a 1 foot long model identical to the one right except that the Mooring Mast wasn't shown. At the front the Long Screw passes through the end hole of the 2 Long Rib Girders & then through the 2 Nose Caps - the other, shorter Rib Girders are clamped between the Nose Caps. The Gondolas are suspended by thin Wire. The illustration right was in a flyer which dates from before 1993 and as can be seen the outfit was then called the **B Set Mini-Zeppelin**.

2 labels from **BRIANNO** Zep sets both show the large ZX/Z Deluxe model but in one the fabric Cover is coloured red.

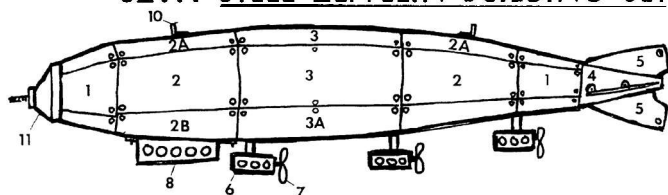
**The SHIP SET** In 1992 Ed Furness sent me the photo right of a model he had made from a Brian Johnson Ship Set. Apart from the colour scheme & a few minor changes the parts look very much like the Gilbert MECCANO originals (see 22/642) and I assume they are the same size. I can't see the winding gear for the rubber band 'motor' on the foredeck, & there are no derricks, but perhaps Ed decided not to fit them. Also I don't know if the Set



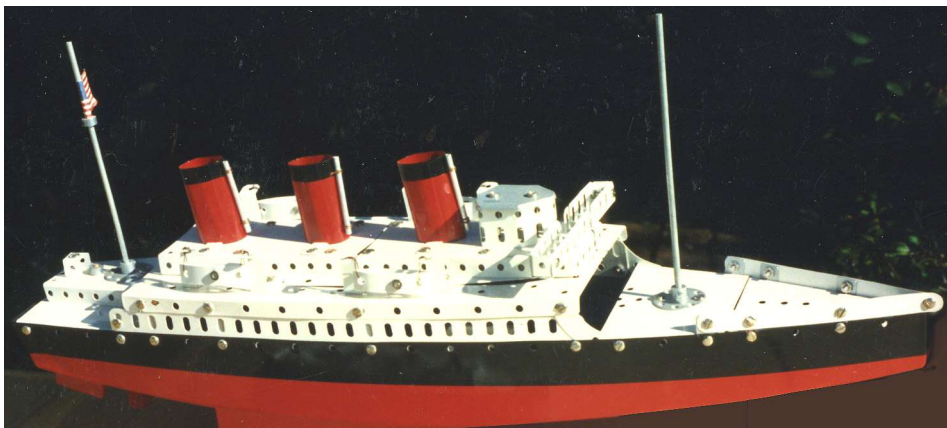
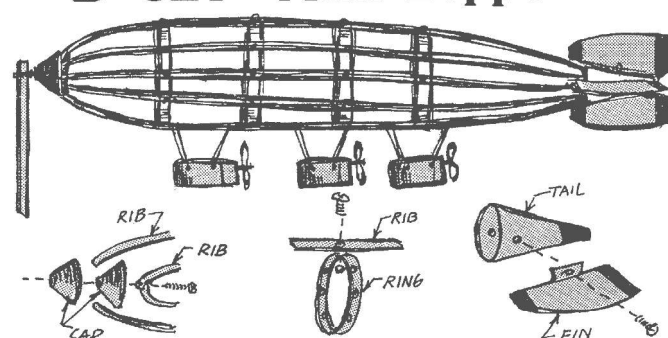
contained the parts not needed for the Liner model.

**ACKNOWLEDGEMENTS** My thanks to all who have sent material including Brian Johnson, Ed Furness, & Richard Symonds. Thanks also to Brian for permission to use illustrations from his catalogues, etc. He is still in business at 341 University Drive, Menlo Park, CA 94025, tel: (650)322-7033, selling ERECTOR repro parts & 'cardboard', but his current ads make no mention of sets (but see the Postscript below).

## SZ... STEEL ZEPPELIN BUILDING SET



## "B" SET Mini-Zeppelin



**POSTSCRIPT** Since the account above Brian has written that he plans to reintroduce some of the sets in 2007, plus other new ones. All will be shown in his 2007 catalogue & the new outfits will include a large Auto, tiny Autos, a large ERECTOR-style Airplane, tiny tiny Airplanes, a new tiny constructional set, & a tiny block building set.

Brain kindly sent a sample of one set and its lid is shown left, together with one of each of its parts. It is No.25 & the box, 29\*15\*12mm, contains 4 each of the 2h Strip & NS; 1 A/B; 2 D/B; 4 Wheels; and 8 N&B. The Wheels are card, the other parts steel, silver painted except the nickel, 4-40 N&B. Holes are 3.1mm Ø at 1/2" pitch. The 14

models in the Model Leaflet are of necessity quite simple.

The parts in the No.25 look similar to those in an earlier set I had previously overlooked. It dates from not later than 1993 and has a BRIAN BUILDER box label, though its model sheet is headed Tiny Builder. The Auto right was on the lid label, and was also shown on other lids, but I'm not sure which set was needed to build it - possibly a special Auto set and a lid label is known with No.122 **BRIAN AUTO BUILDER** on it.

Brian also set a Block set and though not usual OSN fare, it is rather cute, with 11 wooden parts to make 19 models like the one right. There are 3 cuboid parts, the largest 18\*12\*12mm, with little black oblongs painted on for the windows & door, and 2 sizes of red painted gable-ended roofs.





**'New' System: CUBAL** Jeannot Buteux has kindly sent details from Constructorama of this small French system. It was patented in 1946 and produced in 1947 by a firm called Decal in Lyon. There was one set and only about 10 different parts. The lid, right, scales at 40cm long and under it: the centre & left side of the open box (on the right a Crank Handle replaces the Strips); to the left, the printing on the manual cover with basic constructions A,B,C; to the right, basic constructions (B,C,D,#); & along the bottom, 4 of the manual models. The text on both the box & manual are in French & English. The part names used below are mine.

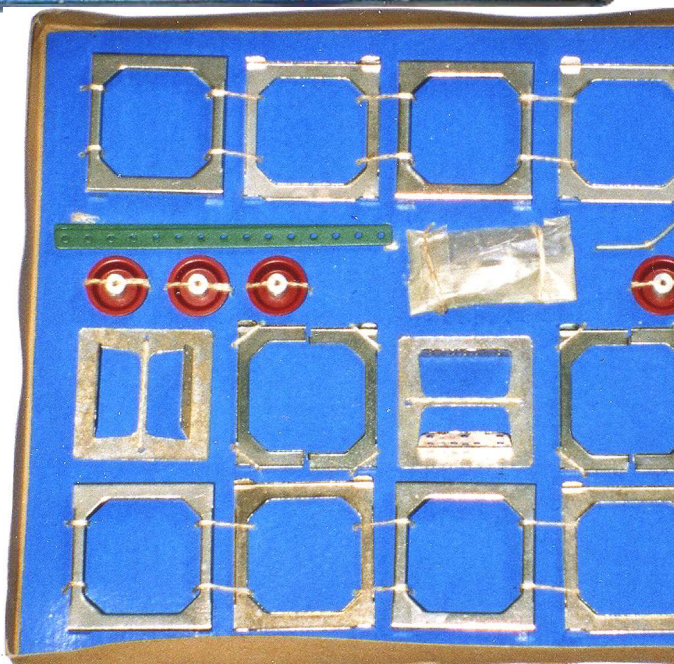
The basic part is the Frame, 6\*6cm, and there are 10 in the box, 5 in the top row, and 5 in the bottom. They have a right-angled tab at each corner and 'B' below shows 5 pushed together to make a cube. Half Frames (4 in the box's middle row) are used to close the top face (at 'C') if another cube is to be attached there ('D'), or if a piece of card (user provided) is to cover that side (at '#'). The other main part is the Flanged Frame and there are 3 of them in the middle row. It has a centre bar and the areas on each side of it are pressed through to form deep flanges. The part, and the 8 holes in each flange, can best be seen in the models below. It seems likely that this part has no tabs and slides into place like the card. It's not entirely clear but I think that a Flanged Frame could also be slid under the tabs on the top of a cube like 'B', and if so perhaps it could be used on any face that has 4 tabs showing - the side face of 'B' for example. Equally a card could be used instead but it would need to be stiff enough to support itself on sides which have no Frame, the top of 'B' for instance. All the Frame parts are nickel plated steel.

Other parts in the Set. 2 dark green painted 15h Strips with 3.1mm Ø holes at 10mm pitch. 6 red painted steel Wheels, about 3cm Ø, with tapped aluminium bosses. In the models the Wheels look to be flanged. Axles, possibly in 2 lengths. The Crank Handle below which scales at 11½cm long o/a. Tapped aluminium Collars. Set Screws.

The manual pages are 21\*13½cm. As already mentioned it is suggested that card be used to fill in the sides of the cubes and that it could be suitably decorated - with windows & doors for a House for example, or with the spots on a die (hence the 3 on the card at '#'). I don't see how a card could be attached on the bottom face of 'B' though. Under the

models below it is said (in French only) that with extra parts, available everywhere, skyscrapers, metal frame-works, bridges, cranes, etc can be built.

Jeannot wrote that the parts are strong and well made, but that, as can be imagined, the system's scope is very limited.

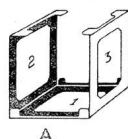


## CUBAL

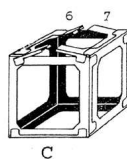
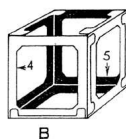
**CUBAL est un nouveau système de construction**  
Le cube se construit sans boulon ni écrou



**A new type of construction!**  
Cube is built without bolt or screw... It's a game!



Avec ce jeu vous pouvez construire des wagons, grues, tramways, funiculaires, etc... comme l'indiquent les illustrations



With cubes and accessories, you can make: wagons, cranes, cars, and so on as illustrations show

