41

OTHER SYSTEMS NEWSLETTER

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EDITORIAL Further to the question in 40/1196 of how to print out the Database from the OSN web site, Thomas Morzinck kindly sent it to me as a .pdf file and I've since added it to the web page, marked as 'a printable version'. It prints in much the same way as described in OSN 40 but is of course independent of the browser. Another advantage is that it loads much more quickly than the original file.

On the subject of the Database, it was compiled in 2004 and my copy is now full of changes and additions. I have it in mind to update it, and hope to have done so by the time the next Newsletter appears. To accommodate the new names, some 120 of them, not counting all those 'Polylong' sets, and to leave rather more space for future manuscript changes, I would anticipate that the present 56 pages in Parts 1 & 2 will grow to 68.

When ready I shall put in on the website and I hope that anyone who wants a hard copy will print it off from there. But while printing my own pages I could print extras for those who prefers that route. But in that case please let me know before Xmas. Including postage to the usual zones the cost will not exceed £7.50/£9/£10.30. Please note though that the pages will be loose, printed on both sides, with the same small margins as in the present edition. I shall bind mine together using the Scotch tape method suggested in 31/939 – I've used it numerous times since – it doesn't take too long to do and seems quite durable.

Shorter NOTES, with thanks to all contributors.

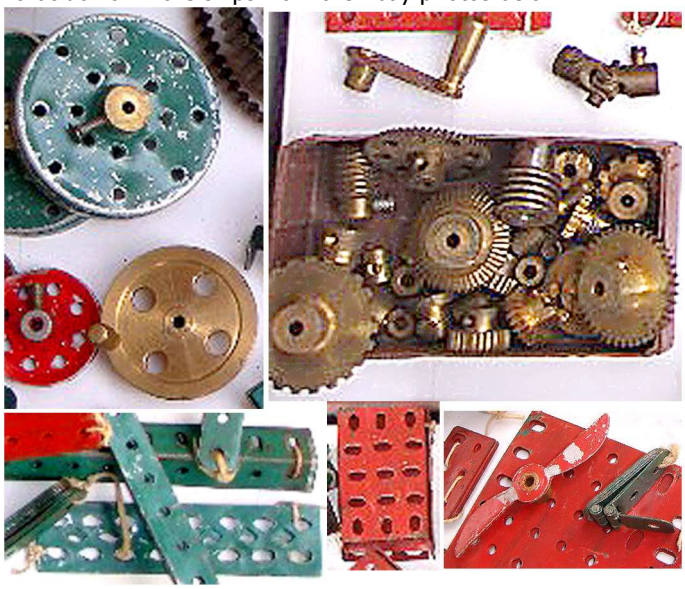
1. **STABIL** A correction to the note in 40/1196 about the thread used in 1911-14. With normal tolerances an ordinary 5⁄32" Nut will not jam on a 33 tpi Bolt, but a Long Nut #3b, or Threaded Coupling #36 (see 13/354 & 352) will jam after 3 to 5mm. More details are given in Werner's STABIL web pages (http://www.stabilbaukasten.de.vu/). These also now include a new menu item, 'Zusammenfassung (Summary) which lists all the important facts and gives links to more detailed information. Other new material includes the WALTHER'S INGENIEUR manual for Set 12, many models, a section on restoring parts (Sammeln, Fälschen, Restaurieren), and more on the history of Walther & Co. (Franz Walther und die Firmengeschichte).

STABIL: S6 [41/1228]

2. **Snippet. Another METALLBAUKASTEN [4] Set** The box is the same as the one described in 30/884 except that the lid is a cream colour and the label is printed in red. The parts look of the same genre but the Flanged Plates are 10*5h without the cutout, and 5*5h. The long Strip is 16h and the circular part is an 8h Wheel Disc with a rather greater diameter than is usual, about 4h. An Axle end that can be seen is threaded and there is a Crank Handle without any thread but with a small Collar on it. The 5h Strip and DAS are as before and one lug of an A/B can be seen with a round hole. The Bolt has a cheesehead and the one Nut visible is a small hexagon.

METALLBAUKASTEN [4]: S2 [41/1228]

3. **Snippet. Some Parts from Italy** A large lot of red & green parts on Italian Ebay was offered as MÄRKLIN, and there was a prewar MÄRKLIN manual with them. But though many of the parts do look like MÄRKLIN there are many more that don't. In the snips from the Ebay photos below:



- The boss of the Flanged Disc Pulley looks to have a larger diameter than in MÄRKLIN, and its hole pattern is that of the early MÄRKLIN pattern, when it would not have been painted. Not shown here, a similar but larger diameter Pulley, whereas the comparable MÄRKLIN part had no boss. Some of the Gears have the larger boss too, and some don't look like MÄRKLIN.
- With the unusual pattern of slotted holes, and the flanges on the shorter sides, the 3*5h Flanged Plate is clearly not MÄRKLIN. There are also a number of other non-MÄRKLIN Plates, some of which only differ in their pattern of holes & slots, and some which were never in the MÄRKLIN range, a 3*7h Perforated Plate for example.
- Other parts that do not look like MÄRKLIN are the approximately 2" Ø brass Pulley; the brass Handle Crank; the green Hinge bottom right with 2 holes in one arm and one in the other, and the Propeller next to it.
- Finally, the most unusual part of all, the green Strip bottom left with square ends and shaped holes in the TRIX pattern. The hole pitch is less than in the other parts, it scales at 10-10½mm if the others are ½". There were a number of these Strips in the Lot, the longest perhaps about 11".

It is quite possible that the lot included parts from more than one system, witness the two Worms of different diameters, although there isn't much variation in the colours between the many different parts in the lot. They could have been repainted of course, and certainly the green doesn't look to be a MÄRKLIN shade. And a repaint would explain the pattern of holes in the Flanged Disc Pulleys. But even so there must be parts from at least one non-MÄRKLIN system in the Lot, and quite a large one too. Quite apart from the 'TRIX' Strips, there is no real match with the other large Italian systems that I know of: BRAL, AMI(-LAC), see 38/1163, C.I.G.E.A. (23/657 & 27/789), and LEONARDO (16/446).

MYSTERY PARTS No.53: S1 [41/1228]

4. **Snippets. TRIANGLE Update** Four sets have been seen on Ebay since the account of this early post-WW2 American system in 23/664. All have the same 2-layer box as the OSN 23 outfit and the lid label below, not seen before, was shown for

two of them. In the top right corner is 'SET No.5' & 'MADE IN USA', while in the small black circle under the model is 'FOR BOYS FROM ? TO 11'.

As far as can be seen the parts in the sets match those described earlier, and the Motor in three of the sets (it was missing in the fourth) was the red THE CONSTRUCTIONEER type, as in the OSN 23 set. So it seems that it was a bought-in item and it remains to be seen if the TRIANGLE POWER HOUSE Motor illustrated in OSN 23 ever actually existed.

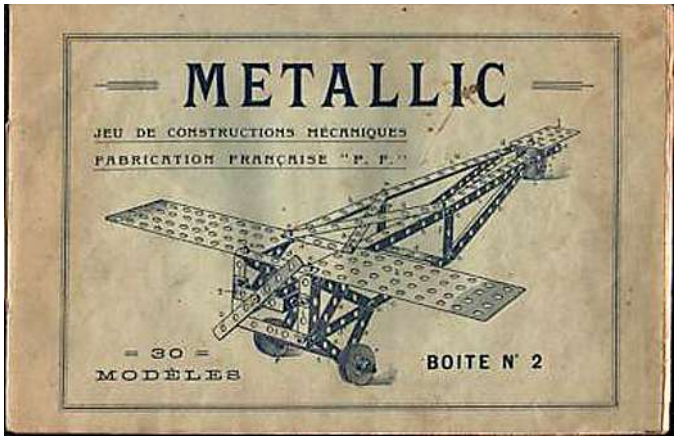
TRIANGLE S1 [41/1229]

5. **Snippets. METALLIC** A 1913 catalogue illustration of this little known French system was shown in 1/7. Since them two new pieces of information have appeared.

The first is the entry in Encyclopédie des Jeux de Construction métalliques (JCM, see 37/1108) which gives dates of 1910-1918+/-, and shows a No.1 set. It is in a blue box with a blue on white lid label as in OSN 1 but the area under the arch can be seen – it has 2 boys standing behind a table with models on it, and along the bottom 'JEU DE CONSTRUCTIONS MÉTALLIQUES'. It is said in JCM that there are 24 different parts in the No.1 and the holes are 2.65mm Ø at 10mm pitch. The parts are strung onto a yellow card and look a darkish grey. They include Strips, A/Gs, & 4h wide Perforated Plates, all up to 10h long; probably a 1*5*1 DAS; a 2h high D/B and probably several other Brackets; a 2h Ø Pulley; the large Fan of about 7cm Ø, as in OSN 1; and 2 single-ended Spanners, one cranked. The manual covers are dark blue on white and the front shows a Garden Bench Seat with under it 'BOITE No.1' and '15 MODÈLES'. On the back cover is a Wind Turbine similar to the model in OSN 1 but with a smaller pylon. The text beside it repeats that on the front cover & the lid label but plus 'FABRICATION FRANÇAISE P. F.', and so perhaps the 'P. F.' is the manufacturer. There is a PR '5994 Imp. Henri Meyer fils. Paris' at the bottom, printed twice, once in blue and once in red.

In the OSN 1 1913 ad METALLIC was described as 'nouvelle construction en métal' and was for 2 sets, a No.1 for 15 models at Fr.2.90 and a No.2 for 20 models at Fr.5.90. The set shown was quite large and was presumably the No.2. Parts in it not so far mentioned are a wire Screwdriver, a Hook, and, from the Wind Turbine model, probably a wire Handle Crank, and possibly a longer A/G. The Fan in this model reminded me of the similar STABIL part (shown in 13/352) and likewise the Handle Crank, and that led to the thought that probably Screwed Rods were used as axles, as in STABIL. With a little imagination the parts in front of the box in OSN 1 could be Screwed Rods with Nuts on them.

The second new item is the 26 page manual for Set 2 below. It was said to perhaps date from 1919-20 because it



was found with a MECCANO manual of that date. 30 models are claimed against the 20 in the 1913 ad. The front cover has "P. F." on it this time.

If METALLIC appeared in 1910 that was about the time that STABIL was launched, and so it's perhaps unlikely that one was influenced by the other. But WALTHER'S INGENIEUR (see 7/164) would definitely have preceded METALLIC and it too included the unusual, large 12-bladed Fan, Screwed Rods, & a Handle Crank. It also had a hole pitch near to 10mm. So perhaps METALLIC was inspired by W I on the one hand and MECCANO on the other (for, notably, the use of N&B instead of the W I 'Paper Clips'). But in any case METALLIC must have been the first system, or at least one of the first, to contain a range of Plates (though W I had a few small ones), and equally to have included Plates & A/Gs instead of Flanged Plates (though I've not actually seen any models in which those parts were used thus).

MÉTALLIC: S1 [41/1229]

6. **An ARWILL Outfit** Notes on the parts & a manual of this small UK system appeared in 29/856, and a box lid was shown in 37/1102. Now thanks to David Hobson I've been able to examine an unused outfit. The box measures 26*18½*2½cm, the lid looks like the one in OSN 37 except that it is green, and the label is identical.

The instructions are in the form of a Model Leaflet, a sheet 315*175mm folded into three, rather than the Manual in OSN 29. But the front face including the sloping name, the text, the Contents of Set No.1, and its price, 12s 2d, are identical, as are the photos of the models (though they are not in the same order – they run from SEE-SAW to SWING).

The box's base is plain cardboard and as can be seen in the

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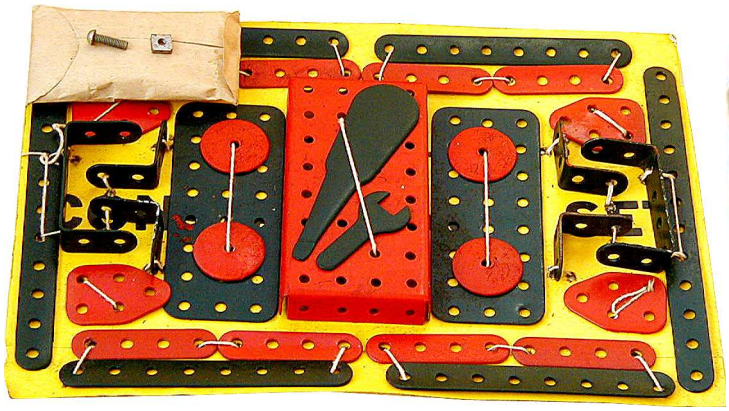


photo above the parts are attached to a yellow card by thin white cord. ARWILL | CONSTRUCTION SET is printed in black on the card but it is mostly hidden by the parts. The N&B are in the light brown envelope, 82*47mm.

Compared with the parts seen earlier the obvious difference is that those that were green or blue are painted black. Notes on other differences between these parts and those in OSN 29 follow.

- The holes in the 4h Strips are about 4.1mm, those in the 8 & 12h are 3.9mm.
- The 8 & 12h strips are about 12.9mm wide as before but the 4h are only 12.1mm.
- The Nuts are square and the Bolts have a dull greenish finish. Their dimensions are unchanged.
- The Screwdriver is 91mm long and 26mm wide. It and the Spanner are 1¼mm thick.
- The Discs are 25.8mm Ø.

ARWILL: S3 [41/1230]

7. **Snippet. A SUNNY TOY Set** Two SUNNY TOY sets, both with BUZ BUILDER parts, but of distinctly different character have been noted previously in OSN. Details of one with coloured parts were given in 36/1069, and a simpler set, probably earlier, with parts shrink wrapped onto a backing card, was mentioned in 19/542. The example below, recently offered on Ebay, seems to be of the second type although the parts probably sit behind a formed cover. It was said that models were shown on the back of the card. Apart from Strips the parts that can be seen are 2 each of the characteristic BUZ Trunnions & Flat Trunnions, 4 Loose Pulleys, a Crank Handle,

and some red parts with the N&B, probably fibre Axle Stops. As can be seen the metal parts look to be nickelled, a finish noted in 40/1208 for those in an early BUZ No.1 outfit.

SUNNY TOY: S2 [41/1230]

8. **Snippet. 'New' German System: MIKLA** The Ebay photo is shown in the next column. The slogan under MIKLA 303 means 'The Building Set for Young and Old' The main parts bottom left on the lid are a wooden Rod, and a U-Clamp.

The latter appears to take 2 Rods at right angles, presumably held by friction alone because, as can be seen from the actual parts in the box, there seems no other means of tightening the Rods against one another. Also on the lid what looks like a Bolt, though its purpose is unclear, and a sleeve which, shown dark against the light Rods in the Bridge on the lid, no doubt acts as a Rod Connector.

In some respects MIKLA reminds one of the American MAKUMAL (see 18/519). However the MAKUMAL Clamp has a Set Screw to hold the Rods positively, and it has slotted sides which also allow Rods to be parallel to each other. Unlike MAKUMAL there are no Pulleys in MIKLA, al least not in this set.

No indication was given as to the size of the MIKLA parts, the Ebay ad said only that the Set was from the 1940s.

MIKLA: S1 [41/1230]

9. **Snippets. FERMO Parts** Two sets have been seen on Ebay since the account of this German system based on Triangular Plates appeared in 27/784. In both the largest Triangular Plate was like those in the Manual with no cutout and 2 holes between the hole in the centre of the hypotenuse and the one in the apex. In one set the parts had the same colour scheme as those in OSN 27, but in the other the Pulley and the black Screwdriver look black and all the other parts a silvery colour.

FERMO: S2 [41/1230]

10. **MULTIMAKE** I have a reference to an item in the 1911 French Printemps department store catalogue for Sets 1 to 6 of a constructional toy called MULTIMAKE. It claimed to allow youngsters to build many different models and to allow them to develop a taste for mechanics. I don't know where the reference came from and I'd be grateful for any more information about it. MULTIMAKE doesn't sound a very French name.

MULTIMAKE: S1 [41/1230]

SMALL AD [41/1230]

For Sale Mike Rhoades has some MCS volumes available. Contact him for details at 137, Fairfield Avenue, Kirk Ella, Hull, HU10 7UW, or Tel/Fax: 01482 650463/658327.

CONSTRUCTION in 2009, from a catalogue and the Eitech web site. 4 new sets were added for 2009 (not counting Nos.55 & 80 mentioned in 40/1225) and 2 dropped.

The new range, with the new sets asterisked, is: 03,05,08,17,18,19,20,21*,23,24, 25*,30,31,33*,51,52,53,54,55,61,62,64,67,72, 73,74,80,82,83,84,85,87,91*. **The lids** of nearly all the sets now have the design with emphasis on 'eitech', & with CONSTRUCTION in much smaller letters. And the large sets 30 & 31 are packed in new wooden boxes, like the one for the new No.33 in Fig.4.

The New Sets. • **No.21** has over 360 parts for the Digger on the lid and 2 other similar machines, all running on rubber tracks. • **No.25** is a R/C set with over 690 parts, and is in the same vein as earlier R/C sets but the 2 models shown (Fig.3) are Off-Roaders. The web site mentions a battery charger but not the catalogue. • **No.33** (Figs.1,4), has over 2300 parts, and (not before time) replaces No.155. The model stands 1.25m high and in one view it is illuminated internally with a note by it: 'Extension with strand of lights length 5m'. • **No.91** (Fig.2) has over 180 parts & 2 models other than the slightly surreal featured Loco are claimed.

The Deleted Sets. • **No.155** already mentioned, was shown in 22/622. • **No.12** for various tracked vehicles, see 34/1023.

Accessory Packs & Add-on Sets These continue unchanged and include Nos.140-142 which were introduced in 2008 but not mentioned in OSN 40. **No.140** replaced No.116 and is the standard blue 4.5v Motor; **No.141** replaced No.114 and is the blue 4.5v Geared Motor; and **No.142** contains a black commercial open Battery Holder for 3x AA cells and a separate blue-cased Switch. Also not mentioned before is a Tool Kit, **No.650080** with 2 spanners, an adjustable spanner, a standard & a cross-head screwdriver, 6 Allen keys, 6 sockets & a spinner handle.


Fig.1

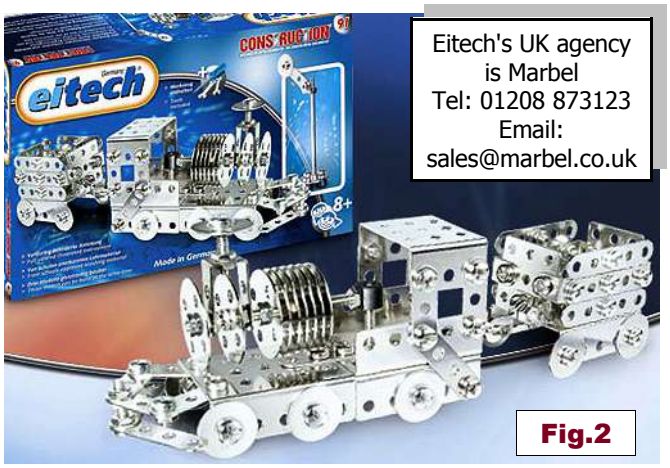


Fig.2

Eitech's UK agency is Marbel
Tel: 01208 873123
Email: sales@marbel.co.uk

Fig.3

Fig.4

The EITECH No.17 BIG WHEEL SET The 60cm high model for this outfit was shown in 37/1107. The box is large, 44½*33½*11½cm, & contains an inner box with space around it for the larger parts. Said box contains 2 blue, formed plastic trays, one deeper than the other, & not all the recesses in the deeper one are used. Apart from the plastic parts for the cars, the contents include 133 Strips; 60 Curved Strips; 10 A/Gs; 16 Brackets; 13 Perforated Plates; 2 Face Plates; 3 blue plastic Bearing Strips; over 400 N&B; Tools including a Nut Spinner; Mod.1, blue plastic Gears with 20 & 60 teeth; a 4.5v Geared Motor; and a Battery Box fitted with a rheostat & reversing switch, and with mounting holes in its underside.

The Curved Strips are of course used for the rings in the side frames of the wheel and the 3 types are shown in Fig.6 at about half size. 6 of the shortest with a 1 hole overlap make a circle of 12cm pcd. With the same overlap 12 each of the longer ones make circles of 32 & 40cm pcd. The chordal length between the centres of the end holes are 60, 83 & 104mm, so only the shortest can be bolted to a Perforated Strip. Nonetheless very useful and welcome parts. As far as I know they can't be bought separately but the Set is very good value if you need the other parts in it.

There were 2 other useful parts that I'd not seen before. One, the Face Plate, similar to the 50mm Ø Bossed Disc but with rings of 6 & 12 holes in the face. The other, the plastic Strip Bearing, which is made up of two parts (Fig.6) which clip together but could be used separately. The flat part is 1½mm thick; the other has a bore 6mm long.

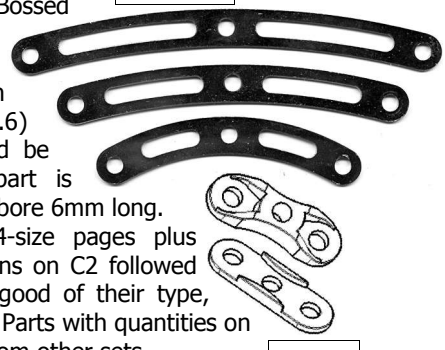


Fig.5

Fig.6

The manual has 12 A4-size pages plus covers, with basic constructions on C2 followed by step-by-step instructions, good of their type, on pp1-11, and the Illustrated Parts with quantities on p12 & C3. C4 shows models from other sets.

There is a warning on the manual cover (but not on the box) that adult assistance may be required to build the model. I found that the only tricky part was aligning the main bearings, and for that (as usual) a little local distortion of the framework was needed. The main axle was driven by the Motor through the 3:1 reduction from the plastic Gears and this worked perfectly well though with no clutch or freewheel in the drive I chose, before taking the model to an exhibition, to fit a commercial motor and to use a few parts not in the Set to have a cord drive around the wheel's periphery.

Snippets. Early BRAL It is said that BRAL dates from the 1930s or even earlier, but little is known of it before the 1960s. However 2 small sets, said to be from the 1950s, were offered on Ebay earlier this year and a few of the parts in them are clearly not from the 1960s era. They brought to mind some MCS pages added to the BRAL entry by Frank Beadle. They are from an IL CONSTRUTTORE MECCANICO (one of the names used for BRAL sets) manual and though the majority of the parts look like 1960s BRAL and have BRAL PNs, a number are quite unusual, & include some that can be seen in the Ebay sets.

First the MCS pages: a manual cover; the Set Contents for Sets 000 to 4; a sketch of a No.4 outfit and a list of its contents; 2 models for Set 4; and the Illustrated Parts (on 4 sides with the parts in no particular order). The are some inconsistencies between the pages and they may not all be from the same manual. What follows is largely based on the Illustrated Parts – the other pages look a little more like the later BRAL.

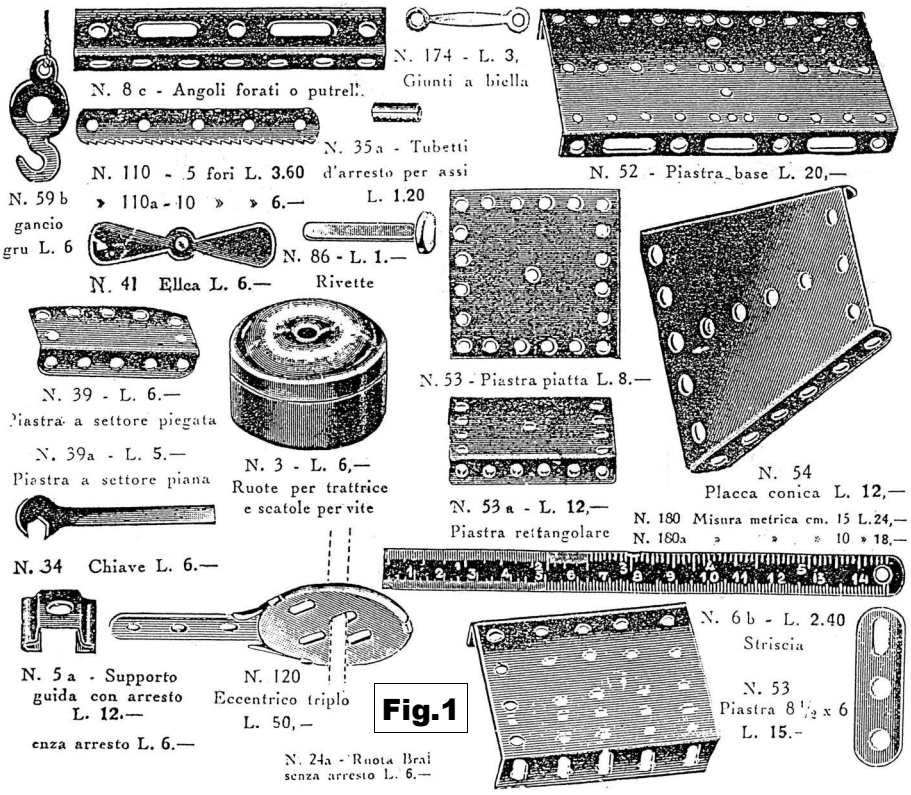


Fig.1

As might be expected the range of parts is smaller than in the 1960s with for example, no Tyres, no Flexible Plates, fewer Perforated Plates, fewer Pulleys, Gears & Sprockets, only one Flat Girder, and none of the MÄRKLIN-inspired parts. Also some parts in unusual lengths: 10, 13, & 20h Strips but no 15 & 19h; and a 17h A/G & Braced Girder but, again, no 15 or 19h.

The unusual parts are shown in Fig.1 and some notes on them follow, working down from the top. Some PNs are used more than once • **#8c** is in addition to the normal A/Gs. • No indication is given of the length of the Link **#174**. • The Flanged Plate **#52** is 10h long, but has a centre hole. • **#110 & 110a** look like Saw Blades but could I suppose be Rack Strips. • No material is specified for the Axle Stop **#35a**. • Compared with the later Propeller, **#41** has wider blades and no boss. • The top edge of the handed Plates **#39 & 39a** is possibly curved. • **#3** is described as a Tractor Wheel and box for N&B – it costs the same as the 1" Loose Pulley. • Plate **#53** looks like PRIMUS and **#53a** is a flanged version. • As shown the Flanged Sector Plate **#54** is only 6 holes long. • The Slide Piece shown is perhaps #5, **#5a** as described has a boss. • The Eccentric **#120** looks like the MÄRKLIN part but no way of locking the Rod is shown. • **#53** under the ruler looks to be made from a different plate to the earlier #53 and its dimensions are near to a 5*7h Flanged Plate. • **#6b** is in addition to a normal 3h Strip. • Finally the Wheel Disc **#24a** (in the centre at the bottom) isn't illustrated but follows #24, an 8h Bush Wheel. I wonder why its name includes 'Bral' (Bral Wheel without set screw), the only part to do so.

The unusual parts in the first Ebay set, said to be a No.1, Fig.2, are the #53a Flanged Plate, the Wheel Discs, and the Span'driver. This shows that at least some of the unusual parts in MCS did exist. The second, Fig.3, said to be a No.2, has a different Flanged Plate, unlike the MCS #52 in its piercing, but again 10 holes long. This set also has the 4 Wheel Discs but now boasts a separate Spanner & Screwdriver. A Bush Wheel can also be seen.

Fig.2

Fig.3

The contents of these sets bear no resemblance to those of any of the IL CONSTRUT+TORE MECCANICO sets. So were they earlier or later?

Snippet. KEIM METALL-BAUKASTEN This little architectural set, mentioned in 15/415, was made by Keim & Co. of Nürnberg from 1923 to 1928. This account is based on the Ebay ad for what looks to be a quite complete set, and another poor photo of a similar set.

The lid & base of the box are shown below and since the box measures only 13*21cm the parts are really quite small. Figs.3-5 are: • the largest model, about 8*8*14cm high, that can be made from the parts – I'll call it the Large Office Building; • a close up of one of its Bottom Side Panels; • and the manual illustration of a similar size House.

3 other manual models were shown on Ebay, the Large Office Building, and, by omitting the Top Side Panels from it and the House, a Small Office Building and a Bungalow.

FIG.1

FIG.2

All 3 Side Panels for the Office Buildings can be seen in Fig.3 – a Top Panel is used upside down on the side wall. There are also 3 Side Panels for the House, the one in the box, and 2 others, each with 2 windows. One of the latter, and the Gable End, are timbered in red. I think the Panels are probably printed on one side with the Office, and on the other with the House designs.

FIG.6

The Side & Roof Panels are joined by sliding into Angle Pieces, made by folding each flange back on itself twice (Fig.6). The Gable End appears to push down onto the Side Panel. It looks as if there should be Slide Pieces to join the bottoms of the Roof Panels but if so they can't be seen in either set.

FIG.3

The part top right in the box is 7½cm square and sits alongside a model to represent an ornamental garden.

FIG.4

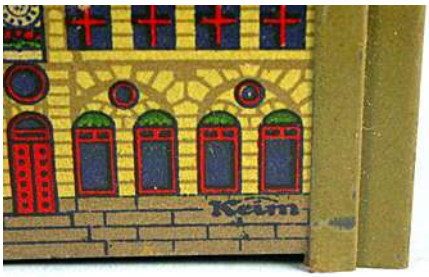


FIG.5

OSN 41/1233 **KEIM: S1**

Snippet. A Larger EL MECANICO ARGENTINO Set

A note about this current Argentine system appeared in 37/1131 and now, from Ebay, a set with 320 parts & 2 Motors, for a Chair-O-Planes model. The open box and model sheet are shown on the next page. The lid features the model but is otherwise in the same general style as in OSN 37 lid. It has Sillas Voladoras (Flying Chairs) in small letters at the top. The Ebay text said that the set was suitable for children over 7 and all fathers, and that the colours of the parts may vary.

New parts are, with if necessary a reference to where they can be seen (in the box compartments C1-4, clockwise from top left, or in the model M): • Flanged Plates, 11*11h, & 3*2h (M). • A/G, 11h, in red, blue & yellow. • Face Plate, 7h Ø. • 8h Disc with large centre hole and the holes at non-standard spacing (C4). • Yellow plastic Rotor (C3). • 2*2*2h Angled DAS (C3). • Double Arm Crank with no holes in the arms (C4). • Motor and white plastic push Switch (C1).

At the top of Fig.1 is the bottom of a leaflet which may be the other side of the model sheet. On its right side is the model, as on the model sheet but without the insets; on the left the illustrated parts, but too blurry to see any but the larger parts listed above.

I can't see how the model is driven. The Motor might be whatever is mounted on the base between the uprights but

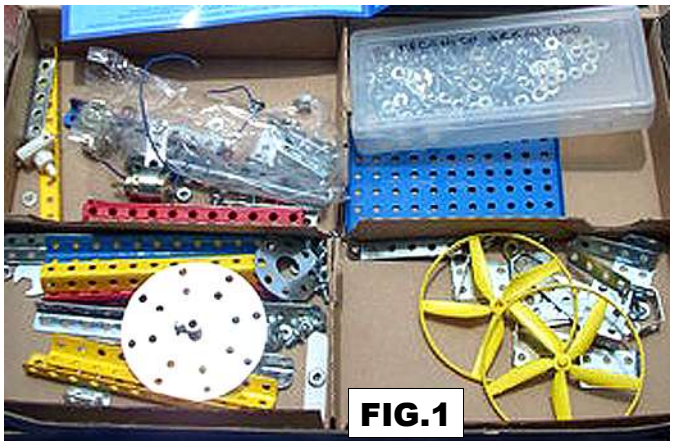


FIG.1

FIG.2

even if there was a cord drive to the head it's hard to see how the necessary reduction would be achieved.

A Swiss BOB Theme Set Urs Flammer kindly sent details of a rare set, the BOB Fahrzeug-Baukasten (Vehicle Set), or Boîte de Construction Roulantes in French. Its box is brown, 43*29*4cm, and below the lid label. It is in the usual Swiss BOB style and bottom right is FRABA, the maker, and the set number, Nr.905.

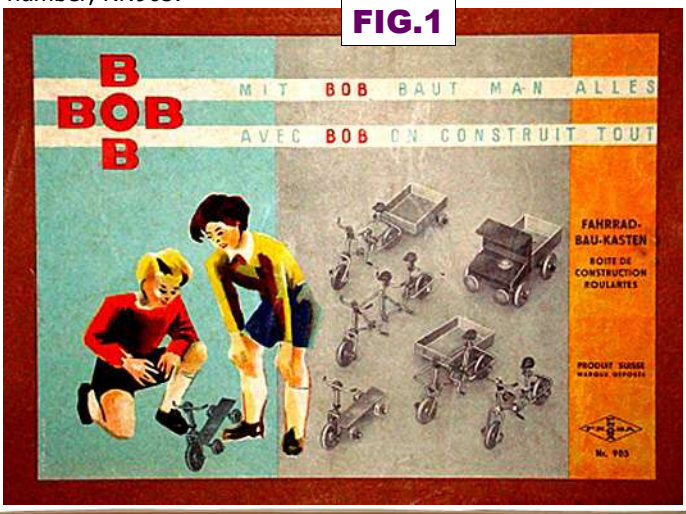


FIG.1

FIG.2

Above the box's base with all the the parts loose in it. As usual with Swiss BOB nearly all are aluminium. The wheels are the standard 18mm Pulley & 35mm Road Wheel (see 26/757), the Rods are mostly formed-to-shape specials. The small box contains the wooden, varnished Feet, the black, cast zinc Saddles, the die-cast Joints used to join the Rods, Spring Clips, Rod Connectors, etc. The narrow rectangular Plate is used as a footplate in a Scooter model, the 3 other Plates can be seen in the Lorry in Figs.4 & 5: from left to right

FIG.3

in the box they are the Load Platform, Bonnet, & Cab.

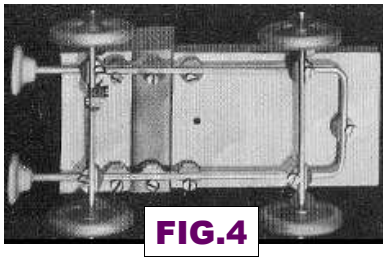


FIG.4

The Model Leaflet is an A4 sheet, folded into four, and printed on both sides in German & French. Above (Fig.3) the front panel; the back panel has '„FRABA" Nr.905' on it.

8 models are shown: a Scooter, a Tractor, a Lorry, a Hand Cart which can also be attached to the Tractor, & 4 Bicycles – a Man's, a Man's with Trailer, a Woman's, & a Tandem. All but the Tractor are on the lid, though the Handcart (alongside the Man's Bicycle, and possibly attached to it) doesn't look quite the same. The instructions comprise one or two photos of each, with a few words of building instructions for most. Shown here are the underside of the Lorry on the front panel, and a Bicycle with Trailer. The body parts are attached to a chassis in the usual way by a Bolt screwed into a Joint (as in Fig.4). The pedals on the Bicycles are represented by a fixed double-cranked Rod which for realism looks as if it ought to be much nearer the bottom bracket. The Tractor is simply the Bonnet mounted on a chassis and doesn't really look the part; the Scooter is unusual in having a Road Wheel at the front between the forks, & 4 Pulleys as wheels under the foot board.

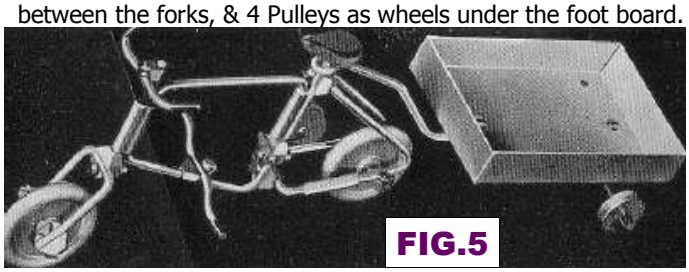


FIG.5

Snippets. The FAC 'Toy' Sets These little outfits were aimed at youngsters before FAC got into its stride as a 'professional' system. A little about them was given in 18/508, 19/526 & 24/712; the new material in these notes is largely based on items kindly sent by Chris Freeman, David Hobson, & John Timms, and photos from Tradera, the Swedish Ebay equivalent (www.tradera.com). The 3 manuals for the sets can be downloaded from www.facsystem.se. All the material seen in in Swedish.

HISTORY The sets known are Nos.0, 1 & 2, a linking set No.1-2, and No.2B, a repackaged No.2. The system is said to have appeared in 1952 – all other dates quoted are from the literature to hand. The first sets were probably Nos.1 & 2: the No.1 manual doesn't have a date in it but it has reviews of FAC from 1952 on the back cover, and the No.2 has a PR of 'Mauritzons / Stockholm 1952 52-3241'. The No.0 manual has 'Stockholm 1954. Berglins Tryckeri' as a PR and 1954 is the likely date of its introduction because it contains parts not in Sets 1 & 2, and not listed in a Parts Price List 53-3559. It isn't known how long the toy sets were made but only one edition of each of the manuals is known.

All the sets seen bear the name Mark Sylwan AB, Stockholm, the FAC designer's company, and most also have AB O. Mustad & Son, Gothenburg, the company that made FAC parts. The name hasn't been seen on Set 1 though it may be that it is on a lid apron not visible in the photos to hand.

The PARTS Those in the sets are listed in Fig.9 and the notes below cover parts not adequately described in the Figure or in the illustrations in Fig.8.

• The centre hole of the **3h Link** and the apex hole of the **Bell Crank** are 4mm Ø. • The **64t Gear** has 6 face holes. • The **Screwdriver** has a black handle and scales at 10½cm long; the **Spanner** at 7cm. • The hole in the **Eye Bolt** is 4mm Ø. • The **Hooks** are flat; #9/03 is a smaller, simpler version of 9/02, see Fig.2. • The **Cord** is white, wound on a red card.

Additional parts in the 1953 List are Rods up to 2000mm long; 3 extra Rods with Screwed Ends, up to 90mm long; 3 extra Tie Rods from 18.5 to 170mm long; a 6mm Ø Axle, 180mm long; 14 extra Beams from 23 to 386mm long; a 54mm Ø Pulley Disc; 5 extra Gears from 24 to 96t; a 6h Bush Wheel, 46mm Ø & 6mm bore, with a 2mm thick disc; a Worm & 22t Worm Wheel; 3 Bevels for 1:1 & 1:3 ratios.

Parts in the No.0 set which are not in the 1953 List include the Plate, Bell Crank, Eye Bolt, Tyre #9/09, & the 2 & 3h Links.

The SETS Those known are described below. The contents of the main sets are given in Fig.9 with my names.

No.0. As mentioned above this set was probably

FIG.1

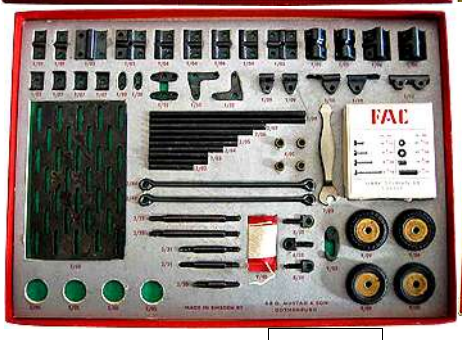
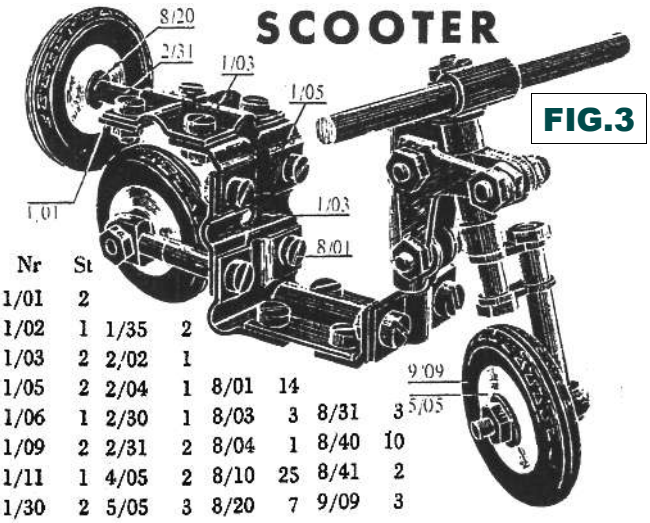


FIG.2



Nr	St							
1/01	2							
1/02	1	1/35	2					
1/03	2	2/02	1					
1/05	2	2/04	1	8/01	14			
1/06	1	2/30	1	8/03	3	8/31	3	
1/09	2	2/31	2	8/04	1	8/40	10	
1/11	1	4/05	2	8/10	25	8/41	2	
1/30	2	5/05	3	8/20	7	9/09	3	

FIG.3

introduced 2 years after the main sets, and even excluding the new parts it contains lengths of the various Rods not in Sets 1 & 2.

The box is 21*29.5cm and its lid & base are shown in Figs.1 & 2. Apart from the small parts in the white box there is a cutout in the backing card for each part and a green under layer shows through the holes rather attractively (in Fig.2 the brass Pulleys inside the Tyres would originally have been in the 4 circular cutouts bottom left).

The manual has 16 pages including covers, about 24* 16cm landscape, and is printed in B&W. The cover has only the name & 2 of the manual models on it – a Motor Scooter (as Fig.3) & a Field Gun. p2 has an introduction and the first model, SÄCKKÄRRA (Hand Truck). Then 9 more models ending with HAMMARE (Mechanical Hammers) on pp14-15. The back cover has the set contents. The models are fairly complicated but for each is a parts list, written instructions, and for most, step-by-step assembly drawings. Sometimes 2 pages in all are devoted to one model. In the step-by-step illustrations the existing parts are shown black with white lines and the new parts with black lines on white. I wonder if anyone had used step-by-step instructions for a toy set before. The instructions in the earlier No.1 & No.2 manuals take a different form and perhaps it was felt that an easier presentation was needed for youngsters who might build from the smaller outfit.

Rather surprisingly the only illustrations of the set's parts are in the models, but I think it likely that either there was a leaflet with the set which showed them, and perhaps the whole range of parts available, or else they were shown inside the lid.

The model all look the part, and apart from those on the

FIG.4

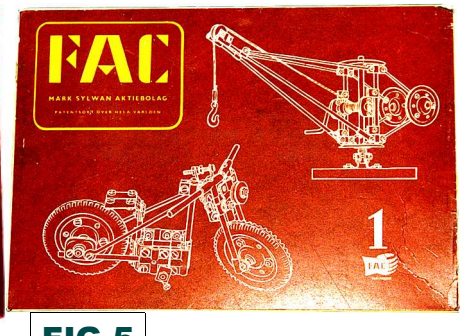


FIG.5

FIG.6

FIG.7

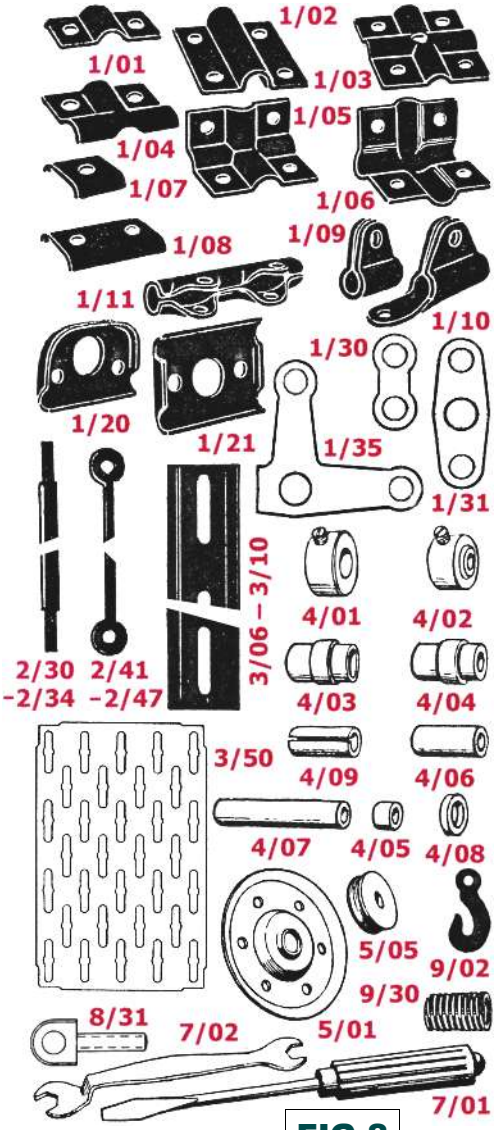


FIG.8

Part	Set: PN	0	1	2
Clamp	1/01	2	8	16
Clamp	1/02	1	4	4
Clamp	1/03	2	4	8
Clamp	1/04	4	4	8
Clamp	1/05	2	4	8
Clamp	1/06	2	4	8
Clamp	1/07	4	8	16
Clamp	1/08		4	8
Clamp	1/09	2	2	4
Clamp	1/10	2	2	6
Clamp	1/11	1		
Clamp	1/20		4	8
Clamp	1/21			4
Link 2h	1/30	2		
Link 3h	1/31	2		
Bell Crank	1/35	2		
4/18mm Rod	2/01			4
4/30mm Rod	2/02	1		4
4/40mm Rod	2/03	2	2	4
4/50mm Rod	2/04	1	3	4
4/60mm Rod	2/05	2		2
4/70mm Rod	2/06	1	4	2
4/78mm Rod	2/07	1		6
4/90mm Rod	2/08		4	2
4/106mm Rod	2/09	2	5	6
4/134mm Rod	2/10		4	4
4/162mm Rod	2/11		4	2
4/218mm Rod	2/13		4	
4/246mm Rod	2/14			4
4/174mm Rod	2/15			4
Scr End Rod 3cm	2/30	1	1	2
Scr End Rod 4cm	2/31	2		2
Scr End Rod 5cm	2/33	2	2	
Scr End Rod 7cm	2/34			2
Tie Rod 51mm	2/41		4	4
Tie Rod 91mm	2/43			2
Tie Rod 110mm	2/44	2		
Tie Rod 150mm	2/46		2	
Tie Rod 170mm	2/47			2

Part	Set: PN	0	1	2
6/68mm Axle	2/51		1	1
6/120mm Axle	2/53		1	1
Beam 162mm	3/06			2
Beam 274mm	3/10			2
Plate 66*108mm	3/50	1		
Collar 6mm	4/01		2	2
Collar 4mm	4/02			4
Bush 6mm	4/03		2	2
Bush 4mm	4/04			4
4/6mm Sleeve 5mm	4/05	4	4	4
4/6mm Sleeve 12mm	4/06		2	4
4/6mm Sleeve 20mm	4/07		1	2
6/8mm Spacer 2mm	4/08		4	6
4/6mm Split Sleeve 12mm	4/09		2	3
Pulley Disc 42mm	5/01		4	8
Pulley 16mm	5/05	4	1	1
Pinion 16t, 4mm bore	6/16			1
Gear 64t, 6mm bore	6/64			1
Screwdriver	7/01		1	1
Spanner	7/02		1	1
Span'driver	7/03	1		
M3 Bolt 6mm	8/01	14	60	85
M3 Bolt 8mm	8/02	5	20	30
M3 Bolt 12mm	8/03	8	12	20
M3 Bolt 19mm	8/04	2	8	12
Grub Screw 5mm	8/08			16
M3 Nut	8/10	35	80	140
8*3.2*.8mm Washer	8/20	25	8	40
Eye Bolt, M3*12mm	8/31	3		
4mm Thr'd Sleeve 5.2mm	8/40	10		
4mm Thr'd Sleeve 12.2mm	8/41	4		
Crank Handle 10cm	9/01		1	1
Hook	9/02		1	1
Hook	9/03	1		
Tyre for #5/05	9/09	4		
Tyre for #5/01	9/10		2	4
Spring 10*15mm	9/30			2
Cord		1	1	1
Manual		#0	#1	#2

FIG.9

cover, they include a Crane, a Cable Car, & a Lathe. The model in Fig.3 is the one on the cover and is shown here at the original size (with the parts list but without the 11 building steps in the Manual).

No.1. Recapping from OSN 24 & 18: first, a possible early set in a brown cardboard box, 31½* 18*1½cm. It has wooden partitions giving 11 compartments in 3 rows and the picture on the lid (Fig.4) has been pasted on. Its manual was missing.

Secondly, the No.1 set commonly seen (Fig.5). **The box** measures 31*23cm and is partitioned into 16 compartments in 4 rows. The lid of the box for N&B etc is white with FAC in red. The card with the vanes etc printed on it is white. An illustrated price list of parts is often found with the set – it is one sheet folded into two with LÖSDELAR on the front. The example to hand is the one from 1953 mentioned earlier. In one Tradera set the inside of the lid is shown and has a list and illustrations of parts on it. Some though are not in the No.1 and the same layout is used on the bottom of the No.2's box and in its manual.

The manual was described in OSN 18 and its cover is the photo on the Fig.4 lid but in B&W with FAC in red. The 11 models are larger than those for the No.0 and in general not as 'cute'. 3 or 4 are not very exciting frameworks on wheels, but several do give the impression of mechanical complexity, even if in fact they are really quite straightforward. The most complex is the Hammer in Fig.10 overleaf. A Cord on Pulley brake is fitted to a Winch but not to the Crane on the cover. No parts list is provided for any of the models but building instructions and scrap views are included. The 31 standard constructions at the beginning of the manual are a little daunting en masse, but the builder is usually directed to which ones apply to the model being built. Fig.10 is the original size but in the manual there is also another view of the model from the front, and half a page of building instructions.

No.1-2. The box is the same as the No.1 except for the number on the lid, and 2 compartments in one row are merged to take the longer Rods & Beams. If the quantities of parts in the manual are correct the No.1 has a few more of several parts than the No.2. This would mean that not all the No.1 models could be made with Set 2 but no problem since it seems that a No.1 manual was not included in the No.2.

No.2. **The box** is 21¾*30¼*4cm with an end opening and 2 trays of parts inside. The lid, Fig.6, features 2 of the manual models and many of the parts in the set are shown on the bottom of the box. One tray has 16 compartments in 5 rows, and the other, 12 in 3 rows, though in some sets there is an extra compartment in one row.

The manual has 32 unnumbered pages 211*147mm including covers. The front, Fig.7, has one of the manual models on the lid. p2 (C2) has the illustrated parts as on the bottom of the box. p3 has the introduction followed by 57 standard constructions on pp4-8 (more than for Set 1 because

the No.2 contains Beams). Then on p9 a model called MODELLKONSTRUKTIONEER (a very simple 4-Wheel Chassis) which is probably just an exercise in assembling the wheels & bearings. The real models go from a MOTORCYKEL (Motor-cycle) on p10 to CHASSI TILL PEDALDRIVEN BIL (Pedal-driven Car Chassis) on pp28-30. Next the set contents on pp30-31 and, on the back cover, magazine cuttings about FAC from 1952 & a PR '1952 52-3241'.

As well as the models above, and the Mechanical Hacksaw on the cover, the models include 2 Cranes (though not the one for Set 2 in the No.1 manual), a Bench Drill, a Cable Car & Winch, and a Pile Driver. As one would expect all the models are more ambitious than for Set 1, and as always with FAC, they look impressive, to my eyes anyway. Fig.11 show all the illustrations for the Chassis at their original size, but not the instructions – they cover all the ringed numbers.

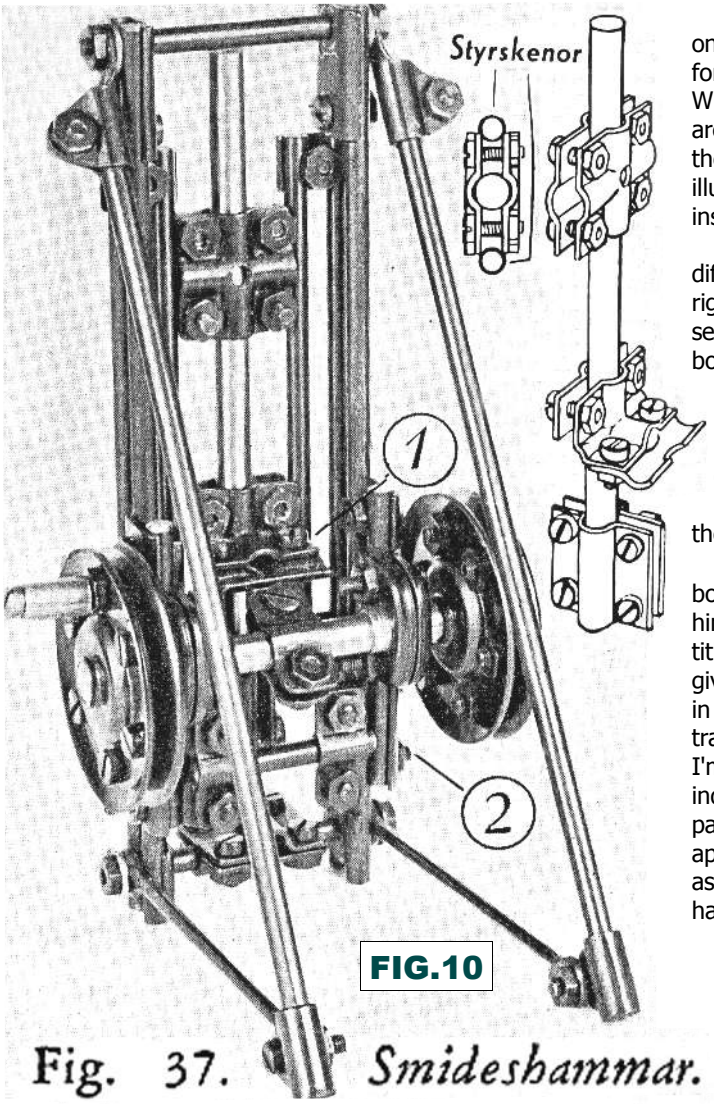


FIG.10

One set seen has the different design of lid right, with part of the set's manual over the bottom right corner. The models on the lid are both in the manual but the view of the Cart is different (the righthand one is the Pile Driver).

FIG.12

No.2B The wooden boxed set right has a hinged lid, wooden partitions in the bottom giving 17 compartments in 4 rows, and a wooden tray with 11 in 3 rows. I'm not sure what the 'B' indicates but the main parts in the 2 sets seen appear to be the same as the cardboard No.2. Neither of the two No.2B's seen though had a manual with it.

FIG.13

Fig. 37. Smideshammar.

CHASSI TILL PEDALDRIVEN BIL

Fig. 90

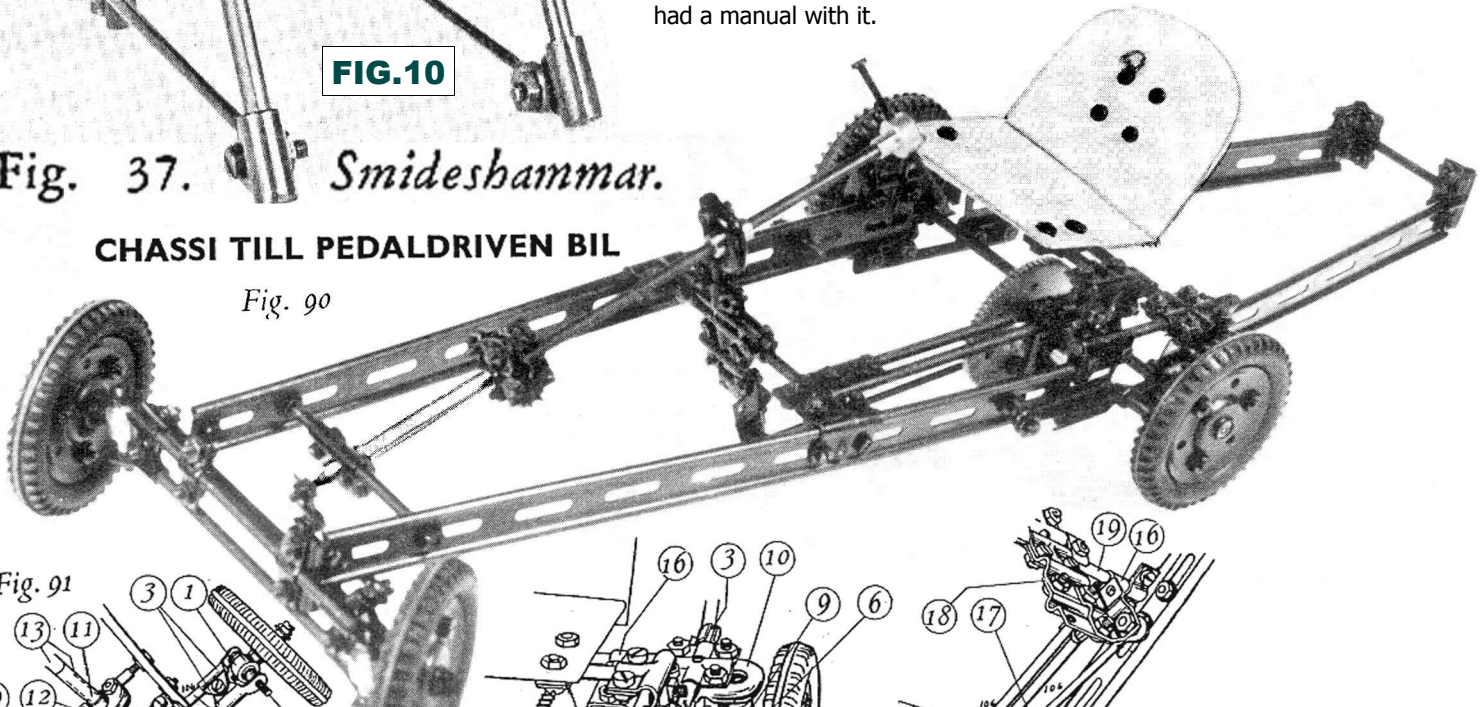


Fig. 91

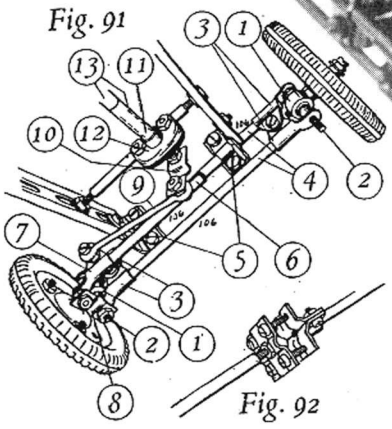


Fig. 92

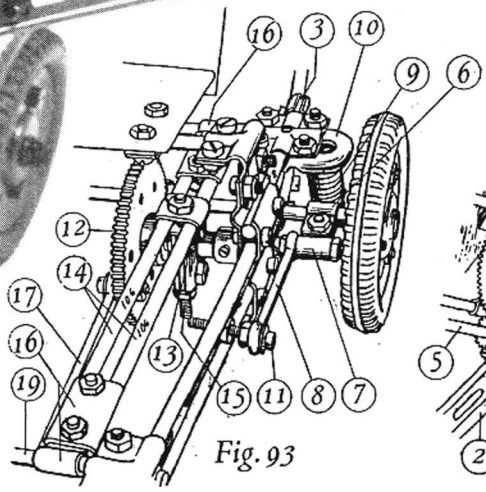


Fig. 93

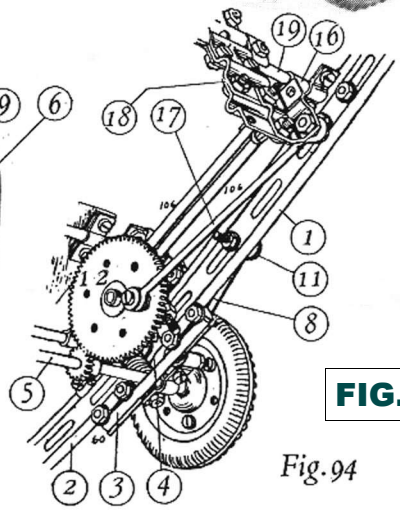


Fig. 94

FIG.11

BOY This Dutch system, probably from soon after WW2, was mentioned in 16/444 and now Wim Vink has kindly sent details of the 3 sets that he owns, a No.1, a No.1A, and a No.H. Set D and an electrical Set E were advertised but nothing is known of them. Many of the parts look like TRIX, but some are original, and virtually all are made of aluminium. The hole size & pitch are slightly larger too, also the N&B. The maker was The Boother Company, van Loostraat 105, Den Haag (or sometimes Boy Metaalbouwdozenfabriek at the same address).

The PARTS The Strips are the same width as TRIX, 15mm, but the holes are 4.0mm Ø at 8.25mm pitch. The thread is M4.


FIG.1

The TRIX-like parts are: 9, 13, & 17h Strips; A/B; D/B; Small D/B; DAS, 3h (full holes along the base's centre line); Wheel Disc; Washers (the larger one is 15mm Ø); Screwed Rods, but 50 & (not seen) 30mm.

The new parts (see right and Fig.3) are: 3h Strip; 5h long DAS (the TRIX part is 7h); Pulley Discs, 14, 28, 47mm Ø; Rod with Screwed Ends, 73mm o/a; Hook, not seen but see Fig.2; Spanner; square Nut (≈7mm A/F); steel RH Bolt (≈10mm u/h).

The SETS All three boxes are 145*145*21mm, and have the lid below, with the set number in top right corner. The partitioning is the same too, as in Fig.3, and the contents of the 1 & 1A are given on a label inside the lid.

FIG.2


FIG.3

The SET CONTENTS **Set 1** The parts are: 2,4,4x 13,9,5h Strips; 2x 3h DAS; 4 Wheels Discs; 2 Large & 1 Small Washer; 2x 50mm Screwed Rods; 8 Bolts, 16 Nuts. No Spanner is listed. This set is similar to the TRIX Unit 1 (the UK Unit A after WW2) except that the BOY outfit has 2 Screwed Rods instead of 3, and 16 Nuts instead of 20.

Set 1A parts, as listed in the lid, are: 4x 17h Strips; 2 each of D/B & 5h DAS; 4 A/B; 2 Large & 1 Small Washer; 1x 50mm & 2x 30mm Screwed Rods; 8 Bolts; 16 Nuts; 1 Hook. No Spanner is listed. Fig.3 shows this set but the Wheel Discs, DAS, 73mm Rods, & Small D/B in the box are not included in the printed Contents. This Set differs from the TRIX Unit 1A (= UK 'B') in having the DAS, the Washers, and 8 fewer Bolts.

Set H The new parts in Set H are 2 each of the 3h Strip & 5h DAS, 4 of each of the Pulley Discs, and the Rod with Screwed Ends. Other parts include 17h Strips, a Spanner, N&B, and (probably) the Small D/B. The Tyres on the Jeep in OSN 16 were sold separately and were not in the H set.

The MODEL SHEETS These are folded to fit into the boxes. The No.1 is 250*255mm and the front is shown below.

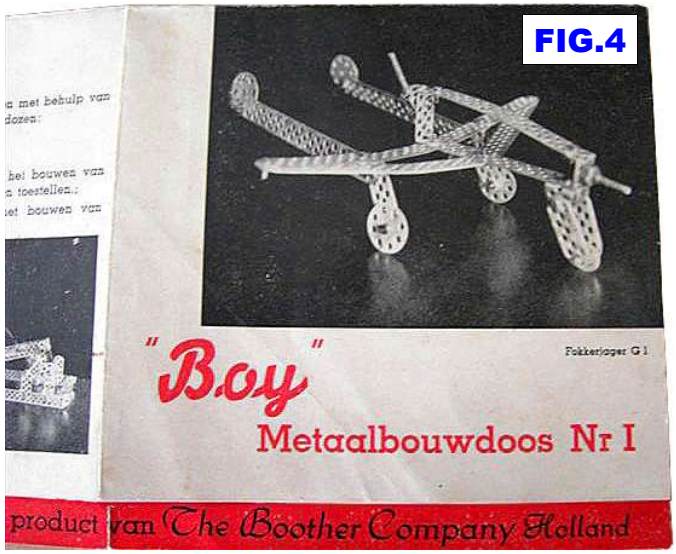


FIG.4

The model is a Fokker G1, a prewar twin-boom fighter & light bomber (the real machine had a tailplane). The 1A and H Sheets are 270*210 & 405*270mm respectively, and are printed entirely in B&W. When folded their fronts have text but no illustration.

There is one photo, white against a black ground, for each of the small models described in the Sheets, plus fairly full constructional notes. The models seen do not have any strong resemblance to any I recall from TRIX manuals. Some photos of 'supermodels' are shown with the number of sets needed – one is shown below and another is a Twin-Engined Monoplane which needs 5 No.1's & 4 No.1A's.

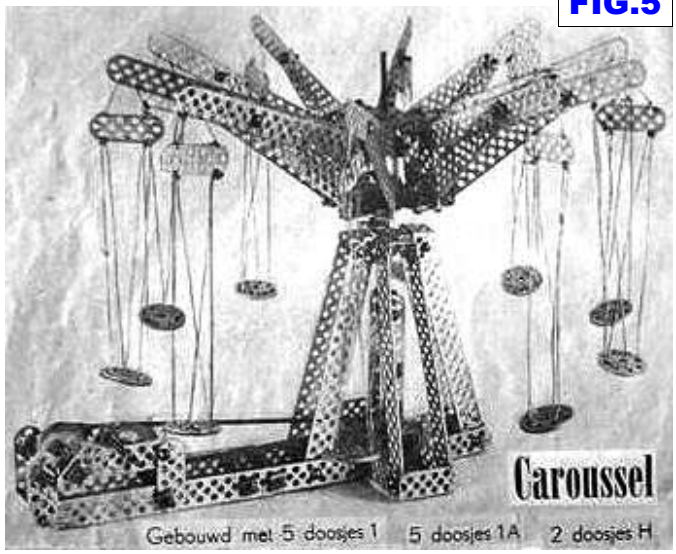


FIG.5

CONSTRUC Sets Some notes on this unusual French system appeared in 21/599, and it will be recalled that structures are made from unperforated Strips, some of which are formed into Shapes (called Brackets in OSN 21) using a Jig supplied. The parts are held together by Clips, also made from Strips using the Jig. Now a little can be added to the earlier account from a No.1 set to hand, plus notes kindly sent by Jacques Pitrat on his No.1, and a very much larger Lux outfit, thought to be complete. Some of the material from Jeannot Buteux used in OSN 21 will also be mentioned.

The No.1 Sets

MY SET. **The box** measures 16½*21*2½cm and has the lid below. Inside it has one partition, stapled in.

FIG.1

The Parts The Strips are bright springy steel .4mm thick. They are 12.7mm wide except that #AS & AE (used to make the Clips) are 9.6mm. Each Strip is stamped with its letter code. The Strips which are intended to be used to make the Shapes (they, and the Clips, are shown in OSN 21) can also be used as flat parts, and the others (D1-9) which are usually used flat can be bent to form brackets, etc as required.

The Set seems to have been carefully looked after and may therefore be near complete. All the parts in it are listed below together with the quantities found in curly brackets, and the length of the various Strips. (The quantities of Shapes include one of each found perfectly made in the Set, probably by the factory.) The other parts in the system are discussed later.

- Strips AS, AE, 32,62mm long. {42,16}
- Strips D1,2,3,8,4, {4,15,2,7,4,} 40,54,70,108,175mm long.
- Strips (for Shapes) C1,R1,R2,R3,T1,T2,U1 {7,11,6,5,3,3, 5} 54,80,108,108,98,96,36mm long. (the holes in R3 which serve as journals for the Axles are 4.0mm Ø.)
- Tray, tin plated, 55*55mm overall with 12½mm deep flanges. {1}
- Flanged Wheel, 30mm Ø, tin plated with an untapped zinc die-cast tapered boss. {4}
- Axle, 3.5mm Ø, 48½mm long with 2 grooves at each end for Wire Clips which locate the Wheel. {2}
- Wire Clips 15mm long. {10, but only 8 needed}
- The Jig is a die-casting with steel pins, and its top face has 'CONSTRUC |SURESNES SEINE | BREVETE S.D.G.D.' cast into it.

The Instructions Rather than the manual (called Album) mentioned in OSN 21, this Set contained only a 'Notice Explicative', folded to fit into the box. It is in French with 12 unnumbered pages 247*165mm plus covers. It is printed in a reddish-brown on pale beige and the main panel of the front cover (Fig.2) is identical to the Album cover except that the latter has 'PRIX DE L'ALBUM 3FRS' under the name. C1-p4 contain an introduction plus notes on how to use the Jig and combine the Shapes, with a photo of the Strips & Shapes on p2. Then 3 pages giving detailed instructions of using the Jig to make the Shapes, followed by 6 models on pp8-11. Each has one or two

FIG.2

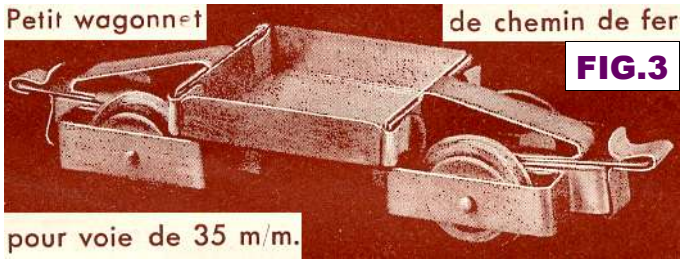
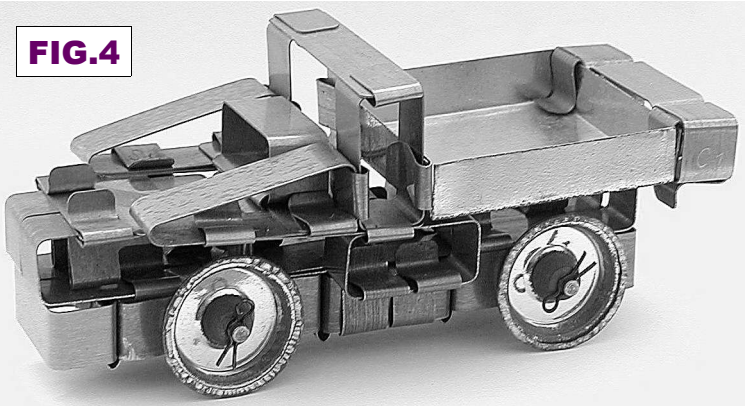


FIG.3

FIG.4



stage-by-stage constructional details but no list of parts. The first is shown in Fig.3, the second is another Wagon for 35mm track; the rest are various commercial Vehicles with the model I made, one of the two largest, above, though it is shown in the Notice with Road instead of Flanged Wheels. p12 has the model in Fig.5 which it is said can be made with skill & ingenuity (plus, though not mentioned, a great many more parts). C3 has small photos of 6 large models, including the Fig.5 Crane, with mention of the sets needed to build them, and C4 lists the 8 sets in the system with a short description of each.

Using the Parts The instructions for making the Shapes are clear and with one exception the Jig works very well, though some of the bends need quite a lot of force and it's very hard on the fingers. I think most pre-teens would need some help. The only problem was that the Clip AS was unusable unless prior to the first bend the Strip was withdrawn by 2½-3mm from the fully home position (shown at 'D' in OSN 21.

Building the model was a different matter: the photos didn't show enough detail, the order of assembly was critical, and in some areas I don't think the model could be made exactly as shown. But after considerable exercise of (what remain of) the little grey cells the finished model looked more or less as in the Notice, even if it was clipped together rather differently. It was surprising quite solid and there was no danger of parts falling off when played with, or with reasonable care, of their even being knocked a little out of place. Has anyone made a large model? I though to attempt a larger model using more of the parts in the Set but couldn't face the mental effort in trying to imagine how all the pieces could fit together.

JACQUES' No.1 looks identical except that many more of the Strips have been made into Shapes. Most look neatly made

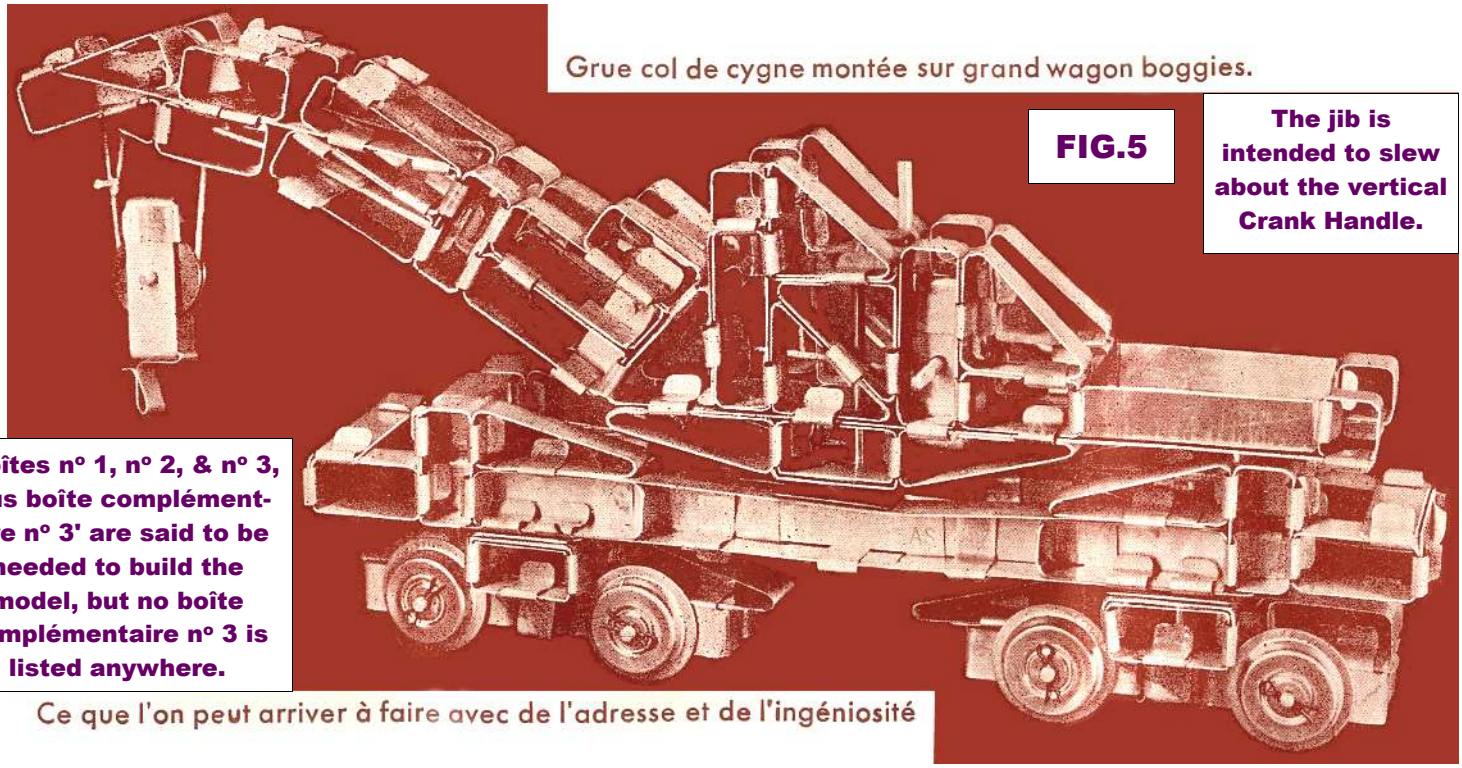


FIG.5

The jib is intended to slew about the vertical Crank Handle.

'boîtes n° 1, n° 2, & n° 3, plus boîte complément-aire n° 3' are said to be needed to build the model, but no boîte complémentaire n° 3 is listed anywhere.

but some show defects and so it's not clear how many were factory made.

The LUX Outfit

The box is red, measures 47*285*95mm, and has one tray. The sides of the box are wood, the bottom, tray, and lid are card-board, the latter held shut by two catches. The label is about the size of the No.1's and is glued into the top left corner of the lid. Its design is the same too except that there is no line of text at the bottom under the name, and the text in the top left corner is different. Said text is headed: CONSTRUC-LUX (in quite small letters) | Coffret Général | PLUS DE 1.000 PIÈCES | dont 270 éléments à former (of which 270 parts are formed). Underneath is mention of models and some of the parts in the Set, and also that it included an Album with numerous models and a Mode d'Emploi. Neither were with the Set but probably the latter was the Notice mentioned earlier, or something similar, and the Album was most likely the one in OSN 21, although none of the models in it do justice to the number of parts in the Set, and towards the end it was said that a complementary Album would follow. Finally on the label, the price, 'Frs: 115'.

The underside of the lid is blue, as is the bottom of the box and the tray, both of which are partitioned. The over 1000 parts in the set include all those in the three basic outfits, and many more besides. Many of the partitioned areas are filled with a large number of closely packed ready-made Shapes, and a jumble of ready-made Clips, in all probably the 270 mentioned on the lid. From the layout of the partitioning it is certain that all the Shapes were factory made.

The Parts Apart from Strips D5,6,9, (lengths: 200m, 450mm, & about 270mm), and Strip R4 (about 140mm long with 4x 4mm holes), the parts in the Lux but not in the No.1 are shown in Fig.6, plus parts in different colours and, for reference, the Axle in the No.1 (above the short Axle). There follows a list of the 'new' parts in the Set, with quantities in curly brackets:

- Tabbed Plate 'A' {2 green, 3 bright}; Flat Plate 'B' {4}. The main use of these parts is in slewing Cranes (see Figs.7,8 overleaf, in which 2 of each are used) – the semicircular slot in 'A' is a mystery.

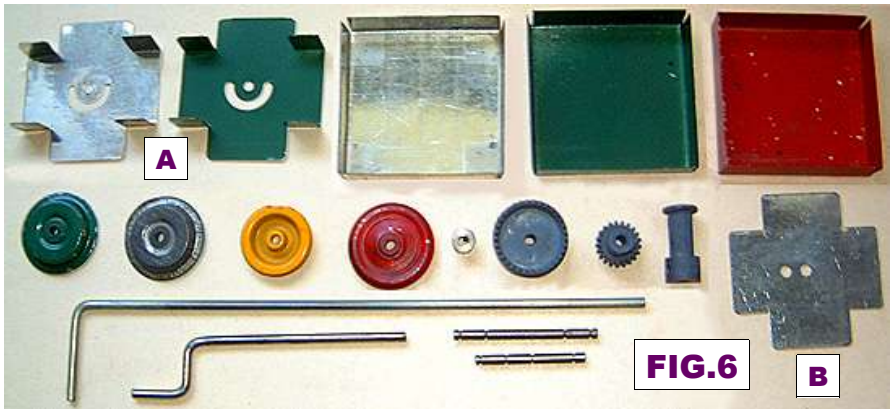


FIG.6

- 'L' Axle, 20cm long {1}.
- 21t Pinion & 31t Contrate {1 each}.
- Winding Drum (next to the Pinion) {1}.

The Gears & Winding Drum are cast and are single-tapped for a Set Screw.

- Collar. Nickelled, and also single-tapped {2}.
- Road Wheel, red {10}. • Pulley, yellow {3}.
- Crank Handle {3}.
- Short Axle {6}.

The other parts, apart from Strips, Shapes, and small parts (still in 4 little transparent packets) are:

- Tray {2 red, 2 green, 1 bright}.
- Flanged Wheel {8 green, 8 bright}. The 2 colours for this parts, and for example, the Tray, may have been to allow 2 models of somewhat different appearance to be made at one time.
- Axles {8}.

A Slewing Crane

The instructions for this model, one of the most advanced in the Album, are shown overleaf, with the photo full-size and the sketches at about 75%. The tower, called Le Pivot, has 4 built-up angle girders at its corners and the slew bearing is provided by Tabbed Plates at the top of the tower and on the bottom of the jib. The 'L' Axle passes through a Flat Plate at the bottom of the tower & one on top of the jib's main members. The Gears are the bottom of said Axle while its short arm sits on top of the Flat Plate, but what it engages with isn't clear. The Winding Drum isn't shown on the Crank Handle in the sketch bottom right. The 'L' Axle would have to be the 450mm part

but curiously the Lux set has only the 250mm size.

History

The Company The Album has 'CONSTRUC, 9 Rue de la République, Suresnes (Seine), Téléph: LONGCHAMP 14-97' and 'Fabriqué à Suresnes (Seine)' on its back cover; the Notice has Fabriqué par Ageteco-Crebert at the same address & phone number. The 'C' of Crebert though may have been a misprint because a Google search found a UK patent 455178 of Oct. 1936 in the name of Établissements Ageteco-Grebert at the same address. (The patent is about an improved metal strip for packaging, and the convention date was 30/1/34.) Nothing is known for sure as to how long COSTRUC was made but it was long enough for there to have been a few changes to the range of parts & to the sets.

The Patent David Hobson kindly sent a copy of a UK patent 439863 which was applied for in March, 1934 but was marked 'Specification not accepted'. No doubt there would be an equivalent French patent or application. The patent was in the name of Philippe & François Leblanc of 17 rue des Acacias, Paris XVII[e] and clearly shows the Clips and 3 of the Shapes used in CONSTRUC (right). Also in the patent a number of other Clips & Shapes along similar lines. It was envisaged that the Shapes would be made by the builder and a jig for this purpose was shown. It is quite different to the CONSTRUC part and basically allowed bends to be made with the bend angle shown by a pointer moving over a protractor. The only CONSTRUC feature not mentioned is holes in the Shapes for Axles – in fact there is no mention of wheels at all, & the only model shown is a Bridge.

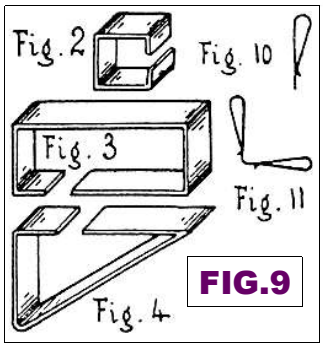


FIG.9

CONSTRUC before WW2? It was said in OSN 21 that the

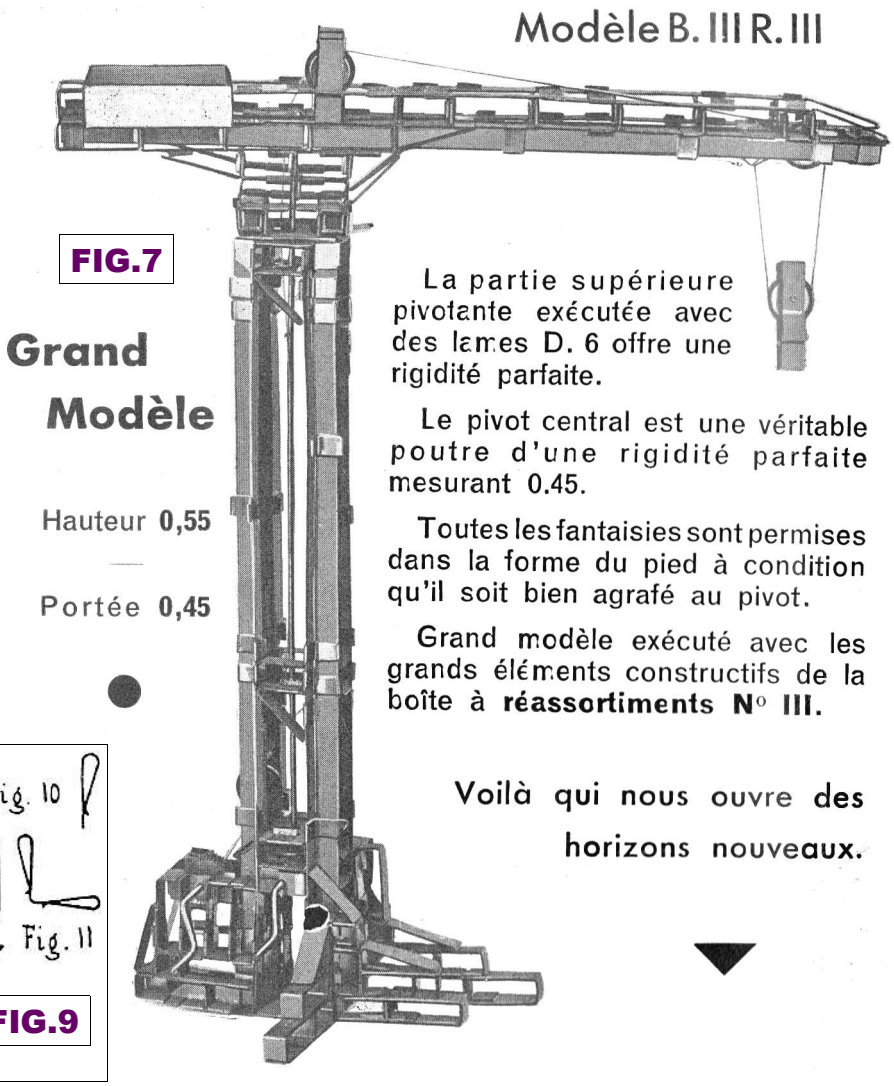
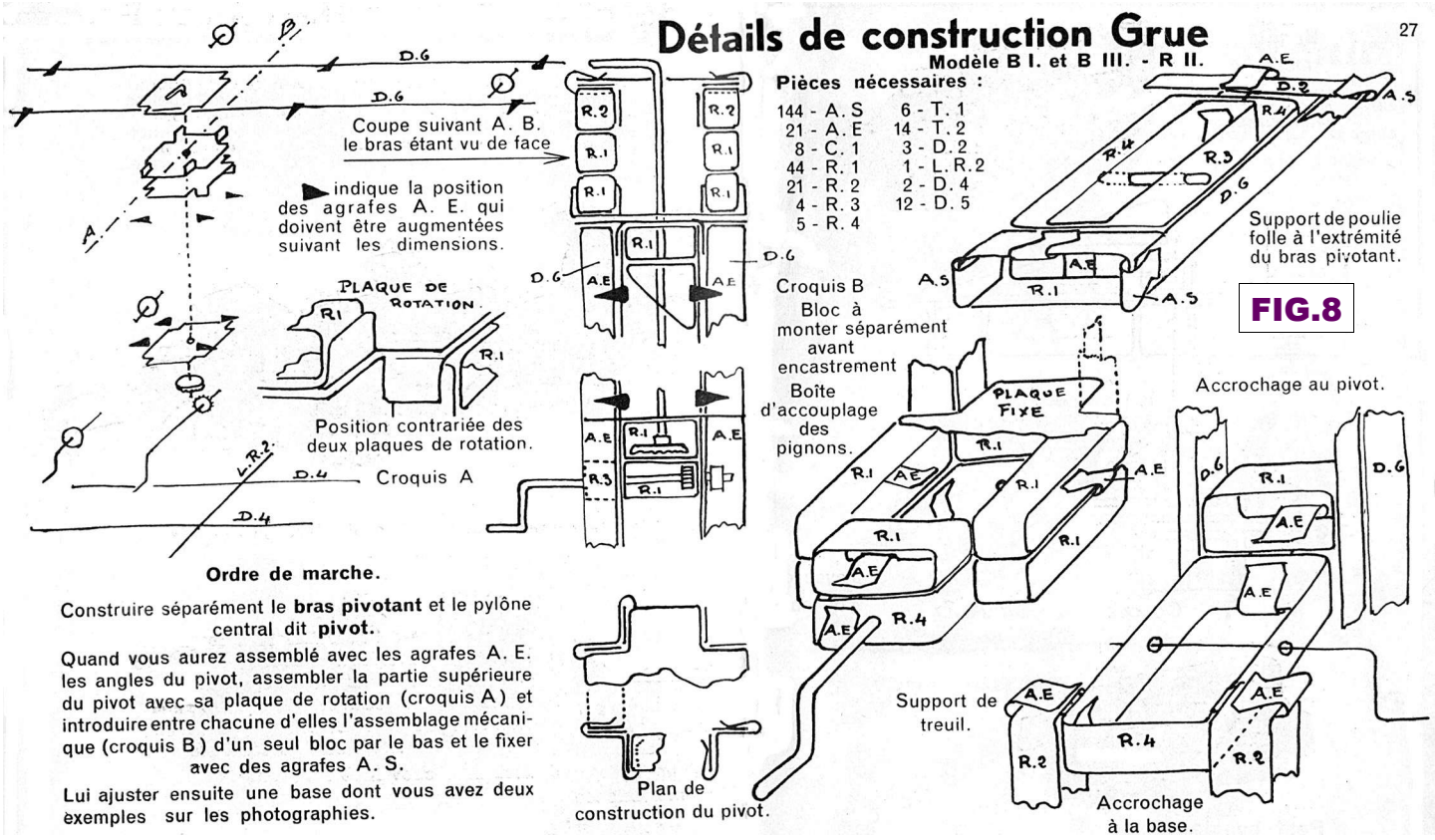


FIG.7



CONSTRUC name was registered in 1947 but despite this it seems likely that CONSTRUC was on the market before WW2. Jacques has pointed out that the price of the outfits in the Album, Fr.5 & 10, and that of the Lux set, Fr.115, point strongly to prewar. Likewise the cost of the Album at the time, Fr.3. These prices are comparable with MECCANO in 1937: a Set 0 at Fr.32, an X1 at Fr.9 and a D at Fr.135. The earliest postwar MECCANO prices to hand are for 1953 when a No.0 cost Fr.695 and a No.0 manual Fr.50. Official figures show that prices rose by 200% between 1947 & 1953 and so the 1947 prices would be about Fr.350 and Fr.25. QED, but it might be thought odd that both of the only two Albums known have the 'prewar' prices in them. If they were issued postwar, then they must either have been prewar stock, or printed postwar unamended. In both cases the postwar prices could have been on a separate leaflet.

The First Parts? There is one indication in the OSN 21 Album of a possible first stage in the CONSTRUC story. The 16 Strips listed are labelled as would be expected but 4 of them, AS, R.1, R.2, & T.2, also have in brackets by them those PNs preceded by 'L.' So could it be that there were only these 4 Strips in the system originally? The 'L' probably stood for 'Lame', the word often used for the Strips in the manuals.

The Era of Sets I to III Whatever the date the range of sets given in the OSN 21 albums was: Sets I, II, III; add-on Sets I, II; extra parts Sets I, II, III. Then, as stated in OSN 21, the extra parts sets were replaced by Sets I & II (whether the addition of the serifs is significant I don't know). This replacement is known from Jeannot's Album in which a sticker with Sets I & II on it covers the original three sets.

The Era of Sets 1 to 8 The sets advertised on the back page of the present Notice are from No.1 to No.8 and these no doubt replaced the previous 7, earlier 8, sets. They are thought later because the Strips D8 & D9 in the Notice were not mentioned in the Albums, and were presumably new parts. Perhaps the change happened after WW2. No prices are given and that might be expected in the postwar inflationary period.

Now to compare the new 1-8 range with the contents of the earlier sets as given in the MCS Extra Sheet (the contents of Sets 1-8 are only given in general terms in the Notice). In what follows the number of models quoted are those for Sets 1-8 in the Notice. • **No.1** has the Jig and more than 150 parts for 8 models. The earlier No.I had 134 parts. • **No.2** has 190+ railway & motor vehicle parts for 23 models, against 180 parts in the No.II. Set II contained all the parts in the No.I except the Jig and so couldn't be used without having a No.I. • **No.3**, 130+ mechanical parts for 30 models including Cranes etc, against 140 parts in the No.III. Nos.III & 3 are clearly add-on sets and would be used with Sets I & II. • **No.4 & No.5** are add-on sets with railway & motor vehicle parts respectively, which in each case allows 13 more models when used with Set 1. These sets are probably similar to the earlier add-on Sets I & II. • **No.6** contains 'plaques de rotation' and other parts to allow, with Sets 1 & 2, 'belles réalisations' such as Models 18 & 35 in the Album. There was probably not an earlier equivalent to this set. The models in the OSN 21 Album were not numbered so this might indicate that there was a later version of the Album. • **No.7 & No.8** with 200+ & 70+ parts, are probably similar to the earlier extra parts Sets I & II though the latter contained the 450mm Axle and this isn't mentioned for the No.8.

<u>METALLUS Bits & Bobs</u> Browsing the Metallus web site I came across a few things that I didn't remember from 2007 (see 37/1112).

The changes included 2 new sets, one a version of the largest Berlin outfit described as 'MEC-read-green', which I guess means the parts are in Meccano's red & green, but there's no photo. The other is a set to make the rather unusual 'Red Baron' below (Fig.1), with wings from a Strip front & rear, and Cord lacing in between, and the prop driven from the twin tail wheels. It is said to have 248 parts and to cost €78.50, both of which I find hard to believe. The Berlin, with its 2713 parts, still costs a much more reasonable €614.49.

New to me among the parts are: • The Roller in Fig.2, supplied with 2 sizes of Bracket. • 8mm Axles, 8/4.1mm Hollow Axles (normal METALLUS Axles are 4.0mm) up to 300mm long, and the 8mm Bearing in Fig.3, probably a ball race between the brackets. The only part I could find mention of with an 8mm bore was a 16mm o.d. Collar. • Narrow Strips and A/Gs up to 49h long, and a few Narrow Brackets. • 5, 11, & 17h Flat Curved Girders (Fig.4). • Several sizes of Flexible Triangular Plates in the form of isosceles triangles. • Cord in various colours and 1, 1.5, or 2mm diameter. • Various Battery Holders, some with switches. • A 6½" Ball Bearing with 16x 10mm balls (Fig.5). • 5 to 25h Girder Strips (Fig.7), of 1mm thick steel. • A Flexible Double Strip (Fig.6) which I thought might be a plastic hinge, but seems to be steel and can be set to any angle by bending across the narrow joining links.


FIG.1

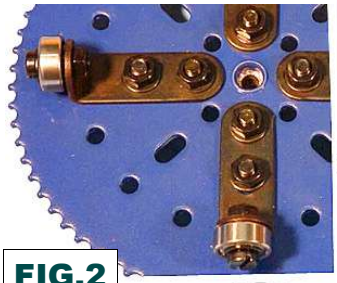


FIG.2


FIG.3


FIG.4

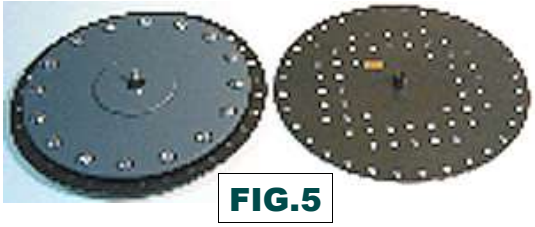


FIG.5


FIG.6

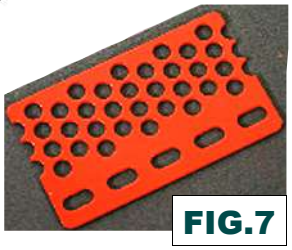


FIG.7

VEX Update and the Vexplorer Set A note about VEX appeared in 34/1006 and since then there have been two changes in the way VEX is distributed. It can still be bought from Vex on-line (www.vexrobotics.com) but RadioShack have stopped selling it, and subsequently a set was produced for Revell with simplified control elements. It was called Vexplorer and production ceased in 2008. Not all the electronic parts in this Set are compatible with mainstream VEX and Vexplorer parts are sometimes referred to as 'blue', as opposed to 'red' for VEX proper.

As well as details of the kits, add-on kits, & parts available, the Vex web site provides much information about models, programming, competitions, etc, etc. There is a good deal of emphasis on the use of VEX in schools and colleges, the case being made as follows:

> 'The VEX Robotics Competition offers unique and challenging team-based games that put high school and middle school students' engineering and technology skill to the test. Students, with guidance from teachers and mentors, collaborate to build the most innovative robots possible and work together during competitions to obtain the most points possible. In addition to having a great time and building amazing robots, through their participation in the VEX Robotics Competition and their work within their team, students learn many academic and life skills.
>
> Local VEX Robotics competitions are held in many different cities, states and countries. Visit RobotEvents.com to find the dates and location of a VEX competition near you. Teams can register online to get an official team number, Team Welcome Kit and register for VEX Robotics Competition events.'

When I went to RobotEvents.com last July 10 different competition sponsors were shown, two of which were from Vex and the rest from other firms and outside bodies. I only looked at 5 of them because the site was very slow & clunky. Most, including the 2 from Vex were for teams rather than individuals to enter, and some, again including those from Vex, required entry fees and the purchase of the special equipment needed to take part. In one case the cost was several hundred dollars, appreciable but perhaps not for a high school or college. Most of the competitions I saw were about moving balls around within a specified area, 12ft by 12ft in one case, but one was to design a new game. The object of the ball games was to outwit rather than destroy opponents. I don't know how far success would be due to the skill of the operator, or operators as a team, or to the design of the Robot. I suspect the former given that all competitors use the same Motors, Servos, etc.

Starter Kits. There are 3 of these, all of which have 300+ parts and allow either of the 2 models in Fig.1 to be made, a Protobot or a Tumbler. The models in #276-2310 at $300 are radio controlled; in #276-2320 ($400) they can be programmed & the price includes 'your choice of programming software'. #276-2330 ($500) allows either radio or programmed control.

Add-on Kits & Parts. These are listed under various headings: **Structure** (with a vast array of kits and parts, including some in aluminium – it is not practicable to list them here but at least their square holes make them easy to recognise); **Logic** (microcontroller & software); **Sensors** (limit & bumper switches, light sensor, line following kit, optical shaft encoding, ultrasonic obstacle detection); **Power** (batteries, power packs, chargers); **Control** (transmitter, receiver, crystals); **Motion** (geared motor, servo, plastic wheels, gears, sprockets, chain, & track); **Equipment** (tools, safety glasses to 'protect your eyes while working on your robot', camera kit, clothing). Prices range from $3 for 100 Nuts to $130 for a Transmitter/Receiver Kit – the equivalent of a 25h A/G costs about $3 and 100 Bolts $7.50.

In addition a $290 **Pneumatics Kit** was shown in a rather remote corner of the site – it looked to have a reservoir and 2 actuators but no details were given.

The Vexplorer Set This set, like the 'red' kits, has 300+ parts and broadly similar models can be made with it. The Set includes parts for radio control but the models can't be programmed. Also the Set lacks the Servos & Limit Switches in the red sets. There is though a Camera, a novelty not included in any of the red Kits, and, with its wireless Receiver, costs $80 as an extra for them.

The Set comes in a large, glossy box 13¼*22¼*6" and originally sold for $300. Last July after production had ceased it was down to $230 on the American Amazon and anything from $80 upwards on Ebay. The contents are shown in Fig.3 and the parts are tightly packed into a white foam block.

As can be seen most of the parts come as sub-assemblies and the Wheel, Arm & Claw units are simply to be bolted together using the Bumpers and the 10*5h Plate. In fact this is easier said than done because it was virtually impossible to hold the Nuts in the right position with the Tools provided. Also the murky illustrations in the manual were not easy to follow. There is a help line number given though.

Once assembled the model worked beautifully and was more than capable of lifting the 12 ounce drinks can claimed for it. The wireless Receiver for the Camera could be plugged into a TV or a DVD recorder and gave a reasonable if not brilliant picture. The batteries needed are a 9v for the Transmitter, 6 AA for the Receiver, Motors, & Camera, and 4 AA for the Camera Receiver. The radio frequency is 27MHz; the Camera frequency 2.4GHz.

8 add-on sets are advertised in the manual and contain: 2 Motors; Metal Parts; Tank Treads with Sprockets etc; Gears; Advanced Gears; Sprockets & Chain; Wheels; & Omni Wheels. They range in price from £12.29 for the Gears to £79.99 for the Metal Parts, but most are $19.99 or $29.99.

Now a few remarks about the parts. They are accurately made and the structural parts are nicely powder painted black, much more attractive to my eyes than the bright finish of the 'red' parts. The holes are 4.6mm square (or 3.2 for the smaller ones) at ½" pitch. The N&B are 8-32 with black 7.8mm Ø mushheaded Allen Bolts, and BZP hex Keps Nuts, 8.6mm A/F. (The Keps Nut has a serrated washer attached to the nut but free to turn). Some of the parts in the sub-assemblies are not joined by the standard N&B. The Bearing Blocks are held by

FIG.1

plastic Pop Rivets (a headed pin pushes into and expands the 4-way split end of a hollow rivet). These work quite well and are said to be reusable. 6-32 Screws are used to hold the Motors and some steel Grooved Pins held by circlips are used in the jaws unit. All the Wheels & Gears (24 DP) are plastic and are a push fit on the ⅛" square Axles. The latter have very slightly rounded corners and measure about 4.0mm across the diagonal. They run, a little sloppily, in the 4.2mm Ø round bore of the plastic Bearing Blocks. This seems to work well enough with the 5½lb present model and perhaps much heavier Robots aren't envisaged. The sideways movements of the joystick switches on the R/C Transmitter are not used but there are associated spare output termini on the Receiver and so extra devices could be controlled.

The manual has 20 US Letter size pages including covers, and is printed in B&W apart from a few touches of blue on the covers. The Fig.2 model is shown on the front, with general advice on p2, and the Illustrated Parts on pp3 & 4 (as in Fig.2). The step-by-step instructions run from p2 to 16 with large, badly presented illustrations – the problem is that in each the new parts are shown clearly but the existing structure is so dark that it is sometimes impossible to see to which holes the new parts should be bolted. p16 has a troubleshooting guide and p17 shows a single illustration of 2 models which could be made with the parts in the basic model. One is just the Camera mounted on a flat 4-wheel chassis and the second is rather like the Protbot in Fig.1. p19 has an ad for standard VEX & p20 a list of the add-on sets already mentioned.

Using the TV picture to control the Robot when it is out of sight allows one to fetch a can which had been previously placed on the floor of another room, but this palls after a time or two (and invites mockery from ones nearest & dearest). So the next step might be to dismantle the Robot completely and use the parts for another project, one of the models in the back of the Manual perhaps. The Manual does not show how to build up the sub-assemblies so if they were ever to be rebuilt some aides-mémoire would be advisable before taking them apart. Again the 'play' value of the new Robot might be limited but at least one would have had the pleasure of building it from scratch, and working out the how to make the bits that aren't clear from the single illustration in the Manual.

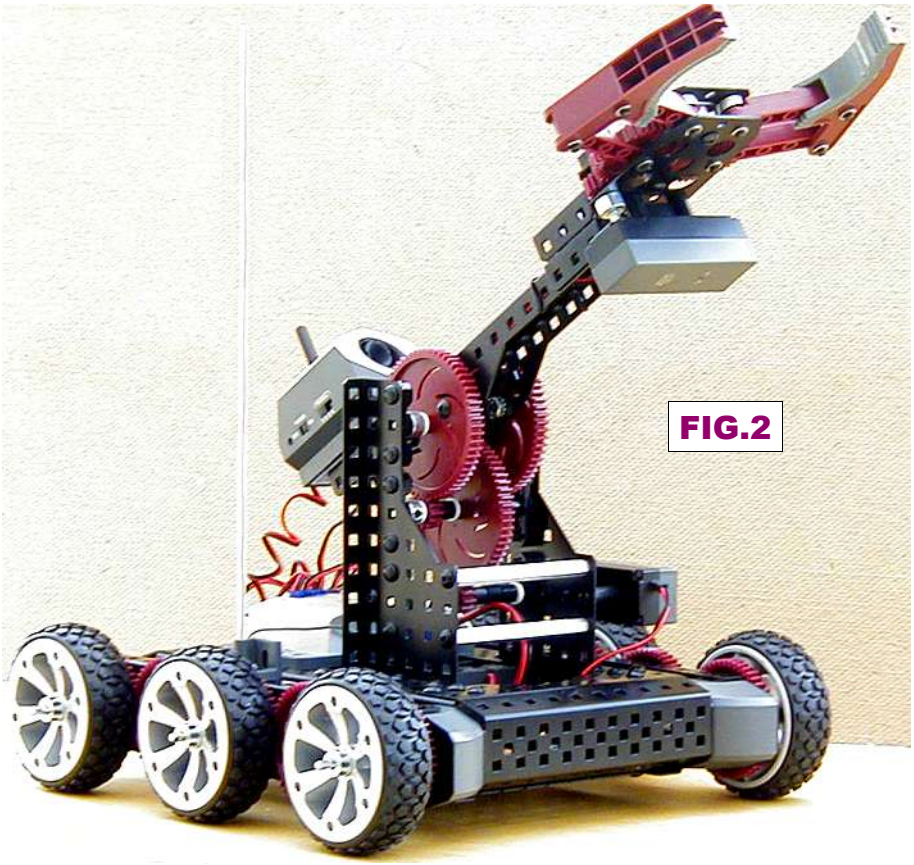


FIG.2

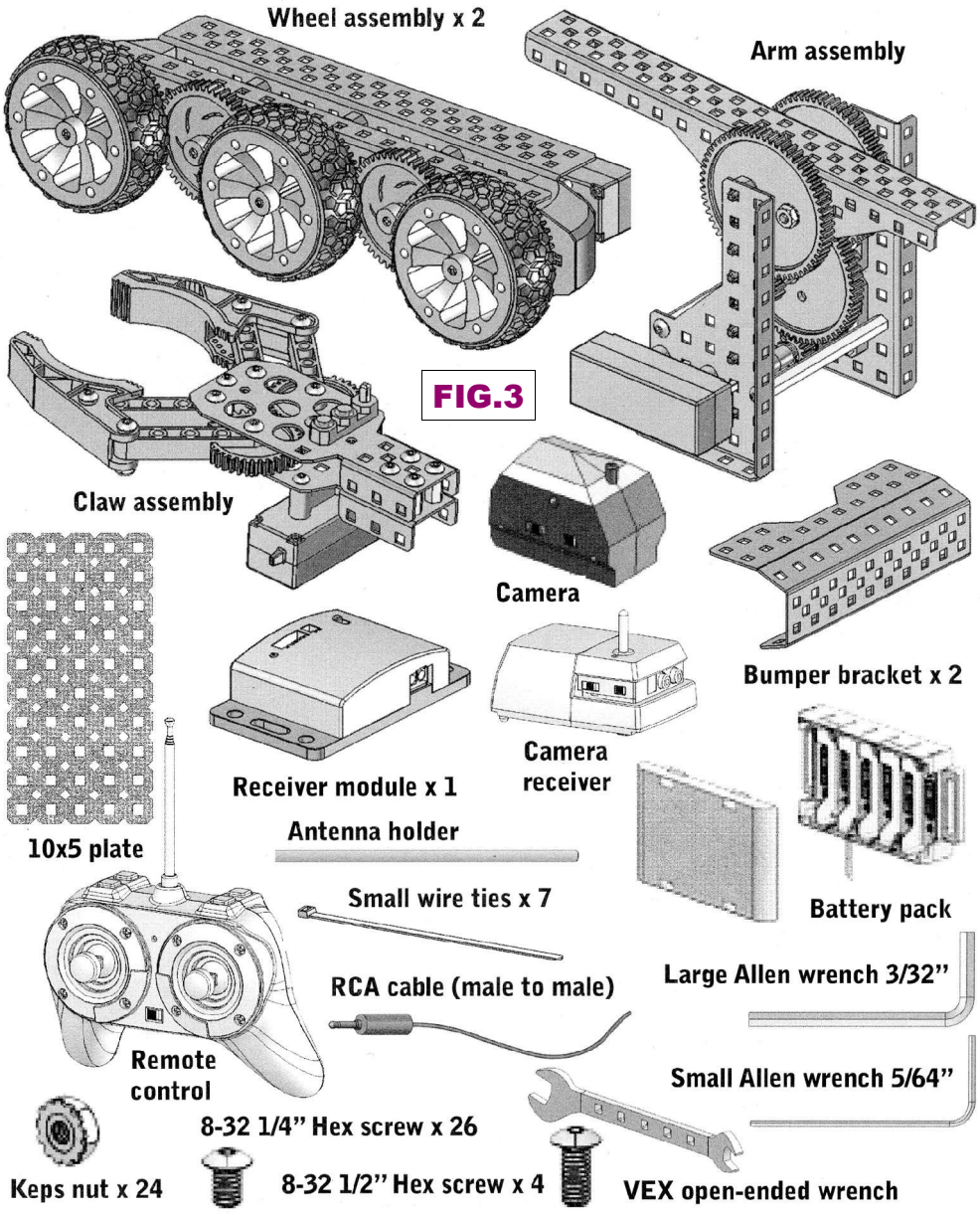


FIG.3

MOTEC This German system was made by Eberhard Pässler in Dresden, though exactly when is unsure and this will be discussed later. Most of MOTEC's 50 parts were conventional but the range did include two novel and useful features. Gearboxes with ratios of 1.5 to 180 could be made from Gears housed in a compact Gear-box Casing, & a Rubber Coupling plus metal T-piece was used to connect the Gearbox to a Motor.

MOTEC details from a manual were given in MCS, and the Gearbox was referred to in 3/33. MOTEC is not mentioned in Eisenzeit, and Baukästen has only a reference to MCS.

This account is largely based on a Nr.1 set to hand which has mainly aluminium parts, and, thanks to Jacques Pitrat, details of his Nr.5, the largest outfit, with a mix of aluminium & steel parts. Additional items are a Leaflet advertising the sets; & a few Ebay photos.

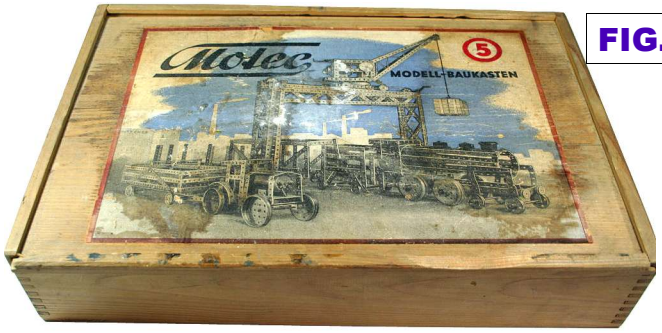


FIG.1

FIG.2

The PARTS Fig.4 is a condensed version of the Manual's Illustrated Parts and most of them can also be seen in the Nr.5 Set in Figs.2 & 3. The notes in the next paragraph apply only to Set 1 – significant differences in the Set 5 parts then follow and include notes on the Gear & Motor items – parts which were not included in the Nr.1.

FIG.3

SET 1 **Holes** are 4.1 to 4.2mm at 12.5mm pitch. **Slotted holes** are 7.6mm long and except in the Brackets #5 & 9, have large radius ends. **Strip parts** are 12.5mm wide. The **DAS** #30 has slotted holes in its lugs. **N&B** are M4 with hexagon Nuts. About half are aluminium with two types of Bolt. One has a 7mm Ø round head, the other an 8mm mush head. The Nut is 7.2mm A/F & only 1¼mm thick. The rest of the N&B are steel with a 7.9mm A/F blackened Nut, 2¼mm thick, and a Bolt dull plated with a 7mm round head. **Bosses** are 10mm Ø except 12¼mm for the 36mm Pulley, and they have bores of 4.1-4.2mm. All are single-tapped M3 (M4 in the 25mm Pulleys but they look to have been retapped). None were found with a **Set Screw** but there was one M3 Bolt among the N&B – 8mm u/h, nickelled with a 4.8mm Ø cheese head. The **Loose Pulley** #16 is 12mm o.d. and 3mm thick. The **Washer** #17 is blackened steel, 10mm Ø. The **Collar** #16 & **Spacer** #17 are 10mm Ø & 4¼mm wide, with the former single-tapped M3. Its **Grub Screw** is brass, 3mm long. **Axles** & the **Crank Handle** are steel, 3.8 & 3.95-4.05mm Ø respectively. Their ends are slightly tapered. **Parts missing** from the Set are the Hook and the Tools. The 2mm wide Screwdriver is needed for the Grubs in the Collar. Also in the Set, some **parts not in the Manual** and perhaps not original: 51mm Ø black Rubber Rings on the 36mm Pulleys, and 3 Axle Stops which look exactly like MÄRKLIN #35a.

SET 5 **The steel parts** are the Flanged Plates, the 25, 11, & 9h Strips, the 11h A/G, the 1*5*1h DAS, the Double Bent Strip, the Axles (4.0mm Ø), the Crank Handle, the 36 & 25mm Pulleys, the Gearbox Casing #20, & the N&B. The **Strips** are not nickelled and they look rather grey. The **Bolts** have pan heads: 7.0mm Ø for the nickelled 20mm S1 & 7.5mm for the dull grey 8mm S2. The **Nut**, 7.0mm A/F & 2.0mm thick is also nickelled. **In aluminium**: all the other parts including the Gears, the large Pulley, the Motor Mount #28, & the Collar. **Holes** are between 4.0 & 4.1mm and the Axles are a tight fit in some of them. The **bosses** are fitted with a 2.5mm Ø **Grub Screw**.

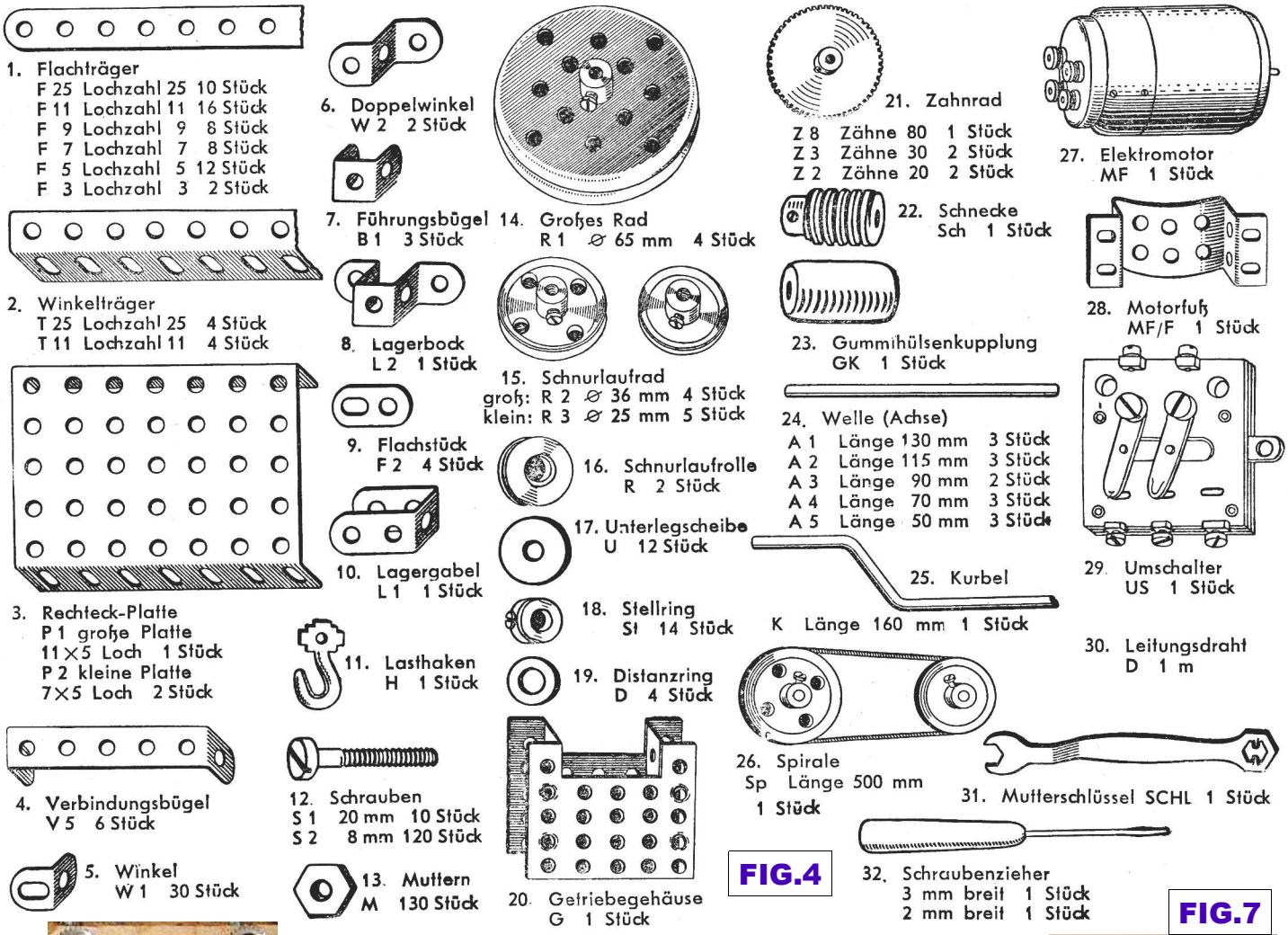


FIG.4

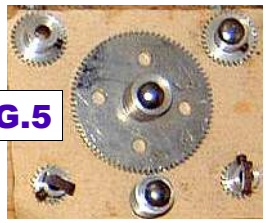


FIG.5

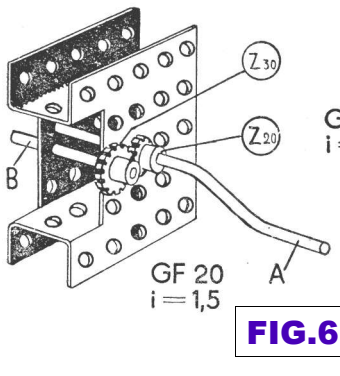


FIG.6

FIG.7

The **Gears** (left) have a Modulus of .5, so a quite fine pitch, with the 80t about 40mm diameter. The meshing distances can be seen below with the 20 & 30t running together in adjacent holes and the 20 & 80t at 25mm centres. The **Motor** has 2 tapped holes on its underside to allow it to be bolted to the Motor Mount #28, and 2 **Special Bolts** are included for this purpose – they are brass and smaller in diameter than the standard Bolts. The **Rubber Coupling** #23 is cylindrical, 9mm Ø & 15mm long. It is used with a flat metal **T-piece**, 11mm long, with a 4mm wide shank and a head 6mm wide. The shank is inserted into one end of the Coupling, and the protruding head engages with a slot in the end of the Motor's 9mm Ø shaft. The other end of the Coupling pushes onto the input shaft of the Gearbox. #30 is **Connecting Wire** for the Motor and the manual shows the Reversing Switch & Motor wired up to a 20v transformer. However in later editions this method is rubber stamped 'ungülig' (no longer valid) and a loose A5 size sheet shows a **Rectifier** between the transformer and the Switch. This part (right) is in Jacques' set & its bottom is the silver disc next to the Switch in Fig.3. The darkish **Plate** under the Screwdriver's shaft in Fig.2 is wooden with holes at 12.5 & 50mm pitch. It is not mentioned in the Manual and if original its purpose isn't clear.The only types of part missing from the No.5 are the spring cord Driving Band #26, the Spanner, & the narrow Screwdriver.

The SETS The **set structure** is rather unusual: the No.1 is the basic outfit, with (it is thought) all the parts for the 33 manual models except the Gear & Motor items; No.2 is an add-on Gears Set; No.3 is the Motor plus a few associated parts; No.4 is just Sets 2+3; & Set 5 is basically Sets 1+2+3. The Leaflet gives the total number of parts in the 5 sets as 450, 70, 4, 75, & 486. No examples of Sets 2, 3 & 4 are known and what is in the Nr.2 isn't clear – the leaflet speaks of 9 Gearboxes, presumably the 9 shown on p5 of the Manual, but if so only about a dozen parts would be needed including the Gearbox Casing & 6 Gears. As an add-on set the Nr.4 is quite understandable, but not so Sets 2 & 3 because as far as the manual models are concerned one can't be used without the other. Unless of course there were more models as yet unseen which could be made using the Nr.1 parts plus those 'unexplained' parts in the Nr.2.

The Nr.1 box is red, made of cardboard, and with a tray. It measures 34*24*8cm and the lid label is identical to the one in Fig.1, except for the stick-on label top right with the Set No. on it. Inside small card trays are used to give 8 compartments in the bottom of the box and 11 in the tray.

The Nr.5 box (Fig.1) is wooden, 39.5*25.5*8cm, with a sliding lid and again it has 2 layers. Figs.2 shows the bottom of

NR. 24 ZUGMASCHINE MIT ANHÄNGER

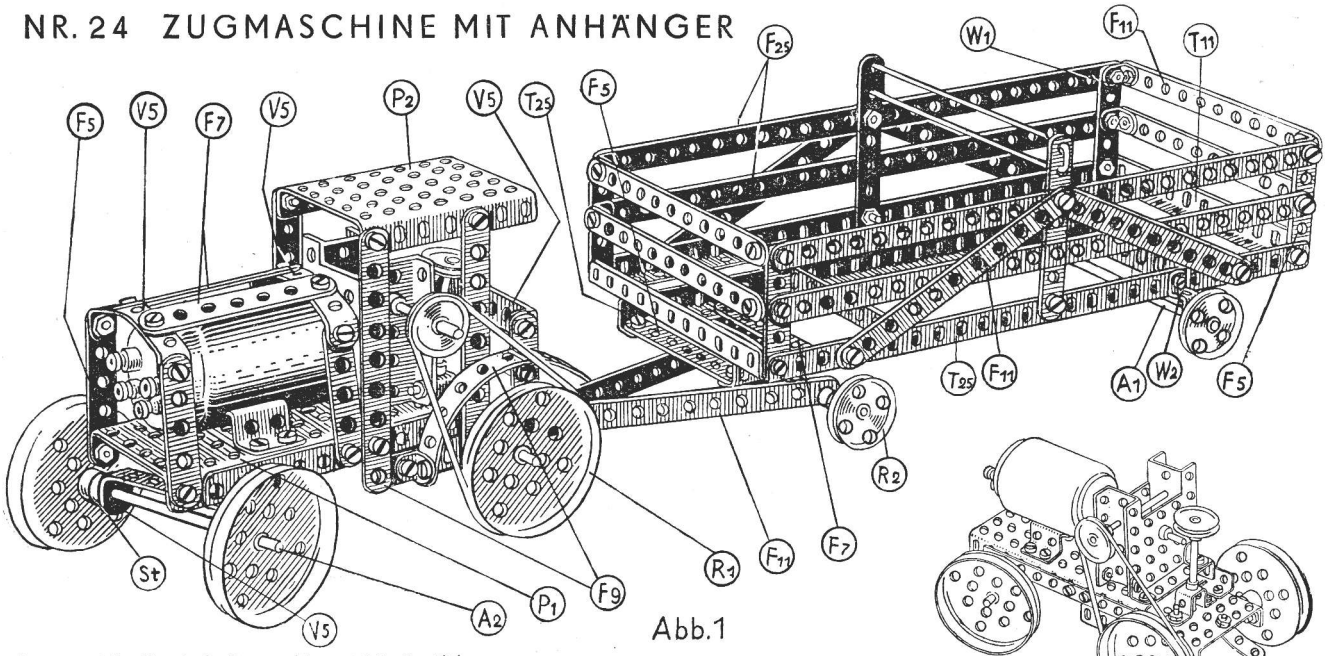


Abb.1

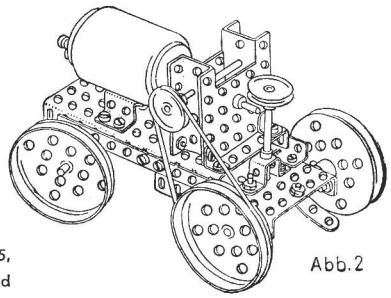


Abb.2

Baue zuerst das Chassis der Zugmaschine aus P 2 mit seitlich aufgesetzten Winkelträgern T 11, die vorn durch einen Flachträger F 5 miteinander verbunden sind. Die vordere Radachse ist in einem Verbindungsbügel V 5 gelagert, welcher drehbar nach GF 5 in der Mitte der vorderen Querstrebe F 5 befestigt ist.

Die Steuerwelle wird nach GF 9 eingebaut.

In das Chassis wird die Antriebseinheit nach GF 24 eingesetzt. Dann erfolgt der Aufbau des Führerhauses mit der Motorhaube nach Abbildung 1.

Das Chassis des Anhängers besteht aus vier Längsträgern T 25, die vorn und hinten mit F 7 verbunden sind. Im Abstand 5 Loch von vorn ist eine Querstrebe F 5 eingesetzt. An diese wird die vordere Radachse nach GF 5 mit V 5 drehbar gelagert. Der weitere Aufbau kann nach der Abbildung ausgeführt werden. Der Kasten wird mit den mittleren zwei Querstreben T 11 auf dem Chassis — ähnlich wie bei dem Lastwagen auf Seite 15 — mit Schrauben S 1 befestigt.

Hauptteile: Chassis
Karosserie
Antriebseinheit

FIG.8

Erforderliche Teile

Bezeichnung:	P 1	P 2	F 25	F 11	F 9	F 7	F 5	F 3	F 2	T 25	T 11	V 5	B 1	L 2	W 1	W 2
Stück:	1	2	4	12	6	8	12	1	4	4	4	6	1	1	18	2

Bezeichnung:	R 1	R 2	R 3	ST	D	S 1	S 2	M	A 1	A 2	A 3	A 5	Sp	G	Z 3	Sch
Stück:	4	4	3	6	4	5	99	116	2	2	2	1	1	1	1	1

Bezeichnung:	GK	MF	MF/F	US
Stück:	1	1	1	1

NR. 32 SPINNE

Hauptteile: Grundfundament
Antriebseinheit
Hauptwelle
Umkleidung

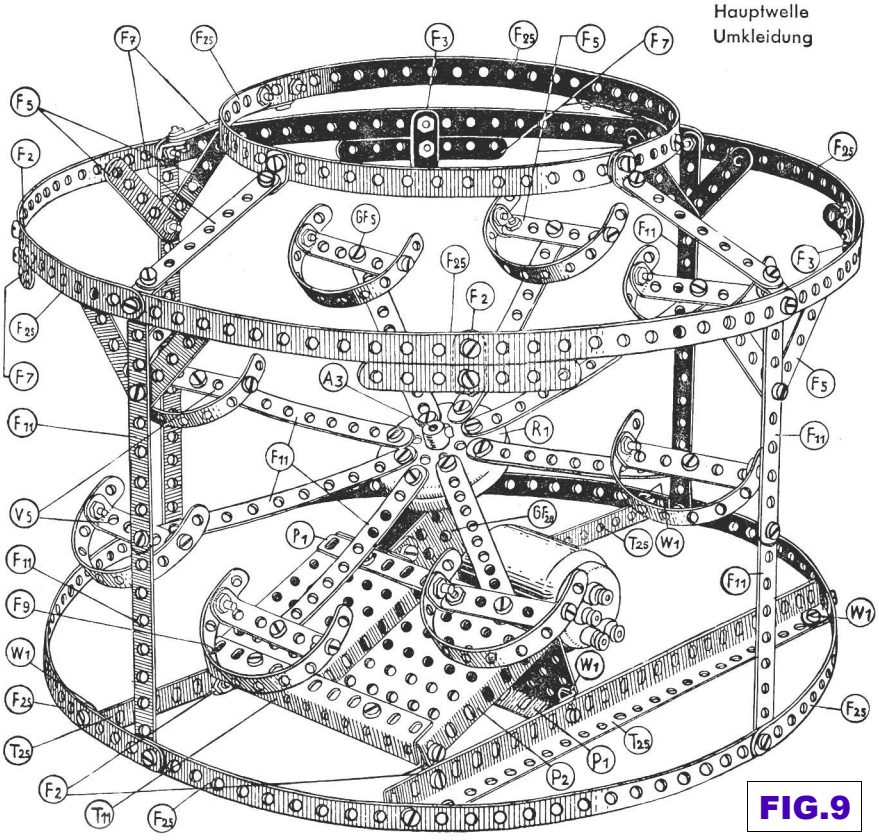


FIG.9

Baue zuerst die Antriebseinheit nach Seite 7 mit Getriebe GF 28. Die Antriebswelle A 3 des Getriebes ist zugleich die Hauptwelle der Spinne. An die schräggestellte Fundamentplatte P 1 der Antriebseinheit werden zwei Platten P 2 angeschraubt, die an der Gegenseite durch einen Träger T 11 miteinander verbunden sind. Das Maschinenfundament wird in zwei Längsträger aus T 25 eingesetzt. Der hintere, aus der Abbildung zum Teil nicht ersichtliche Längsträger ist aus zwei T 25 — mit 20 Loch überlappt — zusammengesetzt.

Das Spinnrad mit Speichen und Drehsitzen wird — wie die Abbildung zeigt — zusammengebaut und auf die Hauptwelle aufgesetzt und mit dieser verschraubt. Die Tragarme der Spinne sind etwas abgebogen, damit sich die Drehsitze leicht drehen können.

Nunmehr wird die Umkleidung fertiggestellt. Sie besteht aus zwei Ringen aus viermal F 25 mit 1 Loch überlappt zusammengeschraubt, die mit vier Längsstreben aus je zweimal F 9 verbunden werden. Als obere Abdeckung wird ein weiterer Ring aus zweimal F 25 und einmal F 5 eingeschraubt. Die Umkleidung wird an den Winkelträgern T 25 des Fundamentes mit Winkel W 1 befestigt.

Der Umschalter für den Motor kann ebenfalls mit am Fundament angeschraubt werden.

Erforderliche Teile

Bezeichnung:	P 1	P 2	F 25	F 11	F 9	F 7	F 5	F 3
Stück:	1	2	10	16	8	8	12	2

Bezeichnung:	F 2	T 25	T 11	V 5	W 1	R 1	St	S 1
Stück:	4	3	1	6	22	1	7	108

Bezeichnung:	M	A 3	A 4	A 5	G	Z 2	Z 3	Z 8
Stück:	108	1	2	1	1	2	2	1

Bezeichnung:	Sch	GK	Mf	Mf/F	US
Stück:	1	1	1	1	1

the box, and Fig.3 the tray (with a cutout for the Motor sitting in the base). The small parts are in the 3 cardboard boxes with fine white polka dots on their lids. The Set Contents are given in the Illustrated Parts.

The MANUAL Except for small changes the manuals with both the Nr.1 & Nr.5 sets are the same.

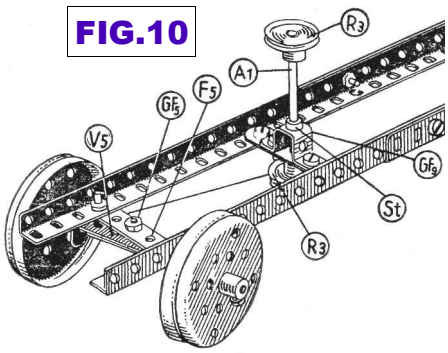
The 'Nr.1'. It is in German and has 32 pages, 297*205mm, plus covers. The front is identical to the Nr.5's in Fig.11 except

that MODELL-BAUKASTEN top right replaces EXPERIMENTIER-BAUKASTEN, and so matches the lid label. The other covers are blank except for the PR and the maker's name & address on C4 – these will be given later. p1 has an introduction & p2 the Illustrated Parts. p3 shows 10 basic constructions, p4 is about pulleys with 4 examples, & p5 is about gearing with the 9 Gearboxes already mentioned – they provide ratios of 1.5 to 180 and 2 are shown in Fig.6. p6 has a description of the Motor & p7 shows how to wire it to the Switch & transformer, and how to connect it the the Gearbox with the Rubber Coupling (though the T-piece isn't shown). 33 models are shown on pp8-31, each with one or more large line drawings, a parts list and, for all but the simplest, explanatory text. p32 has the table of contents of the manual.

Of the models 16 do not need the Motor and Gearbox and can therefore be made with Set 1. The first is 1. ROLLWAGON (Trolley) on p8, the last 17. DREHBANK (Lathe) on p12. Apart from the Lathe, a nice Bridge, and 5 small but quite attractive farm implements, most of the models are very simple. None fully exploit the many constructional parts in the Set

All of the other models, from 15. BOHRMASCHINE (Drilling Machine) on p11 to RIESENRAD (Big Wheel) on p31, are driven by the Motor through one or other of the 9 Gearboxes on p5, and all are larger, worthwhile models. They include the models on the manual cover, various other vehicles & cranes, 3 fairground attractions, a Lift, etc, etc. The Gearbox fits easily into most of the models but otherwise there is little mechanical refinement. For example, none of the crane jibs luff, and only two of the vehicles have steering (cord operated centre pivot as left). And all the vehicle are driven by a Spring Cord drive to the rear wheels, as in the Tractor in Fig.8 One curious feature of the models is that the Gears are only used in the Gearbox and never on their own.

FIG.10

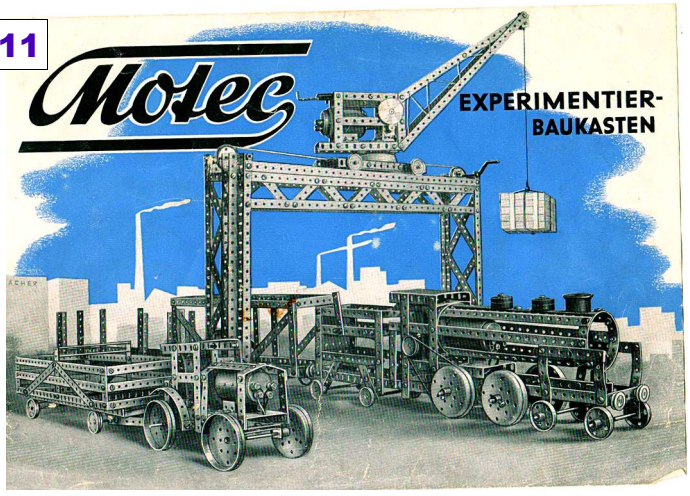


Two of the models are shown left. The Roundabout is about 75% of the original size and the Tractor with Trailer drawing is full-size but with the text much reduced. The Tractor's steering is said to be like that shown in Fig.10.

It isn't mentioned in the Manual but many of the models could, by omitting the Motor/Gearbox, and with a little adaptation, be made with Set 1, and operated by hand.

The 'Nr.5'. Apart for the name on the front cover (below) and some resetting of the text it differs from the 'Nr.1' only in the following respects. • 'Getriebe Patent angemeldet' (Gearbox patent pending) has been added on p5. However it is also on p32 of both editions. • As explained earlier p6 has been rubber stamped 'ungülig' (not longer valid). • The back cover has a different PR – details are given later.

FIG.11



The EBAY SETS **Nr.1.** The one set seen matches the present Nr.1, with MODELL-BAUKASTEN on both the lid & manual cover. It has 4 boxes for small parts, two of which are as those in the Nr.5 and two, of about the same size, have dark brown lids.

Nr.5. 3 other sets have been seen. **The first** matches Jacques' and like it has MODELL-BAUKASTEN on the lid and EXPERIMENTIER-BAUKASTEN on the manual. **The second** is similar but the manual & Motor parts are missing and some parts, including the Strips & 65mm Pulleys look to be black. **The third** has EXPERIMENTIER-BAUKASTEN on both the lid and the manual, and is in a different wooden box. It still has a sliding lid, but its tray is only about ¾ the length of the box. There are 12 compartments in the tray and 6 in the base, including 2 large ones with the Pulleys in them, attached to blue backing cards. The Pulleys are red; the other main parts are blue. The 3 small part boxes are red. There are no 65mm Pulleys but instead 4 of the 36mm are fitted with treaded Tyres, and their O.D. scales at about 65mm. In addition there are 10x 36mm & 5x 25mm Pulleys, with most fitted with Rubber Rings. However the box may have contained parts from more than one set because 2 Motor Mounts can be seen. Some parts are missing, the 5*7h Flanged Plates for instance, and there is no Rectifier. There is though a loose A5 sheet, too blurry to see any details but it does have drawings on it which are not the same as those on the Sheet with Jacques' Nr.5.

The EXPERIMENTIER-BAUKASTEN on the lid of the third set is a clear change but more evidence would be needed to be sure that the coloured parts and the other changes noted above are genuine and not just the work of an enthusiast.

DATES MOTEC was made by Eberhard Pässler, William-strasse 10, Dresden A 28. From Google, the firm, sometimes referred to as EPD (Eberhard Pässler Dresden), made toys, model steam engines up until 1963, and domestic appliances until 1990, but became VEB Elko Dresden when it was nationalised in 1972.

The PRs of the known documents are:
'Nr.1' manual: D31 1250 5 Selecta-Druck GmbH., Dresden
'Nr.5' manual: lll/9/31 651 5 Selecta-Druck GmbH, Dresden
The loose Motor sheet with the Nr.5: lll/9/152/551/2000
Leaflet: lll/9/31 O 2278

The existence of MOTEC after WW2 is shown by the Leaflet because there is an unused space for a price after each set but with DM (Deutsche Mark) printed before it, and the DM was introduced in the DDR in July 1948. So possibly the '1250', '651' & '551' in the first 3 PRs denote dates. No start date is known but a Google search gave several postwar, but no prewar references to either EPD or Selecta-Druck.

However MCS speaks of 'about 1930' and the 9/31 & D31 in the manual PRs could indicate 1931. Also the presentation of the set and the graphics do look typical of many sets made in the 1930s, as opposed to those made after WW2. And Jacques wrote that Pässler's introduction in the manual includes an almost lyrical description of the advantages of the technical progress made in the preceding years, and encourages the young to work as engineers to help to develop technical advances for the good of humanity. In the light of this it seems much more likely to have been written in the early 1930s than in a city which had so recently been devastated by man's 'technical progress'. Unless of course it was a question of the 'party line' at the time and the author was merely following it.

So pre- or post-WW2? Either way there seem to be anomalies in the PRs. One possible way forward is the 'Patent Applied For' in the manuals, if a record of the application or a subsequent Patent could be found.

A CLIRO No.2 Manual Notes on the No.1 set & model sheet were given in 26/775, and now David Hobson has kindly lent me a No.2 manual he has found. It has 8 pages including covers, 248*184mm, all printed in blue, like the Model Sheet, and the front is shown below. It was probably printed after the

FIG.1 Model Sheet because it has 'British & Foreign Patents' at bottom right instead of 'Patents Granted & Pending'. Also 'Conversion Sets', not heard of before are mentioned on the cover.

The other pages are devoted to 17 models, from TRAILER to BREAKDOWN CRANE. As on the Model Sheet there is one photo and brief constructional details for each, but in addition line drawings of tricky constructional details in a few cases.

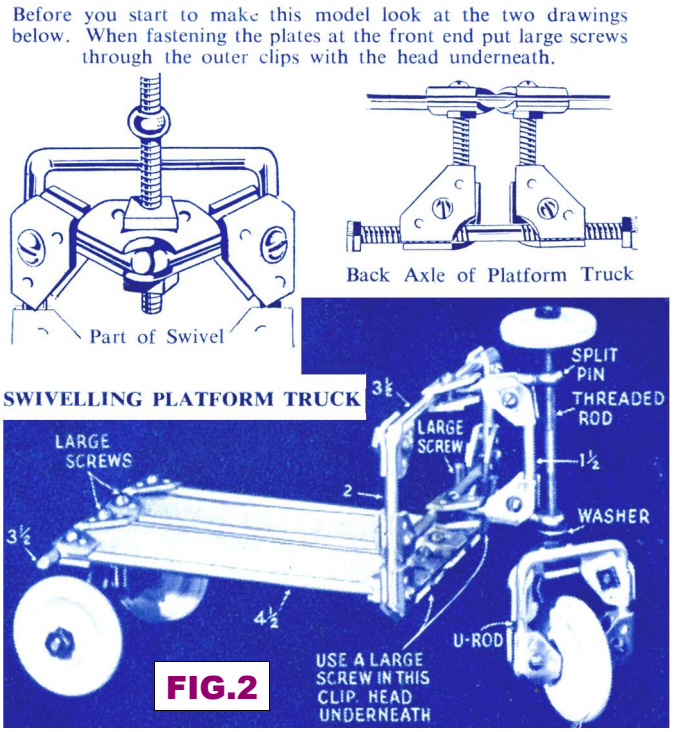
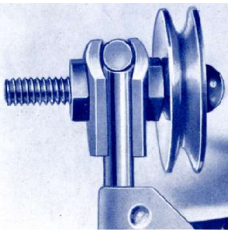


FIG.2

New parts that can be seen in the models are the Loose Pulley & Long Screw right; a 3½" Threaded Rod; and, probably, a larger Road Wheel of about 1½" Ø. One of the models, a Log Truck on p5 is identical to one on the Model Sheet, and many of the others are similar but a little more elaborate to



L.S. Long Screw

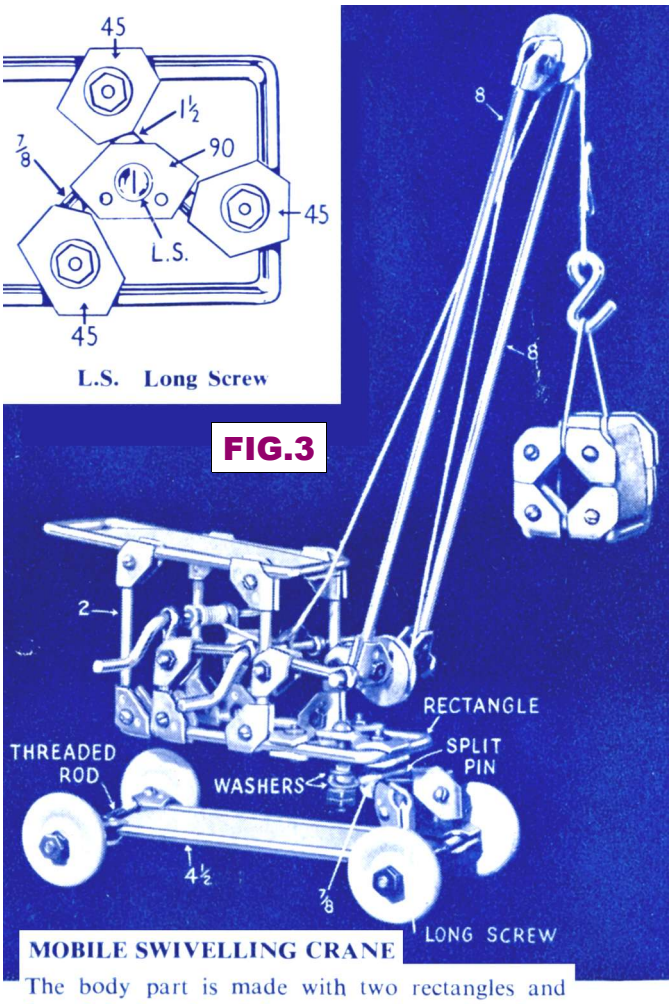


FIG.3

MOBILE SWIVELLING CRANE

The body part is made with two rectangles and four 2 inch rods. A large screw is used to form the swivel and it goes through the split pin as shown. Look at the small drawing before you make it. Seven split pins are required, two each for both handles and two for the bottom of the jib, and one for the swivel.

(tt)

reflect the greater number of parts in the No.2. There is a second Plate for instance. The most interesting innovation is a swivelling movement which can be seen in two of the better models, the Mobile Swivelling Crane above (on p6 & the cover), with a luffing movement too, and the Swivelling Platform Truck, left (on p8). Both are shown here about 30% larger than in the Manual.

OSN 41/1249 **CLIRO: S1**

Snippet. 'New' Italian System: UFSA This Ebay set was said to be from the 1930s. The box measures 18*23*3cm and 'UFSA' on the lid (Fig.1) is presumably the name of the maker. The words underneath translate as 'mechanical engineering technology for children'. The 'No.1A' in the bottom right corner reminds one of the German system of numbering TRIX Units, though as will be seen not all the parts are TRIX-pattern and the quantities often differ.

Scaling the parts (Fig.2) from the size of the box, the pitch of the holes came out to be very near 7.8mm, so probably the TRIX value. The parts that can be seen are as follows with the holes counted along the outside edges, and the non-TRIX parts in red: • **Strips** with 4, 6, 12, & 14h. • **Brackets**. Angle & Double Brackets. A 2*1h A/B at 'a' • **DAS** with 4, 6, 8h bases. • **Circular Parts**. 8h Disc and the one at 'b' which looks to be dished and could be a Pulley Disc (TRIX has a quite different Pulley Disc). A Loose Pulley (2½h Ø) with 4 face holes, or perhaps it is a smaller Pulley Disc. A Tyre or Rubber

OSN 41/1249 **UFSA: S1**

Ring, smaller than the smallest TRIX Tyre, which might fit the Loose Pulley or possibly the 8h Pulley

FIG.1

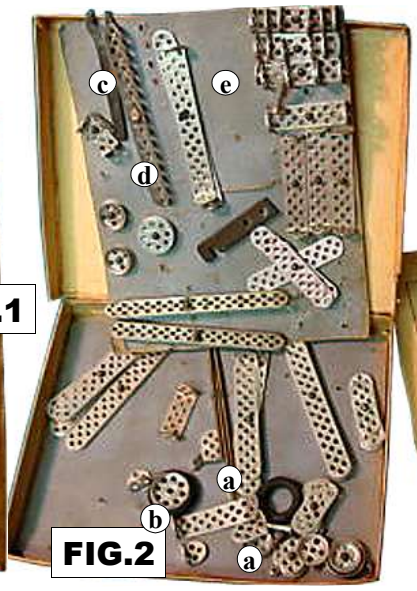


FIG.2

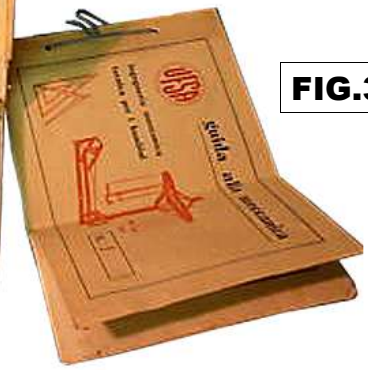


FIG.3

Disc (as at 'b'). • Spanner or Span'driver 'c'. • The part at 'd' which might be a conventional A/G – its finish doesn't really match the other parts but its holes are at or very near their pitch. • The (home made from the 14h Strip?) parts at 'e': a 12h base DAS, with an SAS under it.

As can be seen the pages of the manual appear to be bound together with string. I don't recognise the model on the cover (and the lid) from TRIX or any other similar system.

UFSA: S2 **OSN 41/1250**

Snippet. A 'New' Turkish System: TEKNIKO Below photos of a set offered on German Ebay but the language on the lid and manual cover is Turkish. TEKNIKO doesn't sound a very Turkish name and conceivably this set was an export version of a German set, but I've no record of another TEKNIKO. And as will be seen the Set seems to have been inspired by MECCANO, and that would have been unusual for a German system. So, for the time being at least, TEKNIKO is Turkish.

The models on the lid are

FIG.1

FIG.2

from the 1962 MECCANO 2/3 manual and the parts & recesses in the box match those that would be needed for a 1962 MECCANO No.1 outfit. The Nuts in the small parts box are small hexagons & the Spanner has no centre piercing.

The wording on the lid includes 'wonder and joy for all', and promises 24 fabulous models (the number in the Meccano's 1962 No.1 manual). The words on the manual cover translate as 'Technical assembly' & 'Each time a new game'. Curiously the upright Strips in the model the boy is holding have TRIX pattern holes.

FIG.3

TEKNIKO: S1 **OSN 41/1250**

Snippets. MEKNEX Update A check on the Argentinian Ebay recently showed a few more sets than those that have been mentioned in OSN already.

First, 3 more single-model sets in the same style as the one in 38/1133. The models are a Helicopter, a Crane, & a Space Vehicle, and as before the parts in them, as shown on the lids, are all more or less one colour, silvery-grey in this case.

3 multi-model sets are now offered: K50, K75, & K100. They have respectively 127, 201, & 261 parts for 3, 7, & 13 models. The K50 is the set shown in 36/1078 and the other two were originally in the same type of packaging. But now all three have boxes similar to the K75 right. The featured model on the K100 box is a sort of Tractor with centre-pivot steering operated by turning a Bracket above the centre of the axle beam. The only new parts visible are the Pulley & Hook at the front of the K75 Mobile Crane.

MEKNEX: S3 **OSN 41/1250**

KONSTRUKTOR [3] Continued This particular KONSTRUKTOR was a Russian system known from the 1980s which had 10mm pitch aluminium parts, and some notes on it were given in 22/648. The last known date at the time was 1987. No parts have ever come to hand from this period but from the Illustrated Parts in MCS they look like the East German SONNEBERGER (see 18/502), and the various sets to be discussed here have similar parts. Those in the one set to hand are indeed very similar to SONNEBERGER.

These notes are based on a number of Ebay photos and one outfit, called CONSTRUCTOR, somewhat incomplete but with its manual. This set, probably from 1992, will be described first as a reference, followed by notes on what seem to have been various KONSTRUKTOR sets between the OSN 22 outfits and CONSTRUCTOR.

The CONSTRUCTOR Set

Even though this outfit was probably made in a different place to the OSN 22 sets, there are strong links between them, notably the parts, the set contents, and many of the manual models.

The box is end-opening and measures 31¼*19¾*3cm.

Fig.1

The top is shown above and the two models on it are from the manual. All the box's wording apart from 'CONSTRUCTOR TECHNICAL GAME' is in Russian. The logo on the top, and one on the box's edge are shown right. The bottom of the box is similar in style but in portrait format, with the models & toys rearranged, and without the logo. The contents of the Set given in the Illustrated Parts in the manual (Fig.4 on the facing page at ¾ f-s) are identical to those in the second KONSTRUKTOR set in OSN 22.

A

B

Fig.2

The parts are in an 8 compartment moulded, translucent plastic tray which sits in a white card tray and many are held together by the blackened steel Clip shown at 'A' in Fig.4. The Parts are as in Fig.4 except that • the ends of Strips & Brackets are semi-radiused; • the amount of metal outside the edge holes is as would be expected; • the single-hole lugs of the DAS are normal height, and the longest DAS that looks to be 1*4*1h is actually 1*5*1h; • The A/G's and Flanged Plates' flanges have large diameter holes; • The holes in the Trunnion have normal spacing, as in '036' in OSN 22.

Other points of interest about the parts follow (the 6*9h Flanged Plate, Small Pulley, Axles, Crank Handle, 30mm Screwed Rod, Collar, & Screwdriver have not been seen.)

• **Material**. Threaded parts and the Spanner are steel, the other parts aluminium with a shiny finish.

• **Holes** are 4.3 or 5.3mm, at 10.0mm pitch.

• **Strips** are 9.8mm wide. • **A/Gs** are 11¼*11½mm o/a with a comparatively large radius bend.

• The **Pulley** is 30mm Ø & 3.4mm wide. The **boss** is 10mm Ø and 4.1mm bore, double-tapped M3. The **Tyre** fitted to it is black rubber, 45mm o.d. and 8mm wide, with only a vestige of tread around the centre of the outside.

• The **Disc** is 50mm Ø and the **Pulley Disc** 18mm Ø.

• The **Screwed Rods** are 62 & 75mm long with 26 & 33mm respectively of thread at each end. The smooth centre is 3.5mm Ø.

• The **Hook** is 23.9mm long and 13.3mm wide.

• The **N&B** are M4 and are chemically blackened. The **Nut** is hexagonal, 6.9mm A/F; the **Bolt** has a 6.8mm Ø cheesehead, 8mm u/h.

• The **Spanner** is 75mm long o/a and 2mm thick.

• The **Cord** is made from 2 strands twisted together and is rather shiny.

• As mentioned earlier the parts are generally very similar to SONNEBERGER (but they do not include the latter's Gears & Flanged Disc). They are well made, at least as good quality as the German system. The most noticeable differences between the two are that SONNEBERGER Strips & Brackets have fully radiused ends, and the bosses are single-tapped. Less obvious, the holes are slightly smaller, barely 4.2 & 5.3mm, the A/G's

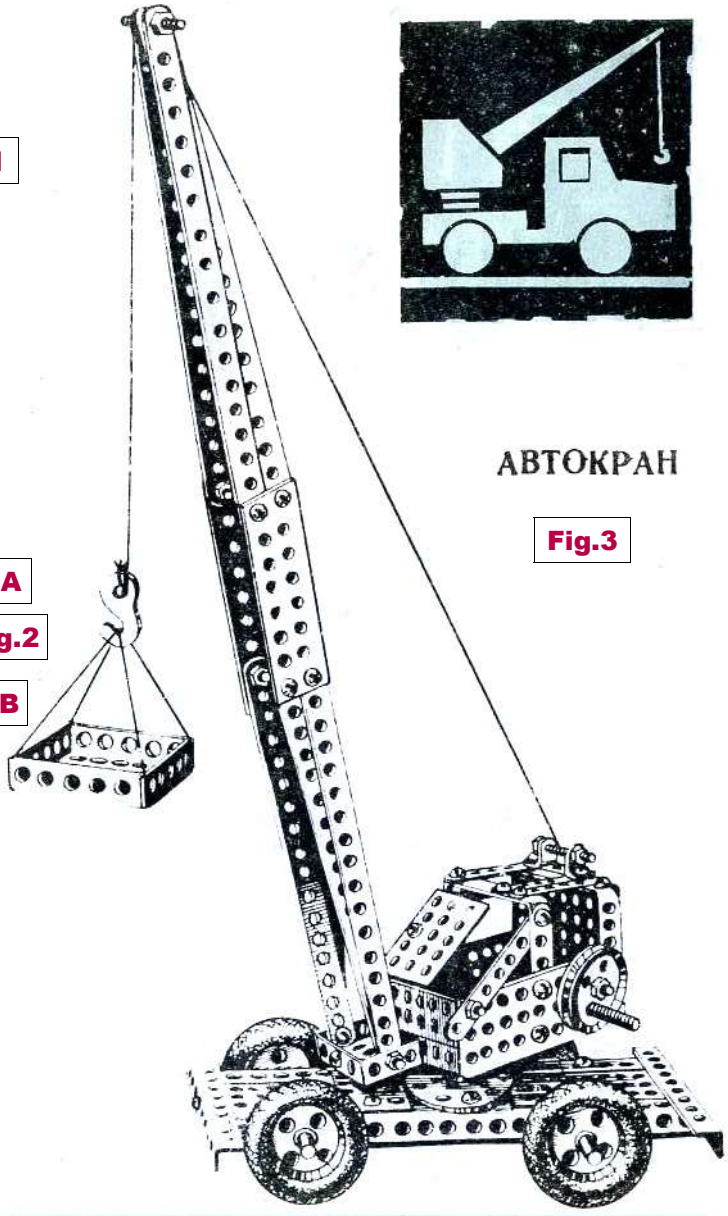


Fig.3

Детали к модели:

Полоса—18 отверстий	8 шт.	Кольцо установочное	5 шт.
Полоса— 7 отверстий	2 шт.	Колесо в сборе	5 шт.
Полоса— 5 отверстий	7 шт.	Диск	2 шт.
Пластина—27 отверстий	2 шт.	Крюк	1 шт.
Пластина—16 отверстий	2 шт.	Коробочка большая	5 шт.
Пластина—15 отверстий	4 шт.	Коробочка малая	1 шт.
Уголок—36 отверстий	2 шт.	Ось 110 мм	2 шт.
Уголок — 18 отверстий	2 шт.	Штифт 75 мм	1 шт.
Уголок— 2 отверстия	5 шт.	Штифт 60 мм	1 шт.
Уголок плоский	1 шт.	Штифт 30 мм	3 шт.
Скоба 2	2 шт.	Шина	4 шт.
Ролик шуровой	1 шт.	Шнур	

Fig.4

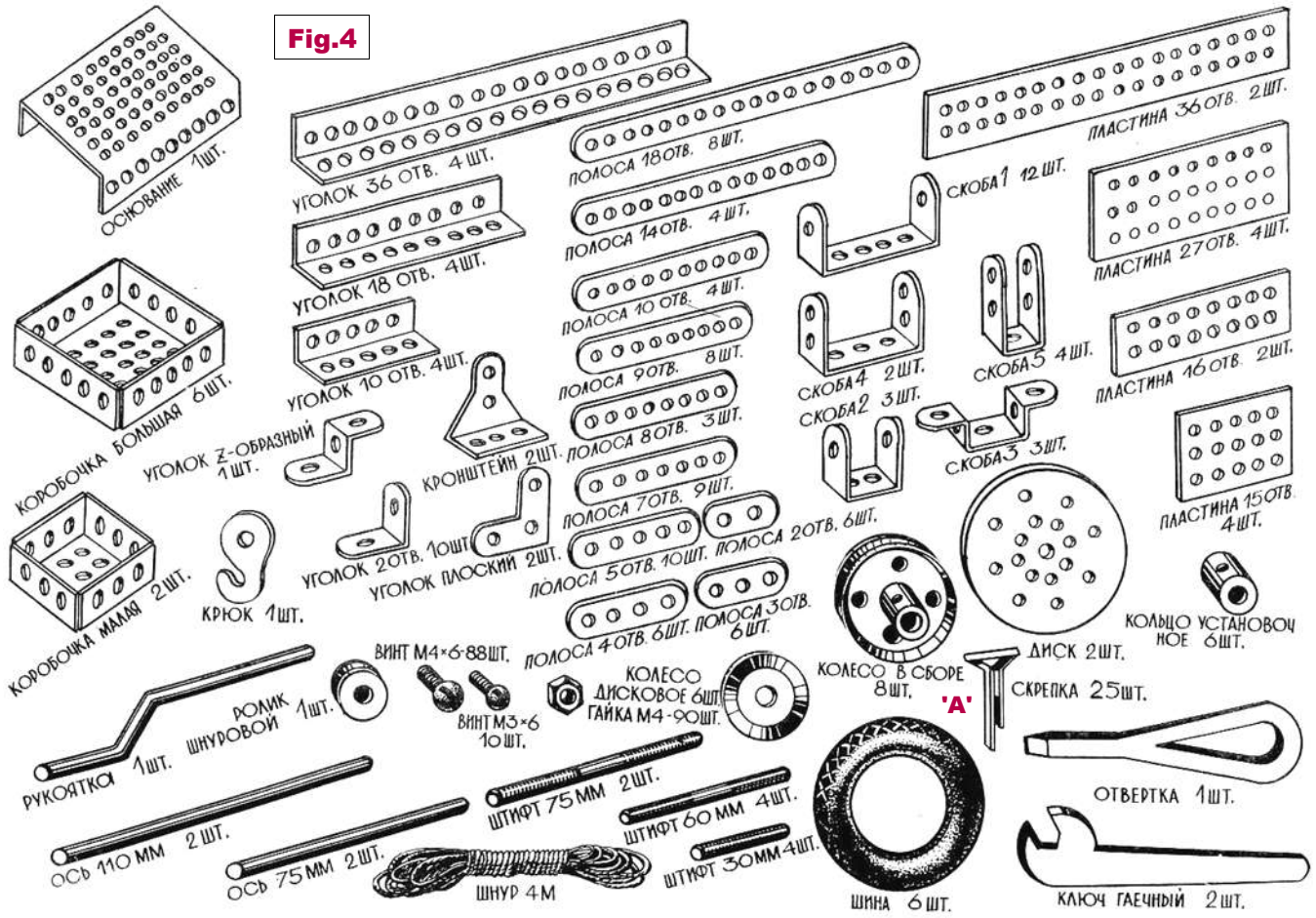


Fig.5

bend is quite sharp, and many of the Brackets have large holes (early parts had slotted holes instead).

The manual has 28 pages 272*187mm plus covers, and the front is shown above. As can be seen the name on it is KONSTRUKTOR and it is in Russian throughout. It has the 'A' logo and '1992' in the small print along the bottom. C2-4 are blank except that C4 has more of the stylised silhouettes of models as on C1. p1 is the title page with 1992 again among the small print at the bottom, p2 has a list of the contents with page numbers, and pp3-4 have an introduction. p5 is the Illustrated Parts and the parts look virtually the same as those in the OSN 22 sets. The 31 models are on pp6-27, and p28 has only some small print which includes 1992 as a date and a print run of 15000. Also an address in Kupyansk, a town in the Ukraine, east of Kharkov.

The models go from СКАМЕЙКА (Bench) to ЭКСКАВАТОР (Excavator – ЭКСКАВАТОР isn't in my Russian dictionary, nor in an online Ukrainian one, but the latter gave ЕКСКАВАТОР as excavator). There is a clear line drawing for each together with a parts list and one of the silhouettes mentioned earlier. Fig.3 shows one of the larger models, full-size apart from the parts list. Some two-thirds of the models, including many of the larger ones, were in the manual described in OSN 22, though most have been redrawn and a few changed slightly.

Other CONSTRUCTOR Sets

Of the 6 other sets seen on Ebay 3 look identical to the one

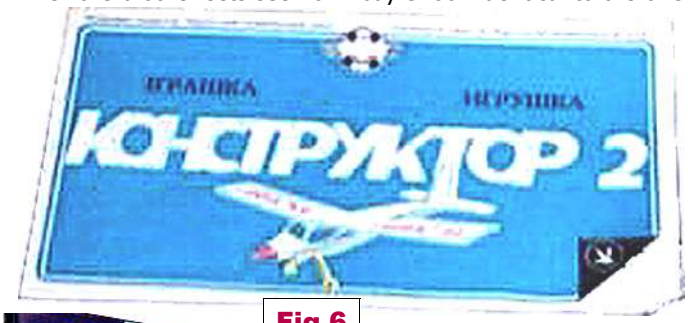


Fig.6

already described and another differs only in the manual with it, as above. Top centre is the 'A' logo, and bottom right the 'B' type.

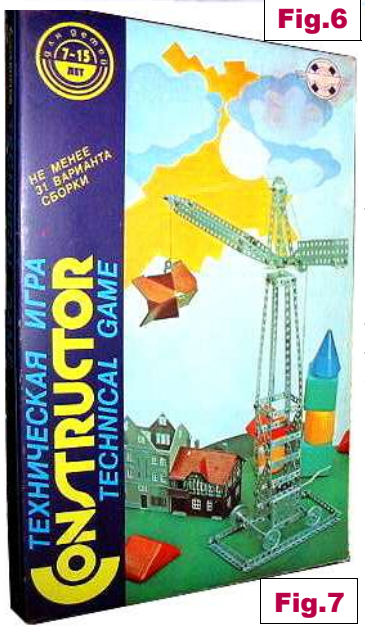


Fig.7

The other two sets have the box left, end opening as before and with the same parts tray except it that it is light blue in colour. The logo top right is the 'A' type and the circle top left has some words and '7-15' in it. The manual has the Fig.5 cover model and the 31 models, the number in the Fig.5 manual, are claimed in the lid's left panel. The Crane on the lid is one of the Fig.5 manual models. [Cont. >]

KONSTRUKTOR Sets in Plastic Boxes

The black one. This is probably the earliest of the three KONSTRUKTOR sets seen on Ebay. It was sold from the Ukraine, and the case is black plastic. The lid, 26*20cm, has a small type 'A' logo to the right of the side view of a Lorry model, and underneath are ТЕХНИЧЕСКАЯ ИГРА as on the CONSTRUCTOR lid, and КОНОТСТРУКТОР (=KONSTRUKTOR). Also ПИОНЕР, which means Pioneer. The 10 compartment black tray is smaller overall than in any of the other sets. It isn't clear if the case has a top & bottom with the tray inside it, or whether the tray forms the bottom of the case.

14 pages from the manual were also shown including the Illustrated Parts with quantities, but unfortunately the names of the parts and their quantities can't be read. The parts look like those in the CONSTRUCTOR manual except that the Hook is similar to the #30 in OSN 22, and only an end view of the Collar is shown. But not included are the 8h Strip and 5*9h Flanged Plate. From the parts in the box the quantities of some are smaller than in the CONSTRUCTOR outfit, with fewer Pulleys/Tyres for example, and 5*5h Flanged Plates. Given this, and the two parts no longer included, the inventory very probably corresponds, or is very similar to the smaller No.2 KONSTRUKTOR Set in OSN 22.

Below the manual's front cover and the logo top right, if logo it be, is new. But the 'A' logo is on the title page and also there what is probably '1989'. Of the 10 models shown 7 are in the Fig.5 manual, including the largest Crane. 2 of the others are in the OSN 22 manual; the third is the Ship right and is on the last page (before the blank C3).

Fig.8

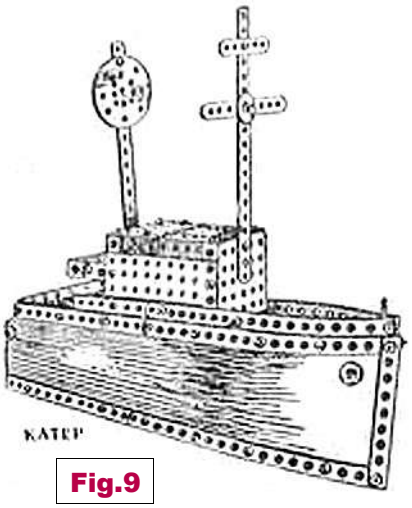


Fig.9

The red and blue sets. These have the Fig.5 manual and cases 28½*25½*3cm, one with a red lid and the other with a blue one. Moulded into the lid is just the outline of a lorry with a ring of text around it which includes ТЕХНИЧЕСКАЯ ИГРА and КОНОТСТРУКТОР. The parts are in 15 compartment formed trays, purple & pale blue respectively, and again the tray may form the bottom of the case. It can be seen that in both sets the quantities of Pulleys, Tyres, & Flanged Plates are the same as in the CONSTRUCTOR outfit.

Remarks

One can speculate that if the 1989 date for the 'black plastic' Pioneer set is correct, it appeared soon after the OSN 22 outfits, and replaced the (smaller) No.2. Probably there was also a larger outfit to replace the No.1. If so it may have been similar to the 'red & blue plastic' sets which are thought to be later because they have the Fig.5 manual. Then, in 1992, the CONSTRUCTOR version with the same manual, and with new, and no doubt cheaper, packaging. Why the change of name? Perhaps for export although only the name was in English, and the manual was all in Russian; more likely just to improve the brand's image at a time when foreign products were in vogue after the collapse of the USSR. But for whatever reason the manual retained its KONSTRUKTOR name.

VEX Tank Tread Kit This set was mentioned in a general review of VEX elsewhere in this Issue, and from an example now to hand, it may be of interest to MECCANO etc builders for use in larger models of tracked vehicles. The parts in the set are shown right, and all but the N&B are plastic. The Bogeys don't blend particularly well with MECCANO but there is no problem in using MECCANO parts instead - in any case in most models there wouldn't be enough of the Bogeys to look realistic. The lower part of the Bogey looks as if it might pivot but it doesn't. The plastic Tread Links are similar to MECCANO but are 1½" wide and the cross gap for the sprocket teeth is greater, 7.9 against 3.3mm. The pitch of the Links is about the same (.1" greater over 10 Links) and VEX Treads are said to run satisfactorily on MECCANO plastic Sprockets. The drawback in using the VEX parts with MECCANO is that the Wheels are a push fit on the ⅛" square VEX Axles. So one must either run these Axles in MECCANO bores, VEX-fashion, or drill the bore out to give a push fit on a round Axle. Tricky that and there is no obvious way of securing a Wheel which is free on a round Axle.


FIG.1

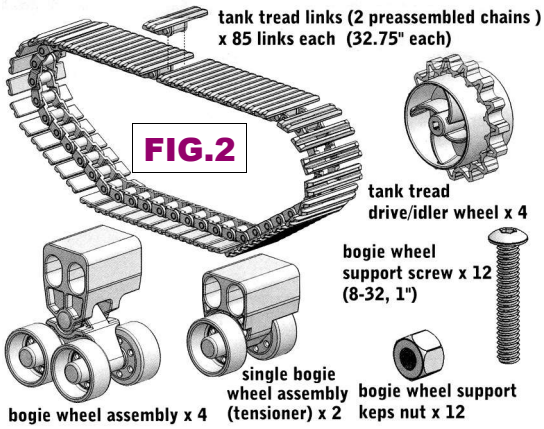


FIG.2

The Treads are made of smooth, fairly slippery plastic and I've read that American enthusiasts fill the crosswise recess in each tread with rubber to increase their grip. The model I made would climb a quite steep smooth hardboard slope well but when stopped it would slide back down.

The Tread Kit can be bought from Vex but the shipping charge is exorbitant; the present one came from www.robot marketplace.com at $30 plus $18 shipping.

Vexplorer is mentioned elsewhere in this Issue and there was an add-on Tread Kit for it with fewer of the same parts: 2x 56 Links, 2 Bogies, no Single Bogies, & 4 N&B.

Snippet. 'New' German System: COLUMBUS

The Ebay ad said that this unusual set was from Berlin, that it was 'Schraubenloser' (without screws), and that the box measured 60*33cm. A pre-WW2 wooden system called COLUMBUS is mentioned in Baukästen, made by Spiele-Verlag Otto Wagner of Freiburg, near the Swiss border, some 60km south of Strasbourg, but it seems unlikely that this firm made the present COLUMBUS – quite apart from the question of where it was made, the logo top left on the manual page in Fig.3 is quite different to the one in Baukästen for Otto Wagner.

The main Ebay photos are shown right but are all rather blurry, and the only legible text is the name on the lid label. It seems from the manual page that the parts have their ends rolled over and are no doubt held together by Rods which push into or through them.

FIG.1

The parts shown in the top two rows of Fig.3, starting from top left are: a Rod perhaps, though the large solid 'dot' at each end usually indicates a rolled end; a Strip; a pair of handed Right Angle Brackets; an A/G; Pivoted Strips; a Pulley; 2 small parts, possibly Spacers or Axle Stops; a Crook-ended Rod; and 2 Rods with Angled Ends.

FIG.2

Less clear is the import of the the 3 items in the bottom row. The part bottom left could be a Baseplate; it might even be the wooden looking part top left in the box, which initially I took to be a box for small parts. At bottom right there are 2 Blocks clamped together: the top one could be the Baseplate; the bottom one a table top. They have what look like Rods between them joined across by a Strip with the Rods through its rolled ends. But for what? Just possibly, but rather unlikely, to allow both Rods to be pushed downwards at the same time and thus get exactly the same bend point in each. The centre diagram seems to be a Bracket at the left end with a Rod in it which then passes through the rolled ends of 3 Strips (the last one quite short), and finally the Pulley. If it weren't for the Bracket and the first two Strips this might be a sketch showing how to lock a Pulley onto a Rod, with one end of the short Strip on the Rod and a short Rod through one of the Pulley's face holes passing into the free end of the short Strip.

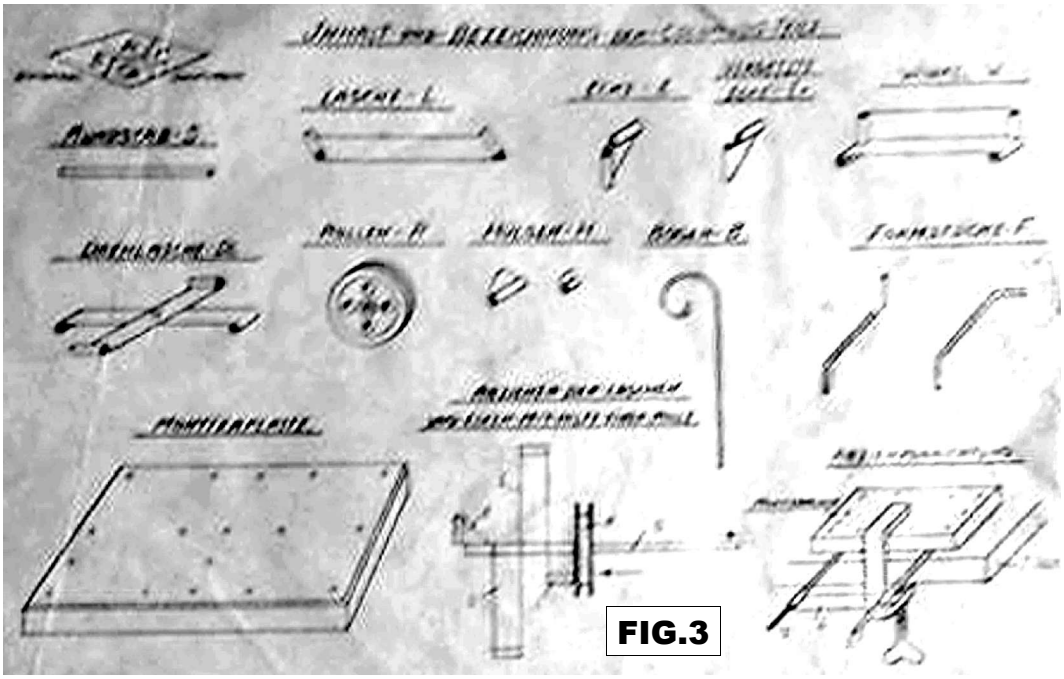


FIG.3

Now the parts in the box. All the dimensions given are scaled and are very approximate. The Rods in the top right compartment include some curved to a semi-circle. The Mallet is an unusual part in a metal construction set but one pointer to it being original is that the handle fits into cutouts in two of the partitions. There is nothing to hold the Pliers in place but such a tool would probably be found very useful, possibly essential. The Pulleys scale at about 3 & 4cm Ø. The Strips all look to be 1½cm wide and the longest is about 20cm. The longest A/G is 10cm and its flanges are also 1½cm wide.

Structures made of Rods pushed into rolled-over Clips were first used in BILDICO before WW1 but the method of assembly used in COLUMBUS is unique as far as I know.

Snippets. Update: POLYLONG & The Like These notes will be in two parts: the POLYLONG range from their website last July, and a brief look at the other small sets with similar parts which have been seen since the account in 37/1123.

POLYLONG

All the 41 sets listed in 37/1123 continue and 40 more have been added. Of these 21 are marked as 'new' on the website, and are asterisked in the list below. All but one of the 40 additional sets, SUPER TANK, have the COMBINED TOYS name. The site has a photo of each set's lid and the model(s) that can be made from it – no other details are given except that the 81 sets are listed under 4 categories: Metal Legos [!!], Metal assembled remote control toys, Metal solar toys, & Electric Legos.

The new **Metal Legos** are:
511A-D. Small 3- & 4-wheel vehicles except the Bicyclist in Fig.1 below.
***512A-D**. More small models including a Land Yacht and a Ski Buggy.
531A-D. More small Buggies.
610A-D. 2 small models – Planes, Buggies, Trucks, etc – are shown for each.
612A, ***612B-D**. Again 2 small models, as above except that one of the models in 612A is a small Man or Robot.
***750A**. A SUPER TANK set similar to 750B in OSN 37.
***1001A-C**. Models generally similar to those for 1113A-C described later, but not powered.

The new **Electric Legos**: all look to be powered by the Geared Motor Unit used in the OSN 37 sets 701,2,5,6 and as in those sets, are probably controlled from a Battery Box wired to the model.
***707-9**. 707 is shown in Fig.2 but I'm not sure what it is, and what the parts at the front represent. The other models are Jeep-like, with the same Wheels, and a little longer in size.
780,1, *790,1. 780 is shown in Fig.3; 781 is similar but with a rectangular plastic box on the back; 790 is an articulated version of 781; and 791 is a sort of Fork Lift gripping the top of the same box, but I don't think it can be raised or lowered.

The **Solar Sets**:
557A,B. 2 model sets: 557A has small Road Sweepers with the Motor driving 'brushes'; and 557B similar but I'm not sure what tool is being driven.
559A,B. Again 2 model sets. 559A (Fig.4) looks to use the same Motor as the 557 sets but where are the Solar Panels? 559B has 2 small Helicopters but again no sign of the Panels.

The **Remote Control Sets**. All the pictures show the green Controller as in Fig.5 but it isn't stated how it works.
***1112A,B**. These look very similar to the 701 & 706 models respectively, see OSN 37.
***1113A,B,C**. The 1113A model is shown in Fig.5; the others are similar, a Saloon & a 2-seater Car.

THE OTHERS

Quite a few new brands have been seen since OSN 37, plus some new sets from previously known ones, and also sets which consist of several small sets bundled together, not always of the same brand. And no doubt there are many examples of all these not yet seen. To try to record full details is no longer thought practical and so what follows lists only the brands with comments mainly if a set breaks new ground in terms of models or parts. Any general references to models are to ones already noted in earlier Issues, and systems described before are asterisked.

CONSTRUCTION PLAY SET. A blue box with 386 parts and 8 small to large models on the lid.

CONSTRUCTION SET STEEL. A set called 'Into the Galaxy' with models in the style of those for the Metagalaxy outfit in 34/1011.

COSTRUZIONI IN METALLO. From Italy, see Fig.6.

DIY. One set from New Zealand has DIY preceded by 'intelligent', and another by 'METAL', with the name of the model after the DIY.

DIY CONSTRUCTION*. Sets, again from New Zealand (see 37/1123) but with plainer style lids without the MADE FROM YOUR OWN CREATION. One set has 538 parts & 6 of the larger models on the lid.

HAPPYPEOPLE*. The models in the set at Fig.7 are made from painted POLYLONG-type parts. A 3-model set from the same firm has similar parts but METALLBAUKASTEN across the top (see 37/1124). Another set for a Jeep, with normal parts, claims to have sound and has 'Vrooom' coming out of the bonnet. A similar set for a 2-Seater Car has a Friction Motor.

FIG.1

FIG.2

FIG.3

FIG.4

FIG.5

FIG.6

IRON VEHICLE*. Small model sets seen on New Zealand & Argentinian Ebay which may be in the style of the second type of IRON VEHICLE set in 34/1011.

JOE-MO. Fig.8 shows a set with 95 parts seen on German Ebay.

MENTALITY TOYS. Small model sets, with the name sometimes prominent and sometimes not. The model is usually named as well but sometimes as just 'Engineering'.

METALL BAUKASTEN. Small & medium size models identified only by the logo of a German store called Habermann & Eichler – a red chilli pepper with 'hot.stock' to its right.

METALLBAUKASTEN/METAL KIT. Fig.9 is the bilingual cover of the only set seen. The 'rcee' in the top right corner is perhaps a logo. I don't recall a previous model like the Aircraft.

METAL MECHANIC*. A set for a medium sized tracked Digger with a lid quite different in style to those in 32/958.

MODEL MECHANIC. Several sets for small models with the name in small type top left on the lid and the model's name alongside in much larger letters.

SMART. Small models with bright lids, as in Fig.10.

STANLEY. Several sets for small models with vivid yellow & black lids.

STEEL-MECHANIX. 4 sets from Creative Kids have been seen on the US Ebay. One is shown in Fig.11 and the other models are also similar to some of the larger from Polylong.

SUPER INTELLECT RACING*. Fig.12 shows a set from German Ebay which is quite different to previous sets of this name.

TEAMSTERS. Sets for various models with the Teamster logo on the lid followed by 'Metal' and then the subject of the set, eg Car Kit, Playset.

WRIGHT. The set seen has 200+ parts for a Tank.

FIG.7

FIG.8

FIG.9

FIG.10

FIG.11

Fig.1
FIG.12

POLYLONG: S14 **OSN 41/1256**

More MODEL BRIDGE / BRIDGE BUILDER Type Parts? Sets with these parts – nickelled Strips and chemically blackened Flanged Plates – date from 1913-1914 and were described in 5/84 & 6/115. In both sets the parts were pierced with only the holes needed to make a simple Bridge model. Other sets for a Signal and a Crane were also advertised. A label stuck on the lid of the BRIDGE BUILDER set indicated a Meccano connection, and all the parts looked generally similar to MECCANO with holes spaced at multiples of ½". Over the years 3 more of this type of part have come to hand and recently some other possibles were offered on Ebay.

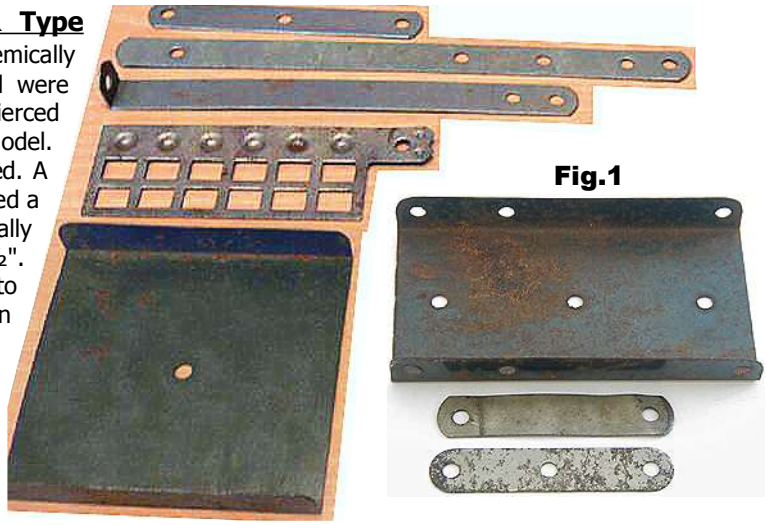


Fig.1

Fig.1 shows the 3 parts to hand. The 1½*4" Flanged Plate has the same overall dimensions as the one in OSN 6 but a different pattern of holes. Of the 2½" Strips, the ends of the 2-hole one match those of the earlier Strips; those of the 3-holer are fully rounded and the part is stamped FABRIQUE EN ANGLETERRE | MECCANO (Fig.1a). So, a French connection? But I seem to recall **Fig.2** that the FABRIQUE EN ANGLETERRE stamp was not used until after WW1.

Fig.1a

The Ebay parts were said to have been found in a pre-WW1 German MECCANO set. They are shown in Fig.2 with one of the MECCANO parts, a Windmill Sail, for reference. Scaling from it the Flanged Plate is 3¼" square; the Strips are 3½ & 7" long; and the SAS is 5½*½". The only use I can think of for the Flanged Plate with just the one, centre hole, is as the base of a Crane.

MODEL BRIDGE / BRIDGE BUILDER: S1 **OSN 41/1256**

PITT This small post-WW2 German system was mentioned in 15/418 with a few details. It was made by Markes & Co., K.G., the company that made DUX-UNIVERSAL, but PITT was entirely different in concept and included only a few DUX parts. The main PITT parts were Strips with 3 to 19 holes, 2 DAS, 3 Brackets, 2 Plates (but only in the largest set), Wheel Disc, Pulley, and Screwed Rods as axles. DUX parts were versatile but unusual and perhaps a little hard to get to grips with – PITT with its limited range of more or less conventional parts was no doubt intended for younger modellers. In as much as the same thread was used in both systems the parts could be used together; but the hole pitch was different and this would have limited compatibility, though the slots in the Strips do allow Bolts through 2 adjacent DUX holes.

5 PITT sets were produced, Nr.01, 1, 2, 2a, & 3. Little is known of the Nr.01 but otherwise the sets were progressive and an additional Nr.1 would convert a Nr.1 into a Nr.2. Baukästen gives 1948 to 1965 as PITT's lifespan but sets, or even parts, are rarely seen. At least 3 different styles of lid are known.

This account is mainly based on a 1949 Set 1 Model Leaflet; a Nr.2a, unused but with no Model Leaflet, and Ebay photos of a jumbled Nr.2 and an unused Nr.3, both with a Model Leaflet. The Nr.3 is shown in Fig.1 and the parts on the left match those on the right.

The PARTS Holes are 3.2 to 3.4mm Ø at 12.5mm pitch, and slots are 6.8mm long. The thread is M3. The parts are nicely made and with the exceptions stated all are nickel plated. There follows a list of the parts with explanatory notes as necessary. Most can be seen in Figs.1 & 2.

• **Strips**, 3,5,7,9,11,19h long and 11.0 - 11.1mm wide. Alternate holes are slotted. One of several 5h Strips in a loose lot has the reverse hole/slot pattern with slots at both ends – a factory error perhaps or home made from a longer Strip. • **DAS**, 3 & 5h long, made from 5 & 7h Strips.

• **Flat Bracket** with 2 round holes at 11mm pitch. This allows 2 Strips to be joined neatly side by side but a hole & a slot would make the part much more useful. • **A/B**, a DUX part made from a 10mm wide '2h strip'. Its sides have little notches in them at the bend point. • **D/B**, made from a special 10.4mm wide 5h strip with holes at about 7½mm pitch and bent across the slotted holes. Possibly a DUX part. In the Nr.3 (Fig.1) they sit on the 4 Wheel Discs in the upper row.

• **Flanged Plate**, 5*11h, with a centre 3*7h cutout. Painted blue but a nickel one has been reported. • **Perforated Plate**, 3*7h from the centre of the Flanged Plate.

• **Pulley**, Loose, 26.0mm Ø & 4mm wide. Red but nickel ones are known. • **Rubber Ring**. • **Wheel Disc**, 8h. Not seen for sure but what may be an example is 32.3mm Ø and brass plated, though nickel in all the Sets.

• **Screwed Rods**, 90, 110, & shorter, probably 50mm; brass plated. • **Axle Stop** – a DUX part, it is filled with rubber, see Fig.2. In the Nr.3 they are on top of the Wheel Discs on either side of the red Pulleys.

• **Hook**, not seen but in the models in the Nr.1 Leaflet it looks like a 'cuphook' with a threaded end. • **Handle Crank**, STABIL style.

• **Bolts**: 6, 12, 23mm under a 5.5mm Ø cheesehead. • **Nut**, hexagonal, pressed, 5.5mm A/F.

• **Screwdriver**. • **Spanner**. A DUX part, sometimes stamped DUX and sometimes PITT. In the Nr.3 the Tools are on the 3*7h Plate, below the Flanged Plate.

The SETS The lids in Figs.3, 4, & 5 are, at a guess, in chronological order, and the one in Fig.1 may be a variant of the Fig.5 version. The Table (Fig.6) includes what is known of the contents, a blank indicates no information.

The Nr.01 is a small set seen only in Baukästen . Its white box is 12*17.5*2.5cm and the lid is filled by the Fig.5 label. Of the parts only a few Strips, a DAS, several Wheel Discs and a 50mm Screwed Rod are visible.

The Nr.1 seen is in a plain cardboard box with the Fig.4 lid. The packing material and most of the parts are missing. The contents in the Table are the parts needed for the models in the Nr.1 Model Leaflet. 80 parts are claimed on the lid.

FIG.1

The Nr.2 again has a plain cardboard box, but with 2 partitions and the Fig.3 lid. The parts in it are obviously from more than one set but all the Pulleys are nickel and if the lid is the first pattern, perhaps there were no coloured parts in the early sets. In the No.1 Leaflet 3 models are shown which it is said can be built from a Nr.2 or from two Nr.1's. No Set 1a is mentioned so probably the Nr.2's contents was twice a Nr.1's, but perhaps without duplicates of parts like the Hook. The quantities in Fig.6 reflect this.

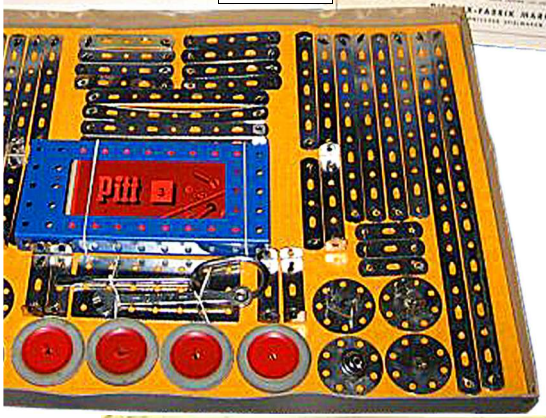


FIG.2

FIG.3

FIG.4

FIG.5

Part/Set	01	1	2	2a	3
Strip 3h		2	4	2	6
Strip 5h		4	8	2	10
Strip 7h		2	4	0	4
Strip 9h		2	4	0	4
Strip 11h		4	8	0	8
Strip 19h		0	0	4	4
Flat Bracket		0	0	4	4
Angle Bracket		4		4	
Double Bracket		0	0	4	4
DAS 1*3*1h		2	4	0	4
DAS 1*5*1h		0	0	2	2
Flanged Plate		0	0	1	1
Perf. Plate		0	0	1	1
Wheel Disc		4	8	0	8
Pulley		2	4	0	4
Rubber Ring		2	4	0	4
Screwed Rod, 50mm		4		0	
Ditto, 90mm		0	0	4	4
Ditto, 110mm		0	0	2	2
Axle Stop		0	0	2	2
Handle Crank		1		0	
Hook		1		0	
Bolt, 6mm				18	
Bolt, 12mm				5	
Bolt, 23mm				5	
Nut				46	
Screwdriver				1	1
Spanner				1	1

FIG.6

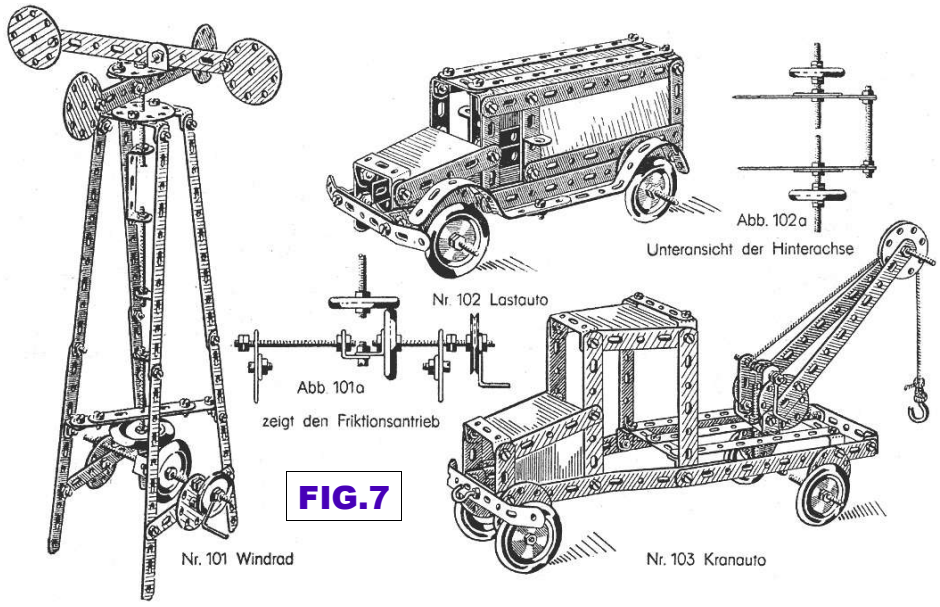


FIG.7

The Nr.2a is in a rather flimsy plain cardboard box, 25½* 17½*2cm, with the Fig.5 label, the same size as on the Nr.01. The parts are clipped, or held with elastic cord, to a yellow backing board, with the N&B & Screwed Rods in a red lidded box similar to the one in the Nr.3. The quantities in Fig.6 are as found.

The Nr.3 (Fig.1) has a more elaborate lid than the 2a but the parts are packed in the same way with the red box for the small parts under the blue Flanged Plate, and the Tools on top of the 3*7h Plate. The quantities in the Table are the parts that can be seen in the box. No A/Bs can be seen and they are no doubt in the red box.

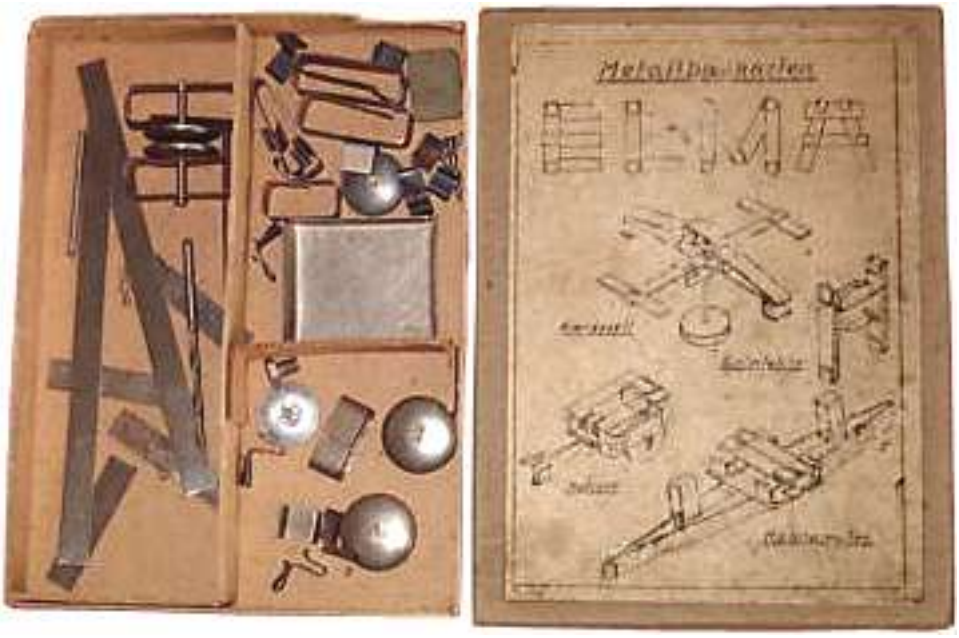
The MODEL LEAFLETS The Nr.1's PR is 'BR 649 **S**' and it is one sheet folded once to 151*214mm in portrait format. The front has an introduction, then some basic constructions, and it ends by suggesting migration to DUX for even better models. Inside and on the back are line drawings of 45 reasonable little models from Nr.1 Wegweiser (Signpost) to Nr.45 Hobelmaschine (Planing Machine). Also on the back the Nr.2 models mentioned earlier and they are shown in Fig.7, at their original size.

The Leaflet with the Nr.2 looks about the same size and its front appears to cover the same ground as above. The Nr.3 Leaflet (Fig.1) is about the same size too but has a different style front and may be more than a single folded sheet.

The 2 models shown in MCS, a Digger & a simple weight-driven Pendulum Clock (with just an escapement and a single hand on the end of the scape wheel shaft), are much more ambitious than the Nr.2 models above, and although there is nothing to say that they are Nr.3 models, they could I think be made with the parts in the Nr.3 set.

PITT: S2 **OSN 41/1258**

Snippet. 'New' System: ELMA The set right was offered on German Ebay and was said to be from the 1950s. The model leaflet pasted inside the lid is headed 'Metallbaukasten ELMA', so it will be assumed that ELMA was made in Germany. Leaving aside the probable foreign parts (a twist drill, a formed disc that looks aluminium, the bolt above it, and various other oddments), the remainder remind one strongly of the French system CONSTRUC, described elsewhere in this Issue. The Strips, the formed Shapes, the Clips, and the Tray all look identical. But the Pulley Discs are unlike any CONSTRUC part. There is no indication as to whether the Clips and Shapes were factory made, or if a Jig was included in the Set. The models don't look like any of those in CONSTRUC's Notice Explicative.



ELMA: S1 **OSN 41/1258**

Snippet. PYGMÉE An Airship that was featured in a 1920 ad for this unusual French system was shown in 16/448. It was from the firm L'Établissements Péricaud, presumably the manufacturer. The main constructional parts in it were an Octagonal Plate & various lengths of Braced Girder, all joined by 3h long A/Gs. No other details were to hand until recently when two lots were seen on Ebay. One was a box (with MECCANO parts inside) plus a manual; the other some parts with various TRIX pieces mixed in with them.

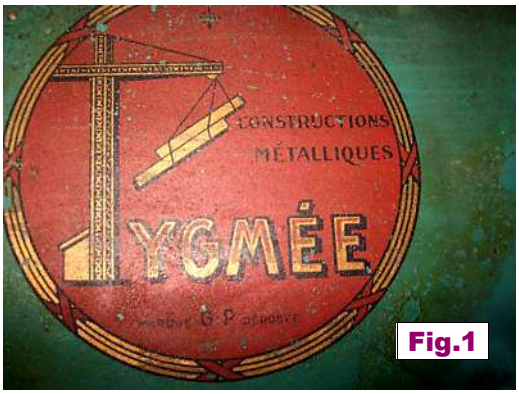


Fig.1

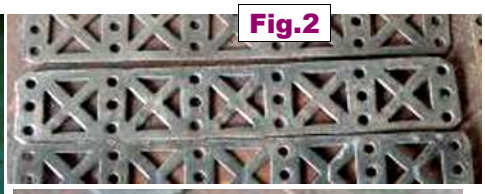


Fig.2

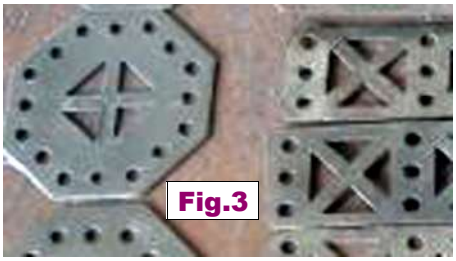


Fig.3


Fig.4


Fig.5


Fig.6

The green steel box has the Fig.1 logo in the top left corner of the lid. The parts in Figs.2-6 are not to the same scale but their size can often be roughly judged from those alongside them. A 5 bay Braced Girder is shown in Fig.2 and others have 2, 3, & 8 bays. Their dimensions were given as 2.5*7,9, 15,23cm: they are not entirely consistent but the lengthways hole pitch is perhaps 30mm, or a little less, with the crossways holes at 7½-8½mm. So quite small parts. The holes might be about 3mm Ø, and the Octagonal Plate in Fig.3 about 5cm across. The various Pulleys & Wheels in Figs.4 & 5 may or may not be from the system. In Fig.4 their size can be compared to the TRIX Gear which is about 6cm diameter, and the Wheel in Fig.5 is about 6cm too. The Tyre in Fig.6 may be TRIX but at a scaled 5cm Ø it is ½cm smaller than typical UK parts and the Wheel in its centre is 5mm less in diameter than a TRIX Pulley Disc. The manual cover (Fig.7) doesn't provide any new information but a few other parts can be seen in the Crane (Fig.8), taken from another ad which was shown in the MCS entry for PYGMÉE.

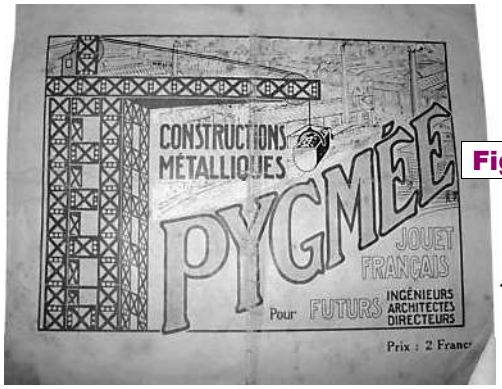


Fig.7

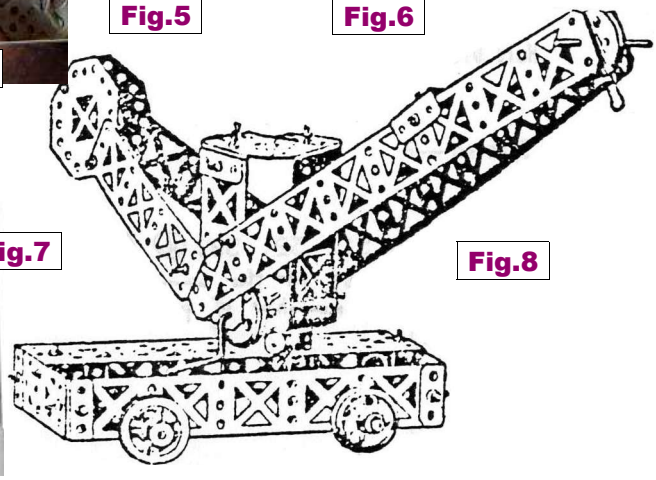


Fig.8

OSN 41/1259 **PYGMÉE: S1**

Snippet. 'New' System: O PEQUENO MECÂNICO The set, right, was sold on American Ebay though its name is Portuguese – literally, The Small Mechanic. All that was said about it was that the box is wooden. The sliding lid has a bird (duck?) in a logo top left. The featured Crane seems familiar though I couldn't find it in any of the TRIX material to hand. The parts in it look just like TRIX but though it's hard to be certain, the black DAS in the compartments on the left in the box, and the blue ones on the right, look to have only two rows of staggered holes. On the other hand, the green Strip in the centre at the top appears to have the usual three rows.

There is no indication of the country of origin, but as a pure guess I'm going for Brazil. It's the largest Portuguese speaking country, and O PEQUENO MECÂNICO could have been launched there when supplies of TRIX ran out during WW2, in the same way that CONSTRUÇÕES MECANICAS was when MÄRKLIN became scarce (see 27/807). Before the war Brazil was a large market for German goods and the straight edged Hook on the model on the lid points to influence from German TRIX.