51

OTHER SYSTEMS NEWSLETTER

OSN 51 DECEMBER 2015

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EDITORIAL Nothing to report so 'steady as she goes', and with luck I'll be able to keep to the recent near yearly interval between Issues.

Shorter NOTES, with thanks to all contributors.

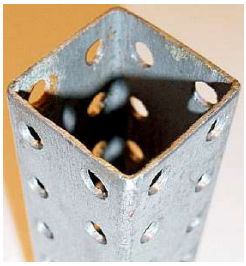
1. **Snippet. 'New' System: METALL-BAUKASTEN**. The poor Ebay photo is shown below and the parts that can be

seen are, with 'probables' daggered: 4, 5†, 11, 14h Strips; 1*5*1 & 1*3*1h† DAS; 2*1*2 Z-Bracket; Pulley Discs with & without boss (unless the latter's boss has simply fallen out); Axle; Crank Handle.

The Ebay ad mentioned a printer, Emil Bethge of Hagen (a town 15km south of Dortmund), and the PR included 11/46. So, no doubt, one of the many small sets which appeared soon after WW2, very soon in this case, so it's not inconceivable that this system existed before the war.

METALL-BAUKASTEN [8]: S1 [51/1548]

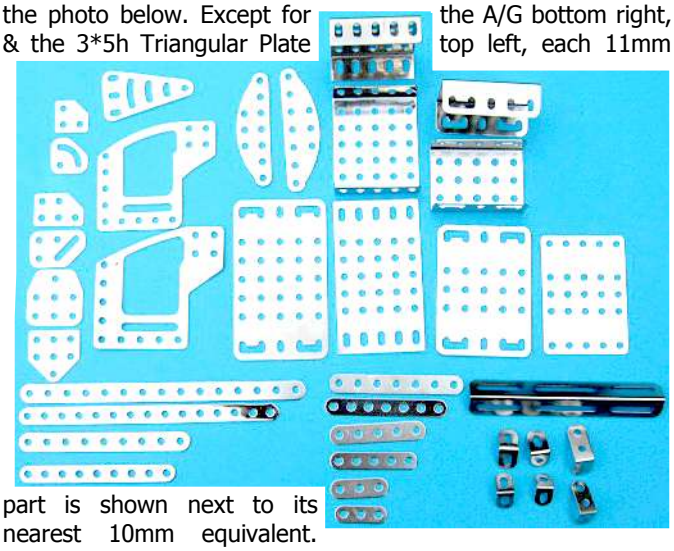
2. **Snippet. More on GERNER.** Since the notes on p1573 Urs Flammer has sent details of some parts, nearly all of a set, he has obtained. They are as described except that the Square Tube, right, is as shown in the manual, an extrusion, 20*20mm, with no join. The Wheels are the earlier, turned type, but the Flanged Plate is the later pattern with alternate round & slotted holes.



Urs had also found a small ad from 1948 saying that sets in various sizes would soon be available to wholesalers for export. It was from a Franz Kauer, (20a) Letter/Hann., Postfach 6. It will be recalled that GERNER was made in Letter.

GERNER: S2 [51/1548]

3. **'POLYLONG' 11mm Pitch Parts.** It was noted in 42/1266 that some Happy People set parts have holes at 11mm pitch rather then the usual 10mm. David Hobson mentioned that he had found a selection of these in various lots and kindly sent the photo below. Except for the A/G bottom right, & the 3*5h Triangular Plate top left, each 11mm



part is shown next to its nearest 10mm equivalent. Holes in the 11mm parts are 4.1mm and the Strips are smooth on one side and very slightly rough on the reverse.

POLYLONG: S21 [51/1548]

4. **AJET**. Some parts & a manual (all were as described in 37/1105) were offered by a auction house and it was said that AJET was made by Payne & Holloway of Birmingham. A web search gave nothing on this firm. Equally nothing has emerged since OSN 37 over whether there was a set other than the 'Junior'. A any information on either of these aspects would be most welcome.

AJET: S3 [51/1548]

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5. **STABIL Website Update.** Werner Sticht wrote that he has recently updated his (already very comprehensive) STABIL website: www.stabilbaukasten.de.vu Click on Neuigkeiten to see what is new, and erweitert or Änderungen for updated items. The first new topic is a brochure showing 20+ models for dealers to display, and they can be enlarged by clicking on them. The following 3 items all include photos of factory display models. There is also a full account of the LILIENTHAL system, something of which was given in 22/623. It will be recalled that it was based on an 1888 patent and though it had wooden parts it could claim two firsts: Strips with equispaced holes, and one model, a Windmill, with an Axle to allow the blades to rotate. Surprisingly the Axle wasn't used in any of the other models. Another unique feature was that sets were available with 2 sizes of parts: their hole pitch was 25mm in one series, and (probably) 100mm in the larger version.

STABIL: S9 [51/1549]

6. **Snippet: Another FALCO Set.** Like the outfit in 39/1165 it has 2 layers of parts, but is larger and some parts, mostly those with piercing, were not in the OSN 39 set. But not all the earlier parts can be seen, only a single Wheel size for instance. The lid is as before except that the white Set No. circle is missing.

FALCO [2]: S2 [51/1549]

Snippets. AUTO-CONSTRUCTOR Update. A number of sets have been seen on Ebay since the last notes in 42/1291, and have contained a few points of interest.

Basic Sets It will be recalled that 2 basic sets are known, one in a larger box than the other, and it seems that, with one exception, they all have the same contents, enough parts to build the Nr.1 manual models. The additional parts in the exception, a 'large' box, include 4 Buckets, some DAS, extra Chassis Side Members, & a Headlamp (with a second noted as missing), the same extra parts that were in my 'small' set (see OSN 40) but there is no way of knowing if they were originally in that set or if they came from say another outfit. The Set is unusual in having yellow Body Panels, all the parts that are usually blue or sometimes red.

All 3 of the larger sets seen & 1 of the 7 smaller ones, have 'Auto-Constructor' on the lid; in the others all the letters are capitals, as are those on all the manual covers. Where a maker is given in the Ebay ads it is usually Heinrich Fischer but Philipp Kühner is sometimes mentioned. However it now seems likely that the latter was the printer of at least some of the manuals, and the maker before Fischer was Curt Schrader.

Set Nr.1A None of the sets seen have the set number on the top of the lid but it may have been on one of the lid aprons, as in the Nr.1, a small set, mentioned in 40/1216. Most Ebay photos don't show all the aprons and the only set number that can be seen, from another small set, is shown left. Apart from its unexpected 1A designation, it looks a typical small set, and fairly complete, but it does have at least 12 of the DAS in it. However they probably belonged to a Nr.2 set which was included in the Ebay lot, and which, though looking largely complete, had no DAS in it. No reasonable explanation of the 1A designation comes to mind. It's of dubious relevance but the box had a trade label from a shop in Prague on it.

FIG.1

Set Nr.2 2 sets have been seen, both similar to the one in Fig.5 of OSN 42 but more complete, and the better one is shown below. Its dimensions were given as 25.5*15.5*3cm.

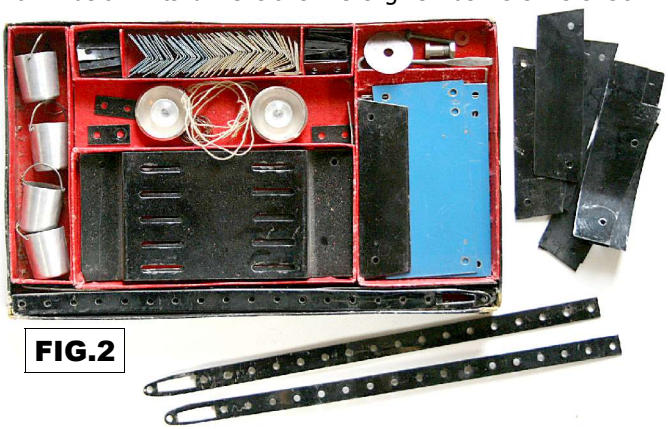
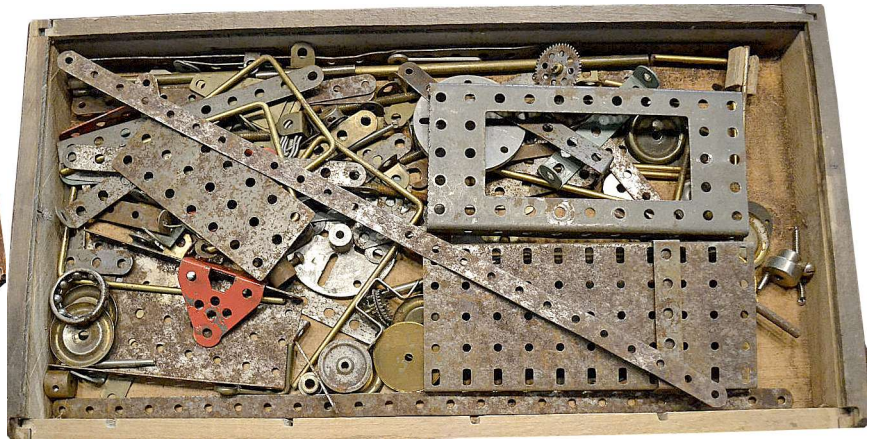


FIG.2

Its DAS are missing, but as explained above they may well be the ones in the Set 1A. The disc top right could be one of the Hose Reel Ends. It was suggested in OSN 42 that the latter were in the Fig.5 set but on a second look it is clear they are Headlamps with a deeper reflector than those in Figs.2 & 11 of OSN 40. No doubt a later, more realistic design. The Headlamps in the other 'new' Nr.2 are also this 'later' type.

OSN 51/1549 **AUTO-CONSTRUCTOR: S6**

Snippet. 'New' System: MECHANIKUS



The set shown here was offered on the German Ebay recently. A PR bottom left on the lid reads (Dr.?) 2443 1047 10000 MDV Haldensleben ??/ 2456. 1047 seems a likely date and Haldensleben is a town 30km NW of Magdeburg. All that can usefully be said of the parts in the box is that they are clearly from more than one system.

OSN 51/1549 **MECHANIKUS: S1**

Snippet. A 'New' Norwegian System: MEKANIKER'N The set shown here was seen on Tradera, the Swedish auction site. It was said that it probably came from Norway, and this is borne out by the text on the lid – Mekaniker means Mechanic in Swedish, Danish, and Norwegian but Byggesett (around the '4') is only a Norwegian word, meaning Set. I haven't been able to find the meaning of the apostrophe N ('N) after MEKANIKER, beyond a suggestion that it possibly denotes 'The' before the word it's added to.

Fig.1

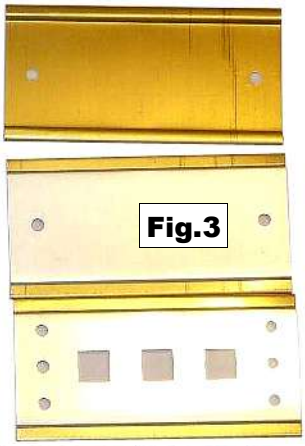


Fig.3

There were 6 of the plain Plates in the Set, plus 2 of the Window Plates, and the latter, with at least some of the other Plates, together with the Wheels, Axles with threaded ends, and deep DAS, could have been used in a Railway Coach similar to the one on the lid. But in that case missing parts would have included, among others, those for the ends of the Coach, and some A/Bs or their equivalents.

The 2 lengths of long-slotted Strips in the box may not be original parts because the Bolts (and Axles) look too large to pass through their slots. And what of the 'matching' narrow unperforated strips?

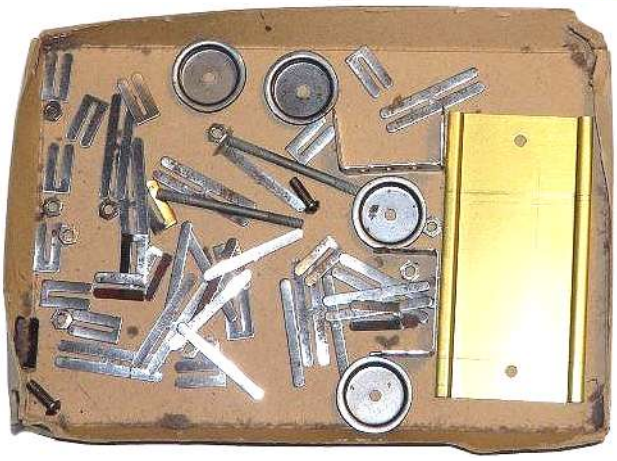


Fig.2

The other models on the lid look to have conventional Strips etc, apart perhaps for the Lorry's bonnet. Perhaps such parts are missing from this Set or were in other sets, and Set 4 had only parts for a Coach.

MEKANIKER'N: S1 **OSN 51/1550**

Snippets. The GAKKEN Metal Kits & Metal Dinos. Let's start with the Dinos. Following the mention in 50/1516 of the Metal Dino sets seen on US Ebay, Jean-Pierre Guibert wrote of 7 Metal Dino sets produced by the Japanese Gakken company. Gakken it is recalled, made the MECHAMO animal models, and the earlier, simpler MECHANIMAL sets (see 34/1011 & 4/66), both quite different in concept from the present models.

FIG.1

The 7 Gakken sets were in fact the original Dino outfits, and the 3 TRONICO & US Ebay sets are repackaged versions of the Gakken ones. The 4 models over & above those named in OSN 50 are Parasaurolophus, Spinosaurus, Anomalocaris, and Pteranodon. Above the Gakken Spinosaurus box.

The METAL KIT Series These date from around 2006 and were earlier than the Dinos. They were all insect models and were made in the same way as the Dinos with some soft aluminium parts, but were rather simpler, and about 10 or 12cm long. A Scorpion box is shown above right (Fig.2) and others in the Series were a Rhino Beetle, a Tarantula, a Giant

FIG.2

Hornet, a Mantis, a Stag Beetle, a Grasshopper, a Tarantula, and a Butterfly.

Adverts for 3 of these sets, the Mantis, Scorpion, and Rhino Beetle, have also been seen with a different style of lid. All three of them show two views of the model, as below for the Mantis.

FIG.3

METAL KIT/DINO: S1 **OSN 51/1550**

The PIONIR No.3 Set

by Jacques Pitrat

OSN 35/1041 described a No.2 set, and 35/1039 the British patent. As long as the Pionir No.2 was considered to be the largest set, many parts in the patent seemed never to have been manufactured, but I recently acquired a No.3 set, which included the roof parts. The manual indicates that there is also a complementary set 2A. As the No.2 & No.3 sets include 268 parts & 440 parts, No.2A would have 172.

This description is based on my set, and on another set offered on eBay almost simultaneously.

Fig.1

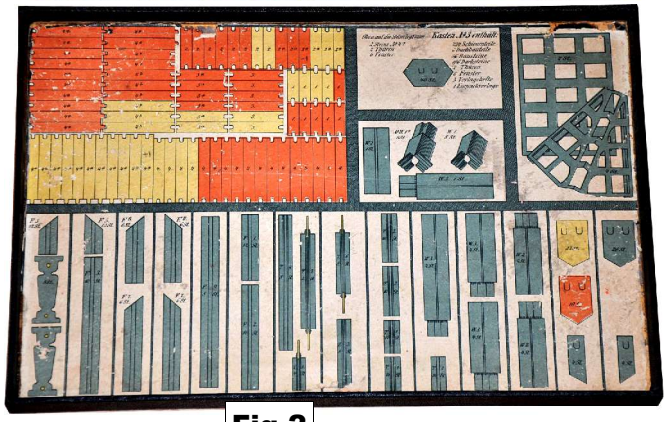


Fig.2

The BOX is wooden, covered by black paper, size 35*23*4cm. The label is identical to those of Sets 1 & 2; therefore it has a larger black surround. As on the other Pionir boxes, the name of the maker on the label, Otto Nentwig, has been erased, replaced by a reference to the patent. The set number appears only inside the lid.

The base (Fig.1) has five main compartments; in the largest one a formed metal tray painted yellow, has 14 bays. Inside the lid, an illustration (Fig.2) shows the layout of the parts, and gives their quantities in each compartment.

The PARTS. The new parts are displayed below, with top & bottom views of the Tile Grids, the Tiles, & the Tenon (to the left of the largest yellow Panel). I will give the number of parts in Set 3 as given inside the lid. I will not repeat the information on the name & size of the parts already given in OSN 35.

Panels. Their number has almost doubled: 86 instead of 44. There are no new ones, but 5 of them, which were only Red in Set 2, are now also Yellow: #2, 2a, 3, 3a, & 4.

The contents are: #1 (R:6, Y:4), #2 (R:6, Y:2), #2a (R:3, Y:3), #3 (R:4, Y:2), #3a (R:4, Y:2), #4 (R:13, Y:4), #4a (R:14, Y:11), #4b (R:5, Y:3). There are 2 Doors & 6 Windows.

Blackened Steel Parts. Set 3 contains 238 of these parts (instead of 220 for Set 2). The total of 234 printed inside the lid was a mistake: 238 comes from the addition of the numbers inside the lid for each part. W5 is the only new part (W4 & W5 were shown in the manual for Set 1 but were not in Set 2, and W4 is not in this set).

As the number of pieces is almost the same for both sets, I only indicate the quantities different from those of Set 2: W3(9), W5 (4), F1 (12), F5r (12), F5l (12), F6r (6), F6l (6).

I believed that W parts were permanently joined to their Tenon, perhaps soldered: they are always represented with it in the description of parts, as well as in the manual pictures showing the position of the parts for each model. Moreover, W1 without a Tenon, & W1a with a Tenon were considered as different parts. In reality, if one pulls on a Tenon with enough strength, it is possible to separate it from the body of the part. Thus parts W1 & W1a are the same, but the second one is delivered with a Tenon in place. Both faces of a Tenon are shown in Fig.3. Set 3 has 29 Tenons, while Set 2 has 21.

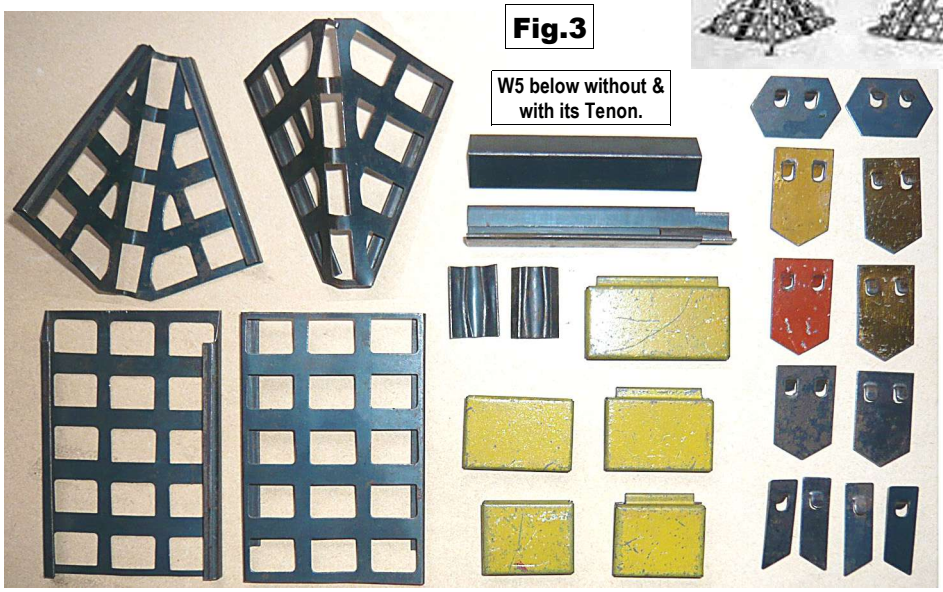


Fig.3

W5 below without & with its Tenon.

Roof Parts. They were described in the patent, and are new to this set. All in all there are 6 Tile Grids & 106 Tiles. The roofs sat on the top of substructures, without being attached to them.

Tile Grids. The two kinds are: Corner Grids (4), & Flat Grids (2). The Flat Grid, 50*75mm, has 5 rows of 3 rectangles. One short side can be inserted into the side of a Panel. A 65mm groove occupies most of the long side. The Corner Grid has only 4 rows of triangles or rectangles; each side has a 60mm groove. Footing parts slide into the grooves to join two Grids. Fig.4 above shows (in B&W for clarity) many structures made using these Panels. As there are only 6 panels in the Set, only 3 of these structures are used in the models of the manual:

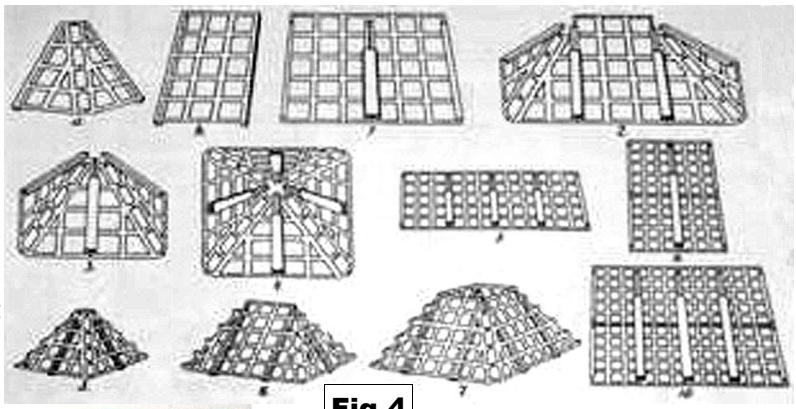


Fig.4

- A pointed roof, made with four Corner Grids, as in the Dovecote in Fig.6 right.
- A hipped roof made with a Flat Grid between two Corner Grids, as Fig.7 right. This is the most frequent roof in the manual models. The Flat Panels are longer than the corner ones so that they can meet at the top of the roof.
- A tiled section of a roof made by two

Flat Grids, their long edges vertical so that they are connected by an F part. This creates a 6*5 grid of rectangles, as in the roof of the Bar in Fig.6, and top right in Fig.7. The ends of this substructure are inserted into the Panels at the ends which complete this side of the roof. As both the Set's Flat Grids are now used, there are no Tiles, but only Panels & Windows, on the other side of the roof.

Tiles, with lugs to clip them to the Grids, are added to the substructure. How to place the tiles is described in Fig.5, which agrees with Fig.18 of the patent. Tiles are hexagonal, pentagonal or trapezoidal:

- Hexagonal Tiles (40). They are black, with 2 lugs, 25mm long, 17mm wide.
- Pentagonal Tiles (black: 26, yellow: 22, red: 10), with 2 lugs, 27mm long, 17mm wide.
- Trapezoidal Tiles, black, (right: 4, left: 4), with one lug, 27mm long, 8.5mm wide. They are only used for completing the third kind of roof structure, which must have a straight line of Tiles down its sides.

Various figures and designs can be made with the Tiles; they form a pattern of hexagonal colours. The manual's author was particularly interested in these possibilities: a whole page (Fig.9 right) is devoted to the representation of the letters, numbers, etc in the 6*5 rectangle of hexagons created by the connection of two Flat Grids. 'I' & '1', and also 'O' & '0', are represented by the same pattern; '9' is the '6' upside down. 'H' is not present, but it appears on the roof of the Bar (Fig.6).

The INSTRUCTION BOOK for Set 3 has 16 pages plus the covers. The explanations, in German with Gothic letters, are printed on the second & third covers.

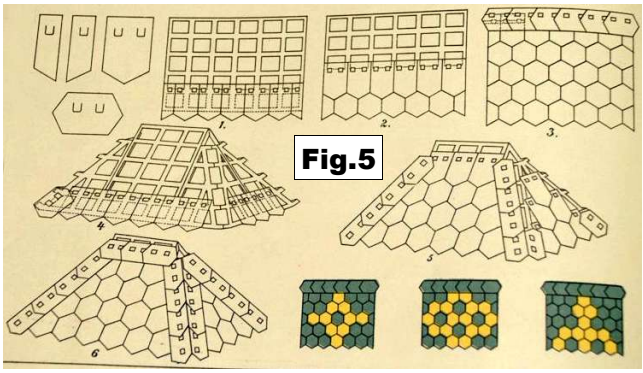


Fig.5

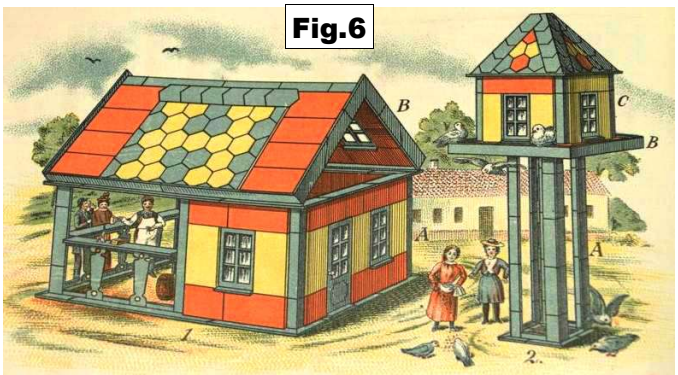


Fig.6

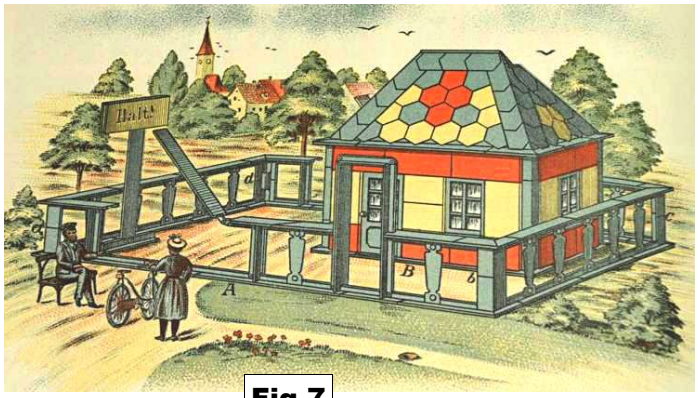


Fig.7

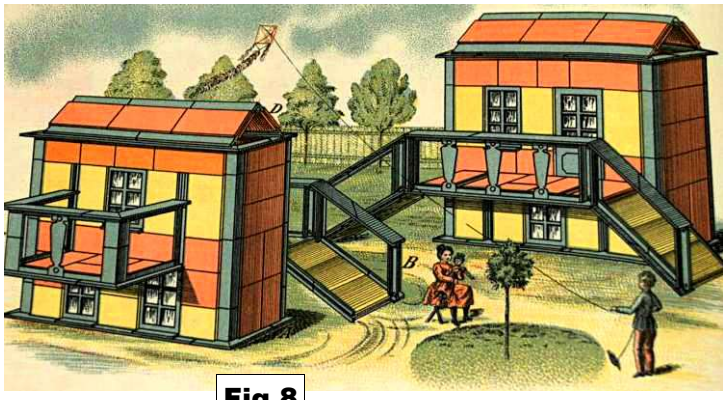


Fig.8

The first three inside pages indicate how to use the roof parts. Thereafter, on the lefthand page (Fig.7 for example), one or two buildings are presented in a landscape with people; on the righthand page (Fig.10 below),

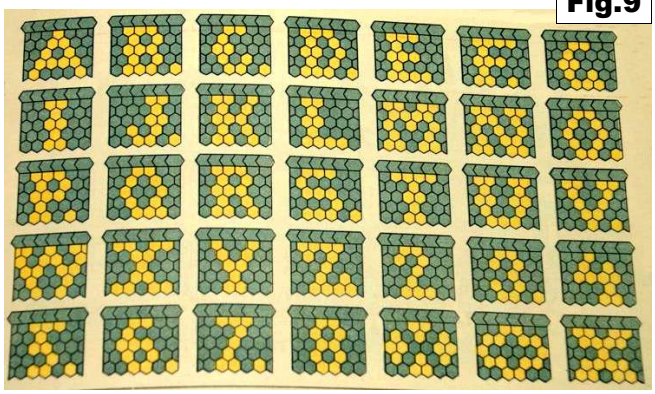


Fig.9

the parts for building them (except the roof parts) are shown with their relative positions, but without indicating whether they are vertical or horizontal.

In one case (Fig.8 at the top of the page) the two buildings represent the same one, shown from opposite directions. This picture looks awkward: perspective rules were not respected, both Houses have the same size on the paper, although the left one is nearer to the reader.

IS THERE a No.4 PIONIR SET? It is likely that the inventor wanted to manufacture at least a fourth set. Several structures of Fig.4 require more Flat Grids than in Set 3: 4, and even 8. Also part W4, shown among the Illustrated Parts in the manual for Set 1, is not in Sets 1-3. Finally the parts for the arched structure shown in the patent (Fig.17) are not in the known sets.

The lid label too shows other parts, for example the Railway Station has windows with arched tops, and they would need additional new parts. And some of the smaller buildings look to have infilled gable ends.

Therefore there was clearly scope for a larger set with more parts, some of them new. Unfortunately, the system lasted only two years, and it seems that the inventor was not able to fulfil his dreams.

But who knows? Perhaps one day in the future, a No.3A or No.4 PIONIR set will be offered on eBay.

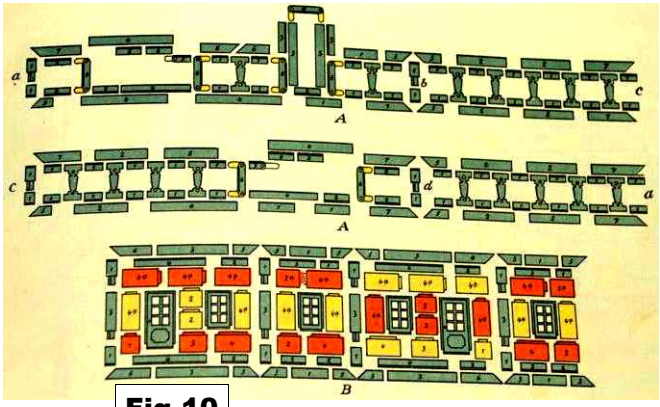


Fig.10

Snippets. 'POLYLONG' Update. Some 40 new, or reused earlier names, have been seen since the last count in 2012 (46/1395). They are listed below with, at the end of each, in brackets, the name of the country in which it was seen. Figs.1a-i & 2a-i are thumbnails of some of the box lids, and a link to each is given in brackets immediately after the name in question. As before many of the models are simple, but there are some more interesting ones, a few R/C models for example, and some contain new &/or coloured parts. Animal, fish, & insect models are also less rare. The models mentioned are those on the lids of the sets seen, but each brand will often of course have other sets with quite different models.

• **ASSEMBLY TOYS** (Fig.1a). The name is in tiny letters under 'TANK'. Notice the Formed Disc above the turret. (NZ) • **BUILDER CENTER** (1b). The green Wheels have not been seen elsewhere. (US) • **CONSTRUCTION [ii]** (1c). Several slightly unusual models. The Plane has 3*4h Curved Plates. (SP) • **CONSTRUCTION SET [ii]** (1d). Not even a brave try? (UK). • **DIE-CAST**. Conventional small models. (IT) • **DIY METAL CONSTRUCTION MODEL KIT** (1e). Some unPolylong-like parts. (UK) • **DIY MODEL** (1f). Notice the Wheels, the 11h Obtuse-Angled Perforated Plate, & at least 3 Shaped Flexible Plates. (UK) • **ENGINS DES MER** (1g). A solar set to make either a Hovercraft, a Floatplane, or a Helicopter with floats. (FR) • **HEMA**. Lid has brand name in tiny letters in top left corner; its model is identical to the COMBINED TOYS Car in 41/1255, Fig.2. (Holland) • **INTELLIGENCE**. Small, very simple models, said to be MECCANO/ERECTOR compatible. (US) • **INTELLIGENT DIY MODEL** (1h). Models range from simple upwards. (FR,GE) • **MALY MECHANIK** (1i). The models include some of the new parts. (UK but, from the name, Polish in origin). • **MECHANIK [ii]**. The lid has a 4-wheel Buggy with a plastic doll Driver. (Belgium) • **MECTEC**. Mostly conventional looking models but a Motorcycle has 3-Spoked Wheels & smallish Formed Plates. (FR,GE,UK) • **METAL [ii]** (2a). A R/C model with the name Jamara on the Controller. (GE) • **METAL BLOCK**. Conventional Inspection Lorry with a few painted parts. (US) • **METAL BRICK [i]** (2b). (UK) • **METAL BRICK [ii]** (2c). (OZ) • **METAL BRICKS** (2d). (UK but made in Russia) • **METAL CONSTRUCT-IT**. Conventional models. (US) • **METAL CONSTRUCION KIT**. Lids show very small, simple models, and a small Robot. (UK) • **METALIX**. Lid subtitled DIY MODEL KITS & shows a small Jeep. (UK) • **METALL-BAUKASTEN** (2e). From Playtastic. A R/C model. Note the 11h Curved Strip. (GE) • **METAL MACHINES**. Lid shows 5 small aero models. (UK). • **METAL MECH**. Lid has a small Robot entitled Android. (UK) • **METAL MEKANIC**. Small, simple models. (UK) • **METAL MODEL/MÉTAL MODÈLE**. Small, simple models but they include 3 sizes of Triangular Plates, 3*2,3,4h. (US) • **METAL MODELS**. Lid has a rather nice Lobster. (UK) • **METAL TECH**. A range of models with a few new parts. (UK,US) • **MINI MECHANIC**. Each set has some coloured parts for a small model packed in a light blue tin. (UK) • **RATCH-IT-UP**. Range of small & larger conventional models. (US) • **SMART INTELLIGENT**. Lid has small Digger Truck. (US) • **SOLARION**. Lid has 2 small solar powered aero models. (US) • **SOLAR POWERED CONSTRUCTION KIT**. Polylong COMBINED models of Lorry & Radar Dish. (UK) • **SPACE FUN** (2f). Strange model, said to be metal & plastic, with interlocking DINKY BUILDER-style Plates. (US) • **STAINLESS STEEL**. Not the earlier STINLESS STEEL. Model is a small F1 Racing Car. (UK) • **STEEL MECHANIX [i]** (2g). US sets were for the Skyscraper, made using mainly different size Plates; UK ones are for a small, simple model. (UK,US) • **STEEL MECHANIX [ii]** (2h). 3 other less original 4-wheel models. (UK) • **TOY BRICKS**. Small simple models. (NZ) • **WIT YARE** (2i). Various lids have been seen, some with more conventional models and 'vs' in tiny letters between WIT & YARE. Another lid has the model name, with WIT YARE in tiny letters. (GE) • **WONDER KIDS**. Small wheeled models. Jean-Pierre Guibert wrote that 3 sets made in China were imported in 2013. The holes in most parts have 12.7mm pitch but 2 are at 10mm. The latter are accommodated by slotted holes in some parts.

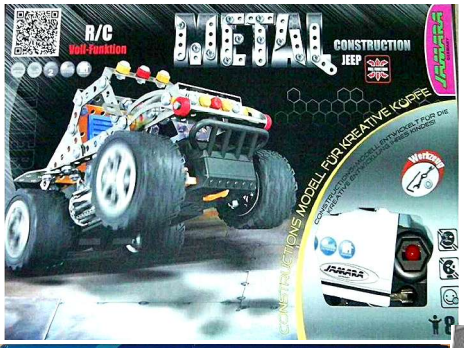
c

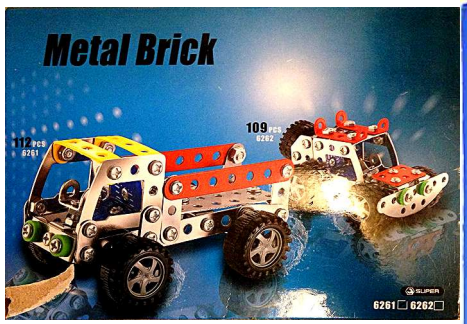
f

Fig.1

i

a





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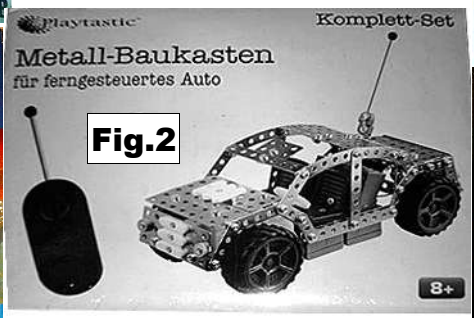


Fig.2

g

Fig.3

Fig.4

SOME 'POLYLONG' MODELS Above a suitably malevolent looking Scorpion from NUTS & BOLTS. Fig.4 is a Digger, with, seemingly, 4 pneumatically powered, hand-pumped movements. The glitzy Roundabout right is another MAGICAL MODEL, said to have lights & music. Also 'wind up & watch' it, though what then are the yellow & red parts alongside it? The Dump Truck in Fig.6 was identified only by JAMARA, a name mentioned earlier in connection with a METAL model.

Fig.5

Fig.6

Snippets. FERRO This account is based on the Patent for this late 1950s German system, a short review of it from a toy magazine, and a newspaper ad. Thank you to Urs Flammer and Thomas Morzinck for this material. ***Baukästen*** gives FERRO's maker as Peter M. thor Straten of Itzehoe (a town 50km northwest of Hamburg).

The PATENT is Nr. 1756671, dated November 1957, and is in the name of Peter Meyer thor Straten of Salzstrasse 7, Itzehoe (Thomas explained that 'thor', equivalent to the German 'zur', is part of an old family name and not the Scandinavian forename).

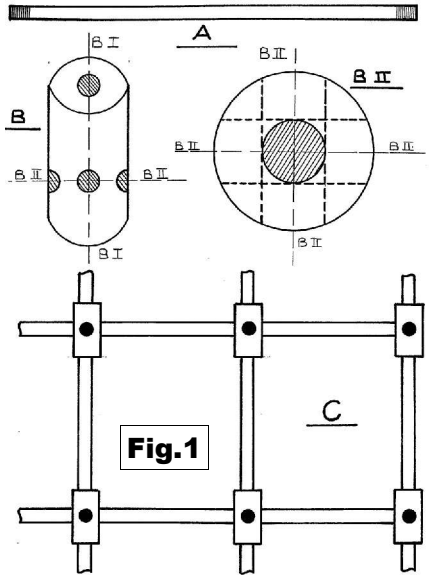


Fig.1

The figures A to C above are those in the patent and illustrate the claim: structures such as 'C' are made from rods with threaded ends which screw into unions with all their holes tapped. It isn't clear if the holes are blind or pass right through. The former would make the union stronger and 6 holes (sechs Bohrungen) are mentioned in the Patent, but set screws are also suggested which would imply through holes.

There is no mention of right- and left-handed threads.

The REVIEW is from the March 1958 issue of a toy trade magazine 'Das Spielzeug'. It's illustrations are the Figs. 2 & 3 shown here, and the parts are said to be steel Tubes with polystyrene cladding Plates. It mentions a basic set F 12 and an add-on set F 12 ER but doesn't say if either is one of the sets in the photos. It says that a 60cm long Cantilever Bridge capable of taking a 5kg load, could be made with the two 'F' sets, and also a 1.60m high Tower. It went on to speak of the many types of model possible: Vehicles, Towers, Lifts, Rocket Launchers, Hangars, Garages, Railway Bridges, Factories, Cranes, etc. A small Electric Motor to power models was mentioned. The model in Fig.3 (a Rocket Launcher I suppose) has a perforated Disc or Wheel in its bottom left corner which isn't in either of the Sets illustrated.

The AD is from a magazine 'Alles für Werken und Basteln', Nr.10, 1958/59. It lists 3 sets, sizes 0, 1, & 2, and they cost DM9, 16.50, & 24.50. The Set in Fig.2 was shown but again without any indication of which one it was.

By way of comparison the smallest MÄRKLIN set in 1954 cost DM8.50; the Nr.101 was DM19.50 and had 6x 25mm Pulleys with 4 Tyres, 2 #67 65mm Flanged Disc Pulleys, 10 Flexible Plates, & 60 N&B; while extra parts in the Nr.102 at DM38 included 4x 25h A/Gs, 4 #20 36mm Flanged Pulleys with Tyres, 2 of the #67 Pulleys, 12 Flexible Plates, & 40 N&B.

COMMENT Nothing is known of FERRO after the ad. I tried to make the type of structure shown in the Patent using MECCANO Screwed Rods and Threaded Bosses. It wasn't a great success, mainly because it was essential that the cross holes in the Bosses were exactly at right angles to the vertical bore, and even a very small error could have a disproportionate effect. Also the length of all the Rods in each 'column', and in each 'row', needed to be exactly the same.

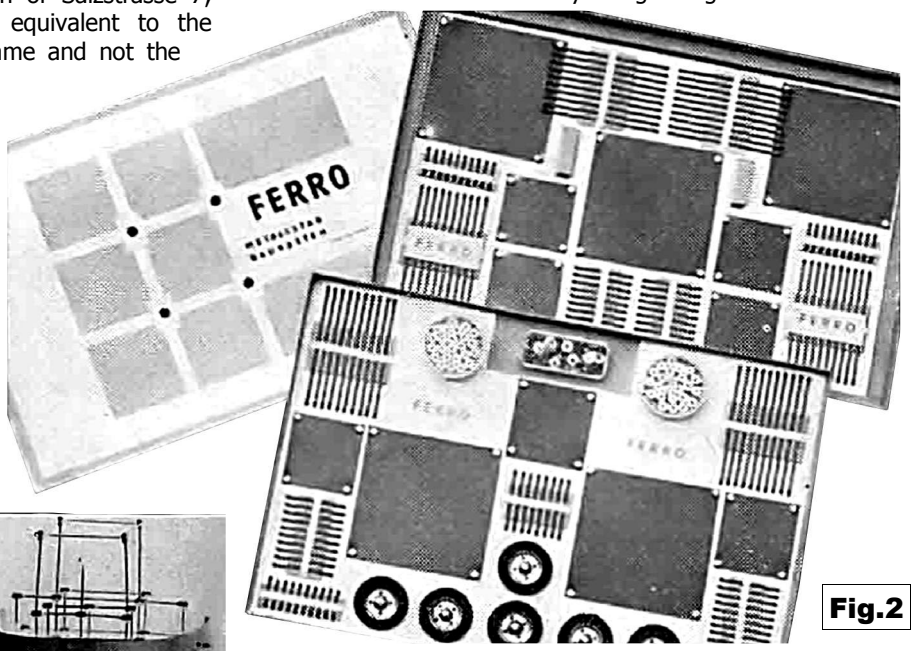


Fig.2

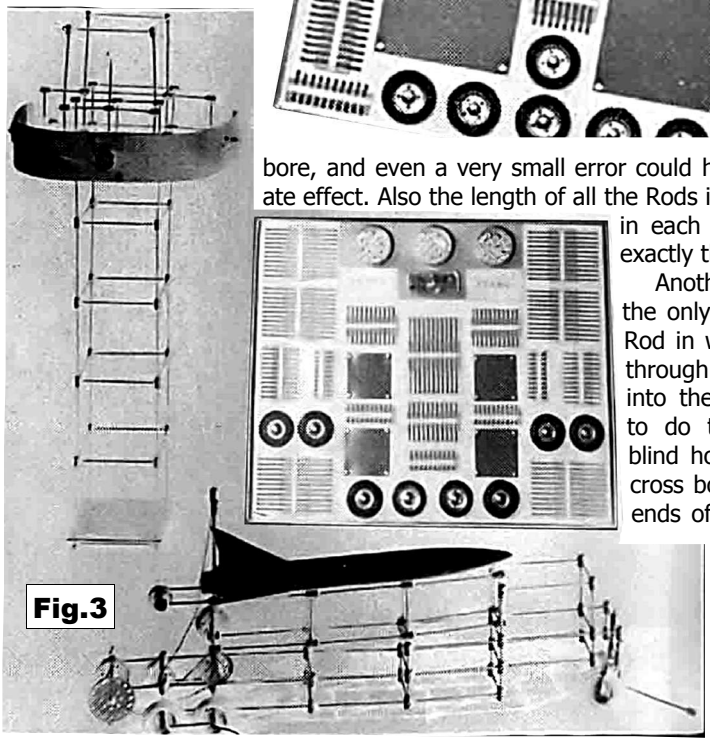


Fig.3

Another point was that the only way to put the last Rod in was to screw it right through one of the Bosses into the far one. The need to do this would rule out blind holes, at least for the cross bores. Also if only the ends of the Rods had been threaded the centre portion would have to have been small enough in diameter to pass through the tapped holes. It's possible that there would have been enough play in the structure, before it was stiffened up with say Set Screws, to insert a last Rod which had right-/left-handed threaded ends.

ENDWORD Peter thor Straten is an unusual name and several books by such a person are advertised at http://www.epubli.de/shop/autor/Peter-thor-Straten/1488. It is said that he was born in 1928 and as his death isn't mentioned it's possible he is still alive. Even if his constructional toy wasn't a great success he may have had better luck with a patent for an ingenious dartboard in the late 1970s. It was granted in several countries, and was No.4257613 in America. It featured a board covered with numerous equispaced, concentric strips of elastic material. They projected out of the face of the board at right angles and had bulged outer ends. The special dart which was used with the board had no spike but a body with a blunt, rounded nose, and a narrowed waist which would be gripped by the bulges as it passed between two of the strips.

Snippets. 'New' Italian System: IL MECCANICO
Two sets have been seen on Ebay, a No.2 shown here in Figs.2 & 3, and the smaller set below in Fig.1. Both have 'Standa' in the top right corners of the lid labels & manual covers. Standa was an Italian supermarket chain from the early 1930s until near the end of the 20th century.

Another Italian system, IL MECCANICO 900, known only from its manual, see 45/1356, differs from IL MECCANICO in that their manual covers are distinctly different, and the '900' has a different name, SART, above a triangular logo, in its manual's top right corner.


Fig.1

The smaller Set has the same lid label & manual cover as the No.2 and its box measures 31*24.5cm. From this the hole pitch scales at near ½". Its manual is the same size as the No.2's and was said to described 4 sets.

As can be seen the parts in the Set (3, 5, & 11h Strips; DAS; Curved Strip; A/B; Flat Bracket, D/B, 2h deep D/B; Rev. A/B, Trunnion & Flat ditto; Pulley with boss; Bush Wheel; 3 Axles which scale at 6, 9, & 11½cm long; Crank Handle, Spanner; Cord) look identical to those in the No.2 except that the Bush Wheel has 8 round peripheral holes, and the Cord is blue.

Fig.2

The No.2 Set looks to have 2 layers of parts but it's hard to be sure of their exact arrangement from the photos. Apart from the Set No. on the lid, Fig.3 shows page 13 from the manual with two Set 2 models on it.


Fig.3

Otherwise little can be said of the Set beyond what can be seen in the photos, except that its Trunnions are missing (they are used in the top Fig.3 model), or perhaps they are hidden from view. Parts that I didn't spot immediately are the Flat Hook & probable 2*2h A/B top right, and the parts in the small red box: Collars; Bolts, some round, some cheeseheaded, & hex Nuts.

IL MECCANICO [2]: S1 **OSN 51/1556**

Snippets. New Indian System: LITTLE ENGINEER 5 different sets were first seen on the Indian Ebay in March 2015. There was no indication of key dimensions or, except for the logo bottom left in Fig.1, and the word by it, VEER perhaps, the maker. All but one of the Ebay items showed only the lid; the other, an AIR FORCE set, had the photos in Figs.1 & 2, and 3 pages from the manual, but the latter so blurry that no useful details could be deciphered.

Fig.1

The AIR FORCE Set With a few exceptions the parts can be clearly seen. Some of the 3h strip parts along the bottom are Reverse Obtuse Angle Brackets. The parts next to them in the bottom right corner are possibly 1*3*1h DAS, a part in the bucket of the model on one of the other lids (Fig.3). The Trunnions are not the 'Flat' type. The Bolt on the small parts box is countersunk but those in the models are cheeseheaded.

The manual pages are headed AIR FORCE KIT 1. Each has 4 models with one photo of each and an illustrated parts list alongside it. 5 of the models are Helicopters which look reasonable, the others are less successful winged machines, most not nearly as good as the one on the lid.

Fig.2

The Other Sets: ● An AIR FORCE KIT 1 set which is probably the same as the one above but it has a different style of lid to the other sets with 4 models on it, all from the manual above. The logo appears on the lid but not 'VEER', or any other name, so perhaps the brand subsequently changed hands. ● A CONSTRUCTION SET with the Digger left on the lid. ● An AIRCRAFT set with a Jet on the lid which has the 7*4h Triangular Plates in the Digger as wings. The top rear of the fuselage is a 5-hole high isosceles Triangular Plate with 3 holes across the base, then 3 rows with a slot across each, then 1 hole at the apex. ● A DHOMM BIKE set. The Motorcycle on the lid has 5-, or perhaps 6-spoke Wheels fitted with Tyres.


Fig.3

LITTLE ENGINEER: S1 **OSN 51/1556**

BRIK-TOR **by Jacques Pitrat**

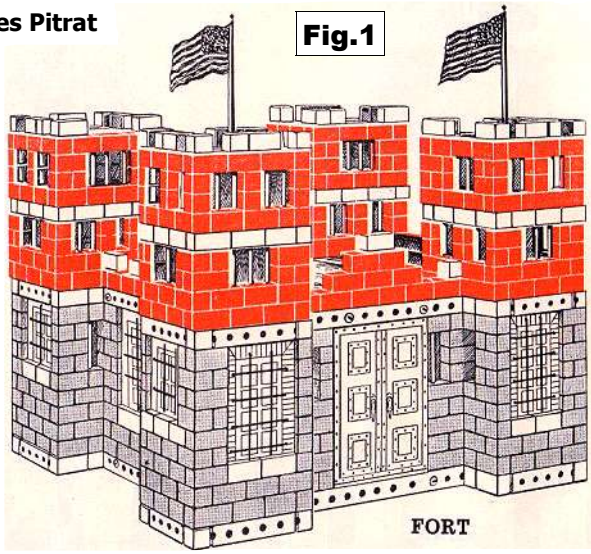


Fig.1

BRIK-TOR, an architectural outfit manufactured by A.C.Gilbert, can be used as an autonomous system, it is possible to build models using only its parts; however, for large models it must be complemented by an ERECTOR set, or any other suitable steel building toy.

For this account I have mainly used information from my own set, and from a few sets offered on eBay. Besides, there are five pages of the manual in MCS, notes & documents by David Hobson & Tony Knowles, two pages written by Jay Smith in Volume 6, No. 2 of the A.C. Gilbert Society Newsletter, and several ERECTOR ads mentioning BRIK-TOR in Klon Smith's Illustrated Guide to Gilbert ERECTOR Advertising. In his autobiography, The man who lives in Paradise, A.C.Gilbert explains why he had decided to produce BRIK-TOR, 'which we called the missing link in toydom, the younger brother of ERECTOR. We were aiming for what I called the pre-screw driver set, the boys who wanted to build things, but who were too young for ERECTOR.'

From MCS, BRIK-TOR was marketed in 1916-17. This is likely, some 1916 ads mention it, I have not seen any Gilbert U.S. advertising published after 1917.

BUILDING the MODELS The walls of the buildings are made of Bricks pushed down Rods. These Rods are held in Fundaments, U-girders on their sides with holes in both arms. A row of larger holes along the base of the U is used to Bolt the part to an internal structure, built from a non-BRIK-TOR metal construction system. BRIK-TOR Strips & Plates, with holes for Rods, may also be used to stiffen buildings, as in the Tower above. The walls are built layer upon layer: 'lay the first row around the structure, and then the second one – but – do not forget to shift this row one-half a brick to get the right brick effect.'

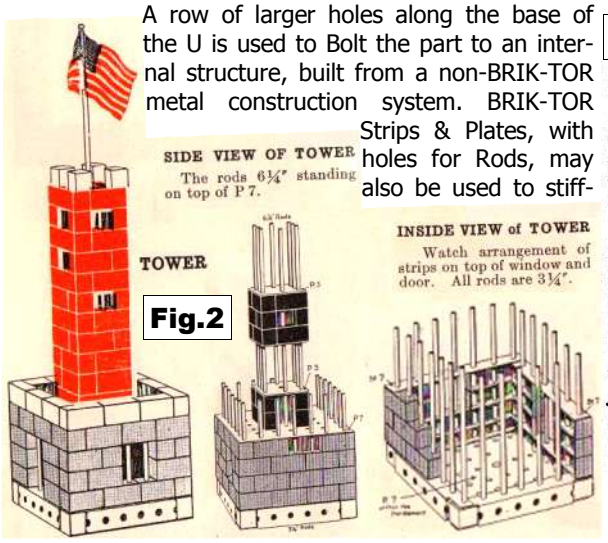


Fig.2

Gable roofs are made in the same way, with Fundaments at both ends; Bricks pushed onto horizontal Rods fill the space in between the end Fundaments. It is not very easy to attach the roof to the structure: 'for connecting the roof with the structure, we use 5 and 9 hole strips from our Construction Toy.' (Fig.3, in black & white for clarity). To do this one has to pass the hand through the structure's base, the only opening in the completed model; better to have a small hand!

Fig.3

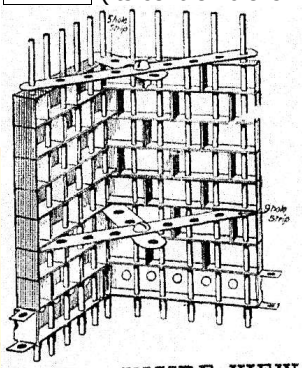


FIG. 7. INSIDE VIEW OF ROOF

The PARTS Parts (Figs.4,11,12) are stamped steel. After the part name, I indicate the quantities in Sets A, B, & C (at first A was called the BRIK-TOR Unit, and C the BRIK-TOR Set).

Holes for Bolts are 4.7mm diameter; for Rods there are 2 sizes: 3.1 in the Bricks & in one arm of the Fundaments, 2.7mm otherwise. For all, the pitch is ½".

Rods are 2.65mm diameter. Their name is P507 followed by their length in inches: 2¼ (12-24-18), 2¾ (6-12-24), 3¼ (12-24-12), 3¾ (6-12-12), 4¼ (12-24-24), 4¾ (6-12-18), 5¼ (6-12-4), 5¾ (0-0-24), 6¼ (6-12-4), 6¾(0-0-4), 7¼(0-0-8), 7¾(0-0-4), 8¼ (0-0-4), 8¾ (0-0-0), 9¼ (0-0-28), 10¾ (0-0-0). All have 4 small pressed-out wings near one end.

Bricks are in three colours: Red, Slate (also called grey in the manual, but black for me), and White (rather blueish for me). The dimensions of large bricks, P502 R (30-60-144), S (24-48-144), W (6-12-30), are 1" long, ½" high, & ⅜" wide (the wall thickness), with 2 holes for Rods in both the top & bottom faces. One of the end sides is 15/32" long; this fills the space between the Bricks on the corners. The Small Brick, P501 R (8-16-60), S (6-12-36), W (6-12-24), is similar but ½" long, with one hole in each face.

The red Triangle Brick (0-0-30) is a right-angled isosceles triangle with a Bolt hole on the hypotenuse, and a Rod hole on the other sides. The large hole is not used for Bolts, it is large only so that Rods protruding from any adjacent structure can go through it. This part is necessary for completing the rows of Bricks in gable ends, as one can see in the Church (Fig 18).

Plates Nickelled, square save the smallest: P508, 3*3h, 1⅜*1½" (4-8-8); P509, 5*5h, 2⅜*2⅜" (2-4-8); & P510 7*7h (its centre hole is Bolt hole size), 3⅜*3⅜" (1-2-4).

Strips Nickeled, width 5/16": P511 3h (6-12-12), P512 5h (3-6-6), P513 7h(2-4-8), & P518 14h (0-0-2). Their small holes & square ends make them very different from the ERECTOR Strips.

Fundaments are U-girders with Bolt holes on the base of the U, and Rod holes along both arms. The base holes are staggered relative to those in the arms so that a Bolt can be inserted between two Rods. The holes in the upper arm are 3.1mm Ø to allow the 'wings' on the end on the Rods to pass through, and the ends of the Rods then engage with the 2.7mm

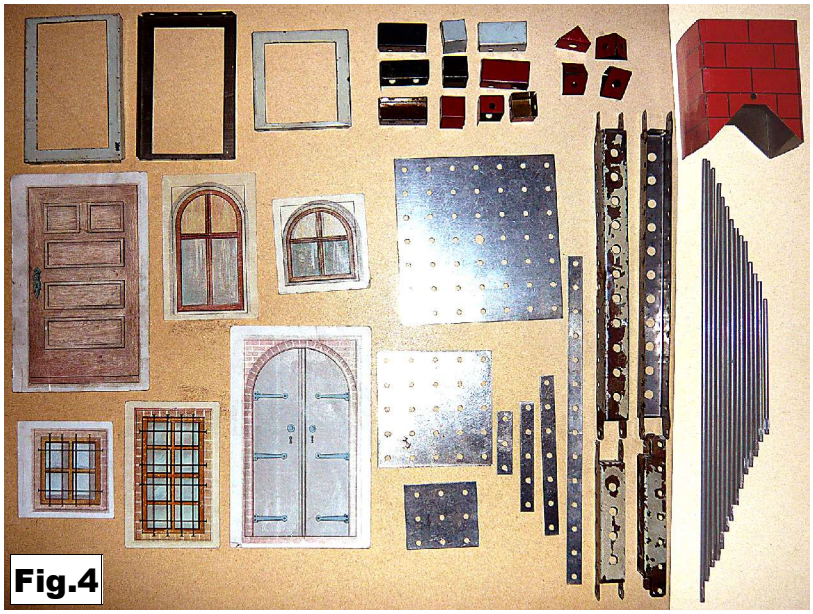
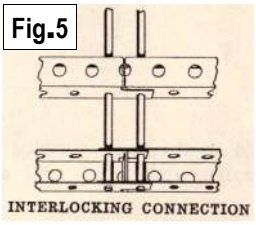
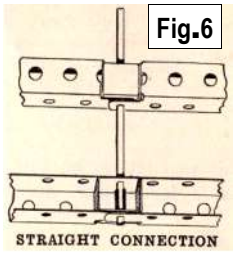
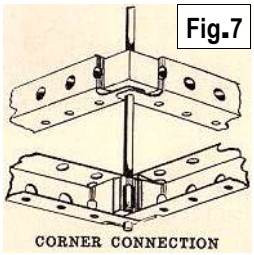


Fig.4







holes in the other arm. Thus the Rods don't fall out when a model is picked up. The Manual says, 'You can put only the end of the rod through the small holes on the bottom of the fundament by reason of their winged part.'

As can be seen from Figs.5-7 above the Fundements ends are forked, with the base of the 'U' folded over, and a Small Brick can be inserted into the fork. Figs.5 & 6 show two ways for joining Fundaments in-line, and Fig.7 shows a corner connection (for linking two walls, or two side of a roof).

There are 2 lengths: P505, Large Fundament (0-0-8) with 14 Rod holes & 11 Bolt holes, length 6¾" o/a, and P504, Small Fundament (4-8-8), 3¼" o/a, with 7 Rod holes & 4 Bolt holes.

Chimney, P514 (0-0-1), 2½" high, has a 2*1½" rectangular section. Its sides are cut to fit the form of the roof. Two Rod holes opposite each other just above the inverted vee cut-out allow it to be fastened by the highest Rod of the roof.

Frames In order to build more realistic models, white Frames are used in door & window openings; they are not included in the Unit/Set A. They have Rod holes in only their top & bottom flanges and so can be placed in only one direction: rectangular ones must have their long side vertical. P516, Door Frame, 4⅝*2⅞" (0-0-1) with 6 holes for Rods. P515, Large Window Frame 3 1/16*2" (0-1-5) with 4 holes. P517, Small Window Frame 2 1/16*2" (0-2-2) also with 4 holes.

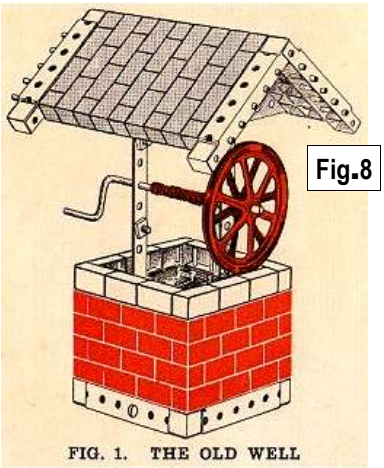
Lithographed Cards There are 5 sets with Cards which push into the Frames; each one contains one Door, five Large Windows, and two Small Windows. The sets are: the Green set for houses, the Brown set for houses, the Office building set, the Armory set, and the Church set. Also listed are 'Factory windows' & 'Factory doors'.

The Door Frame would be too large for the models that could be built with Set B, and therefore, for this set, the Large Window Frame is called 'Door Frame'. This set has only one Card for each Frame, with a suitable Card to represent a door.

The manual claims: 'Real houses with doors that will open, windows to look through!' However, this is not true: the Doors do not open, & we can't see through the cardboard Windows.

ERECTOR Parts 3 are listed: P25L Long Screw, P26 Nut, P29S Small Washer. None of them are in BRIK-TOR sets.

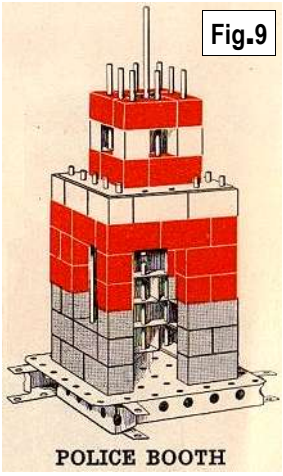
BRIK-TOR and OTHER METAL CONSTRUCTION SYSTEMS Other metal construction sets are used with BRIK-TOR for two reasons. First, Bricks are ideally suited for building walls, but not for bridges, windmill blades, or any mechanism. Therefore, for some models, such as the Well right, one can see ERECTOR Strips etc used with BRIK-TOR parts.



Secondly, though BRIK-TOR may be used alone for small buildings, such as the Tower in Fig.2, when the model is too large, the construction method, putting Bricks on Rods, leads to wobbly models: the Rod diameter is much smaller than the holes in the Bricks and in the Fundament's upper arm. For this reason the model must be strengthened by an internal structure, which is hidden. The Fundaments are fastened to this structure by long Bolts. When such a structure is necessary, it is described in the manual.

We could think that BRIK-TOR would be used only with its big brother, ERECTOR. And actually the structures in the manual are always made with ERECTOR parts: Girders and the three then existing sizes of ERECTOR strips: 3, 5, & 9 holes. However, the manual indicates that one can use 'some other steel construction set'. Nevertheless, it wouldn't be possible to use a system such as STRUCTATOR: the other system must have Strips etc with holes for Bolts. This is the case for most of the systems that existed at that time in the States: MECCANO, AMERICAN MODEL BUILDER, STRUCTO, MASTER BUILDER, MODELIT, etc. Curiously enough, none of them included the long Bolts necessary to link the Fundaments and the structure, Meccano introduced their ¾" Bolt #111 in 1919. This is probably why long Bolts etc are the only ERECTOR parts included in the BRIK-TOR parts list.

The SETS 2 sets, the Unit & the Set, were described in the manual, a third appeared in 1917 ads; no known manual or advertisement ever mentioned the 4th, and the 5th was probably never produced. The contents of the first 3 sets were given earlier in the description of the parts. In a few cases, the Unit/Set A, & Set B, contain more Rods of a particular length than the Set/Set C.



The Unit (called A in 1917) cost $1.50. Only a few models could be built with this set, such as a Police Booth right. Most models required at least 2 BRIK-TOR Units, the Tower in Fig.2 for example.

Set B appeared in 1917 advertisements, with a price of $3; Gilbert had inserted an intermediary set between the earlier ones. This was sensible, given that most manual models required 2 BRIK-TOR Units. Set B had the cost and the contents of two A sets, plus 3 Frames & Cards as a rather stingy premium. It is in a cardboard box with two levels, each an A set. The Frames etc are added to the upper level.

Fig.10

The BRIK-TOR Set (called C in 1917) is in a 12½*8½*2" cardboard box (right) and cost $5.00, the price of an ERECTOR No.4. The parts list is glued inside

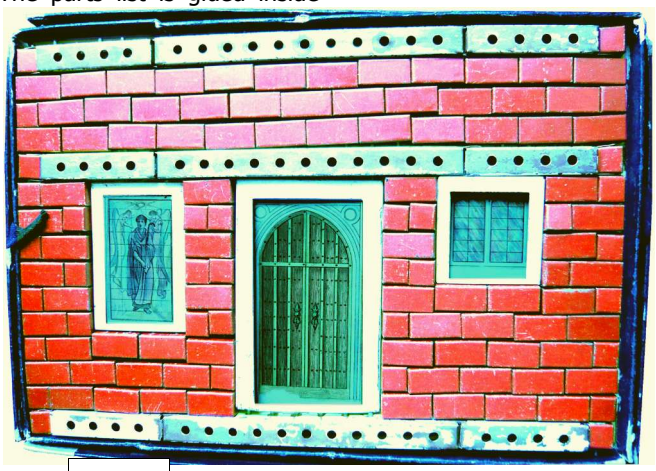


Fig.11

Fig.12

the lid. Like the Unit, it includes no ERECTOR parts, not even long Bolts. It has 2 layers of parts and the shallow tray has the parts organized to form the side of a building (Fig.11); this is beautiful, but a labour-intensive practice, compared with the T-clips used for ERECTOR sets. In the base, above, two cardboard inserts, 7¾*3½*1½", contain Bricks; the other parts occupy the remaining space. We have seen that there were five sets of Lithographed Cards. The BRIK-TOR set only contains three of these, in my set the last three. This can be a problem for some models: if the Armory set is not included in a box, it is difficult to make a realistic model of the Jail or of the Fort – they would look weird with windows showing angels, or flowers with lovely little curtains! The Cards are printed on only one side; printing them double-sided, as were the 1935 Skyscraper Panels, would have overcome this disadvantage, giving effectively 6 Card sets in the Outfit.

A CANNISTER Set in a cardboard tube (right), 6" high, diameter 3¾", was offered on eBay with its probably incomplete content; unfortunately both the list of parts and the manual were missing. It could have contained a Set A but the parts would have been packed like sardines; moreover, one cannot see the interest in a new packaging for this set. It is more likely that Gilbert wanted to introduce a cheap beginners set, which would be sold for less than one dollar. For example, its content could be half of Set A, which would lead to a price of around 80 cents. This agrees with the remaining contents, which compared with Set A are: Bricks 29/60, Small Bricks 9/20, Plates 3/7, Strips 9/11, Rods 27/66, Small Fundaments 4/4 (it is difficult to build something with less that four Fundaments). Its Brick content corresponds to one BRIK-TOR Brick Box, with only two missing Bricks; this suggests that this set is almost complete. The models, built with so few parts, must be very straightforward. These sets are extremely rare: for the seller, it was the only one he had seen in 40 years of collecting Gilbert toys.

Fig.13

The SPECIAL BRIK-TOR Set allows a 16½ft long model of the Brooklyn Bridge (Fig.14) to be built, with piers 32" high. Or a model of the 2-storey ERECTOR Factory, 46*28" in plan & 15" high. The set includes all the ERECTOR parts necessary for these models. It was said that the initial price, $50, was reduced to $25 'to encourage the young builder to make these instructive and splendid models.' It was necessary to decrease the price significantly: $25 was also the price of the largest No.8 ERECTOR set. It is unclear whether this set was ever marketed, Jay Smith wrote: 'I don't believe that any examples of this set have surfaced.' Probably, it is in the museum of the announced, but never produced, sets where it preceded, among others, the No.12 ERECTOR and Meccano's Mechanised Army No.3.

SEPARATE PARTS Toy dealers had a cabinet (right) which contained the full range of parts. The Bricks, short Rods and Strips were sold by the dozen, by the half dozen for long Rods, and per unit for the others.

Fig.15

There was also a BRIK-TOR Brick Box which sold for 35 cents and contained only Bricks: Large (15R, 12S, 3W) & Small (4R, 3S, 3W). No model could be built with this box, which contained no Rods.


Fig.16

The MANUAL The BRIK-TOR set manual (Fig.17) has 32 pages about 10½*7", plus covers; It is one of the best Gilbert manuals that I know, printed in black & red on good quality paper.

It begins with a general presentation of the system, written by A.C.Gilbert, then three pages explain how to build with BRIK-TOR, describing step by step the construction of an Old Well (Fig.8). Two pages show three models built with one BRIK-TOR Unit (Fig.9 for example), while the four following pages have eight models built with two BRIK-TOR Units, including Fig.2. After introducing Frames, seven pages show eight models built with the BRIK-TOR Set. With every model, the Church in Fig.18 for instance, a drawing is present of every vertical wall with the size of the Rods indicated; there are also

Fig.14

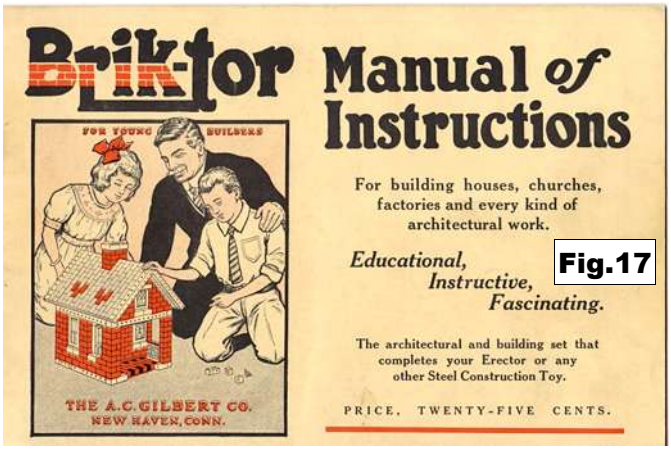


Fig.17

one or two overviews of the building, the disposition of the Fundaments at the base, and a view of the ERECTOR structure used for the model. Then five models, each one on two pages, which need two BRIK-TOR sets plus some extra parts for 3 of them (Fig.1), and two pages which display both models from the Special Set. Then two pages show the parts, the sets, and their prices, while the last three pages promote ERECTOR.

It is not easy to use the manual because of the separate description of the walls. Usually, a manual displays sub-structures that are later included in the main construction. Here, due to the staggering of the Bricks, it is impossible to build the walls separately, and then assemble them. As the manual says, one must build the model layer after layer. Therefore, one has to begin the first layer with the picture of the first wall, then put the following Bricks from the second picture, etc, then return to the first picture for the second layer, and so on. It was certainly confusing for the young child who wanted to build the Church with its six walls (Fig 18).

The BRIK-TOR Unit/Set A, and Set B, included an instruct-ion manual but I have no information about their content. Perhaps the same manual was used for both sets.

END WORD This system did not fulfill Gilbert's hopes: its sets are rarely found. He himself considered that 'it was moderately successful.' It did not last long: for Jay Smith, 'Brik-tor disappeared pretty quickly in the late teens.' Although Gilbert was spending a lot of money on advertising, he did not try very hard to promote BRIK-TOR. When he seriously wanted to launch a new system, such as Electrical sets, or the GILBERT NEW WHEEL TOY, he published full-page ads; it does not seem that such advertisements were ever made for BRIK-TOR. In 1916-17, a full-page ad for ERECTOR sometimes mentioned other Gilbert products; among them the information on BRIK-TOR was limited to a few lines, and a tiny picture of a Windmill. However, a Gilbert ad in a UK toy magazine of Oct. 1922 includes BRIK-TOR Sets A and C, probably to get rid of old stock.

Devising a system for young children was an excellent idea, but Gilbert acknowledged, 40 years later: 'it was a sound idea, but BRIK-TOR was not the right answer.' For this goal, it was a failure, and there are many reasons for this. It is boring to push Bricks onto rods: it is more difficult than stacking Lego Bricks. It is not easy to find the right Rod among 16 possible lengths. The child has to build a structure with parts of another system, where he must use a screwdriver while he is supposed to have a 'pre-screw driver set'. It is difficult to understand the models in the manual, described by their walls, when they must be built upwards brick course by brick course. Staggering the Bricks makes it very hard to modify what has already been made, one must destroy a large part of it. All this is not very attractive to young children, the intended users.

Nevertheless, all in all, experienced users could build interesting models with this system.

A comparable architectural system, BAYCO, appeared in 1934; it also used vertical metal Rods, but held firmly in a plastic base, and with plastic parts, impressed with a staggered brick pattern, which slid down between the Rods rather than over them. It was rather successful, since it lasted 33 years. David noted that BAYCO overcame some of the problems with BRIK-TOR, lack of stiffness for example, but it still often needed much dismantling to make changes to a model.

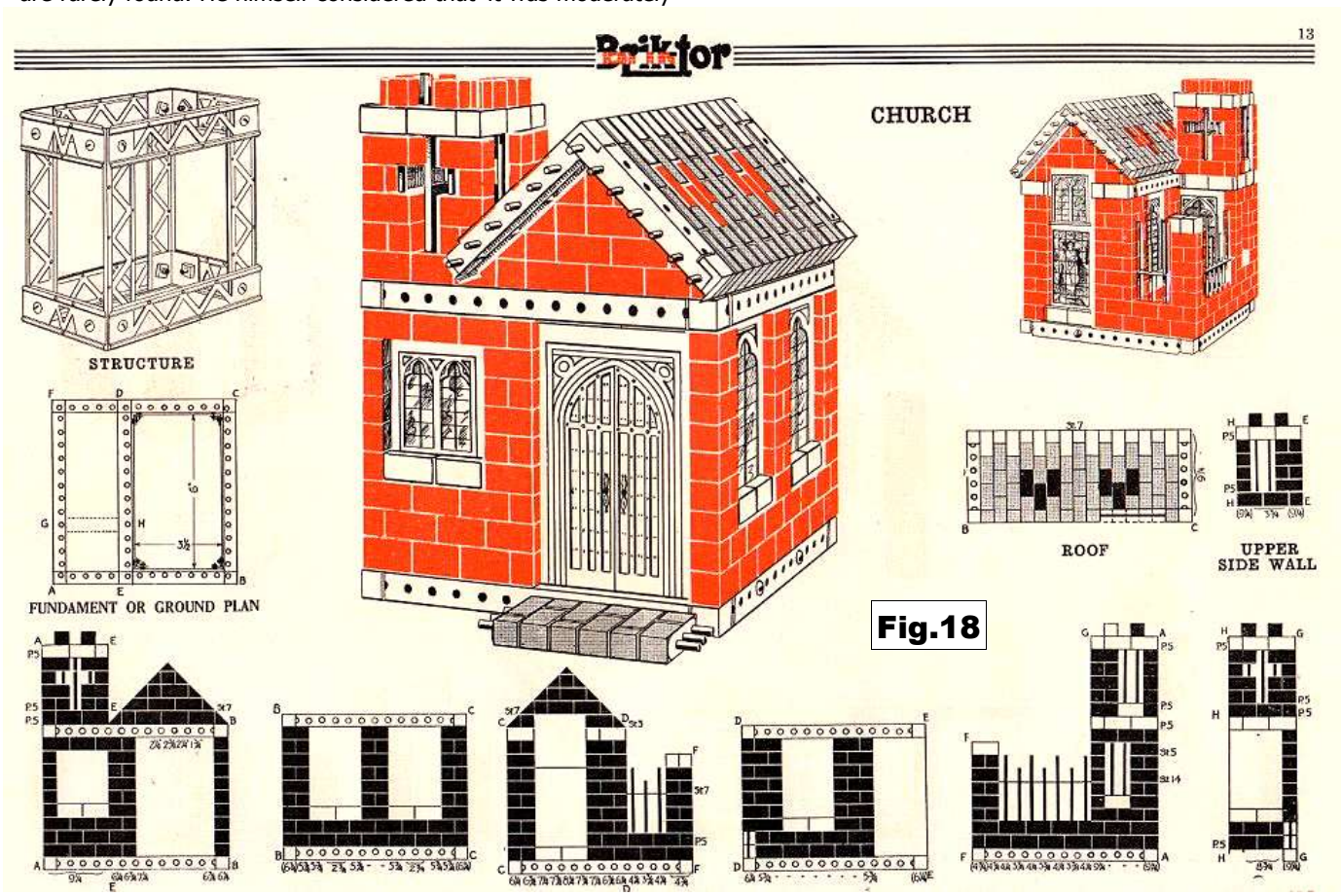


Fig.18

CONSTRUCTION in 2015 What follows was taken from the Eitech website in early May, and the German version of the 2015 catalogue. 15 sets have been added since 2014 (see 49/1485), 4 have been deleted, and the range, with the new sets in red, is now: 04,05,06,07,09-12,14-17,20,26,27,33,35,43,44,45,47,51,52, 57,58,60,62,63,64,65,67-69,71,74,78,81,83,84,89,91,92,93,94-97, 420,450,460,470,600,610,1955. Set 1955 is only in the Catalogue. No Set Nos. are given in said catalogue, only Article Nos. – they have 5 figures, with one or more zeros followed by the Set No.

Many of the sets are said to be approved for use in schools. The major additions are 2 new versions of the Marble Run models, 3 Dinosaur sets, and an outfit for 3 versions of the original VW Campervan. The main deletions are one of the larger Towers, the original Marble Run, and the 'Black Edition' No.1000 R/C Car.

The New Sets: **No.06** (270 parts) is a small set to make a number of small models such as 4-wheel Wagons or a Pair of Steps. **No.07** (250 parts) is a mechanisms set with Motor & Battery Box for a Differential, Trip Hammer, etc. **No.20** (290+ parts) makes 3 models based on a hull, some 30cm long, made from 'a plastic-wood-mix': a Yacht (Fig.3), an open boat, and one with some blurry superstructure. **Nos.43,44,64,65** are sets to make a Dog, Snail, Owl or Mosquito, Scorpion or Crocodile, all quite nice small simplicity or simplicity plus models. **No.94** (220 parts) is for a Stand to hold either a smartphone or a tablet. **No.95-97** (Fig.4) are 'Dinosaur' sets with 250, 250, 320 parts for a T-Rex, Triceratops, & Brachiosaurus, all with movable joints. **No.470** (815 parts) is a 50cm high Empire State Building set. **Nos.600, 610**, are Marble Runs called Fun'N'Roll with 1400+ & 340+ parts. They replace the No.500 set, and each has instructions for 2 models. **The 610 models** are 80cm high with 5 Balls running down 3.5m of Track. It looks as if the Balls are loaded by hand. **The 600 models** (the larger of them is shown on the box lid, Fig.2) are 100cm high with an electric chain lift. 10 Balls run on 9.5m of Track (red plastic, the 610 Track is blue). An improved rail system is claimed and sustained action from the electric ball lift is guaranteed. **No.1955** has 745+ parts for either the VW Campervan (Fig.1) with working steering & an opening tailgate, or a Van or Pickup version of it. VW isn't named anywhere but the set is labelled as a 60th Anniversary outfit.

The Deleted Sets: These were all originally noted in 48/1467 and are as follows. **No.59**, a small set for a Motorcycle. **No.400**, had 740 parts to build a 70cm high Space Needle. **No.500**, the 1100-part Marble Run set now replaced by Set 600. **No.1000**, the 'Black Edition' set for a 550-part black R/C Car. It was said that only 300 sets would be produced.

Add-on Sets & Accessory Packs: these remain as in 2013 except that 2 Battery Packs with switch, **Nos.1681** & **1682**, for 2, 3 AA cells, have been added.

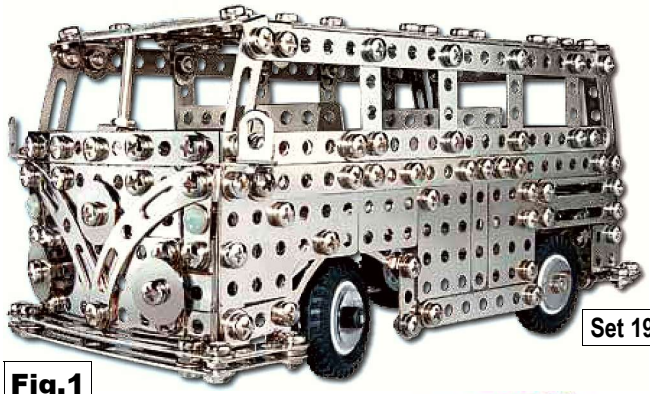


Fig.1

Fig.2 Set 600

Fig.3 Set 20

Fig.4

Kettles Konstructional Kit

'New' System: This account is thanks to David Hobson who kindly lent me his parts, probably most of a set, and the 4 photocopied manual pages which were with them. The Kettles name is on first of them, Fig.1 above.

Fig.1▲

Maker: The first page also has a price list of 'additional parts' that can be obtained from the manufacturer at 193 Roman Road, London, E.3.

Date: There is no mention of a date but from the prices of the parts, KKK was post-WW2. For example a KKK N&B cost 1d against Meccano's 2d a dozen prewar, rising to 7½d in 1946, & 10½d in 1952. Its unlikely that KKK would have been launched in the 50's and soon after the war seems very probable: a time when war surplus aluminium was readily available (most of the parts are aluminium) and toys were still in short supply.

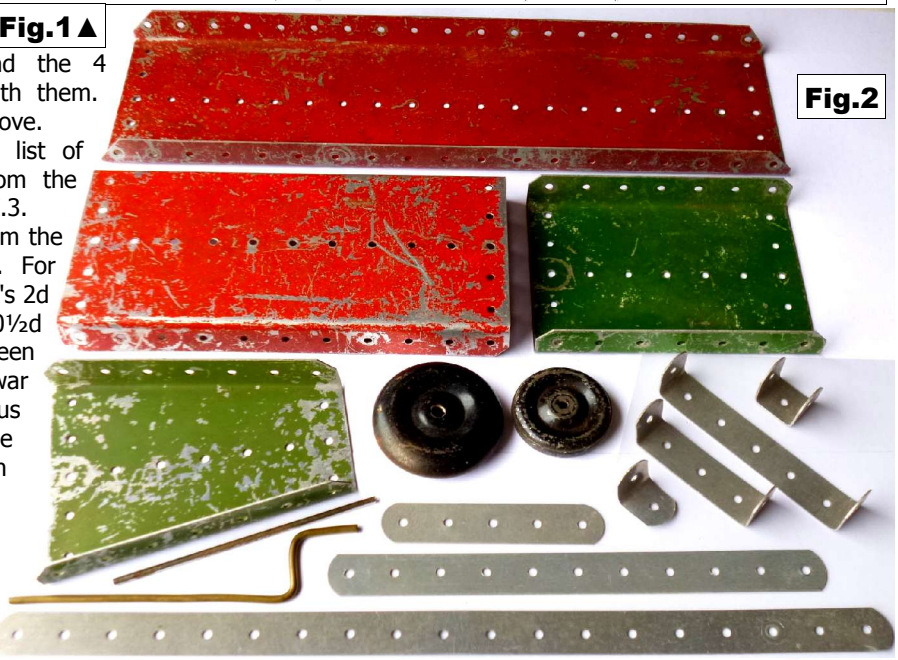


Fig.2

The PAGES These are single-sided and measure about 5¾*8½". The name (Fig.1) runs across the top of the first page, with the details already mentioned below it. Each of the other pages has one photo of a model, together with its name and overall size (Figs.4-6).

The PARTS are shown in Figs.2 & 3. **Holes** are 3.0mm or slightly larger, at ⅝" pitch. **Thread**: 6 BA. **Material**: Strips, Plates, & Brackets are aluminium, the others are steel except that the Crank Handle & some Bolts are brass. Coloured parts are painted. **Quality**: generally quite reasonable but some bends are not at 90º, the pitch of the Sector Plate's centreline holes is a little irregular, & the mitred corners on the Plates' flanges vary the size.

List of Parts Those found are as follows with quantities in curly brackets. **Strips** 19,11,5,2h, .6" wide {6,6,11,1}. The 2h has been crudely bent into an A/B. **Flanged Plates**, 5*7,11,19h & the Sector Plate {1,1,1,1}. **DAS** 1*3,5*1h {2,7}. **D/B** {1}. **Wheels**, balloon, 1.5/1.95" Ø, .36/.48" wide, 3/3½mm bore {2,5}. **Axle**, nickelled steel, 2.6mm Ø, 3¾" long {1}. **Crank Handle**, brass, 3.0mm Ø, 4¾" long o/a {1}. **Bolts**: c's'k: ¼"/¾" o/a, dull grey treated steel/brass {24,4}; CH, ⅜" u/h {5 steel, 4 brass}. All heads are 4.8mm Ø. **Nuts**, hex, steel: pressed, ¼" A/F {36}; machined, 3/16" A/F {6}.

Fig.3

NOTES The parts listed on the first page are: the Strips above plus a 3h; the 4 Plates; a Wheel, without specifying size but those in the models scale at 2" or a little more; a Nut; & a Bolt. From its price the Bolt would be the short one but a long Bolt was also needed to mount the Wheels, as described in a note beside the list of parts.

The list doesn't include any DAS or Brackets unless they were considered to be strips with the appropriate number of holes. The 3h Strip isn't used in the 3 models on the other pages. The Axle, Crank Handle, & 1½" Wheel aren't in the list either and only the Crank Handle is used in the models.

Other parts in the models are an A/B on the Aeroplane, the Hook on the Crane, & the Disc above it. Apart from these, the parts found would be enough for all the models save 2 each of 11h Strips, D/Bs, 1½" DAS, & some N&B (though not many if the ⅜" Bolts are genuine (there is no particular need for their length in any of the models).

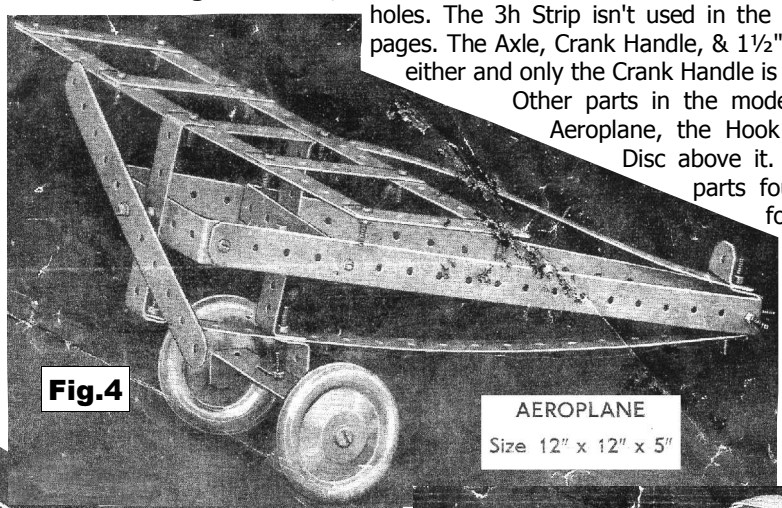


Fig.4

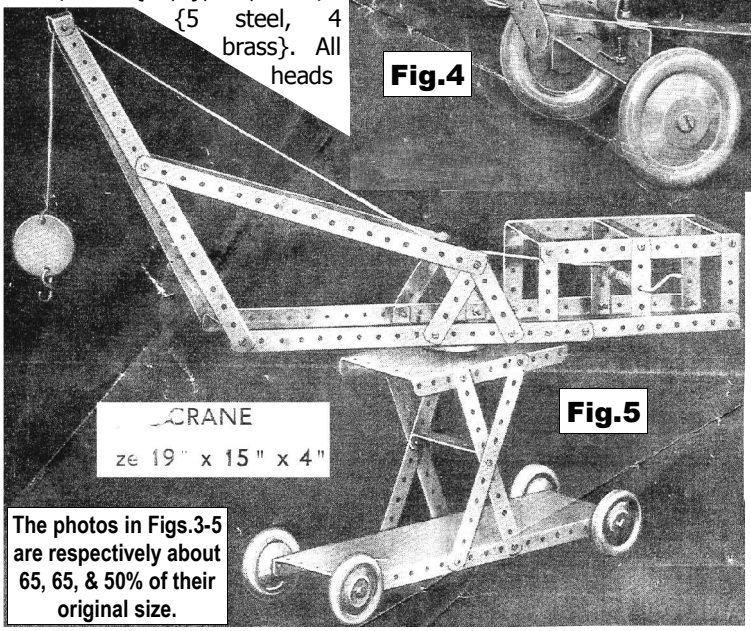


Fig.5

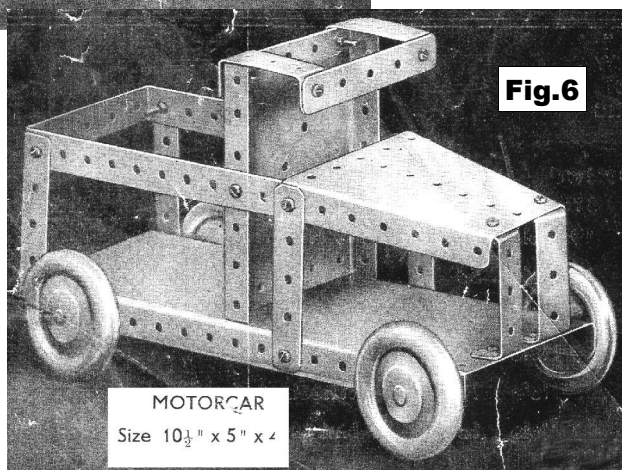


Fig.6

The photos in Figs.3-5 are respectively about 65, 65, & 50% of their original size.

HOHA ***Baukästen*** says that HOHA was made by R & H Hohage of Lüdenscheid from 1935 to 1954, and it is known for having some of the shiniest nickel parts you'll ever see. Incomplete notes on the parts & sets were given in 18/516 and though they included full details of the manual shown here in Fig.6, nothing on set contents was available at the time. Now Urs Flammer has kindly sent a PDF about HOHA (much of it thanks to Albrecht Heinisch) which includes them (Fig.10), taken from what was probably the last HOHA manual (Fig.8). For this account I've also drawn on numerous Ebay photos to try to place the various lid labels, manuals, etc in date order, and to note changes to the parts & sets over time. This wasn't very successful with no dates and too many anomalies, but it is hoped that others will correct and add to the broad outline which follows.

Examples of the 4 lids & 4 manual covers known are shown in Figs.1-4 & 5-8 respectively, in both cases in their possible date order. Reference should be made to OSN 18 for the description of parts not given here.

HISTORY As can be seen from Fig.10 right there were ultimately 6 sets. In many cases the Set No. is shown on a small label in the top right corner of the lid. The sets were not progressive, but, from the manual models, the 1a was intended to be an add-on to Set 1, and models for smaller sets can often be made from a larger one. The only obvious difference in the parts in the sets seen are the types of Wheel included.

Fig.1 sets are thought to be older than the others, and all of the 7 sets seen are either a Set 1 or 1A. None of the outfits had a manual but as with most, perhaps all, of the sets over the years, there was a selection of models that could be made with the set printed inside the lid. A Set 1 lid has 7 models and all but one are in the OSN 18 manual. It was later of course with models for all 6 sets but conceivably there was an earlier version of it for the Fig.1 outfits. 2 of the 7 sets seen have 4-spoke Wheels, the others have the Wheel right. It looks to be an aluminium casting and is about the same diameter as the 4-spoke type.

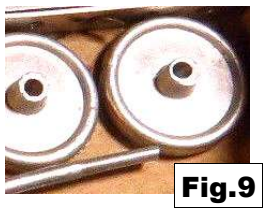


Fig.9

Fig.2 & 3 sets seem to complement each other in that only Sets 0-1 with the Fig.2 lid have been seen, and only Sets 2 & 3 with the Fig.3 type. This may be because too few examples of each are to hand, or perhaps Sets 0-1 continued with the Fig.2 lid after Sets 2-3 had been introduced with a new lid. Sets 0-1 had the Fig.5 manual but presumably an earlier edition to suit the sets

Fig.1

Fig.5

Fig.2

Fig.6

Fig.3

Fig.7

Fig.4

Fig.8

INHALTSVERZEICHNIS der „Hoha"-Metallbaukästen (Einzelteile)

Fig.10

Nr.	Ersatz-Teil Bezeichnung:	Stück in 0	Stück in 1	Stück in 1a	Stück in 2	Stück in 3	Stück in 4
1	Große Grundplatte	—	1	1	3	4	10
2	Kleine Grundplatte	1	1	1	3	3	2
3	Zylinder	—	—	—	—	—	2
4	Antriebsscheibe ∅ 95 mm	—	—	—	—	—	2
5	Antriebsscheibe ∅ 52 mm	—	—	—	—	2	2
6	Antriebsscheibe ∅ 27 mm	—	1	7	6	6	21
7	Antriebsscheibe aus Aluminium	—	—	1	2	2	10
8	Steuerrad mit Stift	—	—	—	—	—	1
9	Sitzplatte	3	—	—	3	10	2
10	Spiralfeder für Antrieb	—	—	—	—	2	10
11	Aluminium-Rolle	—	1	1	2	4	2
12	Mont. Auto (Gesamtteile)	—	—	—	—	47	—
13							
14	Welle 12 cm	—	—	—	—	—	4
15	Welle 28 cm	—	—	—	—	1	1
16	Welle 20 cm	—	—	—	—	—	1
17	Welle 5,5 cm	2	—	—	2	8	—
18	Welle 8 cm	2	3	3	6	12	8
19	Kolbenstange	—	—	—	—	—	2
20	11-Loch-Stange	4	12	12	24	36	36
21	10-Loch-Stange	—	—	—	2	10	4
22	9-Loch-Stange	—	—	—	2	10	4
23	7-Loch-Stange	4	8	8	24	32	32
24	6-Loch-Stange	—	—	—	10	10	10
25	5-Loch-Stange	12	16	16	32	32	32
26	4-Loch-Stange	5	4	10	10	18	15
27	3-Loch-Stange	8	—	10	10	16	15
28	2-Loch-Stange	—	—	10	10	10	15
29	10-Loch-Winkel, einseitig	—	—	—	—	—	2
30	7-Loch-Winkel, normal	3	9	9	18	20	5
31	7-Loch-Winkel, tief	3	—	—	3	20	5
32	5-Loch-Winkel, normal	6	2	8	8	24	18
33	2-Loch-Winkel	4	8	8	16	24	36
34	4-Loch-Winkel	9	—	2	10	10	15
35	3-Loch-Winkel	9	—	1	10	27	15
36	5-Loch-Winkel, einseitig	—	—	—	—	—	15
37	7-Loch-Winkel, Z-Form	—	—	—	—	—	4
38	3-Loch-U-Winkel	—	—	—	—	—	5
39	3-Loch-Winkel, flach	2	—	—	2	2	2
40	Nippel mit Schraube	—	—	—	2	16	20
41	Schraube M 4x25	—	8	5	8	14	12
42	Schrauben M 4x6	30	60	60	100	230	300
43	Muttern	30	60	60	100	230	300
44	Dampfkessel	—	—	1	1	1	—
45	Große Motorhaube	—	1	—	1	1	—
46	Kleine Motorhaube	1	—	—	1	4	—
47	Motorhaubenhalter	1	—	—	1	4	—
48	10-Loch-Scheibe, groß	—	—	—	1	1	—
49	10-Loch-Scheibe, klein	—	—	3	3	4	5
50	10-Loch-Scheibe mit Lager und Bageliterad	—	—	—	—	1	—
51							
52	Schraubenschlüssel	1	1	1	2	2	2
53	Kurbelstange	—	1	1	2	2	2
54	Steuerrad	—	1	—	1	1	—
55	Steuerstange	—	1	—	1	1	—
56	Schraubenzieher	1	1	1	2	2	2
57	3-Loch-Platte (s. Nr. 9)	(3)	—	—	(3)	(10)	(2)
58	11-Loch-Winkel	—	—	—	—	5	—
59	11-Loch-Stütze	—	—	5	5	5	—
60	11-Loch-Dachsparren	—	—	—	—	10	—
61	6-Loch-Winkel, normal	—	—	—	2	2	—
62	3-Lochwinkel	—	—	—	—	—	4
63	Vollgummi-Räder	4	—	—	4	20	—
64	Profil-Reifen	—	6	—	6	5	—
65	Befestigungsklammern	1	3	2	15	29	32
66	7-Loch-Stützen	—	—	—	—	5	—
67	7-Loch-Dachsparren	—	—	—	—	10	—
68	S-Haken	—	1	1	2	1	—
69	Steuerhalter (2-Loch-Winkel)	—	1	—	1	1	—
70	9-Loch-Winkel (2 Löcher einseitig)	—	—	—	—	5	—
		146	211	248	479	1014	1044

then current. Sets 2 & 3 had the smaller Fig.6 manual: it has 12 A6 landscape pages including covers, with 20 models for Sets 0-3, plus 2 for Nr.4, a set said to be in preparation. All are in the OSN 18 manual except a Set 4 Drilling Machine which differs from the OSN 18 version. (The OSN 18 manual of course has many more models, 29 for Sets 0-3, plus 8 for Set 4, and unlike the Fig.6 manual has a parts list for each model.)

Fig.10a

The Fig.6 item has been described as a brochure rather than a manual, but if it was intended as a manual I suppose it might have been from soon after WW2 when paper was in short supply. Either way it is from a time just before the Nr.4 was available. All the sets have the 4-Spoke Wheel except one No.1 which has Pulleys with Tyre, as left.

Fig.4 sets. 13 in all have been seen of Sets 0-4. On 0-1a lids there is no METALL-BAU-KASTEN panel at the bottom of the fIG.4 label, and on some lids the model on the back of the manual is the Twin Cylinder Steam Engine model, the end of which was shown in OSN 18.

Nearly all the 8 sets which should have Wheels have Pulleys with Tyres, but one has the Rubber Wheels left that are listed in Fig.10. 6 of the sets have the Fig.5 manual, 2 have a Fig.7 one, and one of the latter has the Rubber Wheels. So it seems that Tyres for Pulleys were introduced at or near the start of this period, the manual cover was changed during it, and Rubber Wheels introduced. Nothing else is known of the Fig.7 manual but given that the models in the Fig.5 manual are the same as those in the Fig.8 (see below), it would be surprising if they were any different in the Fig.7.

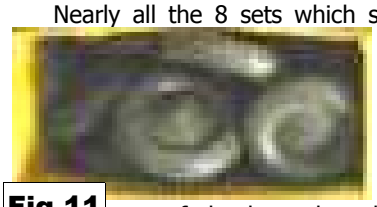


Fig.11

The Fig.8 manual. No set with this manual has been seen but it is interesting in that although the models in it are the same as in the Fig.5 manual in OSN 18, the cover shows coloured parts, and some of them, those lying on the table & in the Crane, have slotted holes (as left), both unknown HOHA features. The Windmill on the cover is a Fig.5 manual model but not the Crane. So, artistic licence or was there a final phase yet to be discovered, or perhaps only planned. It's likely that there were never any coloured parts because it is said in the Manual that the parts are nickelled with a high gloss.

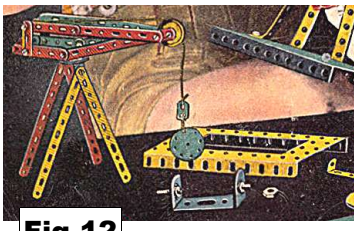


Fig.12

Sets 0-4 are advertised in the Manual with a photo of each and the box sizes & total numbers of parts. These are given below because they differ significantly from those in the Fig.5 & 6 manuals: the first figures, the box size &, in curly brackets, the number of parts, are from the Fig.5-6 manuals; the second set are from the Fig.8 manual.

Set 0: 20*15*3.5cm {not given}; 23.5*18*3 {146}.
Set 1: 21*15*4.5 {170}; 28.5*18.5*6 {211}.
Set 1a: 21*15*6.5 {224}; 28.5*18.5*6 {247};
Set 2; 30*21*6 {402}; 32.5*25*6.5 {479, 2 layers}.
Set 3; 40*28*6.5 {826}; 41*31*6.5 {1015, 2 layers}.
Set 4: 40*28*6.5 (only in Fig.5) {not given}; 41*31*6.5 {1043, 2 layers}.

The PARTS Below my names for them & notes on variations. Many were described in OSN 18. A dagger after a part's name indicates a doubt about its correct name; a double dagger that it has not been seen even in a photo.

- **1, 2**. **Flanged Plates**, Large, Small.
- **3**. **Cylinder**.
- **4-6**. **Pulleys** with boss, 95, 52, 27mm.
- **7**. **Pulley**, Aluminium ‡.
- **8**. **Steering Wheel with Pin †‡**, but perhaps the Hand Wheel shown in the Lathe & Press in OSN 18.
- **9**. **Seat Plate**, with 3 holes.
- **10**. **Spring Cord ‡**.
- **11**. **Roller** (right), an aluminium spacer with a thin flange on each end.

Fig.13

- **12**. **Auto Parts**. Probably the total number of Auto related parts in the Set, but the quantities don't seem to add up.
- **14-18**. **Shafts**. Most are Screwed Rods or have threaded ends. In Albrecht's set the centre of the latter is 3.5mm Ø, appreciably smaller than the holes. Smooth Axles are seen in some later sets.
- **19**. **Piston Rod**.
- **20-28**. **Strips**. 12mm wide, .6-.8mm thick. Holes: 4.2mm Ø at 13.1mm pitch.
- **29**. **SAS**, 9*1h.
- **30**. **DAS**, 1*5*1h.
- **31**. **DAS**, 2*3*2h.
- **32**. **DAS**, 1*3*1h.
- **33**. **A/B**.
- **34**. **SAS †**, 3*1h.
- **35**. **A/B**, 1*2h.
- **36**. **SAS**, 4*1h.
- **37**. **Reversed Angle Strip**, 1*5*1h with angled lugs.
- **38**. **D/B**.
- **39**. Possibly a 3h **Corner Bracket †‡**.
- **40**. **Collar**.
- **41,42**. **Bolts** M4x25,6mm. Cheese & Roundheaded respectively in Albrecht's set.
- **43**. **Nuts**. Square or Hexagnal, about 7.5mm A/F.
- **44**. **Steam Boiler**. The funnel & dome simply push in.
- **45,46**. **Bonnets**, Large, Small, with **Radiator Plates**. The latter slide in and usually have an impressed pattern of small hexagons, but some are plain.
- **47**. **Mounting Bracket** for #46.
- **48,49**. **Discs**, 10h with boss, 94,52mm Ø.
- **50**. **Ball Bearing**. A 10h 94mm Disc with no boss and a ball bearing unit bolted to it (right).

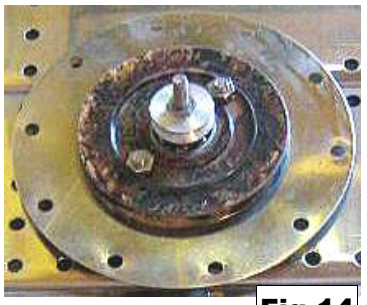


Fig.14

- **52**. **Spanner**.
- **53**. **Crank Handle**.
- **54**. **Steering Wheel**, 4-spoke (Fig.13).
- **55**. Possibly a **Steering Column ‡**.
- **56**. **Screwdriver**.
- **57**. As #9.
- **58**. **DAS**, 1*9*1h with 1 lug angled.
- **59**. **DAS**, 1*9*1h with angled lugs.
- **60**. **Rev. Angle Strip**, 1*9*1h with angled lugs.
- **61**. **DAS ‡**, probably 1*4*1h.
- **62**. **3h Bracket †‡**.
- **63**. **Rubber Wheel** (Fig.11). This part has been seen in only one or two Fig.4 type sets. It came after the 4-Spoke Wheel, the solid, cast Fig.9 part, & Pulley with Tyre.
- **64**. **Tyre** for #6.
- **65**. **Clip ‡**, perhaps a Bifurcated Paper Clip.
- **66**. **DAS**, 1*5*1h with angled lugs.
- **67**. **Rev. Angle Strip**, 1*5*1h with angled lugs.
- **68**. **S-Hook** (Fig.13).
- **69**. **Steering Wheel Bracket** (2h Obtuse A/B).
- **70**. **SAS**, 5*2h.

Other Parts. **1) Eccentric Wheel**, a 27mm pulley with an off-centre face hole, as in the Press in OSN 18.

Fig.15

2) One lot of parts includes **A/Bs** identical to #33 except that they have a 6mm slot in each arm, and a **Disc Wheel** (Fig.15 right), 32.4mm Ø with 9.4mm Ø circular cutouts.

3) 52mm Discs. 5h versions of #49, with & without boss, have been seen in a number of sets, particularly the without boss version.

Snippets. 'New' System: MIMIKRY This German military-oriented 'Wehrmachts-Metall-Baukasten' is unusual, perhaps unique, in having bent-up sheet metal parts which, with one possible exception, simply sit alongside or on top of one another, like stone bricks. The name appears on the leaflet in Fig.1.

Fig.1

Four lots of parts have been seen on Ebay. The maker's 'GuT' logo can be seen on a manual page that was with one of them (Figs.3 & 3b), together with the D.R.G.M. (design registration) number) 1335829. The latter would date from about 1934.


Fig. 2

The PARTS Fig.2, to the same scale as the Leaflet & model page above it, shows examples of the 6 different types of part: a 4-sided Flanged Plate, a Flat Plate, Small & Large Angle Plates, a semi-circular section Curved Plate, and a Flight of Steps. The Flanged Plate was described as 24.5cm long, 8.5cm wide, & 4.25cm deep.

The MODELS They are said to be scaled to accompany Lineol 7.5cm series figures.

Right a double-sided sheet which was in one Lot. It had been folded into two and looked as if it might have formed the first two & last two pages of a manual. The first 3 pages have models which could be made with one Set; the models on the final page need two. Figs.3a & b show the top & bottom models from the first page. The obvious questions are what parts are used for the Ship's funnel, the Gun's barrel, & the Lorry's wheels. There is nothing to indicate that there were other parts not yet seen and the funnel could be a pair of Curved Plates standing on end; the wheels two of the same parts with the body sitting on them. But the gun barrel? And how would it be mounted?

Fig.3

Fig.3a

Fig.3b

A similar sheet with different models and no heading was in another Lot – possibly more manual pages. The models on the first & last of the pages (Fig.1) need one Set, those on the back of the sheet two, with some of the models larger, spreading across both pages.


Fig.4

The War Memorial & Bridge models (Figs.4 & 5) are shown on the back of the Fig.3 sheet and need one Set each.


Fig.5

Most of the models have military connotations, the (unusual) Bomber (Fig.8) for instance, & the Munitions Factory (Fig.9); but some that aren't war-like include a Barge, the Tramcar (Fig.6), a Summerhouse, & the Dolls' House Furniture in Fig.7.

The SET 3 of the 4 Ebay Lots had the same quantities of parts in them, enough to make the 'one Set' manual models, as follows: a Flight of Steps plus twice the number of the other parts in Fig.2. So these were presumably the parts in the Set, plus whatever was needed for the gun barrel. Strange that the barrel parts should be missing from all the lots. The fourth Lot was most likely the remains of two sets, and still no gun barrel.

QUESTIONS 1) It was implied in one of the Ebay ads that a box made from two of the Flanged Plates, one as the base, the other upside down as a lid, could contain all the other parts. Was that how actual sets were packed?

Fig.6

2) I suppose a MIMIKRY Set was cheap. But what did kids make of models which ought to move along but didn't?

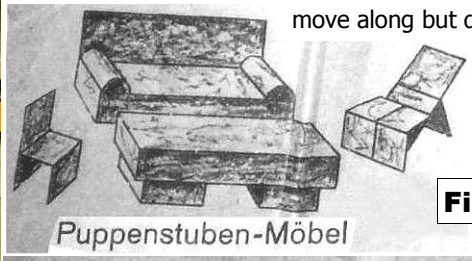


Fig.7

Fig.8

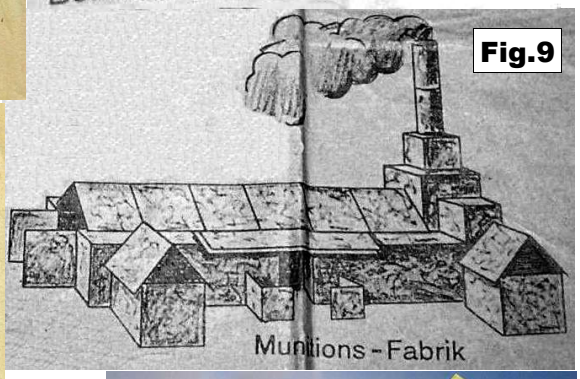


Fig.9

Snippet. 'New' Dutch System: METABO A set was offered on Marktplaats recently and a check with HONGS, the Dutch toy website (www.hongs.nl), produced more information from the two sets shown there. This included a newspaper ad for the system from September 1944, so perhaps METABO dates from the pre-WW2.

Fig.1 shows the lid of the Hongs set thought to be the earlier of the two, and Fig.3 its base. The lid of the second set (Fig.2) is about the same size as the first, roughly 32cm long. Its base is plain cardboard, not white, and has different partitioning with 5 compartments in 2 rows. The Marktplaats set is similar to the second Hongs with the same label, but the lid & base are yellow. Its partitioning may have the similar though most of it is now missing. No differences can be seen between the parts in the different outfits and there is no indication of any different sized sets.

Fig.1

Fig.2


Fig.3

Fig.4

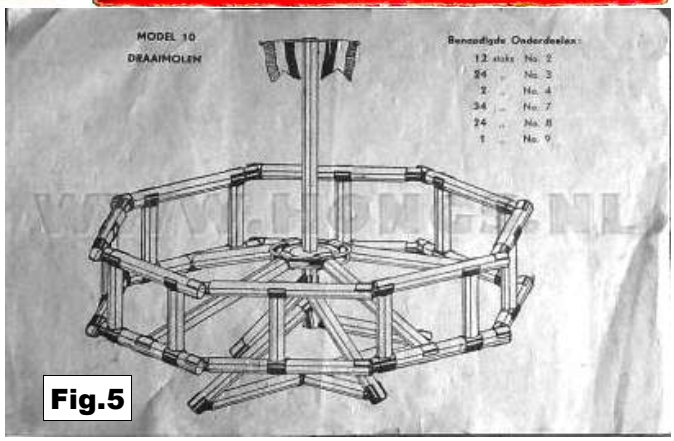


Fig.5

The 9 parts in the system are shown in Fig.4: 5 lengths of rolled Tube (2,5,10,17,25cm long), 3 Connectors (In-line, Straight, Angled) and a Pulley. The main parts can be seen in Fig.3 and unlike the Pulley in Fig.4 the actual part has a tubular boss protruding on at least one side. By scaling, the Tubes are 10mm Ø & the Wheel a little over 5cm. The Connectors push into the Tubes. There is no obvious axle stop, and to use a suitable Connector would be clumsy.

Angled Connectors are used in the Swing on the Fig.1 lid but their use is clearer in the Roundabout above. This model also shows how Connectors can clip over the edge of a Pulley.

METABO obviously owes much to KLIPTIKO (see 44/1339) but provided the Connectors are held tightly in the Tubes, its Angled Connector provides greater versatility, and the In-line Connector offers a somewhat easier way of joining Tubes end-to-end.

All the photos here are courtesy of HONGS, also of V. Janitschek who sent all but Fig.2 to HONGS.

METABO: S1 **OSN 51/1566**

The AUTO-CYCLE Wicker Sidecar.

The rare version of the Sidecar with panelling of Sicalite (similar to Celluloid) was shown in 38/1156, and earlier this year the even rarer wicker one right was offered on American Ebay. It was said to be 6¾" long and 3" wide.


FIG.1

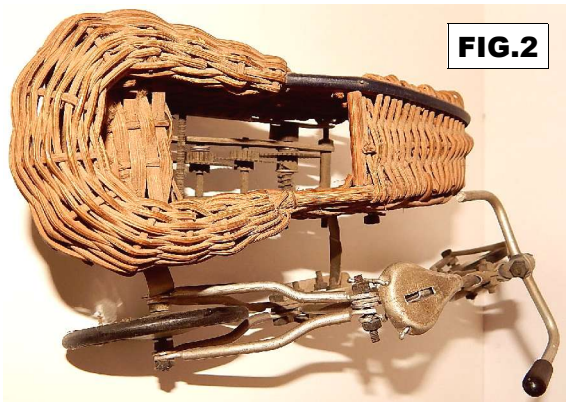


FIG.2

AUTO-CYCLE: S8 **OSN 51/1566**

MAAKEETS This was an 88-part South African system which appeared in the late '50s at a time when MECCANO was in short supply. Most of the parts were similar to MECCANO but some were original, some very like German MEKANIK, & there were a few specialised crane parts. It lasted for some 20 years with a gap of 5 years soon after its launch, but there were quality issues and its sales are thought to have been mainly local.

Fig.1

These notes are based on a No.3 set to hand recently (thanks to Jim Gamble); a manual probably intended for schools; photos courtesy Gary Higgins; a lead from him to an article by Pieter Gouws; and various snippets found in a web search. The No.3 is unused and has a manual but most of the small parts are missing.

The name MAAKEETS comes from the Afrikaans words maak & iets, meaning 'make something'. Most of the text is in English & Afrikaans but not quite all: for example the slogan of the No.3's manual (Fig.1) & box lid is only in English, likewise all the model names in it except that one is only in Afrikaans.

HISTORY. All that is known for sure of the 1950s sets is (a) a No.3 with a blue paper-covered lid and a label similar to the manual cover in Fig.1 except that the maker's name under MAAKEETS is 'A DIVISION OF E.A.SAYLE & SON (PTY.) LTD, Johannesburg, South Africa', and (b) a red lid with the same label but with the set number 28s in the top right corner. It is said that this set was for use in schools and a manual described later has models for Sets 28s to 33s.

MAAKEETS disappeared for around 5 years from about 1960. My No.3 set has prices in cents and so would be after February 1961. Sets 0-6 are listed in its manual, and the full range of parts except for the blue Pierced Plate in the top right corner of Fig.7. The Set's lid is dark blue and the lid label is almost the same as the manual cover in Fig.1. Both have, under MAAKEETS, 'A DIVISION OF VISTA TOYS (PTY.) LTD., P.O. BOX 5151, BOKSBURG NORTH' (a town 20km east of Johannesburg) on them. '76 Cason Rd.' is added to the address elsewhere in the manual. 'MANUFACTURED BY: VISTA TOYS (PTY.) LTD. P.O. BOX 5151, BOKSBURG NORTH' is printed on a small label under the Flanged Plate in the box, pasted to the backing board. On the side of the Set's blue small parts box is P.O. BOX 2700 JOHANNESBURG PHONE 22-0328, an address not seen elsewhere.

Fig.2

The label on the cannister right looks similar to the box label but it isn't known when it was marketed. The parts in it point to it being a No.0 outfit.

The cover of the 'schools' manual is as Fig.1 (except that its slogan is in both languages) but on the back page it has 'A PRESTIGE PRODUCT OF THE REPUBLIC OF SOUTH AFRICA | MANUFACTURED BY VISTA TOYS (PTY.) LTD, P.O. BOX 5151, BOKSBURG NORTH'. The Republic was declared in May 1961.

A web search produced the lid right with the form of name used in the 1970s, and as a logo it has '[Pty] Ltd, 14 CASON ROAD, BOKSBURG NORTH, TRANSVAAL' under it. The image is too blurry to see any other details except that the word 'PERFECT' has been added to the earlier slogan, and of the 4 models one is for Set 0 in the No.3 manual, the others for Set 2.

Fig.3

In 1973 it was said of MAAKEETS, 'Superficially it was very similar to Meccano, both in respect of number and type of parts in a given size set, and packaged in a flat box with expanded polystyrene and transparent cover.' It's likely that some of the parts at this time had a BZP finish, witness the Universal Trunnions mentioned in 26/769, now definitely MAAKEETS parts.

In 1973 a Meccanoman wrote that the firm no longer replies to enquires. The date manufacture ceased isn't known but Vista as a company still existed in 1978.

THE PARTS. Most can be seen in Gary's photo (Fig.7). Fig.6 has all the parts listed in the manual, the coloured blobs mean the part is not in Fig.7, and the green ones that it is in one of the other illustrations, as mentioned below. The notes on the parts which follow are based on the No.3 set (Fig.8, the 5*3h Flanged Plate, one DAS, & parts in the small box are missing), Gary's photo, & manual illustrations. Also Meccano-style names are given where the original is unusual.

First some generalities. **Holes** are 4.2mm at 12.7mm pitch. **Rod parts** are 4.0mm Ø. **The thread** is 5⁄32" BSW. **Bosses** are brass, 9.5mm o.d., 4.1mm bore, double-tapped, 11½mm long, with deeply recessed peening. **Parts #44-46,48-54** look to have been inspired by MEKANIK.

#1-7. Strips. 12.9mm wide; 1mm thick. **#8**. Curved Strip. Spans 5h; 4 to a circle of 2.85" pcd. **#20**. A/B. See Fig.14. Probably made from the Flat Bracket. **#26**. 2h high D/B. **#33,34**. Simple Bell Cranks, 3*3; 2*2h (left). **#37-39**. Corrugated parts. Silver painted. The 'door' is just an opening (Fig.11). **#44**. 5h Ø Flanged Disc Pulley. **#47**. Gear Box Side Plate. Right, a different design in one of the manual models. **#48**. Universal Gears. Plastic with 12, 24t (but 12, 27 shown in the Manual, as in MEKANIK). **#55**. Threaded Boss (probably). **#56**. Spacer. Not seen. **#64-74**. Dull silvery plated rod parts. Axles have roughly sheared ends with burr on some. The Crank Handle is 14¼cm o/a with a 9½cm shank and a 2½cm offset handle. The Screwdriver (Fig.8), is similar to the MECCANO part but 11½cm o/a with a more circular handle. **#59**. The yellow Pulley in Fig.7 may be plastic. **#61**. ½" Pulley. See Fig.9. **#76-79**. Flex. Plates (#79: Fig.8). .35mm thick. **#81**. Wire Hook. Fig.4 has two bolted down. **#82,83**. Tyres. 53½, 37mm o.d. when fitted. Plastic with circular tread & MAAKEETS on both sidewalls. **#84**. String (Fig.8). **#85**. Bolt. Various heads. **#86**. ⅜" Bolt. Not seen. **#87**. Nut. Hexagonal, about 6.3mm A/F. **No PN**. The blue Pierced Plate top right in Fig.7.

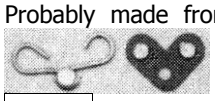


Fig.4

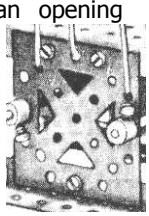


Fig.5

Finish/Quality. The Meccanoman wrote of flimsy parts with an atrocious finish, and Pieter Gouws, who has seen a large number of parts, spoke of metal varying from flimsy to impossibly thick, 80° bend angle in the A/Gs, poor paint finish, and holes of different sizes at varying spacing. So parts to be used in pairs had to be carefully matched. The paint finish of the parts in the No.3 is, if not first class, very good, and still has a medium gloss. And the quality of the parts is on the whole good too. The defects I noted are the bend angles of the Rev. A/Bs; dished discs, only .35mm thick, in the Bush Wheel & Wheel Disc; and the holes in the 2 discs of one of the 1½" Pulleys are not quite in line (and even when in line their holes are barely large enough to take a Bolt). Also the splits in the Tyres, from age no doubt. Clearly I was very lucky.

No.	DESCRIPTION	Set No. 0	1	2	3	4	5	6	Price Cents
1.	Perforated Strip 12½"						5	6	.08
2.	,, ,, 9½"					2	2		.07½
3.	,, ,, 5½"	2	4	4	6	8	12	12	.06
4.	,, ,, 3½"					2	2	4	.05
5.	,, ,, 3"							2	.04
6.	,, ,, 2½"	2	4	6	8	10	12	10	.03
7.	,, ,, 1½"						4	6	.04
8.	Segment Strip		2	2	4	4	4	4	.07
9.	Angle Girders 12½"						2	2	.13
10.	,, ,, 9½"							4	.10
11.	,, ,, 5½"					2	4	4	.07½
12.	,, ,, 2½"						2	2	.04
13.	Flat Girders 12½"							2	.13
14.	,, ,, 9½"						2	2	.10
15.	,, ,, 5½"					2	1	1	.07½
16.	,, ,, 3½"							1	.06
17.	,, ,, 2½"						2	2	.05
18.	Trunnion	2	2	2	2	2	2	2	.04
19.	Flat Trunnion			2	2	2	2	2	.03
20.	Angle Brackets 2 holes	3	6	6	6	8	12	12	.02
21.	Flat Brackets 2 holes	2	4	4	5	5	8	12	.02
22.	Double Brackets 3 holes	2			2	2	4	4	.03
23.	Double Angle Strip 3½"×½"							1	.05
24.	,, ,, ,, 2½"×½"	2	2	2	2	6	6	6	.04
25.	,, ,, ,, 1½"×½"					1	1	1	.03
26.	Bent Strip 5 holes						1	2	.07½
27.	Double Bent Strip 7 holes.						1	2	.05
28.	,, ,, ,, 5 holes.						1	2	.04
29.	Reversed Angle Bracket 3 holes		1	1	2	2	4	2	.04
30.	Angle Bracket 4 holes						2	2	.03
31.	Sliding Strip 3½"					2	2	2	.06
32.	,, ,, 2½"							2	.05
33.	Angle Strip 3 holes							2	.05
34.	,, ,, 5 holes							2	.06
35.	Univ. Construction Trunnion			2	2	2	2	2	.04
36.	Special Crane Arms						2	2	.13
37.	Corrugated Sheet with Door				1	1	1	1	.09
38.	,, ,, ,, Window				1	1	1	1	.09
39.	,, ,, Plain				2	2	2	2	.09
40.	Flange Plate 5½"×2½"		1	1	1	1	2	2	.17
41.	,, ,, 3½"×2½"							1	.12
42.	,, ,, 2½"×1½"				1	1	1	1	.08
43.	Sector Plate					2	2	2	.13
44.	Round Plate with Boss							2	.16
45.	Face Plate 4½"					1	2	2	.13

No.	DESCRIPTION	Set No. 0	1	2	3	4	5	6	Price Cents
46.	Universal Crankhandle						1	1	2 .05
47.	Gear Box Side Plate							2	2 .08
48.	Maakeets Univ. Gear Wheel Set						1	1	1 .15
49.	Gear Wheel 40 Teeth 1⅝"							1	1 .20
50.	,, ,, 18 Teeth 1⅜"								2 .10
51.	Pinion 12 Teeth ½"							1	1 .12½
52.	Worm Modul							1	1 .16
53.	Gear Strip 27 Teeth								1 .16
54.	Pawl								2 .03
55.	Ring Nut								2 .04
56.	Distance Ring								2 .04
57.	Screwed Rod 5"								1 .20
58.	Coupling							1	2 .20
59.	Pulley with Boss 1½"				2	2	4	4	4 .15
60.	,, ,, ,, 1"	2	4	4	4	4	6	6	.10
61.	Pulley without Boss ½"			1	1	1	2	2	2 .07
62.	Bushwheel with Boss 1"			1	1	1	1	2	2 .15
63.	Wheel Disc 1"			1	1	1	2	2	2 .09
64.	Axle Rods 8"								1 .03
65.	,, ,, 6½"								1 .02½
66.	,, ,, 5"							2	2 .02½
67.	,, ,, 4½"							2	2 .02
68.	,, ,, 4"					2	2	2	2 .02
69.	,, ,, 3½"		1	2	2	3	4	4	4 .02
70.	,, ,, 2"		1			1	2	2	2 .02
71.	,, ,, 1½"						2	4	4 .02
72.	,, ,, 1"						1	1	2 .01
73.	Crank Handle		1	1	1	1	1	1	1 .09
74.	Screwdriver		1	1	1	1	1	1	1 .10
75.	Spanner		1	1	1	1	1	1	1 .15
76.	Flexible Plate 5½"×2½"							2	2 .10
77.	,, ,, 2½"×2½"							2	2 .05
78.	,, ,, 5½"×1½"			2	2	2	2	2	2 .07½
79.	,, ,, 2½"×1½"			2	2	2	2	2	2 .04
80.	Collars		1	4	4	6	4	4	6 .05
81.	Hook			1	1	1	1	1	2 .04
82.	Tyres 1½"×⅜"		2		2	2	4	4	4 .15
83.	Tyres 1"×⅜"			4	4	4	2	4	4 .10
84.	Hank of Plastic		1	1	1	1	1	1	1 .02
85.	Bolts 5/32"×¼"		20	32	45	55	81	104	120 .20 gr.
86.	Bolts 5/32"×⅜"						6	8	8 .20 gr.
87.	Nuts 5/32"		20	32	45	55	87	112	128 .25 gr.
88.	Screwbox		1	1	1	1	1	1	1

Fig.6

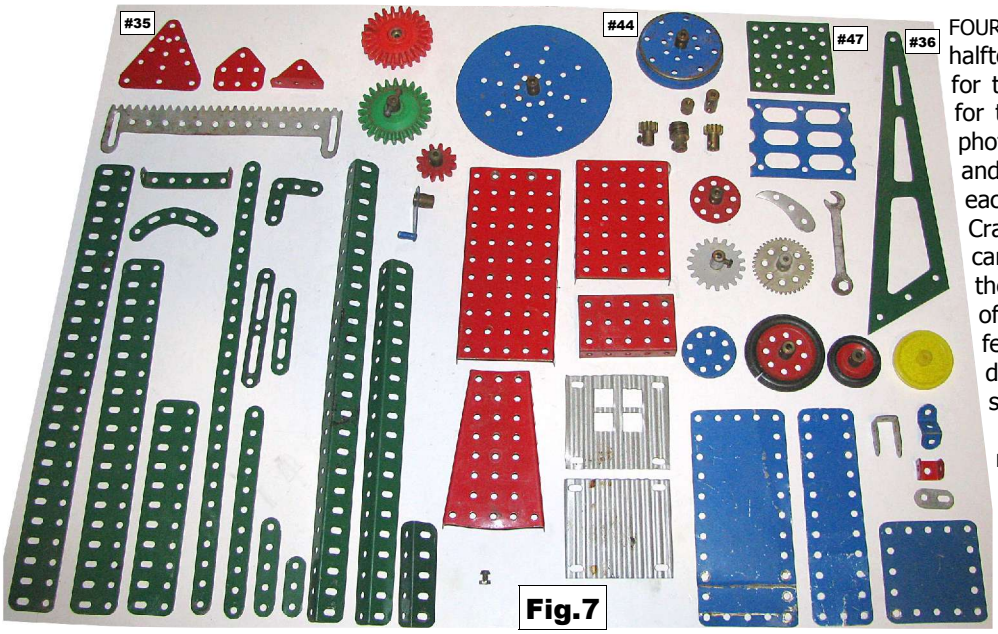
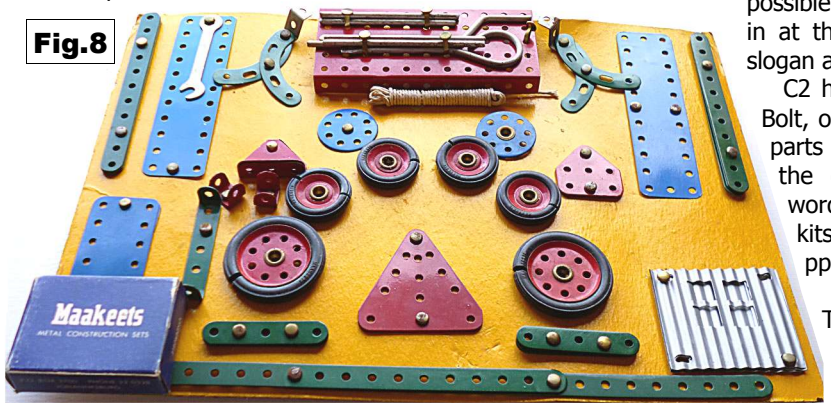


Fig.7

THE No.3 SET. The box is dark blue, 40½*29¼*2¾cm. The label, 35½*23cm, is as Fig.1 but deeper to show more of the top of the bridge, and along the bottom is the printer, ARTONE (LITHO) JHB. It has a circular '3' label stuck on top right. The parts on their card are shown below. The contents look unused and are as the inventory except that a DAS, plus the N&B, and other small parts in the small box, including the 2h Brackets, are missing. Also the 3*5h Flanged Plate – there is a suitable space for it on the righthand side but no evidence of a part ever having been there. It is perhaps no coincidence that there were 3 instead of 2 of the 3*5h Flexible Plates.

Fig.8



THE No.3 MANUAL. It is 269* 140mm with 20 pages plus C1 (Fig.1) to C4. C2 has a Preface from 'Your Parents' to their Son which includes mention of Uncle Gerald's Maakeets Club, with promise of competitions & handsome prizes. Said parents also hope that they will be allowed to play with the set after son has gone to bed, and if so promise to look after it and put all the parts back again. Sickening.

p1 has the Set Contents of Sets 0-6; pp2-3 the Illustrated Parts. pp4-5 show the use of the Universal Gears, and 3 models which need Set 6 & demonstrate the use the various toothed parts. One model is a simple Mechanical Feed using the Rack Strip & 18t Gear.

pp6-20 show 4,4,4,4,3,2,3 models for Sets 0-6, from HIGH FLIER to LOUIS FOURIE KRAAN (Fig.11). There is a clear halftone for each model, except 2 less clear for the Kraan. All the models, apart from 2 for the No.6, could easily be built from the photos. All the models are original designs and given the limited number of models for each set, they are a fair selection with Cranes aplenty, though no aeroplane or car. I thought the small models & some of the largest ones quite reasonable but those of the mid-range sets less so. Mechanical features are confined to Cord & Gear drives, with no luffing in the Cranes or steering for vehicles.

The models overleaf are a mix of, to me, good and not so good ones. Notice the extra holes in the side of the "MAAKEETS" CRANE's cab (Fig.13).

C3 says goodbye, followed by the company name & address, and the printer: Artone Press (Pty.) Ltd., P.O. Box 6453, Johannesburg. C4 has a photo of the 2 layers of parts in Set 6. It includes the Pierced Plate which isn't otherwise shown or mentioned.

THE 'SCHOOL' MANUAL. It has 12 unnumbered pages 245*120mm plus covers, but the latter are loose and it's just possible that there may have been an extra page or two stuck in at the back. The front is as the No.3 above except the slogan along the bottom is also in Afrikaans.

C2 has a list of the parts: as in the No.3 but with no ⅜" Bolt, or Screwbox, and no set contents. Under it is 'All these parts are available separately and in conversion kits'. This is the only mention of actual conversion sets (the No.3 wording is '... available as Spare Parts or for Conversion of kits'). However no conversion sets have been reported. pp1-2 have the Illustrated Parts.

pp3-11 have 8,4,3,3,4,3 models for Sets 28-S to 33-S. The models are all in the No.3 with the same presentation except that the Afrikaans model names are present. Not quite all the models are in set order, for

example all three 33-S models (the Gear models on pp4-5 of the No.3 manual) are on p10. From the models it seems that Set 28-S corresponded to Sets 0+1; and 29-S, 30-S, 31-S, to 2, 3, 4. 32-S & 33-S are more difficult because if the set numbering in the manual is correct all the Set 5+6 models, other than the 'Gear' models, could be made with the 32-S, and the only models for the 33-S are the 3 'Gear' models.

p12 has the English/Afrikaans equivalents of 136 Automobile Terms, & C3-4 have 186 for General Engineering. Also on C4, company details & the printer: PALLADIUM STATIONERS.

REMARKS As is not uncommon with OS manuals one feels that some of the MAAKEETS models don't do justice to the contents of the sets, and with this in mind I decided to try to make a Crane from my No.3 similar to the No.5 MAAKEETS model in Fig.13. Substitutes were used for most of the missing parts in my set. Fig.12 shows the result. The tower is perhaps a little unimpressive but against that the jib can luff with the Bush Wheel holes engaging a Bolt shank to lock it, and a friction brake controls the load. Some extra parts were needed: 4 A/Bs (none if I'd had a suitable 5*3h Flanged Plate), & 13 N&B (but only 9 with the Flanged Plate, & of those 3 for the brake, 1 to bolt ballast under the back of the cab (the 3 Plates in OSN 26), & 5 for the 'name sign' over the front of the cab (I was trying to use all the parts in the Set)). And I used 2 shorter substitute Axles rather than the ones in the Set.

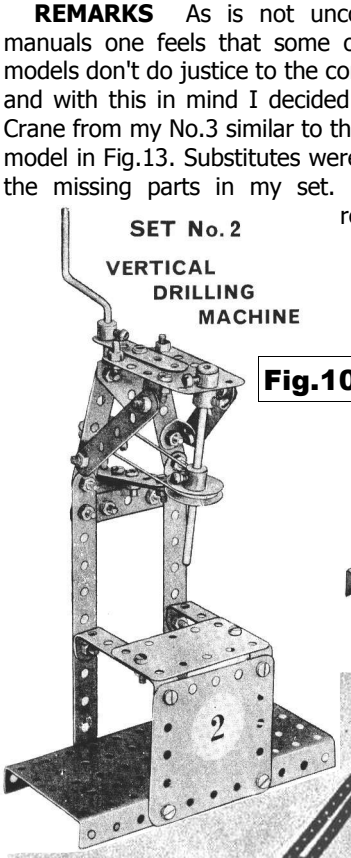


Fig.10

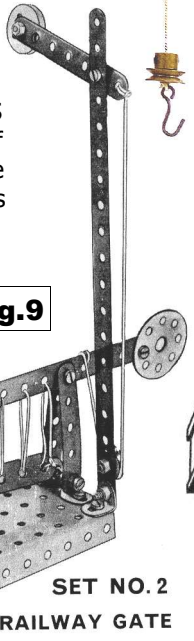
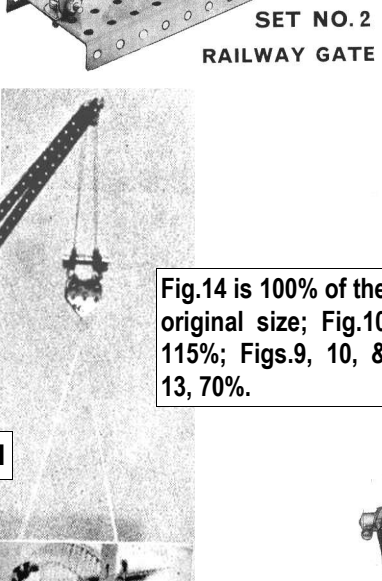


Fig.9



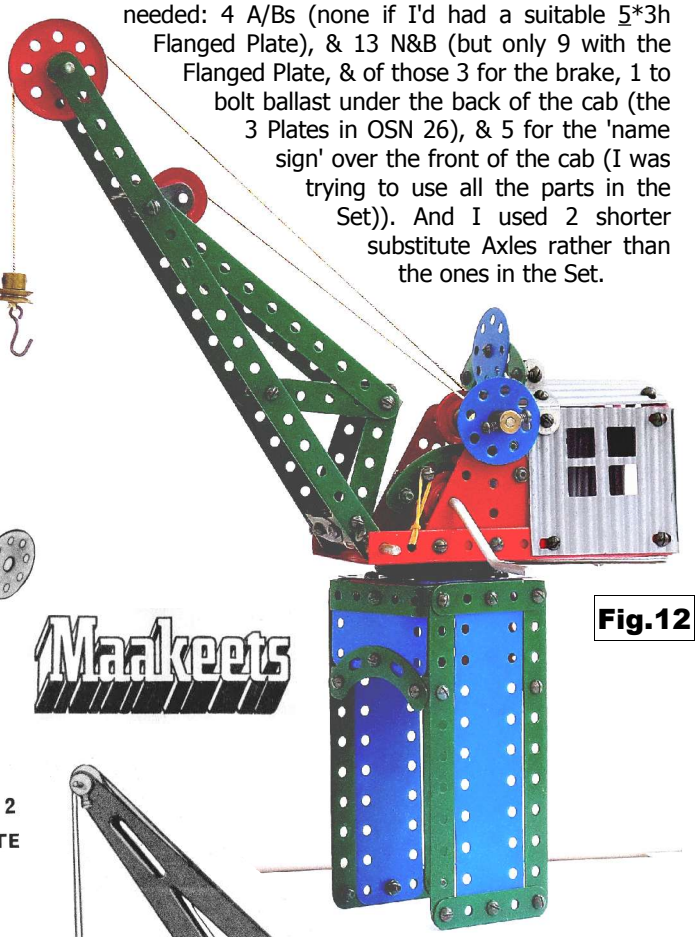


Fig.12

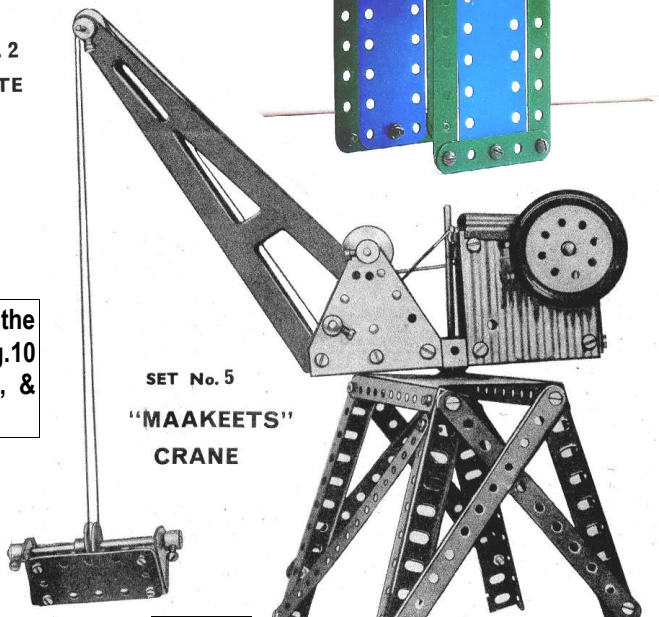


Fig.13

Fig.14 is 100% of the original size; Fig.10 115%; Figs.9, 10, & 13, 70%.

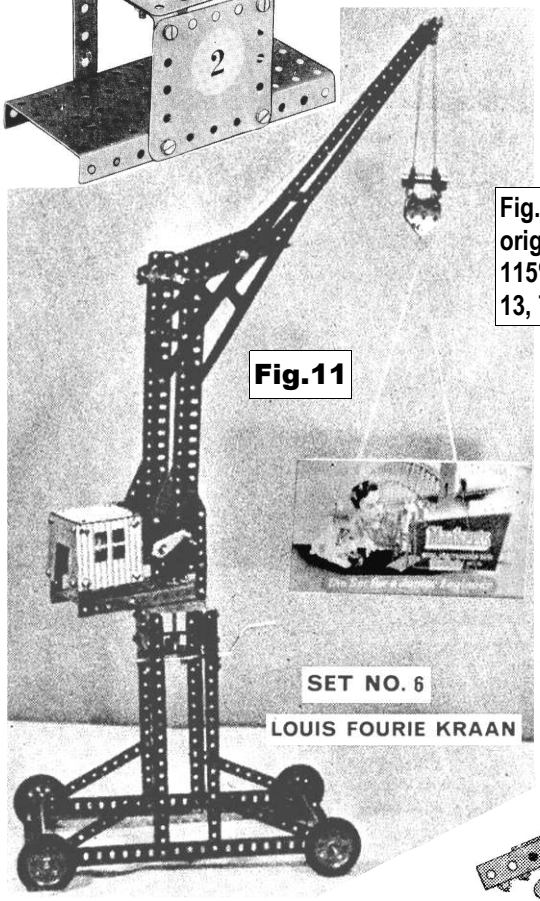


Fig.11

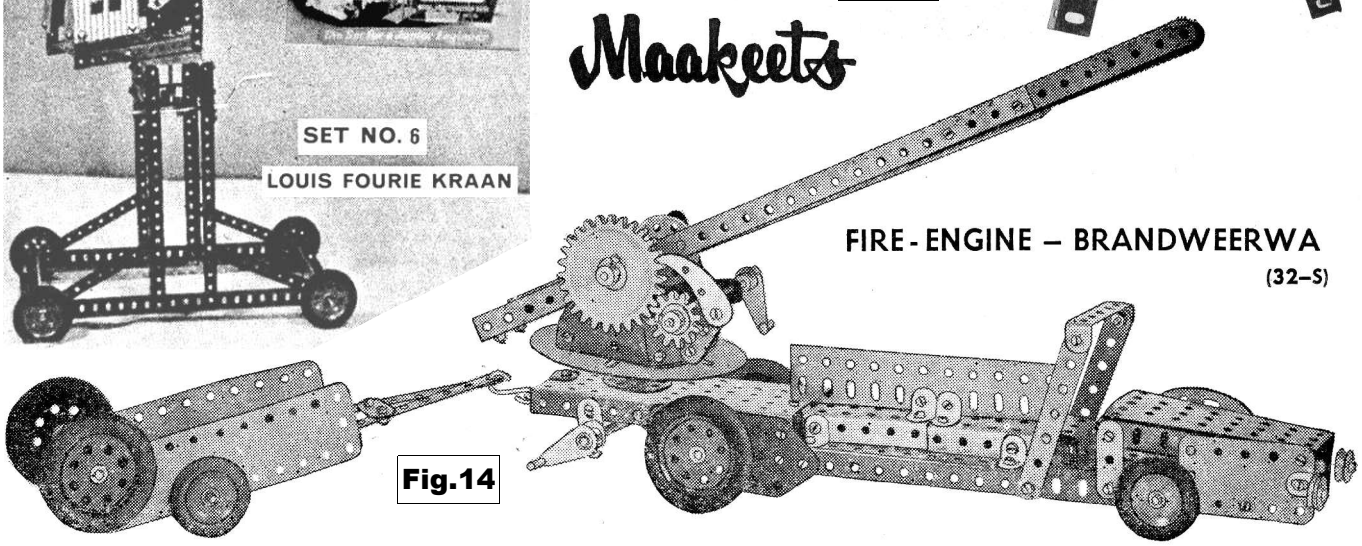


Fig.14

Snippet. 'New' French System: PUNCH

The set shown here was offered on the French Ebay, and it clearly AVIADYP (see 35/1051) under a different name. Thank you to David Hobson for alerting me to it.

Fig.1

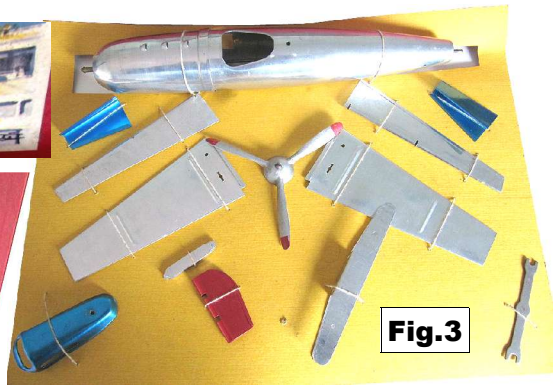


Fig.3

The parts in the Set match those of the No.1 outfit in what was called Phase 2 in OSN 35. Apart from the name etc (and the purple stain on the lid) the lid label & manual cover shown right are the same as their AVIADYP counterparts in OSN 35 (Figs.25,23). Also the two models shown from the manual on Ebay, Chasseur à Réaction & Chasseur "Météore", (Jet & Propeller Fighters) are in the OSN 35 manual.

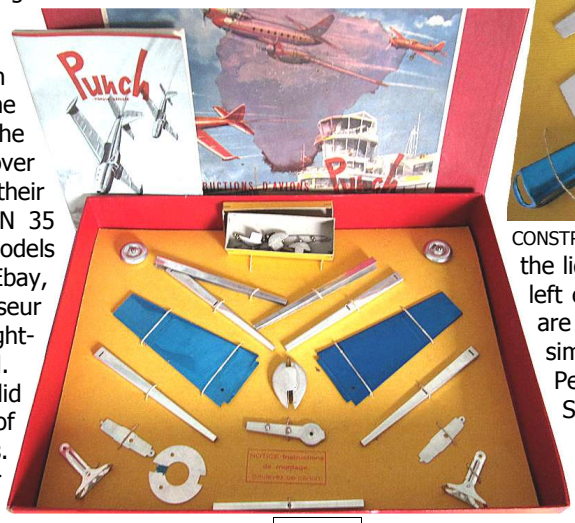


Fig.2

Phase 2 sets vary in their lid labels & in the arrangement of the parts of the backing cards. The Punch set has the later label used on all Phase 3 sets, but in having the main wing parts on both cards, is typical of the Phase 1 outfits.

The words to the left of PUNCH on the lid label are CONSTRUCTIONS D'AVIONS. No Set No. can be seen on the lid though there may be two words in its top left corner (out of shot in Fig.2). But if so they are illegible or have been blotted out. Nothing similar has been seen on AVIADYP lids. Perhaps the words are just the name of the Set's proud owner.

The manual cover & its AVIADYP equivalent show a model with Wing Tip Tanks but these were not in this Set nor in any known Phase 2 sets. It is perhaps worth noting that the AVIADYP version of the manual was actually from a Phase 3 set in OSN 35 which did include said Tanks.

PUNCH: S1 **OSN 51/1570**

More on the German MERKUR

A little about this system was given in 36/1094 and now Urs Flammer has kindly sent photos of his set, and the front of a manual seen on Ebay.

There is no indication of the Set's designation but the Manual cover (below) has Größe 1 (Size 1) on it, and in other Ebay offerings this cover is shown with sets whose boxes are identical to Urs'.

The maker on the cover is Fritz Hochstrate, Im Hölken 3a, Wüppertal-Nächstebreck (hence the FHW on the lid (see 27/794, it is shown in colour the OSN website, click on OSN 27), Telefon 57640.

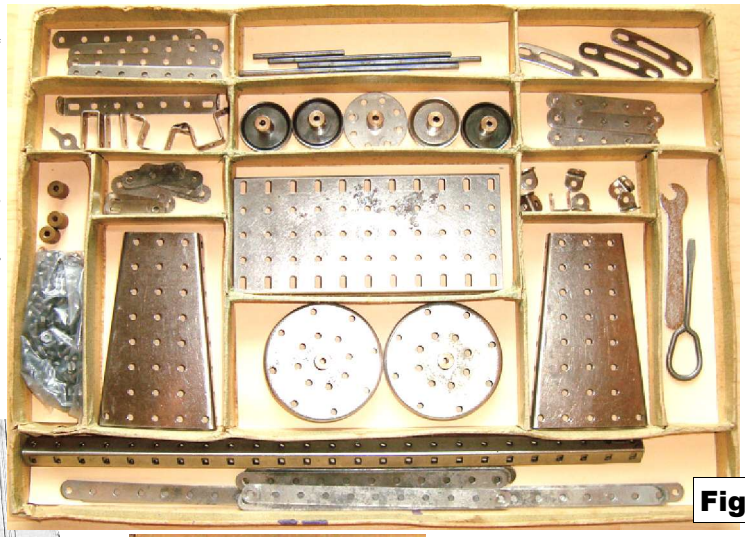


Fig.2

The Set's box is light brown, 37*27*2½cm, with the label above. Left, its base, partitioned as before. But unlike previous sets seen the parts are nickel plated and can be seen much more clearly.

Fig.1

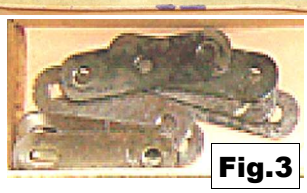


Fig.3

Parts that have not been mentioned before are: • a 3h Strip (left, as well as the one without a centre hole, and with one of its end holes slotted); • a Bush Wheel; • 2h Ø Pulleys; • hexagon Nuts & cheeseheaded Bolts; • 3 Collars or Spacers (above the packet of N&B); • the 'Pointer' part immediately above them in the next bay up (a Pawl conceivably if there were Gears, but 3 can be seen in the OSN 36 set); • Axles about 45, 90, & 110mm long; • a Spanner & a Screwdriver. • Also a Crank Handle is used in the model on the cover.

Urs wrote that holes are 3.4mm Ø at 13mm pitch, Axles are 3.2mm Ø, and the thread is M3.

MERKUR [2]: S2 **OSN 51/1570**

More on the GLUCK Zeppelin.

Since 50/1521 two identical models have been seen on Ebay, each complete except for its Nose Cone. Fig.1 shows the Cabin complete with Wheels, and the loose parts in Fig.2 include 2 more Wheels which could be fitted to the lower Fin, and 2 Bombs. The Leaflet with the models is as before but is clearer and in the instructions the Wheels are referred to as No.15, called Motor in the Illustrated Parts. Also the No.12 Handle is to be fitted outside the Nose Cone on the Bolt which holds the Cone in place – presumably to represent a mooring point. The Bombs can be bolted to the lugs under the Cabin instead of Wheels,

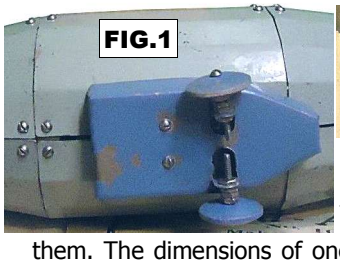


FIG.1


FIG.2

or, using the Bolts which join the body sections, wherever there is space for them. The dimensions of one of the models were given as 15½" long (without the Nose Cone) & 3¾" wide.

GLUCK: S4 **OSN 51/1570**

LEICHTMETALL-KONSTRUKTIONS-BAUKASTEN At a glance the parts from this late 1940s East German system might be mistaken for MÄRKLIN except that they are made of aluminium and their hole pitch is 13mm. There was only ever one set and these notes are based on the two examples of it to hand, neither quite complete; 4 manuals; various Ebay photos; and more from a PDF kindly sent by Urs Flammer, with photos of a set and notes about the system from Jürgen Kahlfeldt.

Fig.1

Date: Baukästen gives 'about 1952'. Numbers included in the PRs under the name in the small bottom right panel on the manual cover labels (as in Fig.1) & lid labels, indicate 10/47 to 1/49. There is one possible indication of a later date: one lid label has a small label stuck over the original name panel: the new label's PR has been torn away but 1/49 can be seen in the original PR underneath. One 1047 manual does have '1952' as another group of numbers but comparable groups in other PRs are clearly not dates.

Maker: Most manuals/sets have no indication of the maker but in a 'Flammer' manual with 1/49 in its PR, the firm is given as Staatl. [Staatliche=state] A.-G. "TOTSCHMASCH", Zweigwerk [branch factory] Chemnitz (see Fig.6). TOTSCHMASCH seems to have been a Russian armaments company. Also the small label stuck over the name panel mentioned above has 'Staatl. A.-G. "Gerät", Werk Chemnitz, vorm. [formerly] Siemens & Halske' on it. Gerät means 'apparatus' or the like.

A history web page confirms that the Totschmasch period preceded the Gerät. The latter started in '1949-50' and continued until the firm became VEB Gerät Karl-Marx-Stadt in 5/53.

The PARTS. Mostly they look like those in the Illustrated Parts below. **Holes**, 4.2-4.3mm Ø at 13.0mm pitch, with a few, especially in the Brackets, 4.4mm. Elongated holes are 7.1-8.1 in the different parts. **Thread**: M4. **Bosses**, steel, 9.5mm o.d., s/t, bore 4.1mm, 4-point peening. **Material/ Finish**: Except as noted all the parts are plain aluminium. Strips are 1.6mm thick but some 3h are 1.0mm; other parts are typically 1.2mm. Jürgen noted 1.4-1.6mm. Steel parts have a light grey appearance. **Quality**: generally very good.

Notes based on the earlier (11/47 PR) of the two sets to hand follow, with differences in the later one (1/49 under the torn label) added in curly brackets. **Sector Plate**. Ends are flat across. **Flanged Plate**. 66mm wide o/a. **Strips** 11.9-12.1mm wide. **DAS**. 66mm wide o/a. **D/B** 20½mm wide o/a. {21½} **Double Bent Strip**. Bends more rounded than shown. **Reversed A/B**. 1.1mm thick. {1.5mm} **Angle & Flat Brackets**. .6mm thick. The Flat is 23mm long o/a; the A/B is bent from a longer blank. **Spring Clips**. Steel. #17 is 6mm wide with narrower wings tapering to 3mm wide. #18. Wings taper from 4.3 to 3.8mm. **Hook**. Blackened steel. Like the MÄRKLIN part but not as shiny with less rounded edges and more metal around the hole. **Windmill Sail**. 34*81mm plus the arm. **Flanged Disc Pulley**. 65-66mm o.d., 1.8-2.0mm thick metal. **Bush Wheel**. Disc 36.0mm Ø, 1.6mm thick. **Pulley**. 25½mm Ø, 4mm wide over vee. **Washer**. 12mm Ø, .4mm thick. Jürgen's are 11.8/.7mm. **Flanged Pulley**. 35.6/30.6mm Ø over pulley/tread. There are no 'dimples' to locate the discs together. The face holes are round (like the early MÄRKLIN part) at 11.5mm radius. **Collar**. Steel, s/t, 10mm Ø, 6.6mm wide. **Loose Pulley**. Steel, 12.0mm Ø, 3.2mm thick. {4.0mm} **Bolts**. Steel, 7.0mm Ø head, 6½/ 8¾mm u/h. Jürgen's: 7/11mm. {7/10mm u/h}. **Nut**. Steel. pressed, 8mm A/F, 2.5mm thick. {aluminium, 2¾mm thick} **Crank Handle**. Not seen but about 16cm long o/a from scaling an Ebay photo. **Axles**. Steel, 3.9-4.0mm Ø with slightly chamfered ends. {the one remaining is aluminium} **Spanner**. MÄRKLIN-style but shorter at 95mm o/a. The 2 other Spanners in Fig.3 were also in the Set. **Screwdriver**. In all the sets

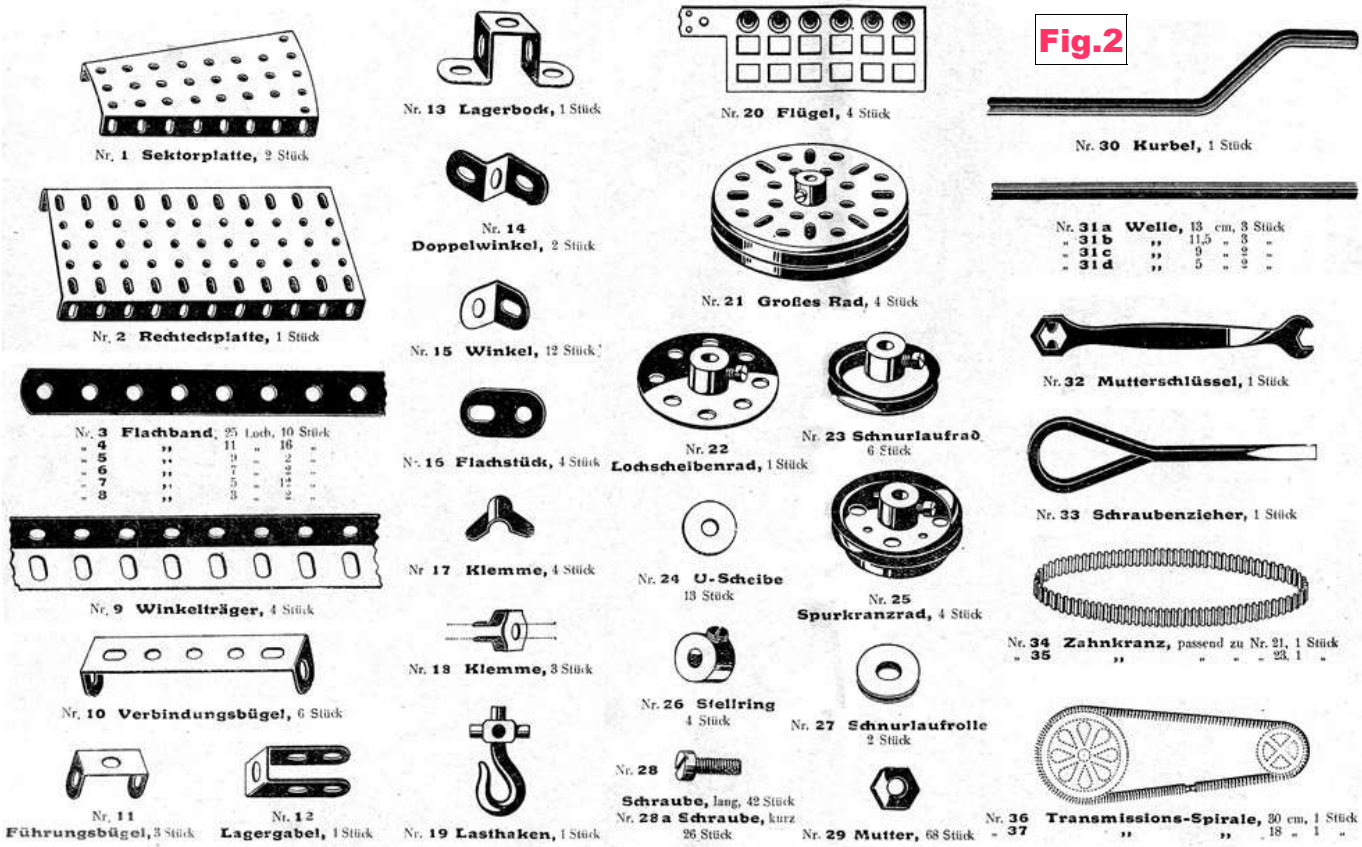


Fig.2

seen which have one, it has a wooden handle, apart from the wire one in Fig.3. Perhaps the latter 'belonged' to one of the doubtful Spanners. **Gear Rings**. 32/14 teeth. {steel, 34/14} **Spring Cord**. Not seen. {steel, 1.9mm Ø with looped ends}

Other Parts. **Set Screw**. Steel, 5mm Ø cheesehead, 4¾mm u/h. **Grub Screw**. Steel, 5¾mm long, flat end. {none, only Set Screws}

The SETS The boxes measures 37¼*19*5cm and the labels are identical to the manual cover (Fig.1) in size & design, except that each has its own PR in the small panel bottom right. The only exception is the lid mentioned earlier with the Geräte company name & logo on the added label. Lids are made of different cardboard to the bases and are lighter in shade.

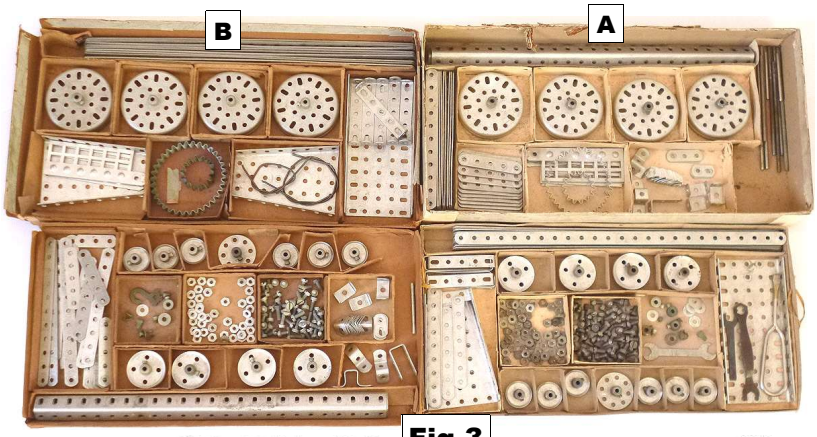


Fig.3

The set contents are given in Fig.2 and are very similar to the prewar MÄRKLIN No.2. Apart from some minor differences, the Leichtmetall set has no Curved Strips and only 68 against 80 N&B. A plus though is that LEICHTMETALL has 2 lengths of Bolt.

The boxes have 2 layers of parts with different partitioning. They are shown in Fig.3 with the parts placed in what seem to be likely places; the righthand 'A' set is the earliest. There would have been plain cardboard lids over the 3 centre bays.

Two sets with the lid below were offered in one lot on Ebay recently, and a Set with the same lid was offered in 2003, and another, in 2006. All looked largely complete with LEICHTMETALL parts, all had the same Fig.3A partitioning, & the Fig.1 manual. Perhaps the label was 'home-made' and perhaps the same sets were being reoffered, but there were minor differences in their contents which made me wonder.

Fig.4

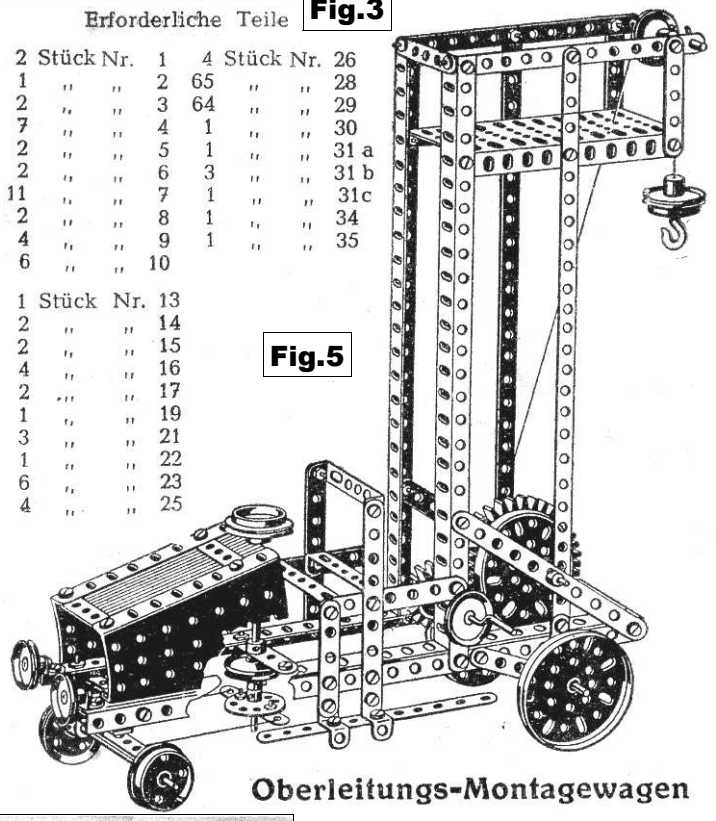


Fig.5

The MANUALS have 8 ununumbered pages about 295* 180mm plus covers. The earliest Totschmasch manual has the plain cover in Fig.6 (or it might be an added title page). All the others have pink, or in one case grey covers, with the same label (Fig.1). It has the artist's monogram in the bottom left corner. C2 has the Illustrated Parts (Fig.2) with quantities. The inside pages and C3 show 16 models from Langholzwagen [Railway Timber Wagon] to Lokomotive. The model pages look unchanged in all the manuals seen. All the models are no doubt copied from MÄRKLIN, I found most of them among the No.1 & 2 set models in a late 1930s manual, though there they were shaded drawings and not of the LEICHTMETALL/earlier MÄRKLIN type.

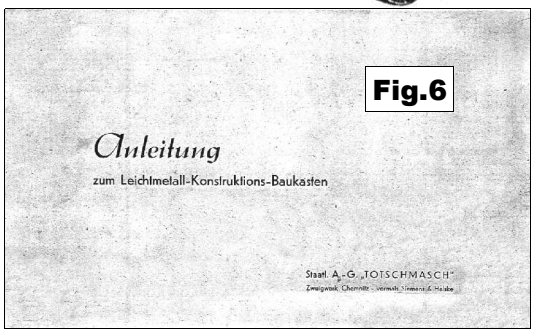


Fig.6

One of the models is shown above at its original size, it is the only one in which the Gear Rings are used.

C4 is plain with just a PR which differs from the one on the lid label. A typical PR is (C231) Sachsenverlag Chemnitz 1951 1047 2000 C 100224, but the numbers are usually different and sometimes the printer's name is omitted.

LEICHTMETALL: S2 **OSN 51/1572**

<u>Another GIO Part.</u> 3 sets from this 'mini' Italian system were described in 33/998, and Jean-Pierre Guibert has found a 4th with parts to make an Aeroplane, a model which is among those shown on the sides of all the set boxes.

It can be seen from the constructional drawing of it, right, that the part which represents the

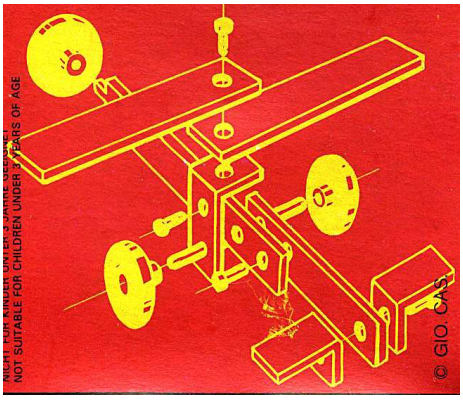


FIG.1


FIG.2

propeller pushes onto a spigot which has been added to the end of the normal 5h Strip, as above in Fig.2. This modified Strip was not included in any of the three OSN 33 sets.

GIO: S2 **OSN 51/1572**

'New' German System: GERNER

Thanks to Urs Flammer & Jürgen Kahlfeldt for details of the only two sets known from this system. Both are No.1's & there are some differences between them. One was from Ebay, the other, judged to be earlier, is an entry in Jean-Pierre Guibert's ***Encyclopédie***. Except where stated the details below are for the later Ebay set.

Fig.1

Maker: Wilhelm Gerner, of (20a) Letter, near Hannover (now a suburb of that city). The firm describes itself as producing Leichtbauspielzeuge (Lightweight building toys).

Date: Nothing definite but from the paper quality in the earlier set it might be from around 1948, while its larger manual, better paper with some colour printing, and the improvements to a few of the parts, point to a date for later set of, perhaps, around 1950.

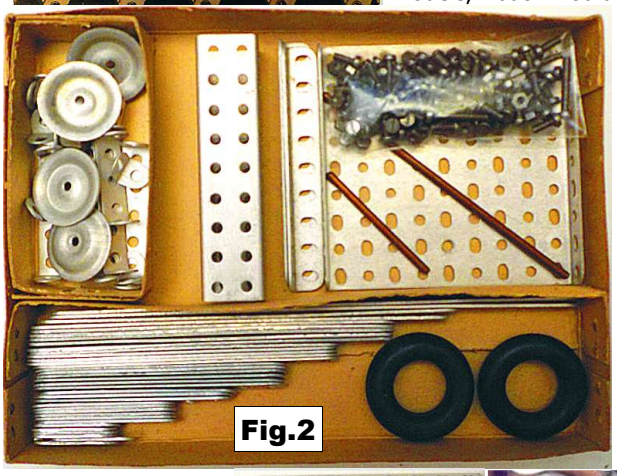


Fig.2

The PARTS Later, Figs.2-4; earlier, Fig.5. **Holes** are 3.8-3.9mm at 10.0mm pitch. 6mm long slotted holes. **Thread**: M3. **Material**: aluminium except where stated. **Quality**: quite good but slight burr around some holes.

List of Parts As follows with quantities, in curly brackets, as given in the manual. **Strips** 3,5,7,9,11,13,15,19h, 10.1-10.2mm wide, & 1.1-1.2mm thick {6,8,5,8,5,5,2, 2}. **A/B** {8}. **A/G** 9h {2}. **Square Tube** 22*22mm, 9h long (Fig.3, side, bottom, & top views). The part shown in the manual models is a closed tube with a different pattern of perforations. {1}. **Flanged Plate** 9*9h. The later part has alternate round & slotted holes (Figs.2,4); in the earlier part, and the manuals, they are all round. {1}. **Wheel**. The later parts are pressed, 28mm Ø, 3.2mm bore; the earlier ones (Fig.5) are turned {4}. **Tyre**, rubber, no tread, 39/19mm Ø, 10mm wide {2}. **Collar**, 9.8mm Ø, bore 3.2mm, 8.8mm wide, double-tapped {4}. **Axles**, 50, 110mm long, 3.1mm Ø copper welding rod in the later set (replacements?); the earlier ones look to be steel {1,1} **N&B**, steel: **Bolt**, 5.5mm Ø CH {70 = 60,3,7 of 8,10,20mm u/h, plus 4,4 of 4,6mm for the Collars}. **Nut**, hex, 5.5mm A/F, 2.5mm thick {70}. **Screwdriver**, steel, not shown {1}.

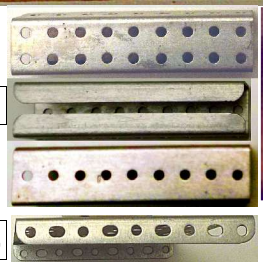


Fig.3

Fig.4


Fig.5

DAS, 2 each of 1*3,5,7*1h were found in the later set but were not in the earlier one. They are not mentioned in the manual or used in the models, but would obviously be worthwhile additions.

The SETS The boxes measure 20¾*16*2½cm and have the later/earlier lids in Figs.1/10. The partitioning is the same in both sets. All the different parts in the later manual inventory can be seen in earlier box except the Screwdriver & 19h Strip.

6 larger sets are mentioned in the later manual but with no details.

The MANUALS The later manual has 16 pages, 140*193mm, plus covers. The front is shown in Fig.6. C2 has an Introduction, p1 the Set Contents, and the next 15 pages show 30 models from Barren (Parallel Bars) to Kran (Fig.7), with one line drawing of each. First there are domestic items, then a Child's Scooter amid various small Trucks & Trolleys. Finally a variety of slightly larger models including a Windmill, a Horse-drawn Sleigh, a Railway Signal & Goods Wagon, 2 Monoplanes, Drop & Trip Hammers, a simple Gantry Crane, & the Fig.7 Crane. No Car or Lorry of any sort. The larger Plane & Trip Hammer are shown in Figs.8 & 9. In some models parts are held fast to Axles by distorting Strips, in the Trip Hammer for example. Said model also needs 2 of the Tubes. C3 offers prizes for the best original models, and a next size up set for any included in a manual. C4 is blank.

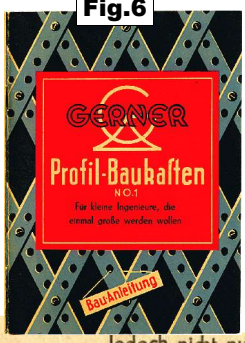


Fig.6

The earlier manual (Fig.11) has only 8 pages. The 5 models from it seen are all in the later edition but are not in the same order, and to some degree differ in their design.

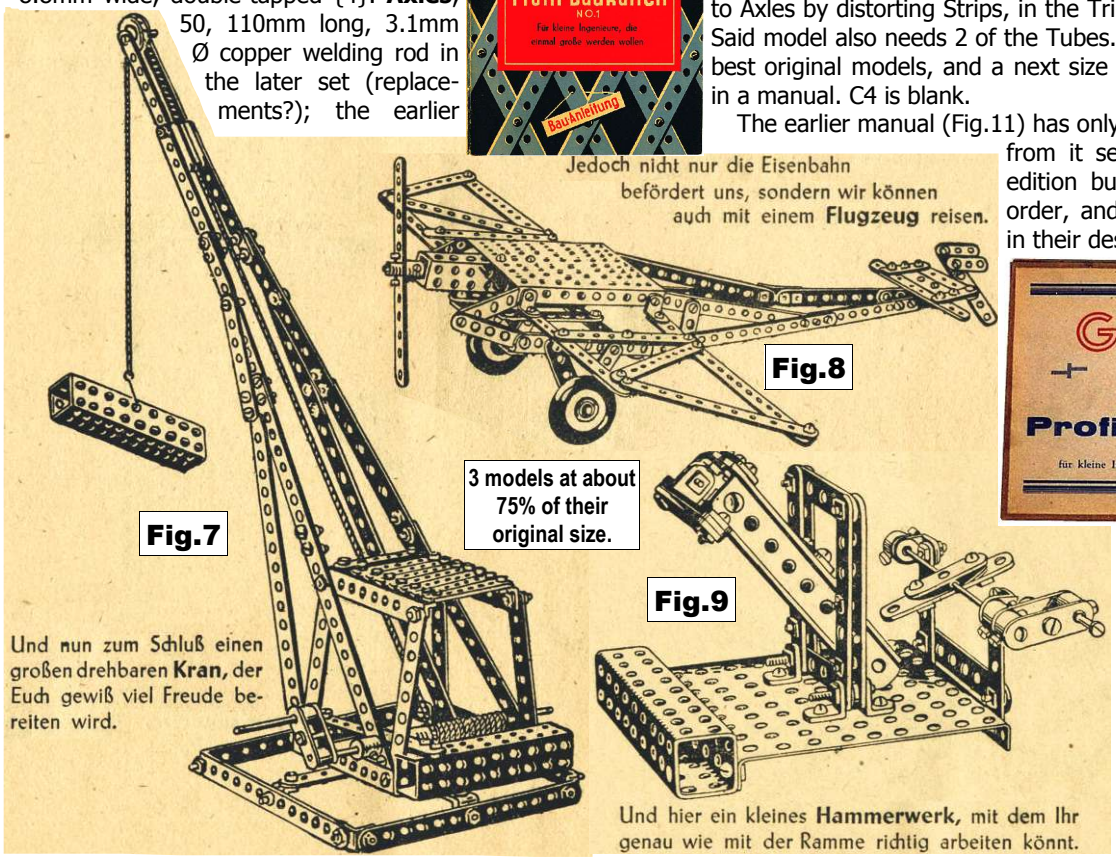


Fig.7 Fig.8 Fig.9

3 models at about 75% of their original size.

Fig.10

Fig.11

Snippet. 'New' System: METALLBAUKASTEN Yet another small German system of that name, this one thanks to Urs Flammer who kindly sent Ebay photos of a set. Nothing is known of its maker or its history except that the PR on the front of the Model Sheet (largely illegible, see Fig.3) does contain '11/47'. So it is very probably one of the numerous small systems which appeared in Germany soon after WW2.

Fig.1

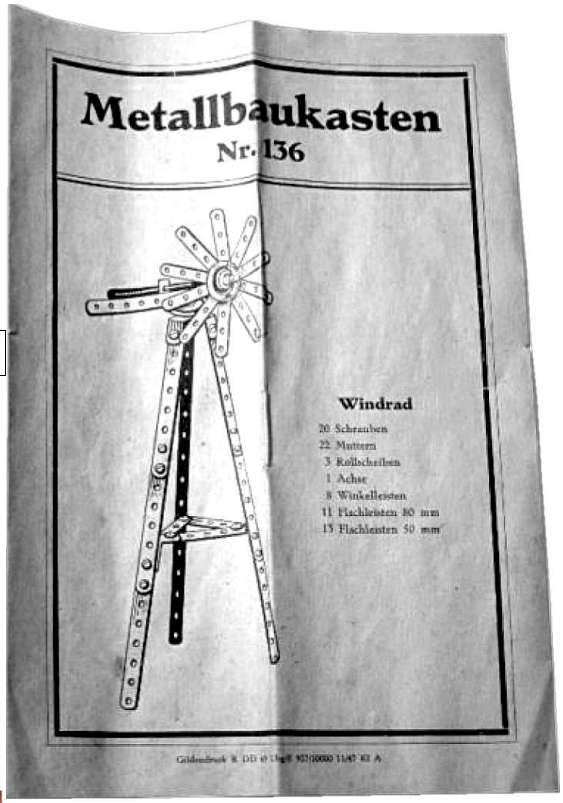
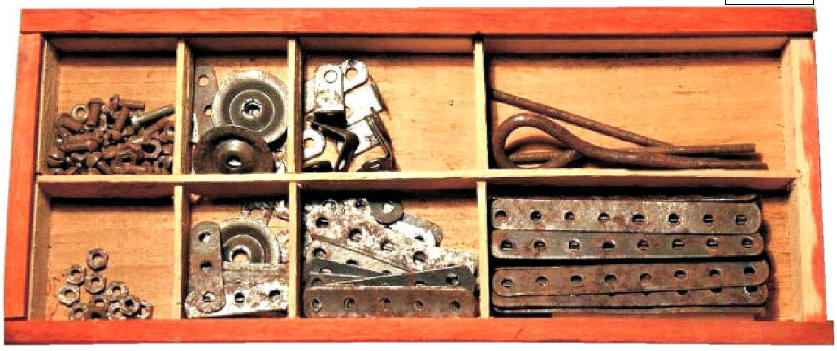


Fig.3

Fig.2



There is no positive indication of size but in the Model Leaflet Strips with N holes are described as Ncm long, so the hole spacing is probably 10mm. All dimensions below are scaled assuming this value.

The Box is wooden, measures 23*10cm, and has a sliding lid. The parts can be seen above, and those called up for the Leaflet models are as follows, with the maximum quantities in curly brackets: 3,5,8h Strips, 10mm wide {6, 16,15}; A/B, with one arm much longer than the other {8}; Pulley Disc, 2½cm Ø, used singly as wheels {4}; Screwed Rod, 7cm long {2}; Nut, hexagonal, 7mm A/F {34}; Bolt, roundheaded {30}. But 2 extra N&B are needed for one of the models.

The Leaflet is a sheet about A4 in size printed on both sides, folded once to give 4 A5 sides. When folded, and sitting on top of the partitioning in the box, it nearly fills it. The front is shown above and the significance of the 'Nr.136' isn't understood. The 8 models on the other 3 sides go from Schaukel (Swing) to Wagon (a horse-drawn Hay Cart, as on the lid). The other models are the Windmill on the lid, some reasonable domestic & garden items, and a simple Crane with no hook, winding handle, or hoisting cord. The Plane & Railway Signal Gantry on the lid are not included.

METALLBAUKASTEN [10]: S1 **OSN 51/1574**

Snippet. 'New' System: METAAL BOUWDOOS The 3 photos here

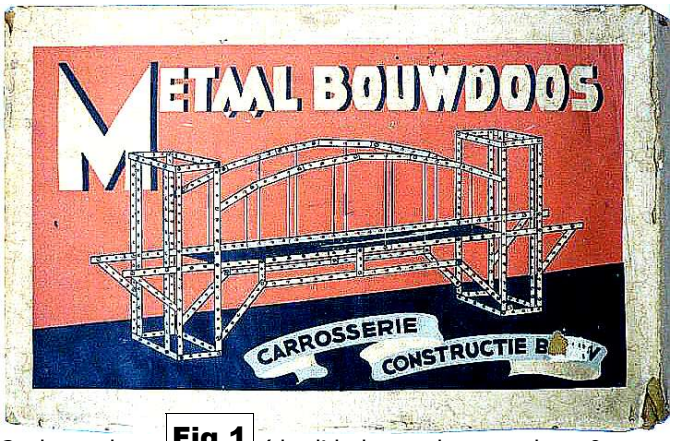


Fig.1

(the lid above, the open box, & some of the parts) are of a set from this Dutch system which was offered on Marktplaats recently. The box's dimensions were given as 31*20*2.5cm, and a 1930s date was suggested. In case it's not clear in Fig.3, there are 6 holes in the dark Sector Plate's flange. The same photos (from Jos Kauffman) are on the HONGS website, with a note saying that most of the parts are MERKUR, and that the original parts are the dark Flanged Sector Plate and the N&B. True no doubt but what of the light coloured, 8h long rectangular Flanged Plate, and the matching

Fig.2

Fig.3

Strips (8h & longer) which can be seen in the box's long bays? The 2 Flanged Plates are similar in style with no holes in their top surface and the holes in the Sector Plate seem to have the same pitch as those in the 8h Flanged Plate and in the Strips. Scaling gave it as ½".

METAAL BOUWDOOS: S1 **OSN 51/1574**

Notes on BENCO These add to those in 26/772 and arise from Ebay photos, some parts & two more manuals now to hand, plus details of a Set E kindly sent by Jean-Pierre Guibert. One of the Ebay items confirms that the 4-page brochure described in 43/1293 which introduced Sets A & B, was dated September 1949.

Following OSN 26 the phases for the sets will be called 'Bridge' (was '1950' in OSN 26), 'Airship' (was 'blue box'), 'Motorway', & 'Stylised'. The manual covers, shown here or in OSN 26, with the sets named on their covers in curly brackets are (not necessarily in date order): 'Bridge' {A}; 'Airship' with a black {B, A-B} or blue {A-B} panel; 'Plain' (right), not noted in OSN 26 {C-D}; 'Spanish' {C-D}; 'German', as Spanish but with the cover in German {C-D}; & 'Portrait' (from its format, see Fig.7) {E}.

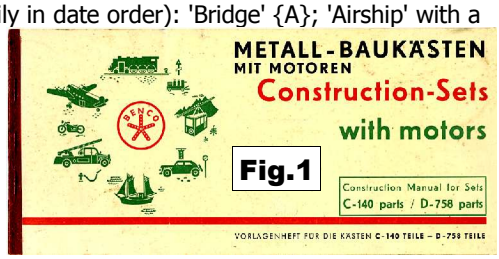


Fig.1

The MANUALS The 3 manuals to hand, an Airship A-B, a Plain C-D, & a Spanish C-D (the OSN 26 one) will be described in probable date order, judged by the sets in the Set Contents, and what is said about the mains TRULL Motor & Set E. It should of course be said that the promotional material in the manuals almost certainly changed with time, and possibly some of the models as well.

The Airship A-B has 42 inside pages, the others 36, and all have some of their early pages unnumbered. The two 'new' manuals have their Intro in German & English with the rest of the text in German, English, French, Spanish, & Italian. After the Intros comes the Illustrated Parts (with only those needed for the sets on the cover), and the Set Contents. The presentation of the models is the same in all three.

The Plain (C-D) manual (300*138mm) has the Contents of Sets A-D, and 65 models exactly as in the Spanish one. It shows the TRULL Motor (right) and lists 110 or 220V A.C. versions. It says that it has no brushes, it runs at 2000 rpm, and consumes no more than 15 watts. Set E is not mentioned.

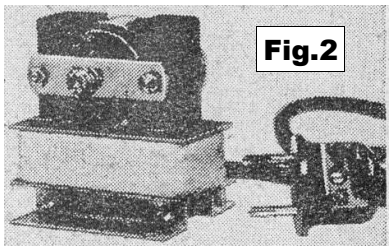


Fig.2

The Airship (A-B) manual (298*104mm, as shown in 26/773) has the Contents of Sets 0-D, and 98 models from Weg+weiser/Finger-post (Sign Post) to Ketten-Karussel/Merry-go-round (those names in the first 2 of the 5 languages). Unlike the other manuals, the set needed for the models is given: Set A, or Set B, or A+B. Also given, the box sizes for Sets B-E: 350*330*30mm; 330*300*45; 450*300*60 (a wooden box); 350*325*52mm). The different TRULL Motor (right) is shown and again there are 110 & 220V versions. Set E is mentioned and is said to have Mod.2.5 Gears.

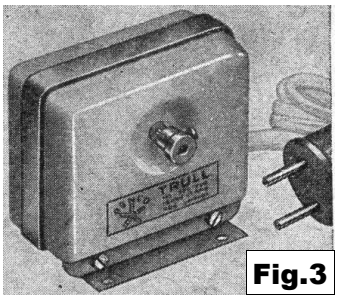


Fig.3

The Spanish (C-D) manual, described in 26/773, also has the Contents of Sets 0-D. It does not list the TRULL, its space now occupied by the TROLL+TRAFO combination. As mentioned in OSN 26, Set E is advertised with a photo of the set and of a Car Transmission model which still shows a TRULL Motor, the version in the Airship manual.

The SETS/MANUALS. The Set/Manual combinations seen on Ebay are shown in the Table below in possible date order (omitting manuals for smaller sets).

Manual ► Set Label ▼	Bridge A	Black Airship B	Black Airship A-B	Blue Airship A-B	Plain C-D	Portrait	German C-D
Bridge	Set A						
Black Airship		Set B					
Motorway			Set A	Sets A,B	Set C	Set E	
Stylised				Sets A,B	Set C,D		Sets C,D

In addition there are 3 (of the 25 combinations seen) which seem anomalous. These are a Motorway Set A & a Stylised Set A, each with a Bridge A manual, and a Stylised Set B with a Black Airship B manual.

The PARTS. The following points of interest are based on the parts in incomplete Sets A, B, & C, all with Motorway lids, and with the Airship A-B & Plain C-D manuals above. Except where stated the parts below are nickelled steel. **Holes** are at 12.5mm pitch, 4.5mm Ø in the Strips, and from 4.3 to 4.5 in the various other parts. **The thread** is M4.

#1-6 Strips. 12.0mm wide with very fine serrations along many of their edges. This is the case to some degree on most of the other strip parts. Ends are near but not quite fully rounded. **#14 Crank Handle**. 137mm long o/a, 3.5mm Ø, with 22mm of thread. **#15 Washer**. 10.6mm Ø, 2.5mm thick. **#16 Spacer**. Aluminium, 10.0mm Ø, 5.0mm wide. **#17 Disc**. 20.2mm Ø, 2.5mm thick. Why is this part and the Washer so thick? **#18 Hook**. Brassed steel, flat, 24½mm o/a, 2mm wire. **#19,20 Bolts**. 7.0, 6.7mm Ø tapered cheeseheads, 6.0, 15.0mm u/h. **#21 Nut**. Pressed, 7.0mm A/F, 2.1mm thick. **#22 Chain**. .9mm Ø brassed steel wire links at approximately 4.8mm pitch. **#23 Spanner**. 76mm long o/a with 7mm wide jaws at one end, and 8mm at the other. The latter no doubt for other hexagonal parts, the Threaded Coupling #48 for example. **#24 Screwdriver**. 111mm long o/a, 4mm wire. **#25 Pulley**. Aluminium, 20.0mm Ø, 4.5mm wide. **#32 Tyre.** 34¾mm o.d. & 7¼mm wide when on the Pulley. BENCO is

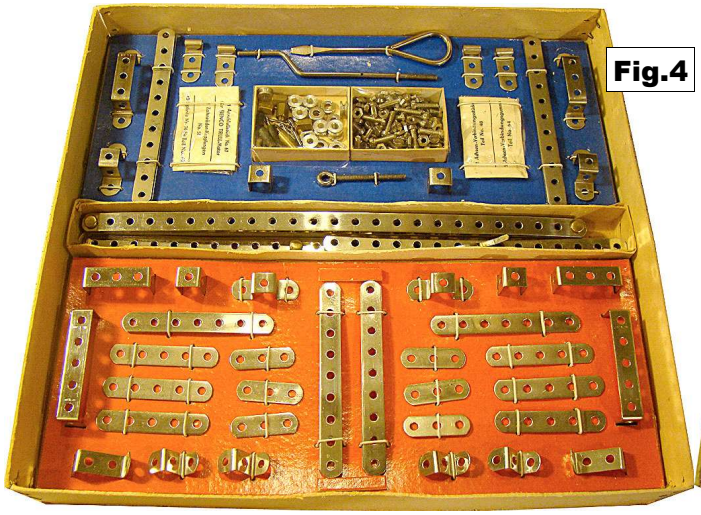


Fig.4


Fig.5

moulded onto both sidewalls. **#40 Flanged Wheel** is a solid, nickelled steel cast-ing 9mm thick. The flange is 30mm Ø, the tread tapers from 27 to 26½mm. **#46 Hole Punch** (left). It worked well and gave clean holes accurately spaced at 10mm pitch. Very useful in making neat cladding.


Fig.6

SET E. The lid has the 'Motorway' scene and the box, 350*320*47mm, has 2 layers of parts. The photos of the base & tray (Figs.4 & 5), together with the Illustrated Parts shown in 26/772, give a good idea of the different parts. The gear module is, as expected, a nominal 2.5. The manual with Jean-Pierre's set is the Plain C-D one shown earlier but an accompanying leaflet says that Set E would be available for Xmas but that an 'E' manual would not be ready until the Spring of 1954. A coupon was attached to request that one be sent when available. The E (Portrait) manual with an Ebay Set E is shown right, as in MCS, and it looks to be about A5 in size.

Fig.7

USING the PARTS I made the Hammer Mill shown in 26/774, slightly elaborated to take advantage of the available parts. Despite the absence of slotted holes it seemed quite easy to build the basic model and to find suitable parts for various 'improvements'. The weight-driven TRELL Motor drove the model admirably.

BENCO: S3 **OSN 51/1576**

Snippet. 'New' German System: WIR BAUEN AUF! The Ebay photos here show an architectural system, said to be from the 1940s. The name could translate as We Are Rebuilding! – apposite perhaps for Germany in the late 1940s. Fig.4 shows the open box plus the manual and a corner of the lid.

Fig.1

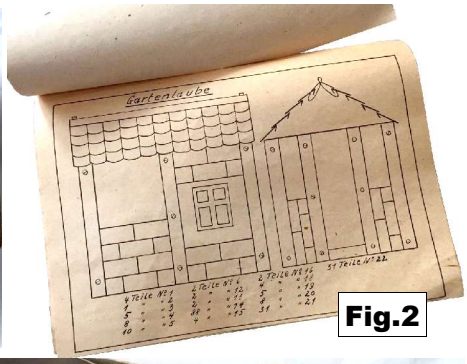


Fig.2

The PL under the Summer House in Fig.2 lists 16 PNs: #1-6, 12-16, 18-22.

Some of the black parts support the grey Wall Panels. There are 2 types of Upright, the Flat ones in Fig.6 & Flanged ones in the top bay of Fig.4. Quite how the Panels are fixed


Fig.3


Fig.4


Fig.5

isn't clear but perhaps with Clips bolted to the Uprights. 31 N&B are called up in the PL.

The tabs on the red Roof Tiles presumably engage Roof Battens which would slide into the narrow slots in the top edges of the Gable Ends, but no parts that definitely look like Battens can be seen, though there are some long parts in Fig.4's top bay. A Roof Ridge would also be needed and again this part may be in the top bay.


Fig.6

The small, whitish parts half hidden in Figs.3 & 6 are square tiles with an alphabet letter on their under faces. A number of these can be seen in a photo not shown here and it seems unlikely that they are part of the Set.


Fig.7

Thank you to Urs Flammer & Thomas Morzinck for their help over Wir Bauen Auf!

WIR BAUEN AUF: S1 **OSN 51/1576**

Snippets. 'New' System: LE PETIT CAMPEUR This simple French system has wooden Rods held by metal Connectors which are tightened by Bolts with Wing Nuts. The photos here are from an Ebay offering. A second Ebay set was said to date from the 1940s, but from the scene on the lid a pre-WW2 date for the system is perhaps also a possibility.

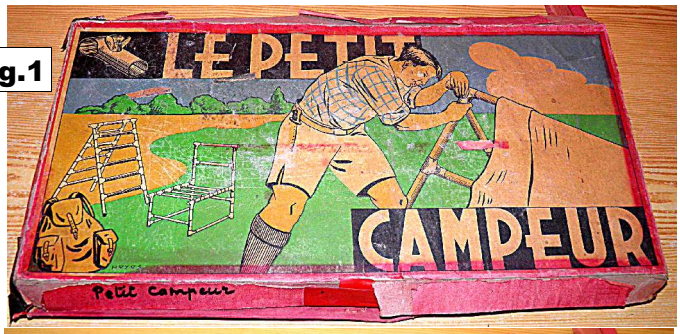


Fig.1

The main heading to the introduction on the Model Sheet (Fig.5) is "L'EMBOUT UNIVERSEL" [Universal Fitting]. This refers to the Connector (there are actually two types in the Set) which it says has caused a 'Revolution' in the 'L'ASSEMBALGE DU BOIS ET DANS LE JOUET DE CONSTRUCTION'. A patent (Breveté S.D.G.D.) is claimed.

There are 4 lengths of Rod, said to range from 25 to 48cm in length, and their diameter scales at roughly 1½mm. The 2 types of Connector can be seen in the box right and are shown enlarged in Fig.3: a T-Piece, & a Right Angle Connector. On the small Wheels which are used in some models, the Model Sheet indicates that they can be bought separately, and they may just possibly be included in a different, unspecified set


Fig.2

The label on the box lid is signed Hoyos. The Model Sheet is glued onto, and nearly fills the underside of the lid. It is said on it that the Set contains 30 Rods & 30 Connectors.

The second set is in a wooden box, 23*50cm, with similar, but wooden, partitioning. Said box looks well made and has the labels as before on & inside the lid. If it is home made the labels must have been carefully transferred from a cardboard box. About half the Rods remain, and all are plain wood.

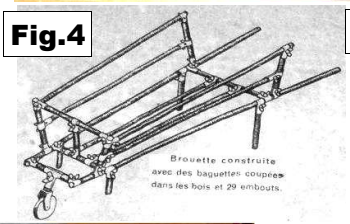


Fig.4


Fig.3

After the introduction the Model Sheet (yellowish but B&W here for clarity) has 12 models (Figs.4,5,7) from SUPPORT DE TABLE to LE BANC. 10 can be made with one set, except that 4 of them need Wheels, and one of those needs Rods cut to length (Fig.4). Of the others, the Church (Fig.7b) needs 2 sets, and the Chariot, Fig.5 top right, needs 53 Connectors, Wheels, & Rods cut to length. In some models the Wheels are shown dotted but it's not clear why. The actual Wing Nuts look more prominent than as shown in the Model Sheet models.

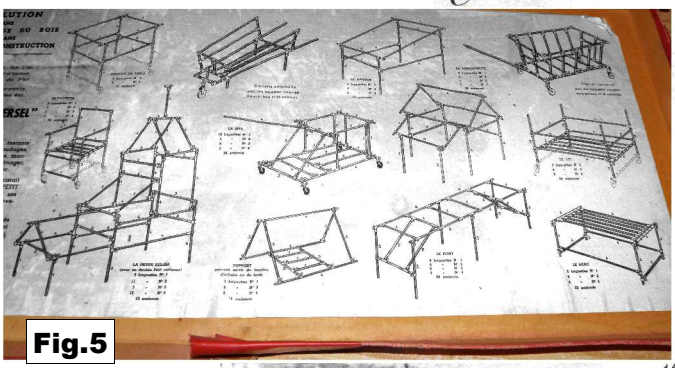


Fig.5

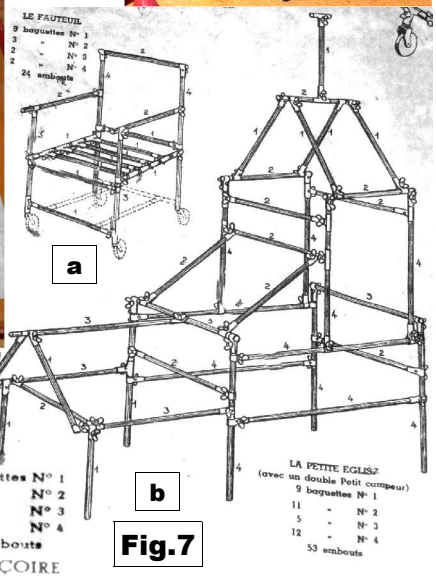


Fig.7

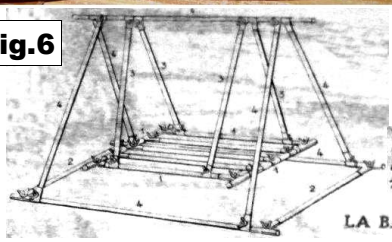


Fig.6

A loose sheet with the cardboard boxed Set showed 8 models which had won prizes in a model competition. They include 2 rather rudimentary Aeroplanes & the Swing in Fig.6, the only model, apart from those on Wheels, which has any movement.

OSN 51/1577 **LE PETIT CAMPEUR: S1**

Snippet. Chinese ALPHA Further to 32/942 the Ebay photos here are of a manual cover & open box from the style of set shown in MCS. The Set's lid is identical to the cover except that the '000' is on a green circle.

Fig.1

Fig.2

The parts visible are as described in OSN 32 except that the Bush Wheel & Pulley are silvery rather than orange.

The contents of Sets 000-1 with this style of lid/manual were listed in OSN 32; the parts in Sets 2 & 3, above those in Set 1, are as follows, using MECCANO PNs (all parts look like MECCANO): 0/2 #1; 0/2 #11; 0/2 #15b; 0/1 #18a; 4/6 #38; 0/2 #38d; 0/1 #44; 4/6 #111a; 0/4 #142c; 0/1 #176; 1/1 Driving Band (Heavy); 1/2 #187; 0/2 #192; 2/2 #199; 1/2 #200; 0/1 #212; 0/1 #213; 0/2 #214; 0/4 #215. Both sets have 100 N&B, as in Set 1.

OSN 51/1577 **ALPHA [1]: S3**

Snippet. New System:

TETRIX TETRIX is all about Robots and might be said to be broadly comparable to VEX in scope, see 41/1243, www.pitsco.com & www.tetrixrobotics.com.

TETRIX is produced by Pitsco Education of 915 East Jefferson, Pittsburg, Kansas 66762. The company was founded in 1971, became associated with Lego Education in 1997, and launched the TETRIX Max set, aimed at high schools, in 2008. The Prime set, for middle schools, followed in 2014. The latter has some different parts but they can be used with the Max components. Structural parts are aluminium and the main ones in Max are Channel Girders in various lengths with a distinctive hole pattern. The equivalents in Prime are square, tubular Beams. Other parts include plastic & aluminium Gears & Wheels, Motors, Servos, & radio control parts.

Fig.1

Robots made with TETRIX can interface with the Lego Mindstorms NXT kit to allow control from the NXT Intelligent Brick, or, using radio control, with a variety or programmable options such as myRIO & Arduino.

BASICS The thread is 6-32. Holes are 3.7mm, spaced at multiples of 8mm. Gears are 32 DP. Axles have a 'D' section: Prime ones are 6mm Ø; Max are 4.7mm (but the Motor shaft is 6mm). Bosses etc are single-tapped, some 10-32.

The MAX SET $595. Fig.1 shows it, with some of the small parts in Fig.1a, and a 'bowling' model in Fig.2. The Channel Girders are 32mm square with the longest 416mm. Lengthways the small holes are at 16mm pitch. The Tubes are 15.7mm Ø, 80-220mm long. Wheels are 3" Ø. Among the parts in the Tray are 40 & 80t Gears, and Hubs are bolted on to them.

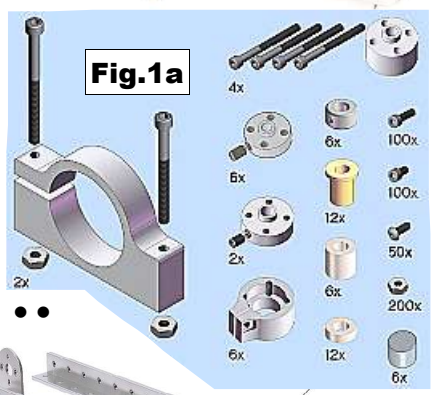


Fig.1a

The PRIME SET $329. The box is similar in style to the Max but the label is red rather than blue, and features the model in Fig.4. Beams are 16mm square, in 7 lengths up to 240mm. The parts are either joined by Thumbscrews with Wing Nuts, or reusable plastic Quick Rivets, with Pegs 24mm long & 7mm Ø. These methods are shown right. The Wing Nut's legs engage the larger holes; the stub legs of the Rivet's Connector body pass through the two parts to be joined and then the Peg is pushed into it. The Set has 24 Rivets & 24 Screws/Nuts. The 6-spoke Wheel is 90mm Ø. The Gears, 40 & 80t, have integral bosses.

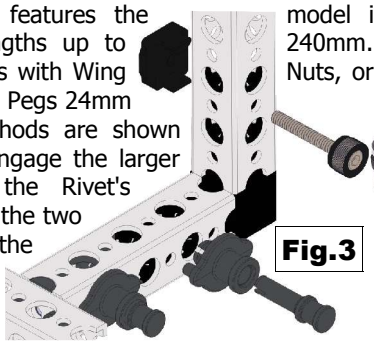


Fig.3

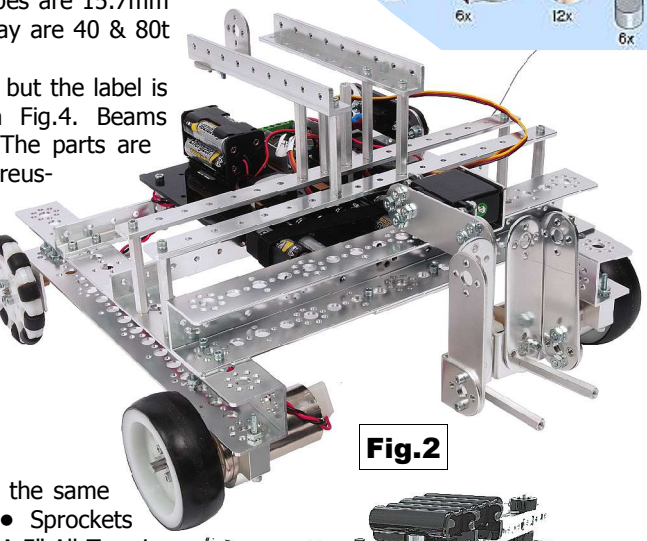


Fig.2

OTHER PARTS ● Gears include a 30t Bevel, a 120t Gear in the same style as the 40 & 80 in Max, and a 5" Rack with Pinion. ● Sprockets (16,24,32t) for ¼" steel roller Chain. ● 4" as well as 3" Wheels. ● A 5" All-Terrain Wheel with a heavy tyre. ● Track Parts which include a Driving Sprocket, & an Idler Wheel. The plastic Track Elements, 40*8mm, snap together and can be fitted with Rubber Inserts. ● A Geared Motor with an output speed of 150rpm. ● Brackets, Couplings, Spacers, Hubs, etc, etc.

OTHER SETS ● Max & Prime outfits with several sets of components for use by school classes. ● A Max Resource set, $170, with more structural parts, 4 more Wheels, & extra Gears including two of the 120t size. ● An Urban Search & Rescue Challenge Set, $799, to build Robots for the SkillsUSA competition. ● A Robot, $3500 (or $6999 assembled), 58" high with eyes that light up. It can move forward & backward (on tracks, not walking), move its shoulders & elbows, turn its head, laugh, and say 'hello' & 'thank you'. It is pre-programmed using LEGO® MINDSTORMS® EV3 (but said software is not included in the Set).

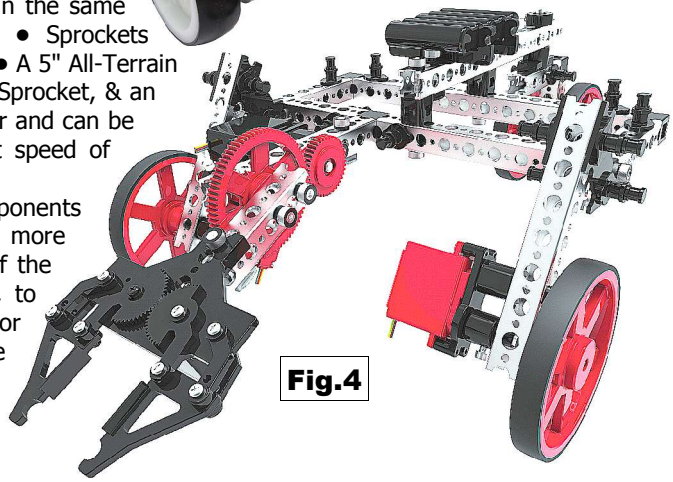


Fig.4

Snippet. 'New' System: REHBURGER The photos here are from an Ebay lot, and all that was said of it was that the box wasn't original. Fig.2 shows a manual cover for a REHBURGER (the name comes from the logo) Set 1, and Fig.3 a sheet (a flyer?) headed 'Build with Miniature Engineering'. It seems to show models which could be made from the next larger set, a No.1.

From a photo not shown here the length of the side of the cover is about 8 times the hole pitch of the parts.

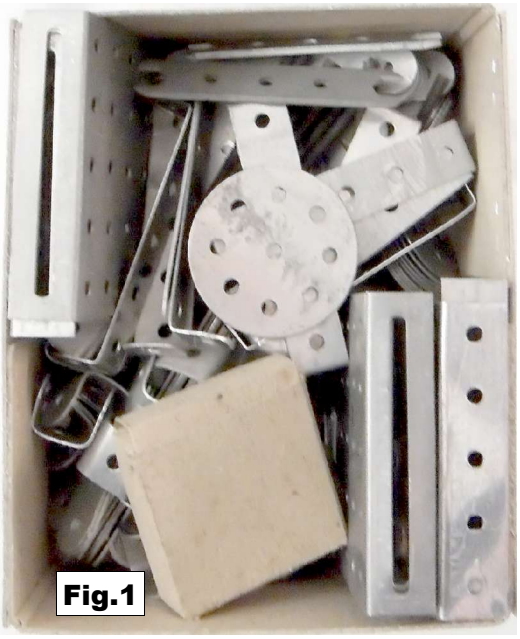


Fig.1

Fig.2

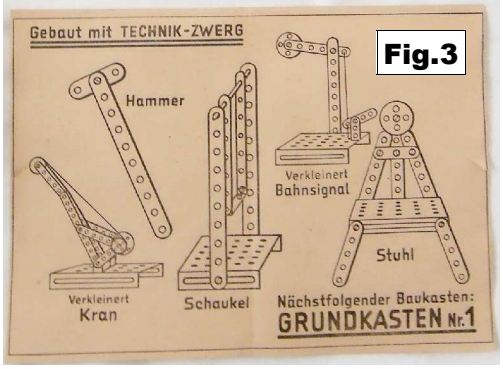


Fig.3

Apart from the 5*5h Flanged Plates in Fig.1, with a long slotted hole in at least one flange, and from Fig.3 both, the other parts that can be seen are an 8h Wheel Disc; 1*5*1h DAS; Strips with only an end visible; several D/Bs; 2 Spanners (at the top) made from 5h Strips with hexagonal openings at each end; some Axle Rods (not Screwed Rods as far as can be seen); & possibly some smaller Wheel Discs above the bottom right slotted flange. There is also the 5h 'flange', bottom right, of what might be an A/G or even a different Flanged Plate. One has the impression that there are many more parts in the box than would have been in a Set No.1

The company's name in the logo is Rehburger Spielwaren, and there is a town called Rehburg some 40km to the east of Hanover.

OSN 51/1579 **REHBURGER: S1**

More on MECHANIK An Ebay Snip of this small German system was given in 27/793 and now Albrecht Heinisch has kindly provided, via Urs Flammer, details of his Set 100 (the OSN 27 size outfit, the only size known).

The box measures 316*167*22mm and the lid is as shown in OSN 27 (it is 'MECHANIK' in the bottom line). Right, a better view of the logo. The inside of the box is red; the partitions are missing but they are probably as in OSN 27: 3 similar Nr.100 sets have been seen on Ebay, all with the same lid, and the same partitions; 2 are red inside; one is green.

Fig.1

The parts found in Albrecht's set are: 5,8,10,11,8,9x 2,3,5,7,9,11h Strips, 10*1mm in section; 6x A/B; 8,6x 1*5,3*1h DAS; 4x 8h Wheel Discs (see Fig.2), about 28mm o.d; 4x 30mm Pulleys (Fig.3, the discs are joined by tabs punched out of one and pushed through the other); 3,1x Screwed Rods, about 80, 60mm long; CH Bolts, about 3 & 8mm u/h (Fig.4); Hex Nuts 7mm A/F (those in OSN 27 & one other Ebay set were square); the Hooks in Fig.4 (I suspect the LH one, it looks familiar but I can't place it). There are none of the OSN 27 brass parts and none were present in any of the other Ebay sets.

Threaded parts are steel, the rest aluminium. All holes are round, 4.2mm, at 10mm pitch. The thread is M4. The ends of all the strip parts look to be fully rounded.

3 of the Ebay sets have the manual below, and Fig.7 is a page from it. The models could certainly be made from the types of part in Albrecht's outfit.

Fig.6

Fig.2


Fig.3


Fig.4


Fig.5

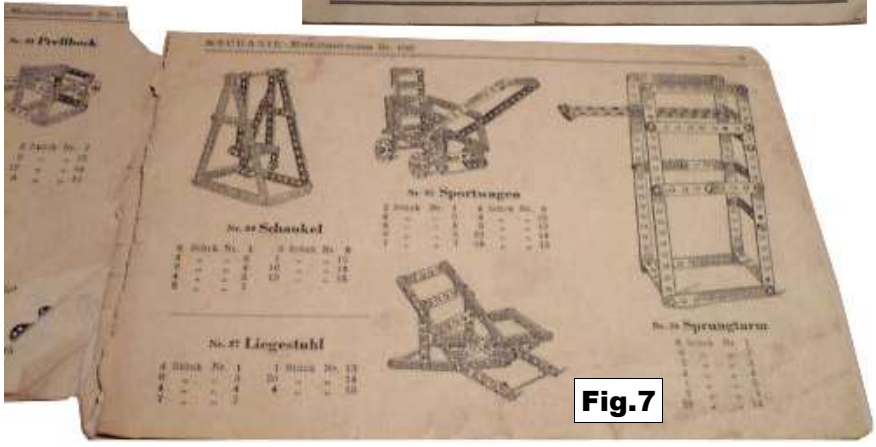


Fig.7