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**EDITORIAL** I had hoped to send this Issue out early in December but it wasn't to be. It may in fact be ready before Xmas, but given the vagaries of the post at this time of year I plan to send it out early in the New Year. So, belated Xmas & New Year greetings.

To current PDF subscribers, a little Xmas present. In future all Issues will be free; newcomers will pay a joining fee which will cover the then current & all future Issues.

### Shorter NOTES, with thanks to all contributors.

1. **More 'POLYLONG'.** W. & C. Fluck sent the web addresses of two Chinese companies which produce a large range of 'Polylong' sets. Examples of them under various brand names, have been mentioned in the past, but without any indication of the huge range of sets available

One is Wei Cheng Toys (wctoys) of Gugangdong Chenghai, whose website is <http://www.wctoys.cn/Default.aspx?menuId=5>. 60 sets are shown, most branded DIY MODEL, but with some older brands: INTELLIGENT DIY (including 2 that look like simple articulated lorries & are labelled 'Music Wire control car'); MECHANIH; SERIES. The DIY MODEL sets are mostly of the Racing Car or Robot type, smallish models which use a wider range of parts than earlier sets & often have a sleeker appearance. The only large models are a 40cm high office building, & the Dockside Crane reviewed in 44/1350 under the NUTS & BOLTS name.

The second site is the West Plastic Toy Co. Ltd., established in 1999, and also at Guangdong. Its website is <https://westtoy.en.alibaba.com/> and hunting through it I found 144 sets. None were branded but a banner on the home page included 'BUILT-UP TOYS'. The models were mainly some hand guns, many small vehicles (a good proportion of which were early 'POLYLONG' products), numerous slightly larger vehicles & aircraft, and a huge selection of those skeletal animals, insects & fishes, with moulded plastic heads etc. Again new parts were used in many of the later models. The only large model (listed under a different category) was the Eiffel Tower shown at Fig.2 in 46/1395. In passing, I acquired one of these recently and amazingly its 40 nickelled steel Panels (joined with Angle & Flat Brackets) fitted together perfectly.

W. & C. also pointed out that the top right set in Fig.1 of 46/1395 is a MECCANO outfit. Sorry Meccano!

**POLYLONG: S21**

[52/1580]

2. **Encyclopédie des Jeux de Construction Métalliques** Jean-Pierre has now produced a new 2016 edition of his Encyclopédie with all of the features described in 49/1484 plus revised entries where new material has become available, and with many other systems, new & old, added. Nearly 1000 systems in all. Highly recommended. It is offered on French Ebay from time to time, along with other of his MECCANO-related publications. Otherwise contact J-P at [jean-pierre1g@orange.fr](mailto:jean-pierre1g@orange.fr).

**Encyclopédie des Jeux de Construction Métalliques** [52/1580]

3. **New 'POLYLONG' Brand: METAL WORX.** Jan Ringnalda wrote that he had seen a METAL WORX Motorcycle set in which all the parts had 10mm pitch holes, but also the set for



the Car above in which some of the parts had holes at 10mm pitch holes, but it was 12.7mm in others. The metal parts were a mix of the two pitches but of the plastic parts only the 5h Strip had 10mm pitch, all the others were 12.7mm.

**POLYLONG: S22**

[52/1580]

4. **An Italian Enthusiast's Website.** [www.constructiontoys.it/](http://www.constructiontoys.it/) is Francesco La Camera's English language website entitled My Construction Toys Collection (a lifetime passion!). It lists 74 systems with varying amounts of detail for each under one or more of the headings: Outfits; Models; Motors; Documents; etc. The Documents section is especially valuable because manuals etc are often shown in full as pdf files. And in some cases a system's history is given too. Also on the site, Forum & Gallery pages are available to registered users. Well worth a visit.

**WEBSITES: S1**

[52/1580]

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5. **CREIN.** Jean-Pierre Guibert pointed out that the parts in this system (see p1586 of this Issue) resemble closely those in CONSTRUCTOR AUKRI (44/1347), the only obvious difference being the Handlebar used in the Irish Mail etc: one of the Short Wood Pieces in AUKRI but formed with a circular section in CREIN. Thus it is very likely that the dimensions of the parts are similar or even identical.

**CREIN: S2** [52/1581].

**Snippet. Gilbert's KLAX Clock Sets** [Who vetoed KLAX KLOX I wonder.] Prior to the Ebay set to be described the only reference to KLAX to hand was in 6/136 where a No.2 set for a Pendulum Clock was said to date from 1925 and that ERECTOR Gears, Rods, & Chain were used.

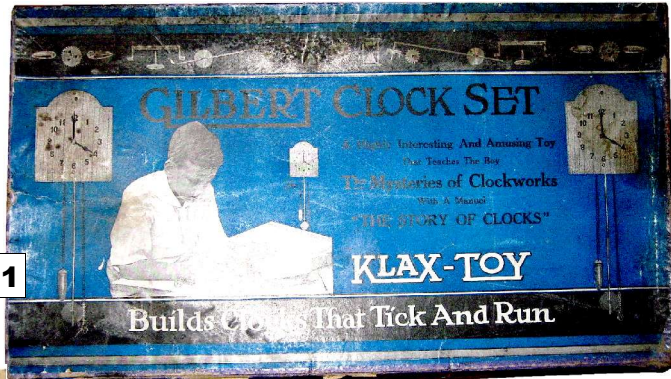
The photos of the Ebay set don't show a set number but the manual (Fig.2) does refer to 'Clock Sets'. The small lettering on the lid (Fig.1) reads: A Highly Interesting And Amusing Toy | That Teaches The Boy | The Mysteries of Clockworks | With A Manual | "THE STORY OF CLOCKS".

The parts in the box (Fig.3) look as if the set might be complete, with the small parts in the packet just poking out from behind the Clock Face (the only word that can be seen on it is Collar). But I'm not sure how the framework would be assembled and attached to the Face.

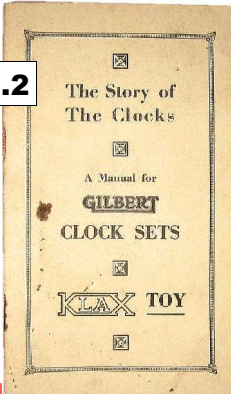
The 2 Gears top right are identical and one of them, & all the others, are shown as a-g in Fig.4 (they are from various Ebay photos but are all about to scale). b1,c,f have 8,12,36 teeth and are probably standard pre-1925 ERECTOR Gears. g is a double 12/36t Gear. The fine-tooth Gears are probably 'specials': a,d, have 32,75 teeth, and b2 probably 15 or 16. But I'm not sure that they all have the same tooth pitch. And given non-standard Gears one might expect a pair to have a 4:1 ratio to be used in the train between the minute & hour hands. e is another double gear combining a & f.

6. **Danish TEKNO, a Correction.** On page 1601 of this Issue the splendid Combine model, attributed to Victor Andersen, was actually built by Gunner Kannegaard from Brønderslev in the northern part of Jutland. Apologies to both and thanks to Hans Christensen for pointing out the mistake.

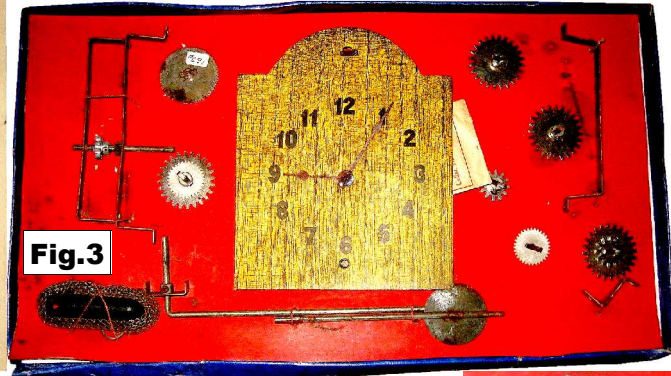
**TEKNO [1]: S5** [52/1581]



**Fig.1**



**Fig.2**



**Fig.3**



**Fig.4**

OSN 52/1581

KLAX: S1

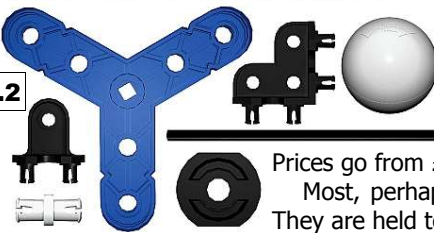
**New from VEX** New parts, designs, etc have been added since the notes in 41/1243, though they are hard to pin down on Vex's confusing website, and many are probably of little interest to OSN readers. However one advance is that some products can now be shipped from the UK, Europe, & Canada, thus avoiding, one hopes, the previous high shipping charges.

Recently a number of kits to make relatively simple models have been offered on UK Ebay, all labelled VEX ROBOTICS & STEM STARTERS. STEM stands for Science, Technology, Engineering, Mathematics. An attempt perhaps to widen VEX's appeal & attract the young. The Ebay offerings were a Catapult with 100+ parts & a 10' throw, a Crossbow with 150+ parts & foam Darts, a Snapshot with a 10' range, a 100+ part Gear Racer with a pull-back Motor, a 270+ part Fork Lift ball machine with 8 Balls, and the Hook Shot ball



**Fig.1**

machine left with 170+ parts & again 8 Balls. From the start the Balls shoot up, over the blue arch, then pass through it & down to guide rails to roll along the ramp & drop down to the start. Each box shows 2 other models which can be made with the parts, often a little more realistic looking than the featured model. Those for the Hook Shot are a Helicopter & a fairground Pirate Ship. Where appropriate models are hand operated, but some can be motorized with an add-on Motor Kit. Other models mentioned are a Strandbeast, Spider, & Scarab. The range offered in the different countries can be seen at hexbugvex.com and the 'stars' are the Strandbeast & a Robotic Arm, a sort of grabbing crane.



**Fig.2**

Prices go from £15 to £90 (for a Motorized Robotic Arm). Most, perhaps all the parts in these models are plastic. They are held together by plastic split-ended Snap Pieces, 3 of which are among some of the Hook Shot parts in Fig.2.

OSN 52/1581

VEX: S6

**'New' System BLEMA**

**v. FIFA** A BLEMA Nr.1 set offered on Ebay led to Urs Flammer kindly sending details of his sets & some comments on a FIFA Nr.1 from Jürgen Kahlfeldt.

The BLEMA box layout, set contents, and, apart from the N&B, parts, are identical to FIFA (see 42/1265). Both were made in Zeulenroda (a town some 80km south of Leipzig, in what was East Germany), FIFA by Hans-Joachim Fischer and BLEMA by VEB Blechbearbeitungsmaschinenwerk. FIFA certainly came before the VEB-made BLEMA and it may have existed in 1939, BLEMA is known from the mid-1950s.

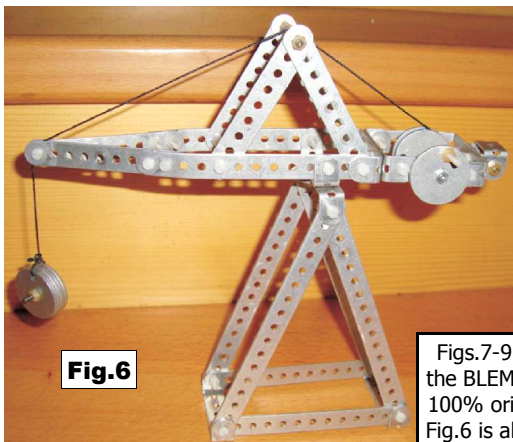
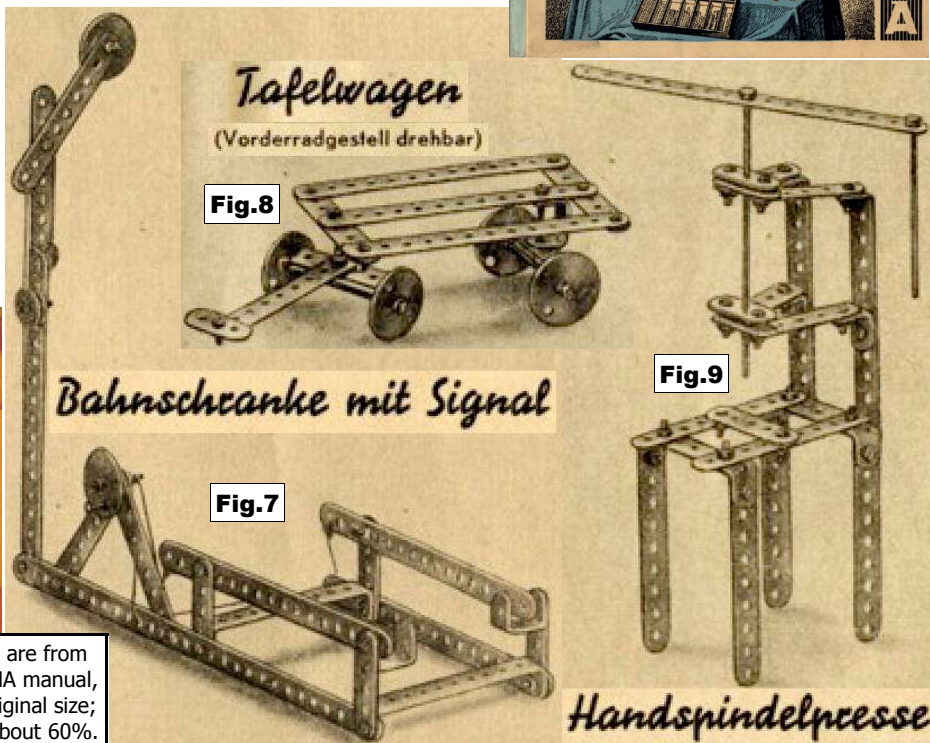
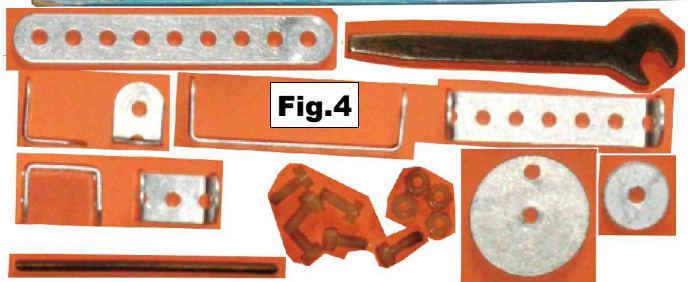
**BOXES** Figs.1,2 show the BLEMA & FIFA lid labels, and they cover most of their lids. The PR on the former is 3021-V77-1,0-1054-M657/54. No box number can be seen on either set but both have the Illustrated Parts for Set 1, with quantities, pasted inside the lid. Nothing is known of any larger sets. The BLEMA box, 300\*187\*23mm, is light blue (as in Fig.3): another is red, and another plain cardboard. BLEMA's base partitioning (Fig.3) is the same as FIFA's, and, incidentally, as on the lid labels.

**PARTS** Typical BLEMA parts are shown in Fig.4. Most parts are aluminium, but the Screwed Rods are steel and the N&B plastic (FIFA's look steel & roundheaded). Holes are 3.7mm at 8.0mm pitch, and the thread is M3. All 17 parts are listed below with quantities in curly brackets. **Strips** #Fst 3-17, 12mm wide, 3,5, 9,13,17h {8,12,12,8,8,8}. **A/B** #W 1, {8}. **D/B** #DW 1, {4}. **DAS** #DW 5,9: 1\*5,9\*1 clear holes with bends, as in the Brackets, across intermediate holes {4,4}. **Screwed Rods** #Gb 27,62,100: 27,62,100mm {4,4,2}. **Discs** #S 17,27: 17, 28mm Ø {4,8}. **Span'driver** #Sk, {4}. **Bolt** #Schb 1, cheese-headed, 8mm u/h {40}. **Nut** #M 1, hexagonal, 6mm A/F {54}.

**MANUALS** Both have 4 pages plus covers. The BLEMA measures 248\*155mm, the FIFA is slightly larger but with the same size text & illustrations, albeit slightly rearranged. Also, with minor exceptions, the same font. Fig.3 in OSN 42 shows the FIFA cover; right the BLEMA. Apart from the change of name & maker both have the same content, except on C4.

C2 is blank, p1 has an Introduction, p2-C3 show 11 models from Rechen [Rake] to Bahnschranke mit Signal [Level Crossing with Signal] (Fig.7), with a photo & Parts List for each plus brief notes on some. Other models include some domestic items, a simple Windmill with a pulley drive (the pulleys made from the Discs), the 4-Wheel Farm Cart in Fig.8), a Fly Press (Fig.9), & a Crane (Fig.6, as built by Urs with substitute plastic N&B).

C4 is blank in both manuals except for the printers name followed by 3022, 20-V77-1,0-954-M657/54 for BLEMA and 539 for FIFA. '539' might be thought a date but this has been questioned, so it is uncertain whether FIFA was produced pre- or post-WW2.

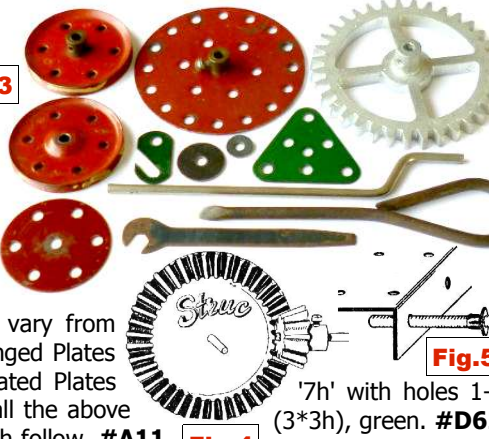


Figs.7-9 are from the BLEMA manual, 100% original size; Fig.6 is about 60%.

**STRUC** This is one of the several new systems which appeared in The Netherlands soon after WW2, and its 63 parts include a few unusual items. It was made by Nederlandse Speelgoederen Industrie of Wijhe (Overijssel), a small town some 80km east of Amsterdam, & the firm was registered there from 1946 to 1950. In mid-1947 its factory was in Veerstraat & Outfits 1-3 plus linking sets were advertised. Later Sets 3A-5 were added.

These notes are based on: • one lot to hand of 4 sets, Nos.2,2,2A,4A, plus some extra parts; • scans of manuals kindly sent by Urs Flammer & Jan Ringnalda; • photos of 5 sets from the Hong website & 3 from Ebay.

**The PARTS** Manuals have no Illustrated Parts but some can be seen in Figs.3-5 & others can be seen in the models shown later. **Basics.** Holes are 3.9mm at 14.0mm pitch. The only slotted hole is in the Slotted Strip. Axles are 3.7mm Ø. The thread is 1/8" BSW. Strips have near fully rounded ends; many other strip part ends have a larger radius. A/Gs & most Plates have square corners. Bosses are brass, 8mm Ø, & double-tapped. The parts are accurately made and quite well finished. Strips, Brackets & A/Gs vary from mid to dark green; circular parts & Flanged Plates are mid red with a few lighter; Perforated Plates are a mid to dark blue. Exceptions to all the above are given in the notes on the parts which follow. **#A11. Flanged Plate, 5\*9h.** **#A12. Flanged Sector Plate, 8h long, with straight ends & slightly rounded flange corners.** **#A21,22,25-27. Perforated Plates, 3\*4,5h & 5\*7,9,15h.** **#A23,24. Girder Plates, red, 3\*7,9h with 3,4 16 1/2mm holes & rounded corners, see Fig.13.** **#A32-315. Strips, 2,3,4,5,6,7,9,10,11,15h.** **#A41,42. A/B, 1\*1,2h.** **#A51,55. D/B, 1,2h high.** **#A52-54. DAS, 1\*3,5\*1h, 2\*5\*2h.** **#A61,62. Double Bent Strips, 1,2h high.** **#A71,72. Rev. A/B, 1\*1,2\*1h.** **#A95,99,915. A/G, 5,9,15h.** **#B31,32. Washers, Fig.3, 10.1,17.8mm, blackened. Their holes are 3.4mm, too small take an Axle.** **#B41. Wheel Disc, 6h, 38.5mm Ø. Also found: 4 like the discs from Pulley B61 but with no spot weld marks.** **#B42,52. Circular Plate, Face Plate (Fig.3), both 65.7mm Ø with circles of 6 & 16 holes at 14 & 28mm radii.** **#B61,71,72. Pulleys: 41.8mm, ditto with boss, both (Fig.3) with face holes as B41; 72.9mm with boss & face holes as B42.** **#B91-**



**95. Gears, sand cast, part machined, aluminium with integral bosses.** **Spurs:** 14,21,35t, 6mm thick, Mod.2, stamped 'STRUC'. Approx. 31,45,72mm o.d. The 35t (Fig.3) has cutouts, the others none. **Bevels:** 40,13t. Approx. 84,30mm o.d. Fig.4 is from the Model Leaflet, 'Struc' is cast in. **#C21-23. Screwed Rods, 35, 65,105mm.** **#C31. Crank Handle, 127mm long o/a, with 20mm handle offset 17mm (Fig.3).** **#C51-53. Axles, 115, 135,275mm, with slightly rounded ends.** **#C61. Bolt, brass, 5mm Ø CH, 6 1/2mm u/h (also found: 10mm u/h; steel, RH, 5 & 10mm u/h, the 5mm used as set screws).** **#C71. Nut, brass, hexagonal, 6.0mm A/F.** **#C81. Span'driver (Fig.3), blackened, 80mm long o/a.** **#C82. Screw-driver, the one in the Lot (Fig.3) is 111mm long o/a and made of (thicker than usual) 4.5mm wire.** **#C91. Crane Hook (Fig.3), flat, green, made from a 2h Strip.** **#D11. Tyre. 3 types have been seen: a fat, fawn rubber ring, 66mm Ø (Fig.13); a similar black rubber ring, 63mm Ø; a black tyre, 62mm Ø, with circumferential tread. All diameters off-wheel.** **#D21. Bush. This part (Fig.5) has only been seen in a manual's Standard Construction. It is pushed into a hole for a Screwed Rod to run in.** **#D31. Collar, 8mm Ø, 7 1/2mm long.** **#D41. Slotted Strip, '7h' with holes 1-2 & 6-7 slotted.** **#D51. Trunnion, 5h (3\*3h), green.** **#D62. Triangular Plate, see Fig.3.**

**LITERATURE** 4 Manuals & a Leaflet are known. In probable date order they are as follows, referring to them by the cover model. **The Yacht & Crane (Figs.6,7)** seem to be from the same period and Sets 1-4 are advertised in each. The Yacht/ Crane have models for Sets 1-2/1-3 with inventories for those sets. The models are shown as line drawings, with shading on the No.3 models, and there are parts lists for them at the end of the manuals.

Next **2 Windmill** manuals with the same cover (Fig.8). Both have Sets 0-3 on it & both have identical models for those sets. Sets 0-4 are advertised in each. The Set 1 & 2 models have been redrawn with shading and there are additional No.3 models. But **'Windmill 3'** has inventories for Sets 0-3 while **'Windmill 5'** has them for Sets 0-5. Both inventories include Tyres & the associated changes, none of which were in the Yacht/Crane. And both show the Bush D21 but it is only in the Windmill 3 inventories. Although the Windmill manuals above are thought to be later than the Yacht/ Crane it is quite likely that there was at least one earlier edition. This is because the first word of the company's name on the covers is 'Nederlandsche' against 'Nederlandse' in the other manuals. I believe that this change of spelling occurred soon after WW2.

The **Leaflet (Fig. 9)** has Set 4 models and an inventory for Set 3A. No other sets



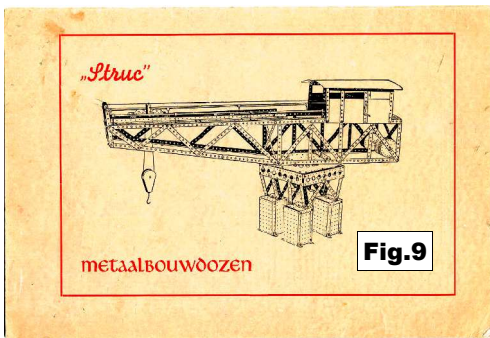


Fig.9

Chairs Carousel]; 2-1 TRACTOR to 2-15 VLIEGENDE HOLLANDER [Flying Soap Box, Fig.14]. p19 has 10 Basic Constructions, C3 lists the Sets, C4 is blank.

**The Crane** has 28 pages 214\*138mm plus covers. The Crane on the cover is a No.3 model. The No.1 & No.2 models are as above. Set 3: 3-1 KLAPBRUG [Double Bascule Bridge] to 3-5 VLIEGTUIG [Monoplane]. p2 has 10 Basic Constructions, C3 is blank; C4 lists the Sets.

**The Windmill 3** has 36 pages 217\*147mm plus covers. The Set 0 models are 0-1 Hakbijl [Axe] to 0-15 Weegsehaal [Scales]. Set 1 & 2 models are as above. Set 3: 3-1 Klapbrug (as above) to 3-15 Scharenslijp [Scissor Sharpener, Fig.19].

Magazijn nummer	Omschrijving	0	1	2	3	4	5
A 11	grondplaat	—	1	1	2	2	2
A 12	sectorplaat	—	—	—	—	2	2
A 21	vlakke plaat 3—4 gaten	—	—	—	2	2	2
A 22	vlakke plaat 3—5 gaten	—	—	—	—	2	2
A 23	vlakke plaat 3—7 gaten	—	—	—	—	2	2
A 24	vlakke plaat 3—9 gaten	—	—	—	—	2	2
A 25	vlakke plaat 5—7 gaten	—	—	—	—	1	1
A 26	vlakke plaat 5—9 gaten	—	—	—	—	2	2
A 27	vlakke plaat 5—15	—	—	—	—	2	2
A 32	vlakstaaf 2 gaten	—	—	—	4	4	4
A 33	vlakstaaf 3 gaten	1	2	4	4	4	4
A 34	vlakstaaf 4 gaten	—	—	—	4	4	4
A 35	vlakstaaf 5 gaten	2	4	8	12	12	12
A 36	vlakstaaf 6 gaten	—	—	—	4	4	4
A 37	vlakstaaf 7 gaten	2	2	4	6	6	6
A 39	vlakstaaf 9 gaten	1	2	4	6	6	6
A 310	vlakstaaf 10 gaten	—	—	—	2	2	2
A 311	vlakstaaf 11 gaten	1	2	6	6	6	6
A 315	vlakstaaf 15 gaten	—	—	—	2	2	2
A 41	hoeksteunen 2 gaten	2	4	6	10	10	10
A 42	hoeksteunen 3 gaten	1	2	4	4	4	4
A 51	beugel 1—1—1 gaten	1	1	2	3	3	3
A 52	beugel 1—3—1 gaten	2	2	4	4	4	4
A 53	beugel 1—5—1 gaten	1	2	4	4	4	4
A 54	beugel 2—5—2 gaten	—	—	1	2	2	2
A 55	beugel 2—1—2 gaten	—	—	—	1	1	1
A 61	omega beugel 5 gaten	—	—	—	1	1	1
A 62	omega beugel 7 gaten	—	—	—	1	1	1
A 71	zetstuk 3 gaten	—	—	—	2	2	2
A 72	zetstuk 4 gaten	—	—	—	1	1	1
A 95	hoekbalken 5 gaten	—	—	—	—	4	4
A 99	hoekbalken 9 gaten	—	—	—	—	4	4
A 915	hoekbalken 15 gaten	—	—	—	—	4	4
B 31	onderlegging 10 mm	—	2	4	5	5	5
B 32	onderlegging 17 mm	—	2	4	6	6	6
B 41	plat wiel 7 gaten	2	4	4	4	4	4
B 42	plat wiel 23 gaten	—	—	2	2	2	2
B 52	wiel 23 gaten met naaf	—	—	—	2	2	2
B 61	flenswiel 7 gaten dubbel	—	—	2	2	2	2
B 71	flenswiel 7 gaten dubbel met naaf	—	—	—	2	2	2
B 72	flenswiel 23 gaten dubbel met naaf	—	—	—	—	2	2
B 91	tandwielen recht 14 tanden	—	—	—	—	—	1
B 92	tandwielen recht 21 tanden	—	—	—	—	—	2
B 93	tandwielen recht 35 tanden	—	—	—	—	—	2
B 94	tandwiel conisch 40 tanden	—	—	—	—	1	1
B 95	tandwiel conisch 13 tanden	—	—	—	—	1	1
C 21	draadas 35 mm lang	1	1	2	3	3	3
C 22	draadas 65 mm lang	—	1	2	2	2	2
C 23	draadas 105 mm lang	—	1	2	3	3	3
C 31	krukhandle	—	1	1	1	2	3
C 51	gladde as 115 mm lang	—	—	—	2	2	2
C 52	gladde as 135 mm lang	—	—	—	—	2	2
C 53	gladde as 275 mm lang	—	—	—	—	1	3
C 61	boutje	10	10	35	58	78	88
C 71	moertje	14	14	44	80	100	110
C 81	moersleutel	1	1	2	3	3	3
C 82	schroevendraaier	—	—	—	—	—	1
C 91	kraanhaak	—	1	1	2	2	2
D 11	autobandje (voor B 61—B 71)	—	—	2	4	4	4
D 31	stelring	—	1	1	1	5	10
D 41	sleufstrippen 3 gaten 2 sleuven	—	—	—	—	4	4
D 51	omgezetste driehoek	—	—	—	—	4	4
D 62	gelijkzijdige driehoek	—	—	—	—	2	2

Fig.10

are mentioned.

**More Details:**  
**The Yacht** has 24 pages 222\*141mm plus covers. The Yacht on the cover is a No.1 model. The models are 1-1 PIANOKRUKJE [Piano Stool] to 1-30 ZWEEFMOLEN [Flying

There is no 3-2. No parts list is provided for any of the models. pp1-2 have 11 Basic Constructions (No.11 is the Bush, Fig.5). pp31-32 shows 5 other models, set unspecified, including a Loco & Tender & the Eiffel Tower in Fig.11; p34 has a price list of parts A11-D31; pp35-36 are blank; C3 lists the Sets.

**The Windmill 5** is as Windmill 3 except that a few pages are interchanged and rearranged, with no blank pages. The inventories (Fig.10) are on pp34-35.

**The Leaflet** is a sheet of thin card folded 3 times to give 8 panes 160\*237mm. The Blocksetter on the front includes a few parts not otherwise known: the 15h Girder Plate; the 15\*15h Plate which forms the top of the tower; & the Pulley Block. The models are 4-1 Electric tram to 4-5 Verrijdbare draaikraan [Mobile Slewing Crane] in Fig.12. They are again shaded drawings with no parts list. The use of the Bevel Gears is explained but they are not used in any of the models (it is suggested though that they might replace a friction drive in one of them). So did Set 4 exist without the Bevels? Probably because in the 3A inventory the Bevels & a Crank Handle are the last 3 items and are all out of order in the sequence of PN's. Set 4 is mentioned in 3 of the manuals above and so it's possible that this Leaflet was concurrent with some/all of them. Oddly the company's name isn't anywhere in the Leaflet.

**Other Manuals** Yacht manuals with '1' and possibly '1A' instead of '2' on the cover.s

**SETS** The two types of lid known are shown in Figs.1,2, and they will be called the red & the yellow lid. The Set No. is stamped in a roundel on the lid but is often indistinct. Apart from a yellow 4A the sets seen are from the range 0-2A and include examples of both lids in several sizes. It isn't known which came first but the yellow looks more modern.

9 of the 12 sets seen have partitioned boxes with a few parts on backing cards. In the others, Sets 0A, 1, & 4A, all with yellow lids, the parts are attached to a single card, variously by wire clips, cord, N&B, or by being pushed into slits or holes. N&B are in the small box, right, 7¼\* 5¾cm, but the box far right, 7¾\*6½cm, was in one of the Lot sets.

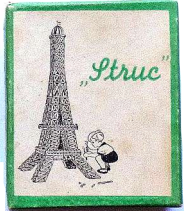


Fig.11

There is no discernible pattern to the manuals with the sets seen, with quite often seemingly inappropriate or unlikely combinations.

**The Set Contents**, taken from the Windmill 5 manual are shown in Fig.10. Those in the Windmill 3 for Sets 0-3 are the same except that 2,4,4,6 of the Bush D21 are included. Changes from the introduction of the Tyre are (Crane to Windmill 5): Set 1: none. Set 2: -2x B61; +2x D11; +1x D31. Set 3: -2x B42, +2x B52; -6x B61; +2x B71; +4x D11; +1x D31.

**Other Sets** On the page listing the STRUC Sets 1-4 in the Yacht & Crane manuals, but not the Windmills, there is a final paragraph which says 'Struc special boxes connect to No.3. With these you can go in any direction which interests you so that you can reach other Struc technical areas.

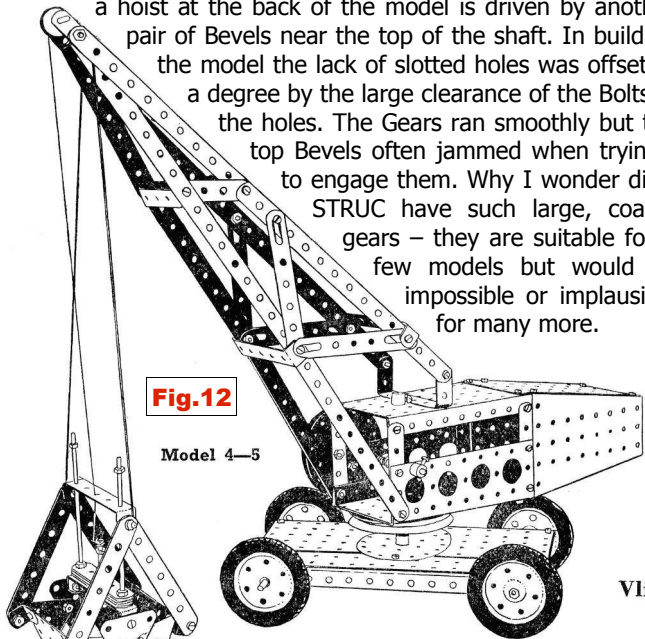
**MODELS** Not shown for the models overleaf are the building instructions, often quite lengthy for the larger models.

No.0 models are very simple but do include a Sledge & the Floatplane in Fig.20. The No.1's are mainly small Handcart type models & domestic items but there is a Ballista, a lever-operated Railway Signal, & 2 simple Cranes. The No.2 models are more interesting with centre-pivot steering on a Tractor, a 2-Seater, & the 'Hollander' in Fig.15. Other models include an extending Lamp Mounting, a Letter Balance, a Mobile Crane, a Chair-O-Planes (Fig.18), & a Lathe. Among the No.3 models are a double-leaf Lifting Bridge, an Excavator, the Crane in Fig.14, a Monoplane, a Scissor Sharpener (Fig.19), and several 2-, 3-, & 4-wheel vehicles fitted with Tyres - they include a nice Jeep & the Motorcycle & Sidecar in Fig.17. Two of the No.4 models have already been mentioned, the others are a

Chair-O-Planes, the Lorry in Fig.16, & a Jib Crane. All worthy models though the Crane doesn't luff or have the roller bearing of 3-4. Fig.13 is the Water Mill I made with the parts in the Lot. The drive is by pulley from a commercial motor/gearbox in the roof to a vertical shaft with Bevels at its bottom to turn the waterwheel. The 'mills' on either side, and a reciprocating sieve at the back, bottom right, are gear-driven from the shaft, while a hoist at the back of the model is driven by another pair of Bevels near the top of the shaft. In building the model the lack of slotted holes was offset to a degree by the large clearance of the Bolts in the holes. The Gears ran smoothly but the top Bevels often jammed when trying to engage them. Why I wonder did STRUC have such large, coarse gears – they are suitable for a few models but would be impossible or implausible for many more.



**Fig.13**



**Fig.12**

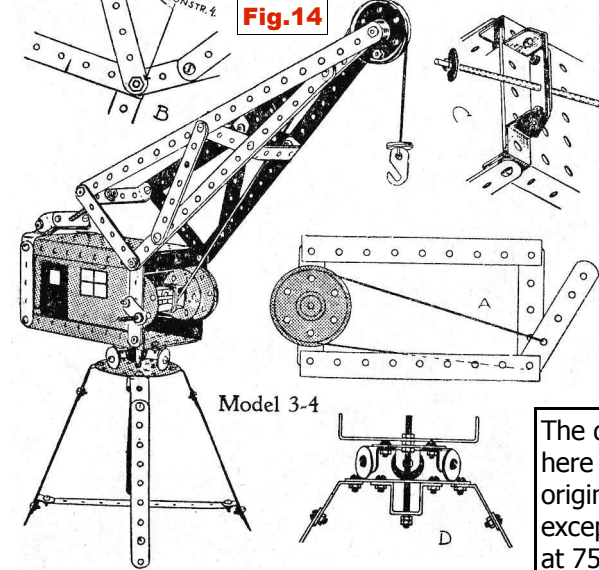
Model 4-5

Verrijdbare draaikraan

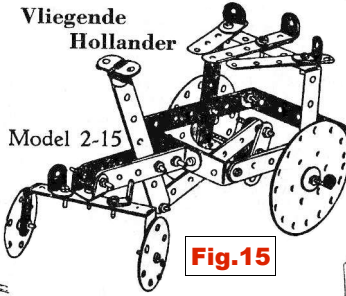


Zwenkbare bokkraan met verstelbare vlucht.

**Fig.14**

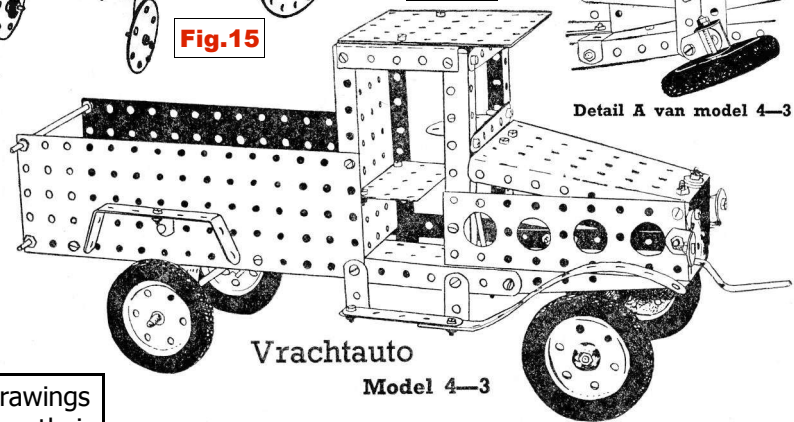


Model 3-4



Model 2-15

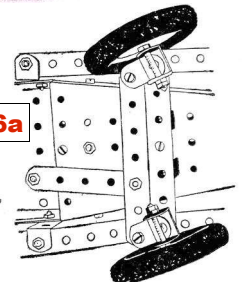
**Fig.15**



**Fig.16**

Vrachtauto

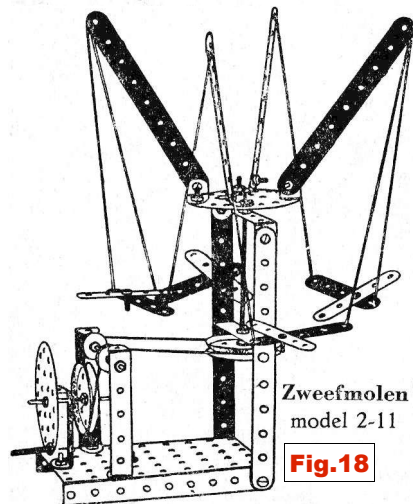
Model 4-3



**Fig.16a**

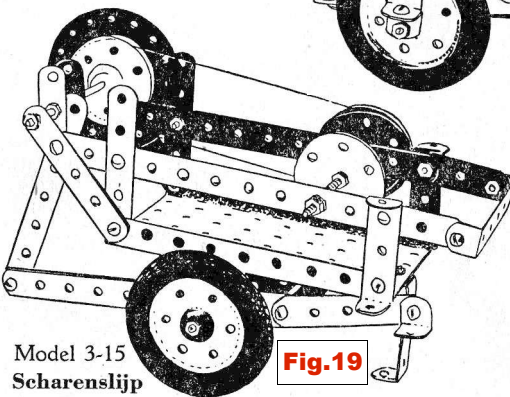
Detail A van model 4-3

The drawings here are their original size except Fig.12 at 75%.



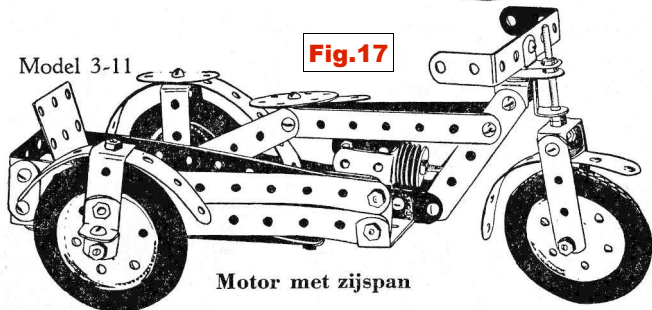
Zweefmolen model 2-11

**Fig.18**



Model 3-15 Scharenslijp

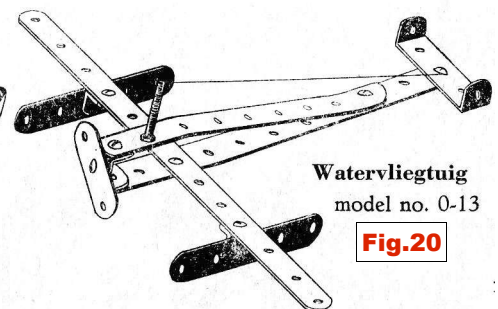
**Fig.19**



Model 3-11

**Fig.17**

Motor met zijspan



Watervliegtuig model no. 0-13

**Fig.20**

**Snippet. 'New' Spanish System: CREIN** These notes are based on one set seen on Ebay, and apart from not knowing the exact size of the parts, CREIN looks comparable to the 1920s GILBERT NEW WHEEL TOY (see 45/1385). 'Crein' has no meaning but is a Spanish surname & company name.



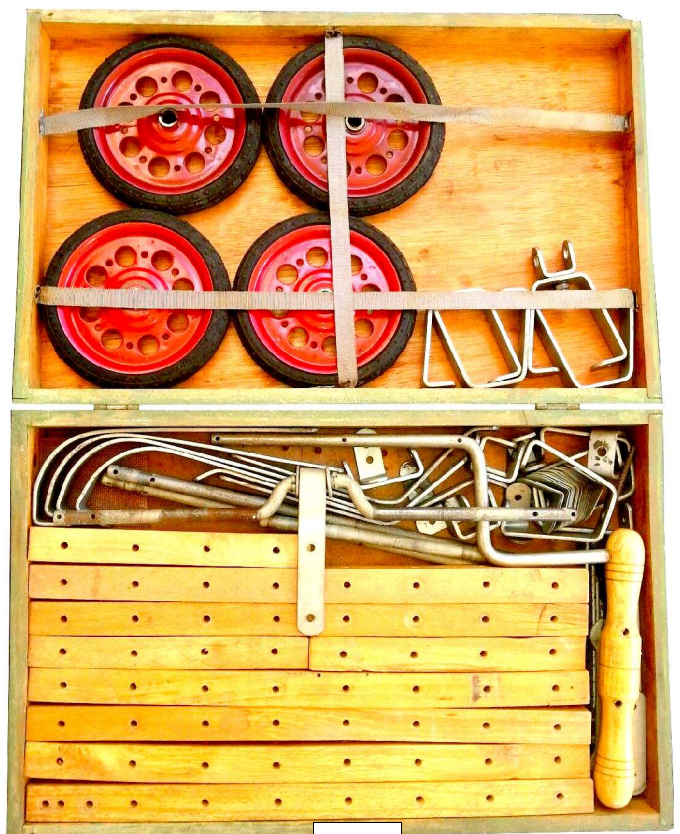
The lid above claims a **Fig.1** patent and a logo, top centre, has a rocking horse on a flag stuck in a sand castle, with what looks like 'Creaciones' [Creations] above it. The slogan in the bottom border translates as A Toy and Toys for Everyone, and Forever. The other borders have the types of model that can be made: Sledges, Lorries, Armchairs, Croquet, Tennis, Windmills, Barrows, etc. The models in the large circles include a Hoopla (bottom left), and in the centre the boy & girl are building the 'Irish Mail' ('a' in Fig.3). Many more model types than in the NEW WHEEL TOY (NWT henceforth) manual, though the range was increased for its successor, ERECTOR SENIOR.

The parts in the 2-layer wooden box include various Brackets, a Crank Handle & a Crankshaft, as well as the 4 Wheels (with, unlike NWT, rubber Tyres), Sledge Runners, and wooden Beams, but no sign of the various Plates needed for the different models, though there may be some under the Axles & Brackets.

Since no dimensions are known one can only speculate. If the hole pitch in the Beams is 50mm (near the NWT 2") the Wheel diameter scales at approx. 5 1/4", and the Beams at 1" wide, both comparable to NWT. But at 8 1/2mm (1/3") the Axle diameter is considerably less than Gilbert's 1/2", while the bolt holes, at about 5 1/2mm, are 1 1/2mm larger. The box sides scale at about 1/2" - certainly a possibility though the sides of NWT wooden boxes are nearer 5/16".

The only paper-work with the Ebay set was the sheet right, light brown in colour but B&W here for clarity. It looks to have been folded into 4, no doubt to fit it into the box.

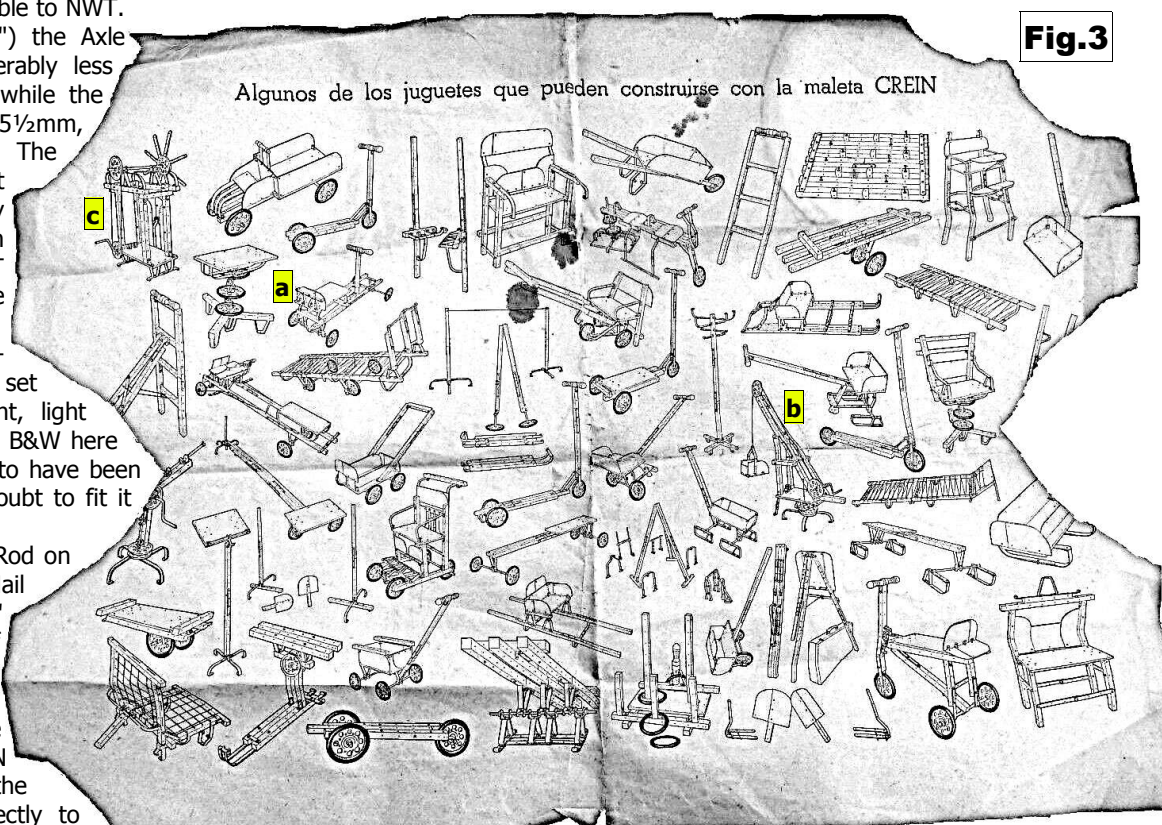
The Connecting Rod on the NWT Irish Mail drives a Pin at a 2" radius in the side of the 39t Gear, & the latter mates with a 13t Gear on the Back Axle. CREIN has no gears, so the Con Rod goes directly to



the Crankshaft which forms **Fig.2** the back axle. Its throw would be about 2" and this gives a much lower geared drive than in the NWT model. Thus a lower potential top speed but starting off would be much easier. When my granddaughter, 7 at the time, tried my NWT model she found it practically impossible to start without a push or a downward slope.

Apart from the Irish Mail, two other mechanical models caught my eye: the Crane (Fig.3 'b', I suppose it can slew) & the Windmill 'c'. The other models include a good selection that a youngster might think it worthwhile to build.

Many of the models would be difficult to construct with only the drawing on the Sheet, so no doubt there would have been other instructions or a manual.



**BILL DEEZY** MCS has an ad for this early American system. Structures are made from steel Rods, cut to length, which push into 4-way steel Connectors, with any of their unused sockets trimmed off. A few small Pulleys & possibly a Spoked Wheel are the system's other other main parts. These notes are based on one set, most likely the largest, & a smaller one seen on Ebay. Both incomplete and neither had a manual with them.

A patent covering BILL DEEZY was applied for in August 1913 and sets probably appeared at the end of that year. Ads are known from Jan. to Nov. 1914 but nothing thereafter.

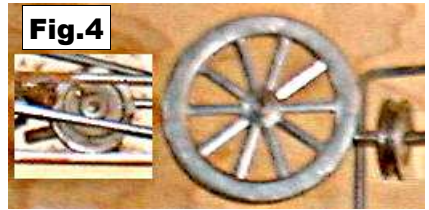
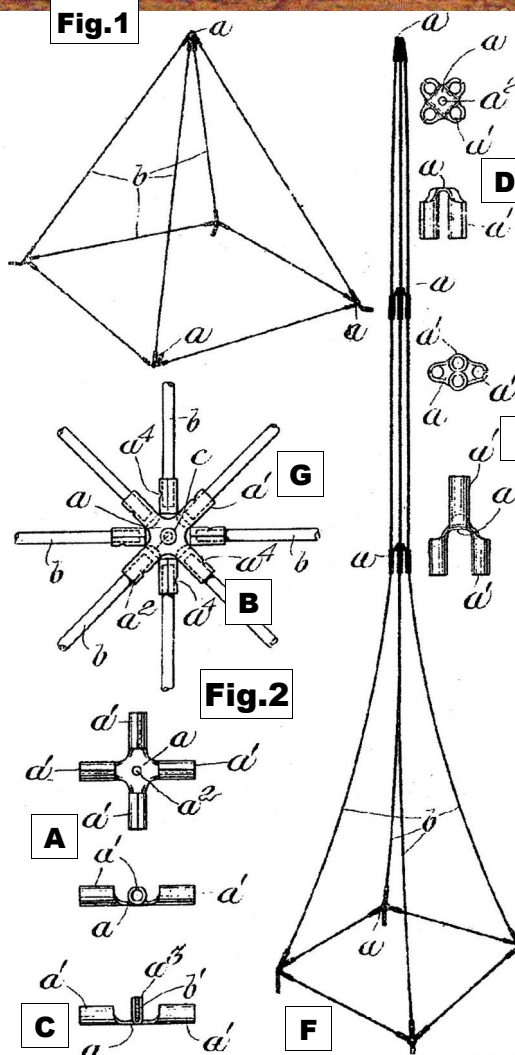
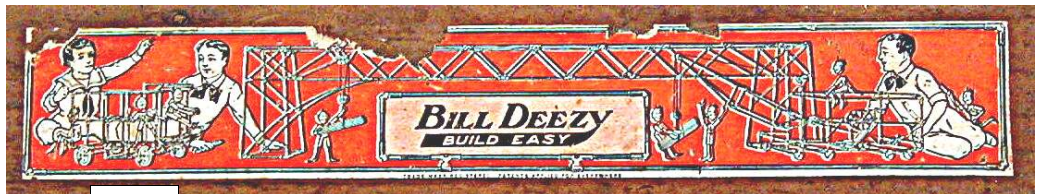
In a magazine write-up BILL DEEZY was said to be made by the Bill Deezy Company of 141 Milk Street, Boston. Other Boston addresses in Bill Deezy ads are 145 Milk Street, 6 Oliver Street, & 1119 Oliver Bldg. An ad from E.I. Horsman Co., 365-367 Broadway, New York in January 1914 said that it was the 'Sole Selling Agents for BILL DEEZY'.

The **PATENT**, No.1092217 was granted to Alfred Hopkins of Boston in April 1914. It was to construct articles 'for practical, amusement, or instructive purposes' 'without nails, glue, of any tools whatever'. Fig.2 shows the figures in the patent with two other frameworks omitted, a cube & a triangular prism.

Connectors ('A' in Fig.2) were to be metal with sockets able to be bent through any angle up to 90° by putting Rods into suitable sockets and using them as levers (Fig.15 is from an ad). Unwanted sockets were to be cut or broken off. Some or all the sockets could be indented either before or after a Rod had been inserted, as at a4 in 'B' of Fig.2. Rods could be of any length, or were to be capable of being easily cut or broken into shorter lengths. They were not necessarily of circular section and Connector 'C' has a socket shaped to receive a flat Rod. D & E are Connectors suitably configured for use in the Tower F. G shows 2 Connectors used to house the spokes of a wheel but nothing is said of a suitable rim.

The **PARTS** Below a short length of Rod, 2 Connectors & one disc from a Loose Pulley (the only remaining circular part in the large set). Rods are mild steel, 20" long, .096" Ø, & have traces of their original copper coating (3/32" welding rod?). The ads say they 'are light and easily handled. You can bend them and cut them any length.' Connectors are steel, now somewhat rusty, about .02" thick, with a .098 centre hole. Ads speak of 'flexible joints' which connect the rods at any angle. The Pulley disc is 3/4" Ø with a similar centre hole.

Fig.4 shows parts from the small set. The Pulley on the right is probably the one above, the one on the left is similar in size but with a tapped boss. The poked Spoked Wheel scales at 1.7" Ø but in the Ebay photos looks slightly too large to lay flat in the box. If genuine it might be suitable for the



Car in Fig.7 but the Wheel in the Cart in Fig.6 is much larger (and in any case looks to be built up from BILL DEEZY parts).

The Crane (Fig.11) in one of the ads has 2 other parts, the Pulleys on the undercarriage and in the 'cab', which look larger than those mentioned above, and the Hook.

A write-up in Toys and Novelties of Aug. 1914 includes 'In addition to the rods and joints, the outfit includes a plier which will cut the rods accurately, cleanly and easily. The plier is equipped with a device for clamping the joints to the rods wherever stability is required. Bracing wire, pulley and cart wheels, cable and rubber tires are also supplied for mechanical working models.' It goes on to list the 4 outfits, as below.

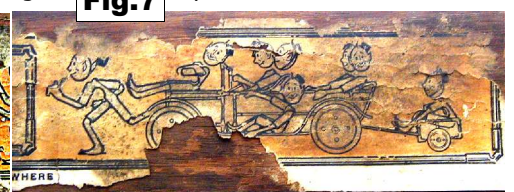
The **SETS** There were 4 sets priced at 50c, \$1, \$2, & \$5. Auxilliary sets from 25c to \$2 were also advertised, and 14c in stamps would bring a a sample set. The 3 larger sets were said to contain 2 1/2, 6, & 18 times the quantity of parts in the 50c outfit.

The large set below is in a nicely



made wooden box, 20 3/4 \* 6 1/2 \* 2 1/4", with a hinged lid. There were no signs of any partitioning. It had labels on its sides, lid, & inside lid, but apart from scraps only the latter, shown larger in Fig.1, remains. 2 scraps are shown below in Figs.6 & 7.

As found the set contained 246 Connectors, plus 58 with 1 or more sockets removed, and 132x 20" Rods plus shorter lengths







The lid **Fig.8** of the small set is shown above and is about 12" long. The parts in it, apart from those in Fig.4, are 2 Rods 12" long, a few bent ones, and a number of Connectors, few of which still have all their sockets.

If the large set was the \$5 one, the small one might at a guess be the 50c outfit (with the Spoked Wheel from another set, BILL DEEZY or otherwise).

**The MODELS** All that are known from the boxes, and in the ads, are shown here, plus a Bridge in Fig.13 made from the large set. Fig.10 was called a Wireless Tower.

**USING the PARTS** The absence of Wheels in the large set ruled out many 'interesting' models and the 20" long Bridge in Fig.13 was made to gain experience in using the parts before considering whether to attempt a more ambitious model.

The Plier tool mentioned in the ad would no doubt have been a great help in making the model: without it the Rods were hacksawed to length and

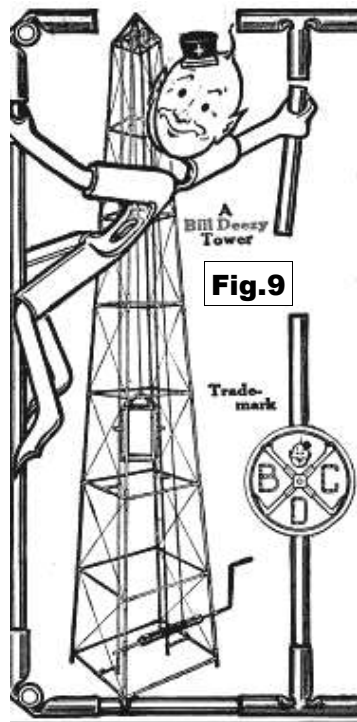
seemingly unused, could not be pushed onto the Rods and so had to be opened out before use. In the Bridge's side frames (and most likely in any non-rectangular structure) a fair degree of opening out was needed to give enough play to assembly the Rods into their sockets. A gently tapering drift was used for this but appreciable force was needed. Apart from this the sockets were easy to bend and no cracking occurred after several bends.

Two other difficulties warrant mention. One was the force needed to bend the Rods. A sharp 90° bend needed a vice & a hammer, or similar, and the 180° curves at the back of the Soap Dish in Fig.14 would be very hard to make with fingers alone. The second was that in assembling structures some planning was needed to avoid having to make joints which could only be achieved with unacceptable distortion of the surrounding structure. Also it could be tricky if, as in joining the sides of the Bridge, a number of joints had to be made at more or less the same time.

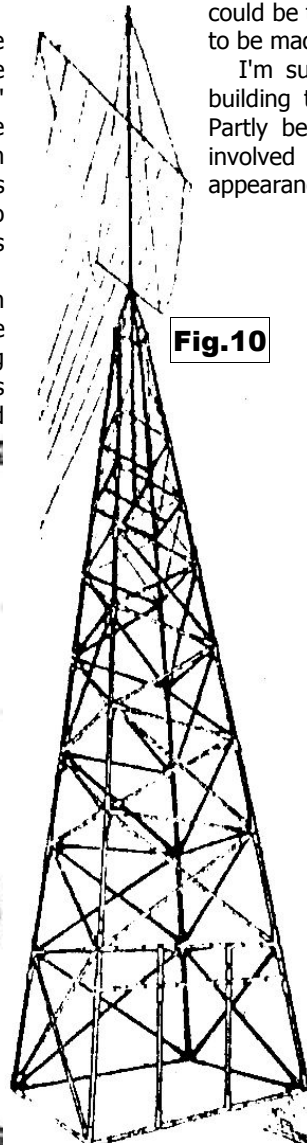
I'm sure a more ambitious model would have been possible but after building the Bridge I didn't take up to the challenge.

Partly because of the amount of rather dull work involved and partly because I felt that, unlike the appearance of the models in the ads, the actual models had a 'spidery' look to them. But I take my hat off

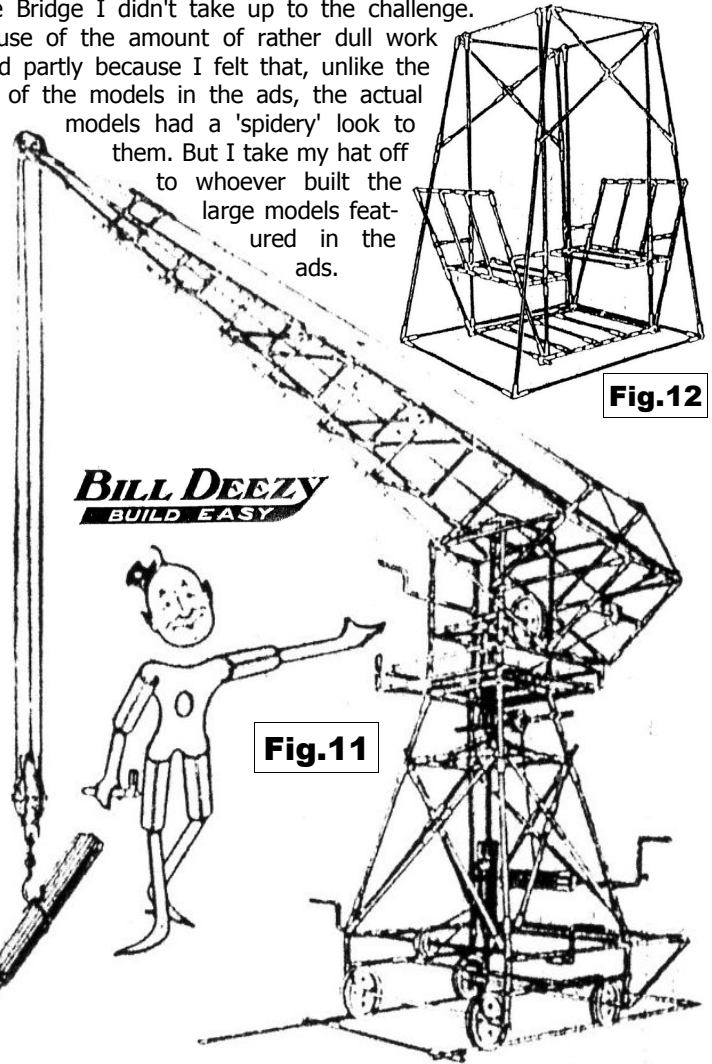
to whoever built the large models featured in the ads.



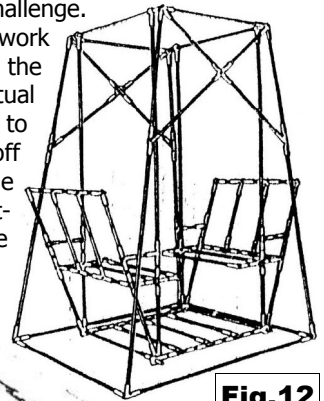
**Fig.9**



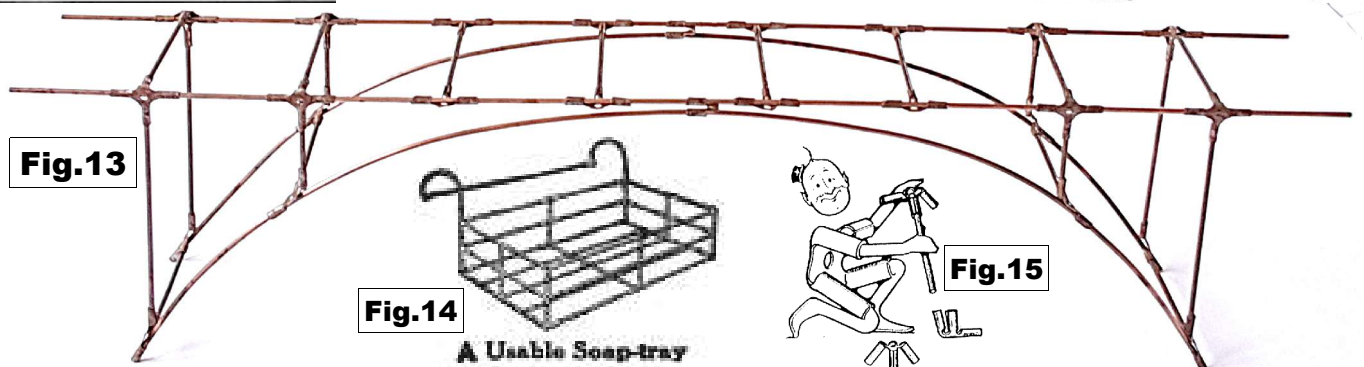
**Fig.10**



**Fig.11**



**Fig.12**



**Fig.13**

**Fig.14**

A Usable Soap-tray

**Fig.15**



Fig.1



Fig.2

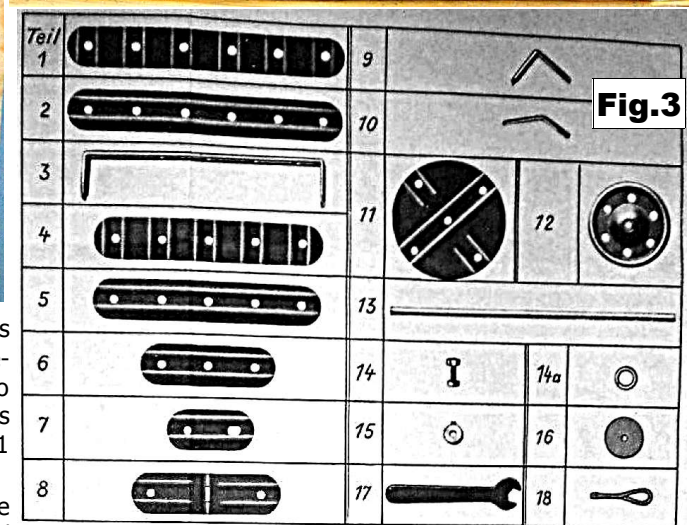


Fig.3

**Snippets. More on MAFELL** The name & maker of this 'child-size' 1930s German system were noted in 15/415, & details of the UK patent were given in 19/531. Now thanks to pages from a brochure & photos of sets kindly provided by Urs Flammer, more is known of MAFELL's 19 parts & 3 sets. Fig.1 above is the front of the brochure.

**The PARTS** See Fig.3. Their dimensions are given in the brochure (in mm) as follows. #1 365/55; #2 365/52; #3 315/52 65; #4 305/55; #5 305/52; #6 180 52; #7 117 52; #8 115/52; #9 65 62/65; #10 85/52/35; #11 160 Ø; #12 128 Ø; #13 10 Ø 420; #14 3/8"/20; #14a 14 Ø; #15 20 Ø/10; #16 95 Ø; #17 145/45/5; #18 100 32. For #14: the 3/8" is blurry and may be wrong; if 20 is a length, it looks from Fig.2 to be overall rather than under head, and if not a length it's interesting that the 3/8" BSF thread is 20 tpi.

These are substantial parts, Strip #1 for instance would be 365mm long, 55mm wide, & weighs 330g. Scaling from the dimensions given in the brochure: holes are about 10mm (the Axle is 10mm Ø) at 60mm pitch (or possibly a little more). Apart from some Strips, the Collar #15, & the Screwdriver, the parts can be seen in Figs.2, 4, & 5. #8 is a Hinge, as in Fig.2. Notice that Brackets 7, 9, & 10 actually have slotted holes. The ends of the Axle are grooved (Fig.2) and so could take a circlip, but the PL doesn't include one. #14a (in the N&B boxes) is probably a Washer, its bore looks too large to act as a circlip, and Collars are used on the Axles in Fig.1. The thread of the Collar's tapped hole is smaller than that of the N&B.

**The SETS** Sets I, II, III, are shown in Figs.2, 4, & 5 but it's not clear which is which. All boxes measure 39\*26\*8cm, have the same lid (Fig.2), and weigh 5.9, 4.9, & 9kg. They were priced at 18, 20, & 22RM. I presume Set I in Fig.4 is the basic set (though it has been said to be Set III) and the others are add-ons.

**The MODELS** None of those seen (on the front of the brochure, on the manual cover (Fig.4), & the Push Chair in 17/476), use any other than the basic parts, in particular none include the Hinge & the circular parts #11 & 16. The models look to be robust but compared with some of the other child-size systems there are no Sledge Runners, no Pulleys to allow models such as a Windmill or Crane, and no parts to provide a drive to the Wheels of the 'Irish Mail'.

**The PATENTS** The German patent is 522306, dated 24/12/29; the French one 707915, application date 17/12/30. They are similar



Fig.4



Fig.5



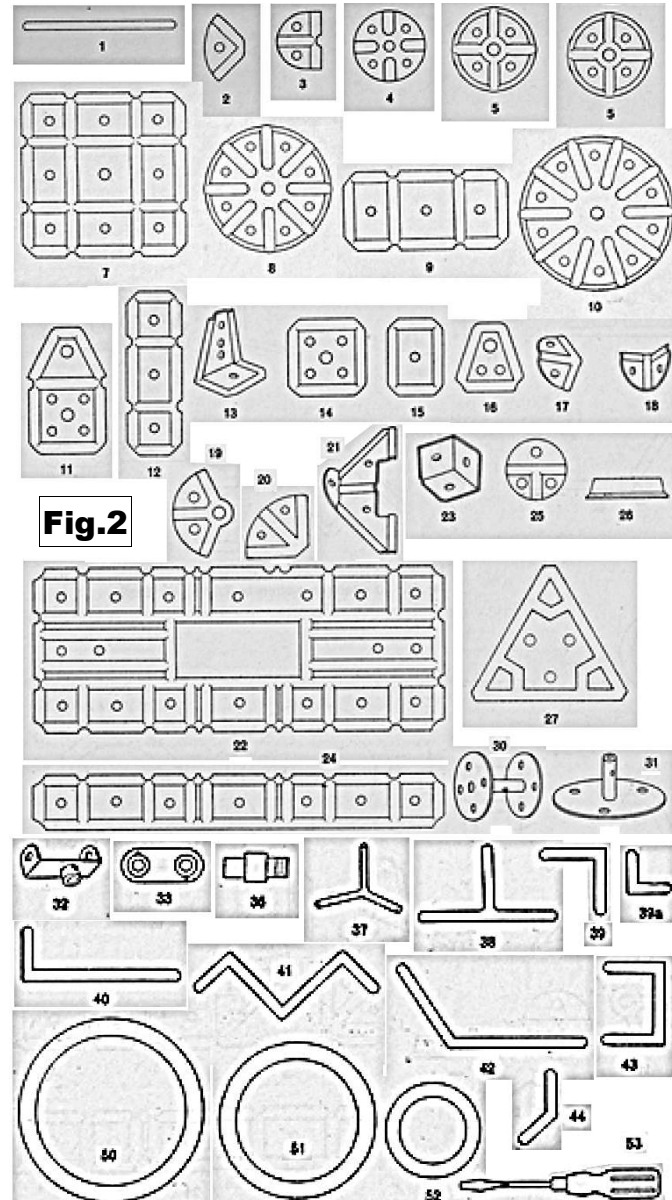
in scope to the UK version in OSN 19 but the French one specifically mentions the possibility of wooden parts and has 2 extra figures showing a metal A/B attached to a wooden part. Also the model in it is similar in construction but narrower, a Chair rather than a Couch.

**'New' Swiss System: SEEGER**

Thank you to Urs Flammer for sending details of a set and a parts price list. They came from various sources including the Museum Sigrist (and a Seeger Metallbaukasten is listed in the Eisenhahn & Spielzeug Museum link of [www.tele-rene.ch](http://www.tele-rene.ch)). The maker was R.Seeger, Abtl. Metallwaren, Luzern, and the Price List is dated 1958.

**The PARTS** There were 87 in all and most (taken from the Price List) are shown in Fig.2, with some actual parts in Fig.3. Details follow with dimensions taken from the List. Parts which are essentially flat are not named. See also the notes at NB.

#1. 30 Rods: length: 3cm, 4-10cm in ½cm steps, 11-20 in 1cm steps, 22cm, 25-40 in 5cm steps, 50cm. #2. 2½\*2½cm. #3. 3\*2½cm. #4. 4cm Ø. #5. 4½cm Ø. #5a†. #6. 4.8cm Ø. #6a†. #7. 9\*9cm. #8. 6.7cm Ø. #9. 9\*4cm. #10. 8.2cm Ø. #10a†. #11. 7\*4cm. #11a†. #12. 9\*3cm. #13. Rear Wheel Bracket. #14. 4\*4cm. #15. 4\*3cm. #16. 4\*3½cm. #16a†. #17,18. Outer,Inner A/B. #19. #20. #21. Lentstück für Vorderachse. [Front Axle Bracket]. #22. 22\*9cm. #23. Corner Bracket. #24. 22\*3cm. #25. #26. Flanged Wheel. #27. 9\*9cm. #27a. Triangular Plate 9\*11cm. #30. 4cm Ø, 5cm long. #31. 6cm Ø, 3cm high. #32. #33. Has 2 bosses. #34. An+hängerstange [Trailer Towbar] 13.5cm. #35. Collar. #36. Pin, Threaded. #37. 3cm. #38. 6\*3.5cm. #39. 3\*3cm. #39a. 2\*



**Fig.2**



**Fig.1**

2cm. #40. 7\*3cm. #41. #42. 7\*4cm. #43. 4\*2.5\*2.5cm. #44. 2\*2cm. #50, 51,52. Rubber Ring 9.5, 7.5,5.5cm for #10,8,5. #53,53a. With wood/resin handle. #54. Niete für Lenkwagen 2cm [Towbar Pin]. #55. 30 N&B. #56. 10 Set Screws.

NB † #Xa is #X with a boss. #4,6,6a are Discs; #5,5a,8,8a,10,10a Pulley

Discs. #37-44 are pre-sumably Rod parts.

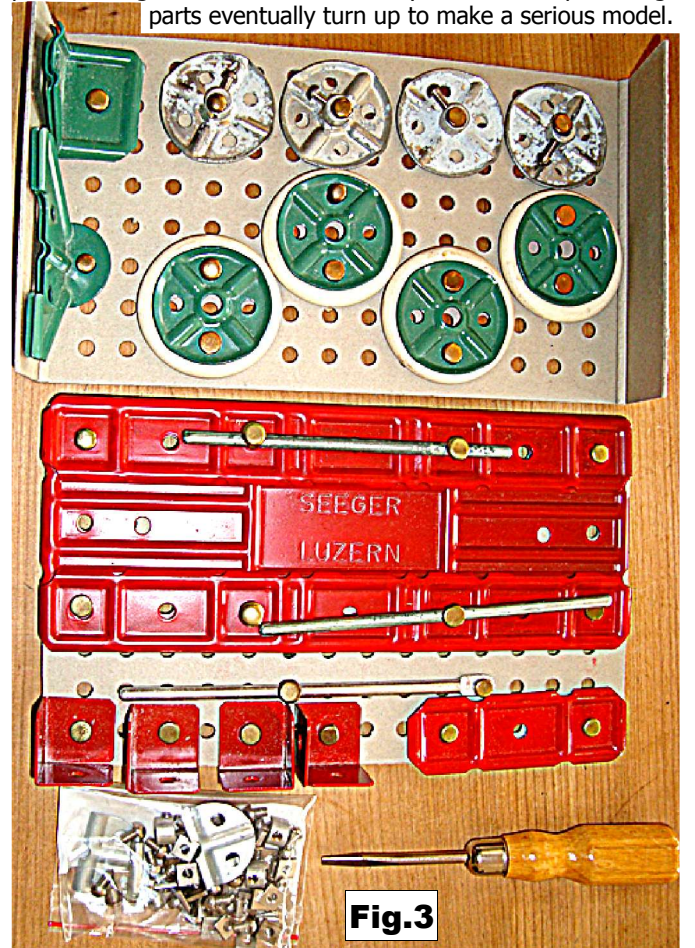
The parts are made of 1mm thick steel. Holes are 5mm at various pitches, but often 30mm (the outer holes in #24 for instance). Rods are 5mm Ø. The N&B are M4 but bosses are (double-) tapped M3.

**The SET** As can be seen on the lid in Fig.1 it is Modell 58/1A. From Google the words after Neu on it mean 'Built following the new method' and the small print along the bottom indicates that with the help of more parts from the enclosed price list many other models are possible: Houses, Bridges, all kinds of Vehicles, etc. It isn't known if there were more sets available as well as the individual parts.

A sheet glued inside the lid has a B&W photo of the underside of the Truck and text which gives the maker and says that Sets are Swiss made and are available in toy shops.

The parts, in 2 layers, are shown below. The holes in the backing cards are at 15mm pitch. The red Sides of the Truck overlay the long edges of the Base Plate.

**REMARKS** No doubt whoever designed the system dreamt of larger models with structures made from Rods clamped together by the fairly wide range of fittings. The system was certainly a brave try but from the rarity of parts & sets it seems it wasn't a success. Were there larger sets? If not could any system succeed from just the sale of parts, even if there were plans of larger models? Most unlikely. But let's hope enough parts eventually turn up to make a serious model.



**Fig.3**

**A 'New' East German System: LEICHTMETALL**

**BAUKASTEN** Thank you to Urs Flammer for sending photos & details of a set from what was no doubt an early post-WW2 system. Nothing is known of the maker and a manual has yet to be found.

The box right, 38\*38\*4cm, is made of corrugated cardboard. Its label, below, claims 240 parts and carries the slogan, 'Des Knaben schönstes Spiel ist und bleibt der Metallbaukasten [Boys best play is and will remain the metal construction set]'. Its PR reads 'Dr 800 Stadtdruckerei Radeberg 11.48 Rg 259'. Radeberg is a small town about 20km northeast of Dresden. Notice the generous quantities of the longer Strips in the box right, particularly the 19h.

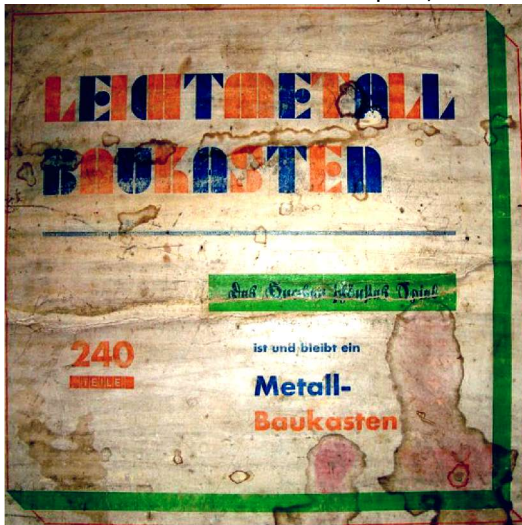
The 27 parts are aluminium except for a few steel items such as the N&B, bosses, & the unusual (hexagonal) Collar. Holes are 4.2-4.5mm at 12.7mm pitch, and Axles are 4mm Ø. The thread is



**Fig.1**

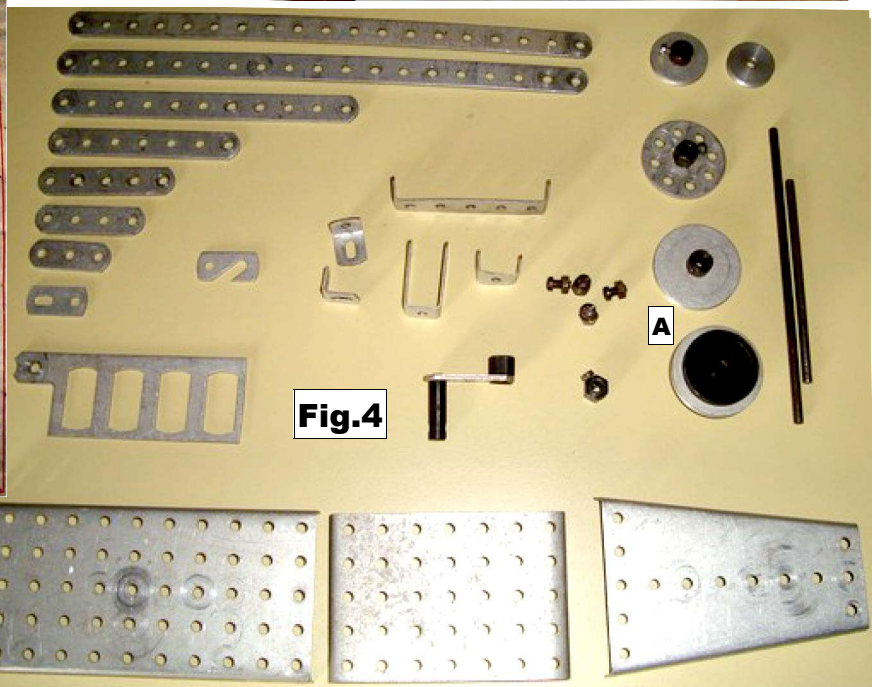


**Fig.2**



M4, but bosses etc are tapped M3. Nuts are hexagonal, & the Bolts look to have a pan or perhaps a round head. The Set Screw is cheese-headed. Strips are 2mm thick, bent parts 1 or 1½mm. 'A' in Fig.4 shows both faces of what appears to be a Flanged Pulley.

**Fig.3**



**Fig.4**

OSN 52/1591

LEICHTMETALL BAUKASTEN: S1

**More on MAFELL.** Further to the account on p1589 Jacques Pitrat kindly sent the following note.

I can answer some of your questions. I have a mint No.III set & several photos. My set is the actual one displayed in Fig.4, Set I is in Fig.5, Set II in Fig.2. The boxes are identical but the set number is glued onto one side of the lid.

In the single sheet (254\*355mm) brochure the N&B is definitely described as 3/8"/20, and 20 seems to be a length. Although not shown in the sheet, there are 2 lengths of Bolt: short 18 mm, & long 24mm. In both cases the depth of the hexagonal head is 5mm, the same as the Nut. Bolts are 18mm A/F; the Nut 17mm. The thread is 8.5mm (.33") diameter.

As the Bolt head is not slotted, one has to use the Spanner for both the Nut & Bolt. The Screwdriver is only necessary for the Grub Screw (part #15); its diameter is 6 mm.

The hole pitch is 62mm; the hole diameter 10mm.

The contents of Set III is: #1:4, #3:2, #12:4, #14 short:5, long:10, #15:4, #18:1.

The steel parts are very well made, the best I have seen in a child-size set. However, it does not seem that this system

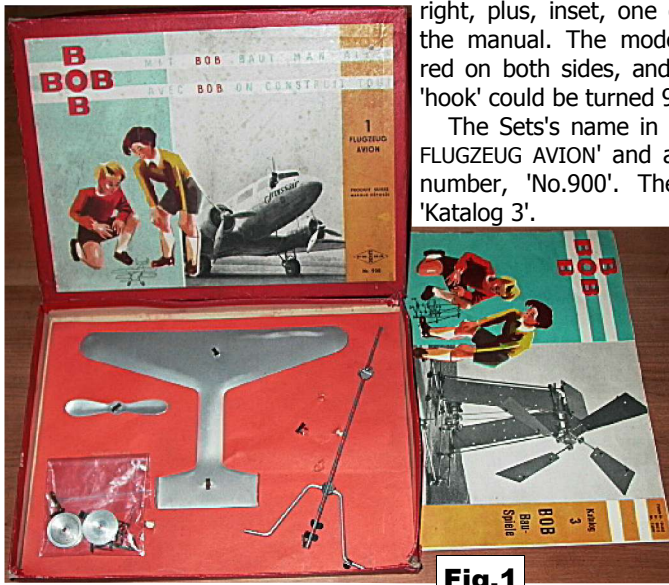
was successful, and one probable reason concerns the models. No manual is known so far although on the back of the Sheet one was said to be included in each set (Fig.4 shows the front of the sheet, not a manual). However from the models known, one can imagine that the likely manual models for the individual sets, or even for all 3 sets, would not be very exciting. For example even the Bench on the box lid needs two No.I's. And consider the 3 models that are displayed in Fig.1. They are very simple, similar to some for Meccano's Set No.00 of the same period. One each of the 3 basic sets are not enough for any of them: each model needs 13 DAS. There are 2 DAS in Set III, 1 or 2 in Set II, & (from another photo) 6 in Set I. Therefore another Set I is needed: 4 sets, weighing together more than 25 kilos, are necessary to build any of these 3 simple models! Moreover, the sheet does not mention the possibility of buying separate parts. One must spend a lot of money to build some not very interesting models: the very high quality of the parts is not enough.

I also had the possibility of buying Sets I & II. I did not do so: too heavy, too costly, and not original enough.'

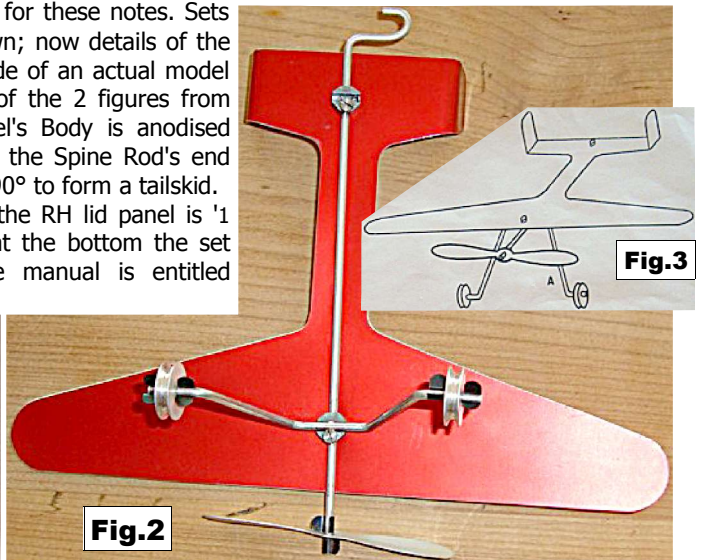
OSN 52/1591

MAFELL: S2

**Two Swiss BOB Aero Sets** Thank you to Urs Flammer for these notes. Sets 900-903 were mentioned in 41/1421 and a No.902 was shown; now details of the 900 & 903 outfits. **The 900** Below the set with the underside of an actual model right, plus, inset, one of the 2 figures from the manual. The model's Body is anodised red on both sides, and the Spine Rod's end 'hook' could be turned 90° to form a tailskid.



**Fig.1**



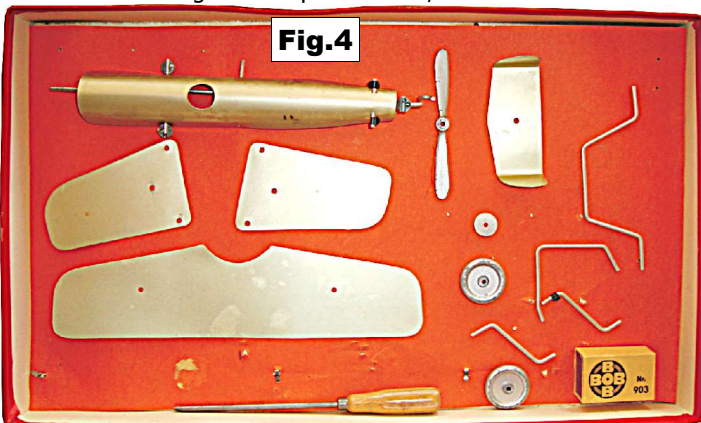
**Fig.3**

**Fig.2**

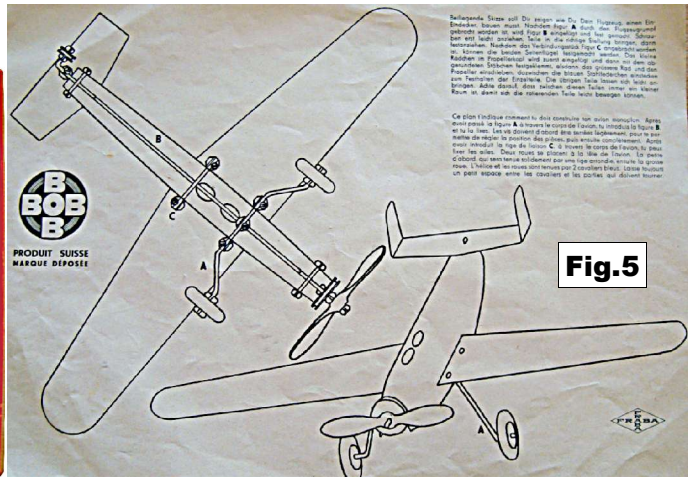
The Sets's name in the RH lid panel is '1 FLUGZEUG AVION' and at the bottom the set number, 'No.900'. The manual is entitled 'Katalog 3'. It is said in the manual that there are already 3 Aero sets in the shops and that other BOB sets will be available at the beginning of 1945.

**The 903's** lid is the same as the 900 apart from '3 FLUGZUG AVIONS' & 'No.903' in the panel. The main parts are shown in the box below. The manual cover is probably as in the No.100 and presumably has models for all the Aero sets. One of the models is the Biplane in OSN 41, and another is shown below. No doubt the third includes the Formed Rod which is in the box between the Undercarriage & Interplane Struts, but its role isn't obvious.

**The 903's** lid is the same as the 900 apart from '3 FLUGZUG AVIONS' & 'No.903' in the panel. The main parts are shown in the box below. The manual cover is probably as in the No.100 and presumably has models for all the Aero sets. One of the models is the Biplane in OSN 41, and another is shown below. No doubt the third includes the Formed Rod which is in the box between the Undercarriage & Interplane Struts, but its role isn't obvious.



**Fig.4**

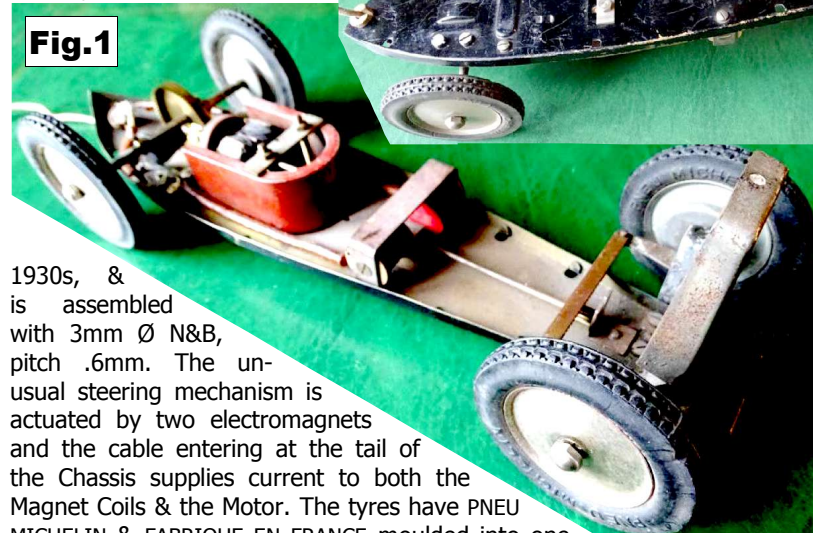


**Fig.5**

**BOB3: S3**

**OSN 52/1592**

**A Mystery Chassis** Jean-Pierre Guibert hopes that someone will be able to put a name to this Chassis. It's French, no doubt from the 1930s, & is assembled with 3mm Ø N&B, pitch .6mm. The unusual steering mechanism is actuated by two electromagnets and the cable entering at the tail of the Chassis supplies current to both the Magnet Coils & the Motor. The tyres have PNEU MICHELIN & FABRIQUE EN FRANCE moulded into one sidewall & just PNEU MICHELIN in the other. The wheels are about the same diameter as a Tyre on a MECCANO 1½" Pulley.

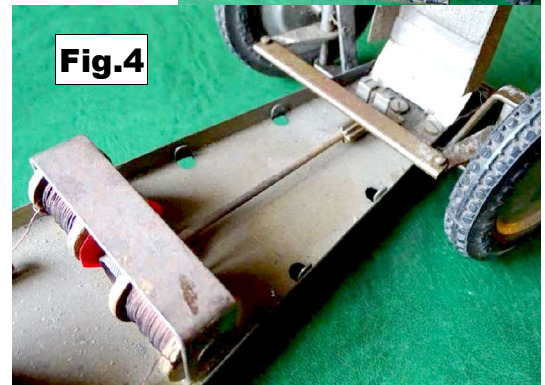


**Fig.1**

**Fig.2**



**Fig.3**



**Fig.4**

**MYSTERY PARTS No.54: S1**

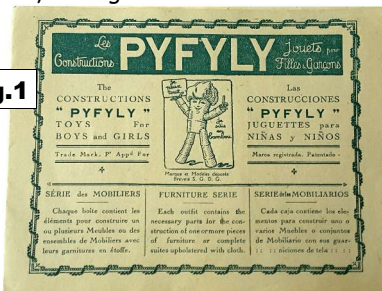
**OSN 52/1592**

**PYFYLY News.** It was noted in 28/840 that 2 manuals were published by 'la S. A. J.' and since then an Ebay item gives the wholesaler for PYFYLY as Ste Anonyme pour l'Exploitation de Jouets of, as before, the rue Beccaria address. In the same ad the date given was 1920-25.

The No.18 Chambre à Coucher/Bedroom set was described in 28/843 and recently examples of the other two main furniture outfits came to hand. **The Salon/Drawing Room set** was in a purple box 34\*26\*3½cm with a label similar to the Bedroom set but with the centre illustration as bottom right in 28/844. The set was unused, complete with instructions, but it didn't contain the cardboard Backdrop Walls which were in the Bedroom set – lost perhaps in the intervening nearly 100 years. The parts were on 4 cards, 3 in the base with the parts attached, usually singly, in the usual PYFYLY way, and one glued inside the lid with the Panels (previously called Cushions) & a small box of Sleeves, marked Bagues, glued to the card. The instructions, 4 sheets 161\*123mm, were loose inside the wrapper below, a single sheet doubled over. It could be used for any of the Furniture outfits, and Nos.10-18 (see 28/840) were advertised on the back cover.

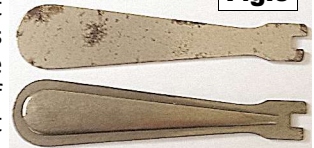
**The Salle à Manger/Dining Room set** came with its various models already assembled (except that the thin diagonal bracing was missing), and with no instructions. The box is dark olive green, 34\*26\*13¼cm, the depth much greater than the others and one of

**Fig.1**



the sides is hinged to drop down to extend the bottom. The lid was as usual but had no label, and nothing to indicate that there had ever been one. The photo below shows the furniture items (with my added bracing) standing on the simulated wooden flooring. The inside box 'walls' are brightly decorated in a rather un-Pyfyly style, but look to be original. The flooring in the bottom of the box is a cardboard sheet which can be lifted out. It has a dozen or so small holes in it so no doubt items had originally been attached to it. The model that was described by the Ebay seller as a bunk bed is called a Buffet/Sideboard. As a means of displaying the furniture the low 'walls' are thought less satisfactory than having a Backdrop in that some of the furniture is taller than the walls. I wonder if this was an early set and later ones had normal boxes with a Backdrop. Or was it a prototype which was never marketed? An indication of the set being early is that the Tool is flat as shown in the manuals, rather than, as in all the other Tools seen, having the centre impressed, see below. On the

**Fig.3**



**Fig.2**

OSN 52/1593

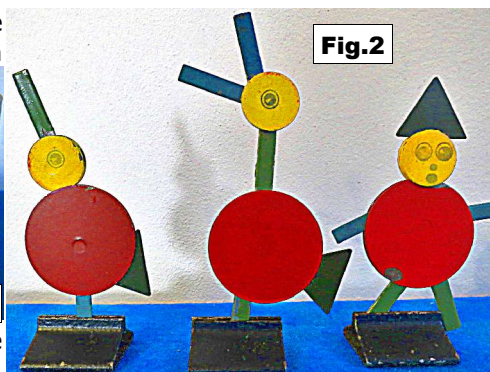
PYFYLY: S7

**Snippet. FIPS: 'New' German System** Three identical sets, said to be from c.1930, were offered on Ebay. In a prewar dictionary Fips was 'an agile little man', & Wandelbare (under FIPS on the box lid right) I'll translate as Changeling for want of a better word. Each set has 8 parts: 4 Strips & a Triangle which push into the Base & the circular Head & Body. Models are about 10cm high.

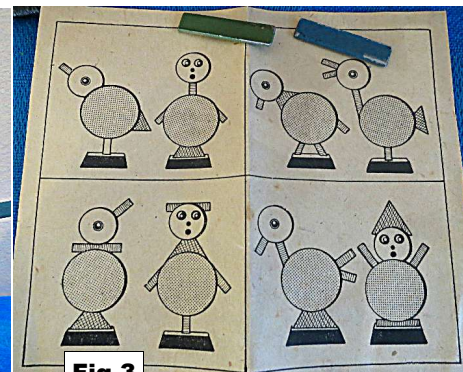
**Fig.1**



**Fig.2**



**Fig.3**



OSN 52/1593

FIPS: S1

## Snippet. PÈRE NOËL / AÉRO TECHNIQUE MACREZ

This simple French aero system was described in 4/64, 30/884, & 33/978. The Ebay photo below shows a Plate and 2 pages from a manual, or perhaps it's a brochure. Said pages show some small sets hitherto unrecorded. The pages' heading, MEC-AERO MEC-ALU etc, was also on the lid of the Autogire set in OSN 33.

First the sets. There are 2 Aero sets on the LH page called PETIT NOEL A & B, priced at 6 & 9Fr. The Wing in them looks like the Plate and the other main part, the Fuselage, appears to be a 1 hole shorter version of the Rotor Blade in the Autogire set. The model which can be made from Set B is probably very similar to the one shown top right on the RH page (also made from a 9Fr set) but the Propeller seems to be

mounted differently. The other models on the RH page are a Crane (with a Propeller at the jib's rear end), a Windmill, & an AUTO-HELICE [Propeller-driven Car]. Its not clear what set would be needed for these models.

The Plate is stamped twice with the circular AÉRO MACREZ NOËL / NUNGESSER / ET COLI marking described in OSN 30 (the RH stamp is hard to see in the photo). As a Wing it is much smaller than that in any of the other known aeroplane models, the Biplane in OSN 30 for example. If its hole pitch is the 12mm of the 'earlier' parts it would measure about 14½\*3½cm, against 25.2\*5.9cm before. One can't of course be sure that the pitch of the 'new' parts is 12mm but it seems likely because the stamping is the same diameter (1½cm) as it was before.



AÉRO TECHNIQUE MACREZ: S3

OSN 52/1594

## Another IDÉAL Set

A set from this French system with aluminium parts was described in 31/914 & one has come to hand since which is more complete. No manual though. There are also some differences in the parts, notably the thread, and the size of the holes & Axles, but the most obvious difference is that the parts are anodised red as right, instead of copper. I wonder if the change of colour corresponded to the changes mentioned above.

**The BOX** is identical except that it has a small label on the lid (above) as well as the one on the inside. The word in the bottom righthand corner is 'PARIS'.

**The PARTS** Holes are 4.2mm, bores 4.1, Axles etc 4.0 with a few 3.9mm. All holes are round. Bosses etc are single-tapped. The thread is the old French 4mm Ø standard, .75mm pitch. All circular parts are turned from the solid.

A list of the parts follows, with notes on differences, and the quantities found in curly brackets. New parts since OSN 31 are shown right; below they are in red; changes of quantity in blue. • **Strips**: 25,11,7,6,5,3h {8,8,6,4,6,6}. • **A/Gs**: 25,11,7h {4,4,4}. • **DAS**: 2\*3\*2h & 1\*3\*1h {8,8}. • **A/B**: {14}. • **Double Bracket**: 2\*1\*2h {2}. • **Perf. Plates**: 11\*5, 11\*3, 7\*3, 5\*5, 5\*3, 3\*3h {1,2,4,2,2,4}. • **5h Flat Trunnion** {8}. • **Axles**: 180,150,90,70,45mm long {1,2,4,2,2}. • **Crank Handles**: 125,165mm o/a {1,1}. • **Coupling**, 20mm long, 10mm Ø, with 1 cross bore & 3 s/t holes. • **Pulleys**: 24,30,40,58mm, the latter with rings of 4 & 8 face holes {4,4,2,1}. • **Loose Pulley**, 24mm with an untapped boss on

each side {2}. • **Collar**: 10mm Ø, 10 mm long {10}. • **Worm**: 20mm long {1}. • **Pinion**: 12 teeth, 4.0mm wide {2}. • **Gear**: 36 teeth, again 4.0mm wide {1}. • **N&B**, aluminium. • **Bolts**, 6.6mm Ø cheesehead with slight dome, 7½,10mm u/h {92,8}. • **Nut**, hexagonal, 6.5mm A/F. 5 are steel, plated to match the aluminium ones. {96} • **Washer**, 10mm Ø {12}. • **Hook** of 1.8mm Ø steel wire, 22½mm o/a {1}. • **Spanner**, steel, 74mm o/a, at 7mm the jaws are rather wide {1}. • The **Screwdriver** was missing.



Fig.1

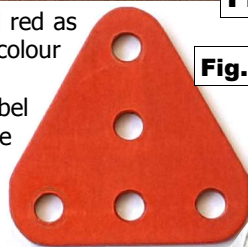


Fig.2

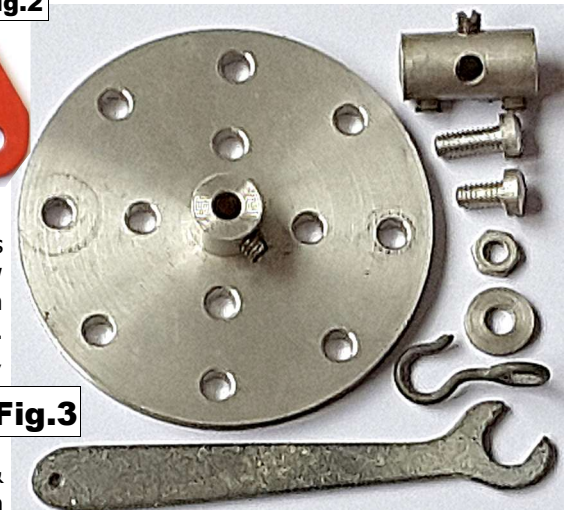


Fig.3

IDÉAL MÉCANIQUE: S2

OSN 52/1594

**HAUSSER No.12 Set**

by Jacques Pitrat

My previous description of the Hausser system (37/1115-8) was based on a No.6. Since then I have acquired a No.8 set, and a No.12, the largest one. Their examination, and some sets offered on eBay, has improved my knowledge of this system. Also, many thanks to Manfred Luft who kindly sent me information & images. In this paper, 'Fig.' followed by a capital letter refers to a figure in OSN 37.



**Fig.1**

First, I want to correct my preceding paper: I said that the name 'Meco', mentioned in Baukästen, did not appear in my documents. However, Manfred sent me a picture of one of the first boxes, where Meco was included in the name of the system. Its lid is as Fig.H but with a pale grey 'sky' and the name (Fig.1 above) added along the top.

**The PARTS** New parts can be seen in Figs.2 & 3, and sometimes in Figs.4 & 5. For reference I've added numbers/letters to them & these will be noted in curly brackets. In square brackets, the quantities of parts in my No.8 & No.12 sets (except only those for new types of Wooden Beams are noted).

Many small parts (Brackets, Rods, Chimney Tops) are certainly missing. In three cases, I have modified the number of large parts for Set 12 because it was evident that one part was missing: the number of flat parts that appear on the side of roofs was not even, or more parts were used in a model.

There is a doubtful case: 3 No.12 models (among them Fig.7) use 4 large trapezoidal roof parts, when only two are in the Set. However, this could be caused by an error in the manual: a trapezoidal part could be replaced by two handed smaller trapezoidal parts ({H}), they are side by side in Fig.2), and the illustrator perhaps forgot to draw the line indicating that two handed parts are juxtaposed.

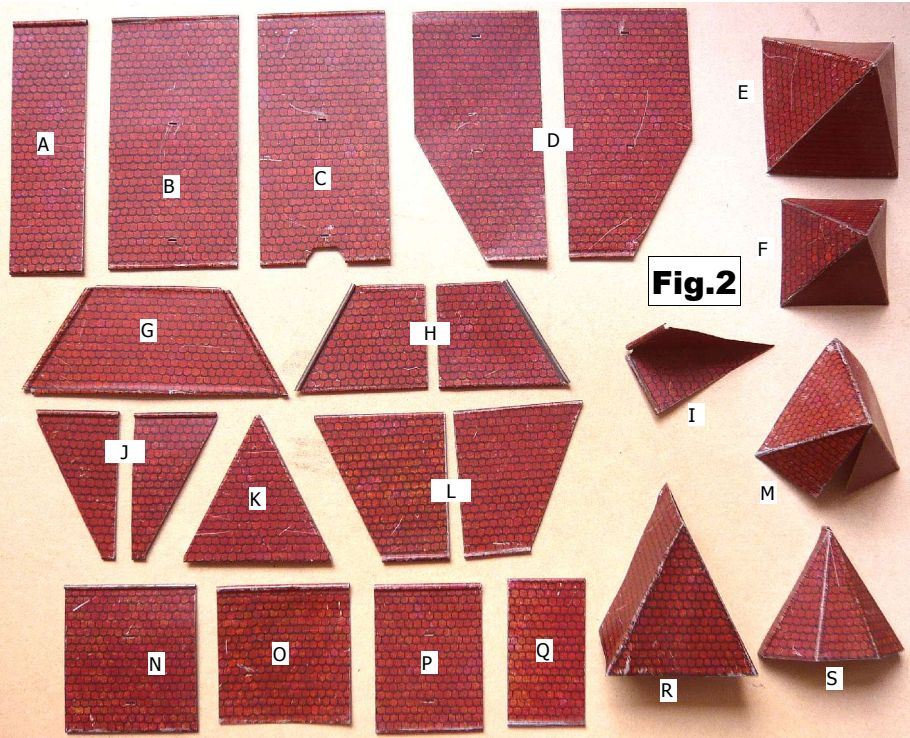
**WOODEN STRUCTURAL PARTS** A new kind of wooden Beam appears: while in Set 6 all had a square section, there are now two lengths of Beam with a triangular section, 45mm {5} & 65mm {9} long. They are needed for octagonal structures, and for linking parts which are inclined to one another, a Balcony to a

horizontal Beam for instance.

Re the two kinds of large wooden parts called 'Auxiliary' in OSN 37: Triangular [3,8] & Rectangular [3,5]. The Rectangular parts are used when two buildings are built separately, then assembled, and the Triangular ones when a roof is not tied to Triangular Plates at its end. Against what I said in OSN 37, it is likely that they are not removed after completion; however, they are invisible in the finished model. The manual mentions both parts, although how to use them is rather unclear. For instance, the 3 thick black lines in the plan view of Fig.6 indicate a hidden wooden part.

**PLATE PARTS** There are no new kinds of equilateral Triangular Plates [7,7], Trapezoidal Plates [2,2], Large Arches #16 [3,7], & Small Arches #17 [4,5]. For the 48\*38mm Rectangular Plates [34,68], two new pictures #53 {10} appear in the No.12. For a third new one, #52 {11}, the centre part is cut out and unlike other Plates, it has a picture on only one side. In Fig.3, I have not included the Plates that already were in Set No.6.

15\*25mm flat right-angled Triangular Plate #36 {19 in Fig.5} [2,1]. As I cannot see it used in any model, I first believed that it was an off-cut of the fabrication process, left by error in the box. However, the part is in both my large



**Fig.2**



**Fig.3**



boxes, and two of them are in a third set. Therefore, it is likely that this part really belongs to the system, although I cannot imagine its purpose.

New narrower Rectangular Plates appear in Set No.8, with a different picture on each side: 60\*20mm Plates #35 {8} [3,3] with two different images, and 40\*20mm Plates #34 {3} [3,12] with four different images. Besides, Set 12 contains 40\*20mm Plates with a cut out centre #15 {4} [0,6], the picture being on only one side.

The Enclosed Balcony #44, (Fig.A), 48\*45mm, depth 13mm, with five cut out windows {7} [0,1]. It is fastened with two Triangular Beams, at the top and at the bottom.

A long rectangular plate #41, height 27mm {2} [0,1], hereinafter called 'Square Plate'. It is folded thrice to create a 42mm sided square. The images on both sides are different, but it is risky to try to use both: bending the corners several times in the other direction would certainly lead to breaking the Plate. Surmounted by a roof, and put in the middle of a terrace, it makes a penthouse, such as in Fig.7.

Brackets: 12\*12mm [39,45].

**ROOF PARTS** Many new roof parts (Fig.2) are included in the No.12. It is not easy to describe them, and it is certainly also difficult to use them! I indicate the part number when it is present, but usually it is missing.

Three methods allow the roof parts to be connected (Fig.B). First, if they are side by side, 15mm rods [28,9] are inserted through their rolled edges, which are at the top and/or the bottom. Secondly, a side of a part without a rolled edge may be inserted into a wooden Beam. Thirdly, the rolled edges of some parts can be slid inside one another. This last method is particularly useful to join the sides of a pitched roof at its ridge.

**Flat Tiled Parts** • Rectangular. 110\*55mm, 2 rolled edges & two small rectangular slots for fastening Dormers or Chimneys {B} [4,6]. • 110\*55mm {C} [0,2], as the one before, but with a semi-hexagonal cut out at the bottom; this is used in Fig.M, where at the righthand end of the building the bottom of this part fits over the end of the ridge of the central block's roof. • 110\*33mm, 2 rolled edges {A} [0,2]. • 62\*55mm, 2 rolled edges with two slots {N} [10,12]. • 58\*55mm, one rolled edge {O} [0,4]. • 60\*45mm, 2 rolled edges, 2 slots {P} [2,6]. • 60\*33mm, 2 rolled edges {Q} [4,4]. • 36\*21mm with 2 hooks for the rectangular Dormer {14} [4,5].

Triangular, isosceles, 60mm long rolled base, and 60mm in height, the sides are not rolled {K} [0,2]. One is used on the front of the building at the left side of Fig.7.

Trapezoidal, height 45mm, 60mm wide at the top, 110mm at the bottom, four sides rolled {G} [0,2]. I have already mentioned their use in Fig.M.

**Handed Flat Parts** Pentagonal, top & bottom rolled, 25 & 55 mm, height 110mm, 2 slots {D} [0,2x2]; this is a 110\*55mm Rectangular Roof part with a cut off corner. It is the end roof parts at the left of Fig.7.

Trapezoidal. • Height 60mm, top & bottom rolled 27 & 54mm {L} [0,2x2]. • Height 60mm, top & bottom rolled 5 & 30mm {J} [2x2,2x2]. • Height 45mm, top & bottom 30 & 55mm, 3 rolled sides (not the vertical one) {H} [0,2x2]. We have seen that 2 pairs were perhaps used with the two large Trapezoidal parts in Fig.M.

**Other Tiled Parts** Pyramids: • Octagonal base, height 19mm {15} [2,2]. • Square base, #51, for Turret #29 (side 15mm, height 35mm) {17} [0,1]. • Square base, (side & height 46mm) {F} [0,1]. • Square base

(side & height 60mm) {E} [1,2]. • Square base, a corner & 2 side halves missing #33 (side 60mm, 50mm high) {M} [0,2]; it is a kind of three-quarters of a pyramid, used at extreme left of Fig.6, where a small building is embedded into a tower. • Half pyramid with three 25mm & two smaller sides, height 55 mm {S} [1,1], used in front of Fig.K, & at the left of Fig.7.

Valley Roof. A triangle folded in the middle, tiles on the inside, #46, 20mm rolled sides, 65mm high {I} [0,4]; this part can be used at the intersection of the roofs of two buildings at right-angles (Fig.6). And 4 parts are used to create the top left roof in Fig.K, with a square turret above it.

Hipped Roof, a triangle, sides 70mm, base 60mm, with a parallelogram on each side {R} [0,2]. It is used for example on the front extensions of the building second from right in Fig.6.

V-Roof (#30) for triangular Dormers {12} [2,4].

**Other Roof Parts** • Triangular Dormer #30 {12} [2,4]. • Rectangular Dormer #31 {14} [4,5]. • Chimney #42a {13} [3,5]. • Chimney Top #42b {13} [0,3]. • Tall Octagonal Turret #28 {15} [2,2]. • Short Octagonal Turret [1,1] with Elastolin top {16} [1,1]. • Short Square Turret #29, side 15mm, height 30mm {17} [0,1]. • Large Green Octagonal Top #27 {6} [0,1] diameter 55mm, height 50mm, Figs.M & 7. • There is also a variant of this part, which has been cropped downwards behind the small turret at the top; it is used for the top of a semi-circular structure {18, (with a dark triangle of



Fig.4

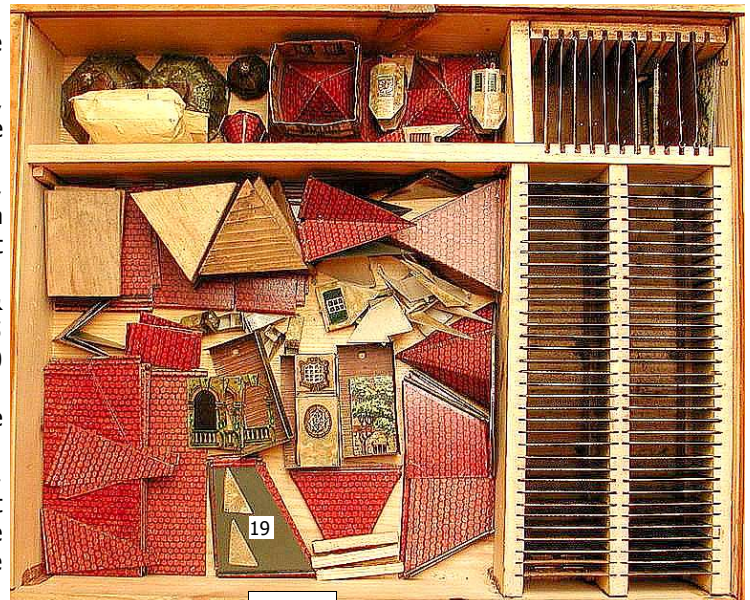
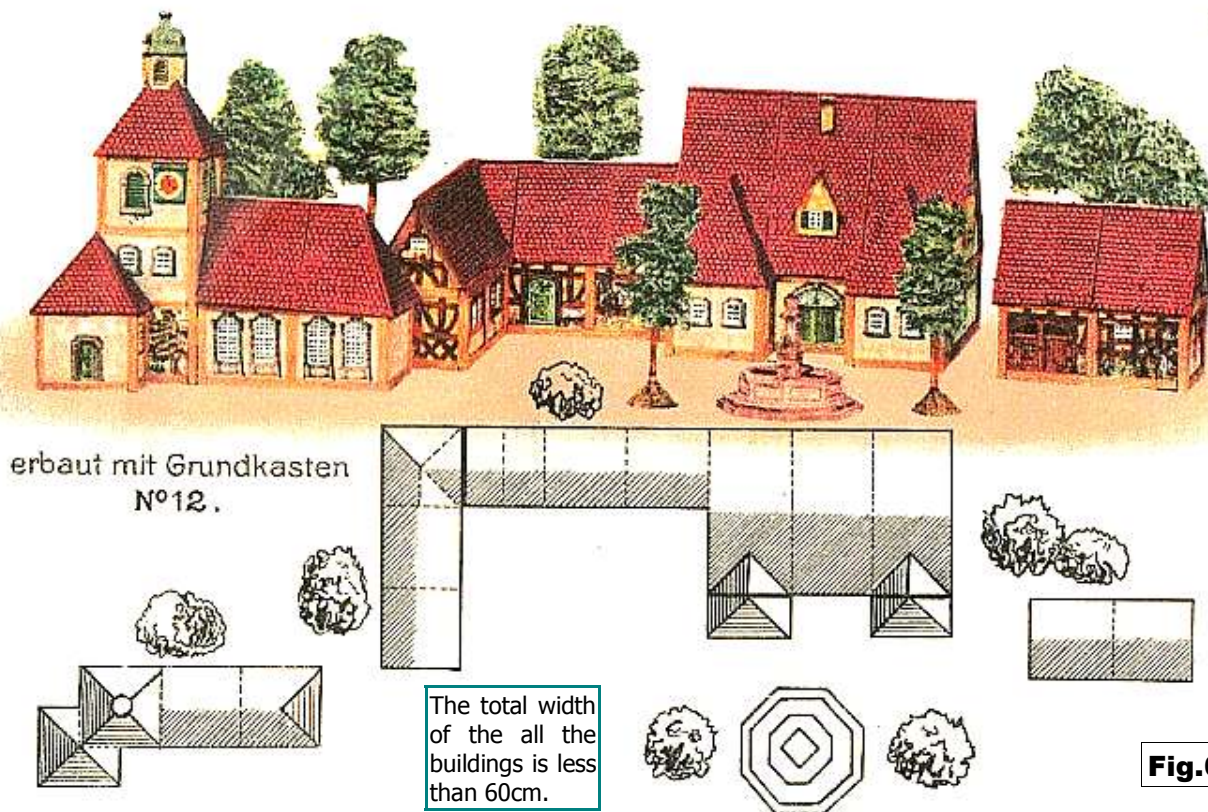


Fig.5



shadow below it)} [1,1].

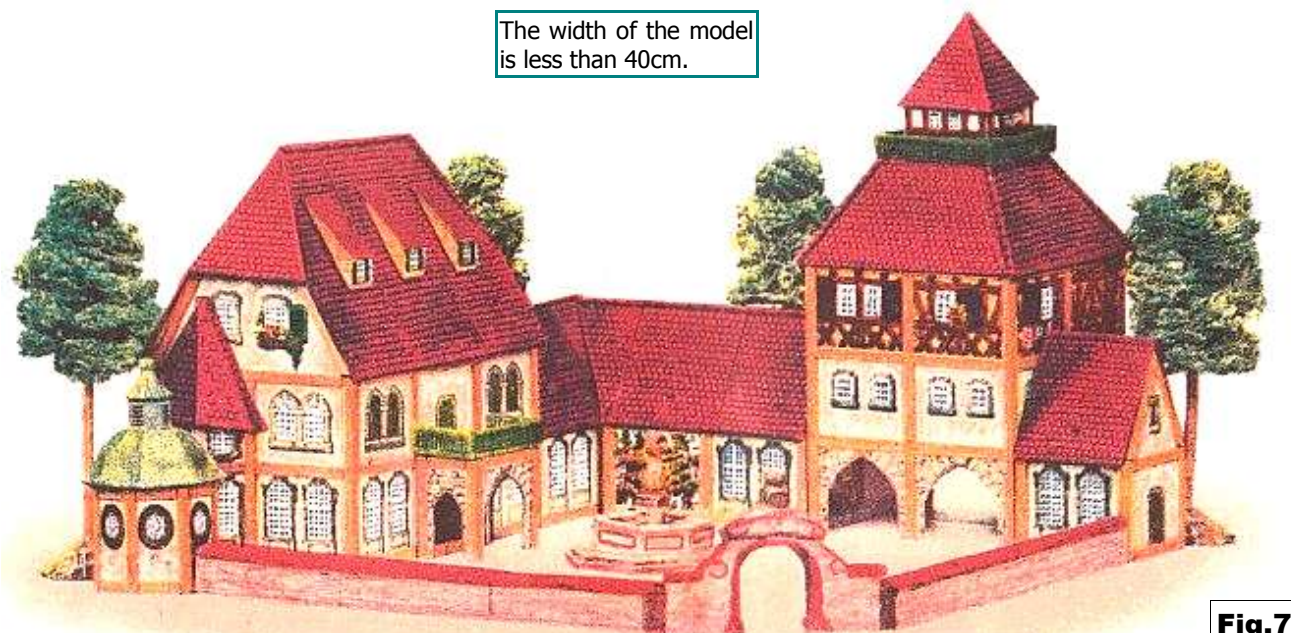
Balcony #43, 60\*30mm, with a 10mm railing & 3 hooks below {1} [0,3]. It can be put over the entrance of a house (Fig.7). A terrace can be made with two Balcony parts; a construction may be built over it, with the Square Plate for instance (Fig.7), or a belvedere (Fig.M).

**The SETS** My No.8 set is in a 283\*216\*70mm wooden box, with a sliding lid and a tray for the wooden Beams. My No.12 is in a 380\*320\*60mm cardboard box (Fig.4). Cardboard boxes are rare for large HAUSSER sets, perhaps they could not resist the weight of the parts. Fig.5 shows, to very roughly the same scale, another No.12 set in a wooden box, but without the tray for Wooden Beams. One of the advantages of wooden boxes is that metal Plates are protected when they are placed inside the compartments with grooved sides. However, although my Plates were stacked on top of each other for almost a century, they are still in an excellent condition. For both sets, the lid image is the same as Set 6 (Fig.H).

The width of the model is less than 40cm.

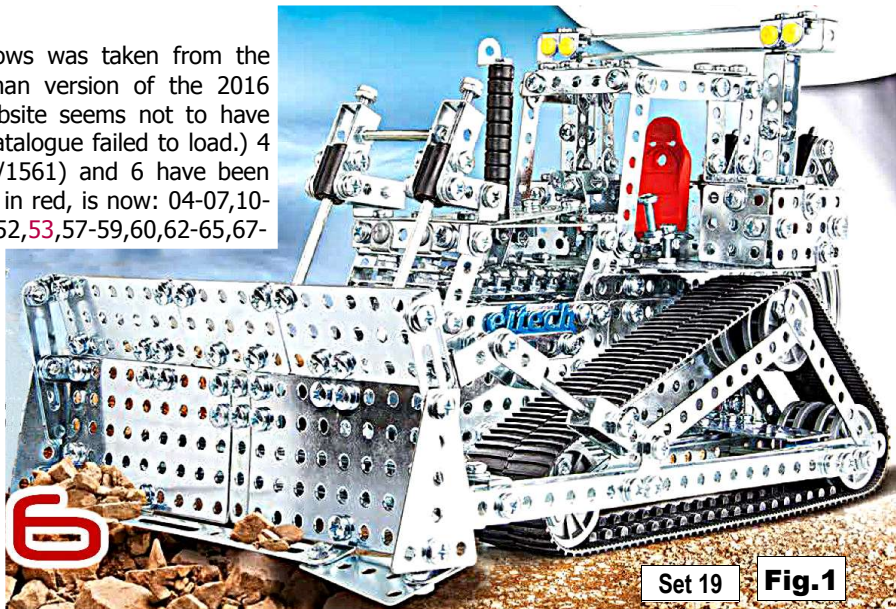
**MANUAL** The manual for both sets is the same as for the No. 6. Four pages in German indicate how to use the parts (Fig.B). There is no list of parts, and the content of the sets is not given. As there is a top view for each model, one can find which parts are used for the roofs. However, some constructions are difficult to interpret: for instance, for the right tower of the church (Figs.H & K) it seems that there are four small trapezoidal roof parts, just under the Square Plate. Actually, this part does not exist: the Square Plate is put over the Large Pyramid, and the Medium Pyramid is over the Square Plate. This construction is not intuitive; it cannot happen in a real building: there is not a room inside the Square Plate, but only the little space left by the top of the lower Pyramid.

**LAST WORD** With these new parts one can build complex structures. However, the variety of roof parts complicates the construction of models: it is not always easy to understand which parts are used in the models of the manual. Moreover, it must be very difficult to create new models.



**CONSTRUCTION in 2016** What follows was taken from the Eitech website in late May, and the German version of the 2016 catalogue. (The English version of the website seems not to have been updated since 2015 and the English catalogue failed to load.) 4 sets have been added since 2015 (see 51/1561) and 6 have been deleted. The 2016 range, with the new sets in red, is now: 04-07,10-12,14-17,19,20,22,26,27,33,35,43-45,47,51,52,53,57-59,60,62-65,67-69,71,74,78,83,84,85,89,91-97,98,420,450,460,470,600,610,1955. Set 11 is only in the Catalogue. Note: Sets 22 & 59 should have been included in the 2015 range.

**The New Sets: No.19** This is the only major addition and has 1470+ parts for one or other of the models in Figs.1 & 2. Neither model is powered but the Dozer's blade can be raised & rotated, and the Digger's top arm joint, & its bucket, rotated. It also slews on a Ball Race as shown. It is suggested that the flashing diode Set 143 would add to the models. **No.53** is a very simple, 11cm span Biplane with single Strips as flying surfaces. **No.85** has 170+



Set 19 Fig.1



Kugelgelagerter Drehkranz

Set 19

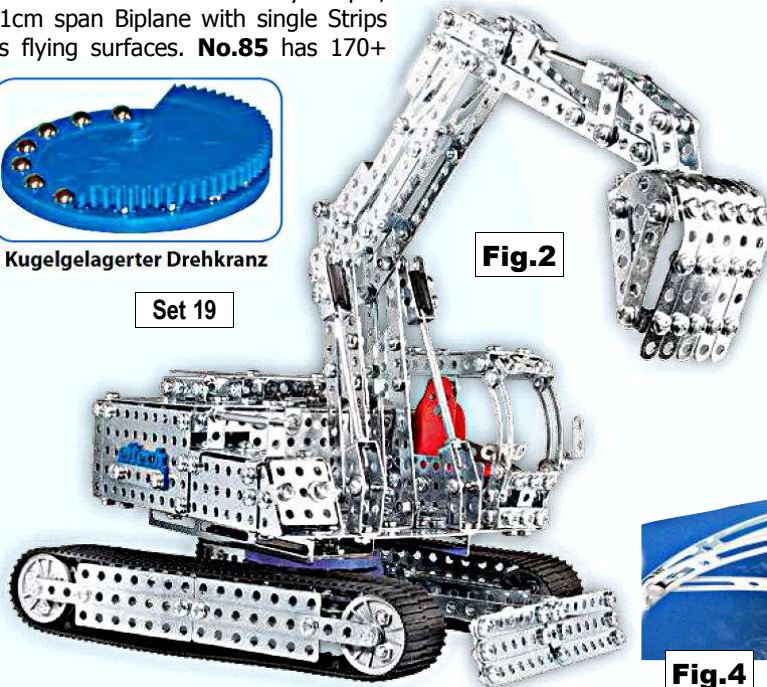


Fig.2



Fig.3

Set 85



Set 98

Fig.4

parts and Fig.3 shows the featured model. Alternatives are lesser models which look like a Racing M/C & a Scooter. **No.98**, 150+ parts, is a Pterodactyl (Fig.4), not perhaps quite as menacing as the earlier 3 'Dinosaur' models.

**The Deleted Sets. No.09** (see 44/1330) had 440 parts for utility vehicles. **No.11** (probably) (45/1360) made a small tracked Excavator.

**No.12** (49/1485) was for the large 1200 part Space Shuttle model. **No.16** (48/1467) had 1000 parts for a Combine or Tractor & Trailer. **No.17** (37/1107) was the 1200 part Big Wheel. **No.81** (48/1467) made a small Tractor & Trailer.

**Add-on Sets & Accessory Packs:** these remain as in 2015.

**CONSTRUCTION [1]: S17**

**OSN 52/1598**

**'New' System: MATEX** Another of those small German systems. Albrecht Heinisch kindly sent, via Urs Flammer, details of his set. My thanks to both. Nothing is known of the manufacturer, or of a manual.

The box measures 173\*82\*24mm. Its lid is shown below, and the parts in the base in Fig.2. The logo on the lid looks to be a boy riding on a large bird. The illustration on the N&B packet is identical to the lid label.

The threaded parts are steel, the rest aluminium, both untreated. Holes are 3.4mm at 10mm pitch

and the thread is M3. Notes on the parts follow with the quantities found in the Set in curly brackets. **Strips**, 5,4,3,2h, 10\*1mm in section {12,10,3,3}. **A/B**, 1\*1h {12}. **Wheel Disc**, 30mm Ø {2}. **Washers**, 20,8mm Ø {4,6}. **Screwed Rod**, 60mm {3}. **Bolt**, Fig.3, dome headed {25}. **Nut**, Fig.3, square, 6mm A/F {29}.

The parts and N&B packet show no signs of wear and so the set the Set may be quite complete.

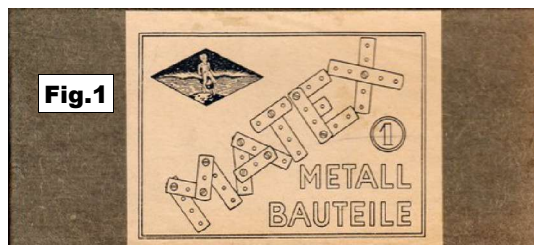


Fig.1



Fig.2



Fig.3

**'New' Belgian System: MÉCANO-A.L.N.** Thanks to Jean-Pierre Guibert for sending details of this system. Its name is taken from the Model Leaflet in Fig.2; the lid right has, as can be seen, only the initials on it. These notes are based on one set, seemingly little used. It was most likely produced by a small concern in the years soon after WW2.

**The BOX** is wooden, 36.5\*49.5\*6cm, has a sliding lid stencilled in black, and is well made; so is the small box, 12.2\*5\*3.3cm, see Fig.3, for the N&B etc.

**The PARTS** Many have a MECCANO look to them. **Holes** are 4.6mm at 12.7mm pitch, and all are round. **The thread** is 4mm Ø x .75mm pitch. **Axles** vary between 3.9 & 4mm Ø. **Bosses** are brass, 8mm Ø, with a bore of 4.1mm, and double-tapped. **Quality.** Strips & Plates are .8mm thick steel. The shape of the parts and their bends are often irregular, Fig.7 shows an extreme example. The paint finish is poor.

The various parts are listed below with the quantities found in curly brackets. Most can be seen in Fig.3; otherwise in Figs.4-10 (but at varying scale). **Red Strips & Trunnions.** **Strips** 25,11,7, 5h {4,6,2,6}. **DAS** 1\*5,3\*1h {4,1}. **D/B** 2\*1\*2h {1}. **Curved Strip** 5h {2}. **Formed Strip** 7h {4}. **Trunnion, ditto Flat** {2,2}. **Blue Plates:** 5\*5,9,11h, the 11h (right) has extra centre holes {2,4,2}; 3\*5,11h {2}; **Curved** 5\*5h {2}; **'U'** 5\*5h {2}; **Semi-circular** {2}. **Flanged** 5\*3h, 5\*9h, 5\*11h, see Fig.8 for flanges {1,1,1}. **Wheels. Road**, 63mm, pressed, 1mm thick steel {4}. **Small**, Fig.10, turned brass, 23mm, boss 9.8mm Ø {4}. **Pulleys:** 75mm, 12mm wide, 1mm steel {2}; **Loose**, 15mm, brass, as MECCANO {1}. **Bush Wheel** 35mm {1}. **Wheel Disc** {1}. **Other Parts.** **Brackets**, .5mm steel: **Flat; Angle, 135°** {4,5,5}. **Wire Hook** {1}. **Crank Handle**, 13cm, brass sleeve, as MECCANO {1}. **Axles** 11.3,10,9,5,2.5cm {1,2,4,2,2}. **N&B**, steel: **Nut**, square, 9mm A/F; **Bolt**, 10mm long, round-headed. {41,41}. **Washer** 7mm {9}. **Axle Clip**, wire {4}. **Screw-driver**, as MECCANO {1}. **Spanner**, 2mm steel painted blue {2}.

**The MODEL LEAFLET** (Fig.2) is a single-sided sheet, 35.5\*29.7cm, probably produced from a stencil. Many details of the models are unclear but some of the parts that can be seen don't correspond to those in the Set. For example the small Pulleys used in the Windmill's cord drive. (But conceivably each could be two of the Small Wheels face to face).



Fig.1

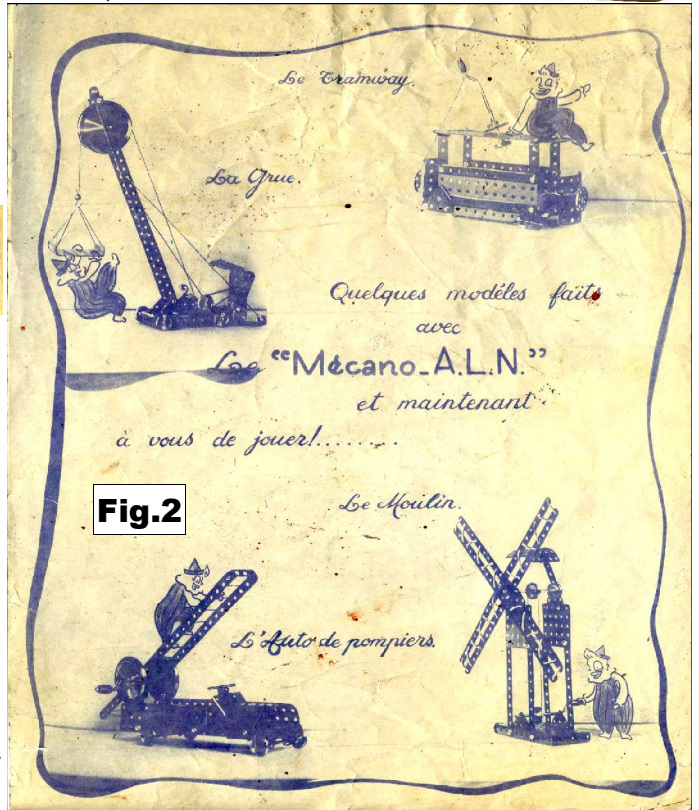


Fig.2

Fig.3



Fig.5



Fig.6

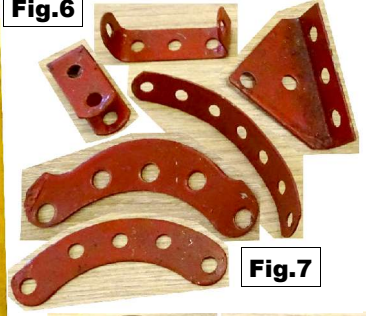


Fig.7



Fig.8



Fig.9

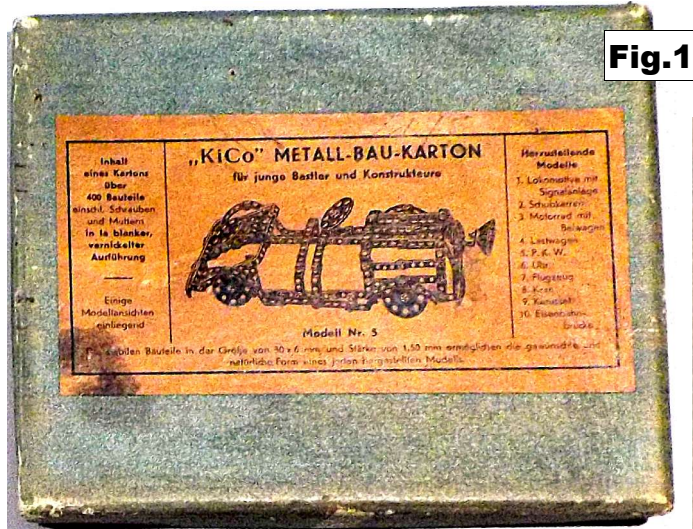


Fig.10

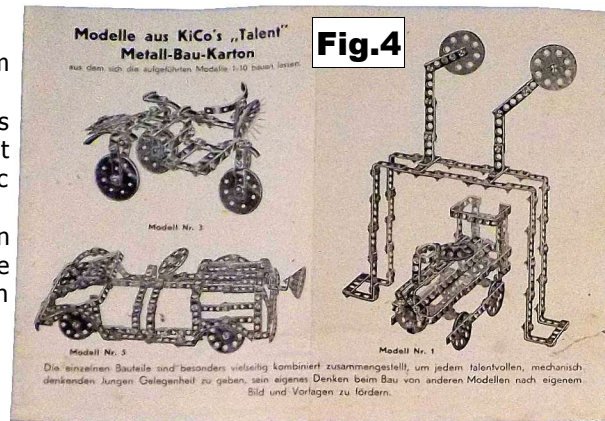
**'New' System: KiCo** The photos of this unusual German system were from Jürgen Kahlfeld via Urs Flammer. Thank you both.

In the lefthand panel of the lid label below, 400+ nickel plated parts are claimed, including N&B. In the right panel is a list of 10 models that can be made with the Set; & along the bottom it is said that the basic part is 30\*6mm, and that it is 1.5mm thick.

It is not easy to see many of the parts in the open box (Fig.2) even in the original, but some can be seen in Fig.3, an enlargement of the bottom right bay. Apart from strip parts, the only others are the 8h



**Fig.1**



**Fig.4**

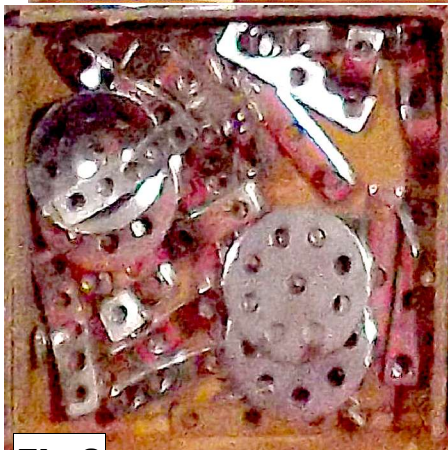
Wheel Disc & the Domed Disc version of it. (The Saddle in Fig.6 may be another part but can't be seen in the box.) 3 & 5h Strips can both be seen clearly & both are about the same size overall, & have the 30\*6mm proportions. The hole pitches scale at 11.3 & 5.8mm, so possibly 12 & 6mm. The other bays seem to contain many 3h Strips but also Strips, including at least some 5h, bent up into A/B & DAS. What look like 2h Strips may be one face or edge of these.



**Fig.2**

The 10 models listed on the lid are: Loco & Signal Gantry; Barrow; Motorcycle & Sidecar; Lorry; Motor Car; Clock; Aeroplane; Crane; Roundabout; Railway Bridge.

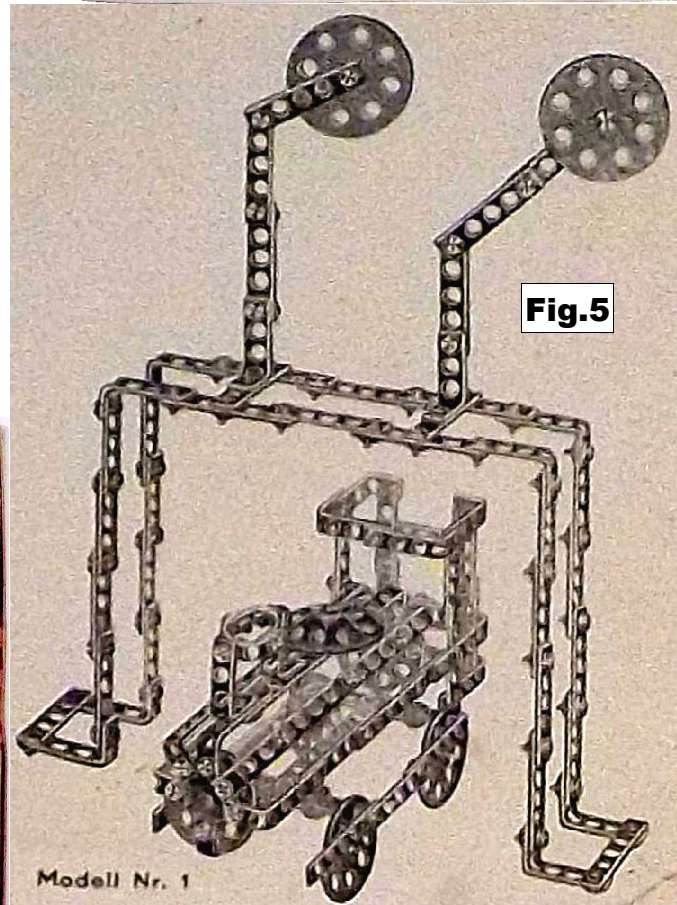
The 3 models on the manual pages in Fig.4 are shown enlarged in Figs.5-7. All appear to be built from mainly 5h Strips, & Brackets made from



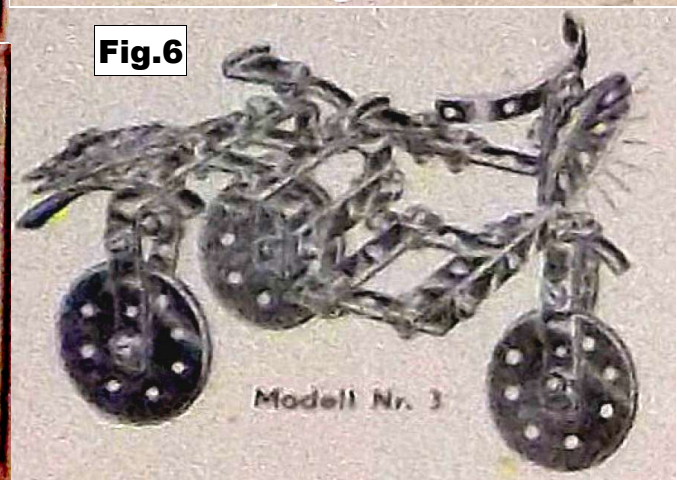
**Fig.3**

them, but some of the parts in Fig.6 could be the 3h Strips, the bottom cross members for instance, & possibly the handlebars.

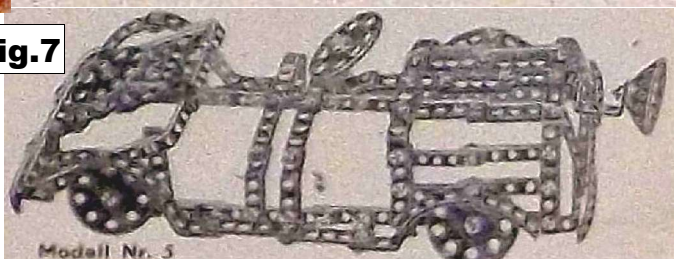
As far as can be seen 3h Strips & Brackets could replace the 5h in the models, so why 3 & 5h? The 5h would give greater versatility; was the 3h marginally cheaper to produce? Ignoring that conundrum it's surprising what can be done with a Strip or two and a Wheel Disc, plus some N&B of course.



**Fig.5**



**Fig.6**



**Fig.7**

**More on the Danish TEKNO** David Hobson kindly alerted me to [www.loghoj.dk/Tekno-ingenioer.htm](http://www.loghoj.dk/Tekno-ingenioer.htm), Danish web pages about TEKNO, from Hans Christensen. This piece updates the notes in 26/764 and is what I found from the many photos on the site, the remarks with them, and a few items of information that have appeared since OSN 26. But given my lack of Danish, and even allowing for Google's best efforts, there may be errors. As always corrections welcome. My thanks to Hans for his kind permission to use the photos here, all from his site. The Combine right, built by Victor Andersen, is one of the many enthusiasts' models shown there.

**HISTORY** Andreas Siegumfeldt had a plumbing business but changed tack in 1928 and started a toy company, Dansk Legeøjs Industri, in the basement of his home in Vanløse, near Copenhagen. Later his son Egon William & daughter Estler Margrethe helped in running the company. The various toy lines produced included tinplate and, after 1945, diecast toy cars. On Andreas's death in 1967, Estler ran the company, but in 1970 she decided that the factory on Rentemestervej in Copenhagen needed modernising, but that it wasn't financially viable to do so. She sold it to Algrema, a Jutland company, who in 1971 set up a factory on Hedevej in Hjørring (in the far north of Denmark). But there were quality issues and the firm (Algrema-Tekno) went into liquidation in 1972. For a time afterwards some sets were sold under the name TEKNIK by AP Teknik. Another website says that some of the tooling was sold to a Dutch firm, Vanmin BV, who as Tekno Toys continued making the diecast toy cars in Holland.

The TEKNO brand constructional sets were introduced in 1932. Initially the range of parts was similar to TRIX (patented in 1930) but later additional parts added greatly to the the scope of the system. Nothing is said on the nature of the connection, if any, between the two companies. Notes on the constructional sets, parts etc, & related products follow. Numbers in curly brackets show pages in OSN 26 which have a relevant illustration. If the page number is blue the image is shown in colour on the OSN website.

**The MAIN CONSTRUCTIONAL SETS Nos.40-45.**

**The 1930s** By 1933 an ad shows 7 sets with the 'Bridge' label {766} (the boy's face on it varied from time to time). The photos are blurry but it's probable that the sets were Nos.40-43, & linking sets 40a-42a. The ad also says that small models can be powered by the Fysiker motor (of which more later). No set inventories are known until the 'Titan' manual {766} but it's likely that they were as given there. An exception was that for an initial, short period in 1933 the No.43 had simply twice the parts of a No.42.

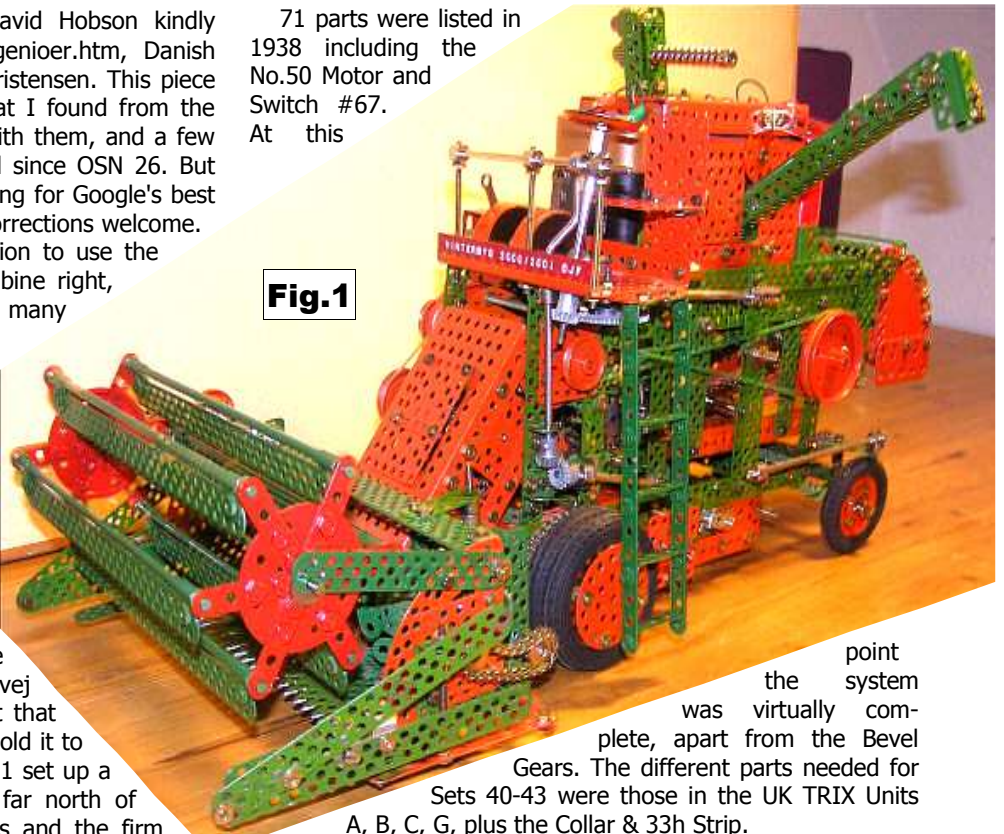
By 1935 No.44 was available. There was never a 43a: the parts needed were 4x 35mm Road Wheels (a Tyre on a pair of Pulley Discs), and a No.50 (TRIX-style) Motor. By 1938 the No.45 with linking sets 44a, 44b, & 44c had been added. The 'c' set was equal to the 'a' + 'b', and 44 + 44c + a Switch #67 gave a No.45.

An early box is red with a plain cardboard base; later ones were black. All had the Bridge label {766} and strung parts. Early manuals, such as the one right, were portrait format with B&W covers each showing one model. Later, and thereafter, they were landscape, with the 'Roller Coaster' cover (far right), always in B&W. The model was inspired by a Copenhagen fairground ride. The manual for the '2x 42' No.43 was an earlier Roller Coaster edition with an extra 8 pages for new models.

Ebay photos show a set, said to be from 1939, with the 'Threshing scene' manual {766}.

71 parts were listed in 1938 including the No.50 Motor and Switch #67. At this

**Fig.1**



point the system was virtually complete, apart from the Bevel Gears. The different parts needed for Sets 40-43 were those in the UK TRIX Units A, B, C, G, plus the Collar & 33h Strip.

**The 1940s & 1950s** It is thought that some sets were made during WW2 and one such is in the 1930s style but without a manual. An Ebay set said to be 1940s has the Bridge label & the Threshing manual. It has blue Flanged Plates, a colour used briefly soon after WW2.

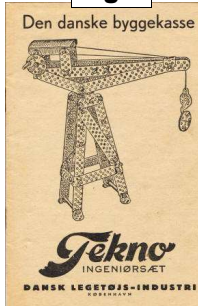
Boxes in the 1950s were again black with the Threshing

**Fig.2**



manual but with a new label (the 'Gantry Crane' above). Parts were strung. One set, a No.41, has a portrait manual with a B&W cover showing the Illustrated Parts. If correct perhaps this was from a time of shortages. At some point after the early 1950s the sets' name was change from Tekno Metal-Byggekasse [-Building Set] to Tekno Ingeniørsæt. Spring Cord was added in 1954.

**Fig.3**



**Fig.4**



**The 1960s** Boxes had a simulated wood finish and there were two types of label, the 'Red/Yellow' {766}, and the 'Titan Crane', identical to the 'Titan Crane' manual cover {766}. At a guess the Red/Yellow came first but it's just possible that it was used for the small sets, and the Titan for the larger ones. In both types the parts were in a yellow formed plastic tray (it is white in one Ebay set) and their manuals had the Titan cover {766}. Some of these covers were B&W, probably for the smaller sets. By this time there were 75 parts in the system, again including #50 & 67. The significant new parts were the 3 Bevel Gears introduced in 1961.

**The 1970s** Algrema Sets 42-44 were advertised, and TEKNIK Sets 42 & 43. The 'Algrema' lid, with its transparent



Fig.5

panel, is shown above, and the 'Teknik' lid below. All the sets had the parts in a white plastic tray. The Algrema sets had the Titan manual, with the B&W cover for Set 42. The TEKNIK



Fig.6

sets also had the Titan manual but with 'TEKNIK' at the top of the pages and all mention of TEKNO removed. As explained in OSN 26 the content of the Algrema Sets 42 & 43 was as in the Titan manual but the No.44 was nearly as large as the previous No.45. The TEKNIK sets had the same content but the thread/Axle size was 1/8".

**The PARTS** The discs of the early 3 largest Pulleys {764} were riveted together with the boss soldered on. Initially the 11 & 22t Pinions were (nickelled?) steel. Sometime in the 1930s the 5\*5h Plate {765} had a regular pattern of 5x 5h rows, and no doubt was the centre of the 13\*7h Flanged Plate with Cutout {765}. The 10 & 16mm Washers were initially painted red. Some Tyres were not

marked TEKNO, and some had a '+' rather than rectangular block tread. A tin version of the 35mm Road Wheel was used when rubber was unavailable during/after WW2.

**The MOTORS: No.50** {766} was the first and was clearly very like the TRIX product. It ran on 4-8v. Various colours were produced. The last examples had no pinion on the output shaft and had knurled nuts on the terminals (under the base). **No.66** 'Old No.66' (right & Fig.13) appeared in the late 1930s and ceased with WW2. It had a permanent magnet and again ran on 4-8v. **No.66** 'New No.66' {765} was introduced after WW2 and was a little more powerful than the first version. It had 4.5-8v. & .2-.4 amp on its box. **No.65** {765} came later. It was made in Japan. 3-12v, .6 amp. **Lange Motor (No.701** in OSN 26 {765}, from the '8 60' manual). Made by an outside company, Langes Legetøj, for TEKNO. Very powerful & robust, 4-6v (6-8v in OSN 26) but could tolerate up to 20v briefly.



Fig.7

**Fig.8a Plastic Motors No.64 & No.65**, below, 3-12v, introduced around 1954. **Type A & B.** 6 of each, A3-A150 & B15-B65 (Figs.8a,b are typical, but only the 3 largest B's had a driving pulley or sprocket). High quality made by Mabuchi.



Fig.8

**Fig.8b** They were introduced in the early 1960s, at about the same time as the Bevel Gears.

**The BRIDGE SETS** There were 2 sets, introduced in the mid-1930s. Both had parts for one bridge model. The **Special 60, Lillebælsbroen**. Below, the set & its 2m long model. In the box the Ramps are cardboard, the grey wooden blocks under them could be the Intermediate Piers, & the Roadway the grey



Fig.9



Fig.10

sheeting under the Instructions. The **Special 61 Klapbroen**. The Set & Lifting Bridge model are shown below. The Counterweight Casing can be seen in the box but not the Roadway etc.



Fig.11

has the Old 66 Motor & a yellow Base (9\*20cm); after a few years the Base was changed to green, and at the same time the Motor was changed to the New 66 (Fig.18). Both versions had a blue lid with the same B&W label {765}.

The **ELEKTRO SET No.70** appeared around 1952 or '53 and was produced in cooperation with the German TRIX company. The box lid is shown below, and there was 2 types of packaging: one

(Fig.16) has 2x Box A, & one each of B & C, in the other the main parts are in full view on one backing card the size of the box. 163 parts in all. The parts in Boxes A, B, C are as in the UK Units E, A, B. Most of the non-electrical parts were standard TEKNO but nickelled; the electrical



Fig.14

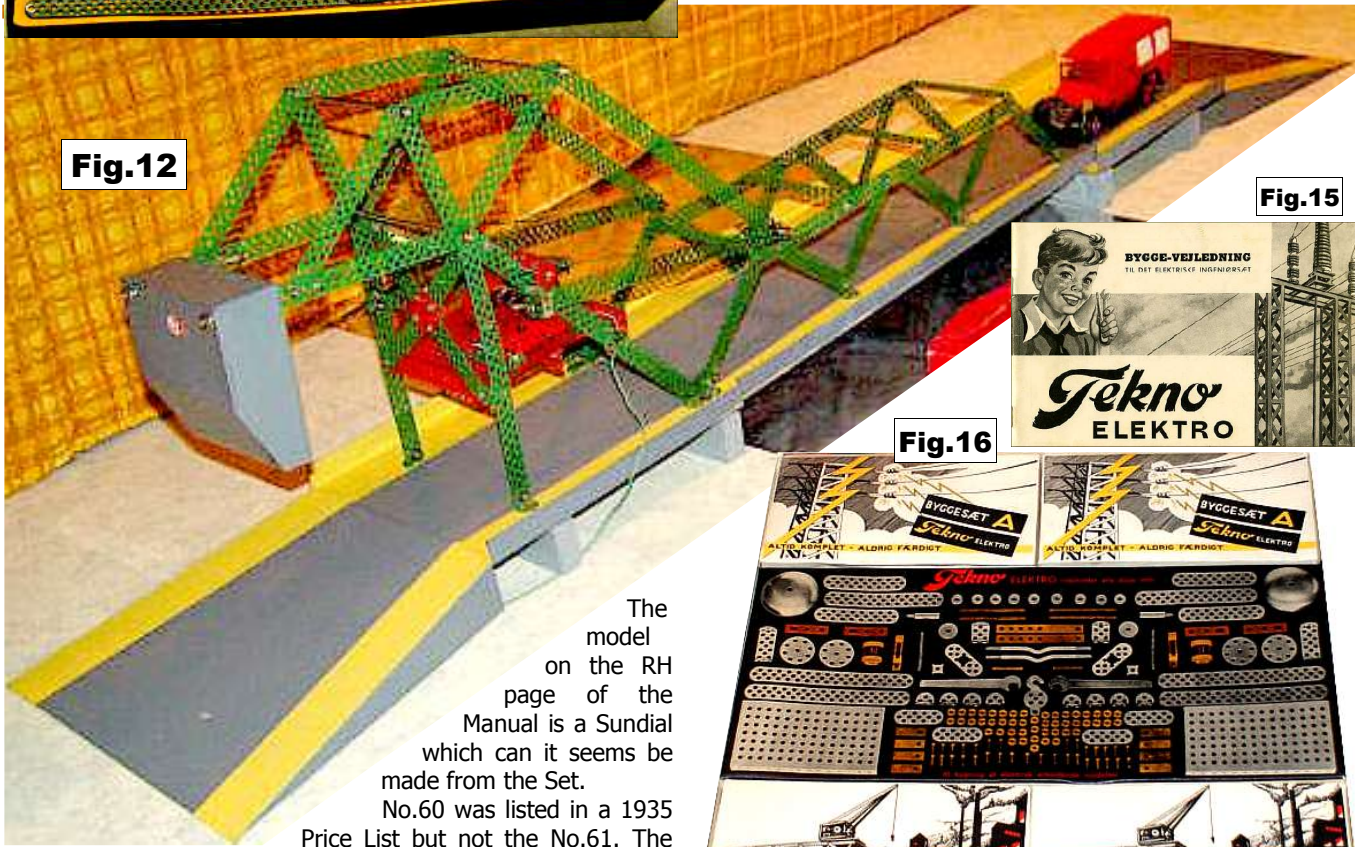


Fig.12

Fig.15



Fig.16

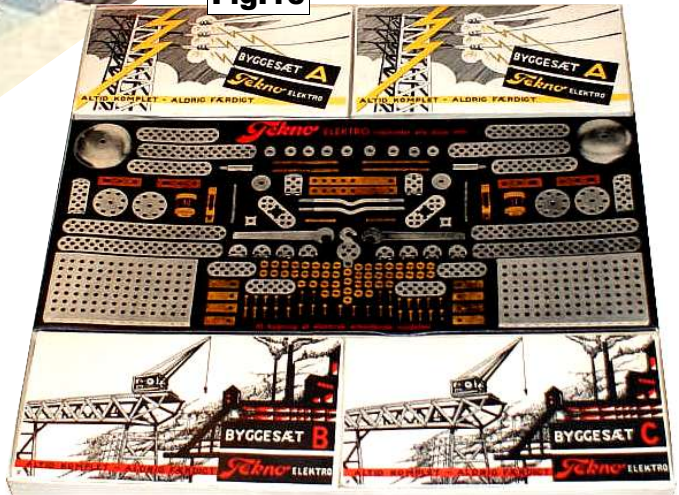


Fig.13

The **POWER STATION SETS, Kraftstation Nos.90 & 91**.

The 90 was a constructional set which was intended to make to make the unit shown on the lid label {765} and Fig.18; the 91 was said unit ready assembled. Both were I suppose meant to provide all that was needed to bring models to life. The Sets were introduced in the late 1930s and continued until the late 1950s. The parts in a No.90 are shown below. It



The model on the RH page of the Manual is a Sundial which can it seems be made from the Set. No.60 was listed in a 1935 Price List but not the No.61. The latter was probably launched in 1936.

parts look just like their TRIX equivalents. Of the 9 manual models shown all were in my 1949 UK Electrical Manual.

**DEN LILLE FYSIKER** [The Young Physicist] This was an early product before TEKNO and Fig.17 shows a set with the featured Motor model in the box. When TEKNO appeared it was suggested that it could be used to drive small models, and it was powerful enough to drive a workshop fitted with the miniature Machine Tools described below. Later this set became Set 1, and Sets 1a & 2 were added. A 1938 catalogue shows them with a different lid, without the Motor on it. The manual showed a range of electro(-magnetic) items including the Motor, a Bell, & a paper tape Morse Telegraph.

**DEN LILLE FABRIK, then TEKNO MASKINMODELLER.** [The Miniature Factory; Tekno Machinery Models] For the





**Fig.17** a Pulley Unit with shafting standards, a Saw Bench, a Grinding/Polishing Machine, & a Fan. Set 6 was probably the No.5 without the Motor. In 1954 the 'TEKNO'



former a 1938 catalogue lists Sets 5 & 6. The No.5 contains a No.50 Motor, a Base,

items listed were 2 wall-mounted Pulley Units, the 3 machines as before, plus a later Motor, and 5 machine tools: a Hammer, Drill, Lathe, Shaper, & Milling Machine. Above, many of the items including the Pulley Units, all driven by a Power Station.

**FOOTNOTE** The TEKNO Illustrated Parts have been added to the 'Extra Other Systems Material' link on the OSN website.

**TEKNO [1]: S4**

**OSN 52/1604**

**Some METAFLEX Parts** These notes give more details of the parts mentioned in 16/447. They are based on a good selection of parts which came in a plain wooden box, almost certainly non-original. They were identified as METAFLEX by their resemblance to those in OSN 16 & by 3 small part boxes, all with lids of the same, or similar, design to the one in the OSN 16 illustration.

The box is 29½\*50\*9½cm (including a hinged lid 3¼cm deep), far deeper than would be needed for the parts.

Of the part box lids one has a label (Fig.1) as in OSN 16 except that it is a sideways mirror image, and doesn't have 'D. O.', the supposed maker, on it. The other two are identical to the OSN lid, & have the Fig.1 colouring. The lids themselves, & their matching bases, are dark blue-green, 7½cm square, for the 'non-D O', dark & light blue speckled, 6½cm square, for one 'D O', & plain cardboard, 7½cm square, for the other.

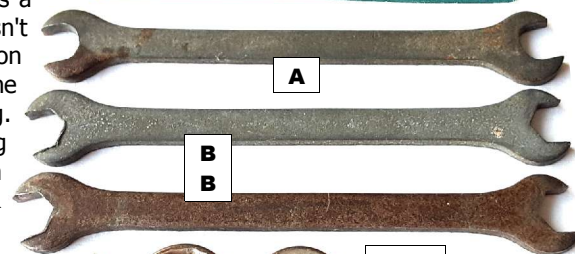
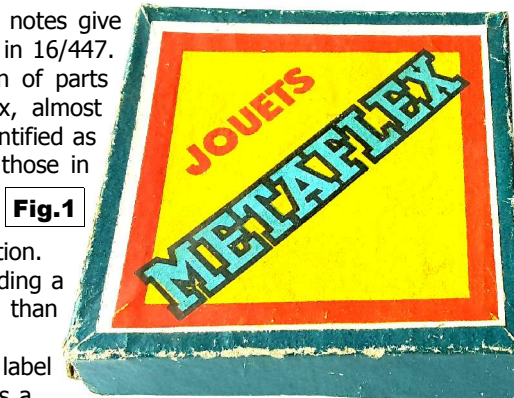
There are also 3 larger bases or trays: 15½\*7½cm, dark blue-green; 14\*7½ plain cardboard; and 13½\*7 plain cardboard.

All the parts mentioned in OSN 16 are present except the Screwdriver, Hook, 5cm Axle, & 4h Collar. In addition there is a 21cm Axle, a Set Screw, & an Axle Stop, though the latter looks out of keeping with the other parts. All are aluminium save the steel Axles, Crank Handle, Bolt, Grub Screw, & Spanner, and the nickelled brass Axle Stop.

Holes are all round, 3.2mm Ø at 10.0mm pitch. The thread is the old French standard, 3x.6mm. Axles etc are 3.0mm Ø. All the Wheels are turned from the solid with integral bosses, the latter 8.7-9.2mm Ø, double-tapped, with bores variously 3.1 to near 3.2mm. All 'strip' ends, & corners are near fully radiused.

A list of the parts found with their quantities in curly brackets follow, with notes on them including differences in appearance from those in the figure in OSN 16.

**Strips** 2,3,4,5,6,7,9,11,14,15,21,33h {11,13,13,19,22,19,26,18,17,11,8,4}, are 9.8-10.0m wide & vary from .5mm thick for



the 2h to 1.5mm for the 33h. **DAS**, 1\*7,5 ,3\*1h {2,6,4}. **D/B**, 1,2,3h high {2,3,3}. **A/B** {34}. **Double Bent Strip** {3}. **Flanged Plates**, 7\*7,15h, about .9mm thick {4,2}. **Plates**, 7\*7,15h, 5\*11h, 3\*15h, typically .6mm thick but some thinner, with a few down to .3mm. {10,4,5,10}. The 3\*15h has no centre hole; the 5\*11h has only the perimeter holes. **Triangular Plates**, typically about .5mm thick, 3\*3h equilateral & 3\*3h right-angled, as in the OSN 16 box, not the 2\*3h of the Illustrated Parts in MCS {12,10}, **Pulleys**, 50,30,25,14,11,11 (no boss) {2,3,17,1,1,3}. The 30 & 50mm with 6 & 12 face holes, are the 'Bush Wheels' of OSN 16. Said holes are at 10 & 20mm radius. The width of the vee is about 3½mm, though up to 4¼ for the 30 & 50mm. **Flanged Wheel**, 25mm Ø with the 20mm Ø tread, 2½mm wide {10}. **Collar**, double-tapped, 7.6-7.8 Ø, 6.5-6.7mm long {13}. **Axles**, 30,37,96,209mm {2,3,8,1}. Dark grey with sheared ends, one or two slightly rounded. **Crank Handle** {5}. Matches the Axles, 130mm long o/a with typically a 93mm shaft & 25mm handle offset 18mm. The handle not sleeved. **Bolt**, greyish finish, 2 types: cheesehead, 5.0mm Ø, 8mm u/h; tapered cheesehead, 5.3mm Ø, 8½mm u/h {5,9}. **Nut**, hexagonal, 5.0 A/F, 3.0mm thick {10}. **Grub Screw**, pointed end, 5½mm long o/a {8}. **Set Screw**, cheesehead, 4.0mm Ø, 5mm u/h (Fig.2) {20}. **Spanner**, 68mm long o/a, both ends angled, one slightly, one very slightly. Two types of jaw bottom: one shaped to fit a hexagon (Fig.2B), one concave (Fig.2A). {2,1}. **Axle Stop** with internal sprung wires, 12.2mm Ø, see Fig.2 {8}. Holds well, its centre turning with Axle, but difficult to push over the non-rounded Axle ends. **Cord**, some very fine white cord was wrapped around a Crank Handle.

Given the different styles of small part boxes, the quantities of the parts (the 5 Crank Handles for instance), and their variations, particularly the Spanners, it's very likely that the parts found were either from one set plus a good many extra parts or, perhaps more likely, at least two sets.

**Snippet. 'New' System: METALLBAUKASTEN**

This account is based on the photos from an Ebay lot of 2 sets, a Nr.10 & a Nr.20. This METALLBAUKASTEN seems to be yet another smallish, run-of-the-mill, German system: the maker is unknown but Figs.1,4 carry the company's logo. Its date seems to be the 1950s because each paper item has a PR which includes a pair of digits from '56' to '59'.

**The PARTS** By scaling from the Pulley diameters given in the Illustrated Parts, the holes are about 4mm Ø at 10mm pitch. The parts in the Nr.20, as shown below in Fig.2, the Illustrated Parts, are as follows. #1 Flanged Plate 5\*11h. #2 Flanged Sector Plate, 8h long. #3 Screwdriver (in Fig.5b it has a wooden handle). #4 Spanner (again it differs in Fig.5b). #5-8 Strips 11,5,4,7h. #9 DAS 1\*5\*1h (see also #32,33). #10 Crank Handle. #11 Flat Bracket. #12 A/B. #13 Wheel Disc. #14 Collar (most of an actual part is shown in Fig.5a). #15,16 Pulleys 35,25mm Ø. In Fig.3 notice the shallow boss on one



**Fig.1**

face of the 25mm Pulley. #17 Bolt (with tapered CH, in Fig.5c). #18 Set Screw. #19 Nut. #20 Washer. #21,22 Rods 75,30mm long. #23 A/G 11h. #24 Lugged Bracket. #25,26 Screw-ended Rods 75, 35mm long. #27 D/B. #28 Transmissionswelle 150mm [Transmission Shaft, but is it just a long Rod?]. #32,33 DAS 1\*3,2\*1h. Also #33 Loose Pulley 37.5mm Ø (listed but not illustrated or seen). In addition there are 4 black rubber push-on Road Wheels in each box (Figs.3 & 5c).

Apart from the Tools, & parts not visible in the Sets (#18, 20,24-26,28,33(Loose Pulley)), all look as in Fig.2. The only parts with slotted holes are the Flat & Angle Brackets.

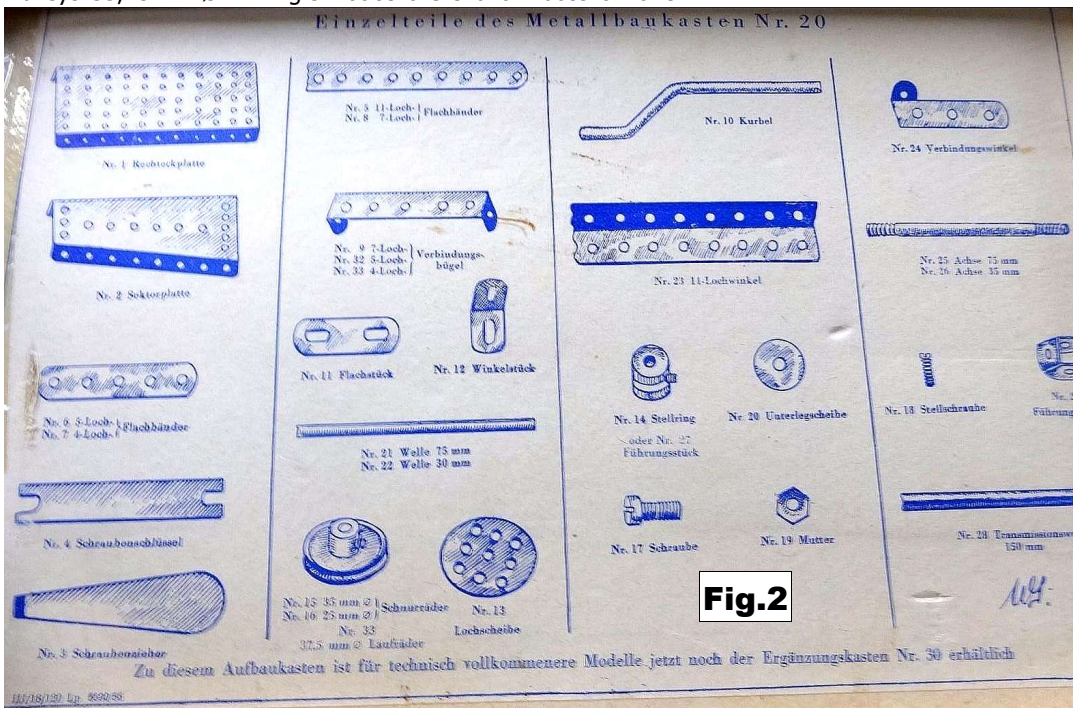
**The SETS** The Nr.10's lid label is the same as the Nr.20's in Fig.1 except for the Set No., & its name, GRUNDKASTEN instead of AUFKASTEN. The latter indicating that the Nr.20 was an add-on outfit to the basic Grundkasten. The Illustrated Parts are pasted onto the underside of the lids.

The Nr.20's open box is shown in Fig.3; the Nr.10's is red rather than light blue (parts of it are shown in Figs.5) and it has similarly sized compartments but only 3\*3 of them.

The PNs in the Nr.10's Illustrated Parts are #1-7, 9-20, and, apart from #21 & 22, they are shown in PN order.

In the Nr.10's Illustrated Parts it is recommended to add a Nr.20 for larger, better models, and in turn the Nr.20's (Fig.2) suggests adding a Nr.30.

**The MANUALS** The Nr.10 manual cover is similar to the Nr.20 below but is in landscape format and the name is in capitals & not hyphenated.



**Fig.2**



**Fig.4**



**Fig.3**



**Fig.5a**

**Fig.5b**

**Fig.5c**

**Snippets. Norwegian TEKNO**

Since the notes on a No.00 set with nickelled parts in 29/869 photos of 3 sets have been seen on Ebay.

**Two No.0 Outfits with Aluminium Parts.**

Both are fawn with the lid right and it is thought that they may date from the 1940s. Their size was given as 32.4\*19.5cm, and the lid is signed Coucheron – Olaf Coucheron, a well known Norwegian illustrator. Neither set is complete, the parts are loose in the box, on a grey backing board in one case. The Axles and N&B look to be steel, as in the small parts box right. Notice in this figure that the Spring Clips have square tips (as did those in the OSN 29 set). All the other parts are as would have been expected except that: • the disc of the Bush Wheel is flat, without the recessed centre of the part in the OSN 29 set (and in Fig.3 here); • the Nuts are hexagonal rather than square.



**Fig.2**

The Sets have some parts not in the 00, most noticeably: • Rubber Rings (#177) for the Pulleys • a Rubber Wheel (#178) of about 3/4" Ø, as in Fig.2, which pushes onto the Axles; • a 15mm brass Pulley with Boss (#23a), next to the Trunnion is Fig.3.

As far as can be seen these sets have the same contents as the 'nickel' No.0 to be described next.

One set has no manual, the other has the cover shown in 26/769 but without the wording along the top and with 'KVALITETS KONSTRUKSJONS SETT' under the framed area. One page of No.0 models was shown and it is identical to a page in the manual with the 'Dockside' cover described in 5/104 except that none of the models are titled.

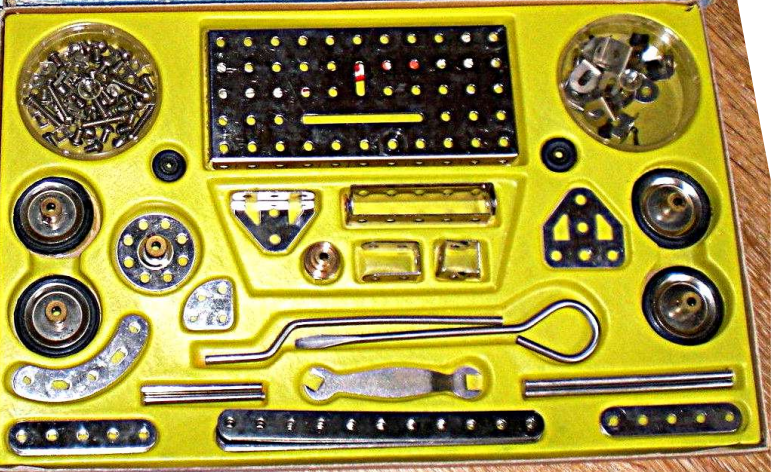
**A No.0 Set with Nickelled Parts.** It is shown right and from the packaging it is probably from towards the end of TEKNO's life, the late 1960s perhaps. The parts include the Rubber Wheel, as mentioned earlier (near the bottom corners of the Flanged Plate) and the 15mm Pulley (by the Trunnion). The manual has the 5/104 'Dockside' cover, and has a Set Contents slip lying on it).



**Fig.3**

From that Slip & a similar one from the OSN 29 No.00, the Set Contents for Set 00 & 0 are as follows (the parts are generally similar to MECCANO unless noted).

- #2, 11h Strip: 2,4;
- #5, 5h Strip: 6,9;
- #10, Flat Bracket: 4,4;
- #11, D/B: 0,2;
- #12, A/B: 6,8;
- #16, 9cm Axle: 2,2;
- #17, 5cm Axle: 2,2;
- #19s, Short Crank Handle: 1,1;
- #22, 30mm Ø Pulley: 4,4;



- #23a, 15mm Fast Pulley: 0,1;

- #24, Bush Wheel: 1,1;
- #34, Spanner, 2-ended: 0,1;
- #35, Spring Clip: 4,6;
- #36, Screwdriver: 1,1;
- #37, Nut: 30,40;
- #37b, Bolt: 26,34;
- #37c, 3/4" Bolt: 4,6;
- #40, Cord: 1,1;
- #44, 2h high D/B: 1,1;
- #48a, 1\*5\*1h DAS: 2,2;
- #52, Flanged Plate: 1,1;
- #56, Manual: 1,0;
- #57, 'S' Hook: 1,1;
- #69, Grub Screw: 5,6;
- #90a, Curved Strip, flat: 2,4;
- #125, Reversed A/B: 1,2;
- #126, Trunnion: 2,2;
- #126a, Flat Trunnion: 2,2;
- #126b, 1\*1h Corner Bracket: 2,4;
- #178, Small Rubber Wheel: 0,2;
- #177, Rubber Ring for #22: 0,4.

**Another Manual.** An Ebay item had a selection of parts with 2 manuals. One with 16 pages plus covers and the 'Dockside' cover, was probably as in OSN 5. The other had 8 pages plus covers and the same cover but printed in red &

white. Its two 00 model pages were shown, again in red on white, and their models were identical to those in the OSN 5 version except that the bottom right corner of the second page was blank without the Loco & Tender models. (It was not noted in describing the 'Gantry Crane' manual in OSN 29, but the Loco & Tender models are similarly omitted from its second page of 00 models.)

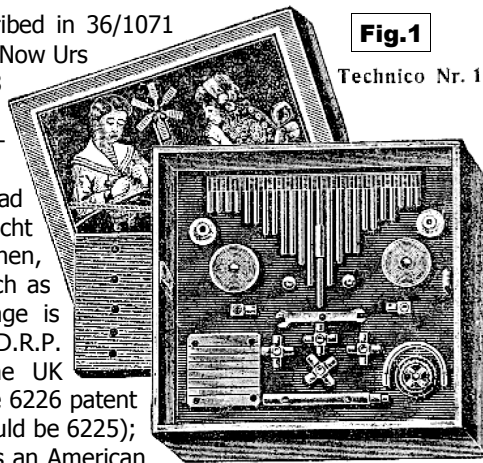
**TECHNICO** TECHNICO was described in 36/1071 but its date wasn't known precisely. Now Urs Flammer has kindly sent copies of 3 pages from the Berlin Internationales Offerten-Blatt for 1920 concerning TECHNICO.

The first from 17 August is an ad from an Import-Export firm, Max Hecht of Franz Josef-Straße 23, München, which features various products such as cigarette lighters, but half the page is devoted to TECHNICO. It lists the D.R.P. (German patent) No. 280404; the UK patent 28926/6226 (see 24/686, the 6226 patent of addition above is incorrect, it should be 6225); the French patent 464926; and says an American patent has been applied for (it, 1400066, was granted to Adolf Huck (as in the UK patent) on Dec. 13, 1921, and covers the same ground as the 2 UK ones. TECHNICO's merits are described in French, English, & Spanish, but not in German beyond saying that it is the 'ideale Metallbaukasten'. 10 set sizes are claimed and Set 1 is illustrated (Fig.1 above). The lid is as in OSN 36 though the name itself, along the bottom, can't be seen. 2 models are shown, a Hay Cart which is in the OSN 36 manual (for Sets 1-10), and a quite large Wright Brothers type Biplane which isn't.

The second page from 25 September is a review of TECHNICO and mentions that Max Hecht are showing it at the Frankfurt Fair. 6 models are shown, all of which are in the OSN 36 manual, though 5 are shown against a white rather than Black background (as were the models on Page 1 above).

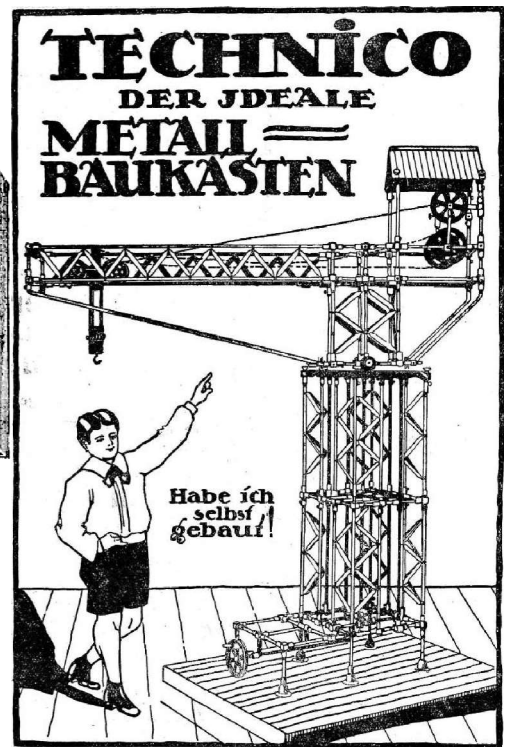
Page 3, from 4 December, is a full-page ad for TECHNICO from Max Hecht, all in German. It features a Crane (Fig.2) which is much larger and more ambitious than any of the models in the OSN 30 manual.

It's good to have a firm date for TECHNICO's existence but I can't see anything in these pages which claims that TECHNICO is new, or recently launch-



**Fig.1**

Technico Nr. 1



**Fig.2**

ed, though this may well have been the case. It was said in OSN 36 that Adolf Huck was still reputed to be the manufacturer in 1920, so presumably Max Hecht was a (or the) distributor, and no doubt he hoped to export the sets.

**OSN 52/1607**

**TECHNICO: S6 [S5 in OSN 39/1164 was mislabelled S1]**

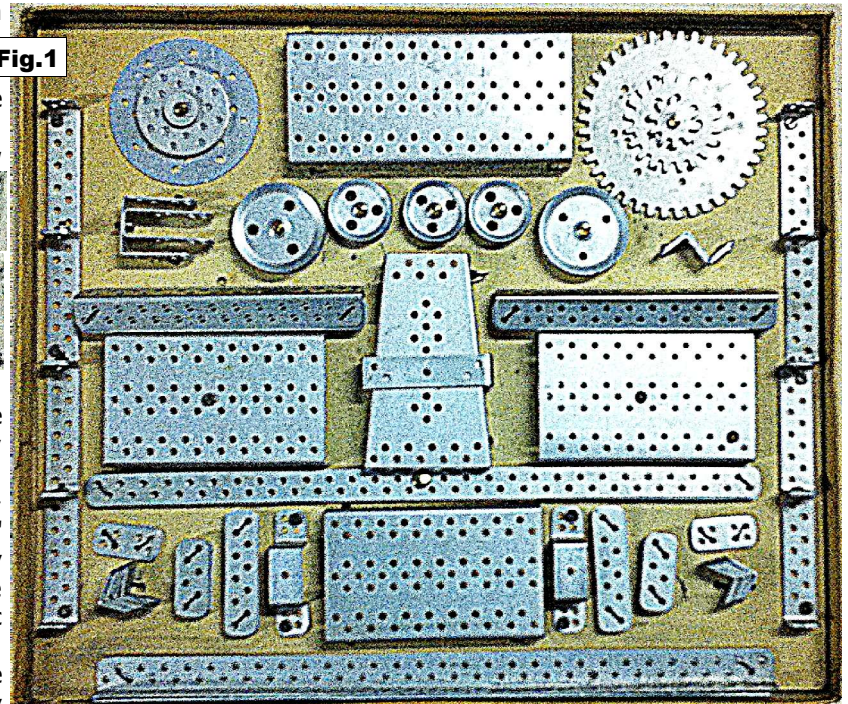
**RIAG.** The last mention of this German aluminium system was in 37/1109 with a description of a Set 1, and of a Set 2 with a different lid. Now, thanks to Urs Flammer, photos of and notes about a No.3 set. The box measures 36\*31\*2cm and its lid is like the No.2's. Right the open box, with the Axles etc and N&B below to the same scale. The parts are as expected with 3.3mm holes at 10mm pitch, & the thread M3. Again as expected the Gears are Mod.2 with 10, 20, & 40 teeth. One thing not mentioned in OSN 37 is the 2 types of DAS, #16 (along the sides of the box), & #17 (across the Flanged Sector Plate). They look to be about the same length but have a different pattern of holes. Why were the two needed?



**Fig.2**



**Fig.3**



**Fig.1**

The manual too matches the No.2's with 20 un-numbered pages including covers. The 'line drawing' models run from Brücke on p3 to Zugbrücke [a Railway Bridge which has a lifting centre bay] on p7. Others are mostly small models, including several Cranes, domestic & garden items, a set of furniture, a Telephone, & a Windmill. The Zugbrücke & the Crane in OSN 37 are the only largish models and from the parts in them they may be No.4 Set models. The 'photo' models start with Lastkahn mit Beiboot [Lighter with Dinghy] on p7 and the last one is a Straßenbahn [Tramcar] on p15. The models are a good selection, many the size of the Lifting Bridge in OSN 37 or larger, and include 5 machine tools, 2 Cranes, a Loco, a 3-Wheel Lorry, a Radio Tower, and a Motorcycle & Sidecar. To my eyes they look reasonably attractive but are probably quite

simple mechanically, though the poor quality of the photos makes it hard to judge.

A final snippet. A No.1 manual on Ebay with a front cover like the lid in OSN 37 and a back one showing the Zugbrücke mentioned earlier, and a line in small type near the bottom of the page, probably the printer & PR but too blurry to read. It was said, no doubt from the PR, to probably date from 1948.

**OSN 52/1607**

**RIAG: S3**

**MECCANO becomes MÄRKLIN** An account of the years 1911-19 appeared in 47/1447, now Werner Sticht has prepared a detailed history of the period based on reliable information from all available sources. An English version can be seen at [www.metallbaukasten-wiki.de/From Hornby%27s Meccano in Germany to the First Sets of the Metallbaukasten Märklin, or at the end of www.nzmeccano.com/forum/showthread.php?tid=296](http://www.metallbaukasten-wiki.de/From_Hornby%27s_Meccano_in_Germany_to_the_First_Sets_of_the_Metallbaukasten_Märklin,_or_at_the_end_of_www.nzmeccano.com/forum/showthread.php?tid=296). The article is too long to even summarise fully here but what follows lists the main events, and mentions some of the particular points of interest. But best to read the original as well, with all the 'ifs, buts, & maybes'. All the Figures mentioned are those in OSN 47.

**1908-11.** MECCANO first appeared on the German market in 1908. At the time Weimer Brothers of Rotterdam were Meccano's European agent, but that arrangement ceased, perhaps in 1910, but more likely during 1911.

**1911.** Märklin are known to have been Meccano's agent for France in 1911, and presumably for Germany too, and perhaps for all of Europe.

**1912-14.** In 1912 Meccano established French & German subsidiaries to distribute parts & sets. The German office was in Berlin. At about the same time the finish of steel parts sent to Germany was changed from nickel plating to chemical blackening. Why did Meccano make the change? Not known but possibly to differentiate it from the nickel parts of its main competitor in Germany, STABIL, launched in 1911.

**1914-17.** With the start of World War I in August 1914 the German Meccano subsidiary was considered enemy property and was therefore subject to forced administration. (The 'take-over' of enemy firms was common practice at the time, the Krupp company in England for example.) Sales of MECCANO sets etc continued, and by February 1915 at the latest Martin Hirschfeldt had been appointed as administrator of the Berlin office. He kept the brand alive by continuing to sell existing sets, and then having sets made up, ordering parts locally as the stock of Liverpool ones ran out.

Locally supplied parts were not stamped with a name and included Strips & Plates painted black, Wheels made from steel painted bronze, and Gears made of zinc or aluminium. The 50t Gear retained the same type of boss fixing (an impressed ring in the gear face around the boss) and because this needed special machinery it has been suggested that Märklin may have produced this part.

The labels on the prewar sets gave 'Meccano Liverpool' as the maker; manuals were printed in England but showed the Berlin address on the cover. Immediately after the war started the 'Meccano Liverpool' on the lid had a strip pasted over it with 'Meccano G.m.b.H.' and the Berlin address on it. Sometime between 1915 & 1917 lids had only the simple red label shown in Fig.5 and manuals were as Fig.2, printed in Germany.

The only connections between Meccano & Märklin between

1910 & 1917 were: (1) Märklin as Meccano's agent in 1911, as already mentioned; (2) Märklin supplied clockwork motors to Meccano in England between 1910 & 1914; (3) Märklin supplied Motors to Meccano in Berlin from 1914 until they acquired the German company in 1917, and may also have supplied certain parts, the Gear #27 for example as explained above.

**1917-19.** On 15th August 1917 the Märklin company acquired the stocks, protective rights & the Meccano trademark from the German government. Why the government decided to sell off the Meccano operation isn't clear but it may have been that it was losing money. This was perhaps because demand for sets with a name known to be English was low (sets from the 1914-17 period are rarely found). No doubt there were few potential buyers for the company but Märklin, having seen that prewar constructional toys were becoming popular, could have envisaged the possibilities of a ready developed system sold under its name in the postwar world.

Initially Märklin operated through the Berlin address but the office was closed in 1918 and Meccano affairs were handled from Märklin's head office in Göppingen. Advertising at the time spoke of MECCANO as 'formerly English, now German' and 'now made by Märklin'.

The main change to the sets was that from the outset the lid label was reinstated in a form based on the 1914 design but with a different model which included a small Märklin logo, and no reference to Liverpool (see Fig.1). Any MECCANO set with a reference to Märklin on the label was a Märklin product from the years 1917-19. The parts in the sets varied from prewar stock, parts bought in, and parts that Märklin had started to make themselves. The latter were of varying quality as methods of producing them were developed. Many Strips were stamped with MECCANO & the Märklin logo, as in Fig.6. Märklin still had Motors stamped MECCANO from earlier production and now the name was removed by stamping out the appropriate area of the sideplates.

**Mid 1919 onwards** The last known ad featuring MECCANO appeared on June 11, 1919, & METALLBAUKASTEN MÄRKLIN is known from an ad on the 19<sup>th</sup> of that month (ads at the time sometimes added 'formerly Meccano'). Initially the range of parts (up to #65) continued unchanged & the models were Meccano's of 1913. But by late 1919 or early 1920, sets were being introduced which included new parts (initially the large & small Flanged Disc Pulleys, #66 & #67, parts actually listed since the beginning of 1919). And the manuals included some new models.

Werner's account continues with more on MÄRKLIN in the 1920s with new parts & a number of special sets.

**Myths?** Next a detailed examination of the various arguably misleading and/or incorrect statements which have been made about the Meccano/Märklin relationship, notably by the Märklin company and in the The Meccano System by Love & Gamble.

**Finally** a list of the numerous References etc.

## MECCANO-MÄRKLIN: S2

OSN 52/1608

**Snippet. Another METAAL BOUWDOOS Set** Following the account of this Dutch system in 51/1574 the set right was offered on Marktplaats. Its lid & box partitioning are identical to the OSN 51 outfit. The parts common between the sets are the 2 Flanged Plates (though differing in colour), the 8h Strip, & the Loose Pulley which scales at 20mm Ø or a little more. The other parts in the new set which look genuine are the 4 & 18h Strips, the Fast Pulley of 30mm Ø or a little more, & the Road Wheels of about the same diameter. The green DAS & 2\*2h A/B (they look greener in the original) appear to be MECCANO and the DAS's hole pitch matches the M B parts. The Crank Handle doesn't look like MECCANO. Two different types of N&B can be seen: RH Bolts & large square Nuts in the 4h Strips attached to the Sector Plate, and CH Bolts with hex Nuts near the DAS. Neither match those in the OSN 51 outfit.



METAAL BOUEDOOS: S2

OSN 52/1608

**Snippet. 'New' German System: HB** Photos of the lid, open box, & model sheets were included in an Ebay lot, but with no indication of date, dimensions, etc. The system's name, followed by what is probably a set number, comes from the centre panel of the lid (right). The presumed maker's name, HB-SPIELZEUG-BREMEN, is in each of the 6 lid panels. The models in the panels are each numbered HB 001 followed by the model number, V001 (for the centre panel) to V006.

The types of part that can be seen in the box (Fig.2) are 2 Flanged Plates, 5h wide with a full set of 5 & 9 holes in their flanges (they can't really be seen in Fig.2 as printed); 3,5,7,9h Strips; A/Bs with 2 round holes; a Screwdriver; roundheaded Bolts & hexagonal Nuts. 10 parts in all. The small box is labelled as containing 50 Bolts & 50 Nuts.

There is a model sheet for each of the 6 models on the lid, identical, except all are printed in blue, and in landscape of portrait format as appropriate. One is shown below.

No types of part are used in the models beyond those in the box except that what looks like a 2h Strip in the sloping handrails of the model below. But this may have been shown in error because the two 9h Strips in each rail overlap by 2 holes and a 2h Strip wouldn't be needed. Also it is not entirely clear if the treads are made of DAS, or Strips & A/Bs, but some are shown as the latter and the model could be made within the 50 N&B if they all were.

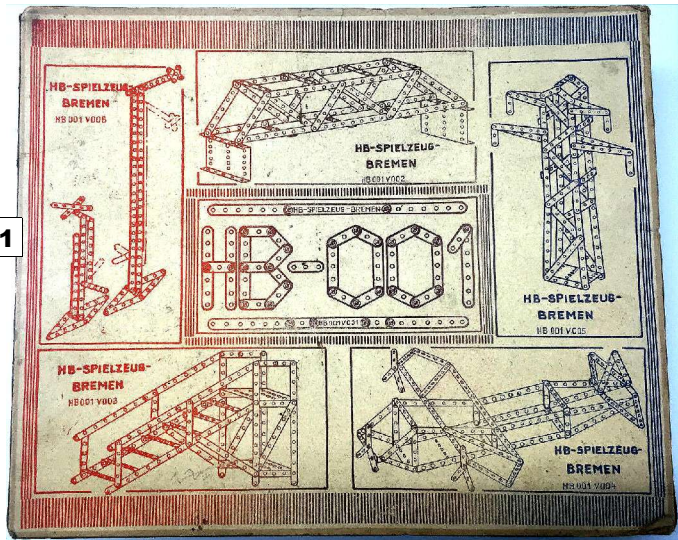


Fig.1

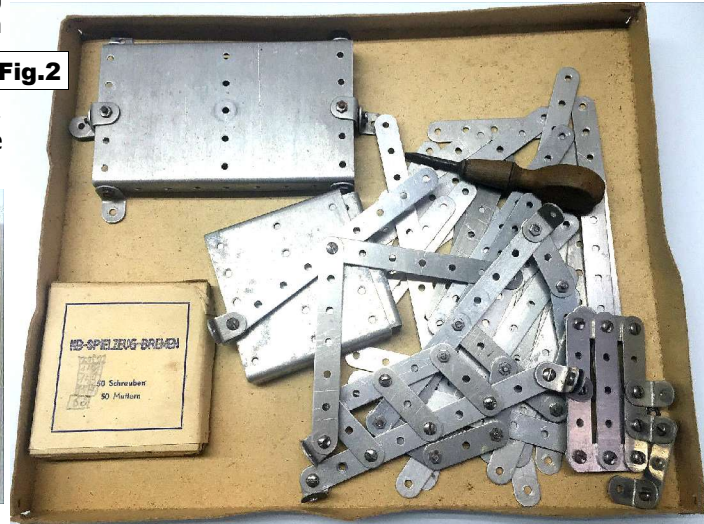


Fig.2

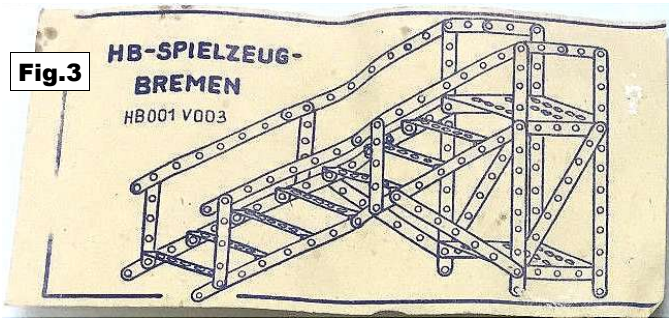


Fig.3

OSN 52/1609

HB: S1

**Snippet. 'New' System: TECHNIKUM**

The set to be described was seen on German Ebay. Nothing was said of its date or maker. Technikum means technical college in German, but the alternative names on the lid label, Der Junge Wagenbauer and The Young Carriage-BUILDER are perhaps more appropriate. Down the right side is 'Made in Germany' and 'Nachahmung Verboten' [Imitation Forbidden]. The black strip is probably from a labelling machine with the owners name on it, the old way with the surname first, HENGST most likely.

The 'lid' (Fig.1) is a Flanged Plate (one flange can be seen in Fig.2) with a label stuck on it, and it would fit over the top on the 'box' in Fig.2. The set was said to measure 17\*8\*5cm and scaling gives holes of 4¾mm at 12mm pitch. The base of the 'box' is a similar Flanged Plate, and it, & the 'box' side Plates, can be seen in the models on the label below. Other parts in the box which are used in these models are a 'U' Girder, one of 2 used in the towing arm, & at least 1 disc Wheel. Probable parts are 2 Axles with screwed ends, & at least one of the DAS in which the would Axles run. Of the doubtful parts there are a TRIX-like DAS & 8h Wheel Disc, and the Strips & 3\*7h Plate which look to have a smaller hole pitch than the parts used in



Fig.1

the models. All that can be said of the N&B is that in a photo not shown here 2 of the side Plates are fastened to the base Flanged Plate by 2 Bolts from the inside, one held by a hexagonal nut & one by a



Fig.2



Fig.3

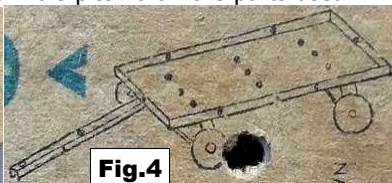


Fig.4

wing nut.

Was the set sold packed more or less as in the photos? If so a novel form of packaging but eye catching and practical enough with the 'lid' lifting off just as an ordinary cardboard lid would do.

OSN 52/1609

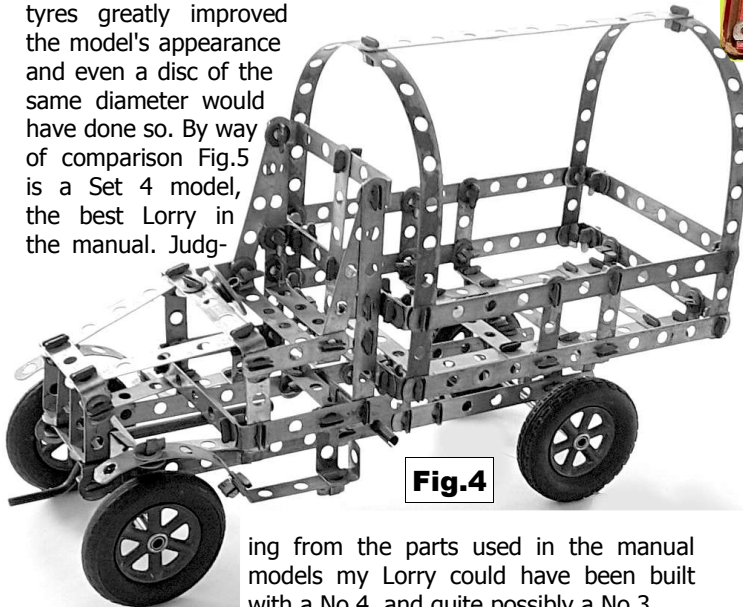
TECHNIKUM: S1

**PHANTASIE** Thanks to Wilbert Swinkels for sending references about this prewar German system (see 15/417) from two of his web pages (<http://wiswin.nl/News%202015%202%20Viertel.html> and <http://wiswin.nl/News%202016%203%20Viertel.html>), and for permission to use his photos.

Right, his Fleischmann era No.2 set and it has 1929 handwritten inside the lid. It matches an illustration of the set in a trade catalogue from about that year. The Part 20 shown in the Illustrated Parts and which was called a Spring Clip in OSN 15 is in fact a bifurcated Clip to hold the parts to the backing board. There would have been about 30 in the No.2. However as explained later it can have a limited use in models. The Catalogue listed Sets 1-4 which were said to have 44, 70, 90, & 138 parts. Wilbert's site also has a photo of the No.4 set in EZ (Tafel 40). Its box is wooden with a sliding lid and inside there is sheet metal partitioning along one, and along half of an adjacent, side. The lid label is as on the No.2.

The manual with the No.2 is the same page size as the one in OSN 15 and has the same cover, but only 28 inside pages and 68 models. And it does not include the Illustrated Parts page. The No.4 photo includes an open manual showing models that are not in the OSN 15 edition and a Leaflet with 5 models which are.

Since the OSN 15 piece I've built the Lorry below and it was a sturdy model once the Wedges were pushed well home. The Clip 20 would fit over the Axle (as in Fig.2) but was not springy enough to act as a Spring Clip. It was though used to attach the Axle into which the Crank (starting) Handle was inserted, and to attach the (non-PHANTASIE) Steering Wheel. The other 'cheat' was the Tyres, courtesy Dutch CONSTRUCTOR. The tyres greatly improved the model's appearance and even a disc of the same diameter would have done so. By way of comparison Fig.5 is a Set 4 model, the best Lorry in the manual. Judg-



**Fig.4**

ing from the parts used in the manual models my Lorry could have been built with a No.4, and quite possibly a No.3.



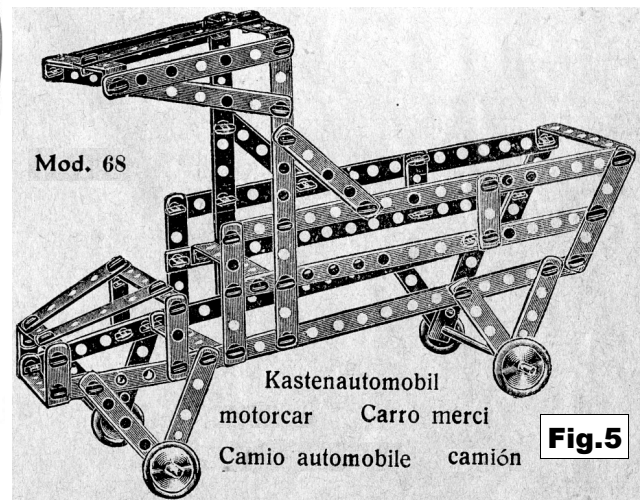
**Fig.1**



**Fig.2**



**Fig.3**



**Fig.5**

**PHANTASIE: S1**

OSN 52/1610

**MECHANIX Update**

This is about the Indian MECHANIX produced by Zephyr Toymakers Pvt. Ltd. of Mumbai. The last note on it was in 24/712.

23 sets are shown on their website: • One right has 2125 parts for a 51" high Eiffel Tower. • 4 have several hundred parts, 2 of them with a Motor. 8 to 25 models are shown per set. • The rest, including a Pocket & a Mini series, are smaller but most allow at least 1 of 3 models. The models: Planes, Robots,

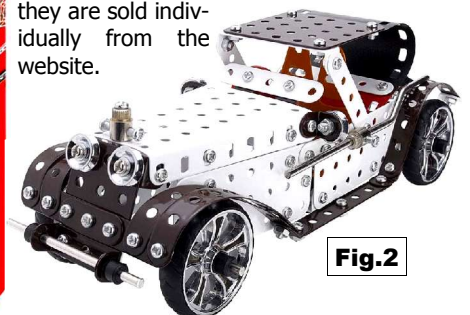


**Fig.1**

**MECHANIX [2]: S1**

Cars, Motorbikes, Buggies, & a tracked, motorized little Tank, are in the current fashion, but a few have a slightly 'futuristic' look. Below an exception, the model from a Vintage Car set.

The system has 72 different parts, and they are sold individually from the website.



**Fig.2**

OSN 52/1610

**Snippet. Another UFSA Set** A No.1A set was described in 41/1249 and now a No.1 offered on Ebay adds something to the story.

On p1 of the manual it is said that the system has 38 parts and 6 sets. The set structure is shown as below though there

*N. 0 - N. 1 formanti la scatola N. 1a*  
*N. 2 - N. 2a formanti la scatola N. 3* } formanti la scatola N. 3a

appear to be 7 sets. Perhaps there were models for N.3a but not an actual set.

There is nothing to identify the maker but the printer on the manual's back cover is Arti Grafiche INVERNIZIO Tortona Tel. 3-28. Tortona could be a town between Milan & Genoa, or a district of Milan. Perhaps the phone number would identify it.

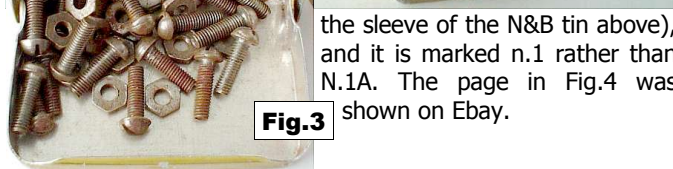
In the Ebay ad it was said that the phone number indicates the 1930s or 40s.

The set's box, right, measures 23¼\*18½\*2½ and the label is similar to the No.1A's. The parts are shown in Fig.2 with the open N&B tin below it. The parts that can be seen and were not in the No.1A are the wire Hook, the Cord wrapped around it, the 2 & 10h Strips, the 2 lengths of Screwed Rod which scale at 10½ & 4½cm long (they were in the 1A but not noted before), and the N&B (that look plain steel).

Points of interest. The 4h disc is a Pulley Disc, not a Pulley. The tool is definitely a Spandriver. Top right in Fig.W are 8x 14h A/Gs, a part noted as probable in OSN 41.

So 24 different parts in all in the 2 sets, so some way to go to reach the 38 claimed.

The manual is bound in the same style as the OSN 41 and has the same cover except that it is a deep pink colour (like



the sleeve of the N&B tin above), and it is marked n.1 rather than N.1A. The page in Fig.4 was shown on Ebay.



Fig.4

OSN 52/1611

UFSA: S3

**More MAAKEETS** Two 'School' sets have come along since the notes on a No.3 outfit in 51/1567. One is a No.30s, unused but the parts have been unstrung, the other a 31s still strung. Both have a manual identical to the School edition in 51/1568 (with no 'extra' pages), and both are in red boxes with the small parts in a blue box as in the No.3. The main parts are strung with red cord into the recesses of a white, formed plastic tray, with a recess for virtually every type of part. As expected the sets are very similar to Nos.3 & 4 of the standard range except that each has 2 Screwdrivers & 2 Spanners extra.

No doubt sets with this type of plastic tray packaging would have been later than those like the No.3 with its parts strung onto a card, and the No.30s tray would have been perfectly suitable for the No.3.

**The 30s** box is the same size as the No.3, and with the same label except for a small, '30s' label, in the top right corner, and a bilingual 'FOR SCHOOL USE ONLY' label top left.

Compared to the Set 3 inventory in OSN 51 the parts in the 30s, as found, are the same except as follows: **PLUS:** 2 Spanners; 2 Screwdrivers; 1 Handle Crank #46; 2 Bolts (but there are none in the bosses etc.); 9 Nuts; 1x 2" Axle; **MINUS:** 1x 3½" Axle; 1x 5\*3h Flanged Plate; 2 Flat Brackets; 1 Hank of String (probably as in the No.3 & 31s).

**The 31s** box, 17¼\*12¼\*1", has the same design of label as the 30s but smaller, 10¾\*5¾". The 3\*5h Flanged Plate, with flanges along its long sides and round holes in them, is

packed under the 5\*11h Flanged Plate, together with the Hank of String, identical to the one in the No.3.

Compared to the No.4 inventory in OSN 51 the 31s parts, as found, are the same except as follows: **PLUS:** 2 Spanners; 2 Screwdrivers; 2 Collars; 12 Nuts; 4x ¼" Bolts (again none in the bosses, etc.); **MINUS:** 6x ¾" Bolts; 1x ½" Pulley.

**Parts not seen before**, and points of interest. Most can be seen in OSN 51. **#11,15.** 5½" Angle, Flat Girder. 7½mm slotted holes. **#11** is 14\*17½mm; **#15** 30½mm wide (the MECCANO #103 is 27¼mm). All dimensions approximate. **#20, 21.** Flat & Angle Brackets, plated a dull silver colour. **#25.** 1\*3\*1h DAS. **#31.** Slotted Strip, 3½". **#29** Rev. A/B, red (it was dull silver in the No.3). **#43.** Flanged Sector Plate. 6¼mm slotted holes in flanges. **#45.** 4½" Face Plate with boss. **#46.** Handle Crank with a tapered web & the pin offset about 1¼". **#48.** Universal Gears. Light red plastic, 29½ & 53¾mm o.d. with 12 & 24 teeth. **#61.** Loose Pulley, brass, 12.7mm o.d. **#81** Hook, 2mm wire, 26½mm long o/a. **#85,87.** N&B, brassed steel. **#85.** ¼" Bolt, 6½mm Ø cheesehead with pronounced taper. **#87.** Nut, pressed, 6.2mm A/F, 2¼mm thick.

**Quality.** The parts with glossy paintwork and no splits in the Tyres, look very well in the new packaging. The only obvious quality issues are that the bend angle of the A/Gs is noticeably more than 90°, and the holes in about half of the 2h Brackets are in-line but offset sideways by up to 2mm.

OSN 52/1611 (the last page of OSN 52)

MAAKEETS: S4