

EDITORIAL Many thanks to those who sent AUTOMAT material. It hasn't been possible to include notes on it in this Issue, but I hope to do so in the next.

Some readers will already know of the sad death of Tony Matthewman. Although his main interest was TRIX rather than 'Other Systems' in general, he passed on all items of interest, in particular news of current systems from the German Toy Fairs that he regularly visited. He will always be remembered for his history of Trix trains, based on meticulous research into every aspect of the subject. Tony had of course collected a great deal of material for a companion volume on the TRIX constructional

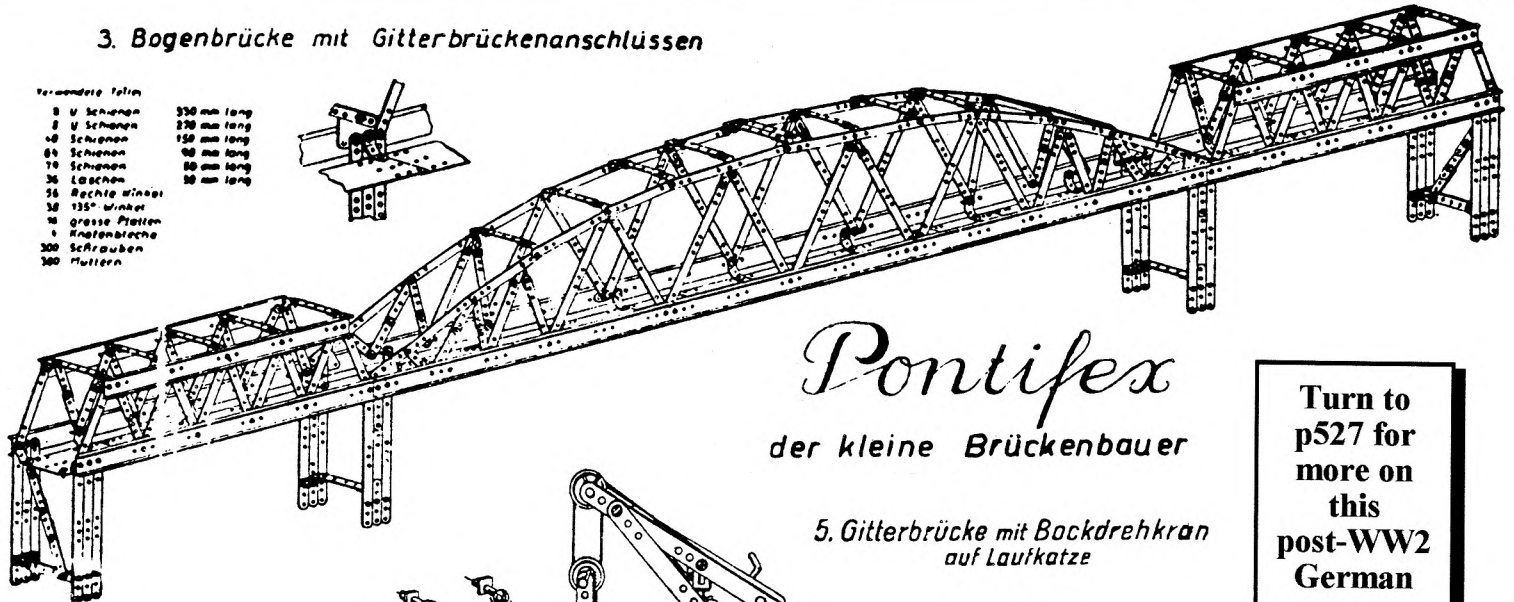
system, and it is to be hoped that a way will be found for it to be published in due course.

Enclosed a leaflet from Meccano about a special Set which marks the start of their 100th anniversary celebrations. I've no details of the Set but the illustration shows the 1960s No.10 model, and the 1929 reference seems to be to the colour of the parts. Be that as it may, I'm sure everyone will wish to congratulate Meccano on its forthcoming 100th birthday, and to wish it every success for the next 100 years, at least. Not many products survive pre-eminent for 100 years, and not many have brought such happiness to youngsters and discerning grown-ups alike.

3. Bogenbrücke mit Gitterbrückenanschlüssen

Verwendete Teile

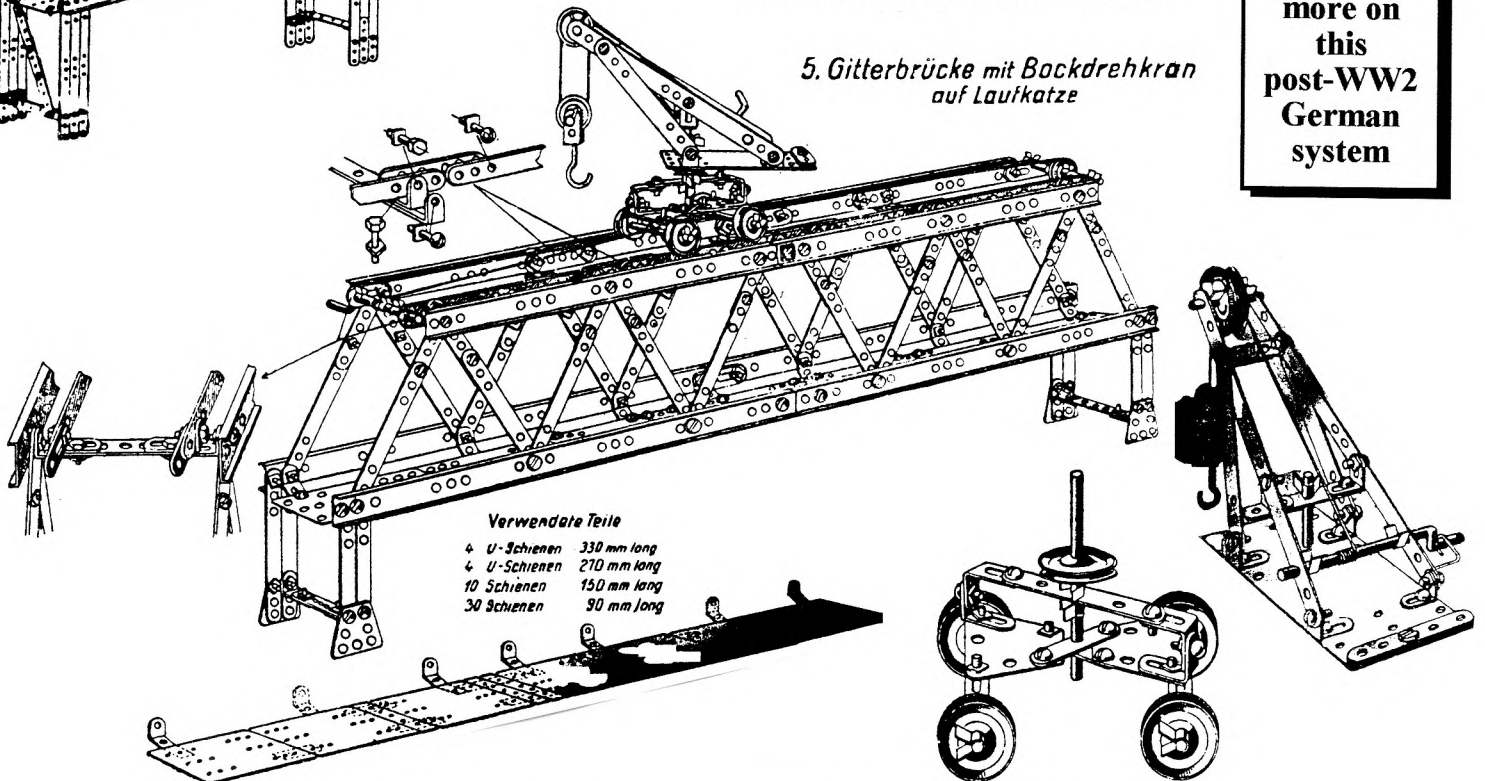
- 8 U-Schienen 330 mm lang
- 8 U-Schienen 270 mm lang
- 40 Schienen 150 mm lang
- 64 Schienen 90 mm lang
- 70 Schienen 60 mm lang
- 36 Längchen 30 mm lang
- 56 Rechteckwinkel
- 36 135° Winkel
- 16 große Platten
- 1 Knotenbleche
- 300 Schrauben
- 300 Muttern



Pontifex

der kleine Brückenbauer

5. Gitterbrücke mit Backdrehkran auf Laufkatze



Verwendete Teile

- 4 U-Schienen 330 mm lang
- 4 U-Schienen 270 mm lang
- 10 Schienen 150 mm lang
- 30 Schienen 90 mm lang

Turn to
 p527 for
 more on
 this
 post-WW2
 German
 system

More on FAC Since the notes in 18/508, Chris Freeman, David Hobson, Thomas Morzinck, & Jacques Pitrat have kindly sent more information, including material from <http://home1.swipnet.se/~w-14485/meccanofac.htm>, an Internet site run by Staffan Kjellin from Sweden.

History First from the Site. It is said that FAC was invented by the artist Mark Sylwan (1914-1993), and it was first shown at the Technical Museum in Stockholm in the spring of 1952. It was patented in 1953 and though the first production was of 'toy' sets, it was soon developed for engineers and model builders.

In the *Facts about FAC #1* (see later), dated Oct 1958, it is said that the system was completely revised in 1957 on the basis of experience by Swedish users. It was launched internationally in 1958.

The 'Toy' Sets The Site includes an illustration of an 'early' No.0 Set and none of the 6 models shown on the inside of the lid are in the #1 manual described in 18/509. The contents differ too with a Plate & 4 small Wheels with Tyres (possibly the 26mm Ø W1-01) in the #0, that aren't in the #1. Possibly the sets weren't progressive but more likely the #0 is from a later, improved range. The models on the lid, though blurry, look more up-to-date than those in the #1 manual - one for instance is a smart looking Motor Scooter.

There's also an illustration of a #2b Set, also apparently a 'toy' outfit. It looks quite large with the parts loose in a partitioned wooden box with tray. The top half of the manual cover is red with FAC in white, and the bottom is white with some dark illustrations on it.

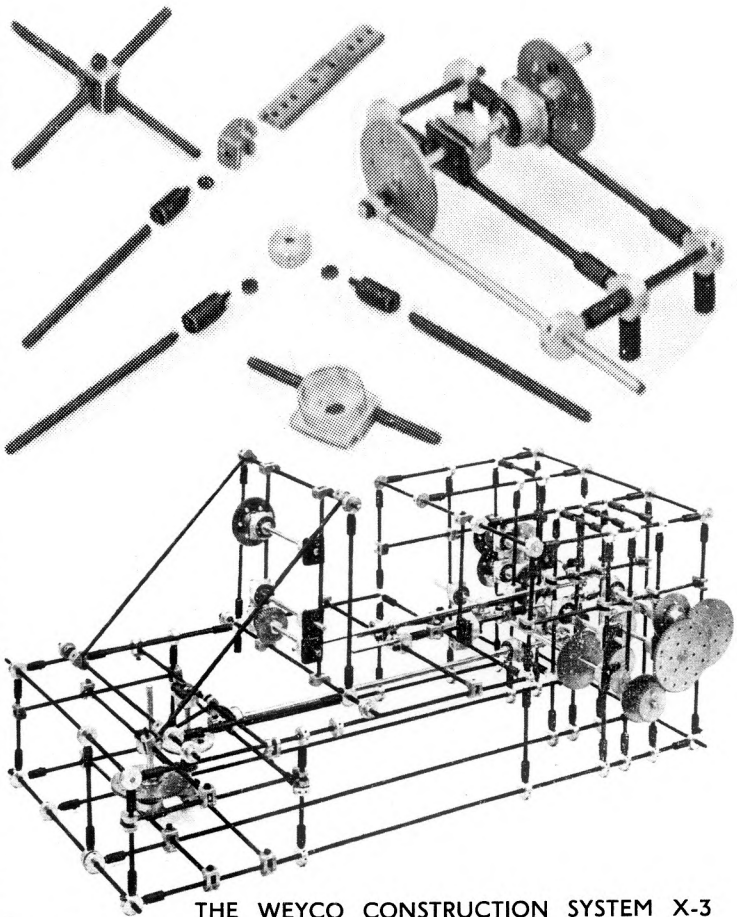
X1 & X2 Set Contents Details of these became available too late to discuss in OSN 18 but were included in the Extra Sheets. They were issued by Weyco, the UK agent, and one is dated June 1960. The X.2 contained 2370 parts plus 2050 N+B, & 300 Washers, making about 4700 in all. There were 34 toothed parts.

The X.1 contained all the parts in the X.2 except the Slewing Ring, the 96t Gear, the Gear Ring, & the Rack, but fewer of them. In all 1300, including 25 toothed parts, plus 1050 N+B, & 200 Washers, making a total of about 2600.

All the 1964 parts shown in MCS FAC[b] were included in the X2 except certain lengths of Beam, the 2 larger Tyres, the 3 Lead Screw parts G9-40,41, & the Bushing G9-42. An official FAC Set Contents includes certain parts which were not to be available until May 1961, and which, at least at that stage, weren't shown as being in the X Sets. They were the Lead Screw parts & Bushing already mentioned; a 4mm Ball Bearing, and the bearing parts shown at the bottom of 18/512; the Diff Centre, 2080, & Sliding Cross Head, see 18/513; and various lengths of Tubular Shaft. They were all included in the '1964' Sets, although the lengths of Tubular Shaft had been changed.

Literature The Weyco Set Contents above were found in an X2 Set, together with the Z1-04 Manual described in 18/511, a Z2-03 Parts List dated Nov. 1957, & various other leaflets. The *Facts about FAC #1* was one & there was also #3 from April 1960. #1 (8 A5 pages) has a general account of the system & some details of a Guilloche machine; #3 (4 pages) describes in outline a Machine for winding nylon, built at a Dutch firm (which had 20 X2 Sets 'in constant use'), & a 5-speed Transmission used to drive a pump in the Stockholm Thorax Clinic. Both were good publicity material. In addition there were 2 items from Weyco, a glossy brochure & a leaflet, both with a good general description of the system and photos of various machines, none too awesome & some relatively simple. There was also a duplicated copy of a 1959 letter from A.E.I. saying that their Kit 'has saved considerable time in the development of various types of Test Gear'. In one case cited, construction was completed in 3 days with a saving of 3 months in time & at least £500.

The WEYCO CONSTRUCTION SYSTEM X-3 Also in the Set were 2 leaflets with photos of 2 frameworks carrying bearings and gears, & the structural parts to make them. Headed THE WEYCO CONSTRUCTION SYSTEM X-3,



THE WEYCO CONSTRUCTION SYSTEM X-3

they otherwise bear just Weyco's name and Dames Road address. The Rods, Gears, & Bearing Housings look as if they could be standard FAC; the other parts are: • A 'J' Clamp to allow 2 Rods to be held at right angles. It is also used to hold the Rack Strip, with a Rod Socket in its end tapped hole, to allow connection to a Rod. • The Hub, a 4-way collar with an additional radial tapping used to lock a Rod through the centre hole. • The Rod Socket which screws into the Hub and is held by a lock Nut. Thus up to 4 Rods can be so attached to one Hub.

One framework & details showing the use of the new parts are shown above, although the illustrations are very blurry. One or two other parts that may be FAC can be seen, for instance one bearing looks as if it might be an Eye Bolt screwed into a Hub.

So why did Weyco market an alternative to FAC, or at least, if in fact certain FAC parts were used, an alternative method of making frameworks. Perhaps it was thought that FAC was too expensive or too complicated. Certainly the Weyco method is conceptually simpler, but whether it would be cheaper, with machined Hubs & Rod Sockets instead of pressed Clamps, seems doubtful, and somehow the frameworks shown don't look to me as if they would be rigid enough to maintain the alignment of the Bearings under heavy loads.

FAC Now Available Again The Site has an announcement that a company has bought the remaining FAC parts & tooling, and plans to have a full range of parts available shortly. There's a price list of those currently obtainable and at a glance, of the 1964 parts, the main ones missing are all the Tie Rods except the 2 shortest, the Beam Offset Plate, & the longest (500mm) Grooved Shaft. Some of the smaller parts are not sold singly.

Also listed are 2 Sets, 'Training Equipment' #4001 at SEK6500, and 'Standard Equipment' #4002 at SEK11000. The latter has 2673 parts, weighs 14kg, & its box measures 600*200*200mm. There's a small picture of it and the box and packaging look similar to the those of the 1964 sets.

All the prices above exclude Swedish VAT and P & P. Parts and sets can be ordered through Staffan by e-mail at staffan.kjellin@mbox200.swipnet.se or by post to him at Skolgatan 31, S-643 31 VINGÅKER, Sweden.

'New' System, PONTIFEX Despite the name this is a German system, and it probably dates from a little after WW2. Following the name is 'der kleine Brückenbauer', the 'small (scale) bridge builder', and the parts look to be well adapted for this purpose, but the manual does contain some other models, Cranes for instance, and even a couple of Fairground Rides. Two of the models are shown on the cover of this Issue. My thanks to Thomas Morzinck for sending a photo of a set and a copy of the manual.

The Set The manual gives the Set Contents, and a plan showing how the parts fit into a box. The different types are bolted together, or held on Rods by Spring Clips, and then they all fit together to fill the bottom of the box. In plan it scales at about 30*15cm. The box in the photo is made of green painted metal by the look of it, with a wood or hard-board bottom, and unlike the one in the Manual, it has metal partitioning to separate the parts. It's larger too, scaling at 41*25cm, and it's obvious that it contains many more Channel Girders than listed in the Manual, and also two 5cm Ø Discs which aren't shown or mentioned anywhere. But no reference is made in the Manual to more than one Set, or to a Set number.

The Parts Scaling the photo, and using the lengths of the parts given in the Manual, the pitch of the holes is 10mm, and the groups of 3 in the Girders, Plates, & longer Strips are at 60mm centres. The holes look to be just big enough to take the M4 N&B that are listed in the Manual.

The 22 different parts are described below and the main ones can be seen in the models & details illustrated. The quantities in the Set Contents are given in curly brackets.

- **Channel Girders**, 270 & 330mm long. They look to be about 15mm wide and 5mm deep. {4 of each}
- **Strips** about 10mm wide with square ends, and in 4 lengths: 150mm with 3 groups of 3 holes, 90mm with 2 such groups, 50mm fully perforated, & 30mm with 1 hole & a slot spanning the other 2. {20,32,40,20}
- **Brackets**. A 1 hole by 1 slot **Angle Bracket** made from

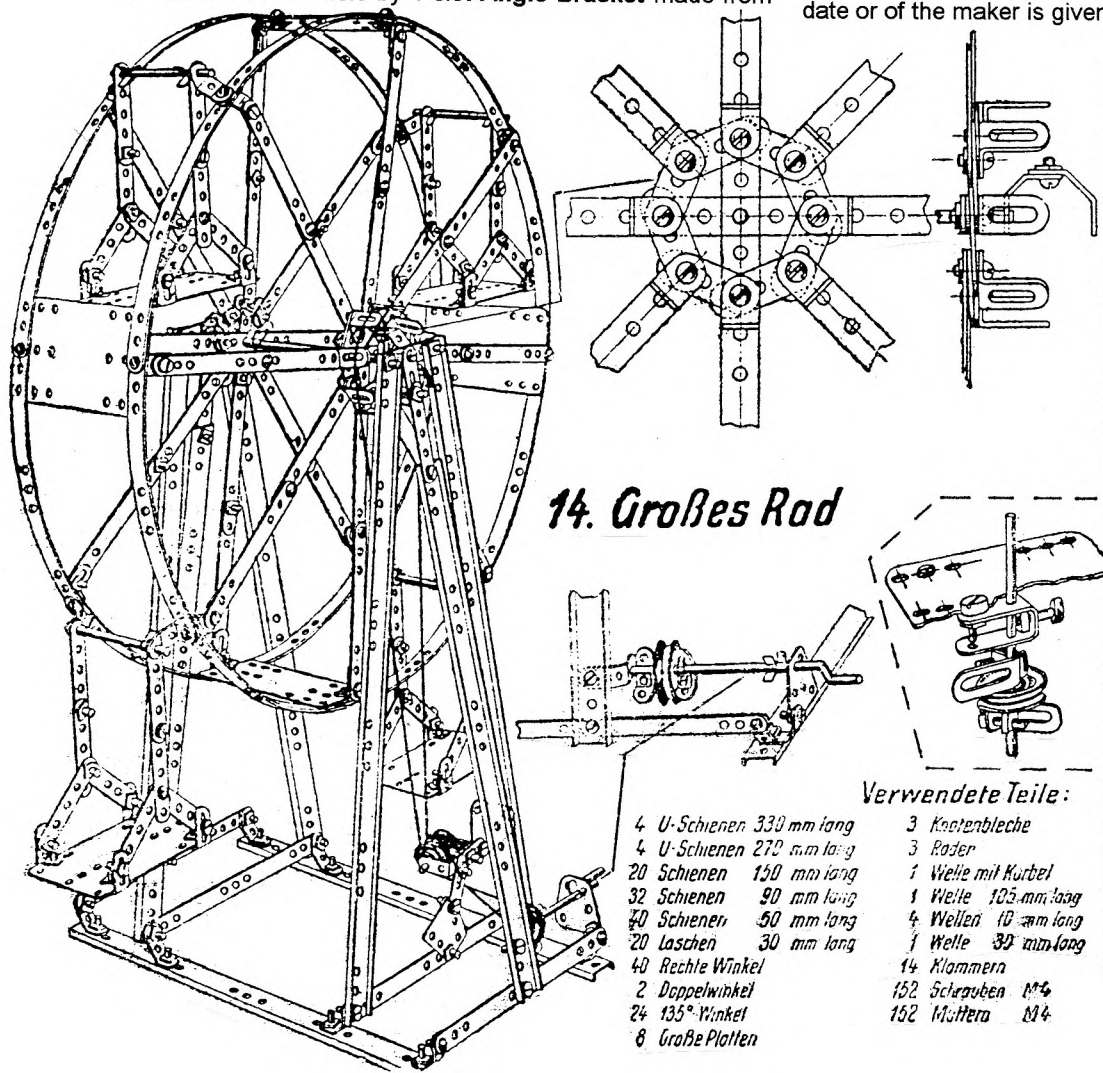
the 3h Strip; a **2h high Double Bracket**, probably made from the 5h Strip; a **135° Bracket** made from a strip with 3 round holes, with each end bent through 45°. {40,2,24}

- A **Plate** about 50*85mm with 21 holes and near fully rounded corners. Not shown in the Manual are a centre row of 3 holes across the Plate. {8} A trapezoidal **Junction Plate** with 2 holes at the top at 10mm centres, and 2 at the bottom at 20mm. Additional holes are shown in the Manual illustrations. {6}
- A 20mm Ø **Loose Pulley** that looks to be turned aluminium with recessed sides. {8}
- A **Crank Handle** shown in the Manual with 90° bends, a 2cm handle & an 8cm shaft. {2} **Axles** 105, 70 & 30mm long. {1,4,4} All these parts look black.
- A **Distance Washer** (Distanzscheiben) described as 6.2 x 4.2mm Ø. I'm not sure whether the 6.2 is the o.d. or the length - it is used in 3 models but I can't see where in the illustrations. {8} A **MECCANO-pattern Spring Clip**. {16} A **Hook** probably made from rod like the Axles, with a threaded shank. {2}
- **N&B**. The Nuts in the Manual are square and the Bolts are of varying lengths, some round- and some cheese-headed. In the Set are hex Nuts, and Bolts with both types of head. Of those that can be seen, some are of normal length, but most are longer, perhaps 10mm u/h. All have a brass look. {150} 2 **Tools** can be seen, a Screwdriver & a Nut Runner, both some 19cm long with wooden handles.
- The 2 **Discs** that are in the Set but not the Manual, have a centre hole, a ring of 4 holes at 1cm radius, and 8 at 2cm.
- The main parts look nickel plated but it's possible that they are made of aluminium.

The Manual It consists of 20 printed pages, a little smaller than A4, and without page numbers. The B&W cover has the name, set contents, and 8 building tips, but no illustration of any sort. Next is the plan of the parts packed in the box, and then large line drawings of 15 models, some of which spread over 2 pages. No indication of date or of the maker is given.

Models 1-3 are Bridges, and #3, some 160cm long, is essentially the first 2 combined - the Parts Required shows that it needs the main parts of 2 Sets but no comment is made about this. In another model some extra N&B are needed, and it is suggested that they be bought from an ironmonger. Of the remaining 12 models 5 are Bridges, including a Swing Bridge, a Bascule Bridge, and one with a Crane on it. There are 2 other Cranes, a Telfer Span, an Aerial Conveyor, a Tower, the Big Wheel opposite, & a Chair-O-Planes Roundabout.

In the main the models are quite straightforward, but one problem is securing parts to Axles. The sketch (left) shows a Double Bracket held fast by a N&B, and a Pulley jammed between 2 Angle Brackets which seem to have one arm clamped to the Axle by a N&B. Ugh. The 135° Bracket is useful because it allows a Channel Girder at the corner of a Tower say, to be set diagonally (in plan) with the bracing members bolted to the 2 lugs.



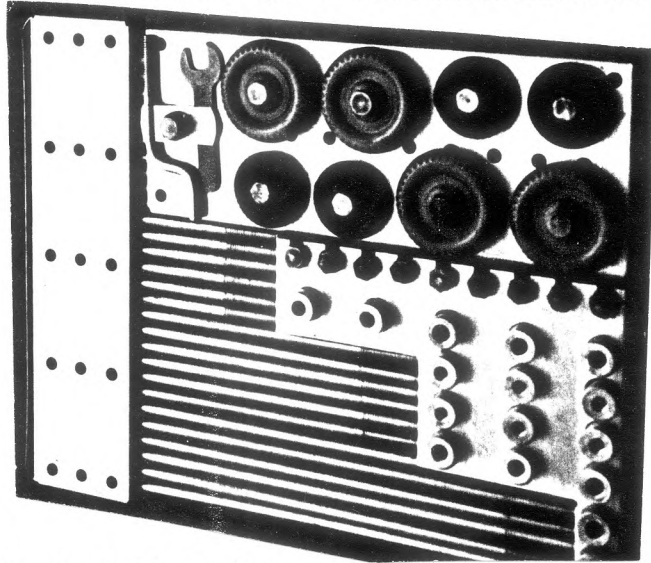
14. Großes Rad

Verwendete Teile:

- | | |
|--------------------------|---------------------|
| 4 U-Schienen 330 mm lang | 3 Kastenbleche |
| 4 U-Schienen 270 mm lang | 3 Räder |
| 20 Schienen 150 mm lang | 1 Welle mit Kurbel |
| 32 Schienen 90 mm lang | 1 Welle 105 mm lang |
| 40 Schienen 50 mm lang | 4 Wellen 10 mm lang |
| 20 Laschen 30 mm lang | 1 Welle 30 mm lang |
| 40 Rechte Winkel | 14 Klammern |
| 2 Doppelwinkel | 152 Schrauben M4 |
| 24 135° Winkel | 152 Mütter M4 |
| 6 Große Platten | |

TECHNICAL TRAINER Some brief notes on this system appeared in 10/264 based on Richard Symond's set, which contained only a few parts and no manual. Kendrick Bisset has now acquired the same 'Basic Set model A', but complete with most of the parts & the manual. With a few parts from Richard, he's been able to reconstruct a near complete set, and has kindly sent the following account of it:

"The box is about 10*14*2 1/8", and is as shown in OSN 10, with 'edges' around both the bottom & the lid. The label on the lid is identical. A general view of it is shown below. It



appears that the duplicate plates in Richard's set probably came from a second outfit, as there would be no room to fit them in the box, and the manual shows only one of each. Two of the Plates are simply packaging: the one with the large holes is for the couplings, called Terminals, and is fastened to the box; the one with closely spaced holes in the flanges is to hold the Rods. The unperforated Strip shown in OSN 10 clips over a long edge of this plate to prevent the Rods falling through when the plate is tilted up to put Rods in or take them out. The third is called a Basestand and is held in place by a small wooden block - in the box it has the Wheels, Washers, Crank Handle and the Wrench bolted to it; but it is also used as a base in some of the models.

The parts, including the packing Plates, are aluminum unless noted otherwise, and consist of 1/4" Rods, threaded for 1 1/4" at each end or, in the case of the 3" & 1" (the latter plated steel), along their whole length. Other lengths are 12", 9", & 6". The Crank is about 3 3/4" long overall & has a transverse hole for a string. The Basestand is 4*10*3/4", and is made of .040" sheet. The peculiar hole arrangement in it, mentioned in OSN 10, is to allow the Wheels to be mounted for storage; the evenly spaced row along the center of the plate are on .825" centers, (why such a strange dimension?), and the other holes are at different spacings, all seemingly arbitrary. Wheels are painted black plastic, the 2" diameter red & the 1 1/2" diameter blue. Terminals are of 3 varieties: using the terminology in the manual, they are an 8 Hole with a smooth longitudinal bore and 3 tapped cross bores, and two types of 6 Hole, one with a smooth and one with a tapped longitudinal bore. Both have one smooth and one tapped cross bore. All the cross bores are in one plane so the 3 in the 8 Hole are at 60° to each other, and the 6 Hole ones are at right angles. All Terminals are .625" Ø & .875" long (5/8" x 7/8"); smooth holes are .26" Ø. The Bolts (1" long) & hexagonal Nuts are plated steel. All threads are 1/4"-20.

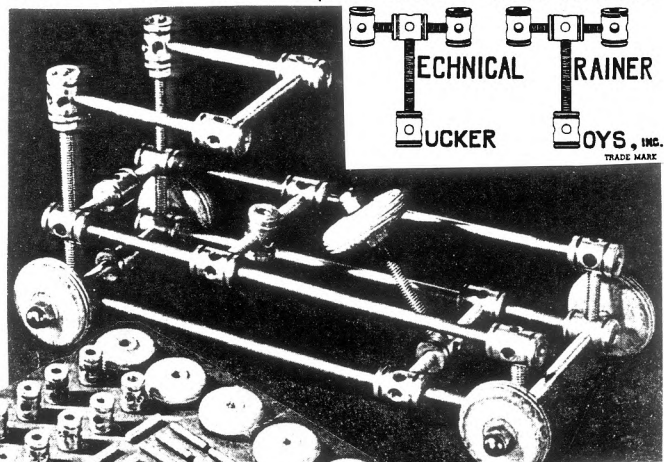
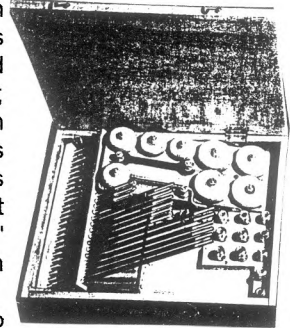
No quantities are given anywhere but as found the set contained a Basestand, 4 of each Wheel, 6 each of the 12", 9" & 6" Rods, 10 & 5

of the 3" & 1" Rods, 5x 8 Hole & 6 each of the 6 Hole Terminals, 13 Bolts, 32 Nuts, and 4 Washers.

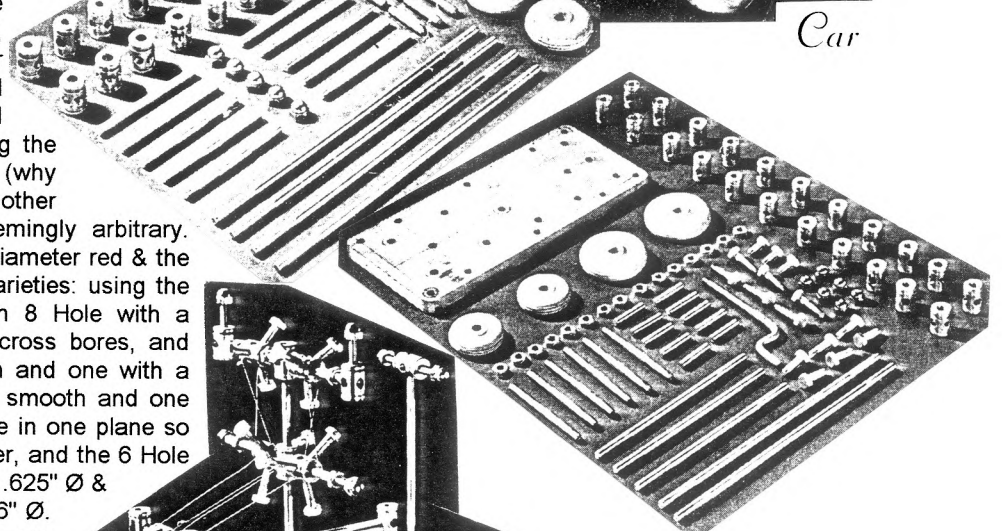
The manual seems to be quite a find - no one I know who has a set has seen a manual. It has 20 pages a little less than 7*10", printed in black and white, with photographs of the set and of 12 models. At the back is a price list of the individual parts but the quantities in the set aren't given. No mention is made (there or elsewhere) of the 2 types of 6 Hole Terminal, or of the Crank Handle, although it is used in several models.

The outfit shown seems to be an earlier or pre-production set with a plain box lid without a 'lip', and with no sheet metal parts. A photo of it from the back cover of the manual is shown opposite. The Basestand and Wheels seem to be made of wood; the Terminals are housed in holes in a thick block of wood; and the Rods locate in strips of wood. The Wheels are arranged differently, and my set contains more Terminals, Bolts or 1" Rods, and 6" Rods than are shown in the manual pictures.

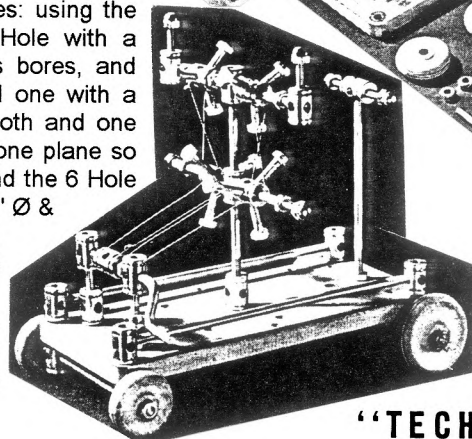
Each model in the manual also has a photograph of the required parts all nicely arranged. The Car and Generator below are among the more complex models, and among the parts for the Generator can be seen the wooden Base, and some Acorn Nuts. The latter, along with ordinary ones, are used in several models but are neither listed in the parts list nor included in my set. One of the models, the 'Traveling Rotator', uses 27 Terminals, against the 14 in the set illustration in the manual, or the 17 in my outfit. The same model requires more 3" Rods than are



Car



Generator



"TECHNICAL TRAINER"

available, too. Other models are similarly overly ambitious for the set. There may have been larger sets, but no mention of any others is made in this manual. All of the models seem very skeletal, possibly natural for a rod system. Perhaps TECHNICAL TRAINER might best be characterized as a metal Tinkertoy set although the Basestand is the major departure from the Tinkertoy concept, and triangular constructions would be more difficult. Set quantities are not given in the parts listing.

The name in the manual is Tucker Toys Inc., 2496 Amsterdam Avenue, New York 33, N.Y., but a slip headed

'Announcement' has been stuck on the front cover, saying that 'Effective May 27, 1946 Tucker Toys Inc. has no further interest in this item'. It goes on 'Mfd By Farmingdale Aircraftmen Mfg. Corp., Farmingdale, New York, Distributed By Herman M. Kruse & Associates, St. Louis, Missouri'. Farmingdale is on Long Island about 30 miles from downtown New York City, and St. Louis is perhaps 900 miles away! Farmingdale Aircraftmen are listed in the 1946 & 1949 editions of the Industrial Directory of New York State as manufacturers of pumps, compressors, etc.'

MEK-STRUCT Sets in the UK Early this year Bill Charleston bought an Emergency Vehicle 300 Set reduced to £10.99 from an Index catalogue shop. He was sufficiently impressed by the price, and the quality of the parts, to ask the distributors, Red Robin Toys Ltd., about other outfits. In a reply from the Customer Services department the following sets were said to be available:

- **Mek-Bots** (Robotic Warriors). 4 sets - Defender, Attacker, Protector, & Destroyer (600 parts).
- **Mek-Trax** (Construction Movers); 550 or 388 parts.
- **Space Vehicle Sets** with 560 or 300 parts.
- **Emergency Vehicles Sets** with 560 or 300 parts.
- **General Construction Sets**; 210,270,370 or 450 parts.

They also said that spare parts could be supplied but no price list was as yet available. Red Robin's address is Robin House, Tresam Road, Orton Southgate, Peterborough, PE2 6SG; phone/fax 01733 371170/370818. Bill also asked where he could buy the sets but the only outlet Red Robin named was Index.

Index have had various sets in the past but none are included in their Spring 1998 catalogue. Gordon Finch wrote that the Autumn 1996 Index catalogue showed the 300 part Emergency Vehicle Set at £24.99, a £14.99 210 part General Outfit, & a £4.99 169 part Set to make a Go-Cart, not mentioned by Red Robin. In the Spring 1997 edition the price of the 300 had been reduced to £17.99, and only the 210 & 169 were in the Autumn 1997 issue.

Most of the sets above have been mentioned already in OSN, with accounts of some of them, see 12/310, 14/392, 15/426, 16/443. But the MEK-BOTS - does anyone know anything of them?

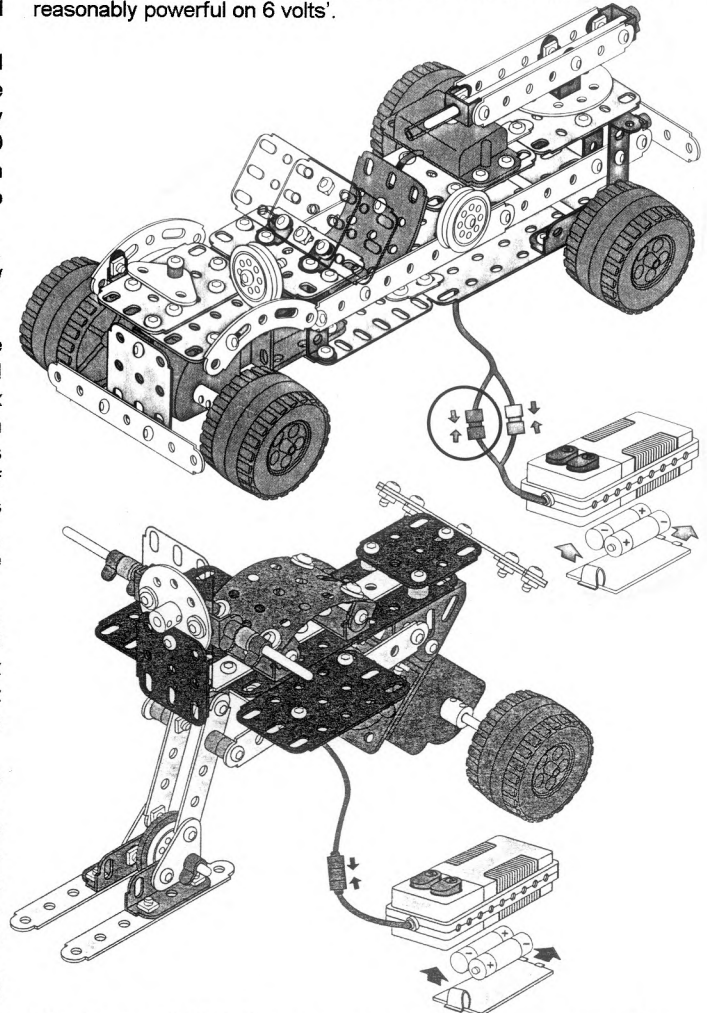
The Emergency Vehicles Set 300 At my local Index the only way to know that the 300 was still available was to ask, and I bought one for £10.99 (Stock No. 420-231). The (over) large box (16½"×11½"×2½") is basically orange with photos of the models on top and bottom. Also on it: Item No.3630; the Hong Kong address of Artin; and on a stick on label, Toytime Limited, Cams Lane, Off Harper Fold Road, Radcliffe, Manchester, M26 05W. This address is also on a slip in the box as that of Artin's UK Service Centre, with a phone/fax: 0161 7234451/7246808. Presumably they were Red Robin's predecessors.

The top of the box is transparent, covered by a hinged flap, and the parts are in recesses in a foam block which is inserted through the end of the box. Many parts are in a black plastic box (9"×4½"×¾") with a clear cover. The packaging isn't very convenient because the transparent top is an integral part of the box, and the foam block has to be taken out to get at the parts.

A little over half of the 311 parts in the Set are N&B, and the rest include the Motor/Gearbox with Light Unit (GBE), Battery Box, and a good selection of 32 Strips/DAS, 36 Brackets, and 17 Plates. The parts are as described in OSN 12 & 14 with the following amplifications/differences. • The **Coupling**, and the boss of the **Bush Wheel**, the only bossed part, are brass, 9.0mm Ø, and single-tapped M3. The Coupling's dimensions are as in 16/459. The bore of both parts is 4.06 mm and they are thus a nice fit on the Axles. • 1 lug of the **Reversed Angle Bracket** has a slotted hole. • All the metal **Plates** are red. • The 'Tyre', W3 is a black **Plastic Ring**. • The **Bush Wheel** is nickel plated. • The thread of some N&B is still poor but 9 extra of each were found in the Set. The **Spanner** now fits the Nuts properly. • The black **Light/Sound Unit** is permanently wired to the Motor: its red light shines steadily only while the Motor is running but the wailing noise continues for a few seconds after it is turned off. • The **Spring Clip** is thick black plastic with adequate grip. • The **Hook** is of black plastic too and isn't heavy enough. • The short length of **Cord** is black and rather thin.

The manual (P/N 3205170 on the back cover) is the usual small format style with 16 pages plus covers. Most of the text on

the front cover, there's none inside, is, like that on the box, in English, French, German, Dutch & Spanish. The 3 models in it are the typical, rather characterless, small M-K & STEEL TEC type. The best one is shown below (under the Ski-Runner), and, from a Leaflet that Chas. Shrubsole kindly contributed, it's a motorised version of the #3213 Foam Injector (224) mentioned in 14/392. The featured model is a Fire Engine and it's badly designed - the front Wheels run in 2 Strips ½" apart, the whole of the back with the ladder on it is attached to the main structure by 1 N&B on each side, and said ladder is at a fixed angle, neither up nor down, though it does rotate in plan. The heavy cable linking the Motor/Sound Unit is difficult to hide away on all the models, and doesn't improve their appearance. However the 3v Motor is powerful enough, with the 69:1 reduction in the gearbox, to make them move along smartly, even on carpet, and Bill wrote that it 'seems reasonably powerful on 6 volts'.



The General 270 Set Josep Bernal kindly sent a copy of an identical 300 manual from Spain, and also one from the General 270 Set. The contents of this set are probably similar to the one described in 12/311 but are not identical. And they aren't very different to those of the 300 above except that there's no Sound/Light Unit and no large Plates. The manual (in English only with no Ref. No.) is markedly different to the earlier 270, with only 16 of the small size pages and 5 models. 3 of them are similar to ones in the earlier manual but the other two are more interesting - a Biplane and the Ski-Runner above. It won't be clear but the handle-bars/skis are free to turn.

KONSTRUKTOR K-115 Another little Russian system, perhaps still being made, because a 1997 date is stamped in the Manual. It's been said that there were, & conceivably are, some 30 small factories in Russia making small systems, so no doubt a good many more remain to be discovered. David Hobson kindly lent me this one, and for reasons to be explained, it looks as if it could be related to VINTIK I SHPUNTIK (VIS), illustrated in 3/39 (though it wasn't given that name at the time). However I've never actually seen any VIS parts and there seems no positive connection between the two. Neither can I find any significance in the '115' designation which is on the box lid, and the Manual's title page (as shown above the models below), though not on its cover. I thought it might be the number of parts in the Set, but no, it has 87 major pieces plus about 60 N&B. Brest, the town in the address given in the Manual is just inside Russia, to the east of Warsaw.

The Parts • **DATA** (in mm) **STRIP** (10-hole): •hole pitch/dia, 10.0/4.3; •width, 10.1; thickness, .94 (typical); •corners chamfered. **BOSS**: •o/d, see below; •i/d, 3.7; •integral plastic; •push fit. **THREAD**: M4. **AXLE DIA**: 3.87. **DP (Mod)**: N/A. **NUT**: hex 7.0 A/F; **BOLT**: roundhead 6.7 Ø; both steel/BZP.

The different parts on the Set are listed below and unless otherwise noted they look just like the VIS illustrations in OSN 3.

- 3,5,10h **Strips**, all with chamfered corners (like VOGUE). Different Strips have widths varying from 9.9 to 10.1mm, and thicknesses from .75 to 1.00mm.
- 1*3*1 & 1*5*1 **DAS Brackets**: Flat; Angle; Double, 1 & 2h deep. All have fully radiused ends. The slotted hole in the Angle & Flat Bracket is 7mm long.
- **Double Strips**, 20.0mm wide, 2,4 & 5h long, and 2 & 3h long with one corner without a hole and angled off. All these have slightly rounded corners.
- 5*5h **Flanged Plate**, with 6mm long elongated holes in the 2 flanges, and nearly square corners.
- The 23mm Ø **Pulley** and 8h **Bush Wheel** are made of white translucent plastic and don't look like those in the Manual, which are identical to their VIS Manual counterparts. Both faces of the Pulley are recessed between the boss and rim, and have 6 raised pips on each side in the recess. The Bush Wheel is 27mm Ø and like the Pulley is a (very tight) push fit on the Axles. The **bosses** taper slightly and are about 8mm Ø at their outer ends. The black, plastic **Tyres** are 38mm o.d.
- **Axles** are 75mm long with slightly rounded ends. The **Bolts** are 6,10,16,20 & 30mm u/h, although in the manual the 10 & 30mm ones are listed as 8 & 35mm. The heads of the longer ones are slightly larger than that of the shortest given above. **Nuts** are of commercial thickness. The **Spanner** in the Manual is like the VIS one, but the actual part, 8cm long, is shown below. The flat **Screwdriver** (below and 11½cm o/a), is also different to the VIS one. The **Hook** is missing from the Set but in the Manual it looks just like the flat VIS part.



- The parts have no sharp edges and most seem to be accurately made, though the holes in some of the Strips are very slightly off centre. Generally the metal is about .8mm thick but the Plates are 1.1mm, and each of the four 10h Strips is a different thickness. All metal parts have the same finish, a rather flat and slightly patchy BZP, with some brown staining on the Plates.

The Set The box is an orange plastic moulding, 223*165*25mm overall, and the lid has impressed into it, the name, a word meaning metal, and a Lorry-mounted Crane. All the wording is in Russian. The main box is subdivided into 6 compartments by integral partitions and the larger parts are loose in them, while the others are in 2

plastic bags.

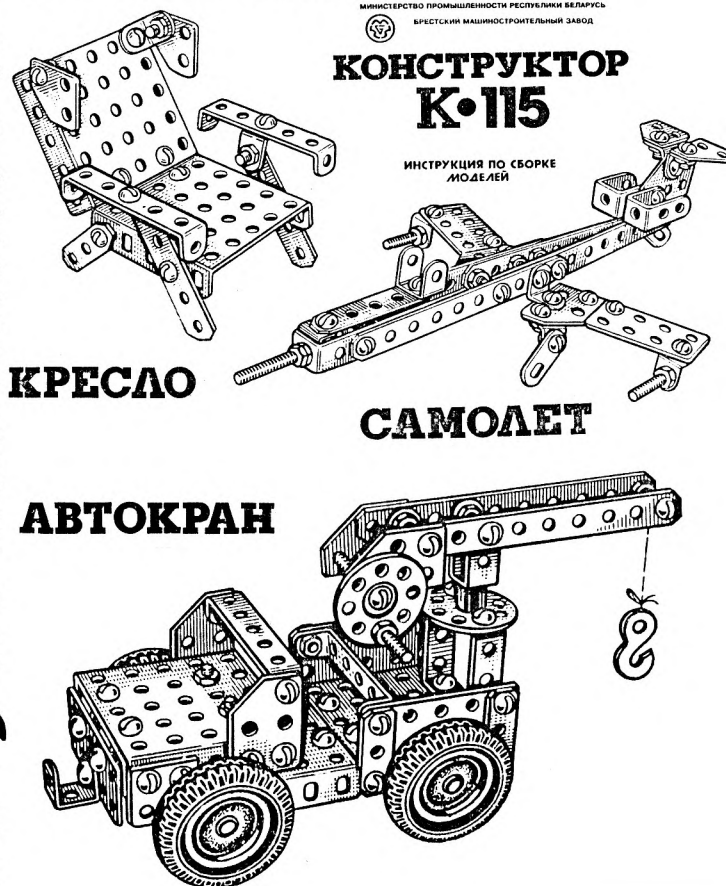
The main parts are 4 Flanged Plates, 4 Pulleys/Tyres, 2 Bush Wheels, 19 Strips & DAS, 21 Double Strips, 27 Brackets, and 60 N&B.

The Models **MANUAL SUMMARY** •Name: KONSTRUKTOR (K-115 appears on p1) •Maker: Brestskii Mashinostroitel'nyi Éavod, 224011 g. Brest, ul. Suvorova, 21. •Dates/Ref Nos: 1997 stamped on p2; 3ak.2725 Tirazh 10000 on BC. •Page size: 205*146mm. •No. of pages: 28+covers. •Language: Russian. •Printing: line drgs of models; all B&W but some blue on cover. •Page Nos. of Illustrated Parts List/Set Contents: 28 [no PNs]. •Sets covered: K-115. •No. of models: 15. •Name, Model No., Page No. of first & last model: Armchair,1,5; Fork Lift Truck,15,26-27. •Other notes: English model names have been used, otherwise the Russian has been transliterated. A table with the parts needed for the different models is on the IBC.



The models are quite simple of course but there is a reasonable selection, and in some the cropped Double Strips are used to good effect. The Armchair and Mobile Crane below are fair examples. One or two, like the Jet are a little more imaginative.

K 115 v. VIS Based on their illustrations, nearly all the parts are identical, although the VIS Plates are thought to be red. In addition the style of the Illustrated Parts for the two have several similarities, as does the tabular presentation of the parts needed for the different models.



PRIMUS ENGINEERING David Hobson has nearly finished a comprehensive history of this system, including the Car Chassis, Loco, & Big Wheel Sets. It will run to some 150 A4 pages with many illustrations, some in colour. In the UK, PRIMUS was second only to MECCANO in its day, & to set the scene for its launch, the first 2 chapters will review MECCANO's competitors before WW1. If you might like to buy a copy please contact David for full details at 'Woodington' Edford Green, Holcombe, Bath, BA3 5DB, England; Tel: 01761 232741. PRIMUS is a favourite of mine so I ask you, what better present could your partner get you for Xmas?

MECHANIX Abroad This is the Indian MECHANIX set described in 15/409, but found on sale in the Spring by Ivor Ellard in a Clarkes cut-price store in Chelmsford at £16.99, and by Michael Grace in a number of toy shops in Co. Wicklow, Ireland last Xmas. Ivor kindly bought one for me and there are some changes since OSN 15, including a few extra parts, Pulleys with metal bosses, and a new manual. Michael's Set has these changes too.

The packaging is identical except for two additions to the lid - 'WINNER OF "THE BEST TOY OF THE YEAR" AND ASLO "THE BEST EDUCATIONAL TOY OF THE YEAR" (1994)'. Indian awards no doubt, and according to the manual, made at the TAITMA. Also an EEC label (with © 1997 on it), stuck over the maker's address, which looks to be the same, but the distributor is at MUMBAI - 400 086.

PARTS The contents have been increased by 4 Strips, 2 axles, 1 Angle Bracket, and 1 Spanner.

The **bosses** are nickel plated steel, peened almost flush with the face of the Wheel. They are double-tapped, 9.50mm o.d., and the bore of 4.11mm gives a reasonable running fit on the Axles.

Flexible Plates are still paper thin and now have a slightly rough matt finish instead of being glossy. The green & red ones are now a dark shade. (The other colour change is to the **Flat Girders** which are much lighter than before.)

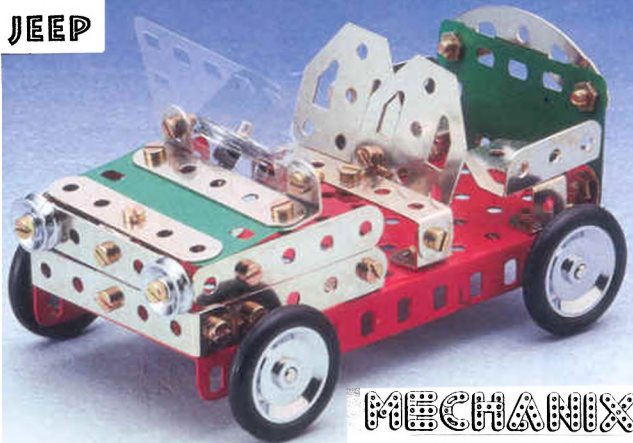
The **Nuts** are smaller at 7.2mm A/F and now fit the Spanner, except the centre opening which, as before, is square. The **Bolts** are cheeseheaded, 6.3mm Ø.

Spring Clips are now made of black plastic, and are slightly larger than before: 5mm wide with 4mm wings. The **Hook** is yellow plastic, 46mm long o/a, with a 5½mm hole. The **Driving Band** is of 3½mm Ø black rubber, with a length of about 9½".

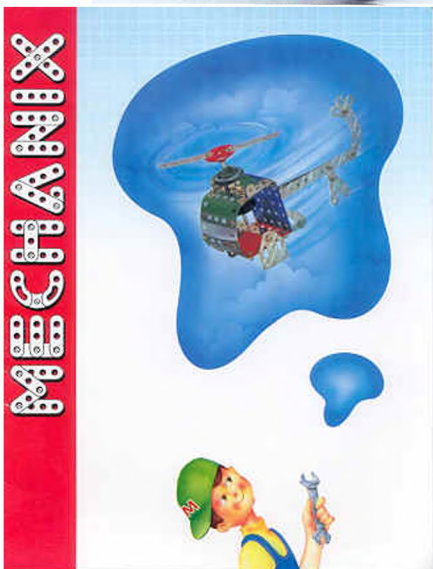
The **Spanners** have a black metallic finish, and the **Screw-driver** is now marked MECHANIX & 453. (The 153 in OSN 15 should have read 453.)

MANUAL It has the same number of pages as before but they are larger, U.S. letter size, and there are over twice as many models, 31 in all. Each now has a Parts List, often illustrated, and all the parts in the models are in their correct colours. One or two very simple models have been dropped and others improved. The Robot for example is now the Robot with Pram. Several of the new ones use more of the parts in the Set, like a Fork Lift Truck & the Jeep below. There's quite a lot of chat about quality and it ends, 'We do not do business at Zephyr's we befriend children. A smile on your child's face is our gain. \\ love \\ ZEPHYR'.

JEEP



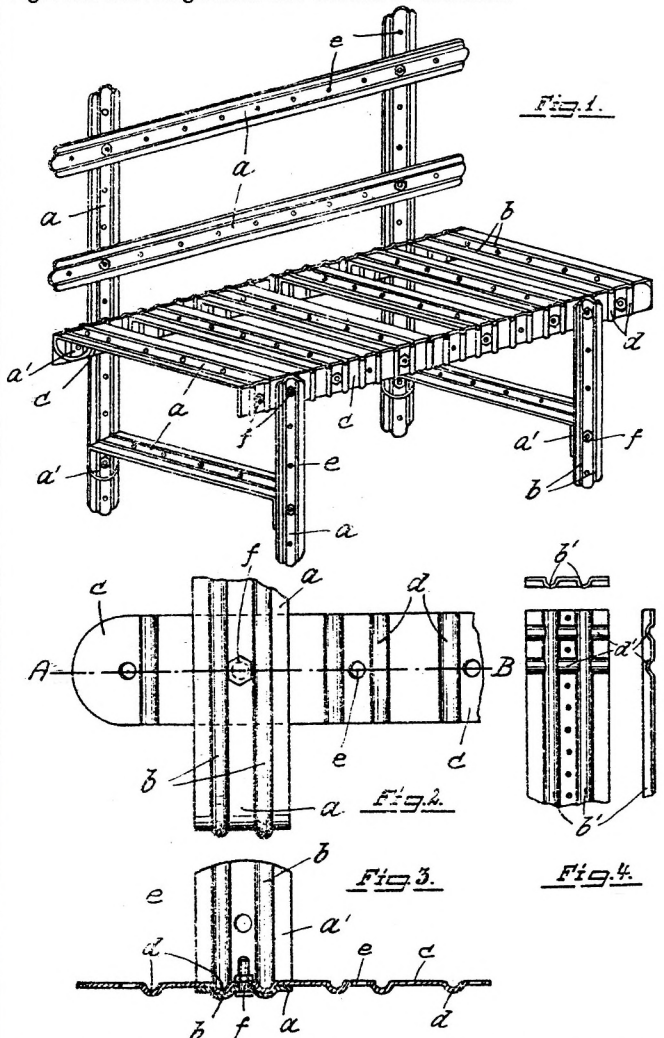
MECHANIX



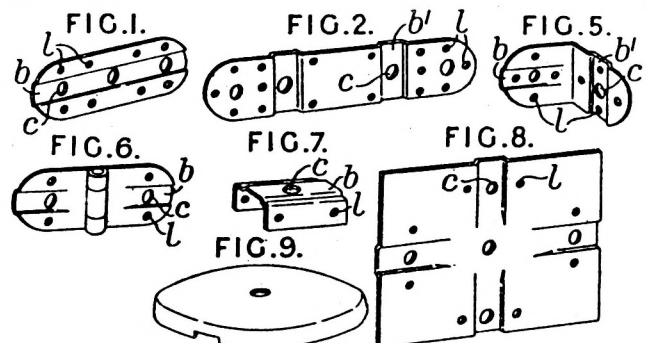
SUMMARY •Name: MECHANIX •Maker: Zephyr, 195, Abdul Rehman street, 4 th floor, Gabajiwai building, Mumbai - 400 003, India. •No Dates or Ref Nos: •Page size: 216*281mm. •No. of pages: 16 unnumbered, including covers. •Language: English. •Printing: colour photos except B&W drgs of parts; cover is white with red left edge, & Helicopter model on blue ground. •Page Nos. of Illustrated Parts/Set Contents & highest PN: 16, W-1. •Sets covered: one, unnumbered. •No. of models: 31. •Name, Page No. of first and last model: HELICOPTER,3; GARBAGE DUMPER,15. •Other notes: no Model Nos.

The MAFELL Patent MAFELL was the German system with very large parts, see 15/415 & 17/476. David Hobson has kindly passed me a copy of the relevant UK patent, No.353494 with a Convention Date of 23/12/29, in the name of Maschinenfabrik Fellbach G.m.b.H., Fellbach, Wurttemberg, Germany.

The claim relates to 'constructional toys, e.g. for producing small articles of furniture, small vehicles and the like'. They are to be made from strips, angle brackets, DAS, etc, which have impressed channels in them, some longitudinal, some transverse, which allow 2 pieces to positively engage with each other. Regularly spaced holes are provided for the bolts that hold the parts together, or for axles, and the bolt heads fit snugly between adjacent channels to prevent them turning. Fig.1 shows a finished model; in Fig.2 & 3 the N&B f holds the strips c & DAS a; and the strip in Fig.4 has both longitudinal and transverse channels.



In 1930 there was another patent, No.368758 for NER-SAG (1930) Ltd. and W.H.Ward, 448 Strand, London, which has considerable similarity to the Fellbach one, with engagement between the ribs and grooves, b and b', longitudinal and transverse, in the figures below. It was to build 'toy structures or vehicles, steps, ladders, trolleys, or other articles of utility'. The figures are self-explanatory except that the parts were to be joined by N&B through holes c, Fig.6 is a hinged element, and the holes l are said to be 'formed to reduce weight and to receive auxiliary attachment screws and bolts'.



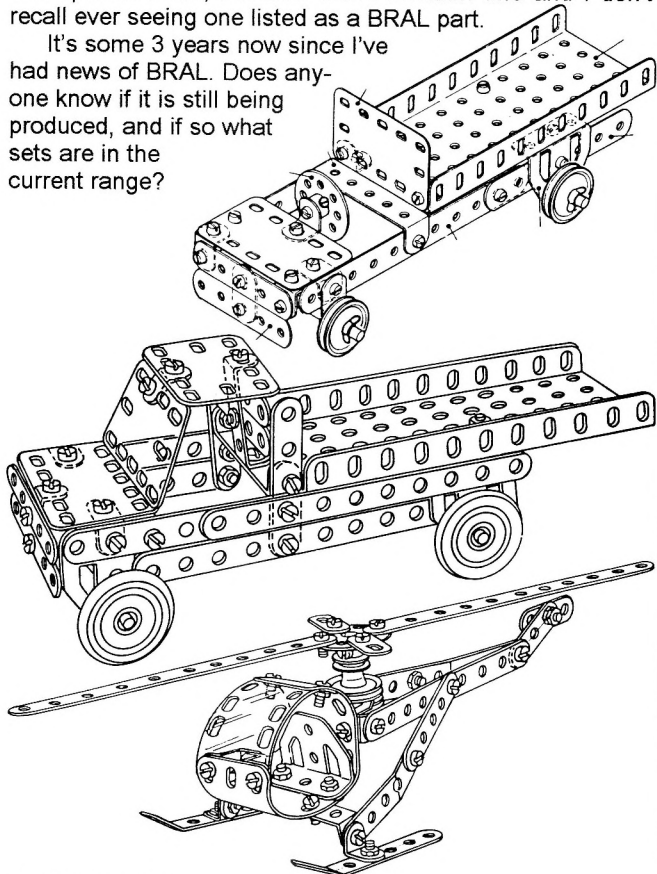
The BRAL 400 Set Don Redmond mentioned in passing that he had such an outfit, and since I'd never heard of it he kindly sent some details. It's a small set in a large box, which he bought in about 1994, secondhand but in very good condition. It carries the BRES logo, and the company changed to that name between the mid 1980s and 1991, but I'm not sure exactly when.

The box measures 18*14½*2" and has an end-flap opening. 6 models are shown on the top in full colour against a printed red background, while on the bottom are all the parts in the set, and an Articulated Wagon. The parts are housed in a grey plastic insert & the main ones are 2,8,2,4 of 3,5,7,11h Strips, 2x 2½" & 1x 1½" DAS, 2x 5h Curved Strips (M90a), a 5*11h Flanged Plate, 2 each of Trunnions, Flat Trunnions, & Reversed Angle Brackets, 8 Angle & 4 Flat Brackets, 2x ½" & 1x 1" Double Brackets, a Bush Wheel, 4x 1" Pulleys with Boss, and Tyres for them, 2x ½" Pulleys, 2 each of 90mm & 38mm Axles, 3 3*5h Flexible Plates, a small Loaded Hook, 30 Spring Clips, about 30 N&B (5 & 7mm u/h), a Screwdriver & Spanner, and a sheet of stickers (brand names, etc).

Based on a known No.3 Set from the mid-1980s, these contents, with a few minor exceptions (and apart from those 30 Spring Clips), are what might be expected from a No.2 of that period. So was there a whole '100' series of sets in perhaps the late 80s? Any further information would be welcome. As with the No.3, the Strips and Brackets in the 400 are nickel, but the Flanged Plate in it is light blue instead of green.

With the Set was the huge 25*19" poster mentioned in 7/142 (showing the parts with 4-figure PNs), and a Model Leaflet accordion-folded in 4 to 11*7¾". It bears no Set No. and shows line drawings of 29 models. Nearly all are quite reasonable small models, with a good sprinkling of Buggies & Helicopters, though some require sharp bends in Strips and the Flexible Plates. Over half don't use the Flanged Plate and Tyres, and so may have been designed for a smaller outfit. The models compare very favourably with the mostly very simple and unattractive ones in the No.3 manual of the mid-1980s Set. The Lorry below is one model that has been carried across, and for comparison, the one under it is its neighbour in the Leaflet. Several of the models, such as the new Lorry & the Helicopter below, need a 3*5h Transparent Plate, but Don didn't mention one and I don't recall ever seeing one listed as a BRAL part.

It's some 3 years now since I've had news of BRAL. Does anyone know if it is still being produced, and if so what sets are in the current range?



ELETTRO BRAL The electrical sets produced by Roberto Braglia under this name came to mind recently when Richard Symonds kindly sent photos of a set he had found, which looks complete, & a photocopy of the manual. The latter appears to be the one from which the MCS pages were taken, and apart from the cover, is identical to one I have. Also used in this note are illustrations of the sets in ad leaflets, & on the backs of manuals.

No start or end dates are known for the Sets but they were certainly available in 1964, and were still on the back covers of manuals in the mid-1980s. The main parts were a 5*7h Perforated Insulating Plate, a simple 4.5v permanent magnet 3-pole Motor; a Bell Unit; a Rhumkorff Apparatus (a shocking coil?); a Horseshoe Magnet; & a Transformer. All devices came fully assembled but the Motor could be taken to pieces. Smaller parts included various Lampholders & Reflectors; Toggle, Pushbutton & Changeover Switches, Plugs & Sockets; Coils of Connecting Wire; and standard & smaller diameter N&B. Tools were a standard Spanner, a Screwdriver with plastic handle, Scissors, Pliers, & a Hammer.

A mid-1970s ad shows the main parts in the Sets. The No.1 has the Bell & the Plate. The Motor is in the No.2 but there's no Plate. No.3 looks much like the No.2 except that the Motor isn't assembled. The Plate is restored to the No.4, the Motor is fully assembled, and there's a Transformer. Additionally in the No.5 are the Rhumkorff kit, the Horseshoe Magnet, & the Hammer. The No.1 has 2 Bulb Holders, Reflectors, & Switches, with more and a greater variety of such parts in the larger outfits.

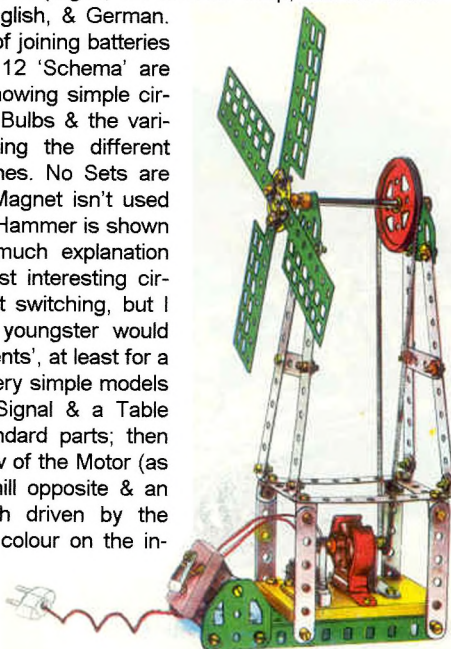
Most of the illustrations show the parts attached to a backing board but in a later one, & in Richard's Set, they are in a moulded plastic tray. There's no Set No. on his box but it corresponds to the No.5 above except that it has no Transformer (though if the parts were rearranged there might be space for one), and, as well as a 5*7h Plate, there's a 7*11h one. A similar looking Plate is shown in an ad for a BRAL semi-constructural Telephone Kit.

On the parts, Richard's Plates are plastic mouldings with ¼" Flanges on all sides, & no centre hole. Earlier Plates look as if they may be the same. In Richard's Set, and the earliest Nos.4 & 5, there are some fancy Bulb Holders with radial fluting, about 2" Ø.

Apart from white/cream Plugs, Sockets & some Switches, most parts are red, or in some earlier sets, an electric blue. Exceptions are black Transformers, the 5*7h Base which is usually yellow, & Reflectors which are sometimes red, blue, green, and yellow in the same set.

The sets with strung parts are in blue boxes with the label showing a boy in front of a large yellow space telescope, and a red control console. In an ad the set with the formed tray has a yellow lid with again a boy in front of a (white) telescope, and there may be a console but that part of the lid isn't visible. Richard's lid is brown with swirls of light blue lines around the name, and 5 small circular insets showing most of the main items wired up to Switches, etc., and bolted to 7*11h Plates.

My manual has the boy, yellow telescope, & console on the cover, while Richard's & the MCS one have the Motor on its red base, bolted to a thick yellow 7*11h Plate, and, above, a yellow tray with a compass in it, supported by a DAS. These last 3 parts aren't in the sets, nor are they mentioned anywhere else in the Manual. The latter has 16 pages, 157*219mm deep, and the text is in Italian, French, English, & German. After an explanation of joining batteries in series & parallel, 12 'Schema' are given on 7 pages, showing simple circuits connecting the Bulbs & the various main parts, using the different Connectors & Switches. No Sets are referred to and the Magnet isn't used at all. No use for the Hammer is shown either. There's not much explanation and perhaps the most interesting circuit is for 2-way light switching, but I can imagine that a youngster would enjoy these 'experiments', at least for a while. Next come 2 very simple models of a Railroad Light Signal & a Table Lamp that need standard parts; then after an exploded view of the Motor (as in MCS), the Windmill opposite & an Aeroplane Ride, both driven by the Motor, are shown in colour on the inside back cover.

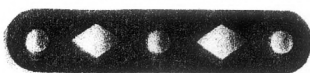


'New' System The TOY PLANNER Kendrick Bisset kindly sent the following account of his latest find.

'We finally got to visit the local Historical Museum near our new home, and were surprised to find a small 'other system' with an unfamiliar name on display. Inquiries led to the set owner, Peter McDonough, lending the set to me to study.

The TOY PLANNER is a very simple system, and was made by The Hadley Smith Manufacturing Co. of Moodus, Connecticut. The company name appears in the Toy listing of the Thomas Register of American Manufacturers from 1916 through 1920. These are not necessarily the dates of the system, but it does give an idea of the era.

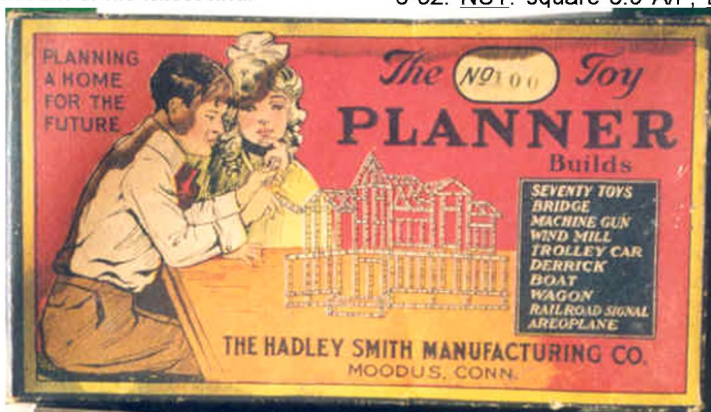
At first, I thought that the parts were brass, but a magnet quickly revealed that this is only plating. The system appears to have only six parts: Nut, Bolt, Angle Bracket, Wheel (a large washer), '5 hole' Strip (left), and a 3*9h Plate. The hole spacing is a nominal 12.7 mm, but averages a bit



less with a fairly wide range; the holes are a little larger than usual, and the Strips a little wider. The unusual diamond shaped holes are only in the Strip and measure about 10.0*6.9mm. It's likely that there are no longer Strips; the larger models seem to use the 5h Strips bolted together for longer members. However the printing of the single-sided Model Sheet is not good quality, so it is hard to tell for sure in all cases. The holes, in the plate especially, are rather rough and have very apparent burrs, and the hole spacing is a little irregular.

The small cardboard box, 240*130*16 mm, has the rather attractive label (top center) nearly filling the lid. It is printed in yellow, red, & black (colors used by many toy producers). A bad water stain had affected some areas, but I was able to almost remove the damage with the 'restoration' features in the program which came with the scanner I use.

• **DATA** (in mm) **STRIP**: •hole pitch/dia, 12.5-13.0/4.8; •width,



13.7; thickness, .66; •ends near fully rounded. **THREAD**: 8-32. **NUT**: square 8.9 A/F; **BOLT**: 7.5 Ø roundhead; both

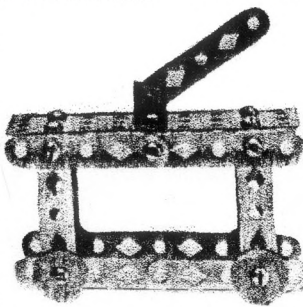
plain steel. [No bosses, Axles or Gears.]

The box contained:

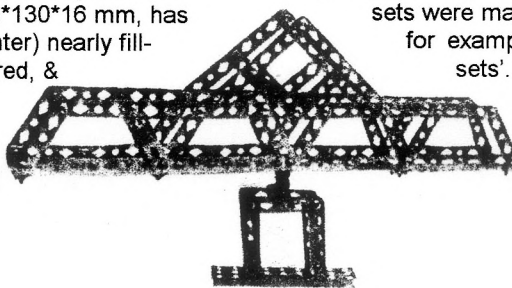
- A 3*9h hole Plate with square corners.
- 3 Wheels, 23.2mm Ø
- 13 Strips.
- 5 Angle Brackets, square cornered, with a round & a 9mm long slotted hole.
- 10 Nuts, about .12" thick.
- 11 Bolts 9.5mm long u/h.

The Wheels are 1.27mm thick; the other parts the same thickness as the Strip.

Some parts are certainly missing, one Wheel, for example. I didn't find any model shown for this Set that needs more than the 13 Strips & 5 Angle Brackets, but 16 N&B are required. It is interesting that 16 are used in one of the more 'complex' models, the Trolley Car (left), and the 2 that would hold the bottom of the 'side' members together are left out. Note also that double nutting does not appear anywhere, even though the Wheels run on the Bolts.



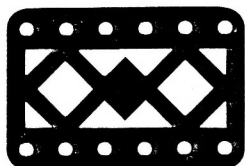
The models are all quite simple, as would be expected of a system with so few parts. The box lid mentions 'Seventy Toys', but only 9 are on the Instruction Sheet for 'One Set'. It is not clear whether there are more sets than the one examined. The box lid has '100', probably rubber stamped, in a space for the set number. It is unclear to me what this means - the set seems too small to have cost \$1.00 when compared with other systems such as MODELIT & MASTER BUILDER, and the Instructions only mention 'one set', 'two set', 'five set', and so forth. This seems to mean 'two sets', and as far as can be seen the larger models do not need any additional types of parts, just larger quantities of the same. Some other U.S. sets were marketed in this manner: STEEL WORKER, for example, was sold in boxes containing 'three sets'. The largest model shown. A Building with Tower needs 10 Sets, & the Bridge (left) needs 5.



SWING DRAWBRIDGE.

Moodus, Connecticut is about 7 miles from East Hampton, where MODEL IT (The Watrous Mfg. Co.) & STERLING TOY BUILDER (The N. N. Hill Brass Co.) were made. The latter, incidentally, was available in nickel or a copper finish.'

MYSTERY PART No.39 6 of the Braced Girders below were found by Josep Bernal in Spain. They were in a large lot of MECCANO parts which dated from the end of the nickel era and the beginning of the painted period. They are painted a similar green to the green MECCANO parts, but the finish is matt and are not glossy. The hole spacing is exactly to the MECCANO standard.

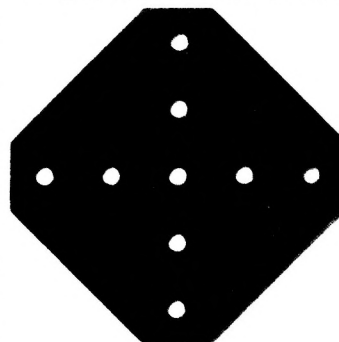


MYSTERY PARTS No.40 A dealer gave David Hobson a handful of parts as samples from a large consignment which, it is said, W.H.Cornelius imported into England, possibly from Czechoslovakia, just before WW2.

The parts David has are listed below; all are made of steel with holes of 3.5 to 3.6mm Ø at 12.7mm pitch.

- One each of 5, 8 & 12h Strips. They are 12.6 or 12.8mm wide, with from 3½ to 6mm of metal outside the end holes.

- 2 of 12h A/Gs with all round holes.



- 4 Perforated Plates, 5*7h, and 2 of the unusual Plates opposite, which are basically 5.4cm square.

The ends of the Strips, and the corners of the A/Gs & Perforated Plates are nearly fully radiused. The parts are generally accurately made but the 5h Strip has some sharp nibs at one end, & the 12h at 3 points

along one edge, 4 holes apart. They may have arisen from bad registration between successive punching operations.

The parts are painted a dull red, except the 8h Strip, which is a similar colour but glossier.

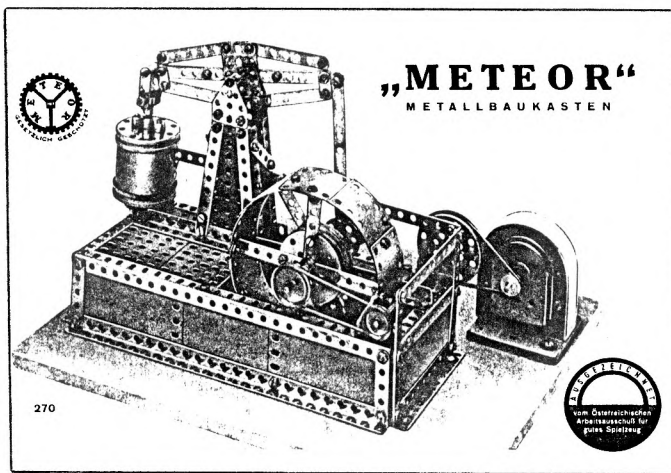
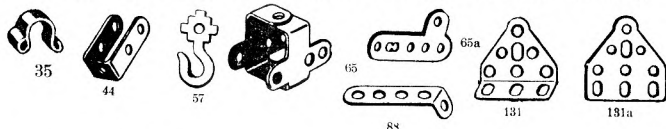
A Later METEOR No.4 Outfit

David Hobson kindly lent me this Set, which is boxed in the same style as the later No.1 mentioned in 17/474. It is probably near complete with the only obvious deficiency a manual for No.1 & 2 models, to go with those for Sets 00/0, & 3/4. With the Set was an Illustrated Price List of Parts, and a slip with the name of a Austrian toy shop stamped on it - Alois Oedl of Hallein, near Salzburg. Also, a Salzburg Chamber of Commerce voting slip dated 1965, with written on the back, a list of all the sets, their prices in Schillings, & the number of parts in each. That's the only indication of date; there's '270' on the front of the 00/0 manual but that's its PN.

The Parts The Price List contains only the parts that are shown in the Set Contents of the 6th Edition 1/2 manual (described in 12/303) as being included in the No.4 Set, plus a few others, including a Spring Clip, longer Bolts, a Trunnion & Flat Trunnion, 2 Tyres, and 3 Flexible Plates. In fact all these additional parts, except the Trunnions and the larger Tyre, were in the Clive's No.3 Set of OSN 12. The 156 parts of OSN 12, if they ever all existed, had been reduced to 84, with the disappearance of many lengths of Strips & A/Gs, all the Flat & Braced Girders, all Gears with more than 50 teeth, the Pulley & Pinions with integral dog clutch, all circular parts above 6cm Ø, many Brackets, all but 2 of the DAS, 1 each of the Sprockets, Curved Strips, & Flanged Plates, etc, etc. Another change was new PNs, now virtually identical to those of post-WW2 MÄRKLIN - the List shows both the old and new ones for all the parts.

Certain parts described in OSN 12 are changed, as follows: • The 18mm **Pulley**, with aluminium discs, and the 22mm, with steel discs, are both painted red on both sides. • The **Loose Pulley** is 7.0mm Ø. • The **Coupling** is 16mm long with tapped holes at 10mm centres. • The **Flat Bracket** is nicked steel. • The **Curved Strip** is nickel too. • The **Washers** are plastic, in the same 2 colours as the Flexible Plates.

Now for the parts that weren't described before. All **bosses** are aluminium. • The **Flanged & Grooved Wheel** is steel, painted red, and the diameter of the tread is 19mm. • The **25t Pinion** is similar to the 19t, but 11.1mm o.d. • The **50t Gear** (22.0mm o.d.) is aluminium too but with a separate boss. • The **Contrates**, 25 & 50t, 12 & 24mm Ø, are brass; the **Sprockets** aluminium with 11 & 23 teeth (15 & 27mm o.d.). There are no holes in the discs of any of the Gears or Sprockets. • The **Sprocket Chain** is nicked steel with 3 links/cm. • The **Spring Clip** (below) is blackened steel, 4mm wide and very neat with short wings that curl back on themselves. • The **2h high Double Bracket** (#44, below) has the centre of the bottom hole 8½mm above the base. • The **Reversed Angle Bracket** has all round holes. • The **Slide Piece** is formed from 8mm wide steel, and has a standard boss. • The **Hook** (below) is flat with a MÄRKLIN-style top, and is larger than might be expected, 30mm o/a. It is painted a lightish green, a colour also used for the bifurcated clips that hold the parts to the backing boards in the box. • The **Lugged Strip** (#65a) is like the MÄRKLIN part but the **Worm Housing** has an extra hole on each side, and the **Trunnions** have a different pattern of holes. All are shown below. • Also below, the **4*1h Bracket** found in Clive's set, and illustrated in the Price List as #88;

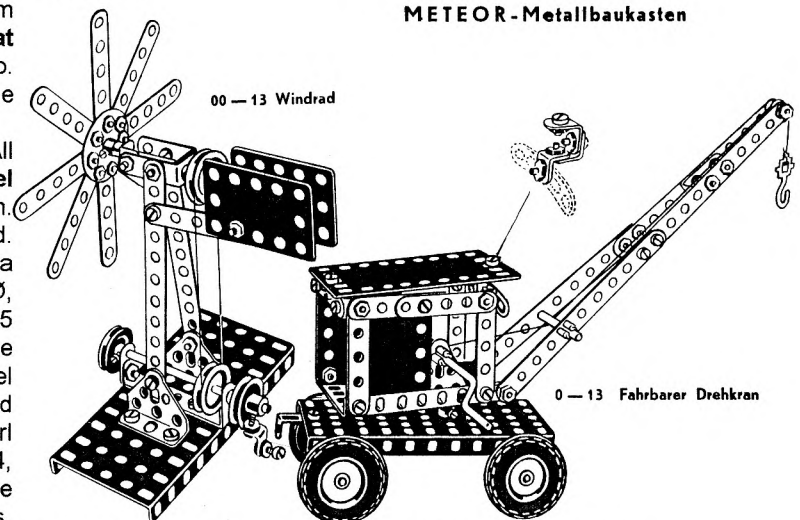


it is a simplified version of the more complex MÄRKLIN #88 part. • The 3 **Flexible Plates** (the 11*5h size of 12/303 should have read 11*7h), are made of plastic, .5mm thick, with blue and green examples of each size. • #111/5 & 111/7 are 5 & 7h **Strips with slotted end holes**. • The longer **Bolts** are 8 & 12mm u/h. • The handle of the **Screwdriver** is clear, yellow plastic

with 5000 V GERMANY moulded into it. • As in the OSN 17 Set No.1, the **Cord** is made of a red & a white strand twisted together. • 2 **Tension Springs** were found in the Set, one 17mm and one 27mm long, excluding ends.

The Manuals The 3/4 is the 6th Edition and is exactly the same as the one described in 12/304. The 00/0 is more modern looking with a photo of a Beam Engine on the cover (above). At the front are some Basic Constructions and the illustrations used are virtually identical to those in 1950s & 1960s MÄRKLIN manuals, although the original photos have been reworked as line drawings. Much of the text is identical too. Of the models, some at least are MÄRKLIN ones for Sets 99 & 100, although again redrawn as above, and showing the METEOR parts where they are different. A revised numbering system is used with the Set No. followed by the Model No., as in the MÄRKLIN manuals of the day. Perhaps the missing 1/2 Manual would have been an updated version containing some or all of the models shown on the box lid. Below are 2 of the METEOR models, the Windrad is very similar to MÄRKLIN 99-13, and the Crane is one of the models that I didn't find in my MÄRKLIN manuals.

METEOR - Metallbaukasten



SUMMARY OF MANUAL •Name: "METEOR" METALLBAUKASTEN •Details of maker: Meteor, Wien. •Dates &/or Ref Nos: the '270' on the FC is the PN. •Page size: 211*147mm deep. •No. of pages: 20 unnumbered inc covers. •Language: German. •Printing: B&W: line drgs of models; photo on B&W cover, above. •Page No. of Parts List/Set Contents & highest PN: 17 with illustrations on p16, 209/22 (& Manual 270). •Sets covered: 00.0. •No. of models for each set: 16,14. •Name, Model No., Page No. of first & last model of each set: 00: Stechkarre, 00-1,6, Schubkarre,00-16,10, 0: Kübelwagen,0-1,11; Windmühle,0-14, 15. •Other notes: Basic Constructions on pp4-5, & ads on p18. The IFC & IBC are blank; the BC has only ' "METEOR" - Metallbaukasten' & 'Made in Austria' on it.

The Sets The range of outfits is shown in the back of the 00/0 manual and consists of Sets 00,0,1,2,3,4, with linking Sets 1a,2a,3a. No mention of the Autobau or Elektro Sets,

but both types of Komet motor were still listed, the 4-8v for battery operation, & the 14-18v for use with a transformer.

The contents of the 2 smallest sets are given in the 00/0 Manual and are very similar to those of MÄRKLIN Sets 99 & 100. The main differences are that there were not so many Flexible Plates in the METEOR sets, but there were some extra Paper Clips. The number of the latter, given on the ad page of the 00/0 Manual, range from 32 for the 00 to 90 for the No.4.

The contents of the 1-4 Sets would be in the missing 1/2 Manual, but judging from David's Set, they probably did not differ much from those in the 1/2 Manual of 12/303, except for the addi-

tion of Flexible Plates - most likely 12x 5h, 8x 9h, & 6x 11h in the No.4. A reduction in the number of Strips is possible, but with more N&B. There are about 170 in David's, plus some 40 black ones with slightly smaller heads & slightly larger Nuts. The latter don't fit the Spanners, so these parts are probably 'foreigners'.

David's No.4 is in a blue box 52*32*2½cm with the same colourful label as the No.1 of OSN 17. Like Clive's No.3 the inside is orange, and the basic layout of card trays is quite similar to the No.4 shown in OSN 12. Most parts are held by the Paper Clips to backing boards in the trays, but the smaller ones are in trays with clear covers, or in 2 clear plastic boxes.

MÖWE Following the notes in 15/416 & 17/476, Thomas Morzinck & Don Redmond have kindly sent more information on this postwar German system.

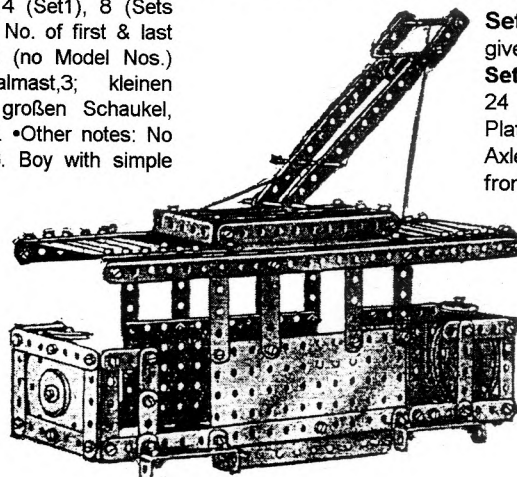
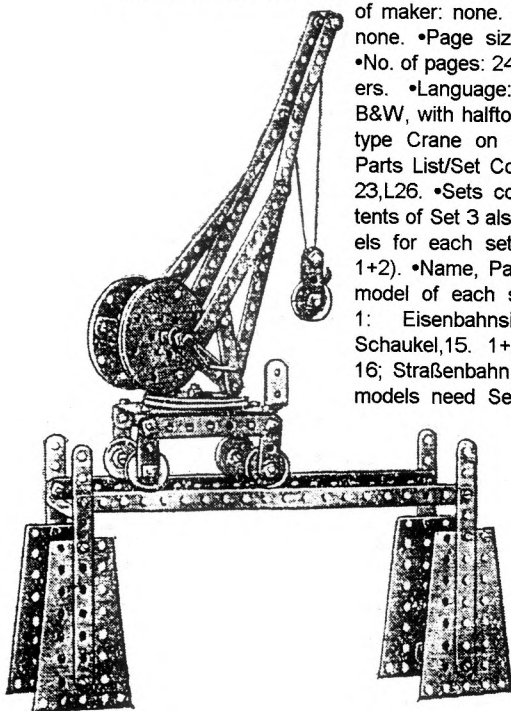
Initially there was probably only one set, unnumbered, and Thomas has 3 of these, each in the same size bright metal box with the lid stamped like the one in the Leaflet mentioned in OSN 15, and shown in MCS (Möwe Metall-Baukasten). He sent copies of the remaining page or two of a manual, page size 250*70mm deep, that would fit into this metal box without being folded. The manual in Sven's Set is the same size and both have a similar page layout with large halftones of the models, and no reference to different sets.

Later there were more outfits, witness the model shown in OSN 15 which needed Sets 1 & 2. An ad from a Swiss paper is for MÖWE Metallbaukasten Nr.1, 2, & 3, and it's supposed that the V was a typo. In brackets after the name is 'erstmal's seit dem Krieg' - 'for the first time since the war', so does that mean that sets were available before the war? Each Set was the same price (Fr.12.50), and so they were not progressive.

Thomas has a Set similar to his others, in a similar box, but with the lid stamped Möwe Nr.1 in large letters.

Don has confirmation that there were 3 Outfits - he has found a manual that gives the contents for Sets 1,2 & 3. It's probably the one that contained the model in OSN 15, and it doesn't show any models which need Set 3. It's about A5 in size and has never been folded to fit into one of the long, thin boxes. So was there a different size box at some stage? Don obtained a box with some parts in it from the same source as the Manual, and at the same time, but they weren't actually together. It is the first type described above, 284*83*24mm, with a sliding lid, and although obviously not complete, there were more Strips in it than shown for Set 1 in the Manual. The latter has 'Made in German - Brit. Zone - N. Rh. W.' in it, and so probably dates from before 1950. The 4 models that I've seen from the 'long' manuals are all in this A5 one. 2 of the A5 models for Sets 1+2, are shown below. The Tram runs on 4 Pulleys underneath.

SUMMARY OF MANUAL •Name: "MÖWE" Vorlagenheft. •Details of maker: none. •Dates &/or Ref Nos: none. •Page size: 210*143mm deep. •No. of pages: 24 unnumbered inc covers. •Language: German. •Printing: B&W, with halftone models & Railway-type Crane on cover. •Page No. of Parts List/Set Contents & highest PN: 23,L26. •Sets covered: 1,2 (but Contents of Set 3 also given). •No. of models for each set: 14 (Set1), 8 (Sets 1+2). •Name, Page No. of first & last model of each set: (no Model Nos.) 1: Eisenbahnsignalmast,3; kleinen Schaukel,15. 1+2: großen Schaukel, 16; Straßenbahn,22. •Other notes: No models need Set 3. Boy with simple



Hammerhead Crane on the back cover.

The Parts The 3 Sets contain some 50 different parts, mostly Strips & Brackets, but with 2 A/Gs, & 4 Gears. All are listed below with notes on known examples, but many haven't yet been seen. For some it isn't clear from the name exactly what the part is.

- **Strips** with 2,3,5,7,8,11,12,19,20 holes. 5 & 7h **Slotted Strips**. A 1*5*1 **DAS**, B10. 8 & 4h **Curved Strips**, D8 & D9. • 12 & 20h **A/Gs**. • A 5*12h **Perforated Plate**. A **Small Plate**. A **Flat Sector Plate**, see OSN 15 & 17. **Small & Large Lochscheiben**, D10 & D11, probably Perforated Discs, as in STABIL. • An **Angle Bracket**, B8, with equal arms and a round holes in each. A **Double Bent Strip**, B9. A **Double Bracket**, B11. A **Lagergabel**, B13, probably a 2h deep Double Bracket. A **Reversed Angle Bracket**, B12. **Flachwinkel**, B6, probably a 3h Corner Bracket similar to M133a. A **T-stück**, B6 (probable misprint for B5), probably a T-shaped Flat Bracket. • A **Loose Pulley**, E16, of about 25mm Ø. The centres of some look flat, others are belled out over a 12mm Ø, & others have a narrow bush; all have a brass look. A **Flanged Disc Pulley**, E17, of around 65mm Ø. 2 types were described in OSN 15 and the one with the boss may be the later sort. • **Small & Large Gears** (Stirnräder), D1 & D2, that in the manual look rather like the large-toothed STABIL parts. **Small & Large Gears** (Zahnräder), D6 & D7, toothed parts but no details known. • An 80mm **Axle**: in fact a Threaded Rod, and listed as 85mm for Set 3. 6,8, & 25mm **Bolts** - Don's have 6mm Ø tapered cheeseheads, 2mm deep. A square **Nut**, 8mm A/V. • **Lagerhalter**, B14, possibly a part like STABIL #17, see 13/352. A **Hook**, K1, which looks in the models to be flat with a hole at the top. A **Wire Crank**, brass, K2, shaped like the STABIL part in 13/352. The **Schnurrolle**, K3, & **Klemmscheibe**, K4, have the same names as the STABIL Parts 8 & 9, shown in 13/352/354. A **Roller**, M4, is probably a small, thick disc with a centre hole. A **Klemmlasche**, B7, literally a clamping strip. A **Rubber Ring**, D5. • A **MECCANOPATTERN** wire **Screwdriver** some 12cm o/a. **Spanners**, **Straight & Angled**. A black one in one Set is about 12cm o/a, double-ended with hex shaped jaws, angled at one end. • A **Tin Box with Lid**, E26, listed for Set1; and a **Box & Lid**, L26, for Set 2.

There's also an ordinary Crank Handle, with 90° bends and perhaps 12cm o/a, in one of Thomas's unnumbered sets, but no such part is called up in the 1-3 Set Contents.

Don wrote that his Strips & Brackets have large radius ends, and the Strips, .74mm thick, are very pliable, and easy to bend and crease. They aren't that well made and the spacing in some of the 8h Strips is 12.86mm, while for the 20h ones it varies from 13.08-13.13. All the holes in his parts are 4.4mm Ø.

Set Contents Full details will be given in an Extra Sheet, but broadly: **Set 1** contains 46 Strips from 2-20h, 24 Brackets, 1 Flat & 2 Sector Plates, 4 small & 2 large Pulleys, 4 Axles & 50 Bolts; **Set 2** has 32 Strips from 2-20h, 20 Brackets, the same Plates & Pulleys as the No.1, 2 Gears, 10 small parts, 2 Axles & 49 Bolts; **Set 3** has 19 Strips from 2-19h, 12 Curved Strips, 8 A/Gs, 38 Brackets, 4 each of Small Plates & Discs, 4 Gears (D6 & D7), 14 small parts, 4 Rubber Rings, 2 Axles & 49 Bolts.

PLASTICON In the brief references to this East German system in 15/418 & 17/476, I had assumed that the parts were similar to those of BURGSTÄDTER (BUR) because they looked the same and were made by the same factory. Now Werner Sticht has kindly sent a photo and some details of an EMB3 Set bought in 1990, and lent me the manual mentioned in OSN 15, which covers all 4 sets produced. The surprise is that although the parts do look like BUR, the hole spacing of most of them is 10mm against BUR's 12.8. Werner wrote that he had been told that the BUR hole spacing was changed to 10mm in the mid 1980s to make it compatible with other systems of the former socialist countries, but I wonder if it's possible that PLASTICON was the name used for the 10mm version.

Notes on the Parts The range includes all the SCHEFFLERS ones in MCS except the Tyre #41, the Strip Bearing, #47, and the Sprockets & Chain. They all look the same unless otherwise stated, apart from the scaling down to the 10mm hole pitch. The holes are probably the same size as before; certainly the thread is still M4. Except as noted all the parts are nickel. Werner pointed out that he had had to measure the parts with a ruler through clear plastic protective film, and so some of the dimensions may not be exact.

The **A/Gs** still have round holes in both flanges and near square corners. The **Flat Girder** is 22mm wide. The **Reverse A/B** still has slotted end holes. The 3*1*3 **Double Bracket** now has equispaced holes in the sides. The **5*11h Flanged Plate** no longer has the 3*7h centre cutout. As before the **Flanged Sector Plate** is shown with 5+(7*3) holes, round flange holes, and flat ends with all rows of holes parallel to them. All the Flanged Plates are painted blue. The **Windmill Sail** is yellow plastic and is the tapered BUR type, but with 10 bays instead of 9. The **Hook** is the flat type shown at the bottom of 18/507. The **Crankshaft** has the crank section in the middle. **Axles** & the **Rods with Threaded End(s)** are the same length as before. The 4 small **Pulleys** are probably unchanged: the larger pair are 23 & 28mm Ø, & the 14mm **Loose Pulley** looks to be white plastic. The **Bush Wheel** too is as before (35mm Ø) and a Strip can be bolted to 2 adjacent peripheral holes but not across the centre hole. The **Large Flanged Pulley** (65mm Ø) is the BUR plastic type and the 4 slotted holes in the outer ring of holes are long enough to allow either a 10 or 12.8mm part to be bolted radially to the inner ring. It is light grey, but is also shown light blue & orange in the Manual. The **Gears** are red plastic but otherwise as described in OSN 12. **Bosses** are 11mm Ø; the **Collar** 9mm: both are double-tapped. The **Coupling** is black plastic. A **Tyre** for the 23mm Pulley is still listed, but not the larger one. The **Motor** with nickel sideplates, is as before, and so, from its photo, is the **Driving Band**. From the illustrations it looks as if the **N&B, Crank, & Pawl** may be the BUR pattern unchanged. The **Spanner & Screwdriver** are as OSN 12.

The new parts are: • A plastic push-on 56mm Ø **Road Wheel** (below), which probably has a separate hub, shown yellow, that pushes into the fat black tyre. The hub appears to have a recessed annulus on its outer face with a ring of 8 dimples at the bottom of it. • A **Battery Box** (below) and a **Connecting Cable** for it. The Box is red with a white cover, and in the Manual it looks identical to the one in the CONSTRUCTION C04 Set. In the Set though the cover has 5*6 holes in it. • **Conveyor Belting**, shown red, & 5cm wide at a guess. • Parts needed for a Cable Car model, all shown below. A **Plastic Pulley** of perhaps 30mm Ø; the bottom of the V groove is probably serrated. In some

illustrations the boss looks plastic. A plastic **Guide**, shown red. A **Tension Spring**. 2 **Cars**, shown red, white & black, with a running pulley at the top, are also needed for this model but aren't in the Parts List/Set Contents.

The Sets To give an idea of size, the number of N&B in the sets is about 50, 80, 190 & 220. They aren't entirely progressive and all but EMB3 have certain parts needed to make a particular model.

The main parts in **GB1** are 44 Strips of 2-19h; 24 Brackets; a 5*11 Flanged Plates; and 3 small Plates. The 3x 23mm Pulleys with Tyres and 8 Collars in the Set are needed to make a Tricycle.

8 A/Gs are included in **GB2** as well as more, and a different selection of, Strips, Brackets, & Plates. Other additions are 1 each of the other 2 Flanged Plates; 4 Flat Girders (more than in either of the larger sets); 4 Windmill Sails; 2 of the 65mm Pulleys; 11 other Pulleys; and 3 Gears The parts unique to the Set are 4 of the larger Tyres, a Crankshaft, and the Conveyor Belt. 9 Couplings are provided for the Belt to run on.

Both the larger sets include the Motor & Battery Box, the only electrical parts listed. Compared to GB2, **EMB3** has more, often a lot more, of nearly everything, including 10 extra A/Gs, 97 extra Strips, and 2 more 65mm Pulleys. However the only Flanged Plates are 2 of the 5*11h, there are only 2 Couplings, and there's one less Gear. The EMB3 box measures 358*294*64mm, and the full colour black lid features a boy, & the Big Wheel that can be made with the Set. Under the name is Elektro-mechanischer Baukasten, and 730 TEILE. There are 3 layers of parts, each in a white moulded plastic tray.

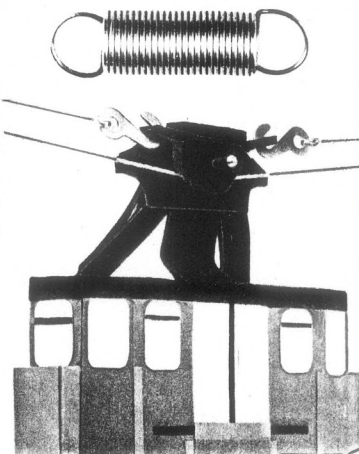
EMB4 with some 780 parts is only a little larger but has a different mix of parts, with many more of some & many fewer of others, & none at all of 8 types. The parts peculiar to the Set are those already mentioned for the Cable Car.

The Manual SUMMARY •Name: PLASTICON Bauanleitung. •Details of maker: VEB Plasticart (on label on BC). •Dates &/or Ref Nos: Art Nr 72310 \ HSL5463100 \ EVP 6,00M (on label). KtGB 1/50/87 · ODR 6923/86 II-15-17 · 20/0 (below label). •Page size: 180* 285mm deep. •No. of pages: 76 unnumbered inc covers. •Language: German. •Printing: Colour cover below right; photos of models, some in colour. •Page Nos. of Ill. Parts List/Set Contents & highest PN: 4-15, 71. •Sets covered: GB1,GB2,EMB3,EMB4. •No. of models for each set: 11,10,7,7 •Name, Model No., Page No. of first & last model of each set: GB1: Hocker,1,22; Seilbahn,11,22-27. GB2: Tafelwaage,1, 30; Rücketraktor, 10,38-39. EMB3: Windmühle,1,42-43; Riesenrad,7, 52-53. EMB4: Radarschirm, 1,56-57; Fichtelberg-Schwebbahn,7,68-75. •Other notes: Basic Constructions on pp16-19; Motor details on p20.

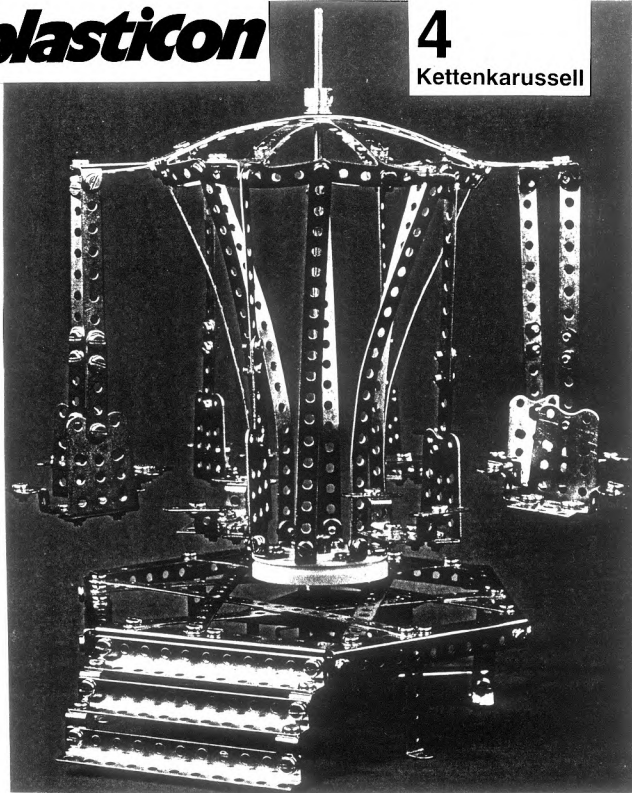
It is a much better manual than the BUR one, with some pages of basic constructions and the use of pulleys & gears, many more models, and larger photos. Some of the mechanical details are still hard to see but the Parts List for each model would help. The models are a fair selection, without in the main, being noteworthy, and there's little mechanical refinement. Several are slightly modified BUR models. The Motor is used in



OSN 19/536



all the 3 & 4 Set models, often with a pulley drive, but in many cases it looks as if it has been added as something of an afterthought. Several fairground models are shown for the EMB3 and one of the Roundabouts (right) is rather attractive. The Motor is in the base. The EMB4 Cable Car is the most elaborate and striking model, with both the upper & lower stations made of frameworks covered with realistic roof & wall panels. These look as if they are made of thin card or plastic; they won't copy but part of the upper station may be visible on the right at the bottom of the Manual cover.



A MODERN-MORECRAFT 'Mystery' The mystery is an unusual outfit belonging to Chris Freeman, who kindly sent photos of it. Unusual not because of its contents, which are very similar to the prewar '1937' and postwar '1946' sets described in 16/432 & 11/290, but because, unlike all other reported MODERN-MORECRAFT (M-R) sets, it is a numbered outfit.

The earlier MECCANO-MORECRAFT (M-M) sets were known by a letter and a name, for example B - Beginner's Size, or D - Designer Size, and the M-R ones by just the name. In neither the '37 or '46 sets is the name actually on the box, but has to be deduced by comparing the parts in the set with those needed for the manual models, each of which is labelled with the set needed to make it.

But on the red lid of this box is NO 4 in yellow, with above it MODERN-MORECRAFT; the slogan "The Toy that grows with the boy"; and TRADE MARK REG U.S. PAT. OFF in tiny letters. At the bottom left is MORECRAFT horizontally and POWER vertically, with the 'O' common to both, and diagonally *Equipped*. The two blocks of wording are shown below, though they may not copy well.



The base of the box is blue and the parts are strung to, or push into, natural colour card sheets. On raised side areas are the assembled trusses seen in the other sets (although without the horizontal top members), and in the middle are all the other Angles, the Axles, & the U-shaped Connectors. A tray which sits over this centre part contains the Base Plate, the 4 Wheels (the 8-hole W-16 type as in the '46 set), and the other Connectors, all but two of which, along with the small parts, are in a small card box.

With the possible exception of one of the small U Connectors (C-180-DS), which may be hidden in the box on the tray, the quantities of the main parts are exactly as in the '46 outfit. The only difference is that all but the C-O Connectors were painted red in the '46, but all in this set are nickel plated. So the only colour is from the blue Base Plate. There's no motor in the set to justify the Power Equipped on the lid, but there might be room for a flat C/W one in an unused part of the tray.

So what was the date of the No.4? The manual might have helped but is unfortunately missing. It seems certain that it is from after 1937 because the '37 set had © 1937 on it, and the comprehensive Illustrated Parts in its manual doesn't list the W-16 Wheels. But is it before or after the '46? Patents are referred to on the '37 & '46 boxes, but not on this one - the 1934 patent would have expired in 1954. The box, and particularly the inside of it, looks rather drab compared with either the colourful '46 presentation, or the general appearance of the '37. Perhaps economies were being made towards the end of the MORECRAFT era.

FOOTNOTE Several readers were good enough to send copies of the long list of sets that George Wetzel had for sale on the Internet (as one lot). Included in it were most of the named MODERN-MORECRAFT sets, but also a #6 Super Designer Set, and a #20 "Power-Equipped", marked as the largest set of its time. There was a Designer and a Designer Special originally but no Super Designer. So possibly there were numbered sets with names, followed by a Power Equipped series with just numbers. Numbers may have been in use earlier though because also in the List is one MECCANO-MORECRAFT outfit, a #4 Designer Set.

QUERY 24 It was said in 4/50 that MÄRKLIN sets were available up to WW2 with all the parts black, or including the coloured parts introduced in 1929. But in a 1939 manual (#71a, Nr. 1-3, AN 1039 i), there is no mention of the black sets - they were however in the next earliest list available, for 1934/35. Likewise all the strip, girder, and plate parts were shown as available in black or coloured in '34/35 (by an asterisk by them), but in the 1939 manual many fewer had the asterisk, and there was no explanation of what the asterisk meant. So the Query (basically from Don Redmond) is when did the sets and the various parts cease to be available in black.

QUERY 25 From David Hobson. "When was the boss of the ERECTOR P8 1 1/8" Ø Pulley a hollow, domed pressing, fixed with 3 lugs peened over after passing through the face? And was this type of boss ever used on other parts? I couldn't find this style of boss mentioned in *Greenberg* but the 1914 Pulley shown on p52 appears to be of that type, as do some of those in the 1914 No.7 Set on the same page. In 1913 a completely different (detachable) boss was used and none of the photos of later parts/sets show the domed sort. So perhaps this was Gilbert's first fixed boss. Meccano used a rather similar U boss with 2 lugs, for the Crank & 1" Pulley, during WW1."

A CONSTRUCTION TRUCK Outfit David Hobson kindly sent details of this set that he had been able to examine briefly. It was in a fold down box similar to the CONSTRUCTION JEEP one described in 17/469, The box top was labelled MINIATURE CONSTRUCTION SET TRUCK TRAILER, with an illustration of the Truck. Also on the box: 'Made in Japan', and the KK & DAIYA logos, as for TRUCK Set described in 14/373. The grey Cab was displayed in the bottom of the box together with the Chassis and the Flanged Plate. The latter was, as would be expected, the small type painted red, with the large elongated centre hole. The small parts, see OSN 14, were fixed to the yellow fold down top & side panels, as in the JEEP Set, and the Strips & DAS were nickel plated, and not the familiar blue. The Screwdriver was nickel and the Spanner black.

An illustration on the box shows the Flanged Plate with, seemingly, an upright moulded Towing Pin through the centre hole. The Bucket made from the pair of red Triangular Plates (see OSN 14), is shown mounted on the front of the Truck using 2 Strips, and can then swing back over the top of the Cab to deposit its contents in the Truck. The Instructions are on a single sheet.

MALY INZYNIER alias the LITTLE ENGINEER

MALY INZYNIER first (and the Z should have a dot over it). Jim Gamble very kindly gave me a manual for this small, 24 part, Polish system, and the pieces that were with it. The cover of the Manual has 'Nr 0. i 1.' on it, but no Set No. is specified for the models, and only one quantity is given after each of the 'Illustrated Parts'.



THE PARTS DATA

(in mm) **STRIP** (11-hole): •hole pitch/dia, 12.7/4.1, but see below; •width, 12.2; •thickness, 1.45; •ends nearly fully radiused. **BOSS**: •o/d, 8.1 typical; •i/d, 4.15 mean; •steel; •single tapped. **THREAD**: M4. **AXLE DIA**: 3.96. **DP (Mod)**: N/A. **NUT**: square 7.3 A/F; **BOLT**: cheese-head 7.1 Ø mean; both plain steel.

At a glance, apart from their colour, the parts look like MECCANO. The main differences on closer inspection are the smaller diameter bosses, the heavier gauge metal, and the slightly narrower Strips. Other variations are mentioned in the survey of the parts below.

There's no burr on the parts or sharp corners, but some are not perfectly made, with a few holes out of line, and the boss of one Pulley isn't quite central. The **hole pitch** is usually 12.7mm but it's 12.5 in the 5h Strips & DAS. Most **holes** are larger than those in the 11h Strips (above) - up to 4.5mm in some of the 5h Strips, & in the Curved Strips. The **paint** is rather flat looking.

The **11h Strip** is red-brown, the 5h blue, the **Curved Strip** (like M90a) dark green, & the 1*5*1 **DAS**, light brown.

The **Trunnion** is red-brown; the **Stepped Bent Strip** nickel. The **Angle Bracket** has a round hole & a 7mm slotted hole; the slot in the **Reversed A/B** is 6½mm long, with the ends not quite fully radiused. The **Double Bracket** is made from the same blank as the Rev. A/B and so has, unusually, a hole in one lug & a slot in the other. It is galvanized whereas the first two Brackets are nickeled.

The **Pulley** is 24mm o.d. with a wide, 5mm, 'V', and is painted red-brown, including the boss and Set Screw. The **Bush Wheel** is similarly finished but in light brown. **Axles** are 90, 50, & 38mm long; the **Crank Handle** (4.03mm Ø) is 12½cm o/a, with an 8¾cm shank & a 2¾mm handle, offset 1¾cm. All have sheared ends rounded off, and are shiny, probably nickeled.



The **N&B** are plain steel and the Bolt head, has no slot but 2 raised areas, shaded in the sketched opposite, presumably to allow a Screwdriver easier access.

The shank is 10mm u/h & the Set Screw, with an identical head, is 5mm. The hole in most of the (pressed) Nuts is well off centre. The steel coloured **Spring Clip** is only 3mm wide, and has 8mm long pointed wings.

The **parts not seen** are the 11*5h Flanged Plate (shown with 4 flanges and often with the MECCANO Saw Blade slot & slit), the Flat Trunnion, the Flat Bracket, the wire Hook, the wire Screwdriver, and the Spanner.

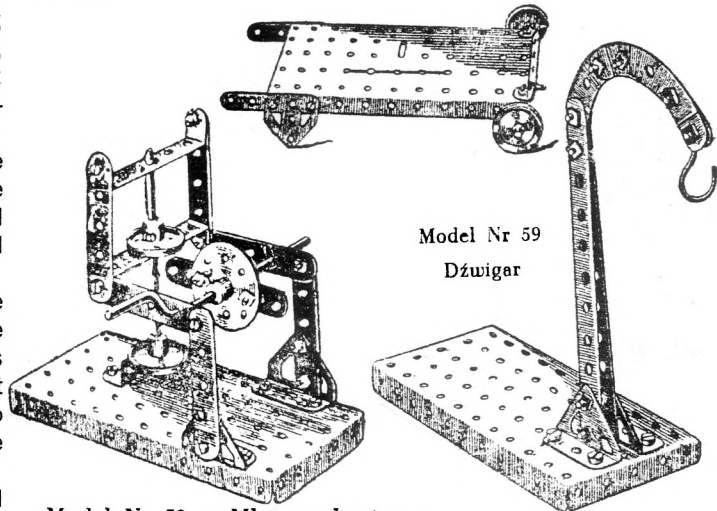
THE SET The contents include a Flanged Plate; 4x 11h, & 6x 5h Strips; 2 each of Curved Strips, Trunnions, & Flat Trunnions; 12 Brackets; 4 Pulleys; a Bush Wheel; & 20 N&B.

THE MANUAL SUMMARY •Name: MALY INZYNIER •Details of maker: SPÓŁDZIELNIA PRACY "TWORCZOŚĆ", W CZĘSTOCHOWIE, ULICA KATEDRALNA Nr 10. •Dates &/or Ref Nos: Sp. "Udziałowa" Cz-wa - 1772 - 3. 8. 59 - 10000 - okładka 140 g. •Page size: 244*183mm deep. •No. of pages: 12 + covers. •Language: Polish. •Printing: shaded line

drgs of models; grey covers. •Page Nos. of Illustrated Parts List/Set Contents (for unspecified Set), & highest PN: 2-3,24. •Sets covered: 0 & 1. •No. of models: 64, all for '0 & 1'. •Name, Model No., Page No. of first & last model: Szpadel,1,4; Młot automatyczny,64,12. •Other notes: accents omitted; covers blank apart from front.

The cover (left) has a name and address on it, and the town, Czestochowie, is some 200km south of Warsaw. The PR may contain a 1959 date - the 140g at the end seems to be the weight of the paper used for the covers (in g/m²).

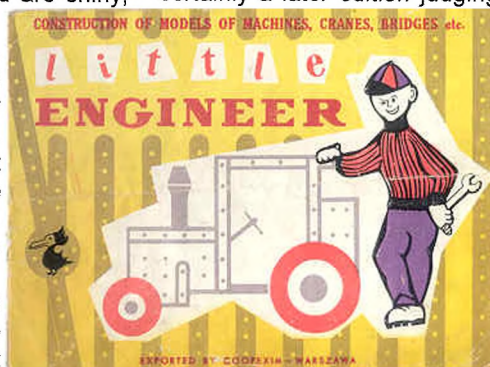
As would be expected the models are all very straightforward, and all are virtually direct copies of pre-Flexible Plate MECCANO models. 3 are shown below. Unusually none of the 64 models is a Crane of Model Nr 5 - Ręczny wózek any sort.



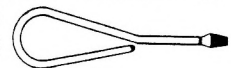
Model Nr 50 - Młot mechaniczny

LITTLE ENGINEER This name is a direct translation of MALY INZYNIER and was used for exported sets with the literature in English. The original MCS/NZ entry was taken from a manual that is probably almost identical to the INZYNIER one already described, apart from the language. Other differences are that the name on the cover is replaced by 'Exported by / VARIMEX / WARSZAWA / Wilcza 50/52', and no quantities are given in the Illustrated Parts. As before the manual & models are for Sets 0 & 1, but without distinguishing between them.

The /FB MCS entry is taken from a different manual, probably identical to the one described below. It is almost certainly a later edition judging by its multi-coloured cover (left) of much livelier design. Along the bottom is 'EXPORTED BY COOPEXIM WARSZAWA'. Apart from the cover it is similar to the early one except that there are fewer models, their order has been changed, and some of the illustrations are slightly different, made larger for instance. One or two of the Illustrated Parts have been redrawn or



printed upside down, but the only real change is that the Screwdriver (right) has a longer handle & shorter blade.



SUMMARY OF MANUAL •Name: little ENGINEER •Details of maker: EXPORTED BY COOPEXIM - WARSZAWA. •Dates &/or Ref Nos: none. •Page size: 248*183mm deep. •No. of pages: 12 + covers. •Language: English. •Printing: brown shaded line drgs of models; colour cover on yellow & white ground. •Page Nos. of Illustrated Parts List & highest PN: 2-3,24. [No Set Contents] •Sets covered: 0 & 1. •No. of models: 43 (no Set specified). •Name, Model No., Page No. of first & last model: Compasses,1,4; Wheelbarrow,43,12. •Other notes: pp 5-9, with models 8-28, missing; covers blank apart from front.

CONSTRUCTO or UMAKIT Parts Some notes on the parts in a small UMAKIT set appeared in 13/339, & a list of CONSTRUCTO parts is in MCS/FB, together with 3 models in which many of them can be seen. David Hobson recently bought a large lot of what seem to be CONSTRUCTO parts, and he kindly sent me a selection of them (and also offered sample lots, see 18/507). The parts include nearly all the types in the MCS List, and some notes on points of interest arising follow. Asterisked parts are shown below.

- Apart from the **Spanner**, the parts that correspond to the UMAKIT ones are identical in shape, but some of the **holes** are a different diameter, in particular the holes in the **11h Strip** (the only length in the Lot) are significantly larger at 4.7mm. The **colours** also correspond but the green is slightly lighter & brighter, and the red is much lighter, almost a light red shade.

- In a number of the other parts up to .2mm difference in **hole size** can be found between otherwise identical parts. Similar differences of **thickness** also exist, with as extremes, one Curved Strip .48mm thick, & another .98mm. The **corners** of nearly all the parts are well rounded but not fully radiused.

- The 5½" **A/G** is green with flanges of equal width (12mm) and round 4.0mm holes in each. The pitch of the holes is 12.6mm.

- The **Double Bracket** has 4.3mm holes, and is only about 12mm wide inside, so a Strip won't enter it. The **Reversed Angle Bracket** has all round holes, 4.1mm Ø in one example, 4.3 in a second. As with UMAKIT the **Angle Bracket** has 2 round holes but in this case they are 4.8mm Ø. All these parts are nickel plated. So is the **1*3*1 DAS**.

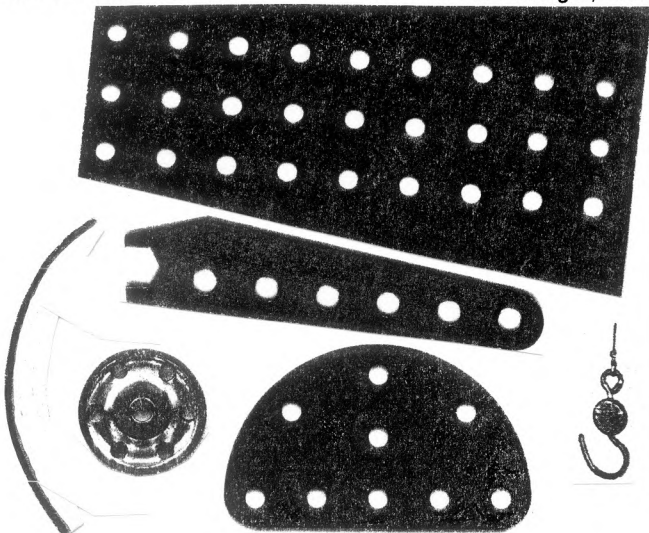
- The so-called **Flexible Plates** (from 3*5h to 5*11h) are mostly very rigid with the 2 largest sizes .85mm thick. All are red with 4.0 or 4.1mm holes. The 3*11h has a centre hole. Some of the 5*5h are also curved like M199 & M200, with the former much thinner than all the others and fairly flexible. Both types are used in the manual models.

- The **Crank Handle** has square bends with the shaft nearly 3½" long & the handle just over 1". 3½" & 4" **Axles** match the UMAKIT part (3.94mm Ø), but there are others 3½" & 4¼" long of 3.68mm Ø. **Spring Clips** are not mentioned in the MCS List but are needed for the models and 2 were found in the Lot. They are 5mm wide with a bronze finish, and the wings are 4mm long with the corners well chamfered, but rather irregularly.

- The **26mm Pulley (*)** is made from 2 light gauge steel pressings held by a centre brass eyelet. The pressings are flat over the centre 12mm Ø and are then waisted to the V, with 6 holes, 3.3mm Ø, at about 9½mm radius. They have a bright finish, probably tinplate. The **Wheel Disc** is 36mm Ø with 4.0mm holes, & is painted a rich purple-blue.

- The **Semi-circular Plate (*)** is red with 4.0mm holes. The **Formed Strip (*)** is quite thin, nickel plated, and has 6 round holes, 4.7mm Ø, at standard pitch.

- The **Flanged Sector Plate (*)** (called a Tapered Bracket) is red, with 3*9 holes in the top, without the usual row of 5 holes at the wide end. Both ends are straight, and



the holes in the flanges are round. Like the **5*11h Flanged Plate**, it is made of quite thin, .45mm, steel.

- The **Spanner (*)** is the same general shape as the UMAKIT one but is 20mm deep instead of 17½, some 5mm shorter, & is nickel plated. One example has larger, 4.7mm, holes. There was no **Screwdriver** among the parts.

- A few other parts are shown in the manual models that were not in the Lot: **Road Wheels**, a **1" Pulley with boss** (and no holes in its face), a **Bush Wheel**, a **Loaded Hook (*)**, and what looks like a **2*2h Angle Bracket** in one model.

- A handful of parts in a different, mixed lot are just like those above and in addition include a **2h Strip** with fully radiused ends; a **5h Strip** with 4.7mm Ø holes; and some pressed hex **Nuts** & cheeseheaded **Bolts** in a clear plastic box. There's nothing to say that these are CONSTRUCTO N&B but they do match the ones shown in the models. So for what it's worth, they are plain steel, the thread is ½" BSW, the Nuts are 6.0mm A/F & 2.6mm thick, and the Bolts are 6½mm u/h, with heads 6.0mm Ø & 3mm deep.

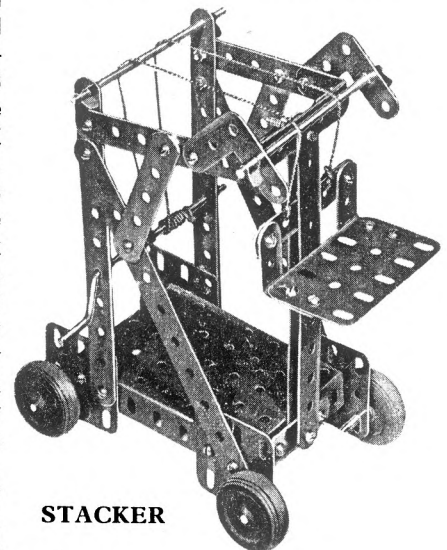
The M&S BILDICO Set This outfit, sold only by Marks & Spencer, was discussed in 16/440. Most of another set, with no box but a manual complete save its back cover, has now surfaced, and in most respects the parts match those of OSN 16, and have the same strong similarity to LYNX. Some points of interest follow.

The **Balloon Wheels** are the sort found in some LYNX sets, 1½" Ø and painted black. The **Pulleys** are exactly like the 1" Ø LYNX black ones with the aluminium boss. The **Disc Wheels** are the 1" LYNX type with the impressed pattern of spokes and rims, as described in 16/438.

The 4½" **Axle** and the 4" shaft **Crank Handle** are also just like LYNX. So are the N&B with ¼", ½" & 1" **Bolts**, and **Nuts** which are slightly larger than the LYNX ones I have, and are thus a good fit in the LYNX Spanner. The **Spring Clips**, unlike those of OSN 16, are blued, and at nearly 7mm, their wings are noticeably longer.

The **Screwdriver** is the LYNX one shown bottom right in 16/440 & is 3.2" o/a. [NB. The text there is wrong, it's the upper one that is 4" long.]. There was no Spanner, or Hook, with the parts. A wire '8' **Hook** is on some Manual models.

The cover (with 2 boys, 2 Sets, and the Crane & Windmill models), & p3 of the **Manual** are identical to p2 (NZ p1) & p3/4 in MCS. The MCS p5 is probably the inside of the missing back cover. The models are mostly small and simple, & very average really for this type of set. A few like the **Stacker** (right) are a little more complicated, and several are very like LYNX models, changed a little to better use the parts in the M&S set.



SUMMARY OF MANUAL •Name: BILDICO •Details of maker: none but Made Exclusively for Marks & Spencer Ltd. on box shown on cover. •No Dates or Ref Nos. •Page size: 278*208mm deep. •No. of pages: 12 unnumbered inc covers. •Language: English. •Printing: full coloured cover as MCS (blue band at top; yellow below); B&W photos of models. •Page No. of Illustrated Parts List/Set Contents & highest PN: 3,24. •Sets covered: 1 unnumbered. •No. of models: 26*. •Name, Page No. of first & last model [no Model Nos.]: BLACKBOARD AND EASEL2; AERIAL ROPEWAY*,10. •Other notes: back cover missing; * probably another model, a Giant Crane, on p11 (IBC), see MCS.

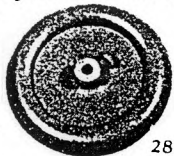
Some Australian Systems

I met Jim Osborne from Victoria when he was over here on holiday, and though his main interest is MECCANO rather than OS, he very kindly, when he returned home, send some material that he had, and got friends to contribute as well. These notes are based on the sum total, so thank you everyone, including Max Crago, Tony Press, and all those who wrote letters about the Australian systems to *The Australian Hornby Collector* magazine (TAHC). Also to Don Blakeborough and Gary Higgins for additional material.

BETTA-FIT

A B&W photo of an unused No.5 Set shows it packed in a wooden box (about 12*16") with internal partitions. The metal sliding lid has a label showing 2 boys and what looks like a very oversize model of a Crane on Wheels, and the slogan 'For YOUNG MECHANICS'. The manual looks like the one in MCS and mentions Sets Nos.1 to 5. Another booklet, believed to be about BETTA-FIT, has 'Young Engineer's Set' on it.

BETTA-FIT is thought to date from soon after WW2, and had 34 parts in all, mostly looking like MECCANO. The unusual ones that can be seen in the Set are like the illustrations in MCS and include: • **Trunnions** like M126,a but with diagonal slots instead of cut outs. • Flat and Curved Plates, called **Radiator Plates**, which have just a row of 5 holes along each long side, and are reported to measure 2¾*2¼". • The **Road Wheel** opposite with no coned centre and the boss on the outside. The 'tyres' of the ones in the Set look white, as they are described in MCS. • A 2" Ø **Pulley** with a solid disc. • The **Screwdriver** looks flat and not made of wire as in MCS; it scales at a little over 3½" o/a and is the same general shape as the LYNX one top right in 16/440, but without the 'necking'. [It can't be seen in the photo if the 5*11h Flanged Plate has the ½" long cross slot in it.]



The No.5 Set looks to be quite small, though well endowed with wheels, viz. 4 Road Wheels, 4x 2" Pulleys, and 4x 1" Pulleys with narrow Tyres for them. Other parts include a 5*11h Flanged Plate, 2x 9h Flanged Sector Plates, a Bush Wheel, 2 each of 1*3*1 & 1*5*1 DAS, and 1 each of the Flat & Curved Radiator Plates.

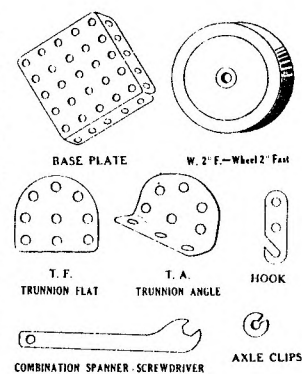
BUZ BUILDER

Another system, which like EZY-BILT, was made in New Zealand late on. It had many parts similar to MECCANO but a number of 'specials' including 5*5 & 5*9h Flanged Plates, and Trunnions with semi-circular tops. There were ultimately 94 parts in the Australian phase including Angle, Flat, & Braced Girders, a good range of Gears, and a side-plate Electric Motor.

BUZ was made by a firm called Buzza Products owned by August A. Kraus. He had emigrated from Germany during the depression and eventually set up in business making Morse sets near Clarence Street, Sydney. (The sets had buzzers, hence Buzza.) He was interned at the beginning of the war and then released when the Australian Army discovered their need for Morse keys. After the war the range of products was widened and included BUZ BUILDER. A small selection of parts was probably being produced soon after the war, and a No.9 Set, the largest ever made, is reported to have been bought around 1950. A new factory was built at Artarmon near Sydney, at 80 Hotham Parade, during 1955-6. Mr Kraus died in 1975 and his wife closed the business in 1977. The manufacture of BUZ may have ceased in 1974 - the last Price List to hand is dated 1972, and it shows the full range of sets and parts, and 2 Morse Telegraph Sets. Production in New Zealand, by Tri-ang Pedigree (N.Z.) Ltd., is said to have begun in 1976 and to have continued until at least 1983.

Early Days The original p3/4 of MCS shows what looks

like an early Illustrated Parts List. It contains only 26 parts and they have letter designations, such as W.B. for Bush Wheel, rather than the later PNs. Most of the characteristic BUZ parts were included and are shown opposite. Later the 2" Pulley had cut outs like the MECCANO one. The Axle Clips were made of fibre. One part in that was never listed afterwards is the Brass Pulley, ½", Fast.



The 1950s The c1950 No.9 already mentioned was packed in a lockable case measuring 27¾*12½*4" made by Wattle Travel Goods, Chippendale, N.S.W., and its hinges were 'remarkably like' the ones in the set (#89, opposite, another unusual BUZ part). Included in the Set was a leaflet offering membership of the BUZ Builder Club. The address was Box No.3814, Sydney.



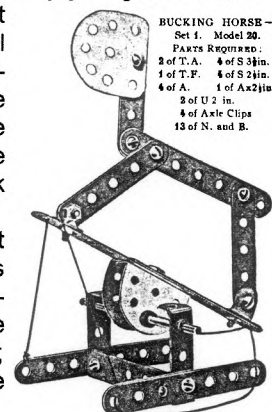
Next an early manual for Sets No.1 to No.7/8. (No.7/8 was a No.6 with an Electric Motor.) The manual consists of 39 punched leaves, tied with red cord between thick card covers that have a blue watered silk finish, and BUZ & ALBUM of MODELS in gold on the front. No date or address are given but some of the parts in the models are early versions - many of the Flexible Plates are shown with sharp corners, and the 6-7/8 models have solid 2" Pulleys, whereas this part in the smaller models has the cut outs. Also the Motor in the models is quite unlike the later one: both are shown on the facing page.

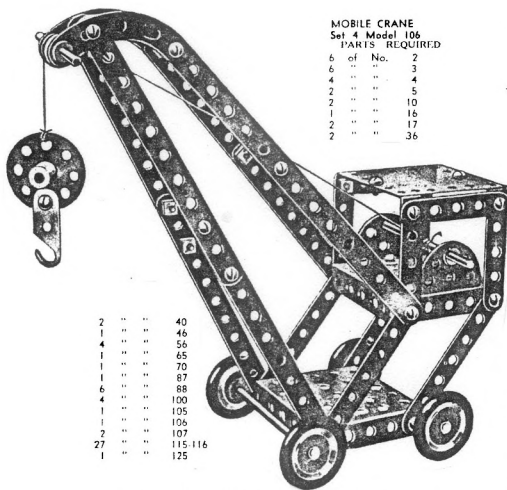
The Illustrated Parts has 60 items and additions include Angle, Flat & Braced Girders; the Hinge, Curved Strip, Crank, & Bell Crank (no boss); 3 Flexible Plates; Tyres for the 1" & 2" Pulleys (actually Rubber rings); and a Coupling (2 Screws and no cross bores), 57t Gear (solid disc), & Worm (no Pinion). All are in the original MCS p3/4a, but in addition 5 parts not mentioned anywhere else are listed, but not illustrated, in this Manual. They are 1*9*1 & 1*13*1h DAS (#18 & 19); 5½" & 7½" Flanged Braced Girders (#29B & 29C); and 3½*3½" & 5½*3½" Flat Plates (#42 & 43). PN42 was subsequently used for the 4½*2½" Flanged Plate.

SUMMARY OF MANUAL •Name: BUZ •No maker, dates or Ref Nos. •Page size: 250*187mm deep. •No. of pages: 71+7 unnumbered, all looseleaf, in board covers. •Language: English. •Printing: halftone models for Sets 1-5; line drgs for Set 6 or 7/8. Blue covers with gold BUZ // ALBUM of MODELS on front. •Page Nos. of Illustrated Parts List & highest PN: iv-v,141. •No Set Contents. •Sets covered: 1,2,3,4,5,6 or 7/8. •No. of models for each set: 30,28,32,36,35,15. •Name, Model No., Page No. of first & last model of each set: 1: TABLE AND CHAIR, 1; SCALES,30,8. 2: TABLE,31,9; GATE CROSSING,58,16. 3: HALL STAND, 59,17; SLIPPERY DIP,90,26. 4: GUILLOTINE,91,27; COAL LIFT & LOADER, 126,38. 5: GUARDS VAN,127,39; TRUCK & TRAILER,161,55. 6 or 7/8: LIFTING SPAN BRIDGE,162,57; FIRE ENGINE,176,71. •Other notes: inside covers & end pages ii,iii,vii are blank.

The Intro to this & other BUZ manuals of the time starts, 'When a boy is given a watch, the first thing he does is to take it to pieces, ...' I wonder how many youngsters learnt the hard way that you shouldn't act on everything you read. Each model page has a fact, or improving remark at the top: for example, 'There are 50,200 tons of steel work in the Sydney Harbour Bridge.' & 'A little push may make a stumbling block into a stepping stone'.

Bearing in mind that No.7/8 Set had only about 80 N&B, the models aren't bad, and certainly owe nothing to any other system. A few like the one opposite are a little unusual; most are more conventional like the





MOBILE CRANE		Set 4 Model 106	
PARTS REQUIRED			
6	of No.	3	
4	"	4	
2	"	5	
2	"	10	
1	"	16	
2	"	17	
2	"	36	

2	"	40
1	"	46
4	"	56
1	"	65
4	"	70
1	"	87
1	"	88
6	"	100
4	"	105
1	"	106
2	"	107
27	"	115-116
1	"	125

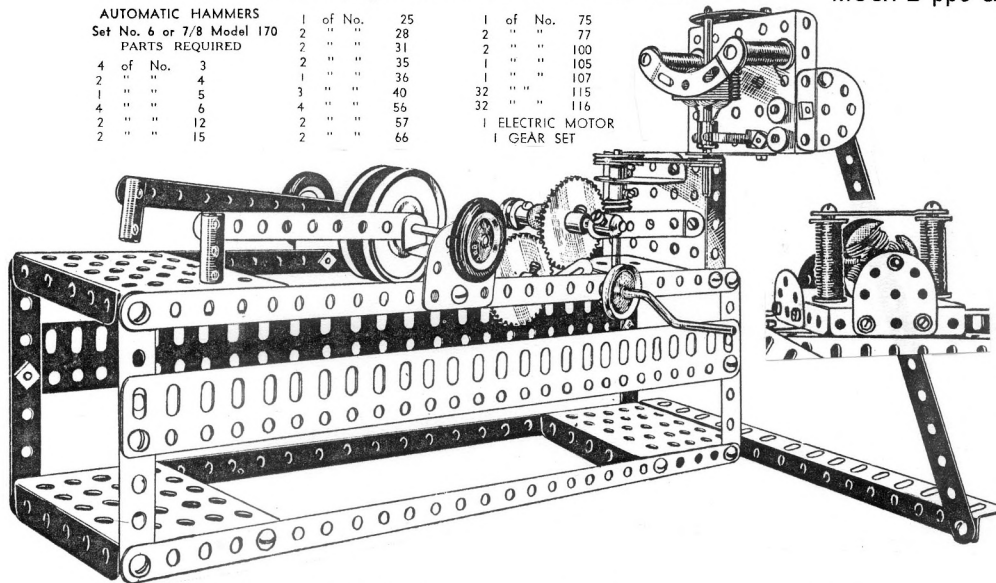
No.4 Mobile Crane opposite. Some of the larger ones are the least successful, with a rather ungainly look. The one below shows the early Electric Motor, with another view of it from a different model inset. The Worm & one of the Gears needed aren't in the PL, but are no doubt in the Gear Set that is called up. Nei-

ther the Motor nor the Gear Set are advertised or described in the Manual, but a page is devoted to the Builder Club.

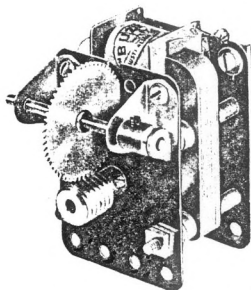
AUTOMATIC HAMMERS		
Set No.	of No.	25
6 or 7/8 Model 170	2	28
PARTS REQUIRED	2	31
4 of No.	1	35
2	"	36
1	"	40
4	"	56
2	"	57
2	"	66

ELECTRIC MOTOR		
Set No.	of No.	75
6 or 7/8 Model 170	2	77
PARTS REQUIRED	2	100
4 of No.	1	105
2	"	107
1	"	115
4	"	116
2	"	116
2	"	116

1 ELECTRIC MOTOR
1 GEAR SET



The next manual is for Set 9 and apart from the front cover (& probably the missing back one) all the pages are punched to fit within the board covers. The numbering of the models and model pages follow on from those described above. An Index of the models for Sets 0-9 includes all in the 1-7/8 Manual. That is the first mention of a Set No.0 and the models for it are those that are also given for Set 1. In the Set Contents the parts in the two sets are exactly the same. The Box 3814 address is given. The cover is shown in MCS and is printed in several bright colours on a blue ground. Dad in the armchair and the 3 boys around the Crane have an early 1950s look to them. The model has yellow Strips and red Trunnions but no one has mentioned yellow parts in the Australian phase. No new parts are listed and the Illustrated Parts page is as MCS/NZ p3/4a.



An introductory page features the normal BUZ Motor, left, as shown in MCS - it came with a standard Worm and Gear to reduce the speed, and a small Pulley, like an extended Collar with a V cut into one end, which isn't listed anywhere as a separate part. The motor ran on 4-8v and is said to have had a flat commutator with brass brushes. The 2*3 1/2" sideplates were made of heavy fibre.

The models are mostly rather crude, with poor use of the Braced Girders, and where the Motor is used it often looks as if it has been hung on, rather precariously, as an afterthought. The Showboat model in MCS is one of the better ones. A 5*11h Flanged Plate is included in the No.9 Set and as shown in the models it has flanges on only the long sides. There's no mention of a Gears Set.

SUMMARY OF MANUAL [Details not given are as in the first manual.]

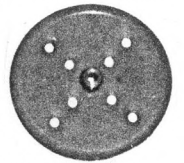


•Name: BUZ BUILDER •Details of maker: A Buzza Product, G.P.O. Box 3814 Sydney. •Page size: 246*187mm. •No. of pages: pp73-88, + 4 unnumbered & covers. •Printing: halftone models; multicoloured cover on blue ground. •Page Nos. of Illustrated Parts & highest PN: iii,143. •Page No. of Set Contents &

highest PN: iv,143. •Set covered: No.9. •No. of models: 14. •Name, Model No., Page No. of first & last model: ELECTRIC FORK-LIFT TRUCK,177,73; TRAIN OF PULLEYS,190,87. •Other notes: back cover missing; Motor is shown on pi; pii has Index of 0-9 models.

MCS/FB pp5 & 6 show the Parts and Contents from a

slightly later manual with the Artarmon address. The new parts are a 5 1/2*2 1/2" Flexible Plate, a 3" Pulley, a 9h long Flanged Sector Plate, and a wire Screwdriver. The Pulley (right) isn't shown in MCS but is like M19b without the slots. The sets had been improved slightly with as examples, a 5*5h Flanged Plate and a Screwdriver in Nos.0 & 1; and extra in the No.9: all the new parts, 12 Strips, and 6 other parts.



The 1960s The next item is a Price List dated 1967. A Junior Set replaces the No.0, the No.7 is now a 6 plus a Motor, and the 9, an 8 plus Motor. There's also the Gear Set, and Sets 7S, 8S & 9S, which were Nos.7,8,9 in 'solid steel' boxes. Photos of the No.4

& No.9 are shown and the parts look as if they are sitting in recesses in moulded plastic trays. They scale at 16 1/2*10 1/2" and the No.9 has 3 such, with the Motor in the centre of the bottom one and coming up through the second and third. The label on the lids is similar to the black area of the cover of next manual, described below.

The Parts section of the Price List and the next Manual are identical and numerous additions have been made since the 1950s. The range of parts is exactly the same as the New Zealand List given as p3/4 of BUZ (2) in MCS. No parts have been dropped and the main additions are 5*9h Flat & Flanged Plates; 4 Plastic Flexible Plates; 2 Contrate and 3 Bevel Gears, all apparently to MECCANO pattern; Gears with 50t (brass), 57t (aluminium), 60t, 95t, & 133t; 1/4" face Pinions with 25, 15, & 38t; 5 MECCANO-size Sprockets & Chain for them; and a Collar. The Crank Handle is shown with a very short length of handle.

The Set Contents in the Manual (as p6 of BUZ (2) in MCS) shows some changes. The Braced Girders have gone, and of the new parts, only the Collar, 19t Pinion, and some Axles have been added. The Junior Set is similar to the previous No.0; the No.1 has had 4 Tyres added. The only other significant change is the enlargement of the No.9 (& of course the new No.8). Additions include 24 Strips, 24 Brackets, 4 Flexible Plates, 18 Washers, & about 80 N&B.

SUMMARY OF MANUAL [Details not given are as in the first manual.] •Name: The New BUZ BUILDER •Details of maker: Buzza Products, 80 Hotham Parade, Artarmon, Sydney, N.S.W. •Page size: 247*184mm. •No. of pages: 20 inc covers, numbered 1-8 for both Set 1 & Set 2, +covers. •Printing: B&W cover on next page; halftone models. •Page No. of Illustrated Parts List & highest PN: BC,144. •Page No. of Set Contents & highest PN: IBC,141. •Sets covered: 1,2. •No. of models for each set: 30,28. •Name, Model No., Page No. of first and last

model of each set: 1: TABLE AND CHAIR, 1, 1; SCALES, 30, 8. 2: TABLE, 31, 1; GATE CROSSING, 58, 8. •Other notes: the Motor is advertised on the IFC; printed on art paper.

The Manual still has the quotes at the top of each page but no Intro of any sort. Despite 'New BUZ Builder'

on the cover, the models in this Manual (for Sets 1 & 2) are exactly the same as in previous manuals. The 'New' no doubt referred to the changes to the sets and the new packaging. Quite likely the models for Sets 3-7 also remained the same but the old No.9 models were replaced by a number of separate Model Leaflets (PN143). 4 of them are known, including the Tip Truck shown in MCS BUZ (2). The others are a Mono Tower [Crane], a Fork Lift, and a Fire Engine. They are all nice looking models which make good use of the parts in Sets 8/9, and include steering and some simple mechanical features. None however is fitted with the Motor that was in the No.9 Outfit.

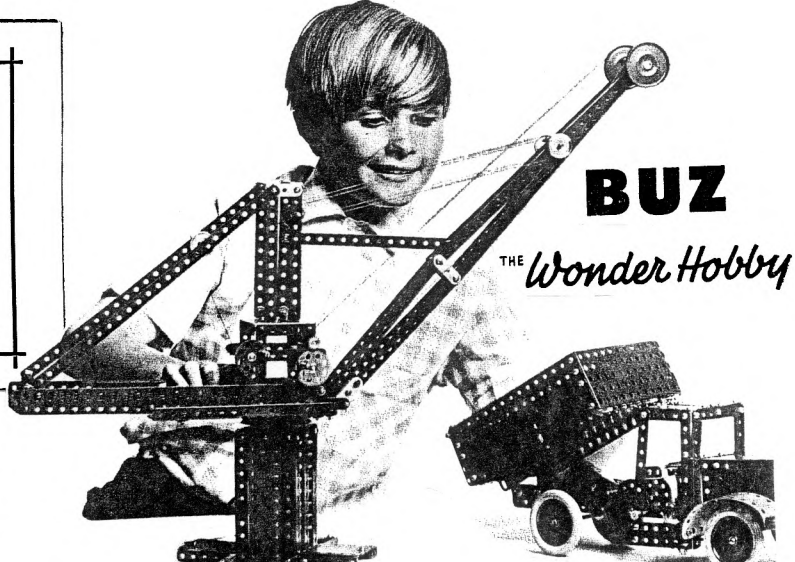
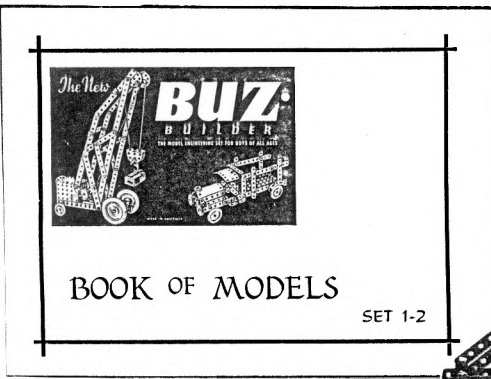
Some parts were with the above Manual and are probably the remains of a No.2 Set. Details are as follows:

• **DATA** (in mm) **STRIP** (11-hole): •hole pitch/dia, 12.7/4.3; •width, 12.9; thickness, 1.06; •end radius 8.7. **BOSS**: •o/d, 9.55; •i/d, 4.11; •brass; •double tapped. **THREAD**: $\frac{5}{32}$ " BSW. **AXLE DIA**: not seen. **DP (Mod)**: Probably 38. **NUT & BOLT**: not seen.

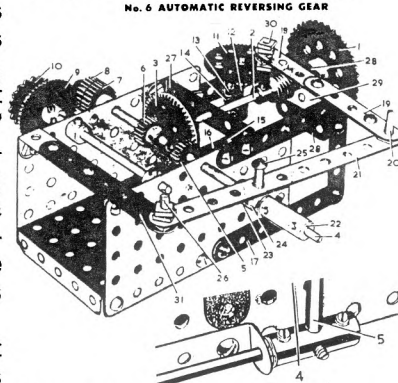
• The 5 & 7h Strips are .77mm thick and have fully radiused ends. The **Curved Strip** is almost like a M90a but without the steps. All these are a darkish green, not unlike VOGUE. • The **Flat & Angle Brackets** have similar hole/slot patterns to M10, 12 but are slightly longer at each end; the Flat Bracket is nearly 25mm long o/a. The **Reversed Angle Bracket** is nearer M125. All of these Brackets are nickel plated. • The **Flat Trunnion** is $1\frac{1}{2}$ " o/a each way, and is painted a medium red. • The **Bush Wheel** is a lighter red, and is very similar to M24 except that the peening is recessed. • At 3.9mm, the V of the **1" Pulleys** is slightly wider than current M22, and the peening is smaller in diameter and with several radial splits. The **1" Loose Pulley** is 2 solid discs held by an eyelet bush with a bore of 4.5mm and narrow, split peening. The discs of both these parts are nicked steel. The **Tyres** for them are quite fat rubber rings which were probably light grey originally. • **Quality**. The bushes of the Pulleys aren't first class but otherwise these parts seem well made and finished. All but the Brackets and some of the Pulleys are stamped BUZ. • **Colours**. In photos of other parts (from no known era) the green Strips all look about the same dark shade, and most reds look lightish, but with a few quite darker. Trunnions, all Brackets & DAS, a few 5h Strips, and all 1" Pulleys, are nickel. The 1" Tyres are light or black rubber rings. Flat Trunnions, Flanged Plates, 2" Pulleys (both types), 3" Pulleys, Bush Wheels, and Flat Girders are red. A 2" Tyre is light coloured and like a fat rubber ring, but it may have some circumferential ribs on the outside. No Braced Girders have been seen but they were probably green.

• In the photos the solid 2" Pulley (right) looks as if it has an annular ridge at about $\frac{1}{2}$ " radius.

The 1970s The last Price List to hand is for 1972, and the range of parts and sets in it is unchanged from the 1967 edition. 2 of the No.8/9 Leaflet models are featured, and the illustrations of them are shown at the top of the next column, although the tower of the Crane is shorter than the one in the Leaflet.



The Gear Set Full details are given in MCS/FB. As well as the structural parts needed to make various mechanisms & gearboxes, including 60 N&B, the Set contained 2 each of 1" & 2" Sprockets, 19 & 25t Pinions, and the 25t Contrate; and one each of the 50 & 57t Gears, the 50t Contrate, and the Worm. One of the mechanisms is shown opposite.



The $1\frac{1}{2}$ " Strip in the Set has the normal PN but is described as 'slotted hole'. Were all 3h Strips thus? In the model in MCS the 5*9h Flanged Plate can be seen to be flanged on all sides, and there's a Coupling with a transverse hole, #77a (above), not listed elsewhere.

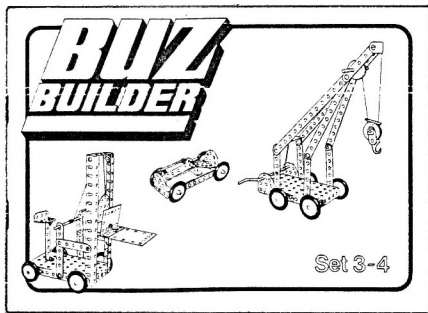
SUNNY TOY This was a cheaply packaged version of BUZ, with a small selection of parts shrink-wrapped onto a cardboard backing board. It was for sale only through chain stores, and it was hoped that it would act as an introduction to the full glory of BUZ. No dates or further details are known.

BUZ in New Zealand - At First The earliest item is a copy of a manual for Sets 3 & 4 from Tri-ang Pedigree (N.Z.) Ltd., 127 Pilkington Road, Panmure, Auckland. Someone has written 1960s on it but that can't be unless production ran in parallel in N.Z. & Australia. The cover (on the next page) is different to the last Australian one but inside the page numbering is the same, starting at 1 for each Set, and the models are the old faithfuls from the 1950s. The only change is that (most of) the 2" Pulleys have had their cut outs retouched out, to match the solid type in N.Z. sets. And there are no quotes at the top of the pages.

The Set Contents are as before, and so is the Parts List, except that the Screwdriver is as shown below. However in MCS (p7) is a typed Spare Parts Price List from Pilkington Road, dated Sept. 1977, which gives only the parts that were needed for the Sets. (The Plastic Flexible Plates are included but not the metal ones.)

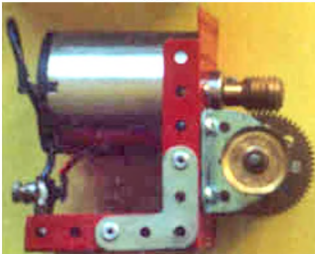
The Model Leaflets for Sets 8/9 are in that List but aren't in the Manual PL, instead there's a Set 5-9 Manual. MCS has the cover of an 8-9 Manual, and part of a Model Leaflet model, the Tip Truck, in the N.Z. BUZ section. The illustrations & text of the model are as the Australian version, but the layout is different, and two page numbers can be seen, so the model no doubt came from the 8-9 Manual.

SUMMARY OF MANUAL •Name: BUZ BUILDER •Details of maker: Tri-ang Pedigree (N.Z.) Ltd., 127 Pilkington Road, Panmure, Auckland. •Page size: 212*150mm deep. •No. of pages: 28 inc covers, numbered 1-10, 1-12 for Set 3,4. •Language: English. •Printing: photos



of models. •Page No. of Illustrated Parts List & highest PN: BC,144. •Page No. of Set Contents & highest PN: IBC, 141. •Sets covered: Nos. 3,4. •No. of models for each set: 32,36. •Name, Model No., Page No. of first & last model of each set: 3: HALL STAND,59,1; SLIPPERY DIP,90,10. 4: GUILLOTINE,91,1; COAL LIFT & LOADER,126,12. •Other notes: details from photocopy & actual page size may be bigger. Ads for the Motor & Gear Set are on the first unnumbered pages.

A photo of a No.4 Set shows a yellow lid with two-fifths of it taken up with a see through panel; the remainder is printed similarly to the Manual cover above with the models in their correct colours (see below) on a white ground. The box scales at the same size as the 1960s No.4, and the moulded tray and layout of the parts look the same. A/Gs and Strips of 5½" and upwards are yellow, all Plates, the 2" Pulleys, Bush Wheel, and Flat Trunnions are red, and the rest of the parts are silver, probably BZP. The 2" Pulley is like the early Australian version, while the 1" Pulleys have an almost cast look to them. Tyres are grey; the Screw-driver is missing. The N&B etc in the Australian No.4 were in what looks like a small card box with BUZ on it; in this Set there's a clear box of the same size.



There was a new Motor unit during this period. It's a 6-12v 'can' motor, which scales at 2"x1¼"Ø, mounted, as may just be visible in the photo opposite, on what looks like a modified, red 5*5h Flanged Plate. Another such forms the base, and the flanges are joined by Bell Cranks riveted on. Terminals and wire can be seen at the back of the base. A Worm on the output shaft meshes with a 1½" Gear on a cross shaft that is journaled in 2 (non-standard looking) trunnions on the front face, with a 1" Pulley at the end. Unloaded it is said to consume .9 amps at 8000 rpm; at maximum efficiency 3 amps at 6000 rpm, with a torque of 150 gr.cm / 2.08 oz.in. If that is the torque at the motor's output shaft, it would be a very powerful motor, and if at the cross shaft, a very feeble one. Probably the former given the high current consumption.

Later New sets, new manuals, and new models. A 3-4 manual has a blue cover of totally different design (below) and is from BUZ Builder Ltd., P.O. Box 23065, Auckland. (An identical cover, but of unknown colour, has on it: Tri-ang Pedigree (N.Z.) Ltd., P.O. Box 14-146, Auckland 6. That was 127 Pilkington Road, so no doubt that cover was from a manual earlier than the blue one.)

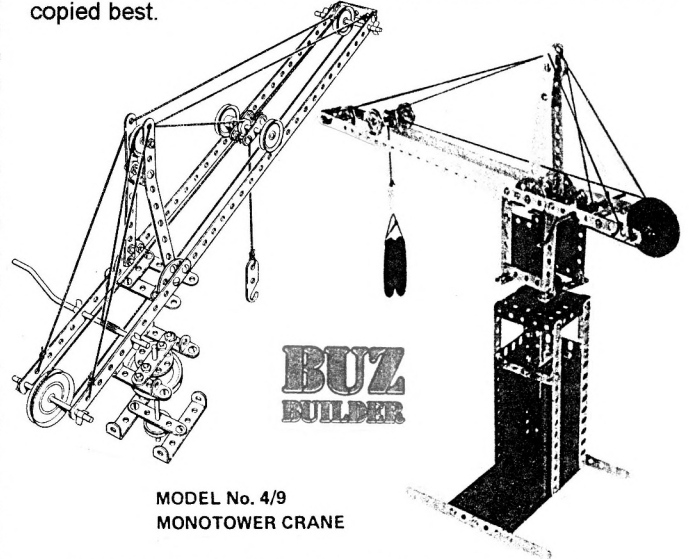
The 'blue' Manual has the Contents of Sets 1-4 and they differ considerably from their predecessors. All have many more Plastic Flexible Plates, and N&B. There are numerous other changes to the No.1 with a 5*11h Flanged Plate instead of the 5*5h, fewer Strips and more Brackets, and the 1" Pulleys & Tyres reduced from 4 to 2. Excluding NBW, 47 parts, 4 more than before. The changes to the No.4 are less dramatic apart from 11 Flexible Plates instead of 3, and 76 N&B instead of 42. 4x 3h Strips have been added, with 2 less Flat Brackets, and one of the 5*5h Flanged Plate is replaced by a 5*11h.

MANUAL SUMMARY

•Name: BUZ BUILDER
•Details of maker: BUZ Builder Ltd., P.O. Box 23065, Auckland. •No dates/Ref Nos. •Page

size: 182*252mm deep but non-model pages are landscape. •No. of pages: 16 inc covers, unnumbered. •Language: English. •Printing: photos of models + line drgs of details; blue cover. •Page No. of Parts List & highest PN: 16,144. •Page No. of Set Contents & highest PN: 3, 125. •Sets covered: 3,4. •No. of models for each set: 11,9. •Name, Model No., Page No. of first & last model of each set: 3: WHARF CRANE,3/1,4; CONCRETE TRUCK,3/11,9. 4: MOBILE CRANE,4/1,9; MONOTOWER CRANE,4/9,13. •Other notes: details from photocopy. There seems to be no introductory material & the Constructional Hints are after the models on p14.

On the whole the models are much better than the ones they replaced, and are mostly simple, but quite realistic representations of cranes, commercial vehicles, and agricultural machinery, plus the odd radar scanner, etc. There's a photo of each model with a line drawing of part of it, and a list of the parts needed. The model below is the one that copied best.



MODEL No. 4/9
MONOTOWER CRANE

A photo of a No.3 Set from this time shows a blue box, scaling 17½*14", with 4 of the Manual models on the lid in the correct colours. The parts are pinned into recesses in a white foam block and they are in identical colours to those in the earlier No.4 Outfit, except that the 1" Tyres are black and look to be treaded. There are no 2" Tyres in this Set.

An ad for what seems to be a No.4 Set of this series was reproduced in *The Meccanoman's Newsmag* of August 1982. It was from a local Australian newspaper of Sept. 1979 and shows a box similar to the No.3 above. There are models on the lid and the two that can be seen fairly clearly look like Models 4/1 & 4/4 in the Manual above. 4/4 is also in the foreground of the ad and is unmistakable. The only false note is '2B. BUZZ BUILDER' in the ad's text.

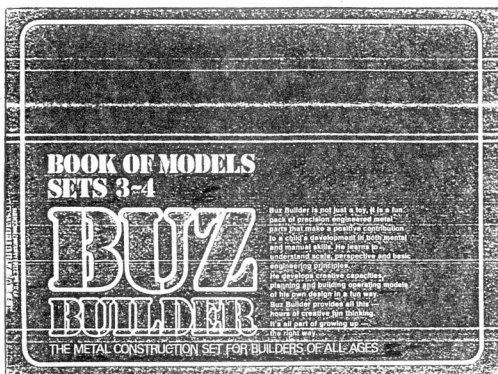
Footnote In a letter in the April 1990 *N.Z.F.M.M. Magazine* Lindsay Bond wrote that a firm called Underwood Engineering of Inglewood had bought all the dies from the 'now defunct Tri-ang Pedigree (N.Z.) Ltd., and still have them'. He also mentioned a very powerful 6-12v Johnson Motor with a MECCANO-sized output shaft, but it isn't absolutely clear whether it was associated with Tri-ang or with Underwoods.

EZY-BILT

These notes on this MECCANO look-alike add to those in 7/144 & 9/225. Recall that E-B, CPPL, EB(P)L, stand for EZY-BILT; Colston, Palmer & Preston Ltd., the first manufacturers; and Ezy-Bilt (Pty.) Ltd., who replaced them. Also, the References in OSN 7 will be used again.

Early Days In OSN 7 there seemed good reason to believe that E-B appeared before WW2, and this is confirmed by a TAHC reader who recalls it from as early as Xmas 1935, or perhaps 1937-38. He also remarked that the quality of the parts wasn't as good as MECCANO, with holes imperfectly matched, and the Flanged Plates less crisply folded.

The manual described overleaf is the earliest seen and probably dates from before WW2. The cover may not re-



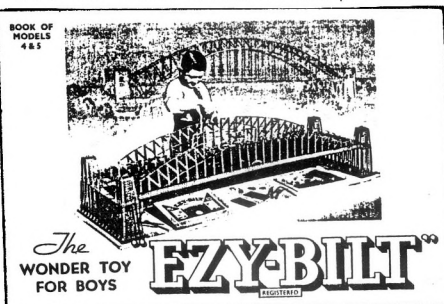
produce well but the boy is wearing a tie, and the model is a slightly simpler Sydney Harbour Bridge than the 7/145 one.

The manual is in 2 sections: the first, for Sets 1-3, starts with a photo of 2 boys playing with a model in front of a blazing fire; the first page of the second is exactly the same as the front cover, except that the Set Nos. '4 & 5' replace '1,2,3,4 & 5'. (It is used below because it has copied better.)

The Illustrated Parts & Set Contents are as in Refs A-C. The contents of the sets don't seem to closely parallel any MECCANO outfits, and are marked by the inclusion of 7½" Strips from No.3 upwards and 2" Pulleys with Rubber Tyres from No.4 on. Unusual parts in the No.5, a quite small set with 32 Strips, 27 Brackets, and 54 N&B, are a ½" Pinion, a 1½" Contrate, and 30" of Spring Cord.

There are lots of models, 175 in all, each represented by a small rather blurry photo. Most are simple but a Parts List would have been a help for a few of the larger ones. Many remind one of some of the MECCANO models before Flexible Plates were introduced but few are exact copies. The only clue to date is Model 5-159, 'Aeroplane (Bristol Bulldog Type)'. I believe the Bulldog was in service with the RAAF before WW2 but I don't know when it was introduced.

SUMMARY OF MANUAL •Name: EZY-BILT BOOK OF MODELS 1,2,3,4 & 5. •Details of maker: Colton, Palmer & Preston Ltd., Adelaide, Australia. •No dates or Ref Nos: •Page size: 221*149mm deep. •No. of pages: 36 unnumbered inc covers. •Language: English. •Printing: photos of models, and boy & Bridge on light brown cover, with real bridge behind.

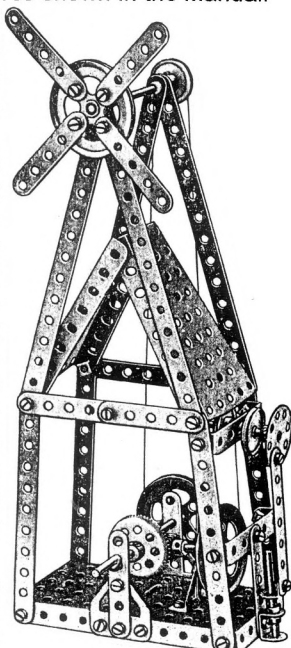


•Page Nos. of Illustrated Parts List & highest PN: 18,27 & 34, 31. •Page Nos. of Set Contents & highest PN: 4,27 & 20,31. •Sets covered: 1-5. •No. of models for each set: 27,31,32,38,47. •Name, Model No., Page No. of first & last model of each set: 1: Battle Axe,1-1,5; Bi-plane,1-27,7. 2: Scales,2-28,8; Fire Engine,2-58,12. 3: Crane,3-59,13; Submarine,3-90,17. 4: Grab Crane, 4-91,21; Polishing Machine,4-128,26. 5: Steamer,5-129,27; Battleship, 5-175,33. •Other notes: Manual is in 2 sections, for 1-3 & 4-5 sets. Covers 2,35,36 are blank.

A manual with a similar cover, though probably slightly larger, is believed to be from just after the war. It has a label stuck on it saying that there is no Cord or Tyres in the set 'Owing to National Security Regulations, restricting the use of Rubber and Cordage'. A No.5 Set with this label is known from Dec. 1945 and included 4 Road Wheels to use instead of the 2" Pulleys with Tyres shown in the Manual.

The 1950s The presentation of the CPPL 1-5 manual described at the bottom of p145 of OSN 7 is far better than the early one above, with larger, clearer illustrations. The Set Contents are the same apart from the introduction of Grub Screws. There are nearly as many models as before and though many have been redrawn, I didn't spot any new ones. The Windmill opposite is one of the larger models. The oddity of the 2" Pulleys with Tyres on them being replaced by M187-type Road Wheels in the manual models, but with no mention of the latter in the Set Contents was noted in OSN 7.

An earlier version of the CPPL 1-5 manual is known which is identical inside (its

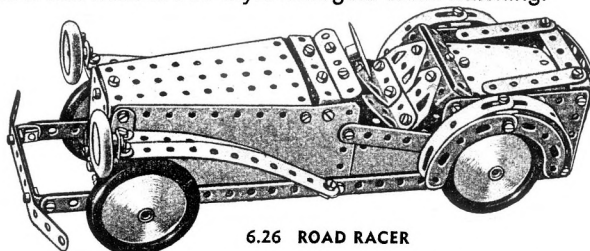


covers are missing) except that there is no Grub Screw, #84, in the Set Contents. So the last item is #31 (which is listed as 30" Length Strong Cord, but this is probably a mistake for Spring Cord, as in all other manuals).

Sets 6-8 are thought to have been introduced during this period, or even in the late 1940s. The next manual is from CPPL for these sets, and it is different from the 1-5 manuals above in two ways. First, the cover has a No.8 model on it, the Golden Hind, and very nice it looks too with its decorated sails. Secondly, although the style of the rest is similar, each model has a Parts List and some explanatory text.

The Sets are based on the prewar MECCANO Nos. 4-6, and don't have any of the few additions made after the war. However all 3 sets have the parts needed to make them progressive with the smaller ones - 4x 7½" Strips, 4x 2" Pulleys & Tyres, the Pinion & Contrate, and the Spring Cord - even though none of these parts are used in the models. 4x 1" Tyres replace the MECCANO Rubber Rings, and all the sets have 4 Road Wheels as well as the 2" Pulleys/Tyres. The Road Wheel is now shown in the Illustrated Parts & on the models. Apart from these differences, and give or take a couple of Axles, Nos.7 & 8 are then identical with their MECCANO counterparts. The No.6 though has a few extra parts, 2 Strips, 5 Brackets, 4 Spring Clips, etc., but doesn't have the Hinged Plate, although it's called up for some models - a misprint perhaps.

The models are most of the MECCANO ones from the appropriate sets, all redrawn, renamed, and often slightly modified, sometimes for the better. A No.6 model is shown below. The No.6 models include most of the MECCANO No.3 models as well. One model, 8.1 Air Liner, did not appear in a MECCANO manual until 1940, so that seems to definitely place the 6-8 sets after the war. A TAHC reader wrote that in his 6-8 Manual the Strip Plate in the Illustrated Parts has MECCANO-style blue/gold cross hatching.



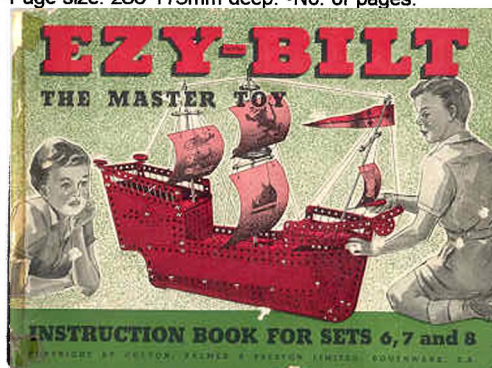
6.26 ROAD RACER

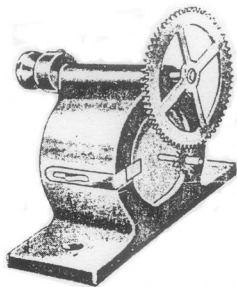
SUMMARY OF MANUAL •Name: EZY-BILT INSTRUCTION BOOK FOR SETS 6,7 & 8. •Details of maker: Colton, Palmer and Preston Ltd., Cawthorne Street, Southwark, South Australia. •Dates &/or Ref Nos: R. & Mc. on back cover. •Page size: 236*179mm deep. •No. of pages: 72+covers. •Language: English. •Printing: the cover has the Galleon model but is otherwise similar to the one in 7/145; the models are halftones. •Page Nos. of Illustrated Parts List/ Set Contents & highest PN: 2-3,84. •Sets covered: 6,7,8. •No. of models for each set: 46,20,25.

•Name, Model No., Page No. of first & last model of each set: 6: ELEVATED CABIN CRANE,6.30,4; STEAM CAR AND WAGON,6.11,32. 7: MOAT BRIDGE,7.18,34; RAILWAY WRECK CRANE,7.9, 47. 8: ELECTRIC TRACTOR AND TRUCKS,8.24,48; OBSERVATION TOWER,8.12,71. •Other notes: models are not in numerical order; list of models on p72 & IBC.

The 1960s A List dated 1960 shows that the range of parts had already been extended to far exceed those used in Sets 1-8. The parts had also been renumbered. A List from 1962 shows all the 1966 parts (see OSN 7) except the Sprockets and Chain. Incidentally the currency changed from pounds to dollars in Feb. 1966.

As noted in OSN 9, 1961 saw the introduction of the C/W Motor and the No.9 Set. Nothing is known of the latter





but the Motor was apparently made by a company called Robilt in Melbourne. It has been described as 'very substantial with a fully controllable governor with forward and reverse gearing'. There was no official electric motor but a small one, The Mighty Midget Motor (left), made by Medo Distributors, 82 Rose Street, Prospect, Sth. Aust., was advertised as being suitable for E-B or MECCANO models. It cost 12/6, weighed 1¼ oz, and ran on 3-6v batteries.

CPPL closed in the mid-1960s and the first EBPL Price List to hand is for 1966 (Ref.H). The 1967 edition shows the same parts and sets, and so does the 1968 except that the C/W Motor, although still in the Sets, isn't listed separately.

Colours The standard colours were red and green, with the parts in 1950s MECCANO colours except that the Bush Wheel and all Pulleys except the ½" were red. In a photo of some parts (from New Zealand) there's a green as well as a red 2" Pulley, and also a Bush wheel that may be green. The Contrate was described as brass in the CPPL literature but the ones seen are nickel on steel with brass bosses (see 18/523).

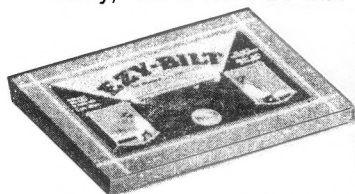
The N&B found in a CPPL parts tin seem to be plain steel. [They are larger than MECCANO, the square Nuts are 5/16" (7.9mm) A/F, and the cheeseheaded Bolts, 6.0mm Ø, and about 6½mm u/h.]

In an EBL leaflet (Ref.G) the Bush Wheel, Wheel Disc, all Brackets including M44 & M45, and the Road Wheel 'tyres' are shown white, like the Axles and Tools.

Yellow E-B Strips exist but it isn't clear whether any were ever included in sets. It seems that at the end, bags of yellow Strips and Wheels could be bought at the factory (the CPPL Southwark one I think, but it's not quite clear, so possibly EBPL at Kilkenny).

Packaging In TAHC it is said that small sets were in cardboard boxes with the parts tied to a backing cards with green cord; from about Set 4 wooden boxes with heavy sliding card lids were used, with the parts again tied to cards; Sets 6-8 were in metal boxes with hinged lids; and Set 9 was in a wooden box. Whether this applied to all phases isn't known.

The box lid on the cover of the early manual is shown below, while on the right is a later, but still early, CCPL No.4 lid with



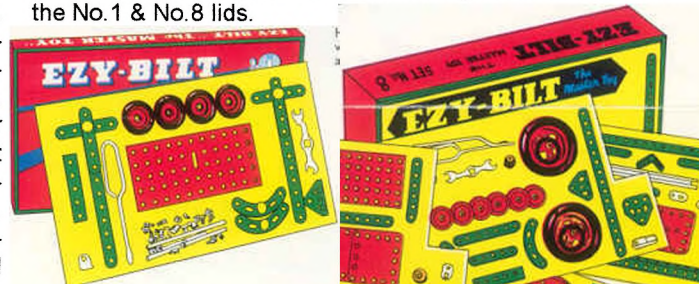
the maker's name & Adelaide on the map of Australia in the bottom right corner. The boy is wearing a tie.

Other designs from CCPL were in red, green, white and black. A No.1 Set has 2 boys and 4 small models, all green except for red Wheels, in the centre, with the map of Australia on the left. Boxes for Sets 6 & 8 are similar but with only one model, the Golden Hind, with all the parts properly coloured.

The small parts in many CCPL sets were in 2½" square tins, with green lids. The latter had the name & a boy with a model, both in red & white, and ASSEMBLY PARTS in black.

The EBL leaflet (Ref.G) shows Sets 1,3,6 & 8. The parts are on yellow cards, one each for the No.1 & No.3 Sets, 3 for the No.6, and 5 for the No.8 with one corner of each cut back to fit around the Motor. Small parts are in blue boxes with EZY-BILT on them. Only part of the tops of the box lids can be seen and for Sets 1 & 3 they are red with the ends of blue lines radiating from the top right corner; the Nos.6 & 8

are yellow with a green Strip on the right side. Below are the No.1 & No.8 lids.



Quality The reported shortcomings of early parts have already been mentioned, and there was a comment on quality in 7/145. One TAHC reader had 1950s parts that were as good as MECCANO, but another, without specifying a period, wrote of Strips varying in thickness from quite thin to very thick, with some bending like lead, but others very brittle. It was suggested that material shortages after the war gave rise to problems.

MODEL-IT

That's with a hyphen, not the American MODELIT. MCS contains good illustrations of the parts, and again although the MECCANO influence can be seen, there are some unusual variations. The parts include 7h Trunnions, a 5*11h Flanged Plate, and another with the centre pressed out, giving a 3*9h Perforated Plate, a 4-hole Bush Wheel and matching Wheel Disc, and a Super Road Wheel, described below.

Among the 42 parts listed in MCS are just 2 Strips, 2½ & 5½", but 3 A/Gs, 5½, 12½, & 18½" long. Some parts not listed can be seen in the models & sets shown, including a Pinion, a Gear, a Worm, & unusual Braced Girders in 5 & 25h lengths, as above.



The Super Road Wheel is described in TAHC as a 1¼" Pulley, with a Tyre marked Advanx-Spiral Model-It, and a Hub Cap that pushes onto the Pulley. The Wheel has an o.d. of 2¾" and 'made a most delightful motor car wheel, like those on 1939 Chevs and Buicks'.

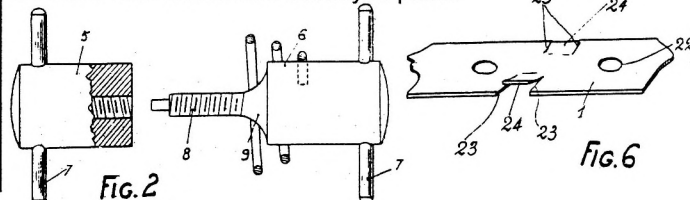
The MAC et NICK Patent (No.936145) This was mentioned in 18/523 and David Hobson has kindly obtained a copy of it for me. Although it wasn't granted until 1948 the application was made in Nov. 1946, by Roland Cosneau from Eure, part of Normandie.

The claim was for a constructional toy, using thin, flexible, perforated strips, with the following features:

- Parts to be joined by light alloy eyelet rivets using the tool (Fig.2 below). The rivets could have slits at their ends to make them both easier to deform, & to take out, using a screwdriver or similar to prise up the turned over ends.
- Other, steel, eyelets to be pushed onto axles to act as collars.
- A spring clip (like #149 in 17/472) to be used to hold a pulley fast on a grooved axle, as at 'B' in 17/473.

Also mentioned are 2 methods of locking strips at right angles to each other. The first is the part #120 (see 17/472) which had (I think) been used in earlier systems. In the second, shown in Fig.6 below, the tabs, 24, butt against the edge of a cross strip fastened through the hole 22. Rather a clumsy solution and not used in the actual system.

It was also suggested that a nut & bolt passing through a hollow rivet would lock it firmly in place.



MECCANO in the U.S.A. The items below help to fill some of the gaps in 12/316, 13/346, & 14/386. Thanks are due to all who have provided contributions. The material from the A.C.Gilbert Heritage Society Newsletter is reproduced by kind permission of Jay Smith, its editor.

From Don Redmond. The first & last models for each set in a © 1911 manual are as in the UK version. Otherwise the details are the same as the © 1912 in 14/387 (Ref.1), except that it has 50 pages + covers, and the highest PN is 55. The cover is green with (as also for Refs.1 & 2) 'American Agents: THE EMBOSING COMPANY, ALBANY, N.Y. / MECCANO LIMITED, LIVERPOOL' at the bottom. This is the earliest U.S. manual reported so far.

A © 1912 manual is as Ref.1 in OSN 14, the cover is green, and the first & last models are as in the UK edition.

The cover of a 134 page, © 1914 manual is printed dark brown on a pale green ground, and has No.14; '13 progressive outfits'; & TM83171 on it. All the first & last models are as the UK No.14. The address is MECCANO COMPANY INC., NEW YORK. In it is a loose slip, 3*5", printed in green with "MECCANO" GUARANTEE / The Meccano Company Inc., Masonic Hall, 71, West 23rd St., New York. It is rubber stamped 2- 9 14 35. The motors listed in the Manual are the Nos.1 & 2 C/W, the Water Motor, & the totally enclosed Electric for 110V or 200-230V (the only known mention of this motor).

There is a U.S. edition of the 1915-16 MECCANO Prize Model manual.

A 40 page, No.16A manual, ©1916, bears the above Masonic Hall address. The sets listed are 0-6, 1X-3X, 5X, 0A-5A, Inventor's A & B. The highest PN (in the Parts List) is 112. The cover is the same design as the No.14 but has additional wording including the Court quote (see '1917' in 14/386) / Canadian trade mark 55 Fol. 13476 / BOOK No.1 SPECIAL / PRICE 35 CENTS / AMERICAN EDITION.

The details of a No.18 Book No.2, ©1918 manual are as Ref.6 in OSN 14. MECCANO on the cover is in orange, and the address is Meccano Company, Inc., Building 10, Bush Terminal, Brooklyn, N.Y.

From Kendrick Bisset. A photo of a 1914 US #1 Set. The main manual is as Ref.2 in OSN 14 (© 1913) except that the name on the cover is THE MECCANO COMPANY (INC.), NEW YORK, not the Embossing Co. Also with the Set, the Supplementary Instructions No.13 with MECCANO COMPANY (INC.), NEW YORK on it. The set is generally as would be expected - it has 2 red Funnels, a black wiggly cutout Screwdriver, and a black Spanner.

A photo of a 1923 US #0 Set. It has a nickel Flanged Plate and tin plated Strips & Brackets. The manual 'FOR OUTFIT No.0' has red boys with the Braced Girder Crane between them. It's © 1922 but lists a May 15, 1923 patent and the PR is B 062315 R. On the cover: MECCANO COMPANY / INCORPORATED / ELIZABETH, NEW JERSEY / AMERICAN EDITION.

A photo of a New York Inventor's Set. It has black M20a & M19b, both the 4-spoke type, nickel M27a with 2 holes in disc, and square cornered Braced Girders. This and other Inventor's Sets are discussed in an article by Kendrick in the S.Cal. N/L for 4/98.

From Anton Calleia. A 1929 catalogue (PR: PL. 1029-50) has photos of all the sets 0-70. It can be seen that the 1929 #0 is the same as the previous #0 and not the #00 as suggested in 12/317. There's no mention of Gilbert ownership, and the back cover shows Meccano buildings in London, Paris, Liverpool, & Elizabeth.

From the A.C.Gilbert Soc. N/L Vol.7/1. A tabulation by Bill Bean gives the contents of the 1930 Sets 115, 125, & 150 (see 12/319). The Sets are progressive. The #115 has the Ship Parts of course, and otherwise the most notable

are 2x 18½" A/Gs, 4x 3" Pulleys with Tyres, a 16½*5½" Flanged Plate, 8 Eccentric Cranks (#62), 4 each of 5½ & 12½" Flat Girders, a Boiler, a ¼" bore Bush Wheel (but no Axle for it unless it's the 19½" #13B), a Radiator, and the E2A Motor. The more everyday parts include 12 A/Gs, 5 Bush Wheels, 9 Gears, 240 Nuts, and 8 each of ½" & 1" Reversed Angle Brackets.

The noteworthy additional parts in the #125 are: a 6" Pulley, a Digger Bucket and a Tip Bucket, the E3 110v Motor (instead of the E2A), and the P66 Power Hoist unit. Otherwise there are 20 extra N&B, some extra Strips, Girders, etc, but many quantities remain the same.

The #150 is a different world with many more parts, and large quantities of some of them, but only another 80 N&B (plus 66 longer Bolts, but with not enough Nuts for 26 of them). The highlights: 340 Strips including 48x 12½" and 84 each of 2½ & 5½"; 236 A/Gs including 24x 24½", 48x 18½", & 96x 12½", but only 2 each of the 1½, 2, 2½ & 3"; a 14" long, ¾" Ø Axle & 2 Bush Wheels for it; 17 Gears; 26 Flat Plates 2½*3½" (with no PN); 32x 2" (ERECTOR) Triangular Plates; 56 Curved Strips, 32 Braced Girders (3½, 5½ & 12½", all ERECTOR presumably), and 56 of the ERECTOR Curved Beam (Braced) Girders; a Hub Disc, Circular Girder, & (7") Circular Strip; a Geared Roller Bearing, complete; and a Special Circular Plate with boss (an AZ with a BAX Bush Wheel bored out to ¾", welded to it). Of the nearly 200 parts listed in 1930, over 30 weren't in the #150. These included the 6" Circular Plate, the Wheel Flange, the Handrail Support, the MECCANO Bevels, the ERECTOR 72t Gear, and many of the more unusual parts like the Pointer, Corner Angle Brackets, Flanged Brackets, etc.

It isn't sure when production of these Sets ceased but as will be seen they weren't listed in 1934. Later Sets included some Meccano Briks.

From Richard Symonds. Copies of Sears catalogue pages for 1931 & 1932. The 2 largest sets in 1931 were (contrary to what was said in 12/319) Nos.110 & 115, but in 1932 they were designated Nos.10 & 15. Also in that year Sets 5, 10, 15 were said to be 'With New Meccano Brik': the illustrations of the Sets had been changed, and showed the Bridge Braced Side Frames that were part of the BRIK system. The sizes of the boxes are given in both years and stayed virtually the same.

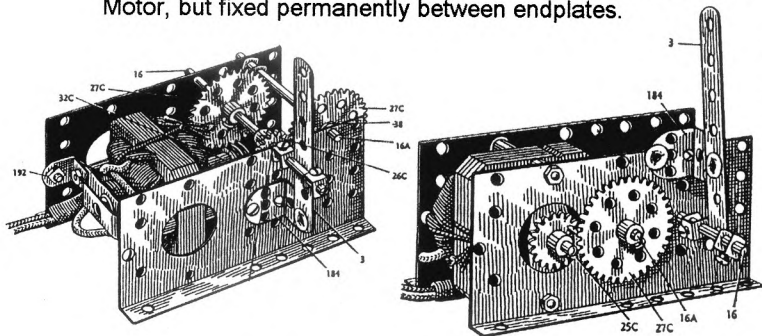
Also from the ACG N/L, this time Issue 8/2, an article by Jay Smith (with help from Bill Bean & Carmen Cerasoli) on the later Wide Beam/Snap Rivet Sets. A trade flyer is shown with illustrations of the 6 sets which, it is said, were the range from 1934 to 1936. The smallest, to retail at 50c, was the #1050 opposite (see 12/319; the #1025 isn't mentioned). Then Nos.1,3 & 5, all with the Wide Beams and



No. 1050 OUTFIT. Size 12¾"x8¾"x ⅝". Plates to match, but with normal Pulleys and other parts. The #1 had 4x 1" Pulleys; Nos.3 & 5, 4x 3". The #5 had an E2D Motor, described later. Finally Nos.10 & 15, at \$10 & \$15, which look similar to the 110 & 115 sets in the 1931 Sears ad, and no Wide Beam parts can be seen. Sets 5-15 were in wooden boxes. The theme of the ad is the ease of use of Snap Rivets, and presumably they were included in all the Sets. No Briks can be seen and there's no mention of them. The size and weight of the Sets is given in the flyer and Jay points out that although the 1930 #10 box is shown, the actual box is larger, as per the dimensions given. The size of the #15 hadn't changed but the steel tray used in it was the same as the one in the #10. Some particulars of the packaging are given.

Details are given of the 110v Motor referred to in

12/320. It is called the **E2D** and the motor proper (armature & field core/windings) could be assembled, as shown below, with the armature shaft across the Motor, as normal, or fore & aft. The 5*4 holes in the ends of the sideplates allowed easy gearing: in the left illustration for instance, a Worm on the motor shaft drives a Gear on the cross shaft, followed by a Pinion/Gear reduction stage. Apparently the innards were also used in the 1935-36 ERECTOR A52 Motor, but fixed permanently between endplates.



From Harry Mariën. A photo of Joel Perlin's **#5 Wide Beam Set**, which looks just like the illustration in the ACG N/L. It's in a green wooden box, about 16*12", and inside the lid is a large orange label showing a Snap Rivet, a boy saying 'Oh boy! REAL RIVETS', and 5 small models. The parts are clipped to cream backing boards, one in the bottom of the box, and one in a red card tray some 8" wide. The Strips, Trunnions, & 3" Pulleys are green (a lightish shade in the photo), the Plates are red, and the Gears, 1" Pulleys, & Bush Wheels are brass coloured. The Angle Brackets look dark but that may be the light. The Motor is black, & the small parts are in a green box with THE NEW / AMERICAN / MECCANO / SEPARATE PARTS on the lid.

From Kendrick Bisset. Details & photos of a **1938 U.S. #4 Blue & Gold Set**, unused and with the parts still clipped in. Clipped in with the standard Erector T shaped paper clips, not strung as in Liverpool sets, and as will become clear it may well be that most, probably nearly all, of the parts were made in America.

The Box The body/lid are dark blue, & not the UK red. The yellow label though is just like the UK one except for 'The Meccano Company of America, Inc., 200 Fifth Avenue, New York' at the bottom. The parts are attached to a yellow card, and the layout is, with minor changes, as shown in 12/320 - the Motor sits in a dark colour open topped box.

The Parts. All the parts are similar to UK ones except

- The ERECTOR wire **Screwdriver**.
- The **bosses**, $\frac{3}{16}$ " \varnothing , single-tapped 8-32 (not the normal Gilbert 6-32).
- The ends of the **Strips & DAS**, are all semi-radiused like the then UK 25h Strips.
- The brass plated 8-32 **N&B**, with roundheaded Bolts, and square Nuts - .253 A/F, and a tight fit in the Spanner.
- The **Road Wheel**, which is made from a single pressing, with the conical part less deep, and the inside edge of the 'tyre' not curved over as much. The colours are the same, white with the centre red on the outside.
- The **Bush Wheel** is $1\frac{1}{4}$ " \varnothing , like ERECTOR & the then MECCANO Disc, M217a.
- The **Axles** are .154" \varnothing , and UK .160" parts won't go through most of the bosses; the **Crank Handle** has a very small offset of less than $\frac{1}{2}$ ".
- Some parts are not the same thickness as typical Liverpool production; mostly they are thinner, for example the U.S. Trunnion is .024", the UK .032".

The **C/W Motor** is the ERECTOR A48, introduced in 1938, with the K48 Key. It's blue and looks rather similar to the Magic Motor but is longer & deeper by some $\frac{1}{2}$ ". The sideplates are the same distance apart but both have 4 flanged feet, and 5 holes along each end.

Colours are as in the UK, even down to the red Spanners. Some parts are stamped MECCANO, and at least two, the Rod & Strip Connector, & the Rod Connector, 'Made in England'.

Although a few specialised parts like the Rod/Strip Connectors must have been imported, it's highly likely that most parts were made in America. The ends of the Strips/DAS point to this, and Kendrick noted that all the tin plated Strips/DAS that he has seen, i.e. earlier U.S. made parts, have the same semi-radiused ends. In addition, courtesy Lou Boselli, he has examined some worn U.S. gold Strips and they have clearly been painted over tin plating. Other indications are the different thickness of some parts, and the different bosses. Another factor is the paint work - the Strips are not lacquered, and the gold paint has a finer grain. Also both the red & blue paint has been poorly applied, with runs and thicker areas around holes & edges. I don't recall ever seeing any prewar Liverpool blue or red parts that weren't evenly coated, whereas many of my ERECTOR parts look as if they were dipped rather than sprayed.

The Manual It is the standard MECCANO No.4, and even has the large ad for the Hornby 'Princess Elizabeth' loco on the back cover. In addition to 'Copyright by Meccano Ltd., Binns Road, Liverpool, England', the front cover has at the bottom (in larger letters), 'THE MECCANO COMPANY OF AMERICA INC.' & the 5th Ave. address. Normally placed on the back cover are 13/538/1 (1P) / Printed in England / U.S.A. A sticker inside (M1913) explains that the Motor has been included to give additional hours of fun, and that extra parts, where needed for models with a motor, can be obtained from your dealer, or from MCA, New Haven, Conn. Kendrick also has a copy of the cover of a similar U.S. manual numbered 37.7/8.

The STEEL TEC 1994 MUSTANG GT Josep Bernal has kindly sent photocopies of the manuals for the 1957 Corvette that was described in 18/496, and for another similar set to build the Mustang.

The Corvette manual is a different edition with similar layout and illustrations, but with many of the detailed building instructions omitted, and the remaining text in 7 languages - English, French, German, Italian, Spanish, Dutch, & Portuguese. The number on the front is still #7120 but the date on the back is NOV 15,95.

The manual for the Mustang has the same presentation as that of the 'European' Corvette; the item number on the front is #7121, and the date on the back, JAN 31,96. The claimed number of parts is the same at 230, and though the selection of standard metal parts is different, they again serve to build the chassis (below). As in the case of the Corvette, it carries the Wheels, the engine & interior fittings, and the metal body panels. Again the headlights work from batteries in the boot, with a switch between the front seats, and the finished car can be mounted on a stand. This time the Windscreen Wipers are separate parts, and the number plates stickers are for Michigan.



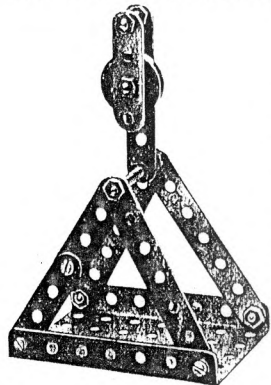
STABIL Notes What follows adds to the notes in 13/348 & 15/406, and is based on further discoveries by Werner Sticht. Thank you also to Thomas Morzinck for additional material, & contributions from Josep Bernal, Don Blakeborough & Jeannot Buteux.

The FIRST PERIOD This period can be subdivided into two, which I'll call **1a & 1b**. The change was the introduction of the **5*11h Flanged Plate** & improvements to the outfits, with some extra parts, and the Flanged Plate in all but the smallest set. At the same time the number of models shown for each set was significantly increased - from 16 to 50 for No.49 for example, and from 6 to 9 for No.54. The first of the 2 ARTS ET MÉTIERS manuals in 17/461-3 would be from Period 1a, the second from 1b. The best estimate of the date of the change is 1912, or possibly 1913.

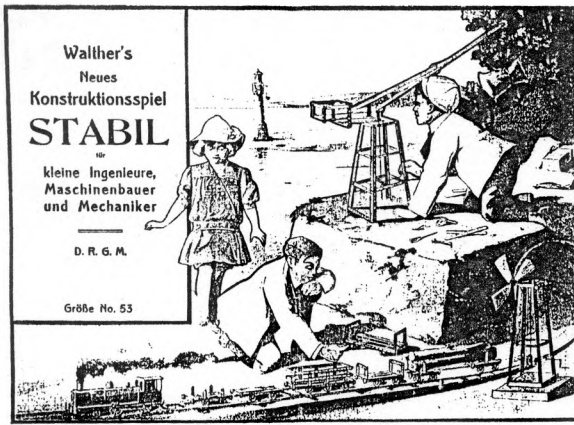
Set 54, the 5*7h Flanged Plate, & Parts 35-39, are thought to have been introduced rather earlier, & the **No.55 Outfit**, with **Parts 40 & 41**, between the change & 1914.

Parts 17-21 (Wooden Beams, Bases, etc) & 34 (Tup Block), see 13/353 & 17/462, were dropped in stages after the 5*11h Flanged Plate was introduced. In the 1917 manual (©1915) it was explained that Woodscrews, the last of these parts remaining, were no longer included because they were only needed to fasten models to wooden boards, and the latter were not part of the outfits.

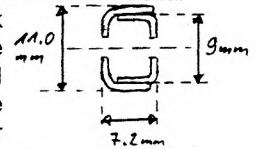
PARTS • **Early Strips** were shiny, perhaps tin plated, but in Period 1b they were typically a grey colour, possibly either plain steel or chemically treated. WW1 saw the use of any suitable material that was available, and so one outfit contained light alloy Strips, dark blue shining steel parts, and obsolete brass Wheels. • The **7*5h Flanged Plate** below, without the centre 3*3h cutout, and with round holes in the flanges, is shown in two models in a Manual (discussed later) which is thought to be from near the end of Period 1a. No such part has ever been discovered, but Plates have been found in sets that have normal elongated flange holes and no cutout. In this form it coexisted with the 5*11h type, which always had the centre cutout. The cutout in the 5*7h was introduced before the 3*3h Plate, #1e was first listed in 1918. • **Threaded Rods, #4**, see the notes for 'Worm' later. • As mentioned in OSN 13, the first **26mm Pulleys, #5** were turned from solid brass. Later several other types were produced, particularly during WW1, before the final form was introduced in 1920. These included one made of formed sheet brass discs, held through the centre hole by a shallow boss on each side, with 4 peripheral holes still large enough to accept a Rod. Another type is as shown in 13/353, with steel discs, without peripheral holes, held by a small steel boss on one side, peened over on the other. The examples known are brass plated. In another design the boss is brass with a much thinner wall and looks like a tube. In the final design the 2 discs with bulged centres were joined at each of the 4 outer holes by a peened over 'upset', as in M22a for example. The finished holes were no longer large enough for a Rod to pass through. The discs were probably originally steel, usually brass plated, but nickel ones are known. Brass was used later on. All Pulleys of this type, and the 37mm ones, had the inner faces of the V groove slightly serrated. • **Early**



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Collars, #7, Grooved Rollers, #8, & Cheek Pieces, #9, were made of wood but they tended to break when tightly bolted on a Rod, and after 1910 they were turned from brass. During WW1 the Collar (right) and Cheek Piece were made from two steel pressings, & the Grooved Roller

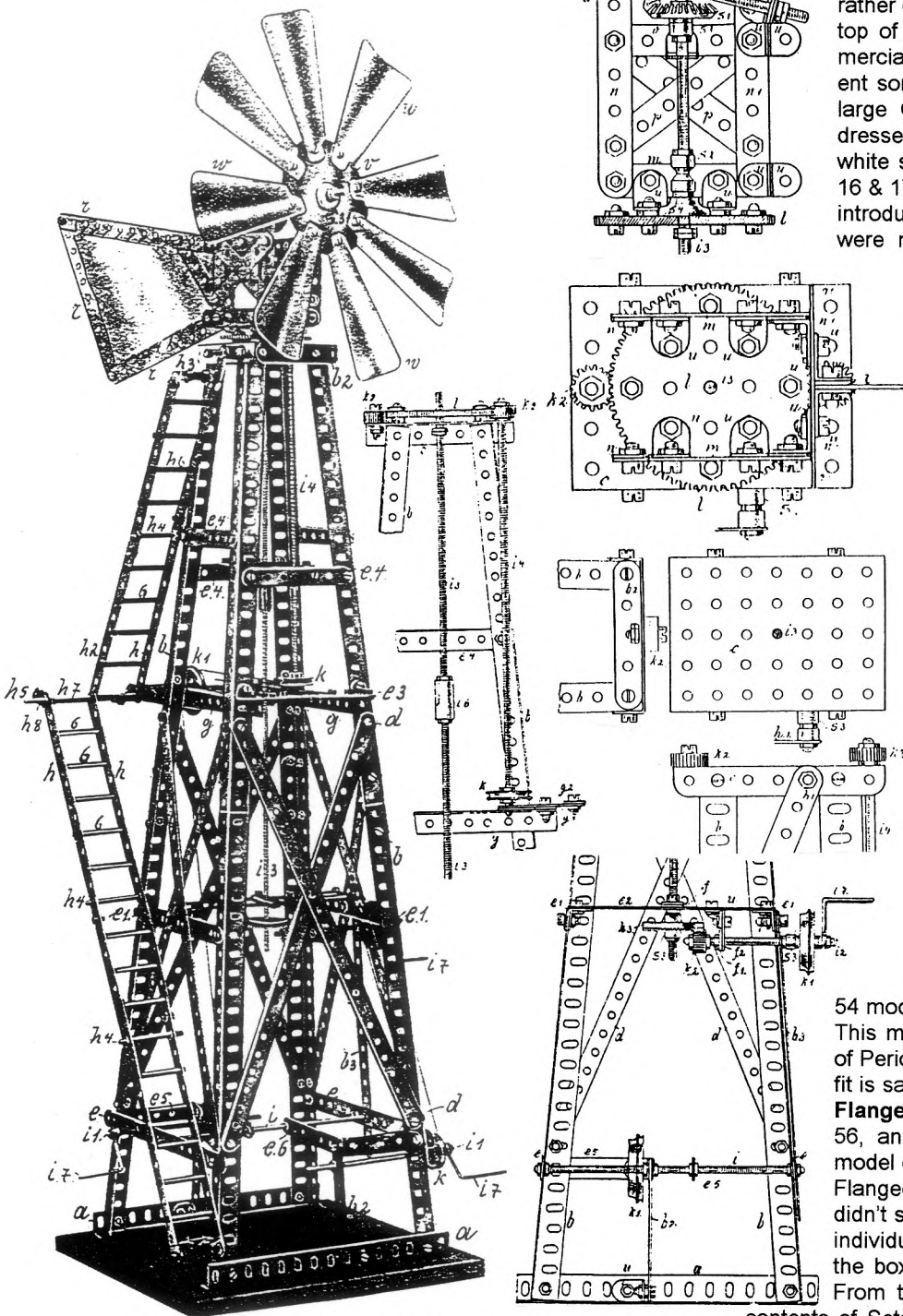


was solid steel. • **Tapped Cheek Pieces** were used as buffers in the Railway Wagon Sets, and though this part is shown in some of the

standard manual models, it was never included in the standard sets as far as is known. • The **Wooden Pulley, #15**, originally had 6 holes, and the 8-hole type was introduced after WW1. • Like the Pulleys the **Flanged Wheel, #22**, changed from solid brass to being made up from formed sheet steel parts. Some bosses were similar to the 2 part Collar illustrated above. Brass pressings were used later on. • A solid brass, **smaller Flanged Wheel** was introduced for the Railway Wagon Set models but was not included in the standard outfits. It had 4 large holes in the face and a small diameter 'inside' boss. • The original **Bush Wheel, #23**, was brass 3mm thick with an integral shallow boss on one side. The later design was adopted in WW1. • Some **Bevel Gears, #24**, were die-cast zinc or machined aluminium in WW1, rather than the normal brass. The **new Bevels** (see 13/354) were #24a with 36 teeth & #24b with 12. At that stage there were no holes in the face of 24a, and 24b had no boss. In 1930 the 2 tapped holes were added to 24a so that the Double Arm Crank, 7b, could be bolted to it to provide a boss, and 24a was completely redesigned with a single tapped boss. All 3 Bevels have the same cone angle & will run together at 90°. • The **Bakelite Gears, 25c-f**, were black or dark brown in the late 1930s, a dark yellow in the 1950s, and a clearer yellow in the 1960s. • The **Click, #27**, is known in right & lefthand versions but only one type was ever listed. • The **Sprocket** teeth are more rectangular than MECCANO or MÄRKLIN, and so there is less likelihood of the Chain slipping. A pair of Sprocket Wheels, or a Ring and a Wheel, can be used together as bevel or spur gears, but not 2 Rings. The Sprockets will also mesh with the Patented Spur Gears, 25c-25f. • A **Worm, #32a**, in a large lot of STABIL which dated from about 1922, had a smaller than normal bore, and some correspondingly smaller diameter **Threaded Rods** have been found in other STABIL lots. They are about 3.6mm Ø (against 3.9mm normally) but are threaded the normal 5/32" BSW. • The **Piston Rod, #28**, may have originally been a smooth 4mm Ø rod with no thread, and Parts 8 & 9 jammed on to it by a small piece of fabric or sliver of wood. • The **Tup Block, #29**, see 17/462, is wooden, with grooves on either side, and its estimated size is 65*65*10mm. • One of **PN34** was listed in the Set Contents on the inside of the lid of an early No.53 Set, but it wasn't illustrated or described. As a guess it may have been a Belt narrower than #33, perhaps for use with the 17mm wide Roller, #31. Later #34 was a Spring. • When first introduced the **Circular Plate, #35**, was 80mm Ø with only an outer ring of 8 holes. Then in Period 1b it was changed to have 3 rings with 8 holes in each, and the final version, in Period 2, had 16 (8 extra) holes in the outer ring. The illustration at the bottom of 13/352, is incorrect. • The **Wire Hook, #38**, was originally longer than the later type, perhaps up to about 30mm o/a. • The 4x **84b Tyres** (to fit the 25mm Pulley, #5) were included in all sets well before WW2 - probably from 1932, and certainly after 1936. • The **Cardan Joint Spider, #86a**, is best used with 2 Double Brackets, #2b; they fit exactly whereas the sides of the (recommended) Single Bent Strips, #41, have to be bent

No. 57. Grosse Windturbine.

900 mm hoch
(Gebaut mit Kasten No. 54 oder mit
Kasten No. 53+53a.)



apart to accommodate its width. • The **Handrail Support**, #87, is 9mm wide, 30mm o/a, with 12mm of thread. • The **Cone Pulley**, #88, was pressed from sheet steel about 1mm thick, and nickel plated; the boss is inside the cone, riveted to the top face. • The **Bearing Support**, #89, is 61mm long o/a, with 21mm of thread on each side. • The **Propellers**, #90 & 91, are made of wood. • The **Flexible Plates**, #95-95c, were introduced after 1951 but by 1955. • The **Plastic Rivet**, #96, is known to have been listed as a new part in 1963, & as it was advertised as being 'new' for a number of years, it may date from before that. • The revision of the **Paper Sheets**, #148, in 1955 or 1956, wasn't immediately shown in the manuals. • The **C/W Motors** in 15/406, labelled CW1 & CW1A, are illustrated in a 1920 brochure and referred to as the 'iron' and 'brass' versions. So they are probably the same as the ones in the 1919 List. • After WW2 the **C/W Motors** were made by a firm in the Schwarzwald, a mountain region in south-west Germany.

SETS • Although pre-WW1 manuals have plain coloured covers with only text on them (see 13/350), the **set lids** at that time had a large, rather charming, full colour label. It is shown at the top of the opposite page. A Windmill, & a commercial loco drawing 5 STABIL Wagons of different sorts, can be seen in the foreground, with the large Crane behind on the rock. The boys are dressed in white and the girl has a red dress & a white sun hat. Such lids are shown in EZ, Plates 16 & 17. • The **Railway Wagon Sets**, 59-63, were introduced at some point during Period 1b, and were no longer available in the 1920s. • Set

Boxes were originally black but from sometime between 1930 & 1935, until the end, they were blue. After WW2 some lids had the strips & diamond decoration described for the 47KM Set overleaf.

MANUALS • The **illustrations** in 1a period manuals were good quality halftones, usually on art paper; after that line drawings were used. • The **plain cover** shown at the top of 13/350 is typical for all of Period 1. • On a **very early manual** the sets covered have been written into the top panel by hand, in the old German script. • The wording in the panel of a no doubt **slightly later one** has been stamped on in violet ink. As might be expected there are inconsistencies in early items and this manual is a case in point. The violet stamp says it is for Set 53 (Vorlagenheft zu No.53), but inside is a standard 49-52 manual, followed by 2 sections glued in which show models for Sets 53 & 54. The models are as in the first A&M manual described in 13/463, plus one extra for Set 53 (No.55, Windmühle mit Zahnradgetriebe), & 6 models for #54 (from No.56, Schwebebahn, to No.61, Grosser Werkstattkrah).

The Set 54 models need the Parts 35-39 mentioned earlier. This manual is thought to date from the very end of Period 1a, & in a list of sets in it, the No.55 outfit is said to be in preparation. • The unusual **7*5h Flanged Plate** mentioned earlier is used in Model 56, and also as the top platform in the Set 54 model opposite. None of the models use the 11*5h Flanged Plate of course. • Pre WW1 manuals didn't show the **contents of sets** or illustrations of individual parts. Both were on a sheet glued inside the box lid, but only covered the set in question. From these it has been possible to tabulate the contents of Sets 49-54 pre-1914, and these will ultimately be included in MCS. • A 49-52 21st Edition manual dated 10/21 shows some of the new **2nd period parts**, whereas non-German manuals from 1921 don't. So certain new parts were introduced in 1921 in Germany (to compete with MÄRKLIN), and a year later for export. But the complete change from the 1st to 2nd Period took some years, and at first only the manuals for the small sets were updated. Many of the prize models in the 1921 manual contained new parts, but these were probably added by the firm. Some of the prize models had been shown in earlier Editions without mention of a prize or the name of the builder. • The Set 53 models in a **1929 53-55 manual** are identical to those in the 1940 Edition, but the 54 & 55 models are the same as the 1924 ones, with the same Model Nos. It is said in the Manual that new models would be included in the 1930 Edition, but none were and so the new 54/55 models must have appeared between 1931 & 1940. • A 1932 French **KNIRPS No.1 manual** is known. • A postwar **1951**

49-52 manual has the prewar cover except that the name of the suburb, 'Neukölln', has been added to the address.

HISTORY • Franz Walther was born in 1860, and his son, Walter, in 1889. His son, Torsten, born in 1924, is still alive, and he started working in the company in 1950. He recalls that the reintroduction of the Inventor's Outfits was considered at about that time but the idea was eventually dropped. Also, no changes, apart from the date, were made to the manuals after 1957 - he has no recollection of a 49-51 manual from the 1960s, and the one mentioned in 13/350 may have been the result of a misunderstanding. Unfortunately all the prewar company records were destroyed during the war. • Walthers collaborated for a long time with Markes, who made DUX-UNIVERSAL, & they made parts for each other.

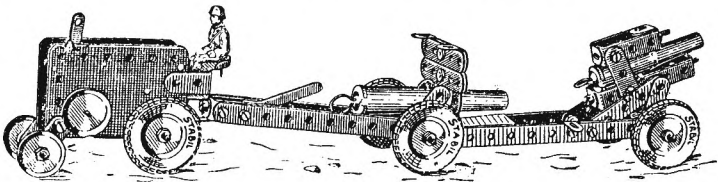
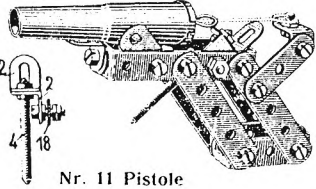
CORRECTIONS to OSN 13 & 14. • There was already a factory on the Harzerstraße site (see 13/349), & an extra 200m² was added to it. • As is obvious from the text, the illustrations of the 3rd & 4th manual covers in 13/350 should change places. • The Set Nos. in the first para of 14/368 should be 57 & 58, with 56 introduced later.

The STABIL KANONEN Outfits An account of these Sets was given in 11/273, but more details are now available thanks to information from Thomas Morzinck and Werner Sticht.

Packed with both the 46KM & the 47KM Sets were the same 2 manuals, the standard 46 and a supplementary one with military models using the Knirps motor and the special Kanonen parts. The supplementary one to hand has 8 pages including covers, about 20*13cm, all printed in B&W with line drawings of the models, and on the back cover, a PR of '35. Auflage \ 093512 J.M.'

The Contents of the 46KM are on p2, and all but some extra N&B, a 50mm Screwed Rod, & a small Span'driver, #10b, were mentioned in OSN 11. The latter can be seen bolted to the trail of the Gun in the OSN 11 Model 15, and in the Model below, with its tail pointing upwards. The 4 Collars are made of wood (PN 7c) and the Gun Barrels are described as being 85 & 110mm long. In a photo of a Set the small one is black and the larger one is banded green (at the muzzle end), yellow & red. The 46KM models run from No.1 Trecker, on p2, to No.13, Gebirgshaubitze, on p8.

Only one, No.14 (below), is shown for the 47KM. It is described on p8 but illustrated on p1, and is in fact made up of 2 of the 46KM models, Nos.2 & 8, plus the Soldier described later. The models 14 & 15 in OSN 11 (from the Knirps Leaflet) are Nos.7 & 2 in this manual. Most of the models are large guns of one sort or another, but there's also a Tank, an Ambulance, & the Pistol opposite. Many of the models need cardboard parts, and patterns for these are given on p7.



A 47KM box lid measures 33½*22½cm and is the usual 1930s blue, with a label showing Model 14 (above) on a green foreground, with a Crane in the background against a yellow sky. Also stuck on are 2 yellow 'Strips' at right angles to each other, and, where they intersect, a red diamond with STABIL on it, edged with blue 'Strips'. The lid of a blue 46KM box has a similar label, but with no 'Strips' & diamond.

The 47KM Contents aren't given in the Manual, the reader is referred to a label inside the lid of the Set. This has the PR 'J.M. 08350' and extra to the 46KM contents are some Strips, DAS, & various other small parts. Noteworthy are a second Span'driver, the Soldier (#94), who sits on the Tractor, and a Money-box (to encourage saving up for the next outfit). The Soldier was made of 'Lineol', a mixture of the glue made by boiling animal bones & fine sawdust; the same brew from a different firm was called 'Elastolin'.

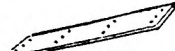
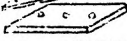

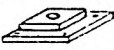
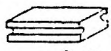


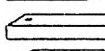

The Seat, #92, simply pushes onto the Motor, and a peg on the Soldier locates in a hole in the middle of the seat pan. The Gun Barrels, #93 & 93a, are not bolted on either, but are held between Strips or Brackets which are usually pulled together under the Barrel by Nuts on a Threaded Rod. Parts 92-94 were only ever included in the 'KM' Sets, and were not available after WW2.

A Larger WALTHER'S INGENIEUR Outfit

Notes on the #11 Set were given in 7/164 and it was thought from the 1914 Price List (13/348), that it was the largest Set in the series. However Werner Sticht has now kindly sent news that Karl Debik owns a #12 Outfit, and, thanks to him, Werner was also able to send copies of the box lid, & the Illustrated Contents label pasted inside it.

Like the #11, the box is wooden, and the same size, 28*38cm. The label that nearly covers the lid is similar in general, but some of the models around the main centre Tower are different, though of the same genre. Also a Gothic typeface is used and there's some additional wording. From this it looks as if the #12 was dropped before the 1914 List, rather than appearing after it.

The #12 has all the #11 parts, generally in the same quantities, plus a number of others. The extra wooden ones comprise 16 Round Rods of various sizes, plus those shown opposite. From the top their sizes are 270*70*2, 110*110*9, 125*60*20; 80*80*13, 70*40*15, 75*60*20; 110*30*5, & 90*30*5mm. No details of the last Beam or the Arch are given. There are also 4 House Wall Panels, 105*90mm, made of card, and not illustrated.

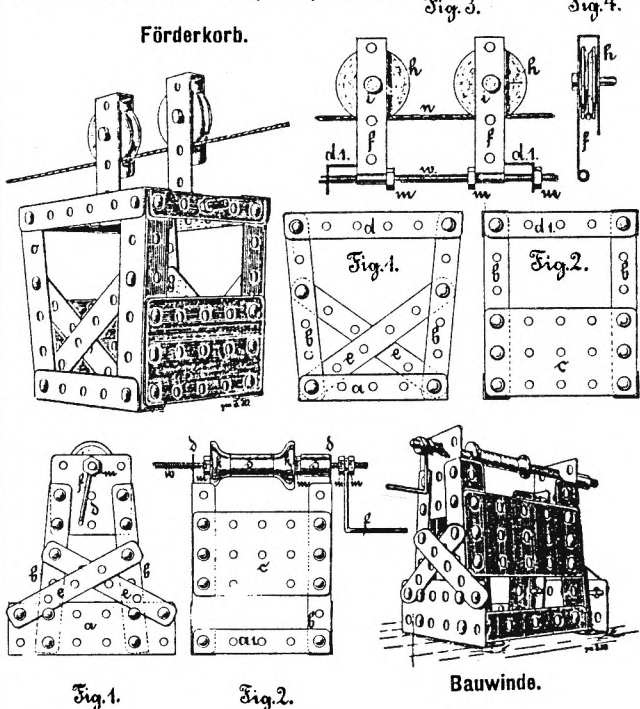
-  1 Bodenbrett
-  1 Treppeplatte
-  1 Dach
-  1 Plattform
-  1 Fallklotz
-  1 Laufwagen
-  1 Spannbrett
-  1 "
-  —

The main extra metal parts are 2 of the 3*4h Plates, 6 A/Gs, and 26 Strips including some 11 & 4h long. There are also some new ones with no illustrations: 2 Wulsteisen, 18h long, 1 Drehling, and 1 Drahtstift (Nail perhaps).

Other items: 2 Manuals are listed, but of the Tools, not the Drift or Small Screwdriver.

Karl also provided a copy of the manual that was with the Set. The cover is about the same size as the #11 (16*23cm deep), and is very similar in design (see MCS), but has an italic typeface & a slightly more ornate surround. With the covers it has 16 pages and, unlike the #11 Manual, includes an Introduction, rather similar to STABIL ones. 10 models are shown against 9 in the #11, but though of the same general type, they are smaller, & don't need many of the parts in the #11. Some however use 2 parts not listed for either Set 11 or 12 - a Wire Crank Handle, & a Hanger Strip; they can be seen in the models below. The Strip has a rolled-over end to allow it to be held on a Threaded Rod.

Since the #12 Contents includes 2 manuals, this might be one of them, but it is thought more likely that it came from a later, smaller Set, perhaps a #10.



More on MODELIT Phase 2 Richard Symonds has recently acquired a Phase 2 MODELIT #G Set (see 12/326), and he kindly sent photos of it, and a copy of the manual. He also lent me some of the more interesting parts: the two Spider (Bush) Wheels, a selection of Gears, and a Spoked Pulley not mentioned in the OSN 12 material.

It's a splendid looking outfit in a wooden box with a tray. In plan it scales at 16¼*10½" and the bottom of the box and the tray have wooden partitions. The top and the inside of the lid both carry an identical label, very similar to the red and green Phase 1 manual cover shown in 8/187, except that the model is the Crane on the Phase 2 cover in OSN 12, and the wording at the bottom is different, with a G on the righthand side. The boy in his dated clothes is identical.

The Parts What follows amplifies and corrects the notes in OSN 12.

- All the **Gears and Sprockets** are brass, and none have any holes in their discs. The **Pinion** is .492" o.d., with 16 teeth of .23" face; the **Gear Wheel** scales at 1.4" Ø and probably has 50 teeth. The calculated DP based on the Pinion is 36.6. The **Contrates** are .75 & 1.43" o.d. and have 25 & 50 teeth; the **Sprockets** have 14 & 23 pointed teeth and are 1.00 & 1.47" o.d. The **Worm** has nearly 7½ turns of thread and is .873" long o/a: it is .558" Ø, turned down to .378" Ø for the boss.

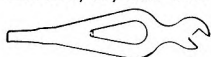
- The 2 **Spider Wheels** are 1¾ & 1⅞" Ø and the 8 & 4 holes in them are at ⅝" & ⅞" radius. Their discs are of thicker than usual steel, .051 & .067" respectively, nickel plated, like all the parts other than the Gears and the Spoked Pulley.

- Said **Spoked Pulley** is 1⅞" o.d. with 8 flat spokes, about ⅛" wide; it's made of 2 steel discs held together by a ⅝" Ø boss, and is painted a dark, metallic red. This part isn't in the manual's Illustrated Parts or Set Contents but there's a 2" Pulley at the end of the Parts

List. Similar Pulleys are used in some of the (new) manual models, but are shown with 6 spokes, as in the F Set Auto Fire Engine shown above. The 6 in the Richard's Set are fitted with narrow black Rubber Rings, but there's no sign of these anywhere in the Manual.

- **Bosses** are all brass and some are ⅝" Ø and some ¾". There seems no pattern - as might be expected the Pinion has the smaller size and the Worm the larger, but the small Contrate has the ⅝" and the large the ¾". Perhaps some were old stock and the smaller ones were new production, those in the earlier Set B all look to be ¾". **Peening** is a narrow ring just proud of the face, but flush on both Sprockets. Bores are mostly about 4.2mm but a few are nearer 4.1mm. There are 2 types of **Set Screw**, one with a round head, typically .22" Ø, and another with a tiny flatter head of about .16" Ø. Both are nickel plated steel.

- The other new part, a **Combination Wrench and Screw Driver**, is, like the 2" Pulley, in the Parts List but isn't illustrated, or in the Set Contents. It's nearly 4" long and a tracing of it is shown left.

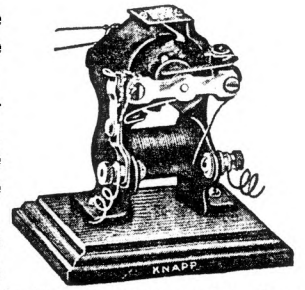


- The **Propeller Blade** scales at about 4" long.
- The small **Bucket** has 2 hole in one of the long sides.

The Manual has a similar monotone cover to the one in OSN 12, but, with only 4 more pages, many extra models are included. Mostly they are for the smaller sets and room has been found for them by dispensing with the Parts List for most of the small and medium sized models. The Model Nos. still run consecutively from Set A through Set G and so are different to those in the OSN 12 manual. The new models are more of the same with simple treatment of a

wide range of subjects. The only model that might indicate a date is a Zeppelin.

The Set Contents are identical, & as already mentioned, neither the 2" Pulley nor the Span'driver are included. The same Transformer is shown, though it's \$5 against \$3.50 before, but the Motor (right) now looks like the one shown in the manual models (see 12/332), and cost only \$1. It is said to be 3½" high, to be finished in black enamel with nickel trim, and to have a starting switch. The name KNAPP can be seen on the wooden base. As before a Motor was included in Set D and upwards but there wasn't one with Richard's Outfit. Apart from the Transfo, all the prices of the parts are as before.



SUMMARY OF MANUAL [Details not given are as in 12/327.] •No. of pages: 56+covers. •Page Nos. of Parts List & highest PN: 53 [illustrations p52],164. •Page Nos. of Set Contents & highest PN: IBC,162. •No. of models for each set: A,57+those missing;B,40;C,31;D,20;E,14; F,20;G,11. •Name, Model No., Page No. of first & last model of each set: A: CHAIR,40,3 [earlier page(s) missing]; SMALL WINDMILL,96,11. B: ARCH BRIDGE,97,12; GUM TAPE SEALING MACHINE,136,18. C: WINDMILL,137,19; TANK WAGON,167,24. D: ELEVATED DERRICK,168,25; PORTABLE WOOD SAWING OUTFIT,187,29. E: CORN CUTTER AND SILO,188,30; BATTLESHIP,201,35. F: REVERSE GEAR,202,36; LIFT BRIDGE,221,43. G: COAL POCKET,223,44; WEAVING LOOM,233,50. •Other notes: • The above from a photocopy. • Pages 1,2,55,56 are missing but probably contained an introduction, Models 1-39, & a Price List of sets, etc. • There's no Model 222 & on p19 #142 is misnumbered 141. • The Transfo & a different Motor are shown on p54 (in 12/327 the page should read 52, not 10).

More on Motors Following the note in 13/361, Kendrick Bisset kindly sent photos of the motor that looks just like the No.10 illustrated in 12/327. It's the Weeden #101 & the only apparent difference is that the name on the top cover strip is WEEDEN. There's a small driving pulley outboard of the 6-spoke flywheel at the back. Kendrick also sent an ad from a 1912-13 *American Boy* Premium List which shows a very similar motor but possibly of a slightly earlier pattern. It cost \$1.50, measured 6*4*4½" high, and had a 2½" 6-spoke 'balance wheel' with a 'nickel face'. The other motor parts were also nickelled, while the base was maroon enamel, 'handsomely striped'. Kendrick's motor, including the base, is rather rusty but was probably nickel once.

Another ad from the same List is for the Little Hustler motor and the illustration is very similar to the one in Richard's manual. Some small details differ and the wooden base has no name on it. It cost \$1.10 and the description tallies with the MODELIT one except that there's no mention of a starting switch. It was probably made by Voltamp.

The TRI-SECTOR Flanged Plate For me one of the joys of collecting OS, is finding treasures in long forgotten mixed lots, that weren't originally recognised. Thus when I recently revisited one, labelled Skegex 1994, I found a handful of DAN DARE Flat Brackets, a couple of Mystery Parts No. 34, & 2 TRI-SECTOR Flanged Triangular Plates. The right & lefthand versions of this Plate were the only structural parts in the system, which appeared, perhaps only briefly, in 1921. Some notes on it, based on 3 ads, were given in 17/488, but no parts were then known.

My Plates are both the same hand, & are made of .020" thick steel with a dull black chemical finish. Their overall size is as surmised in OSN 17, the flanges are ⅜" deep, & the holes ⅜" Ø. The holes are positioned as described before, at 1¼" pitch, except in the longest flange. That has a centre slotted hole 7mm long, with on either side, a round hole at about 1" pitch, and a similar slotted hole at 1½" pitch. The slots allow Axles to pass through when 2 Plates form a rectangle, see the top Axle of 17/488 Fig.2.

LYNX Notes These follow on from those in 16/436. David Hobson has found an ad in *The Toy Trader & Exporter* which probably heralded **the start of Phase 3** (sets in large boxes & the 'large' manual). It is from TBMC at the Sefton Road, Morecambe address, in the May 1950 issue, and reads, SENSATIONAL NEWS \ "LYNX" 1950 now in GIANT BOXES. The 'full range of 8 Outfits' was mentioned, presumably at that stage, the 1-6 constructional sets and the Nos.7 & 8 Repair Outfits. The box shown had the blue panel on the righthand side of the lid, like those of Phase 2, and a small size manual. So perhaps an old block was being used, or perhaps some Phase 3 boxes had these features. The Phase 5 Set described in 16/439 had both.

A 'large' **manual**, probably **Phase 4**, from Ivor Ellard; it is basically the same as the one from Lynx (Toys) Ltd. described in 'Other Notes' in the Manual Summary in 16/439, but with some differences. The IFC shows the contents of Sets 1-7 as expected. Pp 1-7 are identical. Page 8 has 5 models for Outfit 4 from 401 OVER-HEAD TRAVEL LIFTING GEAR to 405 LIGHT CRANE ON TRACK. Each has 1 smallish, rather blurry photo, and a PL. There were no #4 models in the OSN manual, and none of the 5 are known from elsewhere. Pp 9-12 show the previous 5-7 models, and the models N.801 to AN.805 are omitted. That leaves the next page, the IBC, and the back cover as before.

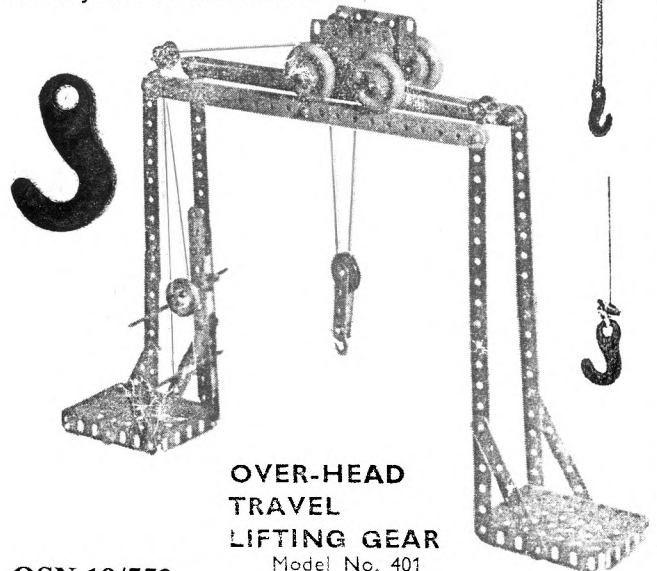
With the Manual were some parts, some typical LYNX, but a few unusual ones: • Red 1½" Balloon Wheels, and 1" Ø red ones as well. • The flat brass Hook below left. • 5h Ø red steel Half Pulleys, with red steel bosses. • LYNX-type Crank Handles but with longer, 4½" shafts. • 3 normal Diamonds & one very slightly larger, with smaller 3.4mm holes spaced ½" less than the normal ⅜" apart. • A silver, 5h long, 3h wide Plate (as well as 3 red ones). • Green 5*7h Flanged Plates with round holes in the flanges.

Some of those parts remind one of LONE STAR, especially the Hook & Flanged Plate. But then I noticed that the Hook shown in the No.4 models in the Manual is not the normal LYNX Wire Hook, but looks flat and quite similar to the one found. The latter is brass plated, .5mm thick steel, 20½mm long o/a with a 3.3mm Ø hole. Below top right is a Hook shown for one of the No.4 LYNX manual models, and below, one from a LONE STAR manual. Has anyone a genuine for sure LONE STAR Hook for comparison?

Going back to the Manual, was it earlier or later than the one without the No.4 models? It's impossible to tell for sure and unfortunately a Hook isn't used in any of the 800 series of models that the No.4 models replaced, or vice-versa.

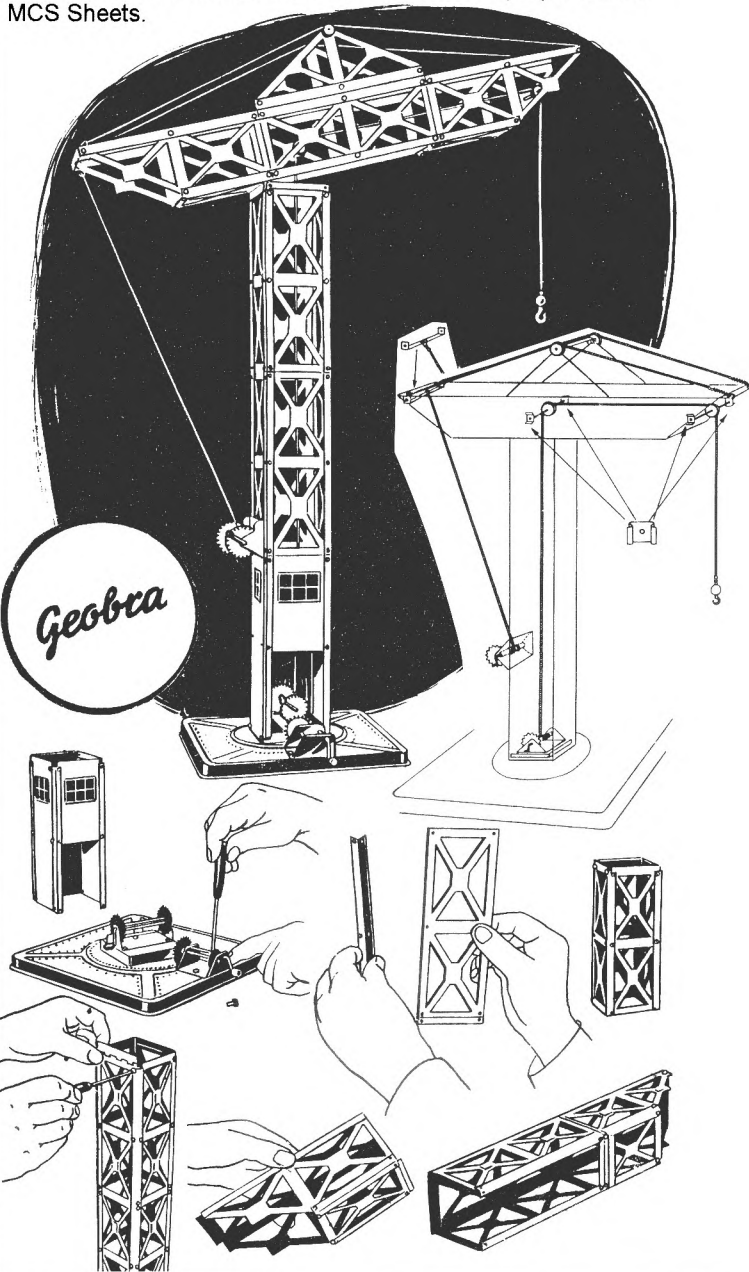
Roger Baker sent a photo of a **No.2 Outfit from Phase 3**, still strung in its box. It is as expected, including its manual, except that the Flanged Plate is the first 4*7h type, painted red rather than the usual green, and the Set contains 6x 1" (unpainted aluminium) Pulleys instead of 2, with 4 Balloon Wheels, in comparable Outfits.

Thank you to all contributors.



**OVER-HEAD
TRAVEL
LIFTING GEAR**
Model No. 401

GEOBRA Jeannot Buteux mentioned this German constructional toy in a recent letter - its a set known from 1954, to make one or two Cranes. The name rang a bell and I found I had an Instruction Sheet for the model below. 18 building steps are shown with no text at all. The 20 or so different parts look to be joined by Self-tapping Screws. The Base has a revolving centre driven by the crank handle of the outer Gear Unit. The structure is made from the various Window & Braced Panels, many of them 2 bays long, and sections are made from 4 such, joined by A/Gs at the corners. Then the sections push together and are held by Screws, which also hold the Winches & Brackets for the Rods, Pulleys, etc. I've no indication of the size of the parts, or their colour. If there is sufficient demand I'll prepare Extra MCS Sheets.



Some 'New'? Names Last year a list of all the sets in George Wetzel's collection appeared on the Internet and Richard Symonds was kind enough to send me a print out of the section with the metal constructional sets in it. I'd heard of most of the names but not the following:

- #300 Kelmar Pow'r House "Sky Ride", Wisc. 1947
- #150 Kelmar Pow'r House "Ferris Wheel", Wisc. 1947
- The Crescent Fortress, England. 1952
- Jack Dandy Const. Set - N.Y. 1949.

The first two sound as if they may be to make a single model, and I did wonder if the #150 could be the mystery Ferris Wheel shown on p9 of *Canadian Meccanotes* #7.

I'd be glad to hear if anyone knows of any of these sets, even if they aren't 'real' MCS.

Another MÄRKLIN Super Model The latest large kit, for the Wiener Riesenrad (Vienna Ferris Wheel), was mentioned briefly in 16/433, and now Thomas Morzinck has very kindly sent me a copy of the manual. It's A4 size with 32 pages including the covers, and on the front is the Item No., 10821, and the picture of the finished model that is shown on the back cover of this Issue. It's all in colour of course and the parts are in standard MÄRKLIN red, green and blue. The PR is 60 1144 11 96 na, and the (limited) text is in German, English, French & Dutch.

The step-by-step presentation is similar to that in some other recent manuals and Thomas wrote 'Surprisingly the quality is poor, the pictures are far too small and look somehow out of focus. The use of a magnifying glass is unavoidable.' The details on the back cover are natural size, but the Manual does contain a full-page photo of the finished model.

The two rings on each side that form the rim of the wheel are each made of 30 A/Gs, 9h long in the outer and 7h in the inner. joined end to end by various types of flat Brackets. They are spaced apart radially by Strips which extend outwards to carry the cabins, and across by frames made of more Strips. The hub is made from pairs of Flanged Discs on either side spaced apart by Strips, and attached to an Axle with Bush Wheels. Couplings and Spacers are used on the Axle between the Discs to reinforce it.

The rim is joined to the hub by Strips, which are removed after the numerous lengths of Cord that form the permanent spokes have been added. The ends of each of these are held between Nuts and Washers on long Bolts inside the Discs, and each runs from one pair of Discs, up through holes in Brackets at the rim, and down to the Discs on the opposite side. The bearings for the Axle are 3 Flat Trunnions bolted together at the top of each tower.

The structure around the towers includes steps, covered walkways and a loading platform at each end. The cabins are made from special parts, a dark coloured Floor, red Sides and Ends, and a ribbed white or silver Roof. I don't know whether these parts are metal or plastic. Each cabin is free to rotate on an Axle which is held to the radial arms of the wheel by a Slide Pieces at each side.

The wheel is driven by a cord running in Double Brackets around the rim on either side, and under Pulleys at each end of the base. The pair at one end are driven by a Motor (included in the Set) through 2 Worm/Pinion stages.

Statistics. The wheel is just under 50" diameter, and the set contains over 5500 parts. These include 422 Strips, 232 A/Gs, over 550 Brackets, various, over 1600 N&B, and 80m of Cord, though that includes 20m for the decorative stringing around the rim, and the driving cords.

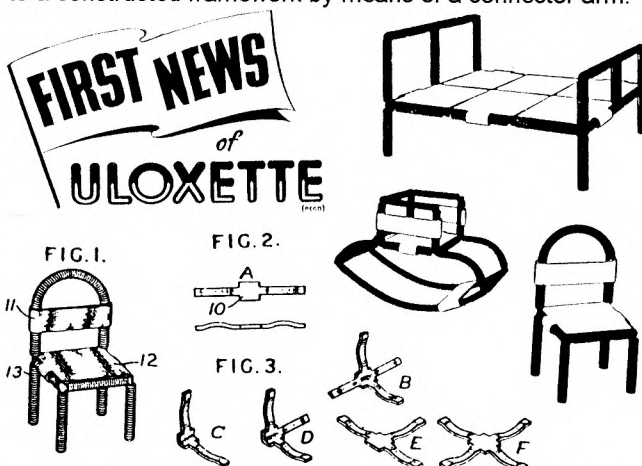
Apart from the new parts already mentioned there's a powerful looking Motor that I think is new (PN 643640), and a Bracket (411100) to mount it on. Also 180 Nuts & 240 Bolts (494200 & 492880) that I don't recall seeing before. From the quantities they may be used to join the car parts together. All the PNs are 6-figured: apparently the old ones with a nought at the end.

So, a splendid looking model, and a novel use of cord for the spokes. I wonder how easy it is to get the wheel to run truly, but perhaps a little eccentricity wouldn't really notice. It would be interesting to know what type of Cord is used. Of the prototype Thomas wrote that it was built by an English engineer, Walter B. Basset, in 1896/97 and had 30 cabins originally, but 15 were removed in 1944.

A word for anyone who happens on a set. Charlie Pack wrote in the July S. Cal. N/L that though the contents of his set more or less matches the parts shown in the Set Contents, the total of the quantities of parts called up for the different building steps exceeds this by some 100 Strips, 40 A/Gs and few other parts. To rectify matters Märklin have made available, through their dealers, a kit of additional parts.

'New' System - ULOXETTE David Hobson has kindly sent copies of an ad for this little system, and of the relevant patent. It consists of lengths of spring curtain wire which push onto to metal connectors, with sheet metal panels that clip over the spring members.

The patent, 660321, was applied for in May 1949, and is in the name of Hommade Ltd. & C.D. Harwood. Hommade was of course the company that patented ULOX in 1929 (see 10/254 & 12/330). The illustrations from the patent are shown below: Fig.2 is a 2-prong Connector, specially shaped so the Springs grip it; Fig.3 other Connectors; and Fig.1 a completed model with Panels forming the seat & back. It is also stated that 'wheels with apertures of the same diameter as the bores of the springs may be attached to a constructed framework by means of a connector arm.'



ULOXETTE was announced by Hommade (from their 1929 Acton address) in the Sept & Oct 1952 issues of *The Toy Trader & Exporter*. 6 simple models were shown including the Chair in the patent, and none have wheels. Three are reproduced above and in the coloured original it can be seen that the frameworks are made of Springs. No details of the parts or set(s) are given but there is a reference to ULOX - 'ULOXETTE is a new constructional toy which will make many models ranging from simple objects like tables and chairs to trucks and bridges in the more advanced ULOX sets.' Does that imply that ULOX was still available in 1952?

As mentioned in OSN 10 Woolworths sold ULOX and there was a Woolworths ad for TAUT curtain rod in the ULOX Magazine. This rod seems to be have been based on spring curtain wire, so perhaps Hommade made this wire and the TAUT rod. Did Woolworths ever sell ULOXETTE? It is marked 'Export Only' in the ads, so it's possible that it was never sold in the UK, but by 1952, or certainly soon after, no such restrictions were needed.

Another early postwar, patented UK system to use springs was CLIFFIX, but in that case frameworks were made of Rods joined by pushing their ends into Springs.

Greenberg's Guide to GILBERT ERECTOR Sets. Volume 2, 1933-1992 by William M. Bean

Some 5 years after Vol.1 (see 9/208), this welcome volume completes the story of ERECTOR until it was radically redesigned for 1963. It has 189 of the same size pages as Vol.1, & the photos are to the same high standard. The presentation has been improved in that there is no overview, just a year by year account of the history, sets and parts. A useful addition is a note of new, deleted, & modified parts at the end of each year. An account is given in a separate chapter of the 'wholesale' sets sold by Sears, Roebuck & Company. There's still no index and much subsequent time can be saved by making one's own on the first read through.

The publishers are Kalmbach Publishing Co., 21027 Crossroads Circle, Waukesha, WI 53187, U.S.A., and the book can be ordered from them, price \$59.95 plus postage.

ITEMS FROM LETTERS

1. From Richard Symonds. • An ad for a 6" dial calliper gauge that he bought recently for \$19. Made in China, but well made, he recommends such an instrument as being ideal for OS/handyman purposes.

• A photo of a **LYNNCRAFT** Set that's similar but not identical to the one described in 12/309. The outside of the lid looks identical, though I can't quite read if the Model No. is '146'. It's probably an earlier Set because there are no Tyres in it; otherwise the contents look the same, with a generally similar layout, except that all 5 Pulleys are between the Trunnions, there are 2 extra Pulleys (with hidden, or no, bosses), each holding down 3 of the Triangular Plates, no Span'drivers are visible, and in dark areas of the photo on either side of the Large Flanged Plate, there looks to be an extra Bush Wheel on the left, and another part, perhaps a Pulley or a third Bush Wheel on the right. There's no centre hole in any of the Strips.

2. From Don Redmond. • On the **ERECTOR No.100 Set** (from 11/298 & 15/ 411), the bore of the Wheel is just over 3.25mm, & the Axle is 2.90mm Ø. See *Greenberg 2*, p139, for a photo of the Set; it's said there that it was marketed only in 1957, & that the parts were shrink wrapped onto a yellow backing board.

• **JE-IL/JEP** (see 13/344) were still going strong last summer. Their address is Jeil Science Material Enterprises, Kuroku, Kurodong 546-2, Seoul (Buyoung Building, 3rd floor), and the phone numbers are the 858 ones in OSN 13. The firm does not market its products outside South Korea. The sets 1-3 and 5 & 6 continue but there's doubt about the Army outfit (see 6/111). The current manuals are for Sets 1; 2 including 1; 3 including 1 & 2; 5; & 6). The #3 is the same as the one described in OSN 13 with very minor changes to the text, and the models in #5 & 6 are probably the same.

• On **TEMSI** hole spacing, see 9/225, Charles Shrubsole has found that the it is erratic rather than being uniformly a little over ½". Don checked four 25h Strips from one set for himself and found some pairs of holes at exactly ½" while others were up to 1.5mm out. But the erratic spacing was identical between all the Strips, and the end holes were all 3mm over 12" apart. [The 6 in a set from the 1950s or 1960s are all no more than 1½mm out over the 25 holes and the holes seem to be very nearly uniformly spaced; the 4 A/Gs in the set are very similar.]

• **STRUCTOMODE** A/Gs are black, like **MÄRKLIN** used to be, but are easy to recognise because they are copper plated under the chemical blackening.

• The **MASTER BUILDER** Motor shown in 18/495 looks just like the 1914 **ERECTOR P-51** Motor on p52 of *Greenberg 1*. It was only listed for the one year, and was fitted with strip brushes. Are they identical? And who made them? In 1915 Gilbert changed to the P-58 which had carbon brushes, slightly different frames with 4 terminals, & bracket feet. Said feet had a round hole in each, later slotted right out to the edge of the foot.

• The word in the **KONSTRUKTOR [10]** 'flying goose' logo (18/498) is Moskva (Moscow) in script.

• **Buffing** dull dark grey (**tin plated**) **STRUCTO parts** using a cloth buffing wheel impregnated with tripoli (rottenstone) gave a bright, smooth shine. Tin oxide is tough.

• Some 5h Strips with very large end radii, of about 2", cut close to the end holes, have been identified, thanks to Kendrick Bisset, as **MASTER BUILDER**. [As far as I know most M B Strips have well rounded ends, see 16/450.]

• **MESO** in the **SONNEBERGER** logo (see 18/502), no doubt comes (in similar fashion to other German abbreviations) from **MEtallwarenfabrik SOnneberg**.

3. From David Hobson. • An unused **MECANIKIT No.0**, still strung in its box, is exactly the same as the one described in 10/250, and MCS, except that all the Strips bar 3x 3h are aluminium, and there are 12 N&B. 8 of the Nuts

are square and 4 hexagonal, both the same across flats. The Axle is aluminium, and the Balloon Wheels have a gold sheen, and appear to have been lacquered. No Screwdriver was found in the Set.

• From the Nov. 1930 *The Toy Trader*. **Sonneberg** (see 18/502) has been known for toys for the last 200 years and has 'the unique **German Toy Museum**'.

• Something on the history of **VOGUE** (ref. 17/464) appeared in the Sept. 1951 *The Toy Trader & Exporter*. The Vogue Manufacturing Co. of Egerton Road, Melton Mowbray was established some 40 years before and produced metal trimmings for shoes. It was bought by A.N.Pallett in 1947 and new machinery for making toys and fancy goods was gradually installed, including plastic moulding equipment. A subsidiary, Vogue Playthings Ltd. was formed in 1947 to market the toys, and in 1949 Thermold Ltd., who made toilet goods and advertising novelties, was acquired. During 1948/49 the original factory was enlarged and another factory at Oakham, 10 miles away, was taken to make the constructional sets. In 1950 A.E.Pallett, father of A.N., and managing director of Cascelloid Ltd. from 1919 to 1943, joined the firm and became responsible for admin and sales. In that year additional premises were obtained in Melton for packing and dispatch, and the original factory was modernised. The **VOGUE** pressings were then made there and taken to Oakham for finishing and packing. A blurry photo in an earlier (Feb. 1951) issue showed 3 sets which look like those shown in the Manuals, and behind them is a largish model that might be a Big Wheel.

• An ad from the manufacturers' agent Val Green, in the Jan. 1952 *The Toy Trader & Exporter*, mentions 'The latest & greatest' **KONSTRUKTA** Steel Constructional Sets'. The parts in this system, and their similarity to **BEAVER**, were discussed in 6/129, & this is the first definite date for either. Incidentally **BEAVER** was made by a firm, Rutland Plastics Ltd., in Oakham, where **VOGUE** sets were produced.

• **DAN DARE** Sets 1 & 2 (see 14/366) were announced in an ad by Bartram, the manufacturer, in *The Toy Trader & Exporter* for July 1953, and a similar ad with illustrations of the Sets appeared in the August issue.

• An article on **CONSTRUMENTS** in the Dec. 1932 *Toy Trader* says that the sets have only been on the market for a week or two. So that confirms the date inferred in 5/79. The 20, Plus, & 100 Sets are mentioned and the 20 is said allow instruments worth £20 to be made, or at least £100 for the No.100 Outfit. It is also stated that the interchangeable metal parts were made by The British Thomson Houston Co. Ltd.

• The 1937 **JUNEERO** box lid illustrated in 9/216 was also shown in *The Toy Trader* for Feb 1936, in an ad for cartons, and in a later 1936 Waddy ad.

• **ARKIRECTO** (2/19) was patented in 1933. Mentioned was made of it in the Feb 1934 *Games & Toys*, and in March an ad from the manufacturers, Arkirecto Ltd., Carlton House, Regent Street, London, S.W.1, offered sets from 2/6 to £2-2-0. In October the price range was 2/6 to 52/6 and ads continued until Feb 1935. The next ad, with the same prices, was in June from Waddy Productions, Astor House, Aldwych, London, and they had another ad in September. Finally in June, July & August 1936, E.M.Napier Ltd., Exmouth House, 3 Pine Street, Farringdon Road, London announced 'We have procured the entire stock of **ARKIRECTO** and can offer complete outfits or parts at greatly reduced prices'. (From a Nov 1937 Napier ad: 'Turn that dead stock into £-s-d - London's Largest Job Stock Buyer - pays spot cash for surplus stock.')

• The **MEX** No.2 Set (see 16/452) was advertised by W.H.Cornelius in the Nov 1933 *The Toy Trader*, price 1/-. So unless it had a very short life it's strange that it wasn't mentioned in the later *Games & Toys* ads.

• In 18/523 Don Redmond asked about a yellow plastic Wheel with Tyre marked **BILDIT**. It probably came from the simple plastic **BILDIT** system which was based on a special

Wheel or Spool which acted as a multi-way connector for square section Rods. BILDIT was patented in several countries and was on sale in the UK in the 1950s & early 1960s.

4. Tony Press has suggested, and I'm sure he's right, that it is the packet the parts were in that is under the French **MECCANO X1s** box in 16/446, and not a Model Leaflet as stated. He also mentioned that he has a similar style British MECCANO X box (with the light diagonal stripe), and I've noticed that a 1932 (or '33) UK catalogue shows both the X1 & X2 in the same style of box.

5. On the **STEEL TEC Corvette** (18/496), Keith Cameron wrote that there is a switch for the headlights. It's built into the console between the seats.

6. From Werner Sticht. • On the **MÄRKLIN nickel 5*11h Flanged Plate** in 17/473, such a part, #11321, of nickel plated brass, was included in their ELEX Sets, but I don't know of a corresponding 5*7h one.

• **VEB (K) Schmerbach** (reference SONNEBERGER in 18/504) was probably at the village of Schmerbach between Eisenach and Limenau; there's another Schmerbach near Meiningen but it's only a few houses without a proper road to it. CONSTRUCTION was also made at Schmerbach.

• Werner is in touch with **Karl Debik**, a collector of metal constructional systems from the former GDR. He knew practically all the manufacturers there and is preparing a history of the subject. He would welcome contact with other collectors (in German or in English) - his address is Nordshäuser Str. 25b, D-34132 Kassel, Germany.

7. From Kendrick Bisset. • On **ENGINEERO** (18/520), there was a 7-32 A.S.M.E. thread listed in the 1914 Edition of the *American Machinists Handbook*, together with 7-30, and the standard 7-36 (see 8/203). Haber Bros. were listed in the *Thomas Register* as toy manufacturers at 878 Broadway, New York City in 1917 & 1918, and later at 91 5th Avenue.

• Another **GIRDER BILT** Set (see 17/467). Again it has some parts missing, but the contents are broadly the same. The 15 of both the 4h Strips & Angle Bends in it probably indicate 16 of each originally. Again it contains one of the unusual 6*4h 'Plates'. The Wheels are the same diameter but thicker, more sharply detailed, and a dull red colour. The Screws are 4-40 (a much more suitable size), steel with countersunk heads, and 3/8" & 1" long. The hex Nuts are aluminium, .253" A/F & .095" thick. The Screwdriver & (different shaped) Spanner are 2 5/8" & 2 3/8" long respectively, and are shown below. There was a Model Leaflet with this

Set, the one used in MCS, 15 1/2*8 1/4", folded into 3. Its 18 models (plus 0-9 & 8 Letters) start with Rake and finish with an unnamed framework, 8*8*16h, with on the front, a cross or 4-bladed propeller made of 2x 8h Strips. All the models on the OSN 17 container are included but the Letters are different and use only 4 & 8h Strips.



8. Alan Partridge mentioned **MAKE-AND-KNOW**, a small set with MECCANO-like parts that was bought in India, probably in 1979.

9. Harry Mariën recalls being given a set called **MECANO** in the 1950s, as a child in Belgium. The parts were not copies of MECCANO.

10. Roger Baker writes of **ALCON**, see 8/199 & 9/224. In a 'Junto' Set the wood parts are match stick sized in various colours, and are cut to length according to the 'number' shown for each Stick on the model plan. A scale is provided with the length for each 'number' marked on it. He added that it is extremely fiddly to use, the Brackets are easily bent/broken, and the end result is a small, very flimsy, skeletal model.

11. On **Richter's Metal Sets** (10/260), Jacques Pitrat wrote, 'I have a third Richter set which includes only metal parts. It is a bridge set, but unfortunately not the 1895 one! This is **Set #10 Eisenbrücken**, an accessory set to be used with a normal ANKER set to build the piers, and from the style of the picture on the lid it dates from before WW1. There are 2 kinds of girder. The first is like the one at the bottom of 10/261 except that it has 6 bays instead of 4. Its length is 156mm and it is 34mm high; there are 4 in the Set. The other 6 girders are larger, also with latticed sides but the upper member is arch shaped. They are 205mm long, 34mm deep at the ends and 67mm in the middle. There are corresponding roadway parts, both 62mm wide: two 156mm long, and three 205mm. No N&B are used in assembling the parts, the girders slide onto the arms of a U-shaped strip, one at each end, with the roadway sitting on the base of the U. The girders are painted blue-grey and the roadways brown. In *Eisenzeit* it is indicated that these parts appeared in 1901 and that they were originally nickel plated.' [An illustration of the parts is on p54 of *Bauklötze Staunen*, but the parallel girder shown has only 4 bays. The German patent discussed in 10/261 is Nr. 133728.]

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METEOR: X2.3d/4d,3e/4e,5a/6b [2]
MÖWE: X2.6/7a [1]

PLASTICON: X2.3/4/6,3a/4a/6a,3b/4b/6b,5,5a [3]
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Turn to p.553
for more details
of this Märklin
'Super Model'

Themenkasten „Riesenrad“
Theme set "Giant wheel"
Coffret à thème «Grande roue»
Themadoos „Reuzenrad“

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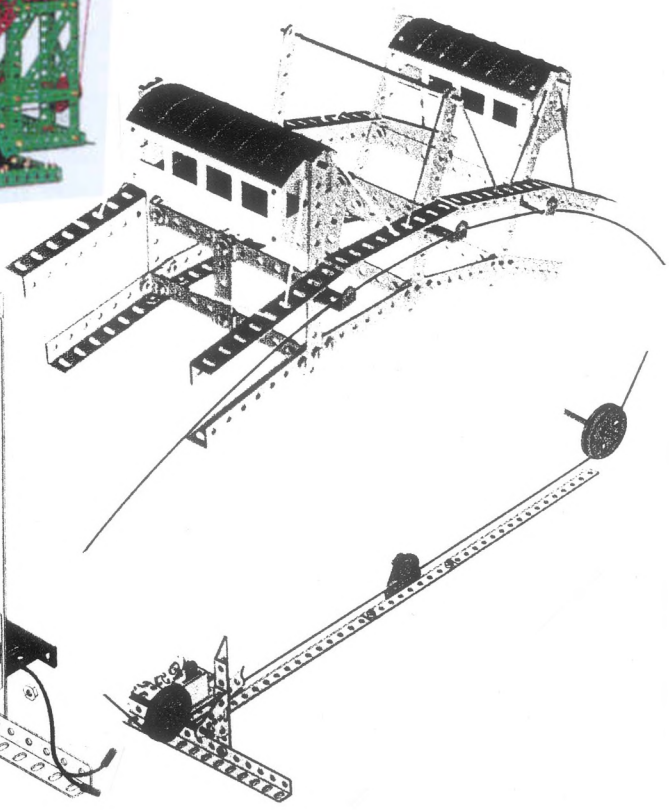
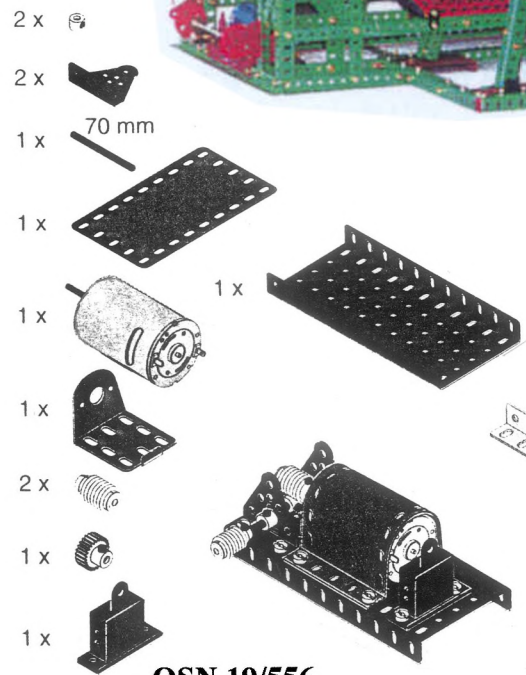
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OSN 19/556