

MECCANO IN THE U.S.A. Several readers have asked about the differences in parts, sets, etc, between the Liverpool products and those sold, and in the later years made, in America. This area has not been covered systematically elsewhere and although OSN doesn't deal with MECCANO as such, it would perhaps be appropriate to record these differences. I don't have anything like enough information to even sketch out the complete picture, so in this and future Issues I'll include, piecemeal, whatever is to hand or readers contribute.

The story of Meccano in the US falls into several phases and at the start of each, by way of introduction, I'll set out briefly its history, so that the details of parts and so on, can be related thereto. Accounts already published differ in detail and I've chosen from them those that seem to me the most likely. Readers may care to comment if they disagree. Most of my information has come from pieces that have appeared in the 'Southern California Meccano and Erector Newsletter' over the years.

Phase 1. IMPORTED MECCANO, 1908-22.

Hornby applied for a US patent in 1901 but it wasn't granted until 1906. The first sets reached America in 1908 and a company called the Embossing Co. of Albany, N.Y. was the sole Meccano agent until 1913. The Embossing Co. was not founded until mid 1909 and its stated purpose was to make and sell paper products. There is speculation that A.C.Gilbert (ACG), who of course invented ERECTOR, was the first Meccano agent but I've not seen any direct evidence of this or of any connection with the Embossing Co; it may well be entirely coincidental that this company ceased to be the sole agent in the year that ACG marketed ERECTOR. The Embossing Co. was a 'special agent' in 1914 but Joshua Lionel Cowan, who made LIONEL trains, became the main agent in 1913, probably as a principal, perhaps the majority, shareholder in the Meccano Company of America (MCA) which was registered on Sept 8, 1913.

Between 1913 and 1915 Hornby took action against AMERICAN MODEL BUILDER, STRUCTO and ERECTOR for alleged patent and copyright infringements. The last of these cases (against ERECTOR) was settled in 1923 and all parties had lost the use of some of their patents. All but the AMB case were settled out of court so full details are not in the public record, but the net result was that AMB and STRUCTO ceased to market their systems, and ACG bought their remaining valid patents and used them in his redesign of ERECTOR in 1924. The MCA factory at Elizabeth, New Jersey was opened early in 1922 and the main reason for this may have been increased levels of duty on imported toys. ACG had founded the USA Toy Manufacturers' Association in 1916 to fight imports.

SETS The earliest ad that I've seen is one from **1913** but it doesn't give details of the sets available. The next earliest is on the centre pages of the **1915** Lionel train catalogue. Outfits 0,1,1x,2,2x,3,3x,4 are mentioned plus 2 other more expensive ones, and the Inventor's Accessory Outfit. The 'x' sets are 'with Electric Motor' and similarly numbered sets were advertised in the first UK, 1916, MM. The Lionel pages show a toy train crossing a MECCANO bridge, largely made of Braced Girders: Hornby had applied for a patent for these in June 1915.

A **1917** ad lists all the above (including Nos.5 and 6) plus the 00 and 5x sets, and the conversion sets 00a-5a. The 1x and 2x contained the E1 motor and the 3x and 5x, the E2, which had the reversing lever - these are the motors that

were made for Hornby by Lionel. They were also available separately, together with a Spring Motor, which looks like the one with square corners, the UK No.1, made by Märklin pre WW1. Also listed were two wooden Builder's Cabinets.

MANUALS & CONTENTS A **1916** No.0 manual is very similar to the UK equivalent, the most noticeable change is that the cat on the front cover has been replaced by a small dog. Inside the Meccanograph is featured in the introductory pages and there are very minor changes of layout; the models are the same but the name Lorry is changed to Truck in one place and Lorry in another. The contents are identical except that 2x12½" Strips and 2x5½" Braced Girders are included: some of the models incorporate the latter but none use the Strips. In the list of Outfits at the back of the manual, Sets 5, 5X and 6 are said to be in 'Cloth bound boxes'.

In a **1917** List of Contents for Sets 0-6, the No.0 is as above and the others differ slightly from their UK 1916 counterparts. There were 2x12½" Braced Girders in all sets except the No.0, as well as 2x5½", and the No.6 had a 57t Gear and 6 extra Collars. Braced girders weren't included in UK outfits until 1922. As in the UK, Sprocket Chain was listed for the two largest sets but no Sprocket Wheels. The contents of the 00 set aren't given but from the illustration in the 1917 List, most of the parts in the #0 can be seen except the 12½" Strips and the Braced Girders.

PARTS As far as is known parts during this phase were identical to those sold in the UK. Some, at least for part of this period, were stamped with U.S. Patent Nos. It would be interesting to know whether parts with the black finish seen on some UK pieces eg, the Crank, during WW1, and with other 'utility' features of that time, the formed 'U' bosses for instance, were ever sent to America.

Phase 2. ELIZABETH MECCANO, 1922-30.

This period covers all the parts and sets produced at the New Jersey factory, including the final 2 years after ACG had gained control of the MCA in April 1928. This change came about when Cowan sold Gilbert his shareholding in the company. The details of the subsequent agreement between Gilbert and Hornby are not known but apparently allowed ACG sole use of the Meccano name, and the MECCANO range of parts, in the USA. It is said that Hornby couldn't use the Meccano name there as long as ACG was still producing at least one MECCANO part, and the 18½" A/G remained as ERECTOR part MB until the system was redesigned in 1962. In 1930 the Elizabeth factory was closed and production of a new range of MECCANO sets started at ACG's New Haven plant.

SETS & CONTENTS A **1922** Sears ad shows sets 0,1,1X,2X and 3X, with illustrations of all of them. It is noticeable that none show any Braced Girders although most other major parts can be seen. But perhaps outdated printing blocks were being used.

The MCS/FB (B) entry shows the Contents list from a **1928** manual (ref. 0528/6.5), and the outfits listed are 00,1,1x-6x, and 00A,1A-5A. The contents are as for the corresponding 1928 UK set numbers except that the US No.00 is the same as the UK No.0. The 'x' sets all have an E2 reversing motor, with a transformer in the 5x and 6x. The Parts List in the Manual shows nearly all the Liverpool range at the time, with, apart from the specialised railway parts, only the Special Screwdriver and the Girder Bracket missing.

A brochure dated **September 1928** shows the same sets

but in addition there is a No.2x Special, also referred to as a 'Leader Outfit'. It came in a wooden box and featured Tyres for the 4x3" Pulleys that were in a normal No.2x. The model shown for the new outfit was a standard No.2 set bi-plane. There is an illustration of both the 2x and the new set and one oddity is that the Braced Girders shown in the 2x are the type with closed ends (that were introduced in the UK in 1926), but those in the Special are the early open ended type. Perhaps Gilbert, not a man to waste anything, had found a superfluity of the obsolete Girders at Elizabeth.

A list from a year later (**October 1929**) shows the same number of outfits but their set numbers were now 0,10, 5 Special,20,30,40,50,60,70, and 0a,20a,30a,40a,50a,60a. As far as can be seen from the illustrations in MCS, sets 30-70 were similar to the former 2x-6x except that 4x3" Tyres were included in each. A manual, copyright 1929, with 'For Outfits 0-40' on its Liverpool style cover, contains models which are labelled as being made from Sets 00-3.

- The **No.5 Special**, which cost \$5 against \$3.50 for the Set 10, had a motor that looks very like the Liverpool E1, but was probably 4v, and 4x2" Pulleys fitted with Tyres. In the List they are called 'Real Dunlop Balloon Rubber Tires' but in CQ12 it is said that they were 'New Firestone Balloon Tires'. Not much can be seen of the Set but it may have been the old No.1 plus the motor and tyres. It contained a Supplement to its Manual which no doubt showed the use of the extra parts.

- From the look of the the **No.10** it is probably the old No.1; there's no picture of the **No.0** but most likely it was the former 00.

- The linking sets **30a-60a** simply made each set into the next highest number, but the **20a** converted both the No.10 or 20 into the No.30. Likewise the **0a** was for the 0 and 5 Special and presumably made either into a No.20.

PARTS Not much information is available on whether the design and finish of the Elizabeth parts differed from those made in Liverpool. Nor is it known whether the US made parts were stamped MECCANO, or if the whole range was made at Elizabeth. The 1928 List in MCS shows many parts that were not included in the largest American set, and it might be thought that the volume of sales of these might not have justified their being made in New Jersey, even if the Liverpool tooling was 'borrowed' to do so.

One of the features mentioned in the 1928 Manual is 'Green and red enamelled parts', but whether all parts were painted isn't clear. It seems more likely that Strips, A/Gs, etc, continued to be plated, when the plates and some other parts were in colour. It has been said that all plating at Elizabeth was tin rather than nickel, but the 1922 ad mentions nickel parts. When found today tin plating, originally shiny, has usually turned to a matt dark grey.

There is nothing to suggest that any other than standard pattern MECCANO parts were used in the Elizabeth sets after ACG took control. The only anomaly is that, as already noted for the late 1928 2x Special Outfit, illustrations of the 1929 0-70 sets show open ended Braced Girders.

Phase 3. NEW HAVEN MECCANO, 1930-38.

Early in 1930 a new range of sets numbered 1-150 was announced and these continued until the end of 1931. What happened after that is not clear. Two new small sets, 1025 and 1050, were introduced, possibly as early as 1932. They have been called the 'Wide Beam' sets and the parts in then were somewhat similar to MECCANO 'X'. Then, probably from 1934, there was a No.5 Outfit which contained 'wide

beam' along with standard parts, and Snap Rivets for most joints instead of N&B. The only known ad of this period, from Dec 1934, featured only the No.5 and no other sets were mentioned. MCS/FB has a J.C.Penney LITTLE JIM entry which is a set of this type but although there is 'Outfit No.1' on the cover of the manual, the models shown are for Outfit 5. On p7 of this MCS entry larger sets than the No.5 are mentioned, and by inference there were smaller ones too. Sets 0, 1, and 3 are listed on the MCS 'Data' page. Possibly the larger sets (above #5) were gradually discontinued as stocks of them were used up.

The final range of MECCANO sets sold by ACG were marketed by his American Flyer Division in 1938 and were in the blue and gold colours then being used by Liverpool for its home market.

MECCANO-MORECRAFT hasn't been mentioned because it's really a totally different system. Gilbert also sold other products under the Meccano name during the 1930s, microscopes and detective kits for example, but they too fall outside this discussion. The Meccano Company of America was dissolved on Oct 13, 1947.

1930 PARTS The 7 new sets that were announced early in that year were numbered 1,3,5,110,115,125,150, and were made up from a mixture of MECCANO and ERECTOR parts. The Parts List for this period has been published several times elsewhere, as well as in MCS, so only a summary will be given. With a few exceptions all the Strips (now called Beams), Angle and Flat Girders, Plates, Brackets, Pulleys and other circular parts were retained. All the Sprockets disappeared and ERECTOR gears replaced all the MECCANO ones except the bevels. ERECTOR chain, which engaged with every other tooth of their gearwheels, was provided. ERECTOR Braced Girders (the earlier 2" wide type) replaced the Liverpool ones. Many of the specialised parts and much of the brassware was dropped, or in a few cases replaced by equivalent ERECTOR parts. There were no Screwed Rods in the new line up and the lengths of the Bolts (now called Screws) indicate that they were the ERECTOR pattern with probably the 8-32 thread. No doubt the ERECTOR parts that were introduced had the standard $\frac{5}{16}$ " dia ERECTOR bosses, single tapped 6-32, and it seems likely that these were fitted to many, if not all, of the MECCANO parts made in the New Haven period. Fork Pieces with ERECTOR bosses have been reported.

Notable additions from ERECTOR were the Radiator (for trucks), a $16\frac{1}{2} \times 5\frac{1}{2}$ " Flanged Plate, the 6" Curved Beam (Braced) Girder, and at least one $\frac{1}{4}$ " dia Axle, with a Bush Wheel and Foot Block (Double Bent Strip) to use with it. Totally new were the 18 'ship' parts, which were patented by Gilbert in mid 1930 (Pat.No.1815708).

All the motors were ERECTOR, the E2A (the P58 without its flanged feet), the E2B (the same motor mounted between special 5" sideplates), and the 110v E3 (P56G 'Polar Cub'). The E3 was also used in the Disc Clutch Power Hoist unit, geared to 2 winding drums, each of which could be engaged by a (friction?) clutch. Apart from a Transformer this was the only part that didn't get a MECCANO style PN, it was called the P66 but was never listed as an ERECTOR part, it was apparently the 1928 P65 slightly modified.

In all the number of parts had been reduced to about 200, some 30 or 40 less than in 1928. Some of the changes were understandable, ERECTOR gears would have been much cheaper to make and were no doubt adequate for the relatively simple models, mechanically, that ACG favoured;

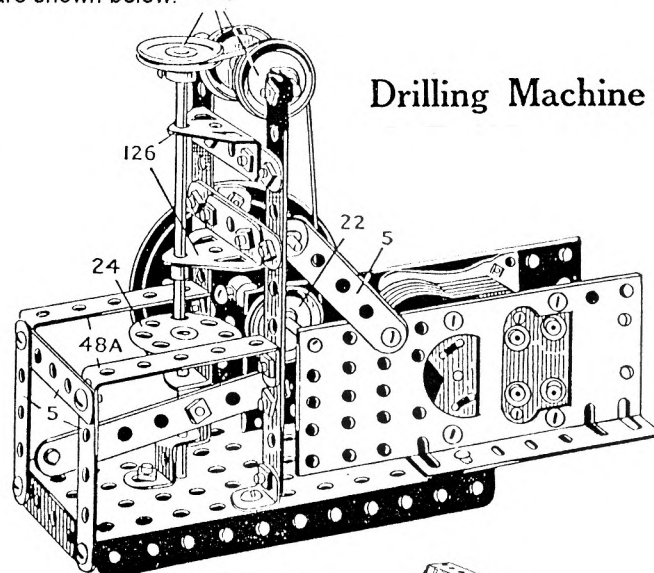
and some of the substitute parts, like the Braced Girders, could be considered as being of better design. But perhaps it also partly depended on what stock Gilbert found at Elizabeth. Some cases are hard to understand, why for example were all 3 sizes of MECCANO Bevels continued, but plus the (cheaper, cast) ERECTOR Mitre Gear. Why didn't the Bevels go to Canada with all the other gears? Perhaps they simply got overlooked and later had to be used up. The Parts List may not be entirely accurate either, for instance it includes the 1½" DAS but not the 2½", even though the latter is widely used in the models in the Gilbert manual for Sets 1-5, even in those which appear to be new designs. Many such enigmas arise.

Kendrick Bisset has sent some notes on the parts he found in an incomplete No.5 Set. • The Beams (#1,2,3), 1½" DAS (48), Cranked Bent Strip (44) are tin plated, now turned dark grey. • The Angle and Double Brackets (12,11) aren't tarnished and are probably nickel plated. • The 3" Pulley (19b) is green, as are the Trunnions (126,a), Curved Beam, (90a), and (ERECTOR pattern) 5½" Braced Girder (100). • The Flanged Plate (52) has 2 flanges and the Flanged Sector Plate (54) has only one row of holes; both are red. • The 1" Pulley (22), the Bush Wheel (24), and the gears (Worm 32, 12t 26c, 36t 27c) are all ERECTOR pattern. • The boss of the 3" Pulley is 5/16" dia and ¼" long. • The N&B seem to be ERECTOR style but there's some doubt because there were other 'genuine' ERECTOR parts with the set. • The 'Briks' with the parts are hard and stone-like. • Except as noted the true MECCANO parts are as would be expected.

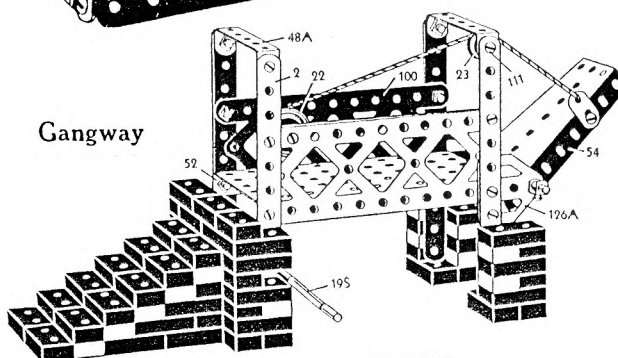
The colour of some parts can also be seen in the photos of the #115 Set and ship model in Greenberg. Strips, DAS, Brackets, 11h A/Gs, and a Flat Girder are bright looking; a 37h A/G looks dark grey (tin?); a 5h Curved Strip and 11h Braced Girder are mid green; Flanged Plates are mid red and so are 3" Pulleys, unlike those above; gears, 1" Pulleys and Bush Wheels are brass coloured. The ship's Hull is black and all the Decks and the Cabin Top are yellow. Funnel are mid red with black tops and the steam pipes are 2" Axles held in ERECTOR Collars (#59a). Screw heads are round and look nickel plated. In a photo of Joel Perlin's #115 Set, sent by Richard Symonds, the colours are the same except that the 3" Pulleys are green. Green Face Plates can also be seen and the 16½x5½" Flanged Plate is red.

1930 SETS There isn't much information about the contents of the sets and most of what follows on Sets 1,3 and 5, has come from the models shown for those outfits on some pages of Kendrick's manual (M 1363). Each set had its own name, the **No.1** was the Apprentice Outfit and all the models are standard UK 0 or 00. And all but one of the **No.3** (Junior Engineers Outfit) models are those for the UK No.1. So this gives an indication of the contents of the No.1 and 3 Sets. The **No.5** Super Power Outfit doesn't follow the same pattern. This set has a motor, the E2B, and while some of the models have a MECCANO look, many seem new and have the motor as a more or less integral part of them; none show any A/Gs, four of which were in the 1928 No.2x Outfit. 4x3" Pulleys were included but no tyres. Some of the models are shown mounted on bases from the MECCANO BRIKS which were included in this and larger sets. These blocks, square or oblong in plan, have one or two 'bumps' on their upper face and corresponding hollows underneath. Not very secure but there's a note that they can be secured together using rubber cement or water glass

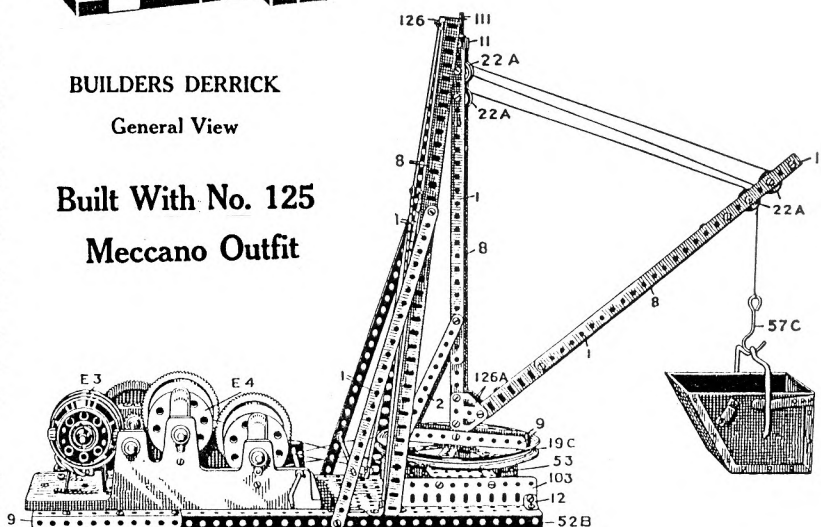
(sodium silicate dissolved in water, eggs used to be kept in pails of it to preserve them). Two of the 'new' No.5 models are shown below. 22



Drilling Machine



Gangway

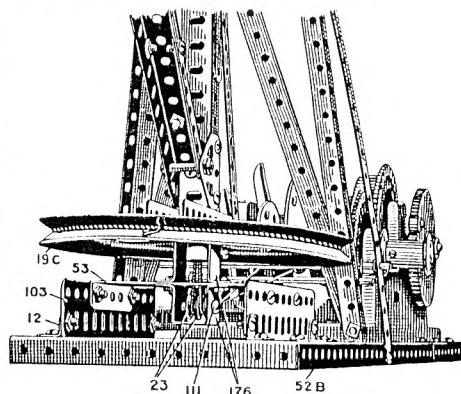


BUILDERS DERRICK

General View

Built With No. 125
Meccano Outfit

The 4 larger sets were packed in green wood boxes and each contained parts for a featured type of model as well as the models from smaller sets. The **No.110** Big Motor Car Set included the Radiator (like that on the ERECTOR White Truck), 4x3" Pulleys with Tyres, 18½" A/Gs and a Boiler. The model shown in the ads is a Truck some 20" long and the load carrying floor is the 5½x16½" Flanged Plate. Don Redmond wrote that he has one of these and its



two centre cross rows of holes are only $\frac{3}{8}$ " apart, which means that the 25h Braced Girders which are used as the side rails of the body, can't be readily attached. Al Sternagle commented that this appears to be standard for this part.

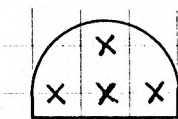
The **No.115** was the Shipbuilding Outfit, there's a photo of it in Greenberg and apart from the special ship parts, 3 Funnels and $12\frac{1}{2}$ " Flat Girders, can be seen. The Boiler End was used as a turret on warships and had 2 holes in the skirt to allow Axle Rod 'guns' to pass through. The rubber 'motor' which powered the ships was described as a 5ft Elastic Band. The box has two layers and the upper parts are clipped to a red metal tray, with the edges flanged upwards and then outwards. It measures about 25x10" and is perforated with holes 1" apart.

No.125 was the Electric Hoisting Outfit and the main additional parts were the 110v E3 motor/P66 Hoist unit, a Tip Bucket and a Dredger Bucket. These were used in cranes, such as the Derrick in the last column, and the Steam Shovel shown in MCS.

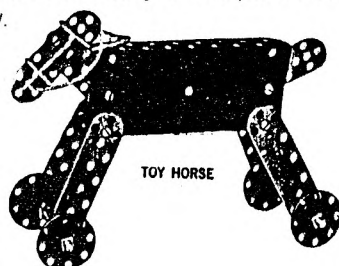
The **No.150**, Master Engineers' Outfit was a large set which was packed in a box 32x18x6". It included a Geared Roller Bearing (grey), 24 Chain Buckets (black), 56 of the curved braced girders (red-orange), many straight Braced Girders (lime green), $24 \times 24\frac{1}{2}$ " and $50 \times 18\frac{1}{2}$ " A/Gs, and a host of the more unusual ERECTOR parts that had been imported into the system, often obsolete ones. Only four No.150 models were shown and many of the extra parts in the Set were not used in them. Two models are shown in MCS and those plus the Giant Revolving Crane are illustrated in CQ11; all, including the very large Ferris Wheel are shown in detail in MJ41.

When sold by Sears the 110 and 115 Sets were numbered 10 and 15: they probably didn't sell the two larger sets.

THE WIDE BEAM SETS No details of actual parts known to be from **Sets 1025/1050** are available. From models in the Instruction Leaflet the wide Beams were like MECCANO 'X' Strips but, except at the ends, every other hole was missing (below). As far as I can see there were 3 lengths of



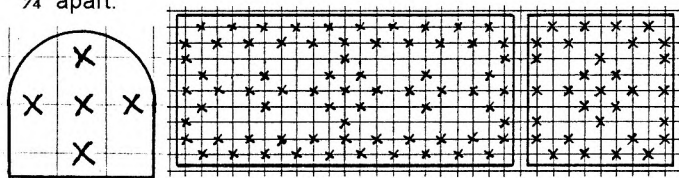
Beams, $2\frac{1}{4}$ ", $2\frac{3}{4}$ " and $3\frac{3}{4}$ " (all measurements are overall). The DAS is approximately $1\frac{1}{4}$ " wide and is made from a $2\frac{3}{4}$ " Beam, but it has an additional hole at its centre. The size and pattern of holes in its lugs, and in the Angle Bracket, look similar to 'X' parts (above, right, the crosses represent holes). The Discs too look the same and Screwed Rods are used as axles. The big difference is the $4\frac{1}{4} \times 1\frac{1}{4}$ " Flanged Plate in the US version. The $\frac{1}{2}$ " deep flanges have holes, $\frac{1}{2}$ " apart, in two staggered rows, and although they don't show clearly in all the illustrations, the top face has a centre hole and 3 across each end. Many of the parts can be seen in the models below.



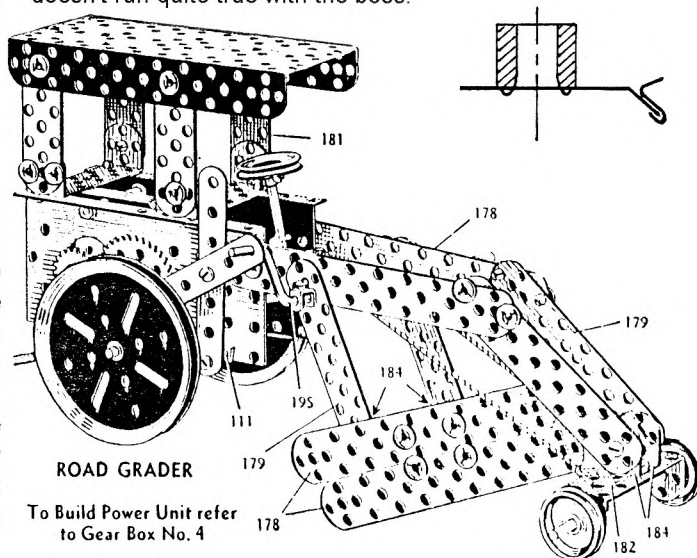
THE SNAP RIVET SETS As already indicated only the No.5 is known. From a photo of a Set and some of the manual models, it's clear that the set contents are considerably different from the 1930 No.5. There are still 4x3" Pulleys, Bush Wheels, some gears, 1" Pulleys, and Flat Trunnions, but apart from a couple of standard 5 and 7h Beams, all the other parts are new and the following can be identified (with their PNs as shown against the parts in the models):

- | | |
|-----------------------------------|--|
| 177. $12\frac{1}{4}$ " Wide Beam. | 182. $2\frac{1}{4}$ " Wide DAS. |
| 178. $5\frac{1}{4}$ " Wide Beam. | 184. $\frac{3}{4} \times \frac{3}{4}$ " Angle Bracket. |
| 179. $3\frac{3}{4}$ " Wide Beam. | 187. $5\frac{1}{4} \times 2\frac{1}{4}$ " Flanged Plate. |
| 181. $2\frac{1}{4}$ " Wide Beam. | 188. $2\frac{1}{4} \times 2\frac{1}{4}$ " Flanged Plate. |

Don Redmond sent notes on some of the parts. The Beams are $\frac{3}{4}$ " wide and have a similar pattern of holes to the 1050 ones. Holes are usually 4.3mm in diameter or slightly larger, but are up to 4.5mm in a few of them. The ends are not quite fully radiused (.42"r). The DAS is longer than before and is made from a $3\frac{3}{4}$ " Beam, but again with the extra centre hole; the lugs (and the arms of the Angle Bracket) are longer too at $\frac{3}{4}$ ", as shown below. The Flanged Plates are actually nearly $2\frac{3}{8}$ " wide over their 2 flanges; the latter are $\frac{3}{4}$ " deep with a pattern of holes like those in the Beams. Their top faces are perforated in a complicated fashion, see the diagrams below - the background grid represents lines $\frac{1}{4}$ " apart.



Don sent over one of the Beams and also a 1" Pulley of unusual construction. It seems to be a disc flanged on its outside at an angle, with a separate 'V' rim formed around the flange. I'll try to sketch it (below right). It's made of steel, which may once have been brass plated, and the $\frac{5}{16}$ " dia brass boss is single tapped 6-32. The rim seems to be solidly attached but one side of the 'V' is nearly vertical and it doesn't run quite true with the boss.



In the 1934 ad the parts are said to be enamelled red and green, and in Don's photo the Beams and DAS are indeed medium green, and the Plates medium red. The paint on the Beam Don sent was a rather fresh, light shade.

Inside the lid of the (green wooden) No.5 box is a large orange label which shows a boy in colour, B&W illustrations of 5 models and the 'New Snap Rivet', and the address of MCA as 200 Fifth Avenue, New York, N.Y. The 'M' of the

main MECCANO heading on it has its left vertical stroke extended downwards well below the right one. This is the style used on the manual shown in MCS for MECCANO-MORECRAFT, and it can also be seen in an exaggerated form on the cover of a No.1 manual (M1351) shown in CQ11. It is said to be from 1929 but with its New Haven address it is probably from 1930 or later. This form doesn't seem to have been used consistently because both the manual (M1363) from the 1930+ No.5, already mentioned, and the one from the No.5 Snap Rivet Set use the normal 'M'. All these covers are in the Meccano-style with 2 boys at the top looking at a Crane. [Gilbert reference numbers are confusing, that on the 'Snap Rivet' LITTLE JIM No.1 Manual in MCS is also M1351.] Going back to the Snap Rivet Manual, one of the models is shown in the last column of the previous page: its front wheels look like the 1" Pulleys already described.

One other PN shown in the manual is 358, against what looks like an ERECTOR DB (Motor Pulley). The motor is 110v and has 4½" sideplates with full length flanges. It looks identical to the MORECRAFT M-3.

THE 1938 SETS These were illustrated in an April 1938 ad. 6 outfits are shown, Nos. 1-4, 6, and 7. Two of them are reproduced here. **Sets 1-3** look nearly identical to those in a UK 1938 catalogue. The parts of the manual visible also look like the UK one, and the number of models claimed for each set also correspond.

- The parts in the **No.4** (opposite) look the same as those in the UK outfit but the layout has been changed somewhat to accommodate the inclusion of a small spring motor. From its size it is more likely to be the ERECTOR A48 than the Magic Motor. The ad says that the motor permits the mechanical operation of the models in the manual.

- **Nos. 6 and 7** were packed in metal boxes and a 110v motor was included in each: it looks like the one in the No.5 Snap Rivet set. The No.7 box (opposite) looks much the same size as the Liverpool one but the No.6 has been wid-

ened by a few inches. In both the UK Meccano cover label can be seen inside the metal lid; the layout of the parts was in the UK style but with numerous changes of arrangement. The No.7 is said to have had 2 manuals, and these might have been the UK 6 and 7-8, although something more would have been necessary to use the motor to advantage.

- In the ad it is said that the parts are in 'new colors' and that the Road Wheel is red. In the whole range of sets the parts boxes, card or metal, look just like the UK ones. It has been said that ERECTOR Bush Wheels and gears were used in the sets.

- Certain parts believed to be from these sets have been reported: Road Wheels and a red painted 1" Pulley, both with ERECTOR bosses and a very short 8-32 bolt as a set screw [there may have been a slip of the pen since ERECTOR bosses are normally tapped 6-32]; 1" Pulleys 'made differently' and single tapped with a roundheaded set screw; and 'all screws roundheaded'.

- Alongside these sets were advertised MECCANO-BRIK Sets 0-3 and 5, in new colors.



No. 4 MECCANO CONSTRUCTION OUTFIT

THE A. C. GILBERT COMPANY
New Haven, Conn., U. S. A.
AMERICAN FLYER DIVISION



No. 7 MECCANO CONSTRUCTION OUTFIT

ACKNOWLEDGEMENTS As well as those already mentioned, thanks are also due to Ed Barclay, Ed Furness and Harry Mariën for the material they have sent, and to the Editor of the Southern California Newsletter for permission to reproduce some of the illustrations used in this account.

TECC 1994-95 Karst Quast was good enough to send the pages from the Xmas 1994 Bart Smit catalogue which show their current range of TECC Outfits. All four, numbered 4-7, are made up from MERKUR parts, with none of the repackaged CONSTRUCTION Sets which used to be sold under the TECC name.

Sets 5 and 6 continue unchanged (OSN 8/201). Set 4 is primarily to make the Helicopter shown on the box lid, see below; it weighs 1kg and costs Fl.29.95, against 2.8kg and Fl.49.95 for the No.5. All the parts appear to be standard and the model looks very simple; it is, like all the TECC models, unmotorised and there's no interconnection between the main and tail rotors.

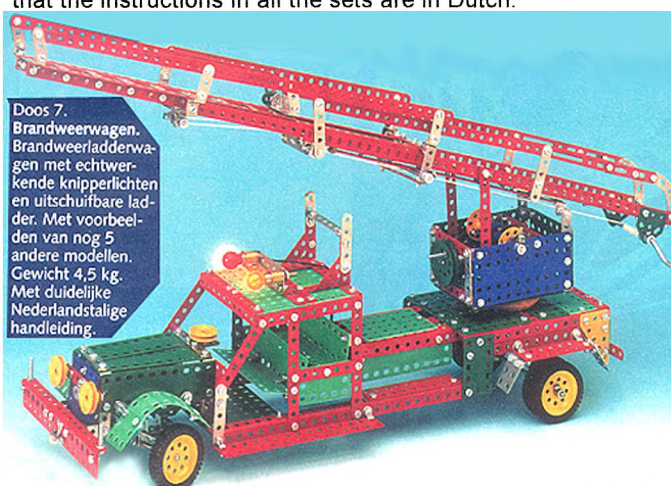


Doos 4. Helicopter, of talloze andere modellen, gewicht 1 kg. Met duidelijke Nederlands-talige handleiding.

The No.7 is to make the Fire Engine and 5 other models: it weighs 4.5kg and costs Fl.79 - the No.6 is 5.6kg and Fl.99. The photo (below) shows steering and a 2-stage ladder but otherwise the only noticeable feature is the two bulbs fitted on top of the cab roof. I think the Dutch says that they flash.

The parts in both new sets look to be in the normal MERKUR colours except that the 23mm Pulleys used as the headlights and steering wheel of the Fire Engine are painted yellow instead of the usual green.

In the ad it is said that packs of extra parts are on sale, and that the instructions in all the sets are in Dutch.



Doos 7. Brandweerwagen. Brandweeladderwagen met echtwerkende knipperlichten en uitschuifbare ladder. Met voorbeelden van nog 5 andere modellen. Gewicht 4,5 kg. Met duidelijke Nederlandstalige handleiding.

TECHMASTER What is known of this small American system appeared in the *Southern California Meccano and Erector Club Newsletter* back in 1987 but was never included in MCS. The details were originally provided by Joel Perlin and came from 4 pages of an incomplete manual; I am grateful to Anton Calleia, Secretary of the SCM&EC for permission to use them here.

TECHMASTER

CREATIVE · CONSTRUCTIVE · EDUCATIONAL

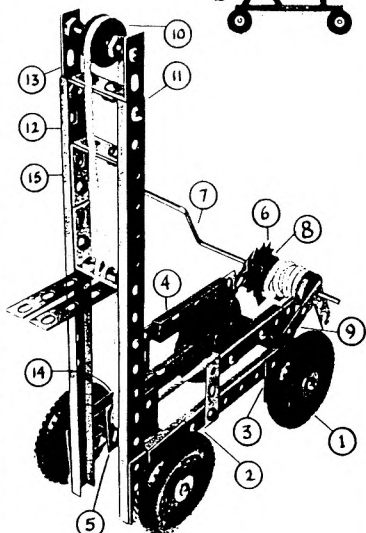
TECHMASTER was made by the Techmaster Educational Toy Company, Chartley, Mass., U.S.A., and was distributed by the Geo. Borgfeld Corp., New York City, N.Y. The Tier Lift model below is stated to be 'Made from Techmaster Sets 1, 2 & 3' but nothing is known of the sets themselves or whether that was the complete range.

The cover of the Manual shows various models including cranes, a tractor/trailer unit, and a yacht transporter/launcher. A young and an older boy are shown on it building a model. All the models are fairly simple and look as if they could be made with the parts used in the Tier Lift, and those illustrated in the 'Instructions', some of which are shown below.

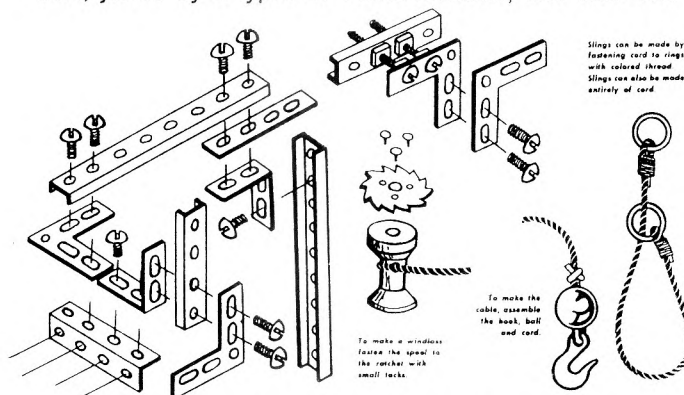


NO.	NUMBER OF PIECES	NAME OF PART
16		SCREWS-NUTS-WASHERS
15	2	8" CHANNEL
14	1	MEDIUM SHEAVE
13	8	STRAIGHT TIE PLATE
12	1	CABLE
11	8	ANGLE TIE PLATE
10	1	LARGE SHEAVE
9	1	1" CHANNEL
8	1	1" ANGLE (PAWL)
7	1	HANDLE
6	1	WINDLASS & RATCHET
5	6	SQUARE TIE PLATE
4	2	2" CHANNEL
3	10	CORNER TIE PLATE
2	2	4" CHANNEL
1	4	WHEEL

TIER LIFT
Made from Techmaster Sets 1, 2 & 3



The main point of interest is the use of shallow channel girders, up to 16 holes long, as the main structural members, joined by 3 types of 4-hole brackets, and also their



use in allowing other 'strip' parts to slide in them. The Spool, which is used as a winding drum, is probably wooden because the Ratchet has to be fastened to it with small tacks. No axles are mentioned and the wheels appear to run on long bolts locknuttred to the chassis.

Some 2 dozen different parts can be identified as follows,

MECCANO in the U.S.A. On Gilbert MECCANO, Don Redmond notes that the 3" Pulleys in his 1930 #110 Set are red and have MECCANO bosses, but Gilbert would have used ERECTOR bosses for new production as the various parts that he acquired from the NJ factory went out of stock.

Kendrick Bisset mentions the parts in a **No.4a outfit** belonging to John Drury. The Strips, DAS, etc are tin plated, other parts are red and green, and some have been painted over nickel plating, (the Architrave on one side only).

Also he has a **0-40 Manual**, ©1929 PR O-112925, and the last page confirms that the models for Sets 10-70 models correspond to those for the previous Sets 0-6; the models for the new 0 Set were the old 00 up to No.472, and the new No.5 allowed all the earlier 00 models (through No.496) to be built. The models in the Manual retain their original numbering and each page has at the top 'See last page of this Manual for list of models built with your outfit.' To further help anyone still confused, the cover is stamped 'THIS OUTFIT BUILDS ALL MODELS UP TO PAGE 110', and that page has the last of the previous No.2 models, so no doubt this 0-40 manual was packed with a No.30 Outfit.

Roger Baker sent some details of a **U.S. Edition Manual**, Copyright 1913 by Meccano Ltd. The illustrations and instructions in it appear to be identical to the UK No.14. The lettering on the cover is brown instead of blue and there's the additional text: 'TRADE MARK 83171 PATENTED JANUARY 16TH 1906. AMERICAN AGENTS: THE EMBOSING COMPANY, ALBANY, N.Y. MECCANO LIMITED, LIVERPOOL. PRICE 25 CENTS.'

Prices in the ads are in dollars of course and compared to the UK prices the exchange rate is generally between 2/6 and 3/- (12½-15p) to \$1, against the official rate of £1=\$4.76 (\$1=21p).

A blue flier in the U.S. Manual advertises the No.1 and No.2 Meccano motors, and the address on it is: THE MECCANO COMPANY (INC), MASONIC HALL, 71 WEST 23RD ST., AND 46 WEST 24TH ST., NEW YORK.

The sets that came with this Manual seem to be the same as the equivalent English ones except for a sticker (over the note about patents) on the lid, which reads: PATENTED IN UNITED STATES 17TH JANUARY 1908. [I haven't been able to check yet whether '1908' is a slip of Roger's (or Meccano's) pen - there is a list of all the Meccano U.S. patents in MJ 19/524 and the first after 1906 is in 1912.]

with MECCANO-style names in square brackets:

- 1", 2", 4" and 8" Channels. • 1", 2", and 4" Angles [A/Gs].
- 4-h Angle, Corner & Straight [Flat] Tie Plates [Brackets].
- Square Tie Plate (probably 2*2 holes).
- Large and Medium Sheaves [Pulleys, which look about 1" and ½" dia]. • Road Wheel.
- Handle [Crank Handle]; Spool; Ratchet.
- Screws, longer Screws, Nuts and Washers; Cable [Cord]; Hook (& Ball for); Ring.

What else? All parts are shown with square corners. The hole spacing is probably ½" if the lengths given for the parts are overall. There's nothing to say if the parts were steel or aluminium, or how they were finished.

So, some slightly unusual parts and brackets which probably allowed quite rigid structures. MASTERBUILDER used rather similar looking Channels but didn't provide such good brackets for joining them, and I don't recall parts sliding in them.

bullet 30 yards.' He added, as if to appease parents, 'Fine for practicing in the garden.' However, the Gilbert Nurses Outfit was not available here - presumably British lads just had to be more resilient than their peers in the U.S.A.

David has also tracked down the French patent for **AJUSTO** (12/315): it turned out to be No.750927 and not the number on the Manual, which had nothing to do with toys. The date of application was 17 February 1933 and it was in the name of Robert Tassel, resident of Eure (to the east of Paris). Of the various clips shown in OSN 12, only types A and B are shown, but an alternative form of A is included (Fig. 3), and also clips to unite various sections other than semi-circular, rectangular for example (Fig.12). A method of joining solid rods is also given (Figs.15-17) - one rod is held in the clip l, which engages in the slot in the thin metal cap o, whose arms are bent down over the other rod and are held by the spring clip q.

And as a footnote, the TUPO ball and socket joints (12/307) reminded David of a 1927 patent No.302303, classified under 'constructional toys, figures'. The claim is 'A model of chocolate representing a human or animal figure comprising two or more parts resting one upon the other without positive engagement, the contacting surfaces being shaped so as to establish a ball and socket joint. The moulded parts may be hollow and weighted at the base by an extra thickness of chocolate.' In David's words, a very rare and short-life construction system.



4. Josep Bernal sent a copy of the cover of a 1921 **STABIL** Manual for Sets 49-52 in Spanish. It is basically the then normal STABIL standard with the righthand panel like the DEN LILLE INGENIØR one in 7/157 and on the left, „Stabil“ and the text details in Spanish.

5. John Hanby wrote that he had recently acquired a **JUNEERO Engineer's Set** (see 8/178, 9/216) and that it is almost certain that it was originally bought at Xmas 1940. The metal Discs in it were 2.50" and 1.75" dia, different to the postwar ones described in OSN 8, and those in my Engineers' Set were different again at 2.13" and 1.68". All were the same thickness.

6. Don Redmond has discovered that at least from 1936 to sometime in the 1960s, the major occupant of the address given for **THE ENGINEER** (12/328) was Armstrong Bros., machinists (Armstrong Bros. Engineering from about 1945 on). He also notes that the Screwdriver shown may have been a commercial, bought in item, and is similar to the **AMERICAN MODEL BUILDER** one, and to those supplied with White sewing machines ca.1919.

He also noted a new OS name, **AIMANTO**, Lot No.21 in a Jean Estève Objets list.

In a later letter Don wrote that in the *Canadian Encyclopedia* under *Toys*, it is said that the **Manual Construction Co.** and the **Reliance Toy Co.** both made steel construction sets. Reliance is one of the big firms in Canadian toys but so far no details about Manual are available. For **STRUCTOMODE** the same article gives the dates 1920-29 under Canadian Toys Ltd. [A Canadian Toys manual has a Price List dated 1918 in it. The maker shown in another manual is Structomode Ltd., again of Hamilton, and fewer

sets are listed, 00 to 3 against 0 to 6 plus 1M and 2M - the prices of corresponding sets are higher, \$6 for a #3 against \$4. The Little Hustler motor and the distinctive Braced Girders are no longer in the Parts List although the manual cover shows some of the latter but with **MECCANO** cutouts. The right-hand boy on the cover is wearing a jumper with a 'diced band' around the bottom, instead of that rather fancy jacket (see MCS). The Windmill Sail shown is also **MECCANO**-like with an arm, 6 bumps and rectangular holes, instead of the round holes in the Canadian Toys manual. Mainly because of the jumper I'm inclined to think that Structomode Ltd. came after Canadian Toys.]



7. Roger Baker bought a German set called **MECANIC** recently with parts that seem the same as those for the German **MEKANIK** in MCS. [In MCS Part 5 there's a Swedish **MECANIC** which is virtually the same as their **MEKANIK** - does anyone know anything of the change from 'Cs' to 'Ks' or vice-versa?]

8. Kendrick Bisset wrote that he has been told that the **MODELIT** Motor No.10 (12/327) was a Weeden product with the nameplate changed; also that he remembers seeing an ad for a motor similar to the one in the Loom (12/332), and it may have been a 'Little Hustler'.

On differences between similar parts from different systems he has found that the small hole for cord in old **MECCANO** Crank Handles is 1½" from the end, while **AMB** holes are 1½" from the bend.

9. Keith Cameron wonders at the number and variety of Other Systems, and the originality of some, but notes that the survivors, like **BRAL**, **TEMSEI** and **MÄRKLIN**, are all cousins of **MECCANO**, and share its greater adaptability and appeal.

He also comments on the difficulties of making sense of the various 'Groupes', Outfits and 'Albums' within **MULTIMOTEUR** (12/304), and hopes that someone who knows the system will kindly explain all. [Jeannot Buteux's comments above are a great help and perhaps later he will be able to give more details, for example the meaning of the titles of the different Groupes, and their scope.]

10. On **JUNIOR MECHANIC** (12/327), Al Sternagle wrote that he has a smaller #101 set in a 11½"×8¼" box, and thinks that it dates from the 1950s. As with the 201 there were no tools or manual with it, but 6 models are shown on the lid. The thread is 5-40 with the same length Bolts as in the 201, and the Nuts are 5/16" A/F and 1/16" thick. The thread on the end of the Crank Handle is 11/16" long.

11. Tony Matthewman, in reply to a question, said that **TRIX** Angle Girders were not introduced until after WW2, and that Continental ones were, and are, steel, and not aluminium as in the UK. He also mentioned that a German mail order house called *Quelle* has for several years sold 3 of the current **TRIX** sets under the name **QUELLE GOOD PLAY**, but 'TRIX' is also on the box lids in small letters.

CORRECTION On **Gilbert MECCANO**, several readers wrote to point out that the disc and vee of the 1" Pulley shown towards the bottom of 12/319 are formed, perhaps spun, from one piece and not two as shown. Also Kendrick Bisset added that the Pulley was at one time a standard **ERECTOR** part.

MECCANO in the U.S.A. Thanks are due to Kendrick Bisset and Ron Michalowski for further information on U.S. manuals and other literature from 1912 to 1930. A summary is given in the Table opposite, compiled mostly from copies of key pages that Kendrick and Ron kindly supplied, but where enough detail is available the usual Manual Summaries are given at the end. The picture which emerges is that in 1912 and 1913 the manuals and product range in the U.S. was almost identical to that in the UK. This continued through 1921 with a few minor differences, except that in the UK the 'X' sets had been discontinued by that time, and there was never a No.5X. After that more divergence gradually appeared but apart from there never being a No.7 Outfit in the U.S., there were no really fundamental differences, even when the numbering of the sets was changed in 1929. The most noticeable change was in the large number of models for the smallest sets included in the later manuals of that period, but only a handful of them were unique to the U.S. manuals. In 1930 the large outfits were very much a mix of MECCANO and ERECTOR but the small sets 1,3 & 5 were still, apart from the inclusion of a few ERECTOR parts and the motor in the No.5, largely a rehash of what had gone before. New models were introduced for the large outfits and some for the No.5. What follows is intended to supplement the contents of the Table and to enlarge on some of the points of interest.

The Companies From two independent sources it appears that The Embossing Co., of 37 Church Street, Albany, the original Meccano agent, was founded in 1870 and mainly made embossed wooden items, such as toy blocks, dominoes and the like; they were also agents for Harbutt's plasticine. A firm called Halsam bought the company in Dec 1955, and a newspaper article at the time mentioned that they had a Meccano sales agency 'up to the mid 1920s'. Their name, 'American Agents: THE EMBOSsing COMPANY, ALBANY, N.Y.' appeared on the covers of the 1912 and 1913 manuals with MECCANO LIMITED, LIVERPOOL underneath in slightly smaller letters.

The first known reference to the MECCANO COMPANY Inc., was on the 1913/14 flier mentioned in 13/346 and the same addresses (71 West 23rd St., and 46 West 24th St, New York.) were in the 1915 Ref.3. West 23rd St. (which it is said was also Lionel's address) was in Ref.4 and Masonic Hall, New York is in Ref.5. In the 1918 Ref.6 it was Building 10, Bush terminal, Brooklyn, N.Y., but Ref.7 (1921) gave 'Masonic Bldg., New York'. Part of the cover including most of the address, of Ref.8 (1924) is missing, but inside Elizabeth, N.J. is mentioned and this address continued through Ref.16.

The full name of the company, The Meccano Company of America, Inc., was used in Ref.17 with Gilbert's New Haven, Conn. address, and with U.S.A. after it for good measure.

1912-13 Like UK ones, early U.S. editions of manuals had no date code, but the latter usually had a copyright date. Those for 1912 and 1913 appear to be very similar to the UK versions, and don't have AMERICAN EDITION on the cover. Except for Ref.4 and of course Ref.17 from New Haven, all the later ones did, including all the ones from Elizabeth after ACG had bought the Company.

All the sets available in Britain were listed through 1915, including the HSMD Outfits in 1912. Nos. MSB and MSC were Accessory Sets which with a No.3, allowed all the A-B and A-C models to be built. HSMD outfits were not listed in 1913 but 8 of the models were shown at the end of the Manual, and the special parts needed for them were included, for the first time, in the Parts Price List.

1915 This was the year in which the outfits with electric motors, 1X-3X, were introduced, and in the Price List for sets for this year it was stated that a Spring Motor was given free with Outfit 4, and with No.5 in cloth-bound box, and that the No.5 & No.6 in 'mahogany stained boxes with lock and key' were complete with No.1 Spring Motor. (In Ref.2 it was said that the No.1 was suitable for models from Outfits 1-3.)

From the following year to at least 1918 all the large sets were packed in 'cloth-bound' boxes instead of the walnut or mahogany stained ones of 1912-15. Cloth-bound boxes, whatever they are, weren't used for the home market.

The illustration of the newly introduced No.2X Outfit is identical to that in the first UK Meccano Magazine in 1916.

1917 The main points about the No.160 Manual were discussed in 12/316. The Set Contents were also mentioned there but note that the No.6 had an extra 50t Gear and not a 57t as stated.

The model at the top of the Book No.1 cover was still the Monoplane which was used in the UK only in 1913 and 1914, but was retained on the U.S. manuals until at least 1921. Also on the front cover was a quote from 'Opinion U.S. District Court, Southern District of Ohio' - 'This manual is in reality a key by which the really wonderful treasures contained in the various parts of Meccano outfits may be unlocked.' This would have been from one of the earlier court actions that Hornby instigated, and the same quote is on ref.7.

The 1917 Price Lists include the No.5X Outfit which had no UK counterpart; and the 00 (and 00A) Sets which didn't appear here until 1923. No details of the contents of these small U.S. Sets are available. It is also noted that Accessory Outfits do not contain motors and this was always the case; later, when appropriate, transformers weren't included either.

1918 Book No.2 (Ref.6) had only one unusual feature - the text on the front cover (opposite), apart from the name MECCANO, is in an unusual, slightly oriental looking, type-face.



1921 No Braced Girders were shown in the Set Contents - they would have been the last items in the table so perhaps their omission was a mistake. The Electrical Parts (PN 301-315) were shown in the Illustrated Parts pages after the normal parts - in Britain they were only shown in the Electrical Manual.

1924 In Ref.8 Sets 4-6, as well as 1X-3X, were shown as having an electric motor, and the two largest outfits had a transformer as well. Set contents were practically the same as the UK for Sets 00-5, but the No.6 was much different and was near that of the UK No.6 of 1922.

The manual models (0-3) were identical to the 1923-24 UK ones, and their names were the same except that the UK Hand Trolley was Hand Car, a name not used here after 1921. One model is still called a Motor Lorry. At the back of the Manual were pictures of 4 (UK) No.7 models and readers were offered an Instructional Sheet for Special Model No.701, Auto Chassis (10 cents), and a Meccanograph Instruction Book (Special Model 708, 25 cents).

Ref. / Notes	Likely date	Print ref.(k)	Front Cover (a)			No. of pages	Models for sets	Last model	Sets listed	Motors listed		Top PN
			Text (b)	Model	©				Main // Accessory // Other	C/W	Elec.	
1	1912		In. for 11 progressive outfits. TM 38385	W'mill	Torn off	80	1-6	90 Mech. Navy	0-6 // 0A-5A // HSMD: A, B, C, AA, AB, MSB, MSC	None		59
2	1913		In. for 13 progressive outfits. TM 83171	'Plane	1913	100 (c)	1-6	109 Mech. Navy	0-6 // 0A-5A // None	Nos. 1, 2	None	61
3	1915		Pages from 1915 'Prize Models in MCS/FB'.						0-6, 1X-3X // 0A-5A / Young Inventor's Accessory	S1 (d)	E1, E2 (d)	100 (d)
4	1917		In. No.160	Small Crane	1916	20 inc covers	0	78 Truck	00-6, 1X-3X, 5X // 00A-5A // Inventor's	S1	E1, E2	106
5	1917		Mol. Book No.1. No.16. TM 83171+Can. 13476	'Plane	1916	136	1-6	325 Stiff Leg D'r'k	00-6, 1X-3X, 5X // 00A-5A // Inventor's	S1	E1, E2	106
6	1918		Mol. Book No.2. No.18. TM 83171+Can. 13476	'Plane	1918	80	0-6	428 Pulley Block	00-6, 1X-3X, 5X // 00A-5A // Inventors' Accessory	None mentioned		108
7	1921	3-21/80	Mol.No.21.Outfits 1,2,3 TM 83171+Can. 13476	'Plane	1921 (e)	64	1-3	196 Rocking Chair	0-6,1X-3X,5X // 0A-5A // Inventor's Acc. A, B. Electrical Acc.	S1	E1, E2	128/315
8	1924		In. Outfits 0-3. Part of cover missing.	Br Gir Crane	Torn off	64	0-3	344 Scales	00-6, 1-3X // 0A-5A // None	S1	E1, E2 (f)	140
9	1926		Price List ref. B1026300						00-6, 1-3X // 0A-5A // None	C/W	E-1, E-2	N/A
10	1928	0528/6.5	In. Outfits 4X-6X	Girder Crane					00, 1, 1X-6X // 00A, 1A-5A //	C/W	E.2	170
11	1928		Details taken from a Price List dated Sept 1928, which was reproduced in CMN #30, p11.						00, 1, 1X-6X, 2X Special // 00a, 1a-5a // None	C/W	Reversing	N/A
12	1928 or '29	0628/50	In. Outfits 0-40 printed on tape, over 00-3X	Girder Crane		112	00-3	3.51 St'm Wagon	0, 10, 5 Special, 20-70 // 0a, 20a-60a // None	S1	E-2	170
13	1,929		Standard Mechanisms	Rly B. Crane		50 inc i'covers	N/A	S.M. 283	0, 10, 5 Dollar Special, 20-70 // 0a, 20a-60a // None	C/W	E-2 (6-volt)	
14	1929		Details taken from a Price List dated Oct 1929, which was reproduced in CMN #30, p11.						0, 10, 5 Special, 20-70 // 0a, 20a-60a // None	C/W	Reversing	N/A
15	1929	1129 25	In. Outfits 0-40	Girder Crane	1929	136	00-3	3.51 St'm Wagon	0, 10, 5 Special, 20-70 // 0a, 20a-60a // None	S1	E-2	170
16	1929		Supplementary Instruction Manual for Outfit 10	None	1929	12 inc covers	1	1.164 Gravity Convey'r	None	None		No list
17	Prob. 1930	(g) M 1363	Mol.	Girder Crane	1930 (h)	About 48	1, 3, 5	Windmill (i)	1, 3, 5, 110, 115, 125, 150	None	E2A, E2B, E3	177 (j)

List of American MECCANO Literature - Manuals unless otherwise stated.

Notes

(a) The general design of the front covers of manuals is the same as that used by Liverpool until 1934, except Ref.16 (shown overleaf). The full wording of the Canadian Trade Marks is '55 Fol. 13476'.

(b) The main wording including the main title is either In. (INSTRUCTIONS), or Mol. (MANUAL OF INSTRUCTIONS).

(c) See (2) below.

(d) Described and illustrated but not numbered.

(e) A copyright date of 1916 is given on the front cover, together with 'REPRINT COPYRIGHT, 1921'.

(f) First indication of motors with full 4-hole high sideplates along full length.

(g) M1274 on list of Separate Parts and Prices included in Manual.

(h) In SEC.3, the Introduction to Standard Gearing.

(i) Followed on next page by 4 models for No.5 Outfit in which Meccano Briks are used.

(j) PN 177 is Reverse Switch Attachment.

(k) The PR for Refs. 12 & 15 are preceded by 'O -'.

(1) Dating is from the close similarity of the pages seen to the 1912 UK Manual. On the cover is 'INSTRUCTIONS // For the whole series of Models, comprising eleven progressive outfits'. With the Nos.0 and 0A listed in the Manual, there were 13 outfits, but models were only shown for 11, Sets 1-6 plus the 'A' sets.

(2) Pages seen are virtually identical to the 1913 UK Manual. Another U.S. version with 99 pages (pp88 & 89 are combined into one) and a Brandon Press stamp is known. (Brandon Printing Co., Albany, N.Y. printed all The Embossing Co.'s catalogues but this is the only

known manual with this mark.). The cover now refers to 'thirteen progressive outfits' but no models are shown for Sets 0 and 0A.

(4) See 12/316 for details. Dating is from Price List in the Manual, 'Revised January, 1917'.

(5) The last model is the same as in the early version of the UK No.16. Again the dating is from the Price list in the Manual headed 'Revised January, 1917'.

(6) Contents probably very similar to UK Book No.2, No.18.

(7) A copyright date of 1916 is given on the front cover, together with 'REPRINT COPYRIGHT, 1921'. The models are probably as in Ref.5.

(8) The bottom half of the cover is missing and the date is based on the sets and parts listed being almost identical to a U.S. 1924 Magic Carpet catalogue. Apart from one minor difference the models are as a UK 1124 Manual and the parts are the same except that Nos.103k and 142-146 aren't included in the U.S. manual.

(10) The details are from pages in MCS/FB.

(12) The cover before the Outfit Nos. were changed to 0-40 was no doubt for the standard 1928 Manual but whether the models were changed is not known.

(13) The number and title of the last SM (283), and the general look of the front cover, are the same as the 1929 UK edition, and it has PRINTED IN ENGLAND on the back cover.

(15) As explained later the content of this Manual is radically different to UK manuals.

(16) No equivalent UK manual is known.

(17) This has the New Haven address and the Parts List, discussed in 12/317, which includes many ERECTOR parts as well as the special ship parts.

1926 Ref.9 introduced 'The New Multicolor Meccano', in the same year that coloured parts were introduced in the UK. On the cover is the large Windmill used in 1926 UK literature, and the motor shown is the then UK pattern with 5h deep sideplates, flanged full length, and the 3-spoke reversing lever. Full colour illustrations of Outfits No.1x and 3x are included and the parts are as would be expected, with slightly pinkish red Plates, Flat Trunnion and Face Plate, and the soft, medium green Braced Girders and 5h Curved Strips. All the other parts are shown with a bright finish except the 4-spoke 3" Pulley which looks black. The Braced Girders shown are the type with open rounded ends; the motor is the 1924 U.S. type (see later).

1928-29 What is known of Ref.10 was discussed in 12/316. Ref.12, before it was adapted to cover the 0-70 sets introduced in 1929, was no doubt a corresponding mid-1928 Manual for the smaller 00-3X outfits, although one can't be sure what material may have been added or subtracted. It actually contained models 00.1 to 3.51, and on a new page it was explained which models could be made with which of the 0-70 sets. There was a note that the new 1929 outfits had necessitated changes and additions to the Manual. The models listed for the 0-70 sets are shown in the Table below, with, in square brackets, the highest Model No. actually in the Manual. As can be seen there were many models for the new sets which weren't included.

Manual:	Ref.12. 0628.	Ref.15. 1129.	Ref.16. © 1929
Outfit(s)	0-40 over 00-3X	0-40	10 Supplement
0	00.473 [310]	00.472 [472]	
5 Spec.	00.496 [310]	00.496 [472]	
10	1.266 [184] exc 'X' models	0.255 [255]	1.214 - 1.264
20	1.267 [194] inc 'X' models	1.10 [10]	
30	2.60 [48]	2.48 [48]	
40	3.52 [51]	3.51 [51]	
50	4.58	4.57	
60	5.43	5.43	
70	6.47	6.47	

Range of Models for each Set, from 00.1 unless stated.

[In brackets the highest Model No. actually in the Manual.]

Full details are to hand for Ref.15 and are summarised in the Table. Again the models in it were numbered for the 00-3 outfits, with the models for the 0-70 Sets shown on a page at the end of the Manual, with a reference to the models 'in this and other manuals'.

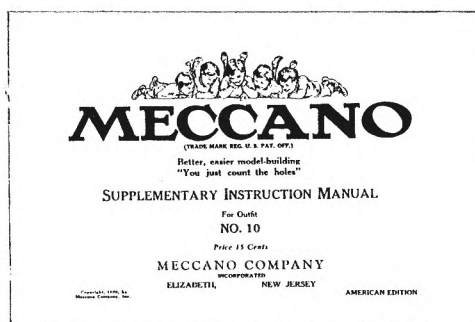
The 0 models were mostly 0 and 00 models that appeared in UK manuals through 1929, but I don't recognise a handful of them. Models 00.473 to 496 for the No.5 Special must have been in a separate supplement. The No.10 models are mainly UK No.1 models, but again there are some others and they are in the last 10 pages of the '0' models (in Ref.15), which I found were identical, page by page, to those in Ref.16, except that there they were labelled as the No.1 models shown in the Table (for Ref.16).

Some of the 10 (No.1) models for the No.20 Outfit have a familiar look to them but they all include the latest style E-1 or E-2 motors, so all the illustrations must have been re-made. They are probably the No.1 'X' models referred to in Ref.12. In the relatively few other models in the Manual that were fitted with an electric motor, UK types were shown.

All the No.2 and 3 models for Sets 30 and 40 were as in the 1929 UK Manuals, apart from a few changes of name, and again are probably those in Ref.12.

11 Supermodels are shown at the back of the Manual and a free Leaflet was offered listing all the models in the series; Instruction Leaflets for them could be bought from 1004 Elizabeth Avenue, Elizabeth.

From the numbering of its models, Ref.16, the Supplementary Manual, must have been issued earlier in 1929 than Ref.15. Perhaps it related to Ref.12, although the Model Nos. don't tie up, or perhaps to some other Manual of that time, as yet unknown. Its B&W cover (opposite) is unusual with, instead of the usual 2 boys and a model at the



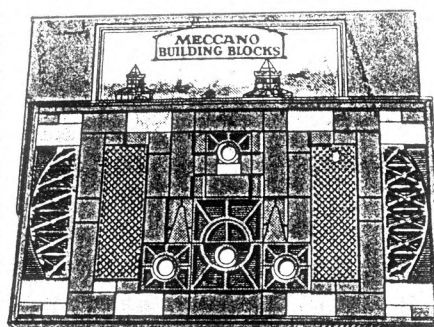
top, a line drawing of five small boys, apparently peering down at the name MECCANO underneath.

I haven't mentioned Ref.13. Its date is uncertain but the details available match the UK 1929 Edition. Its Price List includes a couple of items of interest. First it explains how the No.5 Special Outfit got its name. It's obvious really, it cost \$5, and in the SM Price List it is listed as the '5 Dollar Special Outfit'. Hence despite being a No.5, it was always between the No.10 at \$3.50 and the \$7.50 No.20 in Price Lists. Also in the SM List, Sets 30-70, and 60a, are said to be in wooden boxes, the only reference to packaging since the cloth-bound boxes in 1918.

I suspect that the sequence of events in 1928-29 may leave you feeling as confused as I do. There are many aspects unexplained but I'll resist the temptation to speculate about them, and perhaps confuse matters still further.

1930-31 Nothing new is available on the 1930-31 Manuals but a 1931 catalogue provides some further information. There are illustrations of all the Outfits 1-150, and those of Nos.1 & 3 support the impression gained from the models for these Sets (12/318), that their contents were similar to the early 1928 Nos.00 & 1. The dimensions of all the boxes are given and the weight of the No.150 - 80lb.

4 MECCANO Building Block Outfits, Nos.201,203,205 & 210, are also illustrated. Most of the parts can be seen in the No.205 below. Whether these blocks are the same as the BRIKS shown in 12/318 isn't clear, but the 'dimples' of the latter aren't apparent in any of the blocks shown. They are described as having the appearance of stone but much lighter in weight, and were in 3 colours: red, blue and buff. 'No intricate connections' are said to be necessary. The large rectangular cross hatched plates that can be seen in the sets are metal 'path pieces' and could be used for the road way of bridges.



No. 205 Ret. \$4.95 ea.

The large rectangular cross hatched plates that can be seen in the sets are metal 'path pieces' and could be used for the road way of bridges.

MOTORS Two [spring] Meccano Motors, the Nos.1 and 2 were advertised in 1913, as in the UK, with an illustration of the No.2. In Ref.3 (1915) the smaller No.1 Clockwork Motor, and two Electric Motors were listed. The latter were made by Lionel and were the same except that one was fitted with a (patented) reversing switch (DMS 2028, and

2029 with the switch). Their sideplates were 4h deep, cut back to 3h at one end, with a hole to accommodate the field coil.

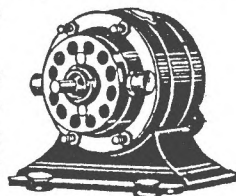
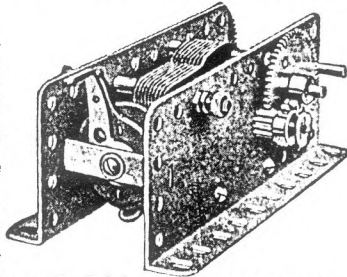
By 1917 these motors were called the S1, E1 & E2, and they continued to at least 1921. In the UK the new 4v Motor with 5-hole high sideplates and the side reversing lever had been introduced in 1920.

In passing it is worth mentioning that variants of the original E1 and E2 motors (DMS 2028/2029) are known. Their sideplates have no cutouts, there are holes all along the top row, and the holes in the flanges are slotted: other changes are field laminations which are enlarged around the armature (instead of being straight) and the brush holders and terminals differently positioned. These motors may be Nos.2028A/2029A in DMS.

A new 4v motor (opposite) had been introduced by 1924 and was shown in Ref.8. Its sideplates were still 4-h deep, but over the full length, with no cut outs, and slotted holes in the flanges. The reversing lever looks to be of the same general type as before. This Motor was still called the E2 and a non-reversing version, the E1, was also listed. By 1926, and perhaps by 1925, these designations were being written with a hyphen, thus E-2, or sometimes, later, as E.2, using a full stop. Also in Ref.9 it is said that they give good power on 3 or 4 dry cells, whereas in Ref.8, and earlier for the old motors, 2 or 3 cells were mentioned. In 1928-29 only the E-2 was listed, and in Ref.13 it was described as being 6v, which would equate to the 4 cells mentioned in 1926.

As far as is known this motor was never sold in Britain - it looks similar to DMS 2027A, but that is listed as a HV motor, and with no mention of its provenance. There is doubt too as to whether Lionel or Meccano made these motors. There is reference to a motor with similar sideplates in Newsmag 42, p20, with, it is said, 'American type' on its (by inference) Liverpool drawing; there are also (rather blurry) illustrations of similar looking 6v motors (called E2 and E3) in the NZFMM Magazine, Vol.8, No.5, p118, taken from a Canadian 1932 manual. These motors may have been sent to Canada when ACG took control of Elizabeth. It may be noted that, as far as is known, the thread on the terminal posts of all known pre-1928 U.S. MECCANO motors, and probably the Canadian ones too, is 4-36, which points to a strong American, (and perhaps Lionel?) connection.

In the 1931 Catalogue the motors mentioned in OSN 12 are listed together with the P-57-M (opposite) which looks similar to the ERECTOR P57. It is described as a 3500rpm, extra powerful, 110v universal motor.



P-57-M
Ret. \$4.95 ea.

SUMMARY OF MANUAL •Name: MECCANO Instructions for the



No.0 Outfit. •Details of maker: MECCANO CO., Inc., 71 West 23rd Street, New York. •Dates & Ref Nos: No.160. ©1916. Price List 'Revised January, 1917'. •Page size: 250*

169mm deep. •No. of pages: 20 inc covers. •Language: English. •Printing: Models are B&W line drawings. Halftone cover with boy, dog and small model Crane. •Page No. of Price List & highest PN: 18,106. •Page No. of Set Contents (#0 only) & highest PN: 17,100 •Set covered: #0. •No. of models: 78. •Name, Model No., Page No. of first & last model: [One page of] Trucks and Baggage Carts,1,7; Truck,78,16. •Other notes: Mostly identical to UK No.160 but extra page on Meccanograph. Intro on pp2-6 show some classic models. Details above taken from photocopy.

SUMMARY OF MANUAL •Name: MECCANO Instructions for Outfits Nos. 0 to 3. •Details of maker: Torn off cover but Meccano Co. Inc., Elizabeth, N.J. inside. •Dates & Ref Nos: On missing cover if any, but probably 1924. •Page size: 252*171mm deep. •No. of pages: 64 + covers. •Language: English. •Printing: Halftone models. Classic cover with 2 boys & Braced Girder Crane at top. •Page Nos. of Parts List & highest PN: 3-4,140. •Page Nos. of Set Contents & highest PN: 63-64,135. •Sets covered: 0-3. •No. of models for each set: 70,36,57,43. •Name, Model No., Page No. of first & last model of each set: 0: Flat Truck,1,5; Pen Rack,70,14. 1: Tandem Car, 101,15; Steering Truck,136,22. 2: Truck,201,23; Beam Scales,257,39. 3: Rotating Crane,301,40; Scales, 344, 57. •Other notes: Models are as UK 1924 but there is no Model No.330, so numbering different thereafter. Use of electric Motor, ads, supermodels, Price List, 4 Standard Constructions on pp2,58-62,64. Details taken from photocopy.

SUMMARY OF MANUAL •Name: MECCANO Instructions for Outfits 0 to 40. •Details of maker: MECCANO COMPANY Incorporated, Elizabeth, New Jersey. •Dates & Ref Nos: © 1929; O-112925. •Page size: 255*171mm deep. •No. of pages: 136+covers. •Language: English. •Printing: Halftone models. Red/yellow classic cover with 2 boys and Girder Crane at top. •Page Nos. of Parts List & highest PN: 134-5,170. •No Set Contents. •Sets covered: 00-3 with list of models that can be made with Sets 0,5,10-70 (up to 00.472,00.496,0.255,1.10,2.48,3.51, 4.57,5.43,6.47). •No. of models for each set: 472,255,10,48,51. •Name, Model No., Page No. of first & last model of each set: 00: Viaduct,00.1,3; Saxophone,00.472,36. 0: Lever of the Third Order,0.1, 37; Gravity Conveyor,0.255,90. 1: Hay Elevator,1.1,91; Breakdown Motor Wagon,1.10,93. 2: Steam Truck,2.1,94; Railway Bridge,2.48,110. 3: Fire Escape,3.1,111; Steam Wagon,3.51,131. •Other notes: 'This Outfit Builds all Models up to Page 110' stamped on front cover. 11 Supermodels shown on pp 132-3. Details taken from a photocopy.

SUMMARY OF MANUAL •Name: MECCANO Supplementary Instruction Manual for Outfit No.10. •Details of maker: Meccano Company Incorporated, Elizabeth, New Jersey. •Dates &/or Ref Nos: ©1929. •Page size: 251*172mm deep. •No. of pages: 12 inc covers. •Language: English. •Printing: Halftone models. B&W cover (illustrated earlier). •No Parts List or Set Contents. •No. of models: 10. •Name, Model No., Page No. of first & last model: Newton's Disc,1.214,2; Gravity Conveyor,1.264, 11. •Other notes: Model Loom shown at centre of back cover.

Two U.S. No.3 OUTFITS Kendrick also sent details of these Sets, which, though they have no positive indication of date, are both thought to be from 1924. The Manual in one is Ref.8 above, thought to be from 1924, and the quantities of the parts, including various extras, that were found in the Set had been added in the Manual in pencil. The remaining pages, 7-58, of the Manual with the second Outfit match those of Ref. 8, and include a page showing the later, U.S. only, E-2 Motor. This seems to make it certain that this is a U.S. manual but one can't be absolutely sure that it was with the Set originally.

This qualification may be important because while the lid of the first box has the expected Elizabeth address in small letters along the bottom, the other lid has the New York address. The contents of the 'N.Y.' Set, most of which remain, are consistent with a date of 1924, and what remains of the

ng is the same as that in the other Outfit. So on the face of it the N.Y. address was used well after Elizabeth opened in 1922, and perhaps up to some time in 1924. The tin plated parts in the N.Y. Set (see below) is a sure indication that they were produced at Elizabeth and not imported.

The finish of the parts in the two Sets is as follows:
Tin: all Strips, DAS, A/Gs; PNs 11, 12a, 44, 45, 90, 125, 126a.
Nickel: all Flanged Plates, Braced Girders; PNs 62, 116.
Brackets No. 10 and 12 are tin plated in the N.Y. Set and nickelled in the Elizabeth Outfit.

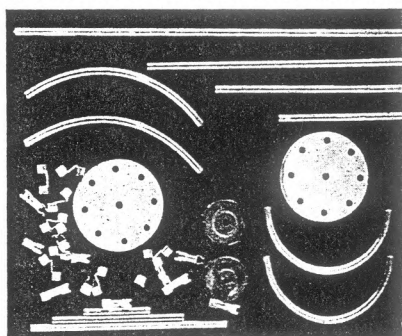
Some of the parts had been obsolete for some time in Britain. In the Elizabeth Outfit the Pawl is the first type (DMS 1276, replaced in 1921); the Screwdriver is the early

triangular shape (DMS 1822); one of the Pinions has 20 teeth (19 from 1920); and the 5½" Braced Girders have sharp corners (DMS Type A, obsolete in 1918). The 2½" ones have rounded corners. All these parts are missing from the N.Y. Set.

The 3" Pulley in both Sets is the 4-spoke type, replaced here by the slotted version in 1920. The one in the Elizabeth Outfit is painted black and has a normal ¾" dia boss, but the N.Y. one is nickel plated and its boss is ½" dia. The latter variant is not included in DMS.

Perhaps Liverpool sent all its outdated parts to the U.S. market, or perhaps obsolete tooling was sent to Elizabeth when production started there in 1922.

CLIP-CRAFT A CLIP-CRAFT set was mentioned in 6/136 in a list of items that George Wetzel had for sale. Now Kendrick Bisset has sent a copy of a page from the magazine *Popular Science* for December 1947 which gives a few details of this 'new construction set'. The accompanying illustrations are shown below. The main parts are the straight

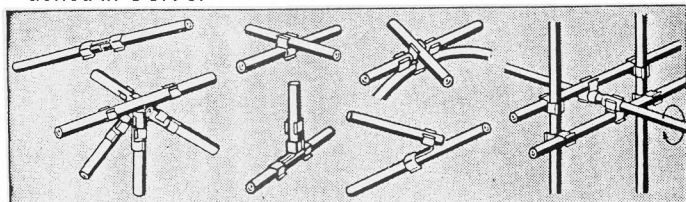


Using only these basic parts, hundreds of different toys can be clipped together. Arcs can be used to form complete circles.

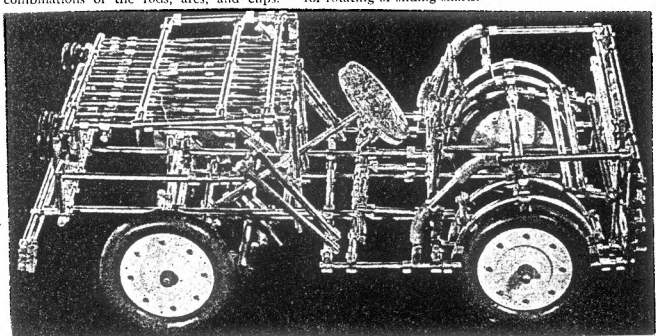
and curved aluminum Rods which are said to be held tightly together by the half dozen or so different, tempered steel Spring Clips. A tubular Bearing can be held in a Clip to allow a Rod to rotate or slide. Other parts that can be seen are two sizes of wooden Wheels (pulleys), with Tyres for the larger ones, and on the Jeep, Flexible Tubing to join Rods in-line at an angle, and Spring Clips or short tubular Collars to retain the wheels. Flat sheets of aluminum are 'furnished for covering surfaces of the models and for fashioning fins for planes', but how the sheeting is attached isn't mentioned. It is also said that 'the wooden wheels can be used for gears'.

No indication of the size of the parts is given but scaling from the illustrations, if the Rods were ⅛" dia, the large Wheels would be 2" dia, and the Jeep would be some 13" long.

The Set was made by the Clip-Craft Corp., of New York City. Yonkers, which is near New York I believe, was mentioned in OSN 6.



These are a few of the joints that can be formed by combinations of the rods, arcs, and clips. A bearing added to a joint makes it a support for rotating or sliding shafts.



MYSTERY PART No.5 Don Blakeborough sent a photocopy of the parts listed below and some of them reminded me of those from Gary Higgins, also from New Zealand, in OSN 3/47.

- Strips, 5-hole red and 15h light blue.
- A/Gs, 10*10mm in section, 5h light blue and 15h red.
- Perforated Plates, 5*5 light blue and 5*15h green.
- Flanged Plates with 10mm flanges on the two opposite sides underlined: 5*5 and 15*3 red; 7*3 13*5 green. Note that last one.
- All have 3.8mm holes at 9.5mm pitch; all the corners are square and all the holes are round.
- Green and red 1¼" dia Pulleys. A red 1½" dia Bush Wheel with 12 holes in the face at ½" radius. Both have brass ⅜" dia bosses, ⅝" long, double tapped ⅛" BSW, and bevelled as shown in OSN 3. The Collar is similar but ⅜" shorter. The bore of these parts is 3.5mm.
- Brass cheeseheaded ⅛" BSW Bolts, 9 and 17mm u/h, and hexagonal Nuts, ¼" A/F.

Don didn't mention whether the Pulley had the hatching on the top face, that Gary described.

MYSTERY PARTS No.23 These are the red 2" wide Flanged Plates with no holes in the top, and the 8-hole Strips, all made of aluminium. See OSN 11/283 and 12/329. With the notes above Don also sent a photocopy of some similar parts he has, which probably came from America. There's a 4-hole long Flanged Plate as well as 2 and 8h ones, and 4 and 16h Strips as well as 8h. In addition an Angle Bracket with round holes in both arms and a 'Half Pulley' of about 37mm dia. All holes are 4.7mm and all the parts are natural aluminium except the 2 and 8h Plates which are painted red. Finally a 4mm dia Crank Handle with 90° bends, 5¼" o/a with a ⅝" handle. That range of parts begins to look very like that of JUNIOR MECHANIC (12/327) except for the larger holes.

MYSTERY PART No.27 The medium red Semi-circular Plate opposite, with the two extra holes 1" from the centre hole on 45° radii. The holes are 4.1mm dia - too large for VOGUE - accurately spaced at ½" pitch. There's pronounced burr around much of the outer edge and some of the holes. It's possible that this is a BILT-E-ZE part although the extra holes aren't shown in the MCS illustrations. I've some other parts that I believe to be BILD-E-ZE and I'd be glad to hear from anyone who has parts that they are sure are from this system.



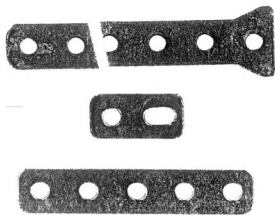
MYSTERY PART No.28 From Richard Symonds, a Flanged Sector Plate, 8 holes long and like the original MECCANO pattern (a single central row of holes) except that the holes are ⅜" dia. Also there is 4mm of metal outside the end slotted hole in each flange at the 3-hole wide end, and only 1mm at the other. The finish is black metallic and the part was found in a mixed lot of old U.S. parts.

ITEMS FROM LETTERS

1. Roger Baker confirmed that the Patent date on his **U.S. ©1913 MECCANO Manual** is 16TH JANUARY 1906 (see 13/346).

2. From Don Redmond. Referring to **MEK-STRUCT** (OSN 14/392), there is another series of 9 sets (bubble packed on card), each making a model smaller than the 3201-8 outfits. All are vehicles except #32301, a Mini Plane, and 32302, a Mini Helicopter. All have 5-digit numbers and names prefixed with Mini: 323903, Fire Engine; -4, Fork Lift; 5, Racer; 6, Buggy; 7, Loader; 8, Off-roader; 9, Car. The Fire Engine has 89 parts, in the standard colours rather than the red used for the Emergency Vehicles (3213-5).

• On **HANDY CRAFT**, it's not clear in the MCS illustrations that the 15h Strip has both ends splayed, whereas the 11h, as can be seen, is so shaped at only one end. All the Strips and the Fishplate have corners of very small radius (about 3mm), and this gives the DAS a decidedly odd appearance. The 3*3h triangular 'Trunnion' is similar to the VOGUE one but again has small radius corners. [Don kindly sent a Fishplate and 2 Strips, a 5h and an 11h. They are nickel plated, 12.1mm wide, and their holes are 4.4mm Ø, against 4.2mm given in MCS.]



3. On **CONSTRUCTION TRUCK** (14/373), Richard Symonds passed on some more details that he'd had from Don Blakeborough. The Flanged Plate in Don's set had a normal centre hole and not the enlarged one shown in OSN 14, the Axles are 80mm overall with 10mm of thread at each end, and the length and width of the Triangular Plate are both 35mm. The latter is red like the Flanged Plate, and the other parts are blue, except the black Spanner and nickel Screwdriver. The 5mm Ø RH Bolts are 5mm u/h, and the hex Nuts are 6mm A/F.

Richard also sent a photo of what appears to be a **BILD-A-SET** manual cover. The wording on it is in English, including 'Made in U.S.A.'. And there's what may be a copyright date but I can't read it. The models shown are much like those in MCS with holes that look as if they might be at least an inch apart. It is stated that no tools are needed, and there's a sentence in small print that I think reads '170 pieces complete with wooden pegs and dowels'. The latter can be seen in the models and it's possible that all the parts are wooden and the pegs and dowels are a push fit in them.



Another item was the March issue of another U.S. advertising paper called **Toy Trader**, rather similar to *Toy Shop* mentioned in 13/360. The main difference is that it doesn't contain any classified ads, all were from dealers, and I didn't, in a quick run through, spot any for OS in its 108 pages.

4. Points from David Hobson. • The London Toy Co., 0181 864 2186, say that they stock **STEEL TEC** sets, but have no lists. • **Eisenzeit** (ISBN 3-921590-39-6), the book reviewed in 14/377, can be obtained from the UK European

Book Shop, German Dept., tel: 0171 7345259. It costs about £37 plus UK postage, and delivery takes about 3 weeks. [Richard Symonds obtained a copy from Canada by writing directly to the bookstore mentioned in EZ - W. Tümmels Buchdruckerei und Verlag GmbH, Gundelfinger Straße 20, 90451 Nürnberg. Tel: (0911) 64197-0, Fax: (0911) 6419750. The total cost was around £34 including £4 postage and tax. That would have been by surface mail I expect. Richard added "Sure is a winner of a book".]

• When starting to restore some (Belgian) **TECNIC** parts, the paint on a proportion of them was in a particularly poor state and it was found that they had been stamped from sheet zinc instead of the usual mild steel. The Nuts too were solid zinc, 10mm square by 2½mm thick.

5. On **TRIX**, Peter Page asks what surface treatment was given to UK parts, and wonders if it could have been cyanide case hardening, which he adds, was a very cheap mass production method.

6. Some notes from Jeannot Buteux. • **CONSTRUCT-ORAMA (CO')** have discovered the following 'new' systems: **MÉCAMOTEUR**, **MULTIMÉCOS**, **INGÉNIO** [2], **BYG OG LES**, **CONSTRUCTA**, **STRUCTEX**, **KOSTRUKTØR**, **MÉTALLO** [1], **MÉTALLO** [2], **INGÉNIO**, **NAVIGO**, **DEN LILLE ELEKTROINGENIØR**, **LEONARDO**, **SCHUMANN**, **MATADOR-ELEKTRO**, **PRIMEX**, **TEKNO-ELEKTRO**, **METALLO-MOTOR**, **METALLO-BILER**, **ACQUAVIVA**, **APENES**, **TECNICAVIA**, **LE MÉCANO**, **MÉCANAUTO**, **MASSTER KOWIES** (Polish), **CONSTRUCTOR** (Russian, 4 different types), **MAL'YCH** (Russia), **ARTIMÉTAL**, **MULTI-CONSTRUCTIONS**, **CONSTRUITOUT**, **FALCO** [2] (alias **ASSEMBLO** - this sounds like the **FALCO** mentioned in 5/83 but if so what is **FALCO** [1]?), **FALCO ELET** (alias the 1933 German **ELECTRIC**), **MEC-AÉRO**.

• Of these 3 seem of particular interest, although as yet the only information on them comes from documents - manuals, brochures, etc. **STRUCTEX** is Belgian and has about 112 different parts including a Ball Bearing and 11 A/Gs. The parts are apparently aluminium, like **STOKYS**. **LEONARDO** (Italian, 1947) is generally like **MECCANO** but with some individual parts. Again there is a good range of pieces, and the 'Epsilon' Set contains 1691 parts plus 1333 N/B. Another good size system is **MULTIMÉCOS**, c1950, and the parts include Curved Rods and many pieces with tapped holes.

• The existence of **MULTIMOTORE** has also been confirmed. It was an Italian version of **MULTIMOTEUR** (see 12/304 & 13/360), made under license by G.E.M.M.A. around 1947. It is likely that only 12 Outfits were available, from 3 of the 'groupes'. • Also confirmation that **EFEL** (the version made by Gédé, see 5/91) was produced with coloured parts: red A/Gs, green Strips, and blue Triangles.

• Some years ago CO' discovered a 1921 **ERECTOR** Manual in Dutch.

• On **WENEBRIK** (13/334), Jeannot wrote that he used to have a French Set No.5 with a Manual in French which was different to the British version.

• In answer to Don Redmond (OSN 13/337), the name **ÉCÉPÉ** corresponds to the pronunciation in French of the initials E.C.P., which stand for the École Centrale de Paris, the school for engineers at which Gustave Eiffel was a student in 1852/53. Another thing, a large steel Plate, 19*28h with 2 flanges, and painted black, formed the bottom of **ÉCÉPÉ** boxes.

• CO' have a **TECHMASTER #50 Set** and extra/different details from those in 13/391 are: • The con-

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 wriggly 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.

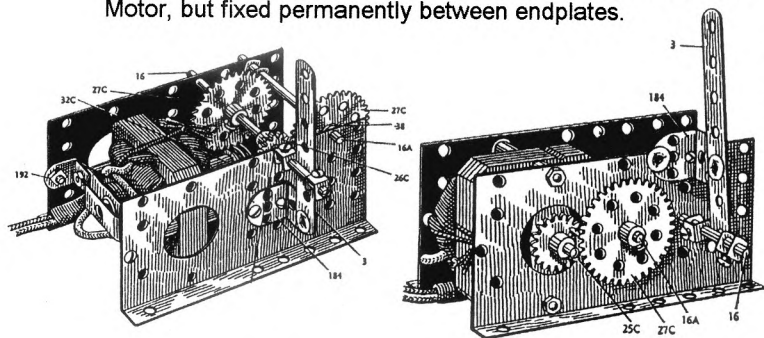
Also from the ACG N/L, this time Issue 8/2, an article by Jay Smith (with help from Bill Bean & Carmen Cerasoli) on the later **Wide Beam/Snap Rivet Sets**. A trade flyer is shown with illustrations of the 6 sets which, it is said, were the range from 1934 to 1936.

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 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**, $\frac{5}{16}$ " Ø, 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 $1\frac{1}{4}$ " Ø, like ERECTOR & the then MECCANO Disc, M217a.
- The **Axles** are .154" Ø, 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.



ITEMS FROM LETTERS

1. From Gordon Finch. On the **STEEL TEC Enterprise** parts in 17/481: the 3 & 5h Strips are, in MECCANO parlance, formed and not curved; the 10h Strips are both curved and formed, but not quite to the extent shown in the manual, and at a glance they appear to be identical; the black Plates are of very thin, very flexible plastic; and the 7h Formed NS has kinks/creases across the holes. The electrical functions are operated by very neat, moulded push buttons, which aren't mentioned anywhere in the Manual.

2. • On the **Gilbert MECCANO #150 Set**, see 19/546, John Hanby noted that not all the parts needed for the models are included in the Set (or the Parts List), and there are insufficient of others.

• He also wondered if all the manual models for **CONSTRUMENTS** Sets 30 & 100 would actually cost £30/£100 (19/554). [Perhaps not because the claim wasn't used in any other known ads.]

3. From Werner Sticht. • On what was produced at **Schmerbach** (see 18/504 & 19/555), Karl Debit has asked some workers at Pfaffschwende, who had worked there for over 40 years, and they told him that there was never the machinery at Schmerbach to produce aluminium parts, and no-one knew of a connection with the **SONNEBERGER** system. A friend of Karl has also asked about **SONNEBERGER** in Sonneberg and in Steinach, and there too no-one knew of production at Schmerbach (or any connection with **CONSTRUCTION** either, see 17/489). So the Schmerbach phase of **SONNEBERGER**, arising only from the reference to it in *Eisenzeit*, is 'not proven'.

• The German mail order house **Quelle** (see 13/361) have sold **TRIX** and **CONSTRUCTION** in recent years, but in their Autumn/Winter 1998/99 catalogue the 3 sets offered appear to be repackaged **MEK-STRUCT**. They are identified by the numbers of parts in them, 300, 400, & 600, and the models on the lids look just like the small ones from known **MEK-STRUCT** outfits. The main name, **METALLBAUKASTEN**, on each lid, is stylised in a way unique to Quelle,

good
play



and the 'good play' logo (above) is in the top left corner of the 600 box below it. The two larger sets contain a Motor, and the 600 has the Sound/Light Unit. The sets are priced at DM 99.95, 69.95, & 49.95.

• A photo of a **STABILA** Outfit (see 13/343), with a strikingly bright and modern looking lid (below). It is orange and yellow with a large clear panel in the centre so the manual underneath can be seen. The name is on the diagonal band top left, with the slogan **TECHNIK FÜR Mädchen** (Engineering for Girls) on the right. 7 red circles probably show real life activities, with an aeroplane in the one clearly

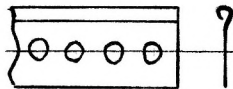


visible, and what may be a girl using a microscope in another. I still find it hard to reconcile the image this creates with the woolly looking (literally) models in the manual.

4. From Thomas Morzinck. • A photo of a **STABILA No.1** Set, courtesy Karl Debit. Apparently the cover described above was only used for the No.2; the No.1 is a much plainer affair with no illustrations on the lid and no clear panel, just brown wording on a mottled light brown or or-

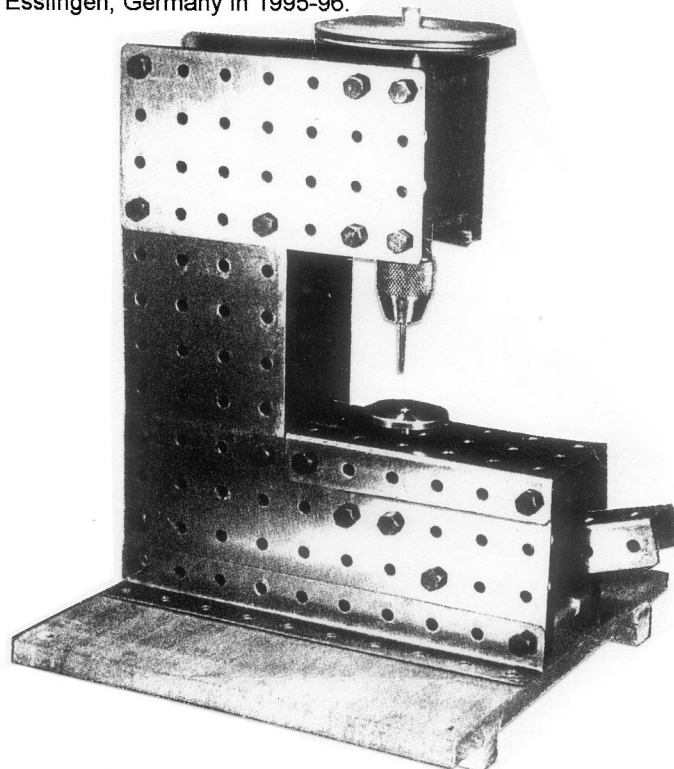
ange ground. The Wheel Discs have a brass look, and the 4 hanks of wool are white, blue, light green & orange.

• Karl also explained that the **WALTHER'S INGENIEUR** part called **Wulsteisen** (see 19/550), is a perforated strip with one edge formed over to stiffen it, as in the sketch opposite.



• **KOSMOS** (see 17/477) educational sets for children have been produced from 1930 to the present day, and have covered almost the full range of scientific topics: radio, chemistry, mechanics, electricity, optics/photography, biology, astronomy. The 'Mechanik' and 'Technikus' sets contained a lot of special parts to allow physical experiments with simple but working machines (including a steam engine). The only Set, apart from the 'Maschinen', that would really be called an 'mcs' was **TECHNOFIX** (15/419 & 17/477). In the late 1950s/early 1960s a similar set with plastic parts called **STECOFIX** was offered but it is a mystery because Franckh'sche Verlagsbuchhandlung of Stuttgart, who have produced and distributed **KOSMOS** sets since the beginning, have nothing in their archives about it. [An English language **KOSMOS** Set called **THE TECHNICAL KID** has strayed into MCS, and has 63 special parts including some for a steam engine. The manual was © 1952, and has on the cover '170 Experiments in elementary Physics, laying the foundation in Engineering, by W.Fröhlich'; W.Keller & Co. appears after the maker's name given above.]

Kosmos **MASCHINEN** was produced around 1930, and working models of a Lathe, Milling Machine, & the Drilling Machine below could be made, powered by a 110/220V motor. The model is on a wooden base, and the drill is held in what looks like a real chuck. This material has been taken from the catalogue of an exhibition of stone/metal/wooden sets belonging to Tobias Mey, that was held at Esslingen, Germany in 1995-96.



• The **METEOR** Windmill and Crane, (see 19/534) are very similar to the **MÄRKLIN** models Nr.1009-30 Windrad, and Nr.1010-30 Fahrbarer Drehkran, in Manual No.14910. [The 1009/1010 Sets appeared in 1957.]

• On **PONTIFEX** (19/527), the main parts are aluminium, and the basic pitch of the holes is 10mm. The holes are drilled by hand and are about 4mm Ø. The N&B found in the Set are not M4: the thread is near 5/32" BSW but slightly smaller in diameter and with a finer pitch. No doubt at that time whatever was available was used.

Corrections • On the lid of the MORECRAFT No.4 Set (19/537) the MORECRAFT/POWER/Equipped group of words are at bottom right, not bottom left as stated. Thanks to Don Redmond for pointing this out. • On KON. SHKOL'NIK in 18/501, '7 & 11h Strips' in the 4th line of the 5th para should read '7 & 9h Strips'.

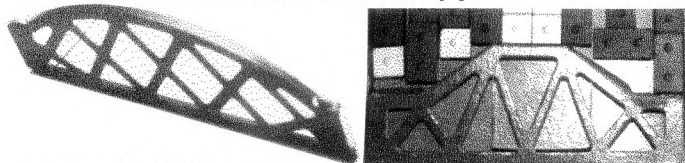
ITEMS FROM LETTERS

1. From Thomas Morzinck. • A photo from Tobias Mey of the lid of a No.1 **Kosmos MASCHINEN** Outfit. It's in full colour and shows a boy using a real bench drill that is of a similar type to the model shown in 20/586. The drill is blue and a couple of parts alongside the box look blue too. The wording along the bottom of the lid is: KOSMOS-BAUKASTEN MASCHINENBAU. Also in the photo is the manual, in portrait format, cream with the same picture as on the lid, but quite small and in black.

2. From Don Redmond. • Some details of the **MODERN-MORECRAFT No.4** box described in 19/537. The box is 2¾" deep with both the top (lid) and bottom based on a wooden frame 13⅞"×11×1⅞". [The lid sits on top of the bottom, located by an inner liner, and this gives a clear space above the inner tray, where a Motor could have sat, of 2¼" at most.] On the bottom of the box is \$4.89 in pencil.

• On the **ELETTRO BRAL** Ruhmkorff Apparatus (19/532), Heinrich Daniel Ruhmkorff (correct spelling) 1803-77, invented the induction coil in 1855, and it was called by his name, the Ruhmkorff Coil, in the 19th century.

• A letter from Kendrick Bisset in the July 1997 issue of the *S. Cal. Club Newsletter* compares the Richter metal Arch Bridge Parts with those produced by Gilbert for use with **MECCANO-BRIK**. (He had bought the toy division of the US branch of Richter's company in 1919.) The Arches are supported by the same type of U-Strip but their bracing is simplified with no vertical members. (But in ads & manuals the Richter pattern is shown.) In size they are the same height, 2", but the Gilbert parts are 6" long against 6.12", and 2.21" wide against 2.35". The Richter parts are painted a dark blue-grey and the Gilbert ones red. [See also the notes on the Richter parts in 19/555. The Arches and Roadway in a #000 MECCANO-BRIK Set are made of orange cardboard and the Arch is humped with diagonal bracing. In the photo below right, the metal U-Strip may be visible behind the card humped Arch, and on the left an oblique view of the Gilbert metal variety.]



• On **STRUCTO** (see 15/424) one Spider (Bush) Wheel has a flat front face and another has a boss on it protruding ⅛". The groove on the Crank Handle to hand is 'barely a scratch'. The pitch of the Sprocket Chain is about 8mm, perhaps 3 links to the inch.

• On **bolt heads** (20/585), 'Allen' is the name of the hexagonal socket in the head, not the head itself. There are other sockets of course, the PHILLIPS cross type for example, and square Robertson sockets which were patented in, and are unique to Canada.

• On the **POW'R HOUSE Ferris Wheel** (20/587), the radial Arms are indeed a rounded channel section, with 2 long tabs at one end which are bent out at right angles to attach to the Rim Segments where they join each other. The Rims have a channel or groove at one side, evidently for a drive belt. Also the hole for the Axle in the Side Supports is at least ¼" Ø and so presumably the Hub and Axle correspond. [The Axle can be seen more clearly in the original of the illustration in OSN 20 & could well be ¼" Ø.]

3. From Werner Sticht. • On the yellow parts in Germany, see 20/571, some of the **original MÄRKLIN parts** were

yellow. Pl.18 in *Bauklötze Staunen* shows a 1935 outfit and the 25mm Pulleys, Bush Wheel, and 38mm Flanged & Grooved Pulleys are yellow. In the late 1930s such parts were made of aluminium due to material shortages and were unpainted. A set with such parts can be seen in *Eisenzeit*, Pl.36.

• On the **Lilienthal patent** (20/571), although it was in the name of Otto Lilienthal, the aviation pioneer, in reality his brother Gustav was the inventor of the system. Otto's name was used because Gustav, who had also invented ANKER blocks, had lost all his money in November 1987 as the result of a lawsuit with Richter.

• Of one 'imitator', Hornby, in his Life Story (see 20/571), wrote, 'One of the earliest of these systems consisted essentially of bars of wood perforated at regular intervals with holes, and capable of being fastened together in various positions by metal pins passed through these holes. By means of this system it was possible to build a variety of houses and other fixed structures, but it was impossible to construct engineering models or mechanisms that worked. No matter how the parts were joined to one another, the result in every case was a fixed position - there was no means of producing movement. The opening words of the patent specification of this system read:- "The subject of the invention is a toy building set, by means of which structures can be put up closely resembling real structures put up by carpenters" This phrase places it beyond all possible doubt that the object of this system was to produce fixed structures based on the principles of carpentering. Meccano, on the other hand, is designed to produce working structures built on the principles of engineering.'

The patent referred to is 153854 of 1903 by Walter Walther (see 13/348) and the opening phrase quoted is a direct translation of the original German. It is now known for sure that Walter was the son of Franz, the originator of STABIL. Hornby's application for a German patent to cover his 1901 invention was not successful. [I understand that the papers that might have explained why were destroyed long ago, but I hope to include more on early patents in the next Issue. Why did Hornby give so much space to Walter's patented system? And was it ever produced?]

4. From Jeannot Buteux/Constructorama. • Some details of a **YUNYI [YOUNI] KONSTRUKTOR** set like the one described in 20/567, but from 1994. The nickel plating in it is very bright but flakes off in the fingers. The abbreviation 'F-ka' stands for Fabrika (фабрика), meaning factory.

• **OS names** not yet mentioned in OSN: ARMA (Czech, 1960, green Wheels); BOB (German); CONSTRUCTO (Belgian, c1948); IDÉAL MÉCANIQUE; KÖSTER (from 1951, a theme set to make trains in various colours); LA CONSTRUCTION MÉTALLIQUE; M.C.D. (Dutch); MECCAMINI; MULTI-MAKE (French, from c1910); LES NACELLES VOLANTES (French); N.S.V. (Dutch); TECNOR (French)

• On the date of **HOHA** (18/517), a set is known from 1950.

• In a known **KONSTRUKTOR-MEKHANIK** set like the one in 18/566, the Axles are 4.0mm Ø and the Bolts are 6,8,10 & 15mm u/h. [See also 20/566].

• **MECHANICUS** (see 18/518) was sold in Holland under the name MECHANIKUS STAALKNUTSELDOOS (an original brochure is known).

• The Patent described in 18/521 does indeed correspond to **FANTASIE 'R'**. Fig.10 on p11 of the Manual is identical to Fig.5 of the Patent, and one manual models is marked G.F.N. 1932. (G.F.N. = Gebr. Fleischmann / Nürnberg)

• On **GEOBRA** (19/522), there is also a larger outfit to make a Crane of the same type but bigger. Such a set is known from 1970.

• At the time of writing an **OS Exhibition** is being held at Euro Tecnica (at the Old Customs House, Hergersberg) near the Belgian/German border (Bullange/Losheim). On view, over 70 different systems which belonged to the late Dr Griebel, with sets and many models. The exhibition may have closed by the time you read this, so phone beforehand

if you are thinking of going: either 080/54 90 06 (Belgian) or 06557/920640 (German). Euro Tecnica is also home to a large HO model railway with 60 trains on 1000m of track.

5. Clive Weston has bought one of the 1/2"-scale 'MECCANO' doll's house sets mentioned in 14/395. They are made by Black Country Miniatures, 63 Church Street, Halesowen, West Midlands, B62 9LQ (tel: 0121 5615052) and are apparently strong sellers. The parts are produced by photo-etching - the Plates are painted brass and the Strips stainless steel. Clive's Set contains a dozen Strips of different lengths, 3 Wheel Discs, and 20 Plates, some green and some red. All are flat and the flanges of the #52 are not bent over. There are no Rods, N&B, or brassware. The box cover and manual are photo reduced and have varied from time to time. Some time ago the firm produced a batch of 50 'No.10' sets in cabinets, with more of the same parts plus some Rods and some blue parts. They cost £140 and there was 1 left last April. The 'standard' set costs £19 plus postage.

6. From Jacques Pitrat. On the parts in the large Gilbert

COLOUR PICTURES As mentioned in the Editorial certain illustrations from OSN can be downloaded from the OSN web site in colour & pasted over the B&W originals. If more convenient the Editor can supply the colour versions as A4 Sheets, price 40p per Sheet + postage.

Sheets currently available: OSN 2 (1 Sheet); OSN 3 (3 Sheets); OSN 20 (3 Sheets); OSN 21 (2½ Sheets).

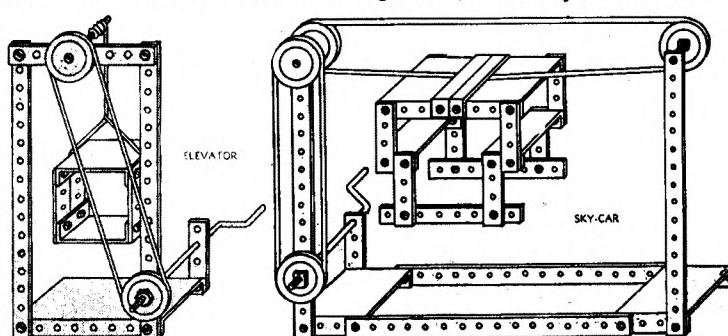
MECCANO Sets, #115 & upwards (see 12/317 & 19/546). They didn't contain any 1/4" Ø Axles, the 19½" long Axle was of standard diameter and was used as part of the mast in one of the Ship models. The 1/4" bore Bush Wheel was only used to hold the Quill for the Propeller in another of the Ship models. [More on the Ship parts & models later - Ed.] The hole in the top of the Foot Block, #176, mentioned in 12/317, was large enough to take the boss of the 6" Pulley, 19c, and the upper one of the two in the detail of the No.125 Builders Derrick in OSN 12 (bolted above & below the Flanged Plate #53), is used for this purpose.

JUNIOR MECHANIC In 18/522 the cover of a manual for this small American system was shown and Kendrick Bisset has now kindly sent a copy of one that he found recently in a No.101 outfit.

SUMMARY OF MANUAL •Name: "Junior Mechanic" CONSTRUCTION SET •Details of maker: Mechanicraft, Inc., Jackson Heights, N.Y. •No dates or Ref Nos. •Page size: 210" 134mm deep. •No. of pages: 8 unnumbered inc covers. •Language: English. •Printing: line drgs of models; cover as 18/522. •Page Nos. of Parts List (no PNs): 8. •No Set Contents. •Sets covered: 101 & 201. •No. of models for each set: 13,14. •Name, Page No. of first & last model of each set (no Model Nos.): 101: ELEVATOR,3; BAGGAGE CART,4. 201: DRAW BRIDGE,5; SKY-CAR,7. •Other notes: 3 other small models are on p2 with Constructional Hints.

The 101 models are typically small items of furniture or wheeled Trucks & Wagons, but the Elevator (right) is more ambitious, though I can't see what is used for the top shaft or how it's supported. The models in 12/327 are among the No.201 models, and in addition there are brave attempts at

a Steam Shovel, a Wrecking Truck, & the Sky-Car below.



Kendrick also wrote that the box lid of an ALUMINUM CONSTRUCTION SET he has acquired has red & blue panels separated by a white band, the same arrangement as that used on JUNIOR MECHANIC lids. Other similarities were noted in 12/327.

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EPA [B]: X1.1,4,4a,4b,5,7 [3]
GF Metallbaukasten: X1.1,2,3/5/6,7 [2]
JUNIOR MECHANIC: X2.2/3a,5a [1]
KONSTRUKTOR [12]: X1.1,2,4,4a,5 [3]
KONSTRUKTOR [13]: X1.1,2,3/4/6,5 [2]
MALYSH: X1.1,2,4/5 [2]
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The GILBERT MECCANO Ships These were mainly made from 16 special parts, and as far as I know, they are the only floating models that could be made from the parts in a standard outfit, & the only models to be rubber powered. They were included in Sets 115-150 (see 12/319, 19/546) in 1930-31, & then in the No.

15. This was a repackaged No.115, & was probably top outfit in a range known to have been available through '36, though production of the Ship parts may have stopped before that, perhaps in 1934.

The parts are shown in MCS Part 5 and Jacques Pitrat has kindly sent some notes on them, and copies of some of the 20 Ship models in the (© 1930) Manual, to illustrate their use. As well as the Harbor Patrol Boat & Speed Boat (right), 4 other models are shown on the back cover.

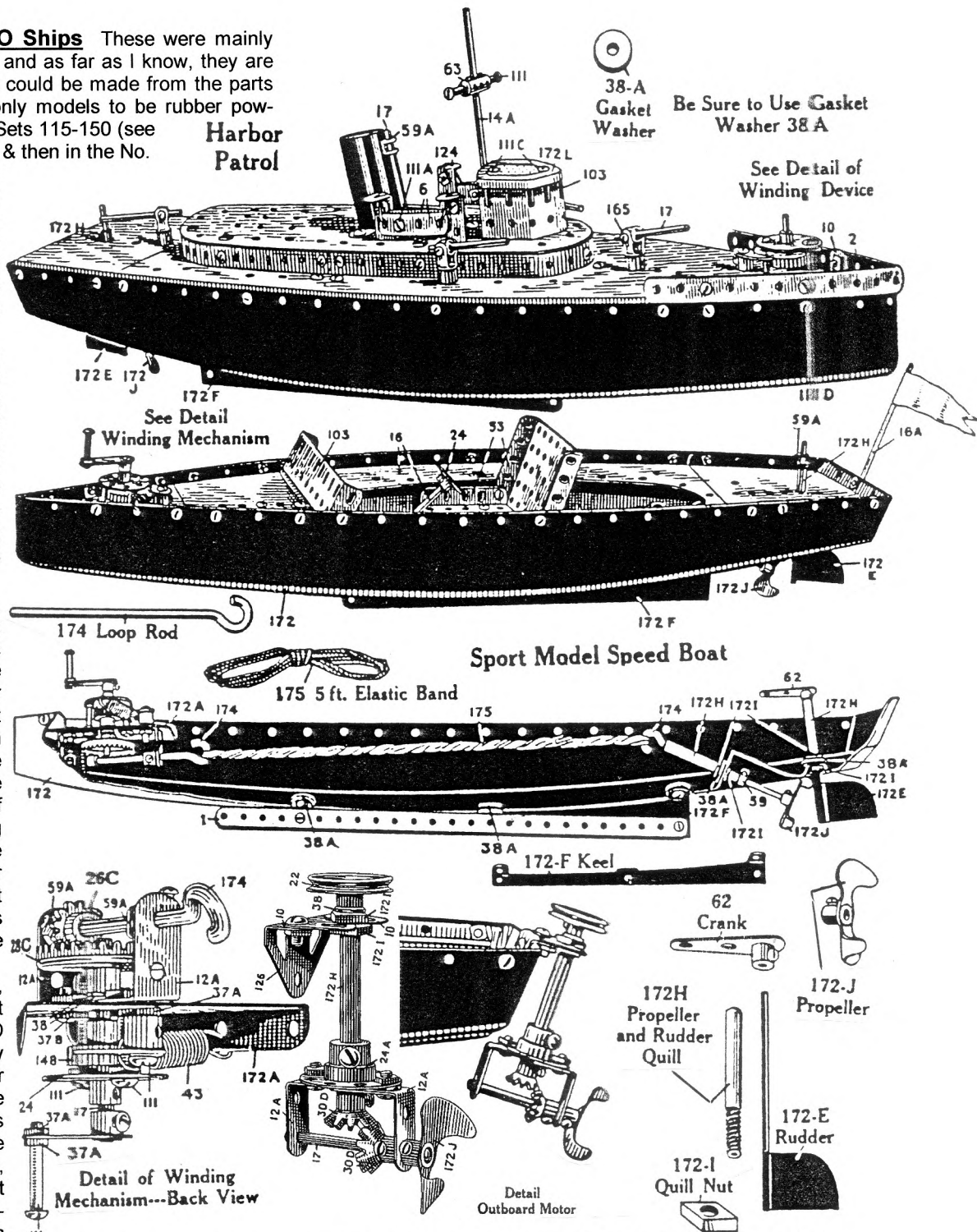
The Hull (#172) is black, about 24" long, with holes at 1" spacing around the top, & 5 holes below the waterline for the Propeller & Rudder Quills, and for the Bolts that hold the Keel (#172F). An extension, #172G, can be bolted to the Keel, as in the Sloop. A suitable number of Strips are to be bolted along the Keel's bottom to provide stability. The 5 underwater holes are made watertight by rubber Gasket Washers (#38A), which look to be about 1/2" Ø.

All 5 deck parts (172A,B,C,D,K) are flanged except the oval Cabin Top, #172D (see Harbor Patrol). They are all yellow but the other non-mechanical part, the Pilot House Top, #172L, is shiny. The Funnel is the standard red with black top, raked Liverpool #138a, but with the steam pipe replaced by a 2" Axle held in Formed Collars, 59A. The Boiler End used as a turret is still called #162A but has 2 holes in the flange for the gun barrels (see the Aircraft Carrier on the back cover).

Power was provided by the 5ft. Elastic band, #175. The vertical Shaft of the winding mechanism in the bow was journaled in the Deck and in a Bush Wheel stood off above by two 3/4" Bolts. Also above the Deck, a Pawl & Ratchet, and below the Crown Gear/Pinion step-up to the standard diameter Loop Rod, #174, for the Rubber Band.

At the stern another Loop Rod ran in a Quill, #172H, with a threaded end that was held by Quill Nuts to the hull. The same Quill was used for the Rudder, #172E, and there seems no way of locking the latter in any particular position. The Quill is 6.4mm o.d. and the ones in Jacques' Set are threaded at both ends. The Quill Nuts are 'almost as large as a 1/2" Pulley'.

One model has an outboard motor but with no means of driving the Propeller, despite the 1" Pulley at the top. The unit is attached to the stern by the Trunnion, & a pair of Flat Brackets bolted to the latter provide a landing for the Quill Nuts, with the Quill passing between them. At the bottom it



carries a 1/4" bore Bush Wheel, #24A, (with its characteristic stepped boss), to which the 1" Angle Brackets are bolted.

The 19 3/4" Axle (#13B) is of standard diameter and the only time it is used is as the mast of the Sloop. The oars shown dotted in the Row Boat's rowlocks are no doubt for the modeller to provide.

I suppose the Ship parts weren't very successful or Gilbert would have included them in some of his ERECTOR outfits, and others might have copied them. To me most of the models here look quite reasonable, and the parts adapt well to the different types of craft. The Carrier looks wrong with too much superstructure and those large turrets, but no doubt it could be improved. The Destroyer in MCS is a better warship but still doesn't look quite right. But looks apart, what were the problems? Perhaps winding the rubber was tiresome, or perhaps the performance wasn't good enough with too much friction in the propeller Quill. Rusting of the parts might have been a problem, particularly if water got inside the more or less enclosed models, and the open topped ones might sink rather too easily if they shipped much water.

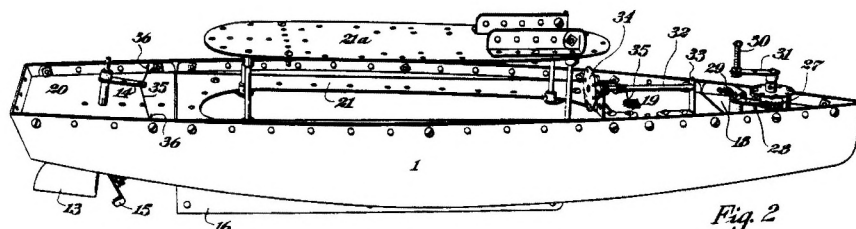


Fig. 2

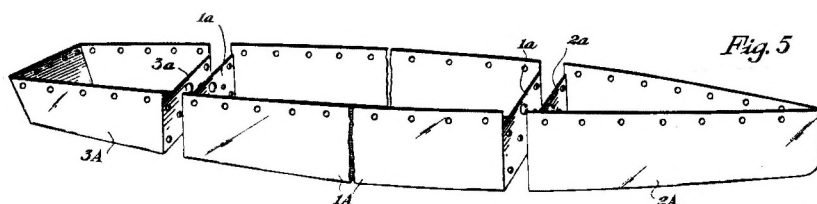


Fig. 5

The Patent Thanks to David Hobson for supplying a copy of the U.S. Patent No.1815708 for the ship parts. It was applied for on 12.5.30, in the name of Alfred C. Gilbert. It gives a detailed description of the parts which corresponds almost exactly with the actual parts. In addition an alternative method of making the hull (Fig.2 above) is

included in which the sections were joined with gaskets between them. The advantage was that different lengths hulls could be made by varying the number of centre sections, & bow sections could be used at each end, giving greater realism in some models. Cutouts in the ends of the different sections would allow passage to the rubber motor.

The possibility of using a spring motor rather than the rubber is included and 'such motor might give a greater range of travel of the boat'. Two other features were mentioned which aren't incorporated in any of the models seen so far but might be in others in the Manual. One, see Fig.5 left, was, 'A steering rod 32, rotatably mounted in angle strips 33 fastened to deck portion 19, has a wheel 34 mounted upon one end thereof to simulate a steering wheel. A string 35 wound about the rod 32 and threaded through suitable hooks 36 fastened to the sides of the hull passes through a perforation in the tiller 13 to transmit motion thereto upon rotation of wheel 34.' The other was that ballast might be placed inside the hull, presumably bolted to the holes used to attach the keel.

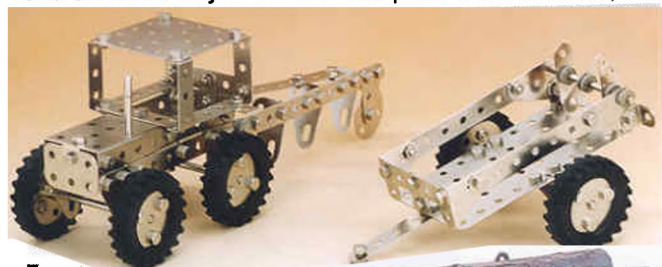
'ebs' This German system was mentioned in 17/491 (as E.B.S.) & a few details were given in 18/522. Now Ernst Leuthold has kindly sent a model leaflet for the Timber Lorry (below), a photo of the Tractor & Trailer (below), some publicity material, & a sample 3h Strip. Thanks also to Josep Bernal for a few more details in a copy of a page from (I think) an AMS Newsletter. ebs is made for Ebert GmbH in the Czech Republic by the firm ebert & schön (hence 'ebs' presumably).

The PARTS are larger than usual with 5.3mm holes at 15mm pitch; the Strips are 15.0mm wide and so the holes look only a little larger in proportion than in MECCANO. All the parts are made from .8mm thick steel. Notes on those known follow, and illustrations of some of them are shown around the top of the Wind Turbine below, right. • **Strips**: 3,5,7h with fully radiused ends. A 1*3*1 DAS. • **Brackets**: Flat; Angle; Corner, about 3*4½cm; & Flanged Corner. The last two have 2 holes on the short (flanged) side, and one long slotted hole at the acute end: the flanged type are used in the Trailer to form the near corners (the slotted hole uppermost on the side), and the flat ones as ploughshares behind the Tractor. • **Plates**: 2*3h; 5*5h; & from it a 3*5h Flanged Plate (used as the bonnet of the Tractor & in the base of the Wind Turbine). • A **Wheel Disc** with the 6 holes at 12.5mm radii, a **Bush Wheel** with matching holes & slots (brass boss, 10mm o.d., tapped M4), & a black rubber **Tyre**. • An **Axle**, 5mm Ø (the AMS note says 4mm), and an **Axle Stop** which looks about 12mm Ø. • The **N&B** are M5 with hex Nuts & Bolt heads, 8mm A/F. The Bolts are 5,8,20mm u/h. The M4 **Grub Screw** is 4mm long with an Allen socket. The tools are a 2-ended **Spanner**, 2mm thick, and an **Allen Key**. • **Finish**. The parts are well made, and

are nickel plated, with a soft sheen rather than a bright shine. • There may be **other parts** in the Sets for which details aren't to hand.

The MODELS. The brochure speaks of 11 models at present, with perhaps more to follow. Small photos of those that can be made from the 8 small sets mentioned in OSN 18 are shown on the back of the Model Leaflet - all are straightforward and the Lorry, & the Tractor are perhaps the most attractive. The Lorry would be over 50cm long, and is made from 32 Strips, 27 A/Bs, 39 other parts, and 101 N&B. The Discs in the Wheels are shown with only 3 holes so perhaps there have been 2 versions. The Model Leaflet for the Lorry is a glossy sheet 62*11cm, folded into 4, with the completed model on the front, and inside a large, clear photo of each of 4 constructional stages.

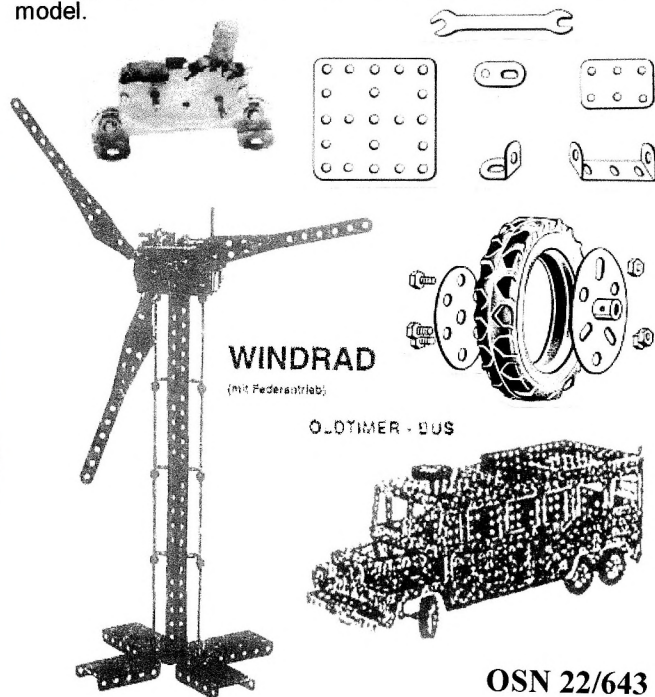
The larger Wind Turbine is attractive and as far as can be seen no Strips longer than 7h are used in it. The 4 long vertical strips in the pylon seem to be 4x 7h lapped by 1 hole, and spaced apart by crossed DAS. Alongside the model on the firm's internet site (<http://members.aol.com/Herbertgmbh/Metall/welcome.htm>) is the blurry photo of what is probably its Spring Motor, shown here above the model. If so, and if the brackets at each end are 15mm wide, it scales at about 7cm long o/a. Another model is the Oldtimer-Bus, about 55cm long, and with some form of steering by the look of it. Nothing anywhere on an 11th model.



ebs



LANGHOLZ - LKW



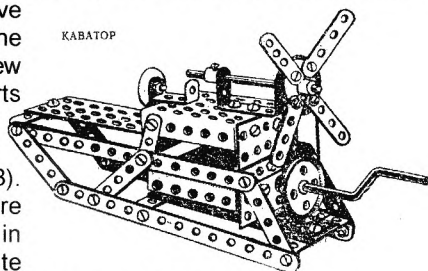
OSN 22/643

KONSTRUKTOR [3] This is the Russian system in MCS with 10mm hole spacing, and about 50 parts including some unusual ones. For example, 2,8,10,14 & 18h Strips; an 18h A/G; the Trunnion below (#036); Flanged Plates, 3*3 & 5*5h, flanged on all sides, & 9*6h flanged on its long sides; and Perforated Plates, 2*8h, 2*18h, 3*5h, & 3*9h. None of the parts have any slotted holes, and the A/Gs & Plates have square corners. The MCS manual cover has Nov. 1984 (in Russian) on it, probably made with a rubber stamp. Now more information is to hand thanks to Jeannot Buteux & Don Redmond.

Don sent a copy of a Manual and some details of a No.1 Set. The Manual has a PR including the date 03.09.80, and the print run, of 150000. Under it is an address in Belaya Tserkov', a town 80km south of Kiev. The appropriate pages are very similar to those in MCS, but the cover has no date stamp, instead, rubber stamped in red, after the 'kon' are words meaning 'technical game'. The wording in the bottom right corner of the cover starts 'Game recommended for children in lower & middle school classes for development of technical skills'.

SUMMARY OF MANUAL •Name: KONSTRUKTOR. •Details of maker: none. •Dates &/or Ref Nos: 03.09.80 in PR on p28, with 3ak. 2489 at end. •Page size: 20*14cm deep. •No. of pages: 28 + covers. •Language: Russian. •Printing: B&W line drawings on newsprint paper. •Page No. of Parts List/Set Contents & highest PN: 2,048 (Ill. Parts on p3). •Sets covered: 1 & 2. •No. of models for each set: 8,22. •Name, Page No. of first & last model of each set (no Model Nos.): 1: SANKI,6; ÉKSKAVATOR,26. 2: STUL,5; AÉROSANI. •Other notes: • Russian names transliterated. • Index on p4; models for Sets 1/2 not in order. • Below the PR is an address: Belaya Tserkov', ul. Krasnoarmeiskaya, 22a. • All cover blank except front outside.

The two Sets covered by the Manual are quite similar in content - both have '80±2' N&B, but the No.1 has a few more of some parts than the No.2, 30 extra in all, giving 185 (plus the N&B). The models are fairly simple but in the main have quite good lines. A medium sized one is shown above.



The No.1 Set box measures 285*205*32mm, and has a black plastic tray bottom with a translucent green top. Moulded into the latter are the Set No., and details of date, price, school levels, etc. Don gave the start date for the system as 1975.

The parts are in natural aluminium, except for the steel Screwdriver and the N&B. • DATA (in mm) Strips: •Hole pitch/dia, 10.0/4.4 •width, 9.8±. Thread: M4. Boss: •d/t M3. Axle Dia: 3.9. DP (Mod): NA. Nut & Bolt: steel with hex Nut.

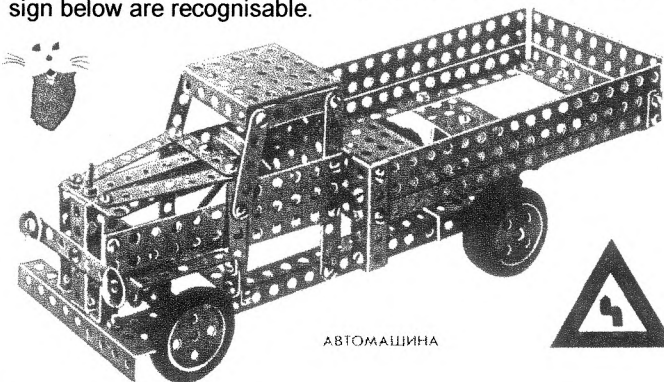
Jeannot sent some details of a later set, made in Minsk, and known from 1985 & 1987. Nearly all the parts in the Illustrated Parts List are as before, although they have been redrawn (badly in some cases), and renumbered. The only part not in the new set is the M3 Set Screw, and probably the Pulley (below, #41) is tapped M4. Also it is now has 5 holes in its face instead of 4. Another possible change is to the Hook and the old (#035) & new (#30) types are shown below. The Trunnion as drawn looks to have the holes spaced differently (#27 below), but Jeannot wrote that the bottom hole in the actual part is only 2mm away from the bend (and that this is not the only badly designed part). The 35mm long Screwed Rod is now listed as 30mm.

The new set is very similar to the previous No.1 but with some 10 extra N&B, a second Spanner, but one less 2*3*2h DAS. There is nothing to indicate any companion sets.



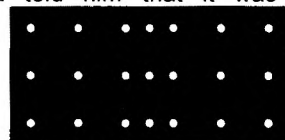
The parts are quite well made, and all are natural aluminium except for the polished steel N&B, Axles, Screwed Rods, and bosses. The holes in most parts are 4.6mm Ø but those in the bosses and some Brackets are 4.1mm.

The first manual's plain cover is replaced by the A4 size one right, with photos of 5 models on it, 3 of which are in the previous manual. The 2 new ones are a Helicopter & a Wheel Chair. Jeannot sent a copy of one of the manual models, the Lorry below, which is almost identical to one in Don's manual (and as shown in MCS), but it's a halftone instead of a line drawing. With it in the original are various small items which haven't copied well, but the cat and the road sign below are recognisable.



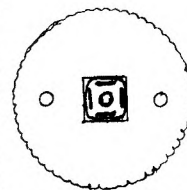
MYSTERY PART No.39 The 6h Braced Girder from Spain, with the small solid diamond in the centre (19/533). Don Redmond asks if this could be an early (1928-35) METALLING part. Perhaps the Liverpool asymmetrical design was not to their taste.

MYSTERY PART No.42 The 3*6" Plate in 20/567. Don wrote that Lou Boselli had told him that it was an ERECTOR part introduced post-1917, but there is no illustration or mention of it in *Greenberg*. [The normal P19 Plate is the same size overall, and a 25% photocopy of it is shown above.]



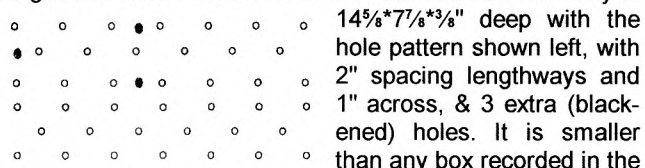
MYSTERY PARTS No.43 & 44 These are lots of parts which are described in the Australian article in this Issue.

MYSTERY PART No.45 Another from Don. A 56t Gear (right) of 38 DP, so about 1½" Ø, with a thin (.034") steel disc that may once have been brass plated. The boss is of zinc or some other grey metal, 1½" Ø with a near square shoulder which fits into a ¾" square centre hole in the disc, and is swaged in by four 5/32" long dents. The bore is .166", and the boss is single-tapped 5/32" BSW.



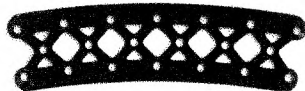
MYSTERY PARTS No.46 Some parts found by Dave Taylor which at a glance look like MECCANO but on inspection clearly aren't. All are painted a medium green, and have 4.3mm holes at 12.7mm pitch. They comprise: Strips with 3,4,5,6,7,9,11,19 holes; DAS: M46,47a,48,48a,48b,48d; Brackets: M10,11,12,12a,44,45,102,125; an 11h A/G & a 5h Flat Girder; Propeller Blades like the original

• The flanged metal **Trays** on which parts were mounted in some **ERECTOR & GILBERT MECCANO** sets could also be used as baseplates for models. The holes in the base of these Trays are usually in a regular pattern but additional holes may be found which were probably needed to allow the required display of parts. In the 21" Tray of a GILBERT No.110 Set the 7*19 holes are at 1" centres but there are an additional 9 holes between the 2nd & 3rd lengthwise rows - 6 at 2" & 3 at 1" centres. Another Tray is



14 5/8*7 3/8" deep with the hole pattern shown left, with 2" spacing lengthways and 1" across, & 3 extra (blackened) holes. It is smaller than any box recorded in the literature, and so perhaps it was a short Tray to allow a full depth end compartment for, say, an Electric Motor. [Several sizes of Tray are shown in *Greenberg*, and all seem to be listed as part GY, regardless of size. Most have double flanged edges (like a Reversed A/B) so they can sit down on, & within the 4 walls of a box's partitioning. However the No.9 Set shown on p106 of *Greenberg 1* has an additional Tray with a perforated base and single flanges which look about 1" deep. Only one Tray is included in the Contents for this Set. GY was introduced in 1929 and was last listed as a Separate Part in 1933; most are painted black but the one in the 1933 No.8 on p16 in *Greenberg 2* is red.]

• The **ERECTOR 6" Curved Big Channel Girder**, EZ, can be found with two different curvatures, and the pitch of the holes is slightly different too, with the outside holes on the convex, outer edge at a pitch of about 5.9" on the large radius type (left) and 6.05" on the more curved one. [This change was noted in the *S. Cal. N/L* for Spring 1993 & in *Greenberg 2*, pp85, 87. The original large radius type of 1928, with 18 to a circle of about 35" Ø, were red, but were changed to nickel in 1935, and later they may have been BZP. The design was altered in about 1947, to give 11 to a circle (of I calculate a mere 20 1/2" Ø). It is supposed that



Colour Pictures Some of the illustrations from OSN 2, 3, 4, 5, 20, 21, & 22 can now be downloaded from the OSN web site www.OSNL.freeseerve.co.uk
Illustrations from other Issues will be added later.

this was done to allow the part to be used in the new Roundabout model, but in fact only 9 are used in it, to form a nonagon rather than a circle. Nickel parts of this type are known and later ones may be BZP or cadmium plated.] Don added that the 6" Curved Beam Girder, DV (with a 1/2" flange on the outer edge) has an even larger radius, and from MJ 41, 28 of them make a circle of 53 1/2" Ø.

• On Canadian **CONSTRUCTO** (see 10/267 & 20/565), it is said that Paramount Industries obtained the MERKUR parts from Czechoslovakia in bulk, and contracted a rehabilitation workshop to pack them into CONSTRUCTO boxes, which bear the label 'Made In Canada'. But only the boxes, and probably the manuals, were made in Canada.

10. David Lawrence emailed that he has heard of a **STEEL TEC** Item #7135 'Limited Edition' **Ford Bigfoot** set, and asks if anyone knows anything of it.

11. On **CLIFFIX** (21/596) Michael Grace wrote, 'When I was a child in Dublin, the local corner shop had what was I suppose, a job lot of CLIFFIX sets, and sold them off very cheaply - that was in about 1955 I think. Mine was rather rusty I remember and a great disappointment to a boy used to MECCANO!'

12. From George Wetzel. • His current **Sales List** of 40 items, divided about equally between ERECTOR, OS, and architectural systems. Prices range from \$25 for a 1937 ELECTRIC TINKERTOY Set, to \$900 for a 1935 #9 1/2 ERECTOR HUDSON box plus various parts. I can copy the List to anyone interested, or visit www.bidgtoys.com.

• A copy of the box lid label and the Illustrated Parts from inside the lid, of **THE SMART ENGINEER**, 'size No.8', 'Walthers Building Construction Game'. It is WALTHER'S ENGINEER under another name, see 7/164 & 19/550. More details in the next Issue.

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KOSMOS MASCHINENBAU: X1.1,2,3,4/6,5,5a [3]
MEHANO(TEHNIKA) Electrical: X1.1,2,5,7 [2]
METAMECH: X1.2,5 [2]
MR MECHANIC: X1.1,2,3/4/6,5 [2]
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TECNICA: X1.1,2,3/4/6,5 [2]
TOY KRAFT: X1.1,2,5,6 [2]
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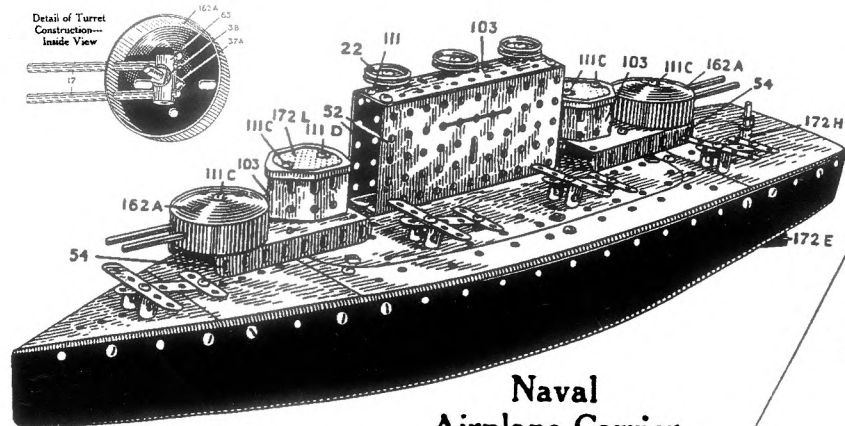
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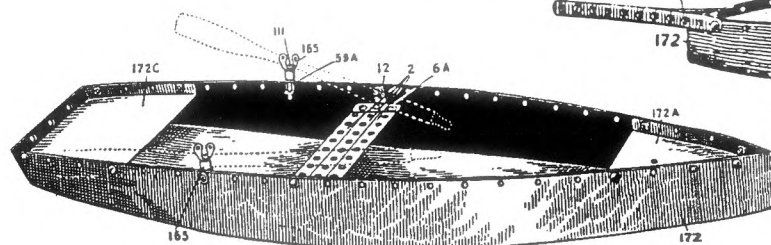
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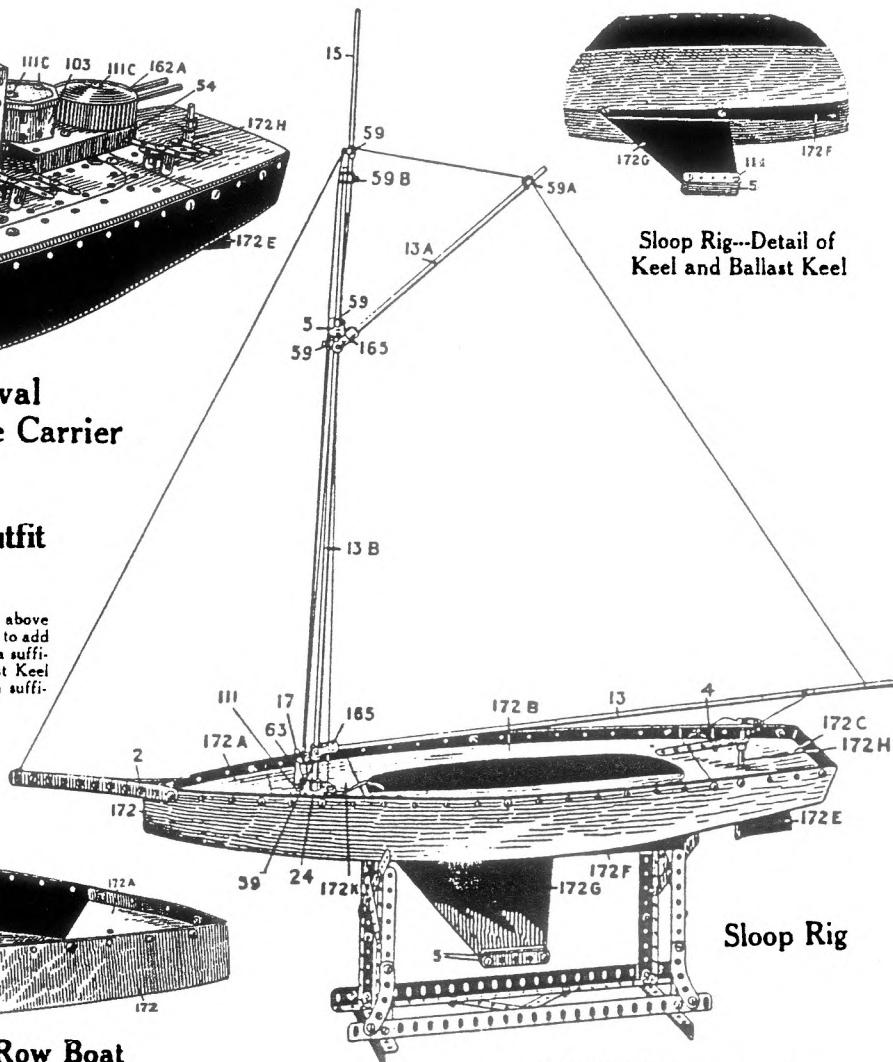
MECCANO

BALLAST. In boat building, it often occurs that too much weight is above water line, causing the craft to be unbalanced. In this case, it is necessary to add weight to the keel. This is accomplished by bolting to both sides of keel, a sufficient quantity of 124 inch Beams No. 1. Sailing Crafts have a long Ballast Keel which also requires added weight. Beam No. 5 is used for this purpose in sufficient quantities to maintain proper balance.

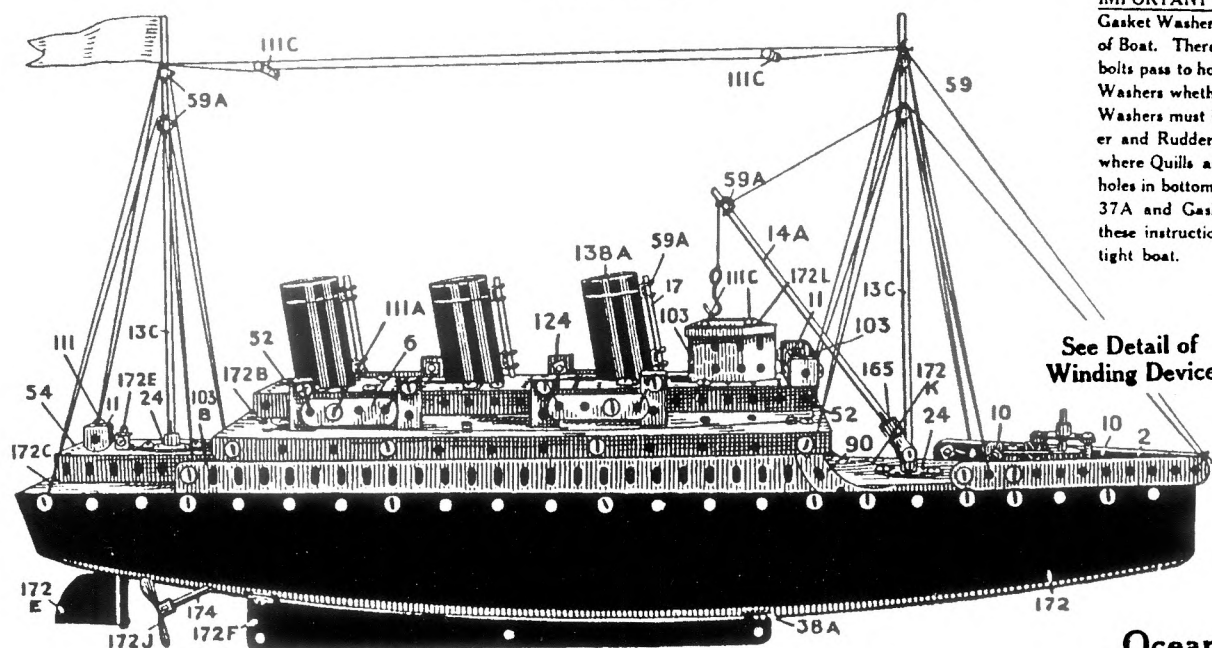
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Row Boat



Sloop Rig

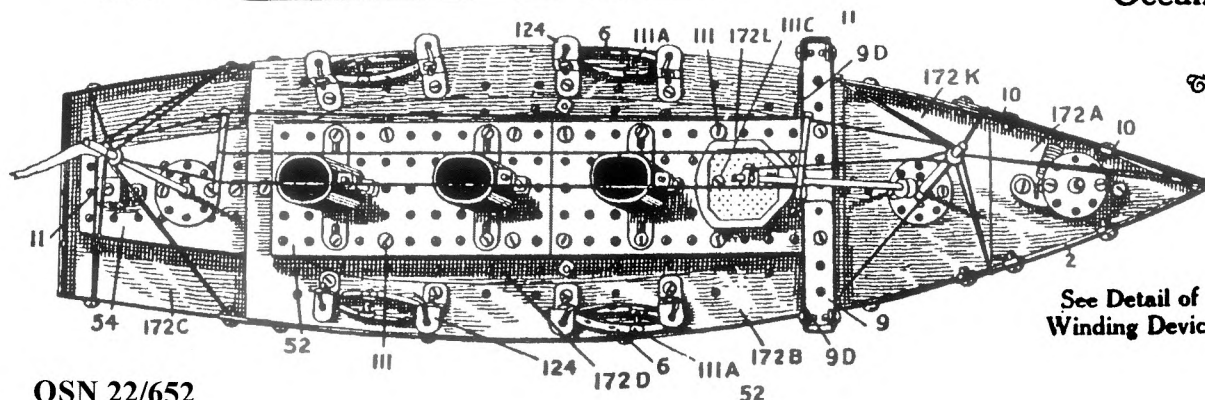


IMPORTANT WARNING. Be sure to use Gasket Washer 38A at all holes in the bottom of Boat. There are three holes through which bolts pass to hold Keel in place. Use Gasket Washers whether or not Keel is used. Gasket Washers must be used at holes where Propeller and Rudder Quills are located. In cases where Quills and Keel are not wanted, plug holes in bottom of Boat with Screw 37B, Nut 37A and Gasket Washer 38A. Observe these instructions and you will have a water tight boat.

**See Detail of
Winding Device**

**More
details
on
p642**

Ocean Liner



**See Detail of
Winding Device**

The MECCANO CO.
of AMERICA, INC.
NEW HAVEN, CONN.
U. S. A.

ITEMS FROM LETTERS

1. On **STEELBUILDER** (20/562) David Lawrence has recently acquired a No.1 Set and wrote 'What I hadn't realized, because the manual doesn't mention it, is that the Strip's doubled edge has a pip on the inside at one end, so that you have to press it to snap it in.'

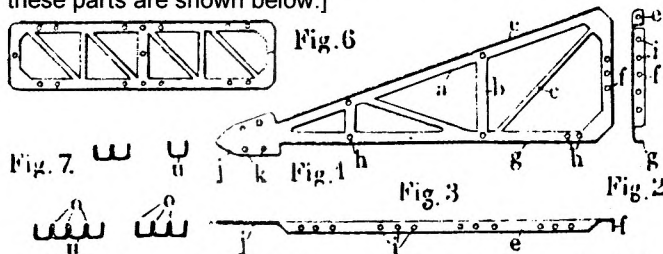
2. From Kendrick Bisset on the **Flanged Sector Plates in U.S. MECCANO** outfits, 'From what I have been able to gather the single row of holes version was used through at least 1927. I have seen two 1928 outfits with the three row variety, and they are shown clearly in contemporary illustrations. BUT later outfits reverted to the single row version. They are in my 1929 #20 & #30 outfits, and in the subsequent New Haven GILBERT-MECCANO outfits. [The history of the sets was given in 12/317.] Is it possible that Elizabeth was making the single row type, and had the tooling? Then when the new version came out [in the UK in 1927] perhaps they were made in England and shipped over until new tooling could be put in place - but this plan was interrupted when Gilbert bought U.S. Meccano?'

3. D. Courdoux wrote that production of **TEMSI** stopped for good in May 1999, and that in future no **MÄRKLIN** spares will be sold, only one or two 'theme' sets. Also that there is a question mark over **STOKYS** because letters to them remain unanswered.

4. Thomas Morzinck wrote that there was a good picture of a **STABA** set on the German ebay site. That's the STABA with the 'outline' Strips, see 8/194. The Set was a No.00 and the contents seem to correspond to those in MCS. The box is red and has 'STABA Constructor' on the lid; the manual doesn't seem to have a proper cover - the front page has just 'STABA' at the top, with '00' in the top right corner, and text underneath. The parts look like those described in OSN 8 except that the 21mm Pulleys are red instead of nickel.

On the **Korbuly patents** (see 22/623), the date of the Austrian one (with gearwheels, connecting rods, etc.) was 1st Nov. 1901 [thus predating Hornby's patent by nearly a month], & the German patent was granted on 14th Jan. '02.

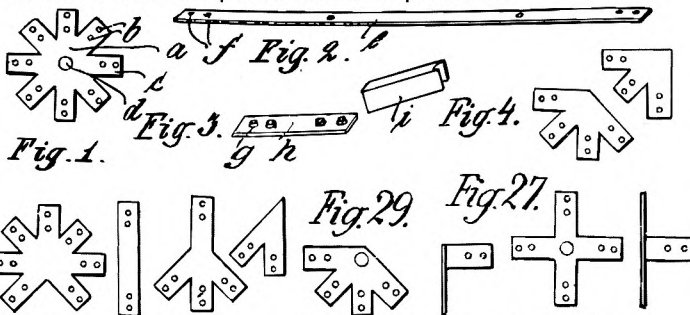
5. From Jeannot Buteux. • The French **CHARPENTO** patent (see 21/617) was No.589377 and a Roger Marie-Joseph Biard applied for it on 2 Feb. 1924. It was acquired by CIJ, who also produced a set for Citroën, and it bore the CITROËN name. Standard CHARPENTO parts were used but painted red & green, and various Garages could be made from the Set. It is extremely rare. [The Patent shows Trusses similar to CHARPENTO but an additional one with a spade end (Figs.1-3) is included, and the Beams have a different pattern of bracing (Fig.6). Various Wire Staples (Fig.7) were also proposed as an alternative to N&B. All these parts are shown below.]



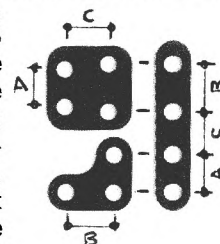
• **EIFFEL** parts (see 19/491) are red & green. • **CLIFFIX** (see 21/596) was patented in France in 1945. • On **STANDARD L.R.** (21/590), the French patent was not quite the same as the UK one. And the order in which the different coloured parts appeared still isn't known. • The name **PETIT GÉANT** (Little Giant, see 21/603) was used for a French system in the 1950s, but it had parts to make a variety of spring & electric motors. • On **MÉCANIC** (21/603), in each large set was a Plate in the bottom of the box, painted matt black, which could be used as a base for various models. It has now been established that its predecessor, **ÉCÉPÉ** (see 12/314) was marketed from 1913.

• The **Black Country Miniature** parts (21/619) really are small, a MECCA-MINI Strip will pass through a hole in a MECCANO Strip, and a BCM Strip will pass through a MECCA-MINI hole. • The contents of **Graham's patents** 125890 & 138824 (see 14/372) are all in one French patent, No. 520081, which was applied for in July, 1920.

Jeannot also sent a copy of a **Danish Richter Patent** Nr.20642, dated 1915. The original German version was from 1913. 28 parts are illustrated in the Danish one, including Figs.1-4, 27 & 29 below. The unlabeled 6 parts below are examples of the other 22 parts - they are like Fig.1 but without the centre hole and with various combinations of from 2 to 7 arms. I can't see how the parts hold together but the idea of hubs with strips attached is similar in principle to **IMPERATOR/ANCHOR ENGINEER** (see 17/486). As far as I know these parts were never produced.



6. From David Hobson. • Snooks's Toy Shop in Bath has a new stock of **CONSTRUCTION** sets: Nos 15, 20, 65, 67, & 77 (at £45,25,7,7,40). Nos.15 & 65 seem to be as described in 14/383 & 22/622 respectively. The others are: No.20 with 365 parts to make space models; No.67 with 214 parts for small space ships; and No.77 (460 parts) for various solar-powered models, and marked as 'new'. Another item is a Parts Pack '**C113 Adapterplatte**', price £3.99. It contains 8 each of the 3 parts right (50% full-size), and they are meant to allow 1/2" pitch parts to be used with those having the 10mm CONSTRUCTION spacing. The dimensions A, B, C are respectively 10, 12.7, & 11.5mm. The latter would be about half the width of 2 Strips, one 1/2" wide & one 10mm. On p151 of *Baukästen* it is said that these parts were introduced in 1998 'to put more pressure on the MECCANO system in the marketplace' [My free translation]. • On the 'Matchbox' set **CLOU** (see 6/130, 13/345), Werner Sticht kindly provided a translation of a note about it in a March 1932 German toy magazine. It was made by Gebr. Schmid and had recently been introduced. The Discs which push on the wooden Rods were made from pressed sawdust; and the Set sold for 25 Pfennigs.



7. From Tony Press: • A copy of the front cover of a **MONTEX** model leaflet in Dutch, PR 7/632/12(IP), which Alex de Jong had put on the Spanner network. A Spanish system called MONTEX was described in 11/296, but in this case it is one of the names that was used for **BRITISH MODEL BUILDER**. The MONTEX cover of this type in MCS has the same layout as the Dutch one, with the 2 boys & Derrick Crane at the top, but it is in Spanish. MONTEX was no doubt a name that could be used in many different markets, and so perhaps leaflets in other languages were produced. Incidentally it may not be clear in all copies of MCS, but the MONTEX Leaflet there has a PR of 13/1035/2, and its price is in 'Argentina pts.'

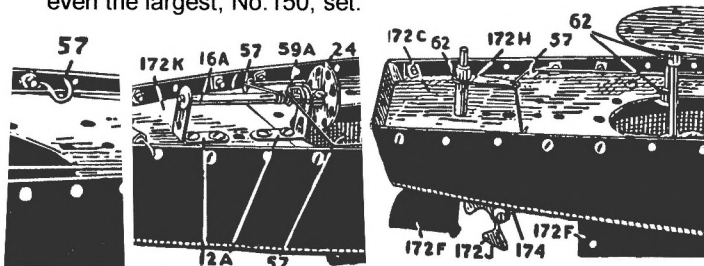
• News of a 'new' system called **BIG-JOY**. It was a pre-war Australian made copy of **TRIX**. The parts seen seem to be nickel or chrome plated, but are rather inaccurately punched and have a somewhat ragged finish.

• 2 photos, courtesy Jack Little, of a made-up **GEOBRA** model (see 19/552, 22/631), and the set's box. The parts look to be as already described and are the same colours. The box is shown at the top of the next column, and is red with: *Geobra* in a circle top right; some parts in the panel



under it; and to the left a full colour picture of the Crane behind a railway line, with another Crane in the background.

8. On the **Gilbert Ship patent** (22/643), Jacques Pitrat wrote that the steering linkage is in fact used in two of the Ship Outfit models, the Open Motor Boat and the Motor Boat with Canopy Top. The cuts below taken from these models show the 'ends' of the system; Wire Hooks (#57) act as guides for the cords that run along the sides of the hull, although their ends would need to be suitably bent over to do so. Jacques also pointed out that 10 Cranks (#62) are needed in the Canopy model, 2 more than were in even the largest, No.150, set.



9. From Don Redmond. • On the **1930 Gilbert MECCANO parts** (12/317), although the Liverpool Bevels remained in the Parts List, there was also the ERECTOR Mitre Gear, as #30D, and as far as is known the former were never included in Gilbert sets. The Bolts in my #110 Gilbert set are not the common roundhead ERECTOR pattern, though they have the same 8-32 thread, are 1/4" u/h, and are nickel plated steel. The difference is their small, 5.5mm Ø, button heads. There is limited evidence that some ERECTOR Bolts may have had this head. [This button head is not the shape shown in 20/585 but is nearer the

Colour Pictures Some of the illustrations from OSN 2-8 and 20-23 can now be downloaded from the OSN web site www.OSNL.freemove.co.uk

It is hoped to add pictures from other Issues later. The site also now has lists of contents for OSN 1-10.

dome head described there.] • 2 'Canadian' Type III (Gabriel) **ERECTOR** sets are known. One has a lid with 'GILBERT ERECTOR SET 2' on it, plus various models & a boy building a Windmill; the flap has, A.C.Gilbert of Canada Limited, Burlington, Ontario.' The box also has the set number 10352. 1 of the 3 Leaflets in the Set has the address: A.C.Gilbert of Canada Limited, 2380 Industrial Street, Burlington, Ontario, Canada, & 'Printed in Canada'. The second one, called GILBERT REMOTE CONTROL POWERLINE ERECTOR SET, has a large helicopter on the top of the lid, and 'No.39106 Manufactured by Irwin Toy Limited 43 Hanna Ave. Toronto 150 Ont. under license from Gilbert Division, Gabriel Industries Inc. ©1970' on a side flap. From the information about U.S. sets in *McKusick* the likely dates for these are 1966 & 1969 respectively. [More details on these sets are given in an article by Don in the June 2000 *Canadian MeccanoNotes*, together with an account of a third set. This is an 'Engineer's Set', packed in a 'milk carton' box, with Type II (1924-62) parts. It is identical to the 1962 one in *Greenberg 2* except that it bears the name; A.C.Gilbert Co., of Canada, Burlington, Ontario. Don has also found the address 'A.C.Gilbert of Canada Ltd., 2422 Fairview Ave, Burlington, Ontario' on an Instruction Sheet and its likely date is 1963-64. A.C.Gilbert of Canada Ltd. were listed in the Burlington city directory at Fairview Street in 1964 & 1965, and at Industrial Street in 1967. Don ends by pointing out that though boxes & printed matter may have been Canadian products, it is highly unlikely that the parts were ever made in Canada.]

• The **MECCANO X leaflet** (22/650) is indeed the Canadian edition, and is identical to one with an earlier PR of 13/1036/5.

• On the **Gilbert MECCANO Ship Parts** (22/642), it is more likely that they were never used in ERECTOR outfits because of Gilbert's need to drastically change the range of sets to meet the economic conditions of the 1930s, and in the larger sets, to use up existing stocks of parts.

EXTRA MCS SHEETS Each Sheet costs 15p + postage if the whole batch as listed in each Issue of OSN is ordered at the same time. That makes £5.80, £6.20, £7.10 for the 36 below, including postage to UK/Europe or surface anywhere/rest of world by air. For all other purchases each Sheet costs 20p + postage if copied double-sided like the originals, but 7½p per side + postage if copied single-sided. All back Sheets can be supplied.

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CIGEA: X1.6c-6h [3 Sheets]

D.V.s INGENIØR: X1.1,2,3/4/5/6,3a/4a/5a/6a,5b [3 Sheets]

FAI MECCANICA: X1.1,2,3/4/6,3a/4a/5/6a [2 Sheets]

HASSIA: X1.1,2/3/5/6,7 [2 Sheets]

KARL MARX ROCKET BUILDER: X1.1,4/5,5a [2 Sheets]

KNIGHTS HEAD: X1.1,3/5/6,5a,5b [2 Sheets]

KÖSTER: X1.1,2/5,3/4,3a/4a/6,5a,7 [3 Sheets]

MONTIX: X1.1,2,3/4/6,5/7 [2 Sheets]

PERFECTOR: X1.1,2,3/5/6,4 [2 Sheets]

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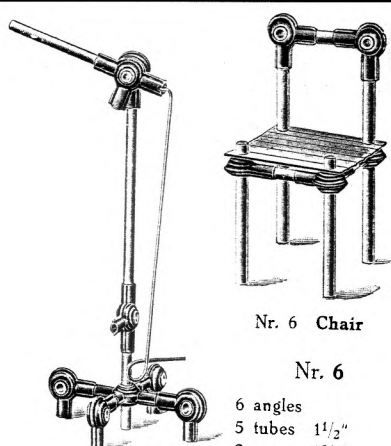
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EDITORIAL Two items that there was no room for elsewhere. First, David Hobson tells me that an exhibition devoted to the History of Constructional Sets will be held in Switzerland next October, at the Kindermuseum, Baden (near Zürich). Details can be obtained from Peter Hartmann, email: peter-hartmann@bluewin.ch.

Second, more on MECCANO in the U.S.A. Kendrick Bisset has recently launched a new web site devoted to the subject: www.usmeccano.com - it is still being developed but to date includes a list of all known U.S. manuals

and Meccano Magazines. In addition three articles by Kendrick have appeared in the *Southern California Club Newsletter* (www.erecator.webnexus.com): 'U.S. Meccano Inventor's Accessory Outfits' in the April, 1998 Issue; the 'History of American Meccano Magazine' in Issue 1 of 1999; and '1928-30: U.S. Meccano Years of Transition' in Issue 3, 1999. This last completes the partial story in 14/388, and adds more detail. Another interesting article in Issue 2, 1999 of the N/L, is an account by Charlie Pack of a Gilbert 1938 Meccano No.7 Set.



Nr. 6 Chair

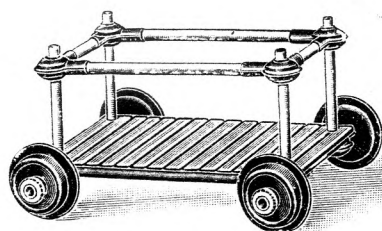
Nr. 6

- 6 angles
- 5 tubes $1\frac{1}{2}$ "
- 2 " $2\frac{3}{8}$ "
- 2 " 4"
- 1 plate $2\frac{3}{8} \times 2\frac{3}{8}$ "

Nr. 7 Signal

Nr. 7

- 1 support
- 5 tubes $1\frac{1}{8}$ "
- 1 star
- 1 tube 2"
- 2 T-pieces
- 1 " $2\frac{3}{8}$ "
- 4 angles
- 1 " $4\frac{3}{4}$ "



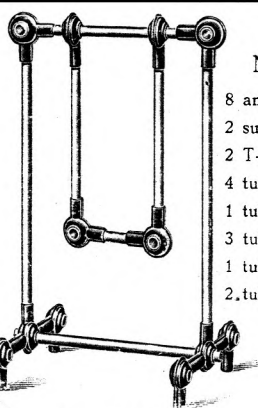
Nr. 32 Truck with railing

Nr. 32

- 4 T-pieces
- 4 angles
- 4 railway wheels
- 4 shaft collars
- 1 plate $2\frac{3}{4} \times 4\frac{3}{4}$ "
- 4 tubes $1\frac{1}{8}$ "
- 4 " 2"
- 4 " $2\frac{1}{8}$ "
- 4 " 4"

Nr. 36

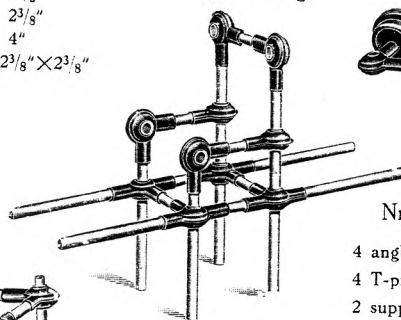
- 1 T-piece
- 1 angle
- 2 supports
- 2 tubes $1\frac{1}{8}$ "
- 1 tube $1\frac{1}{2}$ "
- 1 " $2\frac{3}{4}$ "
- 1 " $3\frac{1}{2}$ "
- 1 set screw
- 1 fixing standard
- 1 washer
- 1 driving wheel
- 1 cut key
- 1 plate $2\frac{3}{8} \times 2\frac{3}{8}$ "
- 4 shaft collars



Nr. 11 Swing

Nr. 11

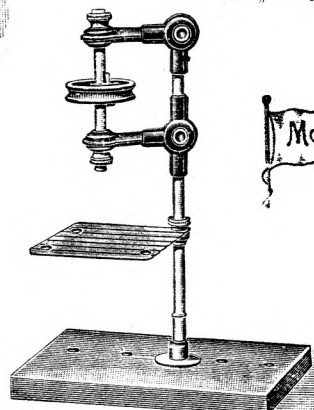
- 8 angles
- 2 supports
- 2 T-pieces
- 4 tubes $1\frac{1}{8}$ "
- 1 tube $1\frac{1}{2}$ "
- 3 tubes 4"
- 1 tube $4\frac{3}{4}$ "
- 2 tubes $6\frac{1}{4}$ "



Nr. 23 Sedan chair

Nr. 23

- 4 angles
- 4 T-pieces
- 2 supports
- 7 tubes $1\frac{1}{2}$ "
- 4 " $2\frac{3}{4}$ "
- 2 " $3\frac{1}{4}$ "
- 2 " $4\frac{3}{4}$ "

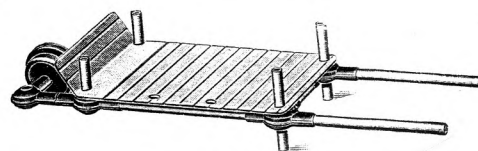


Nr. 36 Drilling machine



Moko's "Simplex" Metal Constructor

**More on this
German System
overleaf**



Nr. 19 Wheel barrow

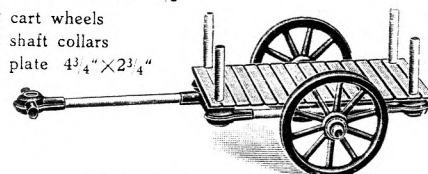
Nr. 19

- 2 angles
- 4 T-pieces
- 2 tubes $1\frac{1}{8}$ "
- 2 " $1\frac{1}{2}$ "
- 3 " 2"
- 2 " $3\frac{1}{4}$ "
- 2 " 4"
- 1 plate $2\frac{3}{4} \times 4\frac{3}{4}$ "
- 1 " $1\frac{1}{8} \times 2\frac{3}{4}$ "
- 2 railway wheels

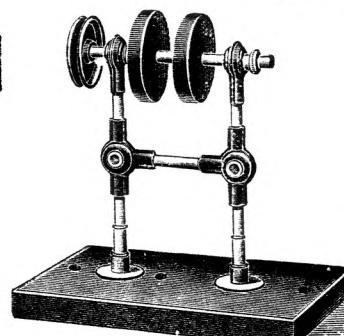
No. 26

- 4 angles
- 2 stars
- 1 T-piece
- 2 tubes $1\frac{1}{8}$ "
- 6 " $1\frac{1}{2}$ "
- 4 " 2"
- 1 tube $3\frac{1}{2}$ "

- 2 cart wheels
- 2 shaft collars
- 1 plate $4\frac{3}{4} \times 2\frac{3}{4}$ "



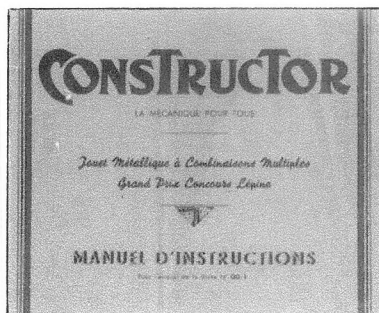
Nr. 26 Two-wheeled Barrow



Nr. 34 Polishing machine, double

Nr. 34

- 2 T-pieces
- 2 supports
- 4 tubes $1\frac{1}{2}$ "
- 1 tube 2"
- 1 " $3\frac{1}{2}$ "
- 2 set screws
- 2 fixing standards
- 2 washers
- 1 driving wheel
- 1 cut key
- 2 polishing wheels
- 2 shaft collars



inside covers. The page numbers and layout are identical to the first 00-1, and from its covers it would have been earlier, but not much because it too has the 2 models with the 22mm Tyres.

A photo of a **No.0 Set** has the same style of packaging as the

No.3 and the only differences in the parts are that the 22mm Pulleys look brass, the 16mm looks grey, and the 65mm Loose Pulleys have 6 face holes on the same pcd as the outer ring of the Fast version.

The 1960s At some point the lid label was changed to the one below, almost as before but the boys are different, both now with dark hair and plain, dark, long-sleeved jumpers, green for the older boy, and red for the one kneeling down.



Just when this change occurred isn't known, but a **1960 No.3 bis** has the new label. A photo of it shows parts not seen in earlier material: red Sprockets, black 65mm Tyres (which still look like rubber rings), and red Cord. Otherwise the parts are 'standard'.

A **No.3** is shown in Plate 74 of *Eisenzeit* with unpainted Sprockets and brass 26mm Pulleys. Some of the Card Parts can also be seen.

An incomplete **No.1** has lighter red parts like 1960s MECCANO, and green parts rather lighter and much brighter looking. Green Cord was found in it.

The **Spanner** (left) is still red but is now 2-ended, 75mm long o/a, cranked at one end & angled at the other; the **Screwdriver** is the wire type, which had replaced the original flat one sometime in the 1950s.

A photo of a **No.00** also shows these Tools, and lighter looking red parts.

The END For whatever reason CONSTRUCTOR ceased being produced on 31 July 1964. That it was an original & interesting system is not in doubt, and the parts from the earlier phases have been, fairly I think, described as 'beautiful'. However it is generally agreed that many of the manual models didn't do justice to the parts. That said, it is perhaps more difficult to use the parts effectively in some types of models - my own efforts, using the later type Lozenge parts, started with the thought of making something mechanical & ended with a model of an Edwardian Summer House. I don't know of any system really comparable to CONSTRUCTOR - triangular elements were used in CHARPENTO (21/617) & STEEL WORKER (16/449) in the 1920s, but they were larger and only suitable for the frameworks of buildings - METALLO TRIGON (5/93) in 1913, was perhaps the nearest but the parts were very angular looking and lacked flexibility in use.

ENDWORD - Commercial History Constructorama & the Meccano-Champagne club held an exhibition of CONSTRUCTOR at Paray-le-Monial in February, and Jeannot Buteux kindly sent a poster about it, which gave the details that follow, discovered as a result of research by

Constructorama. Following the first Paul Goiffon patent (491527 of 15 June 1916) and the additions later in 1916 (20829 of 13 Sept., 20837 of 17 Oct., & 20840 of 18 Nov.) trade marks were registered on 30 Dec. 1916. From some point not known exactly A.Frégonara & F.Mangard started production at 19, quai Arloing, Lyon. (Perhaps A.Frégonard was related to the Charles Fregonard who took out the 1919 patent described earlier.) The firm was acquired by Léonce Bailly-Comte on 6 Dec. 1918, and he joined forces with Adolphe Gayet on 1 Feb. 1920 to found the Société Française du Jouet Métal, of 119 rue de Sèze, Lyon. The company was bought by Antoine Maillet on 1 July 1925, and its address then was 'Lieu de Bellevue', Paray-le-Monial. Production at Paray saw some changes to the dimensions of the parts and improvements in their quality.

THANK YOU to all who have contributed to this account including Frank Beadle, Josep Bernal, Jeannot Buteux/Constructorama, David Hobson, Harry Marien, Jacques Pitrat, & Clive Weston. Also to Constructorama & the Editor of the CAM Magazine for permission to reproduce the Period A illustrations.

Another GILBERT MECCANO Wide Beam Set

Kendrick Bisset has had a lucky find and kindly sent details. It's a Wide Beam Outfit No.1026 and seems to be very similar to the No.1025 mentioned in 12/319. Kendrick wrote, "The 'box' is a 6*9" paper envelope similar to today's large envelopes in color (yellowish brown) and construction. The front (below) is printed in black and doesn't show the Set No.



Pages 3 & 4 (unnumbered) of the 4 page manual (one folded sheet) match those in MCS for the No.1025 (/FB, MECCANO (AMERICA) 'X' SERIES, pp5a & 5b) EXCEPT that the 'made with the No.1025 Meccano Set' on page 4, has been replaced by 'made with the No. 1026 Meccano Set'. The '1026' is not on the same line as the rest of the text, and is a little crooked. The front of the manual has 'MANUAL OF MODELS / Built with the new No. 1026 / MECCANO', copyright 1933, the New York address, & Form M1491.

Quantities: 1 Flanged Plate; 2x 3 3/4" Beams; 4 each of 2 3/4" & 2 1/4" Beams; 2 DAS; 3 Threaded Rods, 2 1/2" long; 2 Angle Brackets; 2 Washers; 21 Nuts (some may be missing); 11 Bolts but I think there are supposed to be 15.

The parts are as described in OSN 12, except that the 2 3/4" Beams have the same middle hole as the DAS. The Wide Beams are green, the Flanged Plate is red, the Angle Brackets & 3/4" Washers are nickel, and the Discs are dark blue. N&B are 8-32 and the Bolts match one style of Erector Bolts, with shiny (nickel or chrome) plating.

The Beams are 0.041" thick over the paint (which is quite thick, and in many cases has drips and runs); The Discs are only 0.022" thick, and so is the Flanged Plate. The latter has again a poor paint job and is so thin that 'axles' will screw themselves across, and bind when rolling along.

Comparing the parts to my LITTLE JIM Wide Beam outfit (similar to the 'Snap Rivet' sets in OSN 12), the 1026 2 1/4" Beams are fully radiused at the ends, while the L-J ones have slight 'corners'. The L-J Beams are 0.036" thick, but that may well be due to a better paint application. The L-J Flanged Plate is also 0.022" thick."

white over a grey centre with red panels top & bottom. The first of its 6 pages gives General, & Particular Advice, and then the Illustrated Parts and the Set Contents occupy a page each. Finally 13 models from 1-3 (Swing) to 13-3, with a good photo of each and a list of parts for all except 3-13.

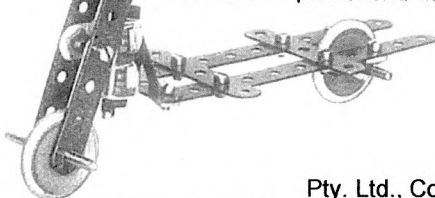
SCOOTER

Model No.
4-3

Parts required for Model No. 4-3

4-11H	4-6A	6-10C
2-5H	2-6DA	15-12B
1-9T	2-2R	13-13U

NOTE: Four parts deleted from list.



Pty. Ltd., Color Printers, Melbourne.

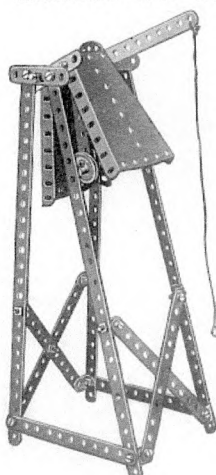
The No. 1 & No.2 manuals are smaller at 6*7" deep, and in each the introduction is followed by a page with the Set Contents under the illustration of the parts in the Set. Photos of 6 models are shown in the No.1 manual, and 12 in the No.2, not numbered but provided with parts lists.

MORE from AUSTRALIA The following notes from Jack Little, and the photocopies he kindly sent, add to those in 19/540 & 22/636. On the general scene: 'As most of the parts from EZY-BILT (1936-41), TOY TOWN, BILD-A-KIT (see below), & CONSTRUCTO are very similar, and as all originated in Melbourne, one or two engineering companies could have made all the parts. Some companies had their own workshops, and those that are known for sure are EZY-BILT in Adelaide (from 1944), BETTAFIT in Melbourne, and BUZ & MODEL-IT in Sydney. All these companies were also making other products at the same time.'

BETTAFIT & YOUNG ENGINEER'S SET The name BETTAFIT is also found spelt BETTA-FIT. No known BET sets had the Flanged Plate with a slot. The 'U' Piece in both BET & YES manuals (shown in 22/639) is only found in YES outfits; in BET it is the normal 5-hole part. YES, 1937-42, was probably not made in-house. By Dec. 1944 Janda Trading had been authorised to start production but had not yet done so. (By that date R.K.Morgan had been granted a permit to make BETTAFIT.) From 1947 to 1950 an engineering & die casting company was involved; in 1950 Robilt Engineers took over the parts, assembled some sets, painted unpainted pieces, and sold them off as job lots. BETTAFIT is thought to have continued into the 1950s.

'New' System: BILD-A-KIT A Model Sheet is known for this system and a tin accessory box. The Sheet is headed

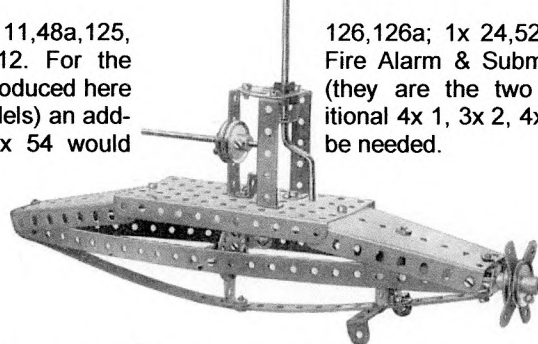
BILD-A-KIT Construction Sets



& the only indication of the maker is Box 2662, G.P.O., Melbourne, at the end. Sets 1, 3, & 5 were advertised in an early post-WW2 wholesaler's catalogue at almost the same price as the equivalent EZY-BILT sets. The Model Sheet, 4 sides 10*13", has 138 models, with no reference to any particular set. The models have no names or numbers and there is a half-tone for each – identical to those in late 1920s MECCANO manuals, with most from the 00 or 0 pages, but with a couple of No.1's, all mixed up together. The main parts that can be seen in the 0/00 ones are 4x 2,5,22,90a;

2x 11,48a,125, 8x 12. For the reproduced here models) an add- & 2x 54 would

126,126a; 1x 24,52, and Fire Alarm & Submarine (they are the two No.1 itional 4x 1, 3x 2, 4x 48a, be needed.



There was a No.4 Australian BUILD-A-KIT mentioned in 7/170 - the same system, I wonder.

CONSTRUCTO Another small MECCANO-like system, known only by its Model Leaflet (as used in MCS). But it was printed by 'Reporter' (a local newspaper) Print of Box Hill, a Melbourne suburb, so no doubt it was a Melbourne system.

HANDY SET Another 'new' system or just a set from one of the Australian manufacturers? The only evidence for this Set is a Model Sheet 9 7/8*12 7/8", printed on one side only. The name (below) is at the top with underneath, 'This set The Better Toy for Boys! has been produced for boys to take with them on holidays

HANDY SET or anywhere desired.' Then a possible clue to the maker: 'This set can be used together with all other 'Bettabilt' sets. So is BETTABILT another Australian system yet to be discovered? Or was Bettabilt a name intended to bring BETTAFIT or EZY-BILT to mind, without actually using either name? Two other possible clues. First, the Set Contents are given on the Sheet and the PNs are the same as BETTAFIT, so did the copywriter get confused and put Bettabilt instead of Bettafit? Secondly, the slogan above the name - 'The Better Toy for Boys!' – but I don't remember it from anywhere else.

The contents of the Set are given on the Model Sheet: using MECCANO PNs, 1x 36,52; 2x 2,12,16,22a,48a,90a, 126; 4x 5; 6x 35,37. The parts in the models look just like MECCANO except that the Trunnions are the 7-hole type and the 1" Loose Pulleys have no face holes. The 5*11h Flanged Plate is flanged all round and has the 1/2" cross slot in some models but not in others. The ends of the Curved Strip are blurry in most of the models but in at least one, the Chair below, they appear to be stepped.



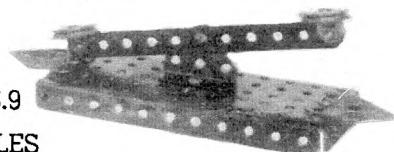
The 15 simple models shown, apparently original, go from H.S.1 GARDEN SEAT to H.S.15 MOTOR LAUNCH, with a half-tone of each. Several need more than the 6 N&B in the Set, and some like the Scales below include Flat Trunnions – two in that case plus an ordinary one.

H.S.2

CHAIR

H.S.9

SCALES



MODEL-IT The range of sets are as given in MCS. Possible dates are 1944 to around 1955.

MYSTERY PART No.45 More from Don about the 1 1/2" Gear with the square centre hole for the boss. The disc is almost identical in diameter, and has the same tooth form, as a MECCANO 56t Gear with a similar, thin disc. Two of the 'square' ones have now been found in an American No.5X MECCANO set from c1920, and so it seems possible that the part was a wartime Meccano expedient, with the square hole for fear that a zinc boss would slip under load. As far as is known no 1 1/2" Gears with any sort of zinc boss have ever been found in the UK, so how such parts got to be in an American set remains to be explained.

MECCANO in the U.S.A. Kendrick Bisset kindly sent a copy of a long, detailed article by him that was published in the S. California N/L for the 3rd Quarter of 1999. It gives for the first time a comprehensive account of the sets and, particularly, the manuals from the years 1928-1930, the period in which control passed from Hornby to Gilbert. Some of this has already been described in OSN but by no means all, and since its a complicated subject I am going try to summarise the whole story here, using his chart (below) that covers the smaller sets, with some additional notes, based on his article, and a few references to earlier OSN material. My thanks also to Anton Calleia, Editor of the S.Cal N/L, for his permission to use material from the original article.

1927 Sets. The standard range was: Nos.00,0,1,1x,2,2x,3,3x,4,5,6. The 'x' outfits (and Sets 4-6) included an Electric Motor but otherwise they had the same parts as the corresponding numbered sets.

1928 Sets. The slightly simplified range for this year is shown in Column A, together with the number of models for each set claimed in a catalogue. The previous Nos.4-6 were renamed 4x,5x,6x. The new **No.2x Special** was a 2x plus Tires for the 3" Pulleys (OSN 12/317). The other sets were unchanged from 1927 except that the 00 was in fact the 1927 No.0.

Manuals (Col. B,C). For the small sets they were a **00-3x** (PR O-0628/50), & a **Supplementary Manual for 00-1**. The first page of the known example of the latter looks like a normal manual model page (starting with 00.311, Arm Chair), without a Title or Intro of any sort, and it seems possible that there was no cover. Notice the huge number of models for Set 00, some 150 more than were ever offered for Sets 00 & 0 together in any UK manual. A **4x-6x** manual is known to exist.

Early 1929 The **set numbering** (Col. F) was completely different but much remained as before. The No.0 was the 1928 No.00, and Nos.10-70 the previous 1-6x, except that all but the No.10 included 3" Tires. The **No.5 Special** was the 1928 No.00 plus a motor, 4 each of 2" Pulleys & Tires for them, 2x M1, 2x M15a, & 1x M48 (12/317).

The **parts** in these sets appear, from the limited samples seen, to have been true MECCANO parts, with .160" Ø Axles and 5/32" BSW thread.

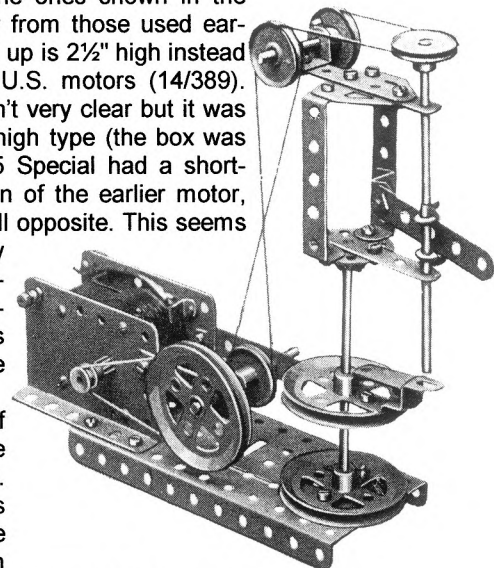
Motors. As would be expected all but the 0 & 10 in-

cluded a motor, but the ones shown in the catalogue mostly differ from those used earlier. The one in Set 30 up is 2½" high instead of the 2" of previous U.S. motors (14/389). The motor in Set 20 isn't very clear but it was most likely the old 2" high type (the box was only 2¼" deep). The 5 Special had a shortened, 3⅝" long, version of the earlier motor, as in the Automatic Drill opposite. This seems to have been the only time it was ever included in a U.S. set - from 1930 on it was sold by Liverpool as the E1.

Manuals. Details of the 4 from this phase are shown in Col. C,D,E,G (and it is called the 'early' phase to distinguish it from 'later' when a new manual was introduced). The main manual will be called the **'1928' 0 - 40** & was basically the 1928 one with '0 to 40' pasted over '00 to 3x' on the cover. The PR was the same but pp1-8, & 105-112 (the 4 outer leaves inside the covers) were replaced. These new pages contained references to the 1929 Outfits, and since the numbering of the models hadn't been changed, a list of the models that could be made with each new outfit. This List included the models in the **1928 00/1 Supplement**, so it can be assumed that it continued to be used. The List also included the models in the 2 **new Supplements**. The **No.10** contained 51 more models for the No.10 Set, and the **No.5 Special** (a sheet 6¾"×27¾" folded into three) showed 23 more models for that Set. There were a few minor anomalies, but these 4 manuals account for virtually all of the models 'claimed' for the different sets. (14/388)

The 1928 4x-6x manual had a **'50 to 70'** sticker on the cover in this period and the number of models claimed for these larger sets remained unchanged.

Late 1929 The **sets** remained unchanged but a new **1929 0-40 manual**, PR O-112925, replaced the '1928' 0-40, and the 00/1 & No.10 Supplements (14/388). Details are in Col. F,G,H. The models on each page were arranged as in the 'source' manuals, and the model numbers were generally



1928			Early 1929						Late 1929		1930		Later (from 1932?)	
Col. A	B	C	D	E	F	G	H	I	J					
Outfits (no. of models claimed)	1928 00 - 3x Manual	1928 00 / 1 Supplement	"1928" 0 - 40 Manual	No.10 Supple- ment	Outfits (no. of models claimed)	No.5 Special Supplement	1929 0 - 40 Manual	Outfits (no. of models)	Gilbert Meccano Manual, no. of models (no Model Nos.)					
00 (472)	00.1 - 00.310	00.311 - 00.472	00.1 - 00.310		0 (472)		00.1 - 00.472	1	128: 00.175 - 00.302 from 1929 0 - 40					
					5 Spec. (496)	00.474 - 00.496								
1 (676)	1.1 - 1.184	1.195 - 1.214	1.1 - 1.184	1.214 - 1.264	10 (727)		0.1 - 0.255	3	122: most are No.0 from 1929 0 - 40 , see text					
1x (686)	1.185x - 1.194x		1.185x - 1.194x		20 (737)		1.1 1.10	5	16, + 7 with BRIK: many are adapted 1929 0 - 40 No.1 models. see text					
2x (734)	2.1 - 2.48		2.1 - 2.48		30 (785)		2.1 - 2.48							
2x Spec.														
3x (785)	3.1 - 3.51		3.1 - 3.51		40 (836)		3.1 - 3.51							

the same. However the old '1.xyz' models were now called '0.xyz', and the only '1.xyz' models were the 10 with a motor that had been included for the 1928 1x Set (1.185x-1.194x). The 0.xyz model numbers were changed to eliminate the gap in the numbering this caused. Each model page has 'See last page of this manual for list of models built with your outfit' at the top, and said List was on (unnumbered) p136. It included the models in the **No.5 Special Supplement**, which continued alongside the new 0-40 Manual.

1930 The outfits were changed again to Nos.1,3,5,110, 115,125,150. Sets 110-150 seem to have borne no resemblance to earlier outfits but Nos.1,3,5 were essentially the 1929 0,10,20. Compared with the No.20 the **new No.5** had some Gears (a 12t Pinion, 2x 36t Wheels, & a Worm) but no Tires. Also the 8 spring Clips were replaced by ERECTOR pattern Formed Collars (#59a), and the Axles by Gilbert parts. Most of the **parts** still looked like MECCANO, but the Gears, threads, bosses, & Axle diameter were now to ERECTOR standards, and the parts were probably being made at New Haven. (12/317)

Manuals. The 1929 0-112925 continued to be used but the List of models that could be made with the 1929 sets was no longer relevant and to overcome this little difficulty a rubber stamp was applied to the cover. Two versions are known. The first from a 1930 No.5 reads 'THIS OUTFIT BUILDS ALL THE MODELS UP TO PAGE 94', and that included, as might be expected, all models through 1.10; that is all that could be made with the previous No.20 outfit.

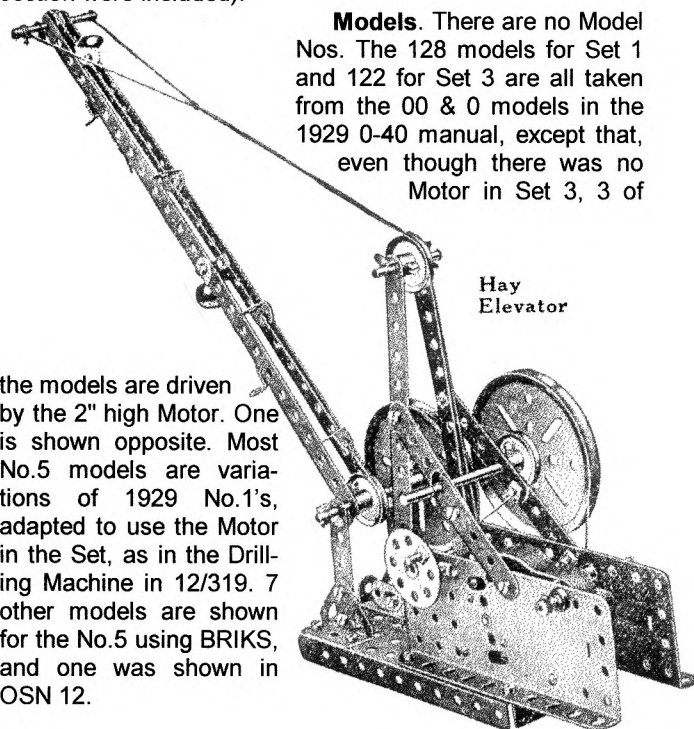
Another manual has the same overprint except that the page number is 110 (though the last digit is unclear) - 110 is the last page of the 2.xyz models (for the No.30 Set), and which 1930 outfit this would have accompanied isn't known.

A 'supplement' manual was also issued entitled '**Standard Gearing**', © 1930 from New Haven, and it may have included an illustrated Separate Parts section with prices.

LATER At some point, perhaps in 1932, a **new manual**

was issued, and it was printed in sections so a manual for any of the three sets could be assembled. One from a No.5 is made up as follows: a cover with code M 1363; 2 sections of No.1 models with M 1351 on the front of the first; 2 sections of No.3 models; the 'Standard Gearing' section; a No.5 model section; M 1417 on Sec.3A with No.5 models using MECCANO BRIK (by then included in the No.5); and M1274 on the Separate Parts section. In all there are 48 unnumbered pages (though the example known has 52 because, no doubt by error, 2 copies of the Separate Parts section were included).

Models. There are no Model Nos. The 128 models for Set 1 and 122 for Set 3 are all taken from the 00 & 0 models in the 1929 0-40 manual, except that, even though there was no Motor in Set 3, 3 of



the models are driven by the 2" high Motor. One is shown opposite. Most No.5 models are variations of 1929 No.1's, adapted to use the Motor in the Set, as in the Drilling Machine in 12/319. 7 other models are shown for the No.5 using BRIKS, and one was shown in OSN 12.

Some C.I.G.E.A. Parts Orion DreamDancer kindly sent photos & notes on some of the parts in 3 trays he has acquired. The C.I.G.E.A. parts don't fit in one but the other 2 are likely to be C.I.G.E.A. though they don't exactly match any of those shown in MCS. They are yellow cardboard, 10*14 3/4*1", with the partition tops edged in red. The parts include some BRAL & AMI-LAC but the C.I.G.E.A. ones were easy to spot since all likely ones, except the N&B, Axles, the Table Clamp, & the Propeller Blade, are stamped C.I.G.E.A. Some notes on C.I.G.E.A., mainly the range of sets, were given in 23/656.

The steel parts, including most structural parts, are probably nickel plated though many are now very dull looking. A few pieces are dark red or dark green, and in some cases the same part is in green & plated, so probably two periods are present. The bossed parts are brass, except that the Sprockets are dull nickel with brass bosses. All bosses are double-tapped, and have recessed peening rather like MÄRKLIN. The parts in the photos are listed below, with the colour if not plated. They look like MECCANO, unless otherwise noted, though the hole pitch is 13.0mm of course. Holes are about 4.4mm Ø. The thread is 'an iffy M4'. All corners are well rounded, with some near fully radiused. Scaled dimensions are prefaced by an 's'.

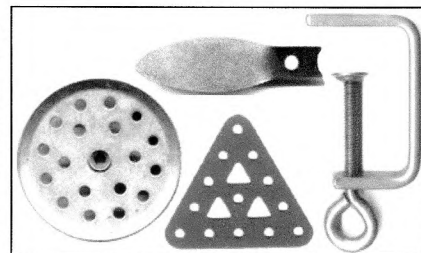
- **Strips.** 3,5,18,25h, #15,16,20,21. The 18h, & some of the 25h are green.
- **DAS.** 1h deep by 3,5,7h long, #23,24,25. 2h deep by 3,7h long, #98,100. 3*5*3h, #99.
- **Reversed A/B.** 1*1*1*2, #103. 1*3*1h, #?, perhaps 96.
- **A/Gs.** 11,18,25h, #79,80,81. Some of the 18h & 25h are green.
- **Flat Girders.** 3,5h, #121,122.
- **Flanged Plates.** 5*11h, #1, flanged on the 11h sides. 8h long Sector Plate, #6, with only end & centre line holes, and

6mm slots in flanges. The ends of the flanges at the 5h end have very pronounced rounding.

- **Flat Plates.** 4*11 & 4*25h, #9,10, with only edge holes. 5*7h, #8, with edge & lengthways centre line holes (see OSN 23). 5*5h, #137, fully perforated, red. 5h side Triangular Plate (below), #131, red.

- **Pulleys.** Loose, #55, one is 15.5mm o.d. & one 15.9mm. 26mm Loose, #58, with 3 face holes. 26mm Fast, #61. 60mm, #64, below, with rings of 6 & 12 holes, staggered symmetrically.

- Of 4 black **Rubber Rings**, 3 were on the 26mm Pulleys. All have 'G' moulded into them with a 4 or 5 digit number on the opposite side, possibly '23420'. They may be #228.



- **Other Bossed Parts.** 8h Bush Wheel, #51. Flanged Wheel, #53.

- **Gear,** #178, 60 teeth, s40mm o.d., no face holes.
- **Sprockets.** 14t, #164, s24mm o.d. 30t, #166, s48mm o.d, no face holes.
- **Cylinders.** s20mm Ø, s20 & s56mm long, #214, 216, steel, no holes in walls. The Cylinder End, #219, is brass, like M164 but no side holes and quite shallow.
- The steel **Table Clamp** is shown above – the body is about s79mm long.

- A steel **Propeller Blade**, above, which may be #117, is s53mm long o/a.
- **N&B.** All brass, with square Nuts, #235, 6mm A/F, and s6mm Ø fillister headed Bolts, 6 & 8mm u/h, #237,237a. Grub Screws, #237, are steel, 5.5mm long.

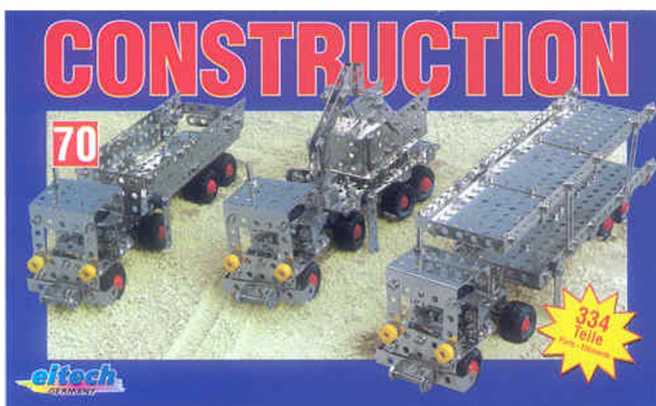
CONSTRUCTION in 2002 David Hobson kindly sent an Eitech 2002 catalogue. It's in English and apart from the language is the same as the German version on the Eitech web site (the very slow www.eitech.de). 7 of the 2001 sets (see 25/726) have disappeared, and 5 new ones have been added.

Those no longer listed are the Solar No.71, the 67 (small Space Craft), No.68 (Sportsmen), the Elektro-Box 161, No.20 (more Space Craft), and the 156 & 157 Mini (Aero) Sets.

There are two **changes** to the remaining outfits. The **No.30** Fuel Cell set has a different Cell, and a white plastic 12*16h Flanged Plate on which the Cell, the Hydrogen Cylinder, & the Motor are mounted. They are shown on the label below, on the blue plastic case, 45*34*10.5cm, that the set is now packed in. The other change is noted at the bottom of each page: 'New: includes **Philips screws** – DIN 7985'.

The **Elektro-Box 162** set is shown for the first time – it is in the same red case as No.161, and the label is similar but without the model with the swirly disc (see 25/726). The labelling of the other existing sets is as before, except that **No.155** (Eiffel Tower) has an oblong label with the same boy & model as on the previous round one.

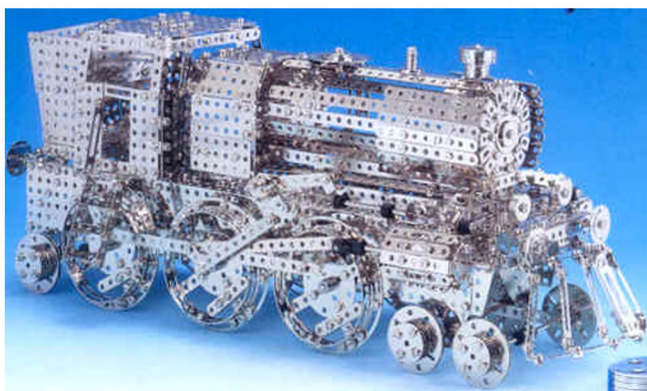
New Sets These are: • **No.69**, with one featured model a small Lorry-Mounted Crane, and the other a Snow Plough (possibly) with a 5*11h Flanged Plate as the load platform. • **No.70** (below) in similar vein but larger with 334



parts, and the 3 articulated Lorries shown are, though small, more attractive. One is an ordinary Truck, one carries a skip, with a crane behind the cab to move it, and the third is a 2-deck Car Transporter. • **No.08** is larger with 722 pieces and 'constructs a multitude of models'. Those shown are 2 types of Tractor, one with a Trailer, and a Grader. Again fair looking models, and larger, with the blade on the Grader about 15h wide. Like those in Sets 69 & 70 all the parts in the models are metal, apart from the Seat & the Wheels. • **No.32**. More Lorries, and considerably larger, some 50cm long. The set has 1482 parts and is packed in a blue plastic case, 32.5*29*7cm. 3 Trucks are shown: the basic one below, the second with a small crane behind the cab, and



the third with a blue box-shape canopy on the back, with 'eitech' in white on its sides. The Wheels of perhaps 7 or 8cm Ø look new. Leaf springs can be seen at the front, and a steering wheel in the cab, but no steering mechanism is visible. Again only one or two small parts are plastic, plus the canopy no doubt, but a less attractive feature of this approach is that the load platform of the models is only indicated by a few cross Strips, to keep cost down presumably. It might have been better to fill these in with Plastic Plates, provided they were a suitable (black or grey) colour. • **No. 31**, a set with 2566 parts in a blue plastic case, 45*34*10.5cm, to build the 60cm long Loco below. The small



wheels are made from a stack of 30mm Discs bolted to a 50mm one. The tread of the large wheels are 11h Slotted Strips suitably curved, with Curved Strips forming the flange. Both are joined to the central Face Plate by 4 Strips. The boiler is made from Strips, with appreciable gaps between them, bolted to more curved 11h Slotted Strips (it may appear from the illustration that the Strips are close together at the smoke box end but what can be seen is actually a smoke deflector, with the 'gappy' boiler behind it). There seems no reason why the boiler Strips should not be close to one another at 1cm spacing. There is no indication that the model is powered.

The **labels** on the outfits not illustrated here are in the same style as those shown.

Parts Packs. Nos.101-113 are as before. **No.114** is the Motor with Gearbox that was in the C40 set, see 6/133. I'm not sure if it has been in other sets since but its case is now blue instead of yellow. No.115 isn't mentioned. **No.116 & 117** are respectively, the 3-4.5v Motor, & the Battery Box, from Pack 109.

The Catalogue came from Snooks in Bath who last April had some of the sets in stock. They included Nos.63 & 69 at £6 each, No.03 at £30, No.13 at £24, Nos.15 & 32 at £48 each, No.75 at £35, and Nos.76 & 78 at £40 each. Also Tim Edwards wrote that in July The Secret Toy Shop, The Pantiles, Tunbridge Wells, had a good stock of a number of sets, and could obtain any of the other sets.

MYSTERY PART No.12 That's the squiggly wire Screwdriver in 5/95. Orion DreamDancer has come across one in an AMERICAN MODEL BUILDER set, though there were other 'foreign' parts in it. Any other sightings?

MYSTERY PART No.45 More from Don about the 1½" Gear with the square centre hole for the boss (see 26/753). The disc is almost identical in diameter and has the same tooth form as a MECCANO 56t Gear with a similar, thin disc. Two of the 'square' ones have now been found in an American No.5X MECCANO set from c1920, and so it seems possible that the part was a wartime Meccano expedient, with the square hole for fear that a zinc boss would slip under load. As far as is known no 1½" Gears with any sort of zinc boss have ever been found in the UK, so how such parts got to be in an American set remains to be explained.

(see 17/464). The photos of sets 1-3 are essentially the same as those in MCS; the No.5 has 3 layers of parts, two of which look as if they may be like those in the No.3. Also listed are the previously unrecorded linking sets 1A & 2A, and the Catalogue Nos. for all these sets are 1, 1A, 2, 2A, 3, & 5.

The Catalogue No.4 is the **METALCRAFT** set (see 14/393), and No.6 is the **PIONEER** set (17/466). So these two sets were definitely from the VOGUE stable, and they were on general sale, and not, at least at that point, special sets created for a particular customer. Also though very similar to one another, they existed at the same time. From the Cat. Nos., METALCRAFT may have come first. As might be expected the wholesale prices of the two sets were very similar, 96/- per dozen for METALCRAFT, & 100/- for PIONEER. Thus they fell between the No.1 set at 64/6 & the No.2 at 136/-. Nos. 3 & 5 were 185/- & 257/-.

The Supplementary Spare Parts Sets 1-5 mentioned in OSN 17 are listed; their contents are given and are as in MCS.

The maker is given on the Catalogue as Cascelloid, Abbey Lane, Leicester, Division of The British Xylonite Company Limited. Their offices & showrooms were at 9 Conduit Street, Mayfair, London, W1, and 7 Pall Mall, Manchester 2.

METALCRAFT [2]: S1; PIONEER: S1; VOGUE: S1 [28/814]

9. From Clive Weston, details of a **PRIMUS Set B**, apparently unused, the first ever reported sighting (see 24/712). It is in a blue box, 9 $\frac{3}{4}$ "x7 $\frac{1}{4}$ "x $\frac{3}{4}$ ", with the label below. The contents are: 6,4,2 of 5,6,11h Strips; 2 each of 6*6h Plates, Architraves, 1 $\frac{5}{8}$ " Wire Stays, & Wood Slips; 5x 1" Loose Pulleys; a 3 $\frac{1}{2}$ " Axle with Tapped Ends (#167); 12 A/Bs; 17 N&B. No sign of a Tool of any sort.



Most of the parts are held in slits in a red backing card, but the A/Bs & N&B are within triangular partitions in two of the box's corners.

The model leaflet is the one described in OSN 24. Some of the 'B' models in it would need parts not in the Set: a Fast Pulley or Axle Stops to locate a Loose one; a Crank Handle; and longer Bolts for the Loose Pulleys, if they were to run freely.

With the Set was a leaflet listing the full range of PRIMUS sets. The 'C' outfit is illustrated and its packaging is in the same style as that of the 'B'. The extra 'C' parts appear to be in line with the details given in OSN 24 except that the Set has 4 Fast 1" Pulleys & one Loose one. A Screwdriver, a Crank Handle, & 2 Axles can also be seen.

The Leaflet is undated but from David Hobson's *PRIMUS* book (see 20/583) it seems likely to be from 1923 or 1924, and the 'A' set, price 1/6, may have been the unidentified outfit from 1923 mentioned on p25.

PRIMUS ENGINEERING: S1 [28/814]

10. From Don Redmond. **STABIL** Flanged Pulleys have two different styles of boss (both on the inside of course). One is the usual stubby cylindrical type with very small peening; the other is thin, with a rounded edge to the free end, and held in position in the disc by a crimped-on wire ring.

STABIL: S1 [28/814]

11. On **ERECTOR** Bolts, Don Redmond mentioned 3 types: 1) Gilbert MECCANO, with what he calls a 'button' head, 5.8 to 6.1mm Ø, the edge almost rounded in at the margin (like antique shoe buttons). 2) Duplex standard or large headed, 7.5 to 7.8mm Ø, 3mm deep. The large head, needed because of the 1/4" holes in the Duplex parts, is prominently round. 3) Medium headed, 6 to 6.9mm Ø, under 3mm deep, with a rather wide slot, apparently forged rather than sawcut as the sides of the slot may slope.

ERECTOR: S1 [28/814]

QUERIES [28/814]

Query 28 from 27/803. Some **STRUCTO** parts are now to hand and the groove in the Axles is vee shaped, with the apex angle rather greater than 90°. The depth is hard to measure accurately and varies a little from part to part but is probably between .5 & .7mm. The Crank Handle & Crankshaft are also grooved.

Query 29 What colour (or colours) is **STABIL** Cord?

MYSTERY PARTS [28/814]

No.51 from Don Redmond. A 19h A/G, with a 15mm slotted arm, the other 12 $\frac{1}{2}$ mm, & the hole pitch is 12.7mm. The metal is only .55mm thick and it has a very marked curve, perhaps 2mm radius, at the bend., It is painted, rather badly, bright green.

No.52 More from Don. Parts similar to **JUNIOR MECHANIC** (see 12/327) but both sides of the Wheels are nicely enamelled red, and both sides of the Flanged Plates are also painted. The ends of the Strips & A/Bs are rounded.

SMALL ADS [28/814]

For Sale. Large collections of **TRIX & FISCHER TECHNIC**. Details from Ivor Ellard, 44 Well Lane, Galleywood, Chelmsford, Essex, CM2 8QZ; phone 01245 269830; email ellard@nildram.co.uk.

Wanted. Any metal nut & bolted together **constructional car or other vehicle kits**, or any parts identified or not, ie wheels, axles, chassis, steering gear, mudguards, wings, clockwork motors, etc. Anything & everything in any condition considered. Also boxes, instruction manuals (copies if you don't want to part with originals), or any information at all.

Please call Gary on 01635 200460 before 8pm or email me at gary2car@aol.com.

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Payments Please make cheques payable to P.A.Knowles. Remittances must be in Pounds Sterling (GBP) or, as cash, in Euros or US Dollars (at £1=€1.50=\$1.50). Payments from overseas may also be made (in US Dollars) using PayPal.

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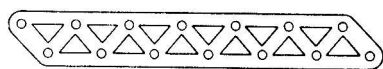
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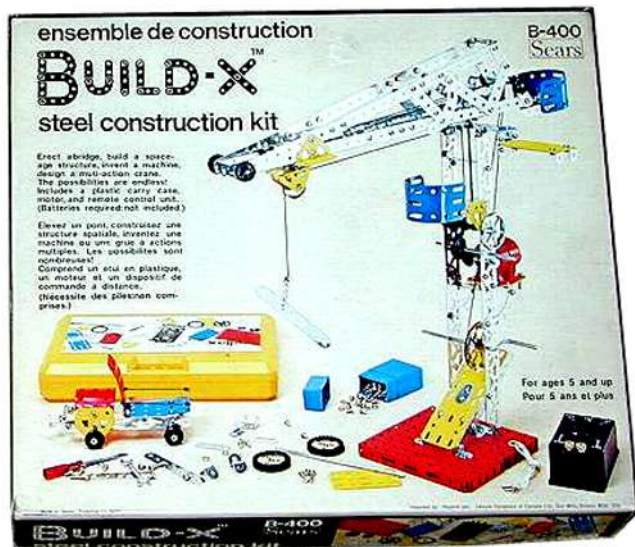
not original as Don's & David's are larger in diameter (to fit the metal bosses) and with a flat for the D bores. The diameters found vary from 4.20 to 4.23mm, and the depth to the flat from 3.69 to 3.74mm. In passing, the corresponding figures from a handful of Gabriel ERECTOR Flatted Axles are 4.03-4.06 & 3.38-3.63.

Other points on the parts. The **Gear P-005** has an o.d. of 20mm, and combines an 18t contrate with a 13t pinion (15.0mm o.d.). At Mod.1, the teeth are fairly coarse. The unusual **Braced Girder S-012**, (below) has, as might be



expected, its lengthways holes at 28.0mm pitch, and the 2 lines of

holes at 14mm centres. The plastic **Flexible Plates** have 'MADE IN JAPAN', moulded into them. The drum-shaped **Motor, E-002**, has a red plastic case with the 2 parts of the housing joined by the band in the middle; there are 2 screw terminals on the back, and a black pinion pressed onto the shaft.



Don also mentioned a **yellow plastic case**, above, about 28*18*5½cm, with a snap catch lid, and a BUILD-X

label on it. These boxes were used to house the parts in both BUILD-X & DELTA-X sets, from at least #200 upwards. Various labels have been seen, all in colour, some featuring a model from the set in question, and others a selection parts from the Set. Some labels have no Set No. on them and these at least would have been packed inside a cardboard box. One such box for the B-400 set is shown in the last column with its contents below it: a yellow case and a plastic block containing the E-002 Motor & E-001 Controller/Battery Box. The Motor appears to have a pulley on its shaft, though a pinion is shown in the instructions for the Crane. The blue plastic box on the left is M-002 for the N&B, etc. The B-500 set contains 2 of the yellow boxes. All the BUILD-X labels seen carry the Sears name.

BUILD-X: S1 & DELTA-X: S1

[29/845-6]

6. **MERKUR** sets were offered in an ad last Spring from Merkur, P.O.Box 25, Melton Mowbray, Leicestershire, LE13 1ZG, tel. 01664 485029.

MERKUR: S1

[29/846]

7. One of the 'goodies' on Werner's web site (see Web Sites below) is a full account of the **KNIRPS** sets, adding to the notes in 11/272, 24/714, & 25/743. Some of the details follow. The No.1 was launched in 1932 to compete with TRIX, and at the same price, .50 Mark. The contents were quite similar too and, updating the estimates in OSN 11 & 25, comprised: 2,4,2,2 of 3,5,7,9h Strips; 2x 1*3*1 DAS; 4 Wheel Discs; 3 Screwed Rods; 8 Bolts & 16 Nuts; a Span'driver, and a Crank Pin.

The parts were packed in an envelope and every part in the Set was shown on the front of it. The envelope was in a large box (like TRIX), 18*12*1.5cm, with a label similar to the No.48 manual cover in OSN 25, but without the words along the top, and with KNIRPS Nr.1 in the diamond bottom right.

The **Crank Pin** (Kurbelbolzen), right, is 17mm long, and about 2mm diameter, to pass through the small holes in the Wheel Disc. The shoulder near the end is like the ULOX part and would allow the Pin to be held between 2 Wheel Discs, though its use isn't made clear in the KNIRPS model leaflet.

Some details of the latter were given in OSN 25 but all of it is shown on the web site.

Another point of interest is the No.1a linking set. It was also priced at .50 Mark to compete with TRIX and the No.2 cost 1 Mark. But the No.2 didn't include all the parts in the No.1, the Wheel Discs for example, and so buying a No.1 & a No.1a, at .50 Mark each, gave appreciably more parts than buying a No.2 at 1 Mark.

KNIRPS: S1

[29/846]

8. Good news from Werner Sticht. Urs Flammer has told him that **Stokys** has new owners, Mr Herbert Schulthess & Mr Mauro Matesco, and they will continue to produce STOKYS parts & sets. The address of Stokys AG is now Wihelstrasse 9, Walchwil, Switzerland, CH 6318.

STOKYS: S1

[29/846]

9. Kendrick Bisset has discovered that the **thread used in U.S. produced MECCANO** is the American 7-32 instead of

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the Liverpool $\frac{5}{32}$ " BSW. In round terms 7-32 is 4 thou smaller in diameter and despite the difference in thread angle between the two (see 7/160), 7-32 Bolts & Screws can be used in BSW tapped parts, bosses for instance. They are a little loose but tighten satisfactorily. This means that 7-32 Bolts/Screws would fit bossed parts imported from England.

It is believed that 7-32 was the thread in all the U.S. produced parts, that is from 1922 onwards, but it also seems likely that 7-32 Bolts & Screws were used from as early as 1916. This could possibly have been to circumvent wartime shortages. It is also possible that certain parts were made in America before 1922 and used 7-32. An example is the 56t Gear with the square centre hole & zinc boss (see Mystery Part No.45, in 27/795).

7-32 was used in the 1929 Gilbert 'double-digit' MECCANO sets (see 27/788) but from 1930 onwards ERECTOR threads were used, 8-32 N&B, and 6-32 tapped bosses.

U.S. MECCANO: S1

[29/846-7]

10. On the **No.0 KWIK BUILDER** set in the 1st column of 28/827, Harry Marien has succumbed to temptation and opened the envelope with the parts in it. The contents are 2,6,2,2,2,2 of 7,6,5,4,3,2h Strips; 4 each of 1*3 & 1*4h 'Plates'; 6 A/Bs; 10 N&B; and a Spanner (as in the No.1). The 3-7h Strips are green, the Plates red, and the other parts are bright looking. The contents are as in the photo in the Set's manual (described in 10/262) except that the 1*4h Plates replace the 1*5h, and the 4 Washers, & 5 of the 15 N&B, shown in the Manual are lacking. (The set contents of No.0 given in OSN 10 was incorrect, it is now apparent that the DAS and the 'small Plates' are actually 4 each of 1*3 & 1*5h 'Plates'.)

KWIK BUILDER: S2

[29/847]

11. Some more information on an **MKA No.II set**, from Jacques Pitrat, see 28/830. The colour of the manual (with a '2') is cream rather than light yellow and it has 8 pages, plus the covers. There are 8 models, one on each page, from a 'Schiebekarre' (Luggage Barrow) to a 'Dekopiersäge' (Sawing Machine). There is only one Flanged Sector Plate in the set, and only one is used in the manual models. There are two 27mm Pulleys, without Tyres, and Tyres appear in the manual, as in the Set, only on the 36mm Pulleys. There are no backing cards in the set, and it is not sure that there were ever such cards. The aluminium clips are used to hold the Strips of the same size together.

M K A: S4

[29/847]

WEB SITES

[29/847]

- <http://home.t-online.de/home/HGFinke/metall/engl.html> (from Thomas Morzinck). A German **MÄRKLIN** enthusiast shows pictures and gives some details of his models and mechanisms. In English.

- Werner Sticht has revised his **STABIL web site**, www.stabilbaukasten.de.vu. Many new items have been added, others have been expanded, and there are additional interesting photos. The new material includes more on the history & parts; on the motors; the Inventors Sets; the Kanonen Sets; the Railway Wagon Sets; the small Sets 46, 48, 48M; the Knirps Sets; and the years up to 1920.

- www.Merkurtoys.cz (from Orion DreamDancer). There is an English version of this **MERKUR** site, and now included are new or revised manuals for sets 012, 014, 019, M4, & M6. All manual pages can be viewed/printed.

- www.bral.biz The new **BRAL** site. It is in Italian but is easy to navigate. More details elsewhere in this Issue.

QUERIES

[29/847]

Query 29 On the colour of STABIL Cord, Werner Sticht wrote 'that blue/white Cord (two coloured strands twisted

together) was used in the 1950s & 60s – I remember it very well from my first STABIL set that I got in 1957. Plain white Cord was used in sets from the 20s and 30s.'

SMALL ADS

[29/847]

Wanted. Any metal nut & bolted together **constructional car or vehicle kits**, or any parts, boxes, manuals, information (see 28/814). Also PRESTACON Tool/Kits.

Please call Gary on 01635 200460 before 8pm or email me at gary2car@aol.com.

MÄRKLIN 1089 Eiffel Tower set, illustrated instructions needed, or colour copy, or mono. Happy to pay for copying or full value if original. Graham Colover, L'Escafe, Barnet Lane, Elstree, Herts, WD6 3QZ; tel: day 0207 6258899, home 0208 9538143; fax: +44 (0)207 6258866.

For Sale CD VERSION of MCS - MECCANO VOLUME

A completely new edition of the Meccano Volume of the MCS has been produced on CD in .PDF format (Adobe/Acrobat Reader is needed). It has been thoroughly revised and updated to the present, with many colour images and consists of over 1100 pages. The format is the same as the normal MCS. The Adobe/Acrobat Reader will be included on the CD (for Microsoft PCs), although it is also available as a free download from the Adobe website for virtually all operating systems. Price including postage for the CD will be as follows:-UK - £5.50; Europe - £6.00 (10 Euros); Rest of World - £6.50 (US\$11). Send cash in UK£, US\$ or Euros, or UK£ cheques drawn on a UK bank to Mr. T Edwards, 5 Burnside Road, Largs, Ayrshire, KA30 9BX, Scotland, Great Britain. Email - timothy.edwards1@btinternet.com. Website - <http://edwards.web.users.btopenworld.com/meccano.htm>.

REVIEW: CD of MCS MECCANO Volume [29/847]

Some details of this new version of Frank Beadle's original are given in the ad above. For those unfamiliar with Frank's tome it covered MECCANO in Argentina, the U.S.A, Brazil, the UK, France, Germany, Mexico, & Spain, with one or more sections for each, some 400 pages in all.

What Tim has done is to scan Frank's original pages, updating them where possible, and then add all the fresh material he has been able to obtain, in colour where appropriate. There is quite a lot of it actually, with over 1100 pages now, a labour of love indeed. The format is unchanged and also the countries covered, but apart from Brazil & Germany, there are significant additions to all the countries, and huge ones for the U.S.A., the UK, France, & Spain. In each of these the standard & special/theme sets are all included with separate sections for each identifiable period.

This is an invaluable work of reference for all enthusiasts, and would be a 'good read' for anyone even remotely interested in the MECCANO story. Quite apart from the new material it is very convenient to have so much detail of MECCANO in one place. I'm not going to attempt to summarise the additions but I would like to mention that in the French section Tim has included all the sets produced since Liverpool closed. It's the first time this has been done as far as I know, and it was well worth doing now, before the details get muddled with time.

To allow quick access to any section a series of 'bookmarks' can sit permanently on the left of the screen, one for each country. Clicking on one of them gives a dropdown menu with a list of all the sections for that country, and then clicking a section takes one to the first page of it. It's very convenient to use but once in a section the only way to get to a particular page is by clicking through the preceding pages. This doesn't take long, even on my ageing machine, but can be a bit tiresome if one wants to cross-refer between 2 or more pages several times.

Of course if much use is to be made of a particular section it doesn't take long to print off the pages. Provision is made for double-side printing if required with a binding margin on the inner edge of the pages.

Tim has included a slip with the CD asking to be told of errors, & information to fill remaining gaps. More on MECCANO in Germany & Argentina would be particularly welcome.

EDITORIAL First, please note my new email address above. The OSN web site has changed too – it is now www.osnl.co.uk & includes all the colour illustrations from the B&W issues. (If you find that sometimes a picture does not load, 'refreshing' the page always seems to do the trick.) The old site will continue for a week or two but it will not be possible to update it.

The **STRUCTO** article in this issue turned out to be longer than I'd anticipated, and as a result several pieces have had to be held over until OSN 31. Apologies to contributors thus affected, but it's encouraging to me that after over 900 pages of Other Systems material there is still plenty in the pipeline. This happy state is of course mainly due to all who have sent items, large & small, so let me take this opportunity to say thank you to everyone, and to hope that you will be able to keep up the good work.

On the newsletter format, a few of the readers who responded favoured the same margins on all pages, but many more wanted to keep the present arrangement. So be it, and in fact the question may not be an issue in future because I've found, in printing this issue, that the paper I use has been improved, and will now print satisfactorily on both sides. I've tried doing some sample double-sided pages and all seems well, so the next issue may be double-sided – 'may' because unforeseen problems are always possible. In any case the pages will still be loose sheets I'm afraid. I shall also print single-sided pages for my own use (to file with my MCS sheets) and I can easily print more that way if anyone prefers them like that – but if so please let me know by mid-August for the next issue.

Shorter NOTES, with thanks to all contributors.

1. Don Redmond wrote of some of his 13mm pitch **MERCATOR** parts, see 29/848. • The boss of the **18mm Pulley** is d/t M3.5 or similar (but the pitch is not .6mm). • **Peening** is smooth & round with no indents. • The **Gears** have 13 & 39 teeth as listed; the Gear Wheel is 1½" Ø & the face width of the Pinion is 10mm. • The **6*6h 4-flanged Plate #95** is red. • The **Boiler #142** is green and is rolled from a heavy 8*8h plate; the **Boiler End** has a 7mm wide flange and an internal boss ie when the part is fitted on the Boiler body it is on the inside. • Other parts include 5, 6, & 7h **A/Gs**, and 1*4*1h **DAS**.

MERCATOR: S6

[30/876A]

2. News of two hitherto unknown Canadian **CONSTRUCTO** sets (basically **MERKUR** parts repackaged by Paramount Industries, see 20/565) from Don Redmond. The first is **Starter Set No.0**, a single card with a photo of a boy pointing to 2 small models in the top block, and the parts underneath it held by an adhered plastic sheet. 9 models are shown in B&W on the reverse together with the Paramount address and 'To create more advanced projects...Ask for Constructo Sets Nos.1,2,3,4,5,6,V-8,V-12'. The main parts are Strips up to 10h, a 5*5h Flanged Plate, 2 Flat Trunnions, & 2x 2h Ø Pulleys.

The second item is a **Motor Kit** with similar packaging but the boy is looking at a Lorry & Gantry Crane (see MCS **MERKUR** (D) 5). The centre piece is a 'jet motor', the small **MERKUR** motor/gearbox/driving axle unit. Its base is sheet metal 50*26mm with bent-up sides, and the motor, 25mm

long, flattened top & bottom, drives 3 stages of reduction starting with the 10t motor pinion. The final shaft is a standard 85mm Axle which carries the Road Wheels in some models. Some of the parts are missing but 2x 3cm Gears, a Pinion, and a large & a small green Pulley remain. There is also a space that may have housed a Worm. On the reverse are 2 bilingual paragraphs about 'The Constructo JET electric motor', and a list of the sets 1-V.12 again.

CONSTRUCTO [1]: S1

[30/876A]

3. The use of 7-32 N&B by Meccano in America in the 1920s was noted in 29/846 and now Kendrick Bisset has identified the **new MECCANO thread** (in a new Erector Ferris Wheel set packed in a tin box) as the very same 7-32.

MECCANO: S1

[30/876A]

4 From Kendrick Bisset. 'In Toronto Jim Bobyn showed me a **US MECCANO #6** outfit circa 1920, and examination of the A/Bs indicated **STRUCTO** parts. It later occurred to me that Structo sold their construction outfit line to Meccano in, it is believed, December 1919. On checking my collection I found an incomplete 1920 #5x outfit with all the 5 & 11h Strips, and all the A/B, of **STRUCTO** pattern. The other Strips are normal **MECCANO**. So it would appear that US Meccano used certain **STRUCTO** parts in at least some of their sets circa 1920. All those seen are tin plated.' [When new would they would have been shiny and a reasonable match for the nickel used by Meccano at the time.]

U.S. MECCANO: S2

[30/876A]

5. From Kendrick Bisset. 'A **MASTER BUILDER No.4** set recently obtained, with not too many parts missing, has little new to add to the information in OSN 16/450, except for the Pinion & Sprocket Wheel. The Pinion is listed as 1/2", but it is 1/2" diameter at the root with a pitch diameter closer to 9/16". It has 18 teeth and a 3/16" face. The Sprocket Wheel is listed as 1", but is actually 3/4", with 12 teeth. All of the strips have large radius ends.' [Using the above the DP of the Pinion would be 32.]

MASTER BUILDER: S2

[30/876A]

6. On the numbering of the **Gilbert MECCANO** sets, see p890, it was noted by Richard Symonds in 19/546 that the 110 & 115 sets became Nos.10 & 15 in 1932, and now Jacques Pitrat has come across evidence that Gilbert certainly considered selling the larger sets under new numbers. Jacques wrote that a mint 1932 #15 Gilbert Meccano set, including Meccano Briks, was for sale on eBay and in the description of the set there was the following sentence: 'A label placed inside the cover of the catalog notices that set No.110 is the same as No.10; set No.115 as No.15; set No.125 as No.25; set #150 as No.50.' This does not of course prove that such sets were ever actually sold.

Another point of interest. Among Kendrick Bisset's notes about his c1933 No.10 on his web site (www.usmeccano.com) is: There is a rubber stamped '10' in the top right hand corner of the lid. On checking I found '10' on my box at the same place inside the lid, just in the corner.

GILBERT MECCANO: S1

[30/876A]

A 1934 Gilbert MECCANO Wide Beam #10 Set

by Jacques Pitrat

The set is packed in a green wooden box $22\frac{1}{16} \times 10\frac{3}{4} \times 5\frac{1}{2}$ ". It is exactly the size of the 1931 Erector Set A and is larger than the box for the 1930 #110 set, which was only $21\frac{1}{2} \times 8\frac{1}{4} \times 4\frac{1}{2}$ ".

The contents of the set are those of a 1930 #110 set, plus those of a 1934 Wide Beam #5 Set (see 12/318,319 & 19/546), except that some parts, common to both, are included only once, mainly Axles, Pulleys, & Gears. Snap Rivets and many N&B are provided; there are no Meccano Briks.

There was a difficulty with the Motor in the Set, the 110v E2D (see 19/547), not the LV E2B in the 1930 #110. The E2D Motor can replace the E2B when both are used with their side plates, but, contrary to the E2B, the E2D motor cannot be used without side plates. This is because the motor unit has no suitable mounting holes to allow it to be bolted to a Plate. Several #110 Set models used the Motor without its side plates.

As can be seen in the photo right the parts are clipped to a red metal tray and to two cream backing boards, one in the bottom of the box and one in a red cardboard tray.

The quality of the parts is not very good, for instance, a Wide Beam DAS was not painted at all. More seriously the distance between the 14th & 15th rows of the 33*11h Flanged Plate (PN 52B) is not 12.7mm as usual, but 17mm.

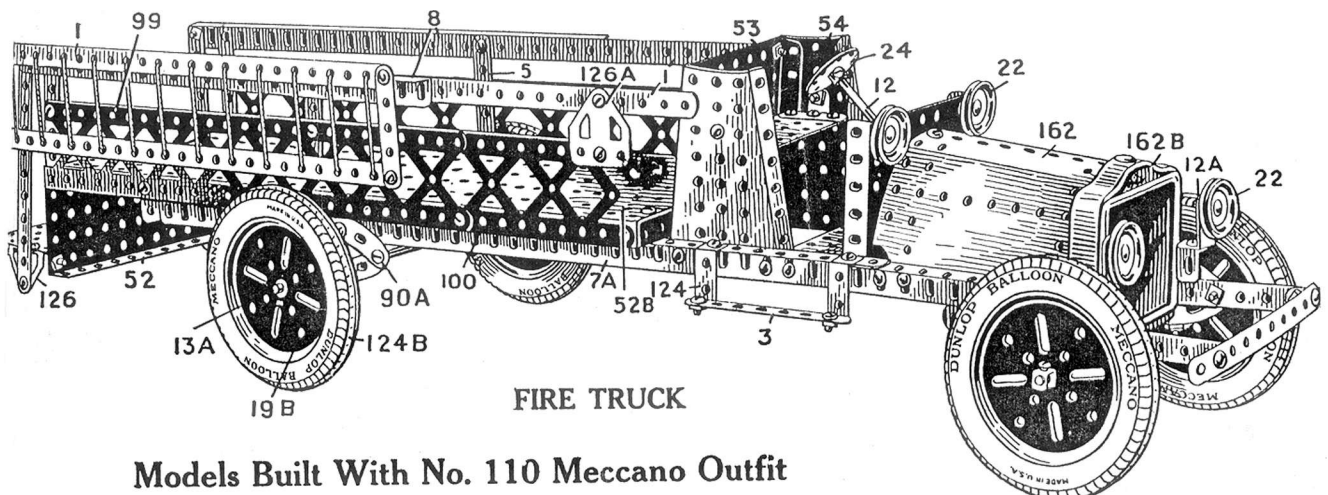
The Manual is the one for the 1934 Wide Beam #5 Set, but with 8 pages added for the #10. These pages are taken from the 13 pages of #110 models in the 1930 Manual. Those missing are 3 pages describing the Dumping & the Fire Truck, and 2 pages with models using the Motor. All the models on these 5 pages could have been built with the #10 Set. The #110 Fire Truck is shown below.

There are some changes on the 8 #10 pages compared with their 1930 counterparts:

- The first '1' of 110 has been erased so that one has: Models Built With the N°. 10 Meccano Outfit.
- On the 2 pages with models using the Motor, the following note has been added: NOTE! SUBSTITUTE GEAR BOX N°.1 IN GEAR BOX SECTION FOR THESE VARIOUS MOTOR DRIVES. For the reasons already explained this would not always be easy to do when the E2D motor was used without its flanges.
- On another page there were 2 models in 1930, the Auto Truck with Hauling Device & the Trolley Car Motorized. Unfortunately, in this last model the E2B Motor was used inside the car without its sides plates and there was no room for a Motor with side plates. So in 1934 only the Truck was kept and the Trolley Car was erased from the page.



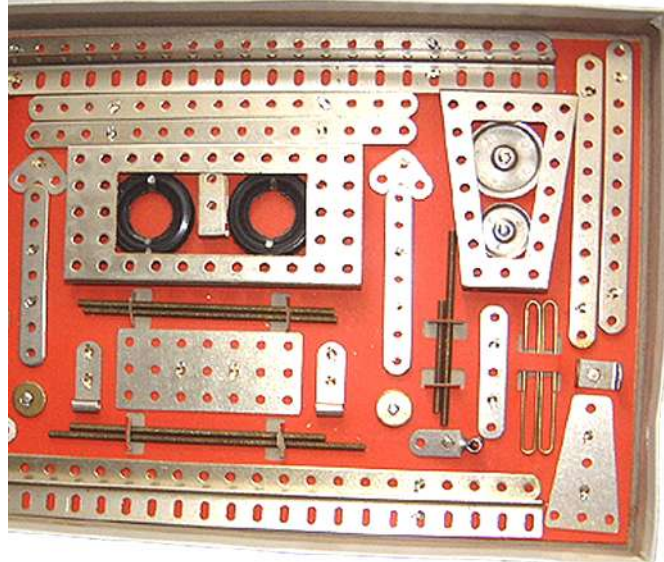
There is not a single new model for the #10 Set, and no model uses the standard and wide beam parts simultaneously. It is a pity, since the #10 Set and, probably, the 1934 #15, are the only MECCANO sets that ever contained a large supply of the standard Strips & Girders, as well as of the wide beam parts. Meccano UK advertised that standard parts were very useful in making large MECCANO X models, and that X parts could be used with advantage in standard MECCANO models (although they did not give many examples of such models). Here, one has a large Set which is merely a combination of two Sets, each with its own models. It is not surprising that it was not a commercial success.



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

Shorter NOTES, with thanks to all contributors.

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



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

TECO: S3 [35/1036]

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

MIGNON: S1 [35/1036]

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

MERKUR[1]: S4 [35/1036]

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



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

WIMA: S1 [35/1036]

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

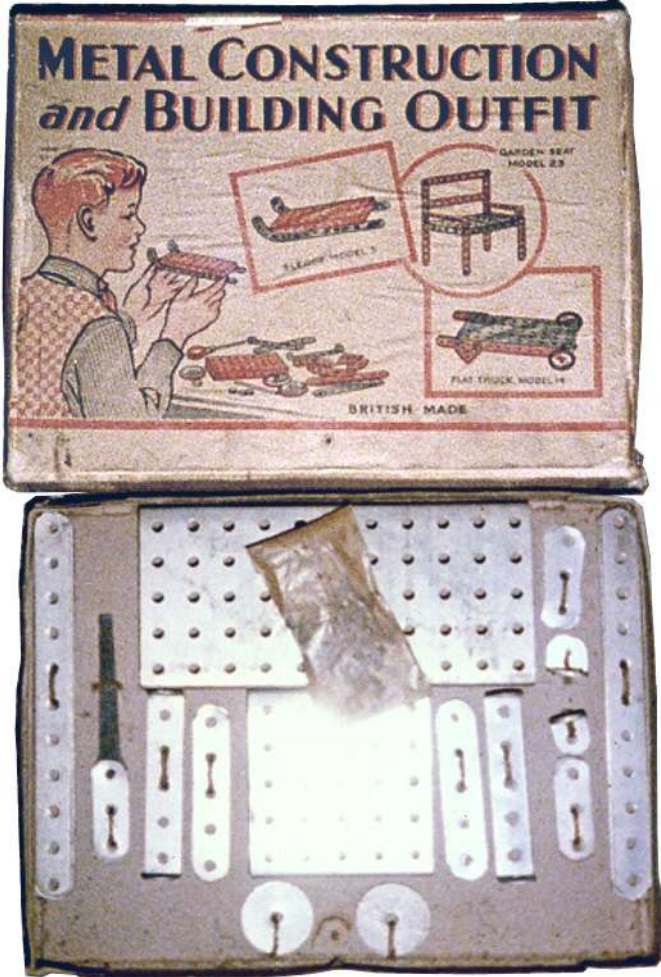
POLYLONG (MEKANIX): S8 [35/1036]

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

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

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

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



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

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

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



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

METALTECHNIK: S1 [35/1037]

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



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

MEKO: S1 [35/1037]

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The Gilbert MECCANO 1000-Series Wide Beam Sets

These notes include a description of an apparently complete 1025 set with Snap Rivets instead of N&B.

For anyone who hasn't met Snap Rivets before please see Fig.1 right, taken from the manual in Fig.10. The Rivet has 3 prongs and is made of springy brass. It was introduced in 1934 and some were included in the regular Gilbert MECCANO outfits through 1936 (Nos.1, 3, 5, 10, & 15). Also in the 1934 Little Jim sets (1, 3, & 5). It was probably not considered a great success because the only ERECTOR sets to include it were the 1935 Nos.3½-9½ (36 in each), and the 1935-37 Skyscraper outfits (240 to attach the card Panels to frameworks of A/Gs).

The dates to be quoted are the copyright dates on the manuals with the sets, and as will appear, the N&B in the 1933 outfits were replaced by Snap Rivets in 1934.

Usually a set's number is on the lid's apron, and on the model leaflet, though in quite small type for the later editions. All known 'manuals' are a single sheet folded to give 4 sides.

1933 SETS known (with N&B as fasteners)

No.1000 This Ebay set, the smallest seen, is shown in Figs.2-4, and the date given for it was 1933, possibly the year in which the 1000-Series sets were introduced. Screwed Rods as axles can be seen in the models and these, with the N&B, and other small parts would have been in a packet or envelope glued into the empty space at the bottom of the insert. Most of the parts push into slits in it, but the Strips are held by the usual Gilbert 'T' Clips. Instead of the usual green paint the Strips have a bright finish, probably nickel, as on the A/Bs in all the known 1000-Series sets.

No.1025 An Ebay set, said to be from 1933, is in a larger box than the No.1000. The lid is in the same style but the models are a Sand Yacht, Telegraph Pole, Delivery Wagon, Railway Footbridge, Beam Engine & one other, possibly a Hoist. An open box is shown in Fig.5 (courtesy Gaston Marette). A/Bs instead of ¾" Washers should be in the slots below the printing top centre, with the latter in the green packet. The Manual's front page layout is like the 1000's but the 6 models on it are a little more ambitious; they include the Beam Engine, Railway Footbridge, & ?Hoist on the lid. The back page is as in MCS with 12 models followed by the 3 for Set 1050 shown in Fig.7.

No.1026 Details of this outfit were given in 24/706, and it seems to have been the same as the 1025 but in cheaper packaging. The parts are as in the 1025 except that the Wheel Discs are dark blue. The manual had been changed by substituting '1026' for '1025' on it.

No.1050 The Model Leaflet in an Ebay set was said to be dated 1933. The lid is in the Fig.2 style – its 6 models are a Derrick Crane, a Hammerhead Crane, a Windmill Pump, a Press or Stamping Machine, plus the Shovel and Reaper below. The open box is shown in Fig.6. The parts which don't push into the insert are held with U-clips, and there were no doubt parts above and below the Flanged Plate held in the same way. The Strips in the box look to be single parts but more would certainly be needed for the 1050 models. The Model Leaflet has the Fig.4 layout but with only 4 models on the front, the 3 in Fig.7 plus the Windmill top left on the insert.

Fig.2



IT SNAPS IN
"in a jiffy"
just like real
rivets used by
structural
steel workers

Fig.1

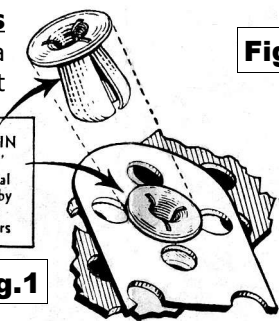


Fig.3



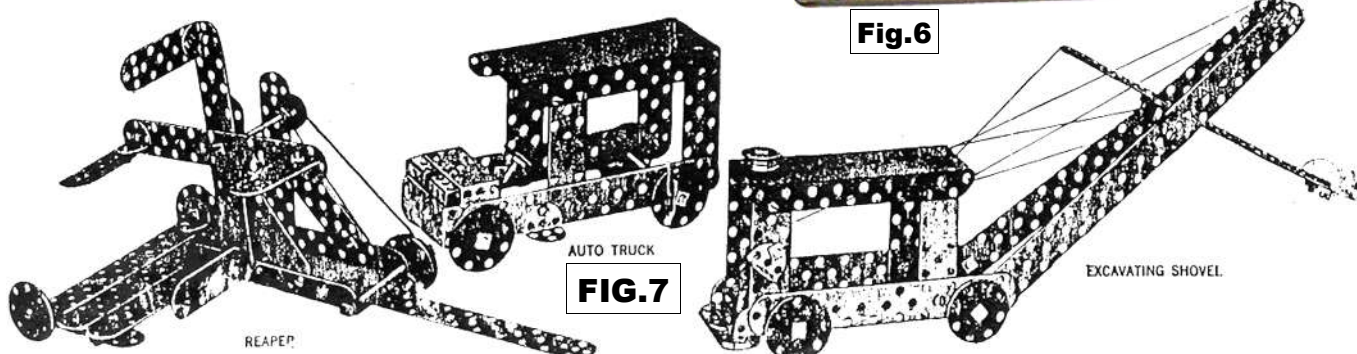
Fig.4



Fig.5



Fig.6



1934 SETS known (with Snap Rivets & no N&B)

No.1025 This is the set that has been seen most frequently on Ebay and an example to hand is shown in Figs.8-10. The box measures 25½*22*1½cm and the main parts are as in the 1026 except that it has no Screwed Rods and only 2 (instead of 4) 2¾" Strips. As can be seen the lid differs from the 1933 version only in the models shown, the centre illustration of the Rivet, and the note about it by the boy's head. The DAS, Flanged Plate, & A/Bs push into slits in the card insert, the other parts are held by Snap Rivets. The 12 Rivets used for this are enough to make any of the Manual models.

The Manual (Fig.10) is 280*178mm and its 48 models go from Table on the first page to Parcel Truck on the last. Many of the 1025 models shown in *MCS* were carried over but not some of the more interesting ones, the Toy Horse (see 12/319) for example, and the Jumping Jack puppet. In some cases this was because of the smaller number of Strips in the Set, in others, as explained below, it would have been the difficulty in providing adequate bracing, or reliable freedom of movement for pivoted parts. The virtues of the Snap Rivet are explained on the front page, together with hints on using them. If they became too loose it was suggested that a knife be used to spread the prongs. In the non-Wide Beam Gilbert MECCANO sets a Rivet Extractor tool was included which could be used to do this. More importantly it was used to remove the Rivets and in its absence they were to be pushed out from the prong side using 'a screw driver, a small piece of wood, or even the fingers' – with a tight Rivet the wood worked quite well though some force was needed, a screwdriver tended to slip between two prongs, and all I achieved with my fingers was to make dents in them. It was also said that if two parts were to pivot the Rivet should only be pushed partially through the second part.

In practice the Rivets hold the parts together quite well but a part held by a single Rivet can be easily knocked out of position. Most of the parts in the models were adequately braced, sometimes by cord in suitable models. Using a Rivet to hold parts required to pivot, and especially to rotate, was less satisfactory – wheels usually either wobbled or jammed.

Jacques Pitrat has an identical 1025 except that the Wheel Discs are red; 4 other 1025's have been seen on Ebay, all identical save the Wheel Discs with one blue and 3 red, and in one of the latter the red parts look to be a much lighter shade.

There is no mention of a 1050 outfit in the Manual.

No.1050 A line drawing of this set taken from an advertisement was shown in 19/546, and was said to have been listed from 1934 to 1936. It was shown as the smallest of the then range of Gilbert MECCANO outfits, but the absence of the 1025 may have been due to Gilbert's habit over the years of not including very small sets in his main lists. The parts were attached, in the same way as in the 1025, to an insert which was larger but in the same style. The main new parts in the Set, as in the N&B version, were 5¼" Strips.



Fig.8



Fig.9

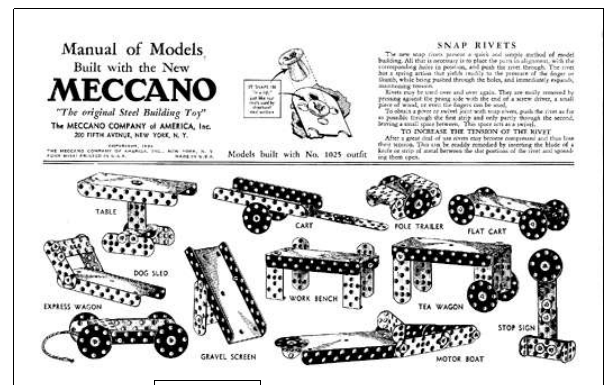


Fig.10

GILBERT MECCANO: S3

OSN 49/1488

Snippet. 'New' System: MECCANO (for Dolls)

Thanks to Urs Flammer for sending photos of the set right, with the manual's back cover inset top right. He spotted them on the German auction site Ricardo. The Set No. on the lid is blurry but might be No.14! In one photo the box was shown against a ruler and it was 4.5cm long. Scaling the hole pitch from this gives between 1½ & 1¾mm, appreciably different from the ½mm-scale often used for dolls house accessories.



Fig.2

And if that pitch is about correct this outfit is not one of the ½mm-scale Black Country Miniatures sets mentioned in 21/619. The example described there differed too in having red & green Plates. In my files I found the photo left of a miniature set (set against an inch ruler) and it may be from the Black Country range, but I can't be sure.



Fig.1

DOLLS' HOUSE SETS: S1

OSN 49/1488

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EDITORIAL This Issue has 28 pages instead of the usual 32. This change will also apply to any future issues and, in the face of repeated rises in postal charges, is to avoid having to increase the subscription rates for the printed version of OSN.

For anyone who hasn't come across them there are now two important sources of 'Other Systems' information. The first is that all of Jean-Pierre Guibert's Encyclopédie (see 52/1580) can now be seen at http://www.mecca-clocks.fr/accueil_autres_systemes_01.htm. Simply click on the initial letter of the system in question. Jean-Pierre's 'Database' can be downloaded from one of the small mauve panels below the initial letters – it is labelled 'Index de tri des jeux fichiers Excel'. The other mauve panels provide other useful information.

The second source is an extension of Timothy Edwards Meccano website to cover Other Systems. It contains all the information from MCS and my Database, plus scans of manuals, etc, and sometimes photos of sets. The scans can be downloaded. The address is <https://meccanoindex.co.uk/Other/index.php?id=1601635899#>. Access to a system is via its initial letter from the A-Z along the top. Other useful options under 'Other' Systems Home include downloading all the MCS pages, and a search facility of the Database for any combination of 12 parameters. Examples for 1, 2 & 3 parameters are 'Screw Thread'; 'Country' and 'System Type'; 'Material', 'Hole Pitch' & 'Hole Diameter'.

Finally on a sad note, Jacques Pitrat died unexpectedly in October 2019. Over the years he contributed many articles to OSN, often with details of rare or unusual systems. His last article will appear in the next Newsletter. For me Jacques was the ideal correspondent, always patient and helpful with my queries and questions. I'll miss you Jacques.

Shorter NOTES, with thanks to all contributors.

1. **FERMO**. A set of this German system from 1946-47 was described in 27/784. Its 3 main parts were Triangular Plates, the largest with a centre cutout the size of the smallest. The Manual though showed the largest with no cutout, and also the Pulley with boss was not illustrated (though it was listed as PN 18). Now Angel Rodriguez Palacios has provided details of his outfit dated March 1946. It is without doubt earlier than the OSN 27 set, its large Triangles have no cutout, it has no Pulleys, and there is no mention of the Pulley in its manual. Like the OSN 27 set it contained the 2 sizes of Disc that can be used to make pulleys.

FERMO: S4

[54/1644]

2. **Gilbert's MECCANO Products**. Kendrick Bisset showed a display of these recently and 24 photos of them can be seen at <http://www.nzmeccano.com/image-141249>. After the photos is a link to download notes on the various items. These include details of the relationship between the 1928 'Hornby' sets and the 1929 'Gilbert' outfits, as well as notes on all the later Gilbert ones, right through to the 1937-38 blue & gold sets. Also covered are the Liverpool made sets sold by Gilbert in the US, and oddball items such as Puzzles, a Foundry Set, and a model Greenhouse.

Also included, BOLTLESS BUILDER, the set below, said to



be from 1937. Kendrick wrote that it may have been a prototype, though a few examples of it are known to exist. Possibly it was intended to replace MECCANO MORECRAFT when that system left the Gilbert camp. The connections of the parts, using dimples and holes, did not make a secure joint and it is hard to imagine that BOLTLESS BUILDER would have been especially successful.

GILBERT MECCANO: S4
[54/1644]

BOLTLESS BUILDER: S1
[54/1644]

3. **TITAN Phases**. Details of two phases were given in 26/761 & 45/1381. The first had parts with a dull grey metallic finish, the second had nearly twice as many different types of part, and they were painted, with black Strips, green A/Gs, and red & blue Plates. Now Timothy Edwards has pointed out that there was also an in between phase similar to the first but with painted parts.

TITAN: S3

[54/1644]

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