

EDITORIAL First, my thanks to everyone who sent comments on the proposed changes to the N/L. I've tried to incorporate as many as possible of your suggestions but the result is inevitably something of a compromise, especially as it is often a question of trying to get a quart into a pint pot. Let me know your reactions.

On 'admin' matters - details of subscription rates, etc, and your credit balance, are now given overleaf. Please note that for simplicity all prices are now per Issue, and that in future the next N/L will not be sent unless the credit balance is sufficient to cover its cost. To make this clear the minimum you need to send to receive the next Issue is given, but as before you can send more to avoid having to make frequent payments.

With the experience gained from printing this Issue I can give an indication of the prices likely due to the use of colour, and printing single-sided. For the usual postal zones the price per Issue will probably be about £6.50/£7/£8. The final figures will be given in OSN 29. As explained in OSN 27 this Issue and the next (OSN 29) will be at the existing rates (given overleaf) for current subscribers, and the new rates will apply to OSN 30 and thereafter.

A note on the page numbering. As well as the normal page numbers each item has an 'S' number for those who want to file OSN material in MCS. For each system the first item about it will be 'S1', the second 'S2', and so on.

FROM READERS

1. **FERMO** (see 27/784) came from the British Zone of Germany rather than from East Germany, as stated in the Extra MCS Sheet. Thank you to Jacques Pitrat for this correction.

FERMO: S1 [28/813]

2. The **MERKUR M8** was mentioned as possibly the largest general purpose set now available, but Alan Blake & other readers have drawn attention to the **METALLUS** Berlin outfit. According to the Metallus web site (now much improved & much faster) it costs €599 and has 2462 parts (the old **MÄRKLIN** No.1015, see below, has 990 + 558 N&B). By my count the M8 has 1384 parts (652 + 366 N&B), plus a Motor.

In passing, Metallus has a range of 12 outfits including 5 Gear sets. The 7 constructional outfits are said to be equivalent to the old **MÄRKLIN** Sets 1009-1015, & each is named after a German town, from Berchtesgaden to Berlin. Details of the **MÄRKLIN** sets are in MCS (the 1015 is the 1014+1034), and they all seem to have slightly fewer parts than the **METALLUS** ones. From the web photos the latter still include a few **TEMSI** parts. A **TEMSI** manual is included but it is suggested that the old **MÄRKLIN** manuals be used.

At the time of writing, October 2002, Dave Taylor has the Berlin listed at £329.95. The Dutch site mentioned in 27/790 has the M8 at €140.50.

METALLUS: S1 [28/813]

3. Thomas Morzinck wrote that Karl Debik has opened his

building toy museum in Germany. The address is Baukasten-Museum, Hartmannstraße 4, Löbau/Saxonia.

[28/813]

4. From Alan Blake. The Maplin catalogue includes 17 **CONSTRUCTION** sets, from a set with 116 parts at £3.99 to a 1482 part outfit at £49.99. No Set Nos. are given. Maplin shops have very few, if any, of them, but one shop had two sets that weren't in the catalogue.

CONSTRUCTION: S1 [28/813]

5. From Jacques Pitrat. 'On **BUILD** (27/798) I have an unused #400 set and the lid is the one with 'Standard' under Buildo. The contents are almost the same than those of the #45 set, but there only 6x 5h Strips, 6 DAS, no 5*9h Plate, & 3x 98mm Shafts. The Flat Plates are not fully perforated. There is a plate Screwdriver with a centre cutout in the handle. The Eccentric Strap is anodised red, and the upper two Pulley Discs are anodised orange. The disposition of the parts is slightly different from the photo in the manual. On page 1 of the manual there is the address of the maker and the description and the price of the four sets: 400, 600, 900, 1500.' [Jacques also sent a photo of his open box, showing all the parts and their layout.]

BUILD [1]: S1 [28/813]

6. Some notes from Don Redmond on **BUILD** following the article in 27/796. His No.45 includes Flat Brackets with one hole slotted, and A/Bs made from them. The Bolts in the set are steel, mostly mush head but with a few, 6 & 9mm, RH. The 6mm hex Nuts are chamfered on one side. The wire Screwdriver is distinctive with a narrow, 5mm, tip. The Strips are rather inaccurately stamped. The finish appears to be cadmium plate or similar, soft and susceptible to fingermarks, and easily polished with 0000 steel wool.

The glassine tube of N&B in a No.400 set contains chiefly truss head Bolts (very flat round heads tapering to a sharp edge), but with some fillister heads, chiefly on the longer ones. The Nuts are 7.5mm hex brass. The Screwdriver is the flat style, and likewise in a No.600 outfit.

The Gear Quadrants in the 600 are the 13-tooth type, and they mesh well with a 30cm bronze plated, steel Chain - pitch 4.65mm and 4mm wide.

BUILD [1]: S2 [28/814]

7. From Jacques Pitrat. On **SPIROU** (27/783), the word is the name of a well known hero of a Belgian comic, who has the uniform of a page boy in a hotel. There is still a 'Journal de Spirou' published in Belgium and in France. Temsi chose this name for a metal construction system because many Belgian boys liked his adventures, the same reason that there is a Mickey Mouse set.

SPIROU: S1 [28/813]

8. Clive Weston has found a **VOGUE** catalogue dated January 1957. As would be expected, Sets 1, 2, 3, 5 are listed, with B&W photos, and named Junior, Standard, Major, & Super. This is the first positive date for the No.5

(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, 9³/₄*7¹/₄*3³/₄", with the label below. The contents are: 6,4,2 of 5,6,11h Strips; 2 each of 6*6h Plates, Architraves, 1⁵/₈" Wire Stays, & Wood Slips; 5x 1" Loose Pulleys; a 3¹/₂" 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 12¹/₂mm, & 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.

OSN Subscription Rates The price per Issue, including postage, at Printed Paper Rate where available, is £3 for UK; £3.50 air to Europe, & surface anywhere; £4 air outside Europe. **NB** These prices are for existing subscribers & will increase after OSN 29.

Back Issues For the zones above : OSN 1: £1/£1.30/£1.50; OSN 2,3: £2.30/£2.70/£2.90 each; OSN 4 onwards : £3.60/£4.10/£4.50 each.

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.

Small Ads Short ads are free to subscribers. Insertion guaranteed in OSN 29 if received by the end of July 2003.

OSN – Your Credit Balance

after OSN 27

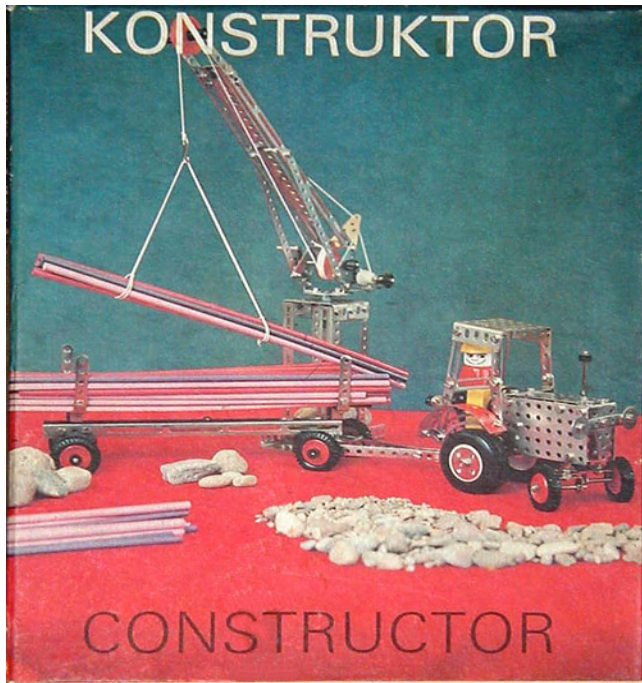
after your remittance of

after this Issue

Please send at least £ _____ if you wish to receive the next Issue.

KONSTRUKTOR [14] A little on this Polish system, clearly inspired by the German CONSTRUCTION, was given in 21/596, and now two sets are to hand, one courtesy David Hobson. A label has been stuck on underneath one box; it is shown among the models on p817, and has the year 1987 written in on it. It also has the address given in the box to the right, but whether it is the maker's or a shop's isn't clear. The town, Sopot, is near Gdansk. SZKŁO means glass in the dictionary, and the top line may mean Craft Cooperative.

The box is white, 28½*35*3cm, and the lid is shown below. It has 'Made in Poland, on its sides. The Tractor &



Trailer, and a slightly simplified version of the Crane, are in the Manual, but the metal parts on the lid have a bright look and not the actual metallic black finish. Nothing remains to indicate how the parts were arranged in the box.

The **Illustrated Part/Set Contents** are given inside the lid and a 60% copy in shown overleaf. The inventory is very similar to the CONSTRUCTION C02 outfit but with a few changes. The extra parts include a some Brackets, about 20 N&B, 2 more 20mm Pulleys & Tyres, and two 35mm Pulleys & Tyres. No Grub Screws are included though (the blank line is where they might have been, as #049), nor the 60mm Pulley in the German Set. Not mentioned in the Parts List is an orange, card segment, marked 0-30, for use in a Letter Balance. It was found in one of the Sets and is just like its C02 counterpart – another card part in the C02 is an orange, square clock face for a 'pretend' Clock, and a similar part, no doubt missing from the Sets, is used in the corresponding KON [14] model.

The **Parts** At a glance all are just like CONSTRUCTION but there are very minor difference in many of them, and a few more obvious ones that are listed below, along with other points of interest.

- Except in the A/Gs, nearly all the **slotted holes** have large radius ends, and in the Face Plate & 50mm Disc they are almost square.
- At 62mm the **Flanged Plates** are 2mm wider than the German parts.

Leading Particulars

Name KONSTRUKTOR CONSTRUCTOR

Country Poland

Maker or name of a shop:
Spółdzielnia Rzemieś Inicz(a or ?),
Sopot,
ul. Pulaskiego 9/11 (ul.= street)

History Probably current in 1987.

Hole dia. 4.1mm in Strips; 4.2mm in most other parts.

Hole pitch 10.0mm.

Sets Only one.

Material/Finish All steel parts, except the N&B, have a chemical blackened metallic finish; Pulleys are a translucent red plastic.

Boss Face Plate: 11.0mm Ø blackened steel, 4.2mm bore; Bevel & Pulley #059: integral plastic, 10.0mm Ø, with an extension outwards for the tapping. All are single-tapped M4.

Fixing M4 steel N&B. Bolts: CH, 6.7mm Ø, BZP, 6, 8, & 22mm u/h. Nut: hexagon, 7.0mm A/F, nickeled.

Axles Nickeled with sheared ends, 3.99 -4.06mm Ø.

DP No Gears other than the Bevel.

Motors None.

Remarks The parts are very similar, but not identical, to the German CONSTRUCTION

- The **Windmill Sail** is almost the same size but is made of a dull yellow, rather rubbery, plastic.
- The **Washer**, #023, is 9mm o.d.
- The **Pulleys** are in a red, translucent plastic. The 20mm is similar to the CONSTRUCTION part with a 3mm deep boss on each side. The bosses on the 35mm are even shallower, whereas the German part has a proper tapped boss. The small Fast Pulley (#059) is 14mm o.d.
- The **Tyres** are rubber and the 35mm is only 52mm o.d., against 57mm for the CONSTRUCTION part. At 13½mm it is also narrower - a much fatter Tyre is shown in the manual models, with, apparently, a white hub (as on the lid).
- The smooth centre part of the **Axle with Threaded Ends** is 3.90mm Ø.
- The shiny black plastic **Collar** is 10.0mm Ø & 9mm long, and, like the plastic bosses, is extended on one side for the tapping.
- The pin of the **Crank** (#052) is only 3.5mm Ø.
- The **Bevel** has 22 teeth, like the German version, but, like the Collar, it is shiny and not a dull black plastic.
- The **Screwdriver** is 120mm o/a with a 57mm plastic, cruciform section handle, red in one Set & black in the other.
- The **Spanner** is similar to the CONSTRUCTION pattern but at 74mm o/a is 6mm shorter o/a.

The **Manual**, in Polish, has 16 unnumbered pages, 145*202mm deep, and the B&W front cover was described in OSN 21, but it was wrongly said there that it was the back one. p2 has an Intro and the PR, Druk: ZGG z. 1342. 10 000 egz. L-3 // Fot. St. Ossowski. pp3-4 show some basic constructions, and the models take up the rest of the manual. There is a parts list and a photo for each, with extra

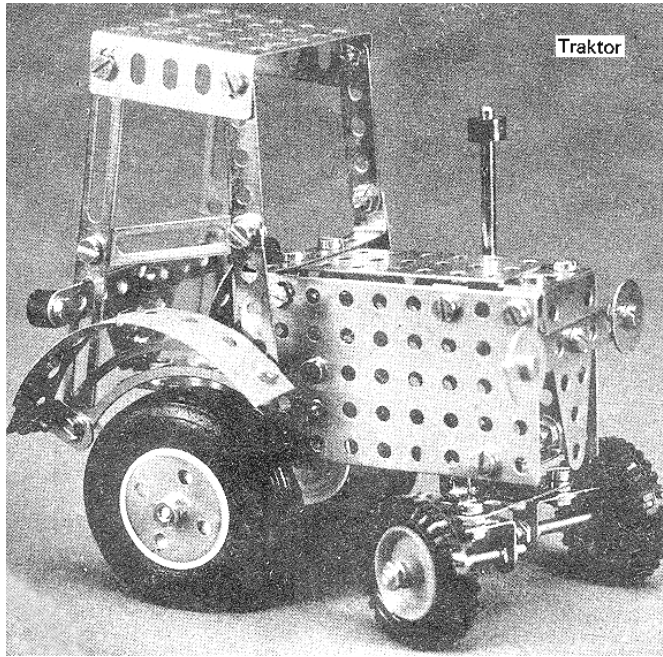
Lista części			liczba sztuk
001		Płaskownik 2 otw.	4
002		Płaskownik 3 otw.	4
003		Płaskownik 4 otw.	6
004		Płaskownik 5 otw.	6
005		Płaskownik 7 otw.	6
006		Płaskownik 9 otw.	4
007		Płaskownik 15 otw.	4
008		Płaskownik 20 otw.	2
009		Płaskownik 6 otw.	2
010		Płaskownik 11 otw.	2
011		Łuk 8 otw.	2
012		Kątownik 15 otw.	2
013		Kątownik 25 otw.	2
014		Płytką 3×3 otw.	1
015		Płytką 7×3 otw.	1
016		Płytką 9×5 otw.	2
017		Płytką 5×5 otw. z zagiętymi krawędziami	1
018		Płytką 11×5 otw. z zagiętymi krawędziami	1
019		Płytką trapezowa 3×3	2
020		Płytką trapezowa 5×3	2
021		Płytką trapezowa 5×3 z zagiętą krawędzią	2
022		Płat śmigła	4
023		Podkładka \varnothing 10 mm	8
024		Podkładka \varnothing 20 mm	2
025		Krażek \varnothing 30 mm	2
026		Krażek \varnothing 50 mm	1
027		Krażek \varnothing 50 z tulejką	1
028		Klamra 1×1 otw.	2
029		Klamra 3×1 otw.	3
030		Klamra 5×1 otw.	2
		Klamra 1×2 otw.	2

			liczba sztuk
032		Klamra 3×1 mała	3
033		Kątownik 1×1 otw.	6
034		Kątownik 1×1 otw.	6
035		Kątownik 2×1 otw.	2
036		Odsadzka	1
037		Kątownik	2
038		Obręcz koła \varnothing 20 mm	6
039		Obręcz koła \varnothing 35 mm	2
040		Koło pasowe \varnothing 14 mm	2
041		Oś gładka dł. 35 mm	2
042		Oś gładka dł. 65 mm	2
043		Oś gładka dł. 95 mm	1
044		Oś gwintowana 95 mm	1
045		Oś gwintowana 29 mm	1
046		Oś gwintowana 44 mm	2
047		Oś gwintowana 65 mm	1
048		Oś gwintowana 90 mm	1
050		Tulejka z gwintem	4
051		Tulejka elastyczna	10
052		Korbka	1
053		Haczyk	2
054		Opona 40×20×5	6
055		Opona 60×35×8	2
056		Sznurek	2 m
057		Gumka	2
058		Koło zębate	2
059		Koło pasowe	1
060		Śrubka M4×8	76
061		Śrubka M4×16	4
062		Nakrętka M4	85
063		Wkrętak	1
064		Kluczyk	2

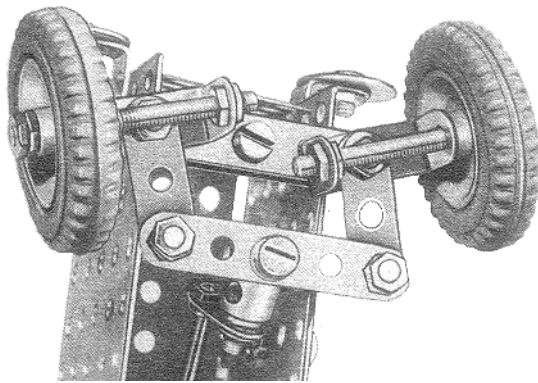
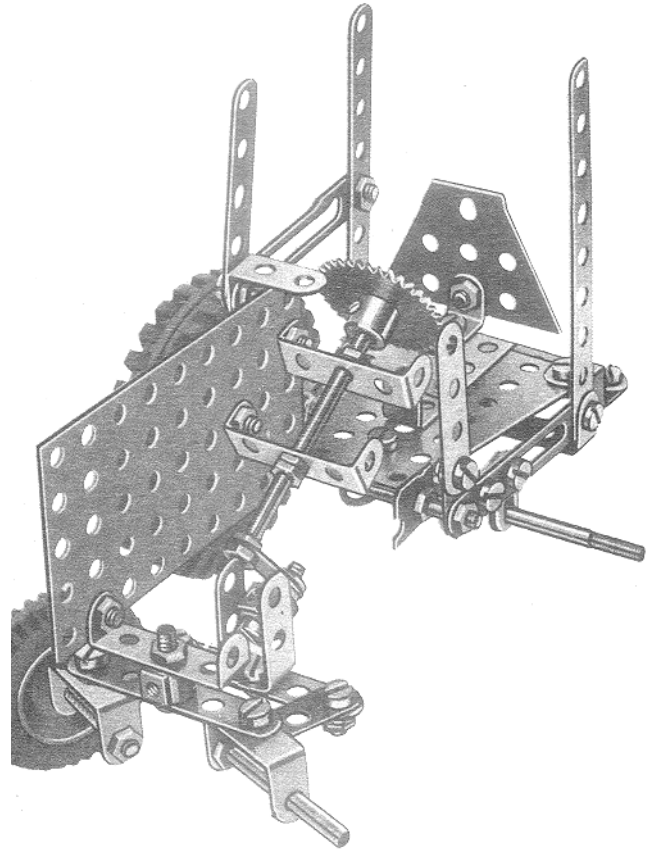
views of some, but the photos are poor, too dark, and on poor paper. Using English names, the 16 models go from A1 Folding Step Ladder on p 5 to Motorcycle & Sidecar on p16 (it is the one on the front cover, as shown in OSN 21).

Most of the models are identical, or very similar, to those for sets C01 or C02 in the 1980s CONSTRUCTION manual. A few, including the 2 shown opposite, are modified C03 models. The Jet is rather better than its German counterpart. The Tractor has a neat steering mechanism. A Flat Bracket on the threaded end of the steering column acts as a crank,

and has a Long Bolt carrying a Collar through its free hole. The Collar engages in a 2h deep Double Bracket bolted to the centre of the track rod. It works even better if the Collar is replaced by something metallic, a stack of washers for instance. (For better clarity the photos of this mechanism are from the CONSTRUCTION manual - it has a Gear instead of a 30mm Disc as a steering wheel, but is otherwise very similar to the Polish version.) There seems no part in the Set to use as the mudguard, but as it is shown red on the lid, perhaps it is a card or plastic part missing from the Sets.



- 002 3
- 001 1
- 004 6
- 005 1
- 006 1
- 009 1
- 010 2
- 011 2
- 015 1
- 014 1
- 017 1
- 016 2
- 019 1
- 021 1
- 020 1
- 029 1
- 030 1
- 031 1
- 033 1C
- 034 6
- 035 1
- 025 1
- 024 2
- 028 2
- 032 3
- 038 2
- 039 2
- 054 2
- 055 2
- 045 1
- 046 2
- 047 1
- 042 1
- 044 1
- 050 2
- 051 4.



Spółdzielnia Rzemieślnicza
 Szklarsko-Chemieńska
 i Wytwórczości Różnej
 „SZK&O”
 Sopot, ul. Pułaskiego 9/11

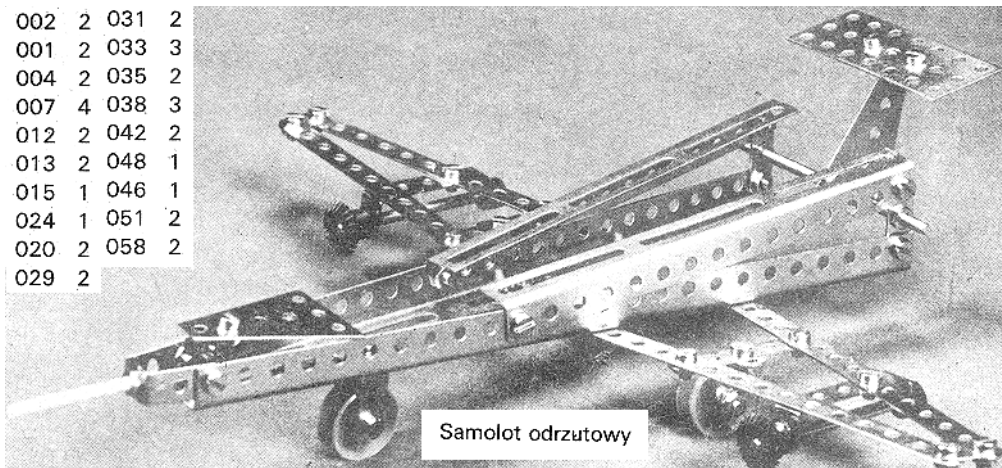
Typ: **Konstruktor**

Cena det. zł 2200

Cena zestaw. zesz.: umowna

1987 r. SWW 282-21

- 002 2 031 2
- 001 2 033 3
- 004 2 035 2
- 007 4 038 3
- 012 2 042 2
- 013 2 048 1
- 015 1 046 1
- 024 1 051 2
- 020 2 058 2
- 029 2



Samolot odrzutowy

Snippet: AUKI This small German system was mentioned in 15/412, and since then a few details and a better photo of a set have been given in *Baukästen* (p219). In addition several other sets have been seen on Ebay. The parts are silver looking, and, by scaling, their hole pitch is probably 12.5 or 12.7mm. The name AUKI came from the first letters of the maker's name – August Kirchoff. Notes on a similar, or perhaps identical, system from the same maker are given on the next page.

Leading Particulars

Name AUKI METALL-BAUKASTEN

Country Germany

Maker August Kirchoff, Carthausen-Oekinghausen, Westfalia (near Lüdenscheid).

Period 1949 to 1960s.

Hole dia.

Hole pitch Probably 12.5 or 12.7mm.

Sets Said to be 3 basic sets and 2 accessory outfits, but see below.

Colour Unpainted. Plates & Strips look silvery; Wheels nickel.

Boss Possibly none.

N&B

Axle Perhaps Screwed Rods are used.

DP Gears have quite coarse teeth, about 14 DP (Mod.1.8).

Remarks METALL-BAUKASTEN [3] is a similar system from the same maker.

SETS In *BK* it is said that there were 3 basic outfits and 2 Ergänzungskästen, a word that usually means linking sets. The lid of the set in *BK* has no indication of set number. Another from a similar size box (again partitioned into 6 compartments) has on it 'Standard Nr.2' & 'Inhalt wie Nr.1 und 1a' (Contents as No.1 & 1a). So far so good, but the lid of a larger outfit has 'Ergänzungskasten' at the top of the label, and '3' in a circle outside it. The set looks genuine, and if so, it doesn't seem to fit with the pattern of outfits suggested in *BK*.

Boxes The No.3 box is red outside and blue inside (the bottom is shown in the next column). All the others are plain brown card inside & out.



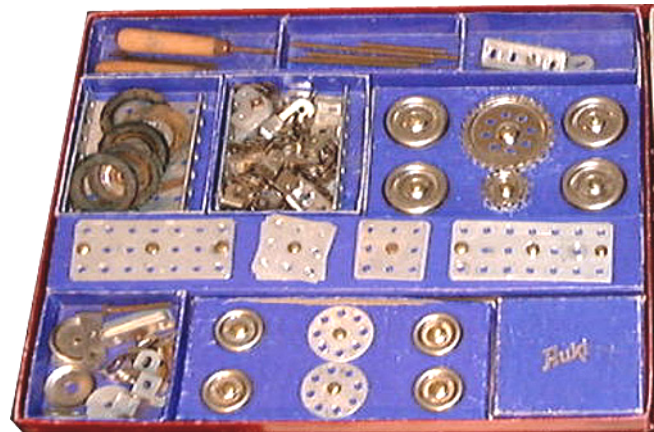
Labels. The label on the *BK* box is just like the manual cover above. The Nr.2 label is the same but with yellow

panels for text on either side. The No.3 label covers nearly all of the lid and is light blue with the outlines of a bridge & other items in white. In its centre is the manual cover with a slab of small print under it, and as already noted, with Ergänzungskasten at the top.

All the labels have the AKC logo with the 'C' standing for Carthausen presumably.

PARTS The main parts that can be seen in the various sets are:

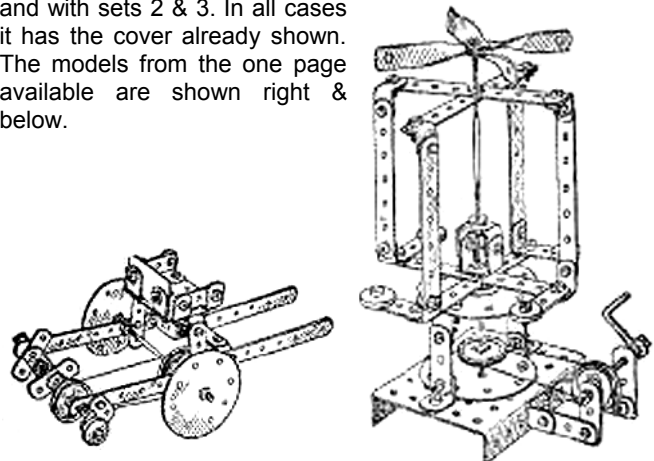
- **Strips** with well rounded ends, up to 9h long. **Twisted Strips** about 5 & 7h long, with only a hole at each end. Probably a 5h **DAS**
- A 7*5h **Flanged Plate** with a central 3*3h cutout and slotted holes in the flanges.
- 3*3h & 7*3h **Perforated Plates** with square corners.
- What are probably **A/Gs**, 4 & 5h long.
- 2 **Pulleys**, one about 2h Ø, and one 3h with 2 holes in its face, plus 4 small holes, or more likely rivets or spot welds.
- A 5h Ø **Disc** with 8 outer & 4 inner holes, although in most sets the part has only the outer ring. Possibly a 4h Wheel Disc.
- Various **Brackets**. A 2*2h **Corner Bracket** with a sharp inner angle.
- **Screwed Rods** and a wire **Handle Crank**.
- A **Screwdriver** about 12cm o/a with a long wooden handle and a short blade.



And only in the No.3 (above):

- Formed **Road Wheels** a little over 2h & a little over 3h Ø.
- **Gears** of about 2 & 4h Ø with about 14 & 28 teeth. Its possible that they are made from 2 formed discs like the STABIL 1926 patent type (see 13/349).
- An 8h **Wheel Disc**.

MANUAL A manual is shown with the unnumbered set, and with sets 2 & 3. In all cases it has the cover already shown. The models from the one page available are shown right & below.



Snippet: 'New' System: METALL-BAUKASTEN

The label below has been seen on 3 sets on Ebay, and the



only name on it is METALL-BAUKASTEN. All though have the AKC logo which appears on AUKI sets, & the 3 models featured match three on the AUKI label. In the two sets which have a manual, one cover is identical to the AUKI one



on the previous page, and the other is shown left. The boxes, inside & out, look like the one in BK, and the parts visible match those in the BK set except that a wire Screwdriver can be seen instead of the wooden-

handled type. Also no Spanners are visible in the BK set but two, single-ended, can be seen on the table in the M-B label.

So it seems clear that for whatever reason a M-B set similar, or identical to the smallest AUKI outfit was marketed. It remains to be seen whether any larger METALL-BAUKASTEN sets were produced. One at least of the two boys on the M-B label is wearing a tie but otherwise they look rather similar to the AUKI lads. A tie might point to an earlier date, but the AUKI manuals with the M-B sets would seem to suggest that AUKI came first.

Leading Particulars

Name METALL-BAUKASTEN

Country Germany

Maker August Kirchoff, Carthausen-Oekinghausen, Westfalia (near Lüdenscheid).

Period A similar AUKI set was made in the period 1949 to the 1960s.

Hole dia.

Hole pitch Probably 12.5 or 12.7mm.

Sets Only one set is known.

Colour Unpainted. Plates & Strips look silvery; Wheels nickel.

Boss Possibly none.

N&B

Axle Perhaps Screwed Rods are used.

DP No Gears known.

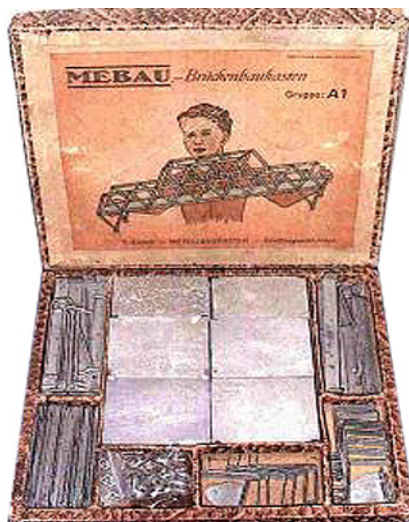
Remarks The only set known is similar to the smallest AUKI set, and is by the same maker.

METALL-BAUKASTEN [3]: S1

OSN 28/819

SNIPPET: 'New' System: MEBAU

The name on the lid is MEBAU Brückenbaukasten (Bridge Building Set), and under it 'Gruppe: A1 (Group A1)'. None of the other lettering can be read, and no details were given with the Ebay photo shown left.



The system is presumed to be German, and the Gruppe 1A might mean that other sets to make Bridges exist or were planned, and likewise, other sets to make different types of models.

Little detail can be seen of the parts, and there is no indication of their size. The Plates would have formed the roadway and might be aluminium. Otherwise there are Strips, most of which don't look fully perforated, though one can't be sure; Brackets of different types but none can be seen clearly; and some N&B.

MEBAU: S1

OSN 28/819

SNIPPET: New System METALL-BAUKASTEN [2]

The [3] after the 'AUKI' METALL-BAUKASTEN on the previous page is how it will appear in my Database, to distinguish it from two other systems that have only the M-B name. The first, M-B [1], is not yet in MCS, but as was explained in 23/662, it is very similar or identical to SCHEFFLERS.

M-B [2] is only known from small photos of two sets, one in *Baukästen*, p218, and the other from Ebay. The photos of the latter are shown here. The maker isn't known but in *BK* the mid-1920s is suggested as a date.

The size of the *BK* box is given as 21.5*12*3.5cm, and the Ebay box is probably the same. The lid in *BK* is identical to the one below except that it is printed blue on buff.



The only conventional parts in the Ebay box (right) that can be clearly seen are a 6h Strip and what may be a 13h A/G. The silver parts (Winding Drums?, Wheels?) might be painted wood, but nothing like them is in the *BK* set.

However the *BK* Set does though have a Plate which scales at 11*5½cm overall, and has only 6 holes at each end plus 2 large holes in the centre along the top. The latter might possibly take the ends of the silver Winding Drums, and with a little imagination it is possible to see the Plate carrying 2 Drums in the model on the lid. Also could those parts in the bottom left compartment of the Ebay box be tubular Cross Members to join the Plates?

The other parts in the *BK* box are a 7 or 8h Strip, the same dull, light grey as the Plate; a bright 11h Strip; and what may be Pulley Discs of about 3h Ø.

Scaling the various parts (in the very small photos) gives a hole spacing of between 12½ & 14mm.

Above the Ebay box is what looks to be part of a model sheet or manual, and in the Crane on the right there are 2

winding drums of some sort and the sideplates might again be the *BK* Plate.

Leading Particulars

Name METALL-BAUKASTEN

Country Germany

Maker

Period Perhaps mid-1920s.

Hole dia.

Hole pitch Scales at between 12½ & 14mm.

Sets Two similar incomplete sets known.

Colour Dark or light grey metal, with, if genuine, some silver, perhaps painted wood.

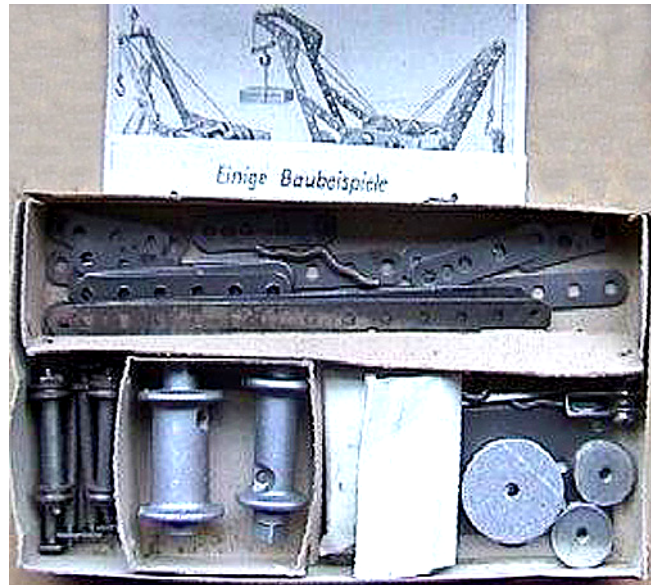
Boss

N&B

Axle

DP No Gears known.

Remarks



OSN 28/820

METALL-BAUKASTEN [2]: S1

A few HUSTLER BILDCRAFT Parts The colour & hole size of the handful of parts to hand, from 2 lots, do not agree with the details given in MCS. The new information is given below.

Colour The parts are painted as follows:

- Light brown: 5 & 7h Strips, 1*5*1h DAS, & the Trunnion.
- Fresh green: Curved Strip, & 2h long Strip Joiner (#12, called Splice Plate).
- Bright red: Double Bent Strip.

Hole Size The hole diameters in the different parts are:

- 3.8mm in the 5h Strips & Double Bent Strip.
- 3.9mm in the DAS & Trunnions.
- 4.0mm in the 7h Strips.
- 4.1mm in the 5h Strips & Double Bent Strip.

These **Changes** could be reflected in **MCS** as:

Hole dia. 4.2mm. 3.8-4.1mm also found in various parts.

Colour Black, red, & nickel plated. Light brown, green, & red parts also known.

OSN 28/820

HUSTLER BILDCRAFT: S1

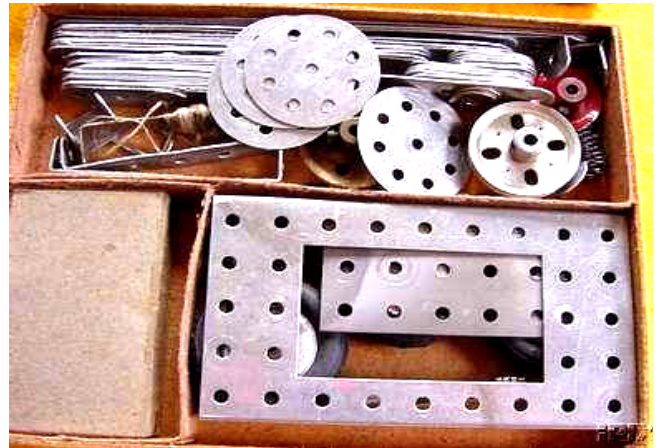
Snippet: METALLIX This German system was mentioned in 17/477 but with few details. What follows has been gleaned from the photo of a set on p214 of *Baukästen*, and from 2 smaller outfits seen on Ebay. The latter will be called the 1st & 2nd No.1 sets, and the illustrations here are of the 1st. *BK* gives the date for METALLIX as the 1930s, but the 1950s was mentioned in OSN 17.

Leading Particulars	
Name	METALLIX Metall-Baukasten
Country	Germany
Maker	Schreiner & Firmont, Hanover.
Period	1950s, or perhaps 1930s.
Hole dia.	
Hole pitch	Probably nearer 15mm than 1/2".
Sets	No.1 and one larger.
Colour	Silver, perhaps aluminium, but some Plates red.
Boss	Probably none.
N&B	Square Nuts & CH Bolts, both bright looking.
Axle	Probably Screwed Rods.
DP	No Gears known.

BOXES Both No.1 sets have the same box, smaller than the *BK* one. All 3 have the same label, but a rubber-stamped '1' can be seen on the smaller ones, under the centre of 'Metallix' (below). The maker's name, Schreiner & Firmont, Hanover, is on the label.



PARTS . By scaling, the hole pitch it is about 14mm. The 1st No.1 box is shown top right; in the 2nd No.1 the N&B can be seen in the bottom left compartment. From the 3



- sets, the parts which are almost certainly METALLIX are listed below, with those in the 1st No.1 (above) asterisked:
- A 5*9h **Flanged Plate*** & the 3*5h **Plate*** from its centre.
 - 2,3,5,7,11,13h **Strips*** with rounded ends. A 1*5*1h **DAS***.
 - An **A/B*** & a **Double Bracket***.
 - An 8h **Wheel Disc***, & a 2h \emptyset **Loose Pulley** (possibly fitted with a black Rubber **Ring*** or **Tyre**).
 - **Rods**, probably threaded.
 - Bright looking square **Nuts**, & cheeseheaded **Bolts**.
 - A **Spanner** with a single, angled end, about 4 1/2h long o/a.
 - Possible parts are a flat, S-shaped, **Wire Hook**, and a 2h \emptyset , balloon type **Road Wheel**.

The **bossed parts** in the 1st No.1, above, are thought suspect.

Finish. Apart from the N&B, all the parts look silver, perhaps aluminium, except that both types of Plate in the 2nd No.1, and in the *BK* set, are painted red.

SET CONTENTS No parts can be seen in the larger set that are not in the No.1s, and all that can be said is that it has more Strips, and 2 Flanged Plates instead of one. The Rubber Rings are only in the 1st No.1.

MANUAL The photos of the 2nd No.1 included the top two-thirds of a manual cover, and it is exactly like the lid



label. The 2 models below are from the manual with the 1st No.1 They are indistinct but it can be seen that, like the lid, the text is in German & English.

METALLIX: S1

OSN 28/821

CONSTRUCT-O-CRAFT This small American system appeared in 1946, soon after BUILDDO (see 27/796), and they had certain features in common. These included detachable Hubs, an Eccentric, & smaller than usual N&B. C-O-Cs other obvious feature is the impressed pattern of bracing on all the Strips.

This account is based on several incomplete No.500 outfits, parts from a No.800 set; & notes on two No.100 sets.

Revised MCS Entry

Name CONSTRUCT-O-CRAFT

Country U.S.A.

Maker Boxar Tool & Mfg. Co; from 1948: Hedge Tool & Mfg. Co. Both of 2240 W. Ogden Ave., Chicago 12, Illinois.

Sets Nos. 100, 300, 500, 800.

History 1945 is mentioned in MCS but the first manual is ©1946, and only the No.500 set is mentioned in it. 1947 saw a new manual and the introduction of the 300 & 800 sets (though an example of the 300 has yet to be seen). The only known No.100 outfit is from Hedge Tool, and its Model Sheet is © 1948 - it is the only known set from that company but the 300, 500, & 800 outfits are advertised on the No.100 Model Sheet. No later material is known.

Hole dia. 4.0mm.

Hole pitch 12.7mm.

Colour Most parts are plated, perhaps with zinc, and the finish now varies from bright to very dull. All Plates though, except the Flanged Plates, are painted black on one side (#530 on both). The non-painted side is sometimes found gold lacquered. The Fibre Plate #505 is black.

Bosses The normal boss is only used on certain parts in the No.800 set. It is brass, 9.5mm Ø, 3.95mm bore, with a narrow, shallow ring of peening, and is single-tapped 6-32. Some are zinc plated.

The detachable Hub, #529, is brass or aluminium, 16.7mm long o/a, with a 4.0mm bore. The hexagonal body is 9.5mm A/F, 7.2 mm long, & is single-tapped 6-32. The spigot is threaded ¼"x32tpi.

Fixing 6-32 N&B. Various different N&B are found. Often found are steel Bolts, 8.9mm u/h, with a 5.7mm Ø very shallow mushroom; and 6.4mm A/F, square, brass Nuts, 2.5mm thick. Both are dull plated. Others known are zinc plated brass, hex Nuts, 6.3mm A/F, and steel RH Bolts, 6.3mm Ø, either untreated & 7mm u/h, or zinc & 8mm u/h.

The Hub screws into the formed upset centre of the Pulley Disc, #520.

Axles 3.75-3.83mm Ø with square ends.

DP 30.

Motors one 110v.

Remarks The Hub/Disc method of making pulleys is labelled 'Patent Pending' in the manuals but no actual patent is known at present.

PARTS All the parts and their names are shown opposite – some supplementary notes follow:

- The **Crank Handle**, #503, is 13½cm long o/a with a 2½cm handle.
- The **Fibre Plate**, #505, is .25mm thick and was rolled up for packing in the set. Perhaps it was somewhat squashed in doing so judging from the examples seen. The corner holes are at 8.2 & 5.45" centres, and so the equi-spaced holes along the short edges are at about (a rather useless) 1.35"

pitch. This doesn't actually matter in the manual models.

- The **Strips**, #506-511, are 12.7mm wide and .8 to 1mm thick. The embossed pattern looks quite attractive in some models and no doubt adds a little stiffness, but the edges of many of the Strips are slightly wavy from the stamping process. The flat ends usually allow a neat 1 hole overlap joint but longer laps are untidy if both raised sides face in the same direction. The flat ends prevent the 'vees' from interlocking.

- The **Flat Bracket**, #512, is 11mm wide, and the **A/B**, #516, is made from it.

- All the **Flanged Plates** have square corners. Not shown in the illustration are 7 shallow, impressed grooves, 3mm wide, in the top face of the Sector Plate.

- The centre of the **Pulley Disc**, #520, is upset on the concave side to carry the thread.

- The **Loose Pulley**, #522, is brass, 12.7mm o.d., 5mm wide, and the bottom of its vee is flat.

- The **Plates**, #525-527 & 530, are just thick enough to be rigid. The black paint on those zinc on the reverse side chips off easily, but is much more durable on the 2 examples of the gold lacquered type to hand. Both incidentally have narrow brown stripes running across the gold lacquer.

- The **Hook** is 25½mm long o/a & is made from 1.2mm wire.

- The **Screwdriver** is 110mm long o/a, and the wire is 3.6mm Ø. The **Spanner** is 72mm long o/a and 1.3mm thick. The small end is hexagonal and just fits the Nuts; the jaw width of 9.5mm at the other end is slightly too small to fit the Hub. The jaw gaps are the same as those in the BUILDDO Spanner, and the two are very similar, but the C-O-C is noticeably wider at the large end, 22mm across against 19.

The '800' Parts

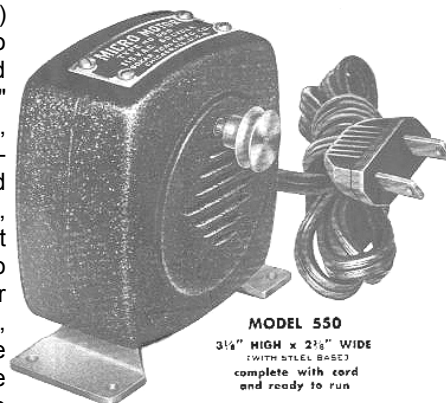
- The 5*7h **Flanged Plate**, #532, has, like the other Flanged Plates, flanges with round holes & square corners.

- The 45t **Gear**, #533, 39.3mm o.d., is dull plated brass with a peened in boss. The 15t **Pinion**, #534, 13.9mm o.d., is plain brass machined from the solid, with a 3.4mm face width. The two are a little tight running together at 1" centres. The teeth of the Pinion have less taper than is usual.

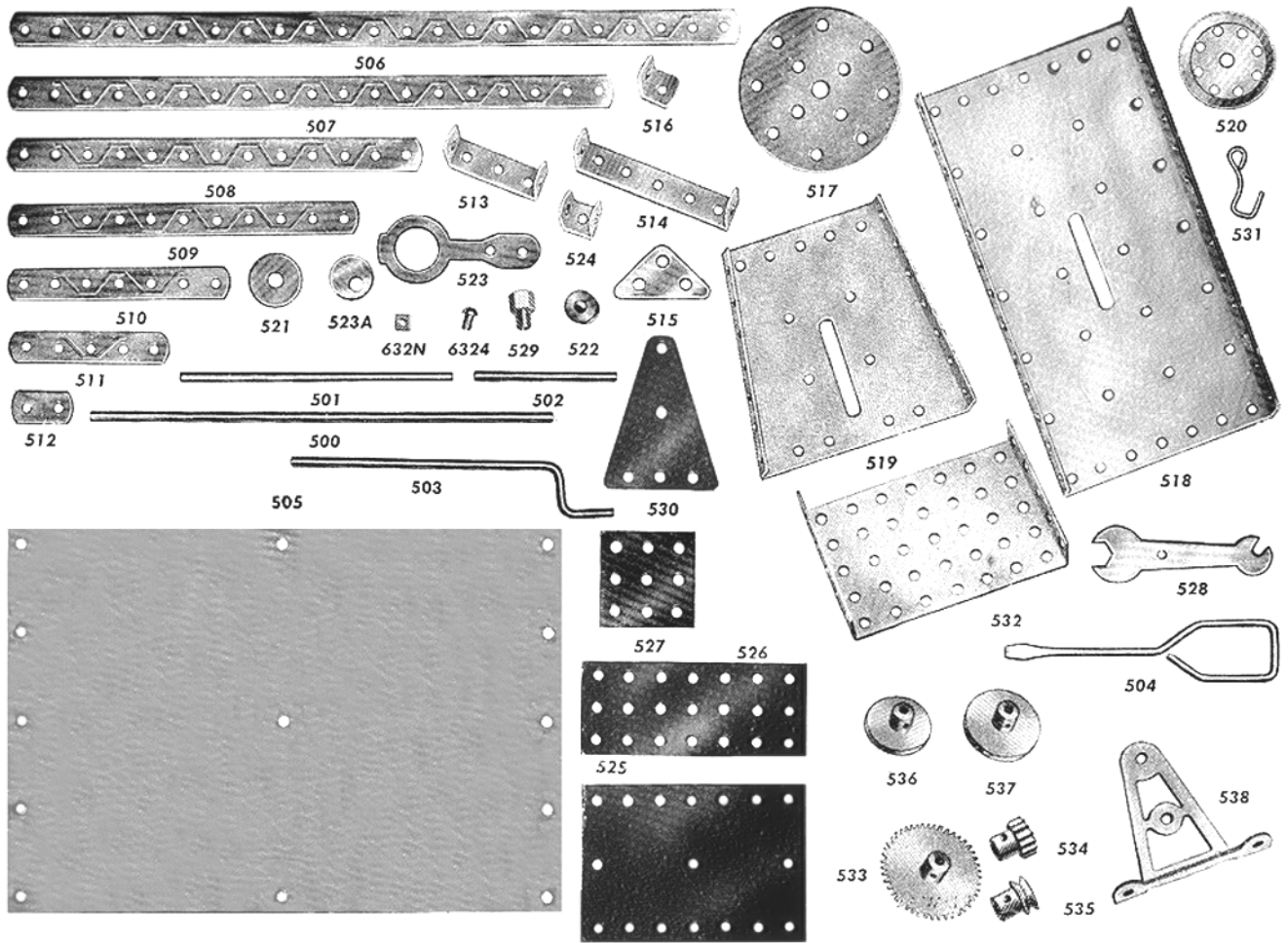
- **Pulleys**. The ½" o.d., #535, is solid brass. The 1" & 1¼" (#536 & 537) have aluminium or steel discs of exactly those diameters, joined with brass bosses. Their vees are about 4mm wide and are parallel at the circumference, like some ERECTOR Pulleys.

- The **Shafting Standard** too may be steel or aluminium. The base holes are at 2" pitch and the top holes are at 1" to take the Gears. In the example to hand the top holes look as if they have been opened out to 4.3mm Ø, perhaps to allow the Gears to run sweetly.

- The **Motor** (right) is called the Micro Motor in an ad, and is described as 3⅜" high by 2⅜" wide, fully cased in aluminium, with a baked black wrinkle finish, and louvres front and back. A photo of an actual Motor shows bright feet, and a bright grille instead of the nameplate on the top. The Motor's shaft is ⅛" Ø and the Motor Pulley for it has a blind bore. It is



MODEL 550
3 3/8" HIGH x 2 3/8" WIDE
(WITH STEEL BASE)
complete with cord
and ready to run



Parts for Models 800, 500, 300

Model 800 No. of Pcs.	Model 500 No. of Pcs.	Model 300 No. of Pcs.	PART NO.	DESCRIPTION
2	2	—	500	7¼" Long Shaft
4	2	2	501	4¼" Long Shaft
4	4	2	502	2¼" Long Shaft
1	1	1	503	Crank
1	1	1	505	Vulcanized Fibre Plate
4	4	—	506	11½" Long Girder—23 Holes
6	6	4	507	9½" Long Girder—19 Holes
6	6	4	508	6½" Long Girder—13 Holes
10	8	4	509	5½" Long Girder—11 Holes
15	12	6	510	3½" Long Girder— 7 Holes
20	16	8	511	2½" Long Girder— 5 Holes
16	14	4	512	1" Long Strap—2 Holes
6	6	3	513	1½" Long Channel Bracket
6	6	4	514	2½" Long Channel Bracket
8	8	4	515	Triangular Plates
24	20	10	516	Angle Brackets
4	4	4	517	Large Discs
2	2	1	518	Base Channel—Rectangular
1	1	1	519	Base Channel—Triangular
12	12	10	520	Dished, Threaded Wheels
3	2	2	521	¾" Diameter Washers
2	2	1	522	½" Diameter Brass Sheaves
1	1	1	523	Eccentric Arm
1	1	1	523A	Eccentric Arm Washer

Model 800 No. of Pcs.	Model 500 No. of Pcs.	Model 300 No. of Pcs.	PART NO.	DESCRIPTION
10	8	5	524	U-Type Brackets
4	4	2	525	Plates
2	2	2	526	Plates
4	4	3	527	Plates
6	6	5	529	Brass Threaded Studs
4	4	2	530	Fan Blades
1	1	1	531	Wire Hook
1	—	—	532	Transmission Base
1	—	—	533	45-Tooth Gear
1	—	—	534	15-Tooth Gear
1	—	—	535	½" Pulley
2	—	—	536	1" Pulley
1	—	—	537	1¼" Pulley
2	—	—	538	Transmission Bracket
1	—	—	550	110 V.A.C. MICRO MOTOR
200	170	98	TOTAL — COMPLETE	
95	90	49	6324	Screws
95	90	49	632N	Nuts
390	350	196	TOTAL — MAJOR PIECES	
Included with every set		1	504	Screw Driver
		1	528	Wrench—for Studs and Nuts

9.3mm o.d. with an 8.5mm Ø boss single-tapped for a 4-36 Grub Screw.

A '100' Part A 9*5h Flanged Plate with square corners, only included in the No.100 outfit.

SETS The **No.500** is the most commonly found outfit and is packed in a box 14*18", with the lid below. The parts are mostly clipped to a red backing card but a few are held under slits in it. The N&B are in a small black & grey card box with the name & SMALL PARTS on it; the Brackets are in a clear plastic tube about 6" long.



The **800** is in a deeper box of about the same size with a similar lid except that the background is green. Half the box is taken up by the Motor in one corner and the '800 only' parts clipped to a red card alongside it. The other parts are on 2 layers of red cards in the other half. The small parts box is like the 500 one but stamped '800' on the top.

The two **No.100** sets known, both from Hedge Tool, have different packaging. One is in a normal box, 13½*11*1¼", and its label is rather like the photo part of the manual cover in the next column. It has the same boy & Bridge but the background is red, the 3 parts of the name are one under the other, and 'Model 100' is in the black squiggle at the top. Text on the right side replaces the centre oblong, and claims 96 steel & brass parts, with the major parts heavily plated.

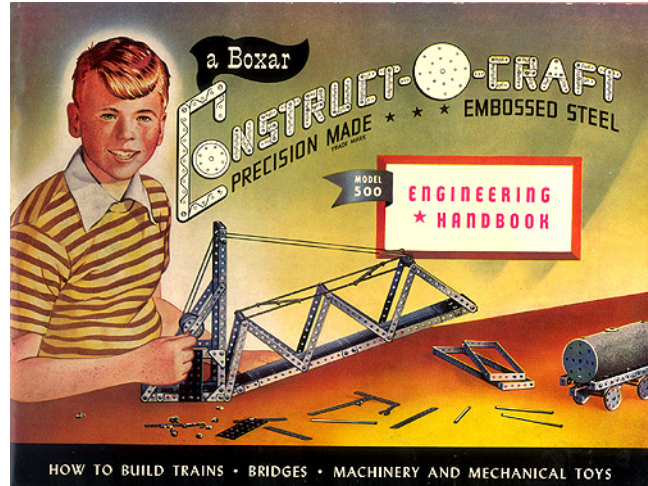
The other set, in a tube, was mentioned in 18/522. Its wrap around label is like the box one, but with black bands top & bottom bearing a slogan & the company name.

The 22 different parts in the Set are shown on the Model Sheet (with the boxed set), but without quantities. These parts, with their possible numbers (from the model 'parts required') in curly brackets, are 5, 11, & 19h Strips {8,4,2}; 3 & 5h long DAS {2,2}; the Pulley Disc & Hub {4,4}; the 5h Ø Disc, & ½" Loose Pulley {1,1}; the Corner, Angle, Double & Flat Bracket {2,4,3,4}; 2¼ & 4¼" Axles, and the Crank Handle {2,2,1}; a RH Bolt, square Nut, & Hook {25,22,1}; the Spanner & Screwdriver {1,1}. The other part in the Set (and used in the models) is the 9*4h Flanged Plate {1}, but the 7*5h (#532A) is shown in the Illustrated Parts. No Flanged Plate or Model Sheet was in what remained of the tubed outfit.

MANUALS Apart from a Model Sheet for the No.100 outfit, copyright 1948, only two manuals are known. The first, copyright 1946, for the 500 set, is described in the Summary below. The other, copyright 1947, is similar but with some changes & additions to cover the 300 & 800 sets. The main changes are listed after the 500 Summary.

Summary of the 1946 Model 500 MANUAL •Name: Construct-O-Craft Model 500 Engineering Handbook. •Details of maker: Boxar Tool & Mfg. Co., 2240 W Ogden

Ave., Chicago 12, Illinois. •Dates &/or Ref Nos: © 1946 on p1 & C4. •Page size: 276*210mm. •No. of pages: 32+covers. •Language: English. •Printing: Cover below; models are B&W photos with pink surrounds. •Page Nos. of Illustrated Parts & highest PN: C3,6324. •Page Nos. of Set Contents & highest PN: 32,6324. •Sets covered: No.500. •No. of models: 69. •Name, Page No. of first & last model (no Model Nos.): PLAYGROUND SLIDE,2; HEAVY DUTY RADIAL DRILL PRESS,29. •Other notes: • parts needed for models on pp30-31. • templates for card parts on p32.

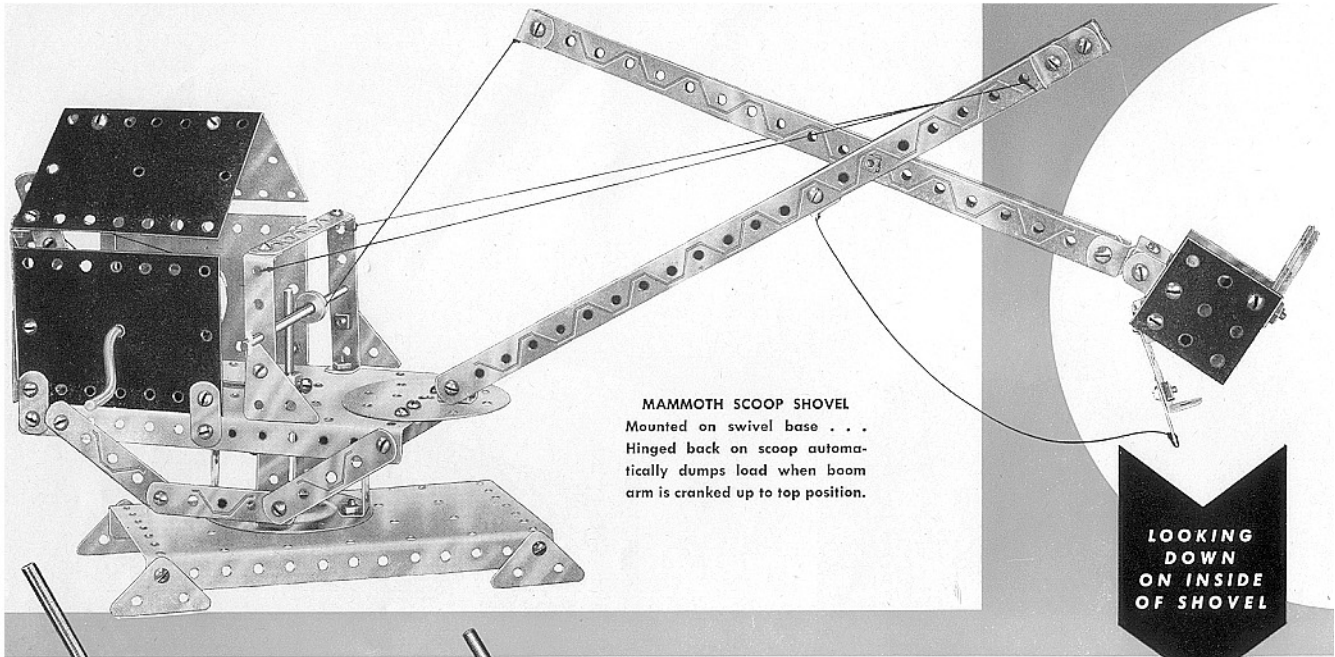


Changes in the 1947 Model 500 MANUAL • The cover is as above but with the centre oblong orange, and '(ALSO USED FOR MODELS 800 & 300)' in small letters under 'ENGINEERING HANDBOOK'. • C2 has an ad for the Motor instead of a letter from the 'boss'. • p1 & C4 have '1st Edition copyright 1946 & 2nd Edition copyright 1947'. • In the Parts Required pages the models that can be made with the 300 set are asterisked, from Playground Slide to Drill Press. Also tips are given in the model pages for adapting some other models to the 300 contents. • The Set Contents now include Sets 300 & 800, and the new parts are shown in the Illustrated Parts. • The colour surrounds for the models are light green. • The 800 set is the subject of a centre supplement of 4 unnumbered pages, with orange surrounds to some of the illustrations. 'ENGINEERING HANDBOOK SUPPLEMENT NUMBER ONE' is on p1 together with a Line-shafting model. p2 shows a Lathe, and p3 a Countershaft model. p4 describes gearing-down using Gears & Pulleys.

The 1948 MODEL SHEET This is a sheet about 18*28", printed on both sides in B&W, and folded into four. On the front is the heading 'MODEL 100 CONSTRUCTION MANUAL and MODEL PARTS LISTING'. Under it are the parts needed for the different models, and illustrations of the different parts in the Set (including the 5*7h Flanged Plate, but numbered 532A, presumably the PN of the 9*5h version used in the models). At the bottom is 'MANUFACTURED EXCLUSIVELY BY HEDGE TOOL & MFG. CO., 2240 WEST OGDEN AVENUE, CHICAGO 12, ILLINOIS, U.S.A. © 1948 H.T.&M. Co.' On the reverse side is an ad for the Motor, and another for the 300, 500, & 800 sets.

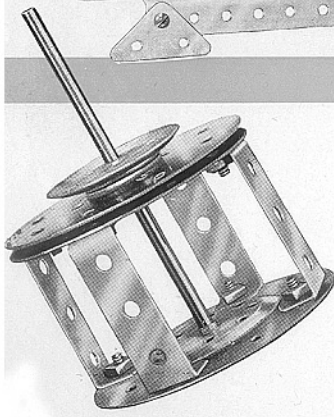
There are 21 models on the front side, from SUN DIAL to FLAT CAR, and on the back are 27 more, from RADAR TOWER to SAW HORSE.

MODELS There is one large photo of each model, with additional views of details in a few cases. The 69 '500' models range from simple domestic items and other small models, the Bomber opposite for instance (but how are the wheels held on?), to the Shovel above right. This and a few other models have a simple band brake. In a handful of

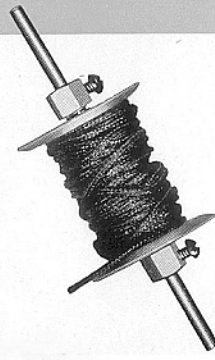


MAMMOTH SCOOP SHOVEL
 Mounted on swivel base . . .
 Hinged back on scoop automati-
 cally dumps load when boom
 arm is cranked up to top position.

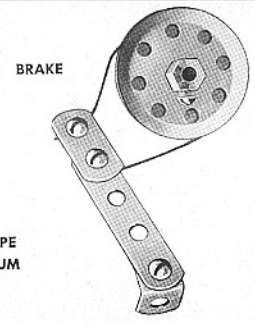
**LOOKING
 DOWN
 ON INSIDE
 OF SHOVEL**



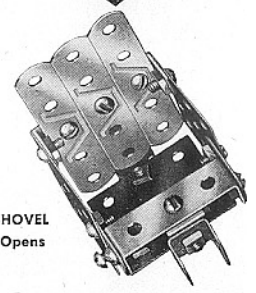
TURNTABLE



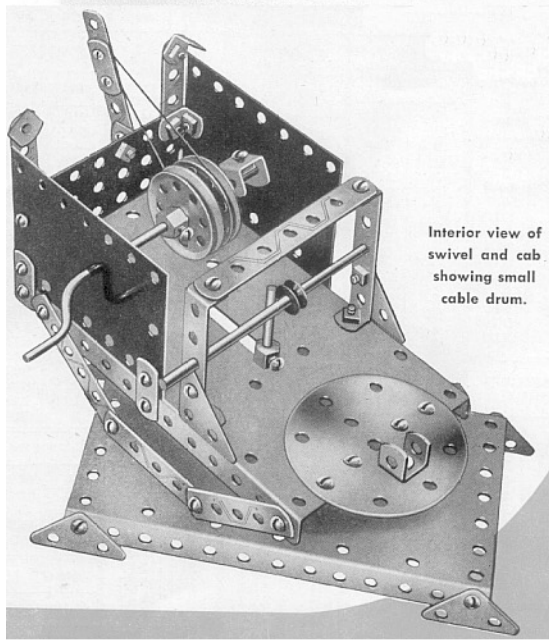
**LARGE TYPE
 CABLE DRUM**



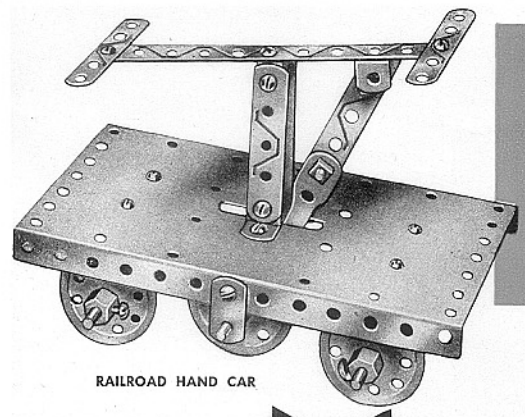
BRAKE



SCOOP SHOVEL
 Actually Opens



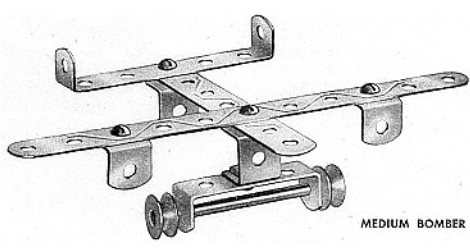
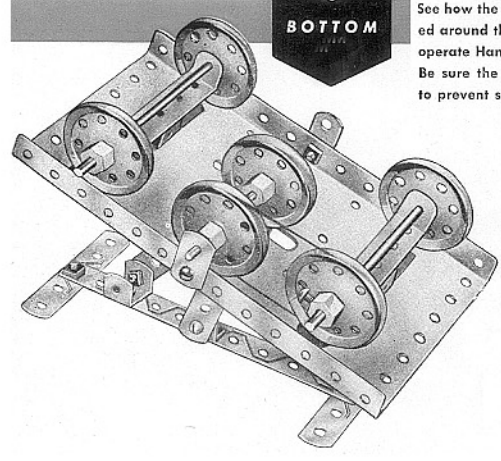
Interior view of
 swivel and cab
 showing small
 cable drum.



RAILROAD HAND CAR

BOTTOM

See how the cord is pass-
 ed around the wheels to
 operate Hand Car drive.
 Be sure the cord is taut
 to prevent slipping.



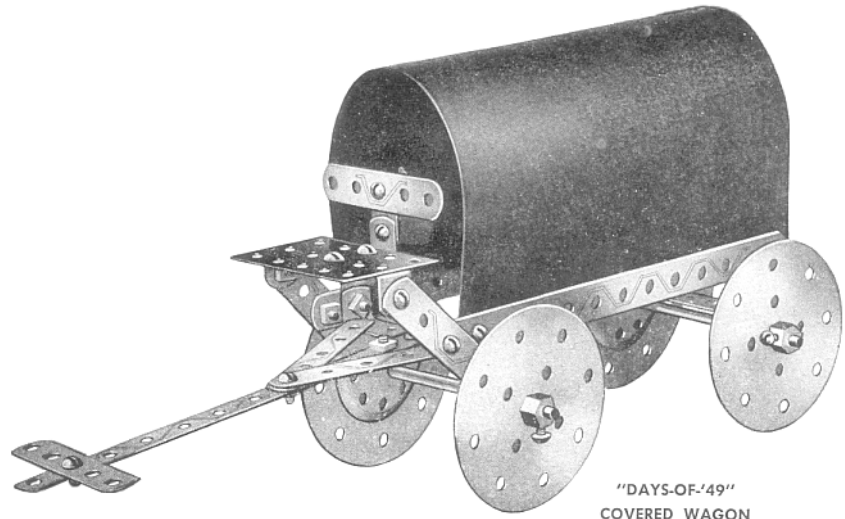
MEDIUM BOMBER

models the Eccentric is used to provide reciprocating motion, as in the Hand Car on the previous page. Those cases, some cord drives, and centre-pivot steering, are the main mechanical features. The unusual Fibre Plate is used as the casing of tanks & boilers, in a Loco for example, and in the Covered wagon right.

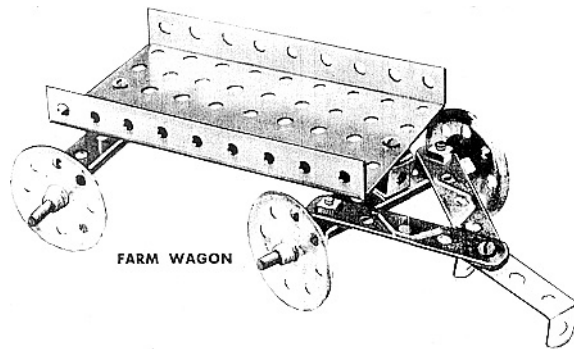
The three '800' models are rather disappointing. The Line-shafting merely shows all the new Pulleys on a geared countershaft, with a cord drive from the Motor. The Motor isn't used in either of the other models, nor any of the new parts. The Countershaft is labelled as a Special Model and shows straight & crossed cord drives between pairs of pulleys. It needs many more parts than are in the Set but the functionality of the model could easily be achieved with those in the 500 outfit. The third model is the Lathe below. I don't think it has any working features other than the pulley drive to the main spindle.

The 48 small '100' models are mostly new and while not very exciting, they are a fair selection from a small set, with most of the usual favourites present. The Farm Wagon opposite is not the best model but does show the 5*9h Flanged Plate clearly.

I made a Derrick Crane from my 500 set without too much difficulty, although a few problems arose. The main one was that there is no Collar or Axle Stop in the system – the Hub or Double Bracket (with a N&B through the base hole) can be used but they are often needed for other purposes and in any case often prove to be over large for



"DAYS-OF-'49"
COVERED WAGON



FARM WAGON

the job. BUILD O provided Fibre Washers, which worked

quite well. Having the Hub screw into the Disc was satisfactory when making pulleys but when other parts are used on the Hub the Disc acts as a nut, and in that case it is not as neat as the real Nut in BUILD O. The design of a few of the parts could be improved, notably the Triangular Plate & Corner Bracket where the excess metal outside their base holes often interferes with adjacent parts.

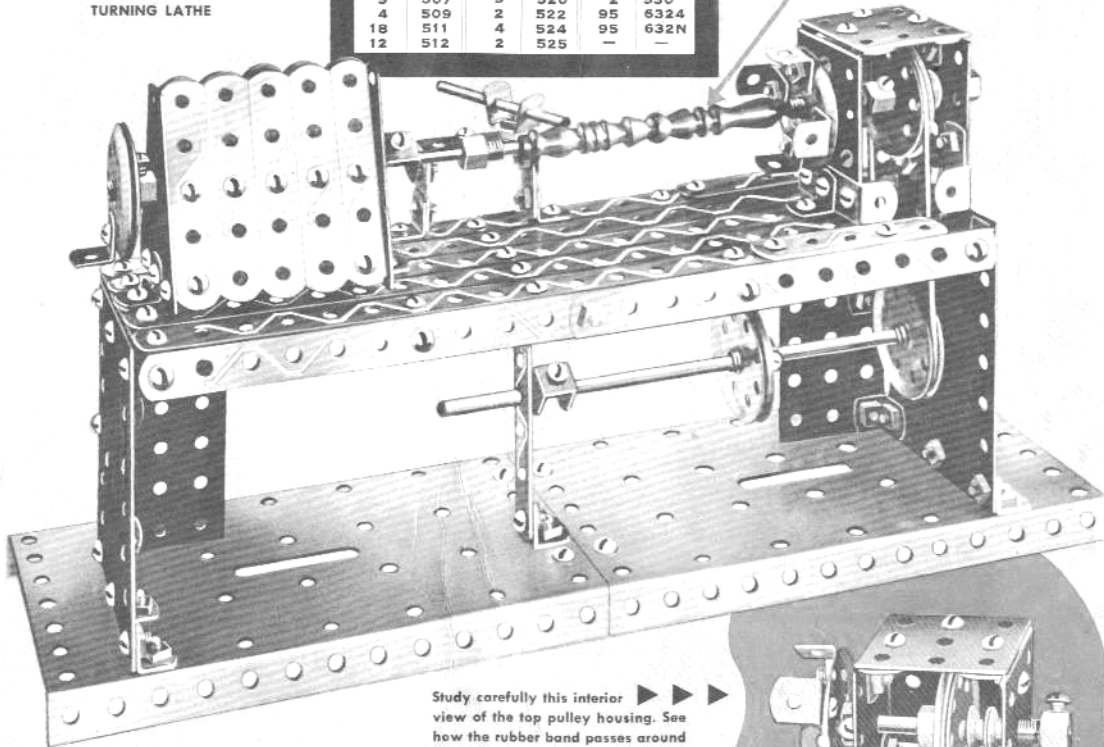
THANK YOU

to all who have contributed material for this account, including:
Orion DreamDancer,
Chris Freeman,
Don Redmond, &
Richard Symonds.

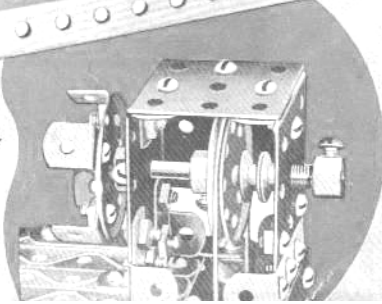
ENGINE LATHE
REPLICA OF WOOD OR STEEL
TURNING LATHE

NO. OF PCS.	PART NO.	NO. OF PCS.	PART NO.	NO. OF PCS.	PART NO.
1	500	3	513	2	526
1	501	24	516	4	527
2	502	2	518	6	529
5	507	9	520	2	530
4	509	2	522	95	632A
18	511	4	524	95	632N
12	512	2	525	—	—

TURNED MODEL SHOWN HERE
NOT FURNISHED WITH SET

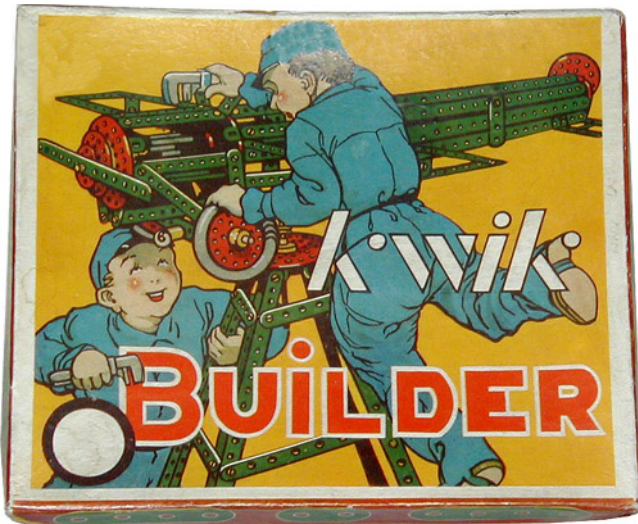


Study carefully this interior view of the top pulley housing. See how the rubber band passes around the pulley. And don't overlook those two #522 sheaves placed right next to the pulley for spacing purposes.



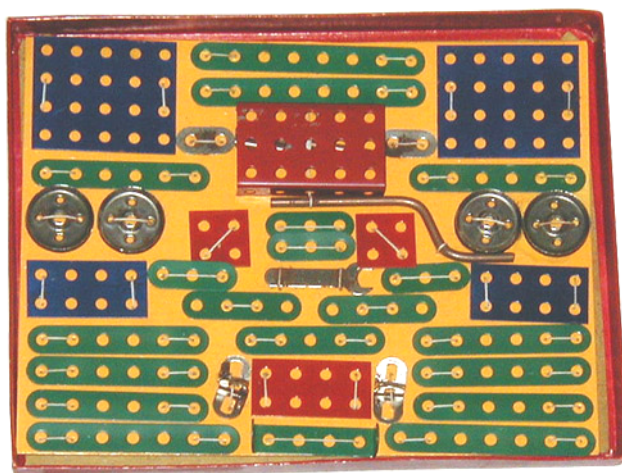
KWIK BUILDER Harry Marien recently acquired some unused sets from this small Belgian system & kindly allowed me to examine them. They are the first actual sets I've seen & a few of their details are not totally in agreement with previous information about these systems. The differences will be discussed after Harry's sets have been described.

The SETS are Nos. 0, 1, & 2. All are in red boxes with a label similar to the No.0 below. All the main parts in the Nos.1 & 2 are strung to an orange card with white cord, with the NBW & Axle Stops in a white paper bag. The layout of the parts in these two sets corresponds to the photos of them in the manual with them.



The No.0 The box is 15½*18¾*2cm, and green 'Strips' are printed along the sides of the lid. The parts can't be seen because they are all in an unopened brown paper bag.

The No.1 The box is 15½*26½*2¼cm, and the label is like the No.0 but with, on either side, a red panel with 4 green 'Strips' on it. The main parts can be seen in the No.2 box below and the **Set Contents** are 2,6,1,2,4,2 of 7,6,5,4,3, 2h Strips; 1x 3*5h Flanged Plate; 2 red 2*2h & 3 blue 3*3h Perf. Plates; 4 Pulleys; 2 Axles; 4 A/Bs; 14 N&B; 4 each Washers & Axle Stops; 1 Spanner.



The No.2 The box is 20½*26½*2¼cm and the label is as the No.1 but with 3 green 'Strips' & 4 yellow 'Pulleys' above and below it. The **Set Contents** are 2,2,8,1,2,4,2 of 8,7,6,5,4,3,2h Strips; 1x 3*5h Flanged Plate; 2 red 2*2h, 3x 3*3h, & 2x 4*5h Perforated Plates; 1x 1*4*1h DAS; 4 Pulleys; 2 Axles; 4 A/Bs; 20 N&B; 4 each Washers & Axle Stops; 1 Spanner.

Leading Particulars of KWIK BUILDER

Name KWIK BUILDER

Country Belgium

Maker May be the same as MERCATOR

History Probably late 1940s or 1950s.

Hole dia. 5.0mm but 4.9mm in Flanged Plates.

Hole pitch 13.0mm.

Sets Nos. 0, 1, 2, 3, 4.

Material/Finish Green Strips, blue & red Plates, nickel Pulleys & Brackets.

Boss None.

Fixing 5/32" BSW brass steel N&B. Pressed hex Nuts, 8.0mm A/F, 2.5mm thick; CH Bolts, 7.0mm Ø, 8.0-8.3mm u/h.

Axles Plain steel, 4.5mm Ø, with sheared ends.

No Motor or Gears.

Remarks A simple system with parts similar to MERCATOR but with a different hole pitch.

The PARTS A few points of explanation:

- All **Plates** have square corners. **Holes** are round except in the A/Bs. The **DAS** is below the red 2*4h Plate in the photo.
- **Strips** are 13.1mm wide with fully radiused ends.
- The **Pulley** is 29mm Ø, about 5.6mm wide, with a 5.2mm centre hole. Some are not well made, with slightly misaligned discs, and centre holes up to 5.6mm.
- The **A/B** has 2 slotted holes with 'BRAL' ends, one 7.6mm long, & one 7.9mm.
- The **Axles** are under the Flanged Plate & are 66mm long.
- The **Crank Handle** is copper plated steel, 4.5mm Ø, 106mm long o/a, with a 27mm offset. The lengths of the shaft & handle before the start of the bends, are 58 & 22mm.
- The **Axle Stop** is red rubber, 6mm o.d. & 4.2mm long.
- The nicked steel **Washer** is 10.0mm o.d., & 5.0mm bore.
- The **Spanner** is flat, 48mm o/a, with a 8½mm wide shank.
- The 2h Strip, A/B, Pulley, & Spanner are **nickel plated**.

The MANUAL All the Sets have the same manual, the one described in 10/263. The cover is in MCS and it, like all the pages, is printed blue on white.

Another No.0 Set? Harry has also found a dark blue card, 14¼*25¼cm, with the parts on it strung with brown cord. It is believed to be the contents of a No.0 set, less the N&B etc, which would have been packed separately. All the parts common to the Sets 1 & 2 above correspond exactly except that the 3 to 7h Strips are blue & yellow, and the Axle is copper plated. Parts not in the 1 & 2 are a 3*3h Flanged Plate; 1*3h & 1*5h Plates (square-ended Strips); & a 36mm Wheel Disc with 6 holes at 13¼mm radius. All the 'new' parts are red.

The **Set Contents** are: 2,8,2,2,2,2 of 7,6,5,4,3,2h Strips (the 4 & 5h are blue); a 3*3h Flanged Plate; 4 each of 1*3 & 1*5h Plates; 4 Wheel Discs; 2 Axles; 4 A/Bs; 1 Spanner.

The No.0 Set in the Manual above differs in not having a Flanged Plate or the Discs – it has no wheels of any sort.

A No.4 Set This was described in 10/263 and the parts tally with those here except that the hole spacing & the Strip width were both ½". Perhaps simply an error but the possibility of 2 versions of K B cannot be ruled out. This is because MERCATOR, usually assumed to be from the same maker as K B, may itself have 2 phases, one with 12.7mm pitch holes & one with 13mm. More of that in the next Newsletter.

COOL STEEL This system was mentioned briefly in 14/385 and details of the two sets that are known to have been produced are now to hand. Most of the pieces are steel with large holes, widely spaced, but the threaded parts are plastic, and also the tools & wheels. COOL STEEL is only known from the year 1995 and was made in China for the MyKids company of Hong Kong and the U.S.A.

Leading Particulars

Name COOL STEEL

Country Hong Kong/U.S.A.(but made in China).

Maker MyKids Mfg. Co. Ltd., Hong Kong 5, Yuk Yat Steeet, 7th & 10th floor; & Wilson Industrial Building., To Kwa Wan, Kowloon, Hong Kong; also 16400 Ventura Blvd., Suite 337, Encino, CA 91436, U.S.A. The CE label has the Encino address and also John Crane Ltd., Northampton, NN3 5HT, England.

History Boxes have ©1995 and the CE label on them. An American ad is known from 1995.

Hole dia. 9.8mm **Hole pitch** 32.0mm

Sets 125 Piece Dynamic Vehicle Set, & 178 piece Jumbo Vehicle Set.

Material/Finish Most parts steel, variously painted in silver, green, blue, purple, & mustard. The threaded parts, the Wheel & Pulley, and the Tools are plastic, in the same colours except that yellow replaces mustard, and the Road Wheel is black.

Boss No boss. Wheel bores are about 10mm Ø.

Fixing Thread: 8.9mm o.d. by 2.3mm pitch (.35" x 11tpi). Plastic N&B: octagonal Nuts 17mm A/F, 8mm deep; Bolts, 10½ & 33mm u/h, with slotted octagonal heads 17mm A/F, & 8 mm deep. Screwed Rods are used as axles with Wheels loose on, or nutted to them.

Axles Screwed Rods.

DP No Gears.

Motors None.

Remarks Said to be intended for 4-7 year old children.

THE PARTS The illustration of the parts in Fig.1 is taken from the inside of the lid of the 178 set, with reference letters added. The quantity of each part is given, with the 125 values added as 'x' where they differ. The notes below explain points which may not be clear.

- The **Spanner** is 141mm long. The 2 lugs at the right end look as if they might be intended to be used as a screwdriver tip but are slightly too thick to enter the slot in the head of the Bolt. The **Screwdriver** is 154mm o/a.
- The 5mm Ø handle of the **Handle Crank** (a) is at about 33mm radius, and the boss on the remote side from the handle has an octagonal recess to fit over the Nut.
- The **Trunnion** (b) is made from the (7h) Flat Trunnion, with the bend line along the centre of the middle row of holes.
- The **slotted holes** in the Plates are 13.7mm long.
- One of the two **3*4h Plates** (c) in the 178 set is actually bent at 90° giving two 2*3h faces. The single part in the 125 set is this bent pattern.
- The different **Strips** vary from 18.0 to 18.5mm wide; the shorter ones are (like the Plates) .65mm thick, and the longer ones, 85mm.

- The **righthand 2*4h Plate** (d) is very thin (.25mm) clear plastic. Only one was found in the 178 set; the second in the 125 is in fact 3*4h, and both sizes are needed for the models shown on the box.
- The **A/B** (e) is the same width as the Strips, and its two arms are similar, about 28mm long, with a round hole.
- The **Road Wheel** (f) is 68mm Ø, and 37mm wide. It is the hollow type with no back and 5 webs to support the internal boss. The centre of the front is recessed a little with 5 slightly raised 'spokes'.
- The **Pulley** (g) is 49mm o.d, and 9mm wide, with webs, on both sides of the disc, around the 5 (10mm) holes & the circumference (forming the sides of the 'V').
- The **Screwed Rods** (h) are 70, 111, & 181mm long.
- Under the **Nut** (i) is a blind **Acorn Nut** (j), octagonal like the N&B, with a 10mm wide oblong recess in the head to fit the tip of the Screwdriver. The **Bolt** (k) has a similar recess in the bottom of the slot. The Long Bolt, used to hold the parts together in the box, isn't shown.
- The **parts** are accurately made from fairly soft steel, and are well finished apart from a little non-sharp burr here & there. The paint scratches fairly easily though. With one or two exceptions the **colours** of the different parts are as in Fig.1 but some parts are also in a second colour to suit the models' colour schemes.

THE SETS The parts are packed in a styrofoam block, with the Strips, & Plates, held together by standard N&B, plus 4 of the Long Bolts mentioned earlier. On the box it is said that all of these N&B 'may be discarded if you wish', but they are of course very useful. The block is in an end-opening box with a transparent top, covered by a hinged flap. The 125 flap is shown below, and the box is 43*29*5cm. The 178 scales at 53cm long, and the top of its flap is similar but the featured model is the one shown in OSN 14 (wrongly shown in the ad as a 125 model).

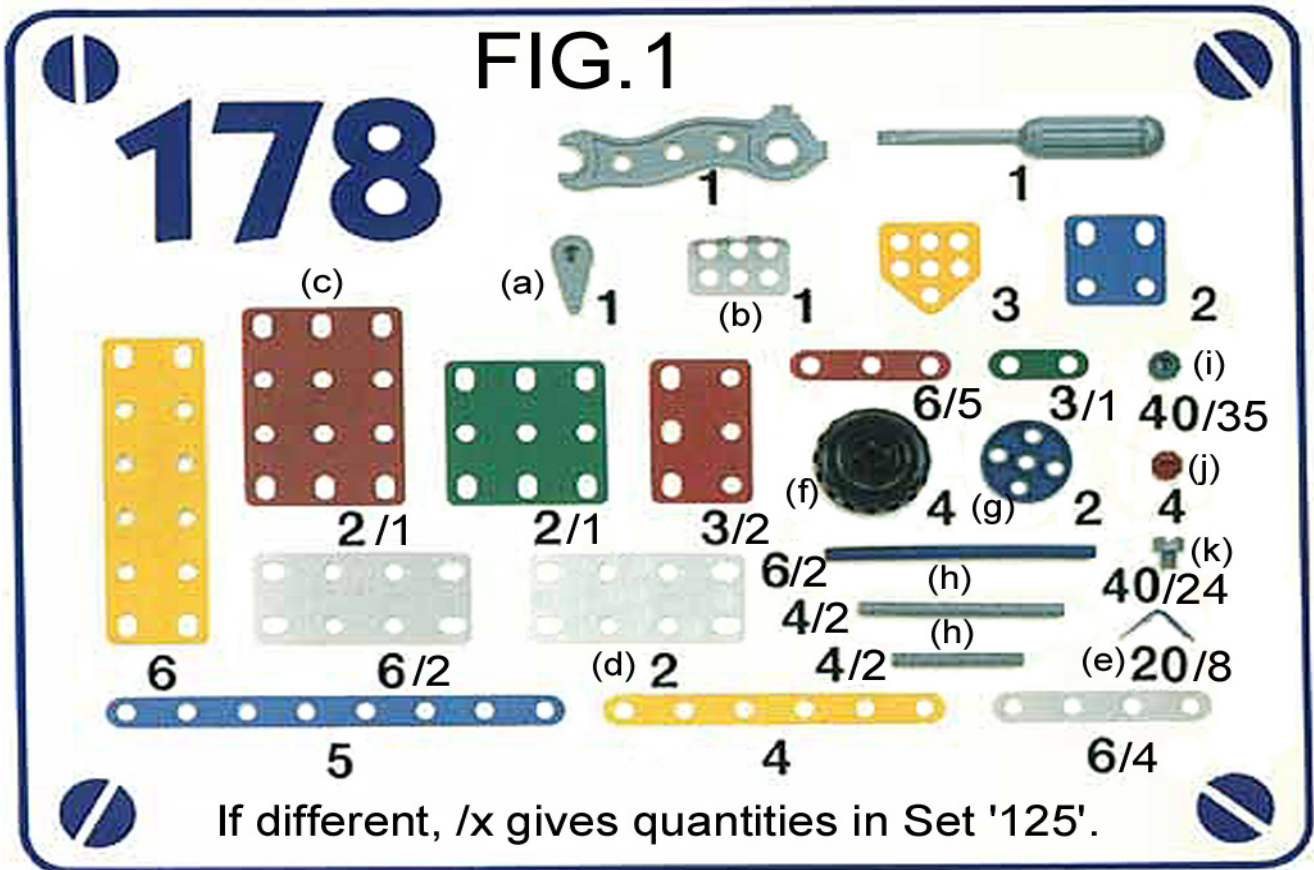


It appears from the Illustrated Parts that both sets include all the different parts, but as already noted, the 178 has the flat 3*4h Plate not in the 125. The 125 set to hand, probably unused, actually contains 14 A/Bs, and an extra Trunnion.

As well as the company details on the bottom of the box there are '©1995 The Design Center', 'Patent Pending', and (on the 125) 'Item No.3352'.

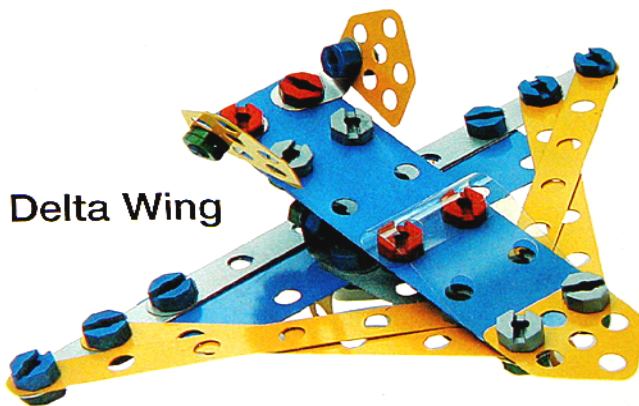
THE MODELS No manual is known for either set - for both the underside of the flap has a reasonable size photo of each of the 6 models on its top. Apart from the 'Blue Baron' Biplane, the 125 models are a Chopper, a Moto-X Racer (a Motorcycle using the Pulleys as wheels), a Baja Buggy, and the Delta Wing & Hot Rodster [sic] on the facing page.

It is stated on the box that the target age group for the sets is 4 to 7 year olds. The models should therefore be fairly simple, and so they are, but it's not easy to work out from the photos exactly which parts are to be used where. A plus is the N&B which go together easily and don't tend to

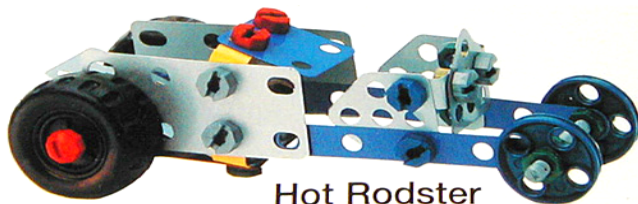


work loose. A minus is the small amount of metal outside the holes, which makes it too easy to bend the parts across the holes, especially the Strips. It is as well that no appreciable bending of the parts is needed to make the models. The Acorn Nuts are used on the ends of the axles as a neat way of retaining the Wheel.

Truck in OSN 14, a Formula 500 (Racing Car), a Power Lifter (Fork Lift Truck), and the Earth Mover below. None have any moving parts apart from the Wheels.

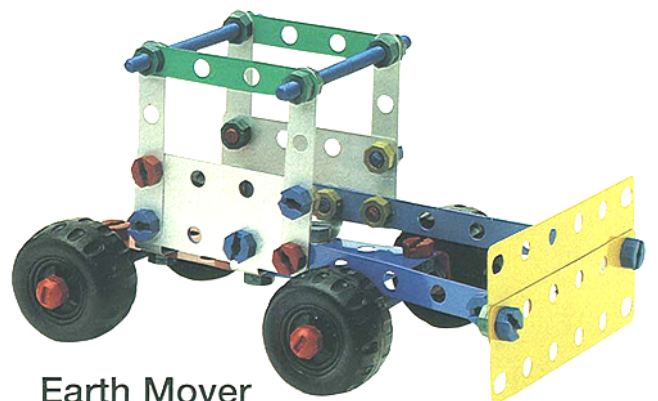


Delta Wing



Hot Rodster

2 of the 6 models on the 178 box, the Biplane & the Moto-X, seem to be the same as the 125 models; the others are the



Earth Mover

I thought I would try to make a mechanical model and after several false starts, managed a Mechanical Hacksaw. The only part suitable for the crankpin was the Long Bolt from the packaging. I attempted to include a pulley drive with the Pulleys mounted on Screwed Rods running in Strips. It wasn't a success because adequate tension in the rubber band belt made the Screwed Rods jam against the sides of the holes, even when the Strips were doubled up.

THANK YOU to Kendrick Bisset for supplying details of the 178 Set.

PS I forgot to mention a logo on the underside of the flap of both boxes. It is a yellow ring on a green panel with the black silhouette of a boy's head & shoulders inside it. He has a spanner in hand & wears a hard hat. Overlaid is a red band with 'Whistling Dixie' on it.

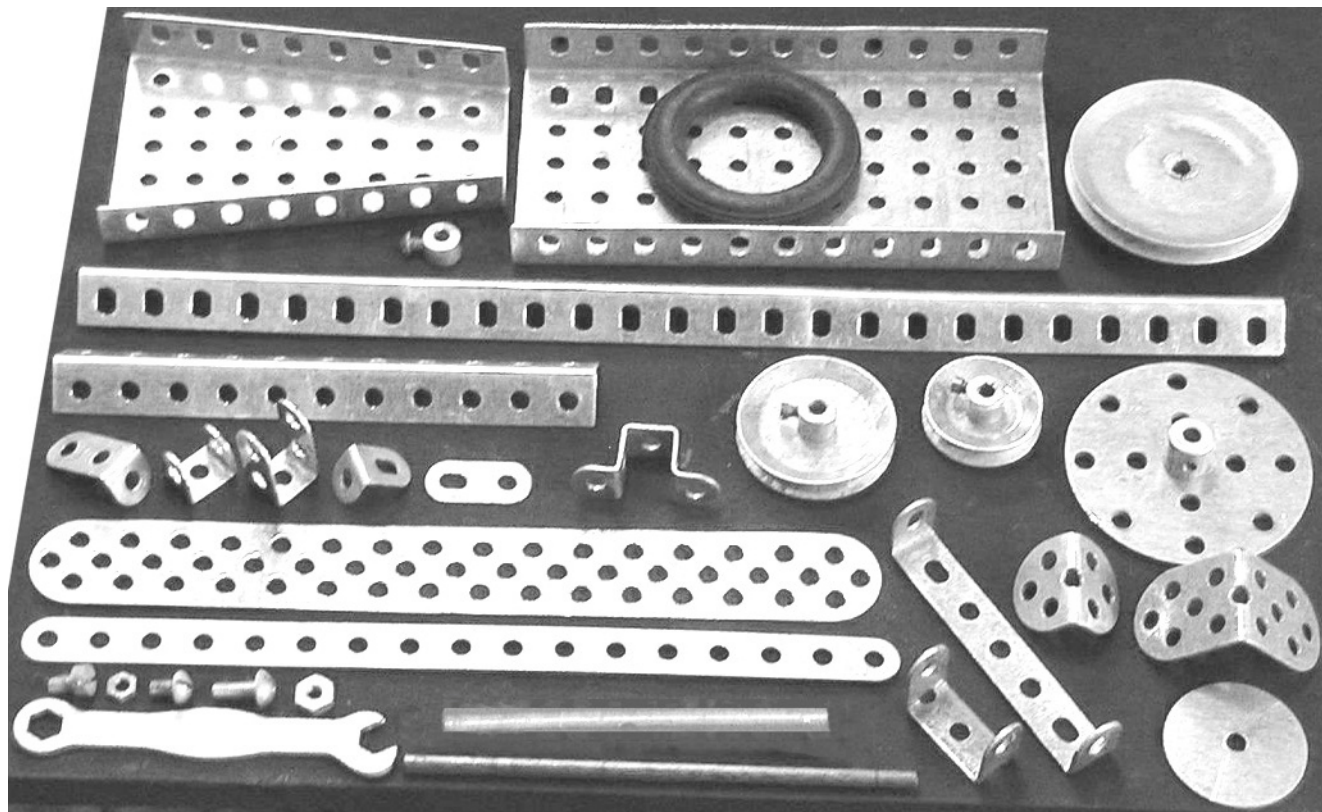
M K A & M F C Both these systems were East German, probably from the 1950s, and in MCS they look very similar if not identical. Little or nothing is known about the manufacturers or exactly when they were made (there seems to be a rubber-stamped name & address on the MFC manual cover in MCS, but I can't decipher it). Neither system is mentioned in the German reference books, but it's probable that MFC came first, as no parts or outfits are known. The unusual feature of both is that they contain a mix of normal and TRIX-style parts.

One can guess at the reasoning behind these systems: TRIX Spanners often gets pressed into service as Narrow Strips, and usually add to the appearance of a model, or to their neatness mechanically. How nice then if a range of Narrow Strips, and perhaps a few Brackets to match, were available. And TRIX N&B are a bit small really, so use M4.

But M4 means the TRIX-style parts are larger than the originals, by nearly 50% in fact, with a hole pitch of 11.2mm, and a width of 22mm. The longest (19h) Wide (TRIX pattern) Strip is 21cm long, and the longest (25h) 'normal', 11mm wide, Strip is nearly 28cm. Brackets are a mix of the two styles, but A/Gs are the convention pattern. Unlike TRIX all Wheels have tapped bosses. No Gears though. MKA parts are all plain aluminium.

MKA sets appear from time to time on Ebay, and this account is based on photos of some of them, and on 2 actual sets. One is my own and one belongs to David Hobson, to whom best thanks for lending it to me. Neither has a lid, and mine has no manual, but luckily the partitioned bases of each match exactly some of the more complete Ebay sets. The parts in the 2 sets to hand show several differences, and for convenience they will be referred to as 'early' & 'late', their most likely sequence.

The PARTS Most of the 42 parts used in the Manual models are shown below, though only one representative Strip, Wide Strip, Axle, & Screwed Rod. Parts not to hand



Leading Particulars

Name M K A Aluminium Baukasten

Country East Germany

Maker

History MCS gives 1950s.

Hole pitch 11.2mm. **Hole dia.** 4.5mm, some 4.4mm.

Sets Nos. II & III are known.

Material/Finish Plain aluminium. Late sets may have blue anodised Pulleys.

Boss Aluminium single tapped M3. o.d. – early: 9.0mm, but 10.4 on the 55mm Pulley; late: 10.0mm. Bore - 4.0 to 4.1mm. Peening is a ring, with recess (early), or with 4 indents (late).

Fixing M4 thread. 2 types of N&B are known, both aluminium. Early) 7.0 Ø CH Bolts, 6½mm u/h, with hex Nuts, 6.0mm A/F, & 2mm thick. Late) Bolts: 7.0 Ø RH, 6½mm u/h, & 8.0mm Ø RH, 10½mm u/h; with hex Nuts, 7.0mm A/F, & 2½mm thick.

Axles Brass (early), 3.97mm, or Steel (late), 4.03mm Ø.

DP No Gears known.

Motors None.

Remarks Appears similar or identical to M F C.

are a Crank Handle and a Windmill Sail. Also the 1h*2h A/B, the 1*1*1h D/B, & the 30mm Disc were only in the late set. But generally the early set is the most complete and the numbers of parts in it are shown in curly brackets in the notes that follow.

- **Generalities.** Slots are 6½mm long. Ends of Strips & Brackets are fully rounded. The corners of the A/Gs & Flanged Plates are square. The number of holes in the wide ('TRIX') parts are those in the centre row. Most parts are of 1mm metal, but thicknesses of .9 to 1.3mm also occur at random.

- **Strips.** The 7 lengths have 3,5,7,9,11,17,25 holes; they are between 11.0 & 11.2mm wide (with a few up to 11.5mm). {4, 8,4,4,8,6,10}

- **Wide Strips** are 3,5,7,9,13,17,19h long, and 22.0mm wide. {4,6,6,8,4,4,6}

- **Flanged Plates.** The 5*11h is 66mm wide o/a, with slotted holes in its outer rows & in its 16½mm deep flanges. The Sector Plate has flat ends & slotted, 14½mm flanges. {1,2}

- **Brackets** (see also the 'Late Parts' below. The 'normal' types are the Flat Bracket; the A/B made from it; the 2h deep D/B, the wide D/B (1½*1½+1+½*1½h); the Double Bent Strip; & the DAS. The latter is similar in width & slotting to the Flanged Plate. {6,8,3,2,2,2}

The Wide A/Bs are 1½*1½h & 2½*2½h. {6,6}

- The **A/G** is about 13½*13½mm, and 11 & 25h long. {2,6}

- **Pulleys.** Those in the early set are 55, 36½, & 27mm Ø with a 7mm wide vee. In the late set they are similar but 54, 37½, & 26½mm Ø, and the vee of the smallest is only 5mm wide. All have plain faces except the 54mm, which, as in the photo, carries 3 impressed segmental grooves, concave one side, convex on the other. {4,3,2}

- **Faceplate.** 55mm Ø, with a 1.5mm thick disc. {4}

- **Tyres.** Black rubber, now hard, 34½mm o.d. off the Pulley, with circumferential ribbed tread on the top. The late ones have MKA moulded onto each sidewall. {3}

- **Axles.** The early ones are brass, with slightly domed ends, 130, 109, 90, & 52mm long {2,2,1,1}. The few in the late set are steel but otherwise similar.

- **Screwed Rods.** Again brass: 110, 81, & 49mm long {1,1,1}. None were found in the new set.

- **Collar.** 9.0mm Ø, 6.0mm wide, single tapped M3. {5}

- **N&B.** 44 Nuts & 65 Bolts were in early set – up to 80 are used in the manual models. The tiny early **Set Screw** is brass, with a 4.0mm CH, and 4mm u/h. The later one is aluminium with a 6.0mm RH, and 6½mm u/h.

- **Spanner.** The early one is steel, 81mm long o/a & 1.5mm thick, with 6mm wide jaws. In the later set it is aluminium, 1.9mm thick, the same length but with 7½mm jaws. In both the matching hex opening is not quite large enough to accept the Nuts in the Set. No Screwdriver was in either Set.

- **Windmill Sail.** This can be seen in the Windmill shown overleaf - it seems to have 2 holes for attachment and is black on white, or perhaps on yellow.

- **The Late Parts.** Two 30mm Discs were in the late set, plus 1 D/B (the same width as the 2h deep D/B), and 2 of the 1*2h A/Bs.

The SETS 3 different sets have been seen on Ebay, and two have partitioned boxes which exactly match the present early & late ones. All the evidence is taken together in the descriptions below.

The Early Set. The box is about 23*34*3cm, and the lid is a lightish blue with a large yellow, portrait label. It has a Crane with a long jib, similar to the one shown later for the No.III Set, but pointing to the left, and loading a Lorry. Like all the labels seen, the wording on it is 'MKA Aluminium Baukasten'. No set number can be seen. The base is divided into 9 areas by partitions capped with the light blue. In one Set the N&B are in a round, 60mm Ø, dark brown Bakelite box with a screw-on lid.

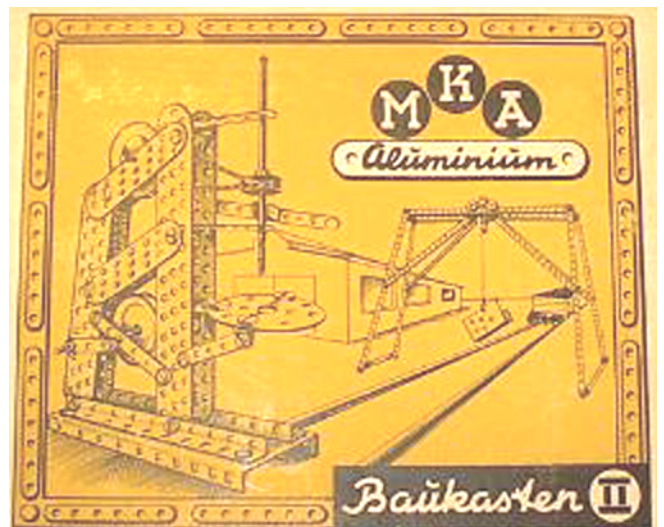
It is likely that the parts in this Set include a Flanged Plate, 2 Flanged Sector Plates, 4 Face Plates, 4x 55mm

Pulleys, & 4x 36½mm Pulleys with Tyres.

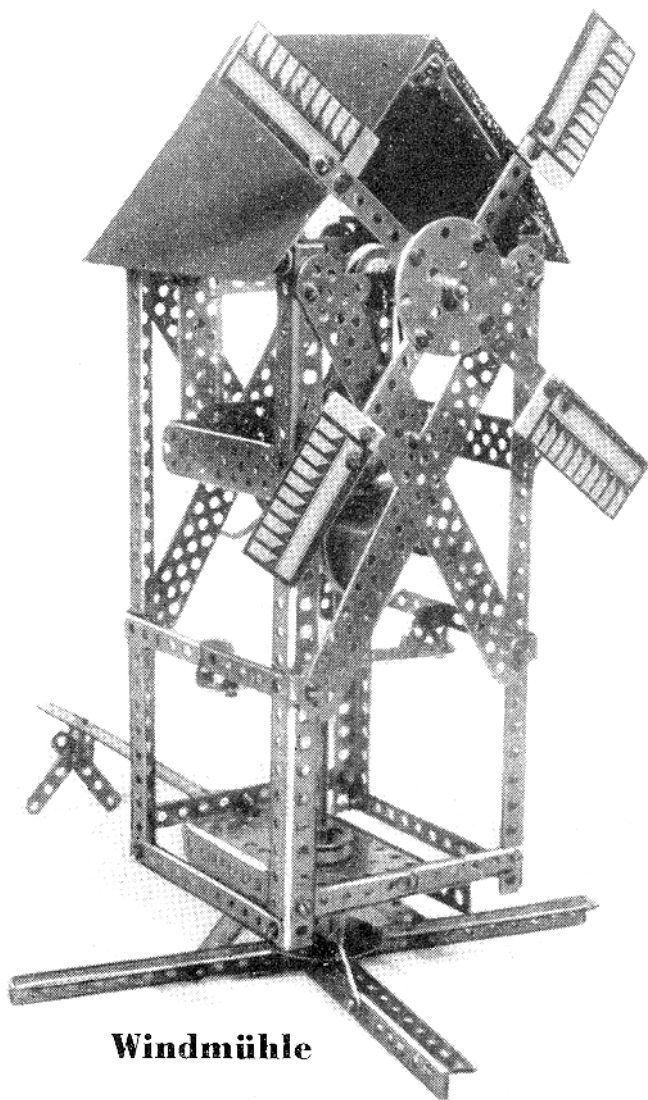
The manual has the greyish-brown cover, 210*146mm, below. The word Bunt usually means colour, but the only colour in this manual is on the cover itself. It can also mean mixed or varied, and so might be a reference to the contents. Finally it might be the makers name - Bunt is a German surname, albeit a rare one. C2 has an intro and the PR '110 Richard Perko, Cottbus-Ströbitz S 62423' – Ströbitz is part of Cottbus, a town 80km north of Dresden. C3 & C4 are blank.



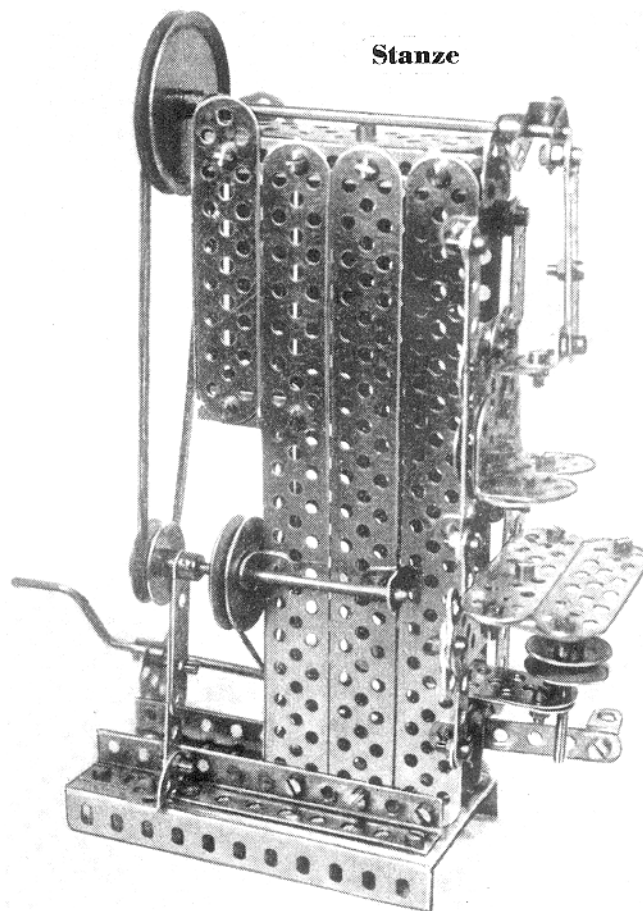
Inside are 20 pages of models, 11 in all, from Bank on p1 to Feuerwehrauto mit Leiter on p20. No details are given of parts, PNs, or set contents, and no reference is made to a Set No., or to more than one set. There is one smallish photo for each model, a Parts List (using PNs) for all but the Fire Engine, and written instructions for all but said Fire Engine and the first three (small) models. The models include the Crane on the lid, a Sewing Machine, a Motorcycle & (streamlined) Sidecar, and the Windmill & Press overleaf. Also the Breakdown Lorry in MCS, with the same Parts List. Not included are the Drilling Machine & Gantry Crane on the No.II lid, shown below, or the MFC Mechanical Hammer in MCS.



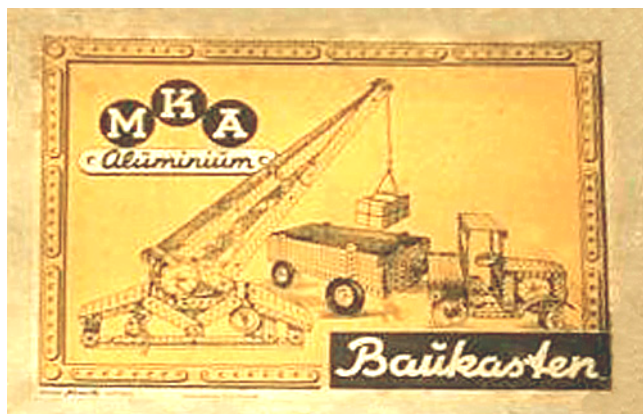
The Late Set (No.II). The box is about 26½*31*3cm, and the tops of the 7 partitioned areas in the base are blue as in the early set. But lids are either fawn or red, both nearly covered with the label above. One, or perhaps two of the smaller partitioned areas have card lids, and contain N&B, etc. Some of the parts in the set to hand appear to have been held to (missing) backing cards by aluminium clips



Windmühle



Stanze



bent up from narrow offcuts from thin sheet. The likely set contents include a Flanged Plate, 2 Flanged Sector Plates, 2 Face Plates, 2x 55mm Pulleys, & 2x 36½mm Pulleys with Tyres. One set has 2 smaller Tyres but it isn't known if they are original.

This No.II set is smaller than the early one and so the latter might be a No.III, or possibly it had no number because it was the only set at the time.

Only the cover of the manual has been seen – it is grey or light yellow, and plain like the No.III in MCS, but with only a '2' under the MKA & METALL-BAUKASTEN. Another manual, not with a set, is similar but the cover is pink and the set number is the Roman 'II'.

The No.III Set. No set number can be seen on the box but one Ebay set includes a No.III manual. The box is the largest of the three and scales at 38cm wide. It has 14 partitioned areas, topped with blue, and again one or two small areas are lidded. The lid is grey or fawn and the label (somewhat foreshortened) at the top of the next column, nearly covers it. The Crane on it has already been mentioned; the Tractor & Trailer is a developed version of one of the models in the early manual.

In the 4 No.III sets seen on Ebay the contents visible fall between those of the early & late sets, but in reality are probably similar to the early outfit.

The Pulleys in one of the sets appear to be anodised

blue, a late innovation perhaps.

The manual cover is grey with red & blue lettering. Its design is exactly as in MCS with a horizontal Strip under the name, and below that, to the right, the 'III'.

Using the Parts Some of the models in the Manual look quite neat but most aren't very ambitious. I made a 38cm long Tugboat from my set and found that on the whole the parts were easy to use, and, at least for that model, the overall effect was enhanced by having both types of parts available. The only potential disadvantage was that when joining wide & normal parts at right angles, the rounded end of a wide part often protruded a little beyond normal part. This created the right sort of 'cluttered' look in the Tug, but might be a problem in some models.

Snippet: TOY BUILDER In the first years of ERECTOR the very small sets were called TOY BUILDER, and what was known about them at the time was given in 15/410. This account is based on an early set on ebay, the set shown on p55 of *Greenberg* Vol.1, and a set dating from after the company's name change in 1916, the 'ACG' set.

Leading Particulars

Name TOY BUILDER, later ERECTOR TOY BUILDER.

Country U.S.A.

Maker Mysto Manufacturing Co., later A.C.Gilbert Co., both of New Haven, Conn.

Period 1913 to at least 1916.

Hole dia. 4.2mm.

Hole pitch 12.7mm.

Sets 2 sizes of set have been mentioned.

Colour Nickel plated.

Boss None.

N&B Square Nuts & RH Bolts, both nickel plated.

Axle None.

DP None.

1913 The name TOY BUILDER was used right from the start of ERECTOR in late 1913, witness a set, price 10c, advertised in the Fall 1913 Sears catalogue (reproduced in 'Those Sensational Sears Sets', see 15/425). It contained 5h Strips & small Discs, but if it had the Flanged Plate & 9h Strips that were in later sets, they can't be seen.



The lid of the early ebay set (above) is quite different to later ones and is probably from 1913 because it has 2 features which were only used in the packaging of the 1913 ERECTOR outfits. First, a girl is shown making or playing with a model, and secondly, the MYSTO logo bottom left is similar to one that can be seen in *Greenberg*, p48, on a manual & No.1 lid from 1913. The figure seems to be lightly clad with a trailing cape, a classical figure no doubt.

In case it's not clear the girl at the table is making a Cot with bedding & a fabric canopy on a Strip frame. It can't be seen what parts the 9*5h bottom of the 4-wheel model on the table is made from.

The parts with the Set were 5h Strips, 1/2" wide A/Bs, RH Bolts, and the 3/8" square Nuts of the period.

A leaflet with the Set is headed 'Hello Boys and Girls: here's FUN'. Underneath are poor photos of 2 models and the only parts that can be seen clearly are Discs & 5h Strips. The price is clear though, 10c – the ebay set sold for \$1108.

1915 It is said in *Greenberg* that the regular ERECTOR

No.0 outfit was dropped in 1915 & replaced by at least 2 different sized TOY BUILDER sets. The set shown (9 1/2*5 3/4") has a lid like the ACG one below except that in the lefthand black panel is '50 PARTS MAKES 61 TOYS', and the address in the right panel is 'MYSTO M'F'G. CO. NEW HAVEN, CONN.' The words in the red panel are 'See What I Built, Daddy!'.

51 parts are shown in the Set - a 5*4h Flanged Plate, 4x 7/8"Ø Discs, 2x 9h, & 12x 5h Strips, 8 (1/2" wide) A/Bs, and 12 N&B (3/8" Nuts).

The top of a model leaflet is shown with the Set. At the top is 'Hello Boys', and a photo of 2 boys building a tall pyramid-shaped structure. It looks identical to the corresponding part of the leaflet discussed in 15/410, but that dated from after the change of company name.



LATER No mention of TOY BUILDER is made in *Greenberg* after 1915 but the name continued to be used after the MYSTO company became the 'A.C.GILBERT COMPANY', as in the right panel of the 'ACG' lid above. The 51 parts in the photo of this set (below) are the same as those in the *Greenberg* one, despite the 3 fewer parts claimed, but one can never be sure with any of these sets that the parts found in them were the originals. In this case if the 3/8" Nuts & 1/2" A/Bs are genuine, a date of before 1924 is indicated (when the design of these parts was changed), unless old stock were being used up.



Below, the front of the model leaflet with the Set. It is similar to that of the M 466, ©1920, No.0 one in 15/410 except for the layout of the text in the bottom panel and the words above the top border. For the M 466 these are 'No.0 Erector'; in this case they can't be seen clearly but probably include the same words, with the same very round '0'. It will be recalled that all the models in the M 466 need Pulleys & the 1" wide Girders.

Another TOY BUILDER Brass Co. sets were called STERLING TOY BUILDER, perhaps, as explained in 16/430, as early as 1914.



Two More CONDOR Sets The parts from 2 sets with BZP Strips, etc were described in 25/725, and some brief notes on earlier sets with nickel parts appeared in 18/497. Now two larger, near complete, nickel sets are to hand, a No.4 in a wooden box (courtesy David Hobson), and a No.6 in cardboard. Each of these four inputs has characteristics which distinguish it from the others, and show how the system developed. For ease of reference the different stages will be called Phases 1–4, their probable chronological order, and their main features are as follows:

Phase 1. The No.4 Set above. Set range 1–7. Parts are mostly nickel & red. No plastic parts. The manual cover, identical to the lid label, is shown bottom right. It is similar to the cover in OSN 18 but the light blue parts in the latter are silver, or, for the Wheels, black.

Phase 2. The No.6 Set above. Sets are 1–8 with changes to all but 1-3. Parts as Phase 1. Lid label as Phase 1 but the manual cover is the 'blue' OSN 18 type.

Phase 3. The Sets 1 & 2 in OSN 18. The parts are as in Phase 2 except that the Pulleys are plastic. The label & manual cover are both 'blue'.

Phase 4. The OSN 25 Sets 4 & 5. Set 9 added to range. BZP replaces nickel and is used on some parts previously painted; the Plates are red, blue, & green. Gears & most Pulleys are plastic (as they may have been in Ph.3.) New lid label & packaging; better printed manuals with new cover.

Note. The blue manual cover in OSN 18 was supplied by Condor in May, 1969; the change from the silver/black label/cover to the blue type may of course occurred over an extended period for the different sets.

The PARTS There are no significant differences between the parts in Phases 1 & 2. Compared to Ph.4 the main differences are that the Strips & Brackets (and the A/Gs, not included in the Ph.4 sets) are nickel, and the Pulleys & Gears are metal. The colours differ a little too, the most noticeable being that in Ph.1/2 all Plates are light red, and some of the small Ph.4 BZP parts are painted. In the notes that follow only differences compared with the Ph.4 parts will be noted. The parts will be considered in the same order as in OSN 25, followed by those not seen before.

- **Strip parts.** Widths from 12.0 to 12.2mm found. The holes in the Curved Strip are 4.1mm against 4.4mm in Ph.4.
- **Trunnions.** In some the spacing of the top hole & the slot does not allow a Strip to be bolted through them.
- **Angle Bracket.** As noted in OSN 25 this part seems to be made from the Flat Bracket but in these parts (& probably, the Ph.4 parts) the A/Bs have less metal outside the slotted hole, typically 2½mm against 4½mm for the Flat Bracket.
- **11h Braced Girder.** Most are .65mm thick but two are .85mm, and feel quite stiff.
- **Windmill Sail.** More accurate measurements show it to be 84.7*35.2mm plus the arm. The slots are 26*88mm.
- **Bosses.** Except as noted they are 10mm Ø brass, s/t, as before, but with a slightly larger bore of 4.2 – 4.3mm. 6-point peening is used (leaving a rough edge) instead of the Ph.4 thin ring.
- **Pulleys.** The **Small Loose Pulley** is 14.0mm o.d. & 3.9mm wide. The metal **28mm Fast & Loose Pulleys** are the same o.d. as in Ph.4, and 5½mm across the vee. The Loose version has an 8.0mm Ø boss, 2mm deep. The (metal) **68.4mm Pulley** has a 6mm wide vee, and 4.1mm wide slots. The 51mm Pulley (#49) mentioned in OSN 18, with 4 of the 8 face holes oversize, is not in either Set but can be seen in the models shown later.
- **Gears.** These are cast aluminium with integral bosses and one side of the rim machined. They are slightly smaller in diameter (38.0, 69.4mm o.d.) and run well at 2" centres. The

faces of the 20 & 38t are 5.5 & 5.0mm wide respectively.

- **Colour changes.** The **Bush Wheel** is dark blue, the **Trunnions** & the **Propeller** dark green, and the **Spanner** is chemically blackened.
- **Axles** etc are nicked, with the same sheared ends, and most are 4.05mm Ø. New sizes seen are 30 & 11cm. The offset of the handle of the **Crank Handle** is 12mm in one example and 15mm in another.
- The **N&B** are similar but some Nuts are 8.2mm A/F.

'New' Parts:

- **25h A/G.** Differing bend points give sections of 16.0–16.5*13.6–13.3mm. The holes are set back 3.2mm from one edge, and the 8.5mm slots are 4.0mm from the other. Corners vary from well to slightly rounded. The hole pitch is correct in 2 examples, .05" short over 25 holes in a third, and .1" in the fourth. These were the only serious inaccuracies noted in all the parts.

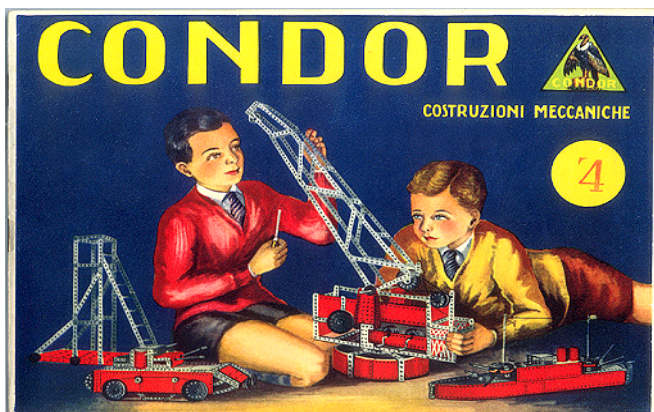
- The **1*3*1h DAS** are bent up from strips 11.5mm wide.

• **Brackets.** A **2*1*2h Double Bracket & Corner Angle Brackets** (M154a,b). A dark green **4-Way Flat Bracket**, right, with a 4.6mm centre hole. It is shown similar to the MÄRKLIN pattern in the Illustrated Parts, with one arm of the cross shorter, and with all the holes round.



- A **5*7h Flexible Plate** which matches the others.
- **25h Braced Girder.** It matches the thinner 11h type.
- **Single-arm Crank.** Its arm is 13.2mm wide with an 18mm Ø surround to the boss. The Slot is 8.8mm long, the hole 4.5mm Ø, and the boss has 4-point peening.
- **Flanged Wheel.** Solid machined brass with separate boss poorly peened on with a thin ring of metal. It is 20.8mm o.d. and the 6mm wide tread is 19.0mm Ø. Each of the 4 seen has a very small groove in the tread.
- The **Hook** is cast zinc, 33mm o/a, with a 10.5mm ball, and a 1.9mm hole for the Cord.
- The **Crankshaft** is 3.98 Ø, 101mm o/a, with a 13mm offset.
- The **Screwdriver** is 13mm o/a with a 63mm nickel blade, and a light blue, cruciform section, plastic handle.
- The **Washer** is 9mm o.d., and 1mm thick. The **Spring Clip** is bright, 5.3mm wide with 5mm wings; some are badly formed and do not grip well. A **Grub Screw**, 5.7mm long, was found in one boss.

The SETS The **No.4** is in a nicely made wooden box, 40½*31½cm, light in colour. The base is 3¼mm deep and has a 3-compartment wooden tray sitting in it, with parts attached to yellow cards by brassed bifurcated paper clips. Another yellow card, the area of the box, carries more parts and sits on top of the tray. The hinged lid is 2cm deep to



accommodate the top layer of parts, and on the outside is a label 24*17½cm, exactly like the No.4 manual cover above. The N&B are in a 7*6cm red card box, like those in Ph.3 & 4.

The **No.6** has a dark green box (the same colour as the Ph.3 sets), 30*40*7cm, and the parts are in 3 trays, each with card partitions giving 3 compartments. The backing cards are missing but the inside of the lid is yellow. The label is identical to the No.4 apart from a '6' in the yellow circle.

SET STRUCTURE Some neat chicanery happened between Ph.1 & 2. The Contents in the Ph.1 No.4 manual shows Sets 1-7. In the Ph.2 No.6 are Nos.1-8 (as in MCS/NZ): of these 1-3 are as before; Set 4 is the previous No.4 less the Gears, 3" Pulleys, 11h Braced Girders, & the Propeller; the No.5 is the previous No.4 but with a Wooden-handled Screwdriver instead of a Wire one; and then Nos.6-8 are the previous 5-7. The No.9 in the Ph.4 manuals (& in MCS/FB) is an additional set, genuinely larger than the No.8.

The MANUALS The manuals with the Sets are similar in style to the small one described in 18/497.

SUMMARY OF No.4 MANUAL •Name: CONDOR CONTRUZIONI MECCANICHE, 4. •Details of maker: none. •Dates &/or Ref Nos: none. •Page size: 240*167mm. •No. of pages: 48 pages + covers. •Languages: Italian, French, English, Spanish. •Printing: brown shaded line drawings of models; cover as on previous page. •Page Nos. of Illustrated Parts List & highest PN: 6-9,69. •Page Nos. of Set Contents & highest PN: 4-5,69. •Sets covered: 2,3,4. •No. of models for each set: 2,18,20. •Name, Page No. of first & last model of each set (no Model Nos.): 2: MERRY-GO-ROUND,14; WINDMILL,14. 3: AUTO VAN, 15; ELEVATOR,27. 4: RULLO COMPRESSORE (Road Roller, no English name),28; MERRY-GO-ROUND,46-7. •Other notes: •Use of parts, gearing on pp10-13 - these & model notes are in Italian only. •A Jeep & Liner are on p48, without a Set No. •C2-4 are blank.

The two sample No.2 models are the same as those in the OSN 18 manual. The later Ph.4 No.4 manual has many more No.1 & 2 models, but those for the No.3 are identical. The new set structure explains why it has only three No.4 models – all the others in the Ph.1 manual need parts which were deleted from the Ph.1 No.4 outfit.

The No.5 models in the Ph.4 No.5 manual are identical to the No.4's in the Ph.1 manual - some remarks about them were included in OSN 25. And as noted in OSN 25 the Ph.4 No.5 manual has no No.4 models; the No.2 & 3 models in it are identical to those in the Ph.1 No.4.

SUMMARY OF No.6 MANUAL (omitting details which are the same as those in the No.4 above) •No. of pages: 96 + covers. •Printing: cover as in 18/497. •Sets covered: 6,7,8. •No. of models for each set: 28,13,18. •Name, Page No. of first & last model of each set (no Model Nos.): 6: BURATTINO,15; GRU GIREVOLE CON DRAGA,44-5. 7: TORNIO PARALLELO,46; AUTOSCALA,60-1. 8:PULLMAN,63; TRANS+ ATLANTICO,90-2. •Other notes: •Use of parts, gearing on pp10-14 – these, the model notes, & most model names are in Italian only. •p62 has PORTAEREI without a Set No. FRESATRICE on p94 & TREBBIATRICE on p95 are for Set No.5 with additional parts. •C2-4 & pp93,96 are blank.

In both manuals there is a heavily shaded line drawing for each model, with additional views for the larger ones, a parts needed list for each, and explanatory text, in Italian, for all but the simpler ones.

There is a fair range of models but they are fairly unadventurous mechanically, with simple gear drives in most, but beyond that only Pawls on Pinions in Cranes, and centre-pivot steering in Vehicles. Some of the models are rather unusual though, a 'Hydro Pneumatic Plant' for instance, and a 'Railway's Station' with rails including a working point. As is the case for many of the other models,

the details can't be seen properly in the very dark illustrations. The instructions, in Italian, might help.

Left is the drawing (full-size) of a rather interesting looking Steam Windmill (mistitled 'Steam Watermill'), made from the No.8 Set. I suppose the cylinder on the right is linked to the drive from the sails when required, but how this is done isn't clear. Overleaf is one of the more realistic models with all the views shown, again full-size. All the illustrations were originally brown but are a little clearer in B&W.

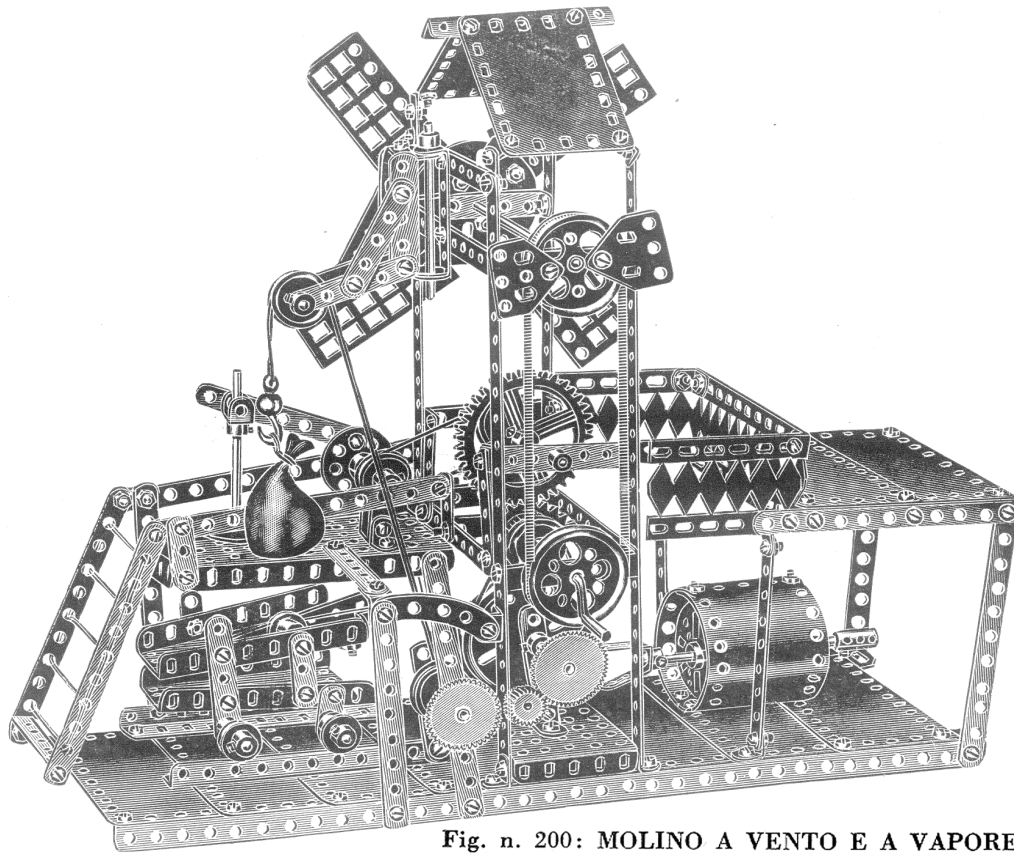


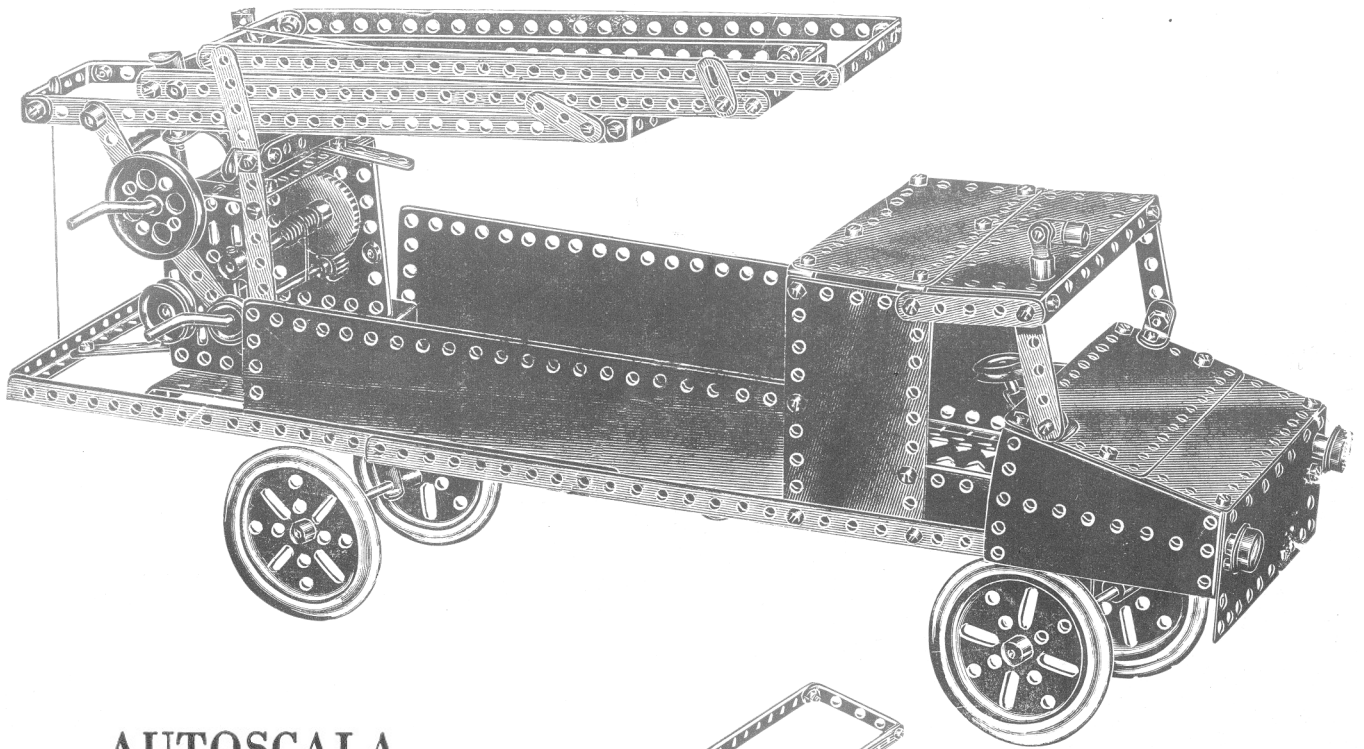
Fig. n. 200: MOLINO A VENTO E A VAPORE
MOULIN À VENT ET À VAPEUR
STEAM WATERMILL - MULIN A VAPOR

Eseguite il telaio e la cabina come potete rilevare dalla figura.

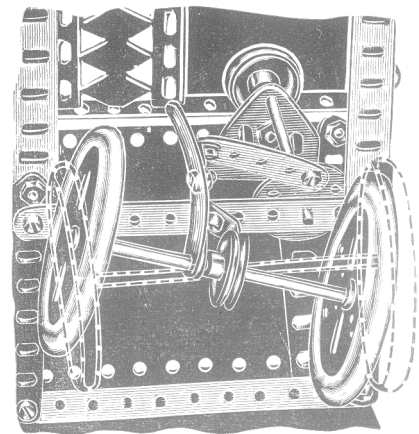
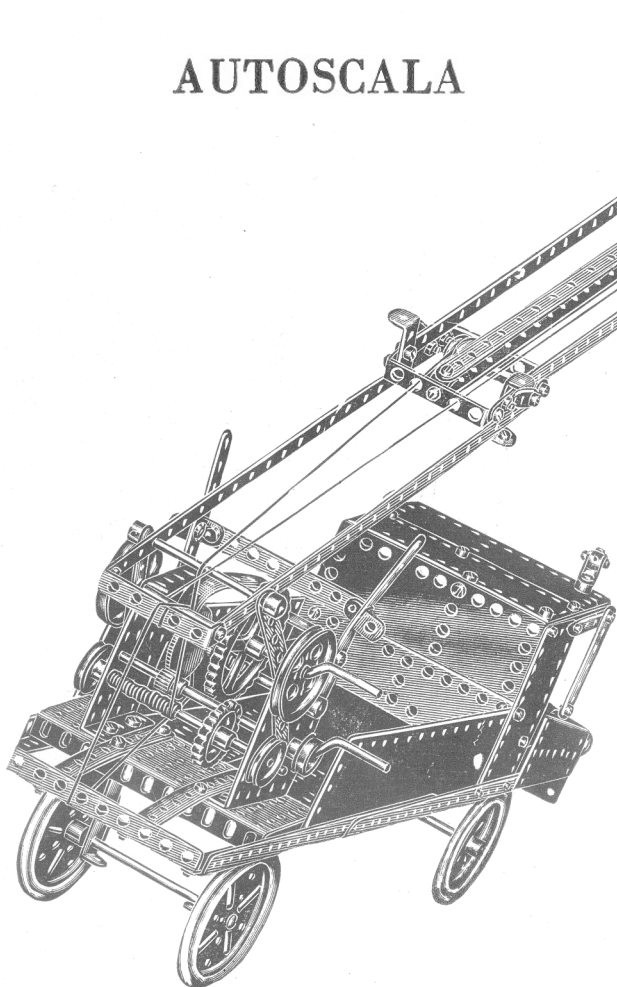
Ottenuto ciò, fissate nella parte posteriore la piastra trapezoidale sulla quale dovrete avvitare le due piastre con bordo in modo da potere sistemare opportunamente i vari assi e manovelle (vedi figura grande e la particolare) per i comandi di sollevamento ed allungamento.

In questo modello gli ingranaggi hanno lo scopo di frenare la retrocessione del sollevamento ed allungamento perchè accoppiati ad un grilletto ottenuto flettendo una striscia forata di lunghezza adeguata.

Allo scopo di facilitare la costruzione sono stati riportati chiaramente i particolari del meccanismo di sollevamento, allungamento e sterzo delle ruote anteriori.



AUTOSCALA

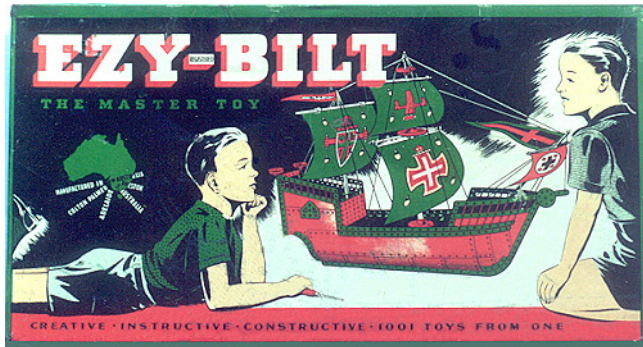


PEZZI NECESSARI:
NECESSARY PIECES:
PIECES NECESSAIRES:
PIEZE NECESSAIRES:

p. 8 n. 1 - p. 10 n. 2 - p. 1 n. 2 A - p. 2 n. 3 - p.
8 n. 7 - p. 6 n. 4 - p. 4 n. 6 - p. 3 n. 5 - p. 2 n. 7 A
p. 3 n. 6 A - p. 1 n. 27 - p. 1 n. 27 A - p. 1 n. 20 -
p. 12 n. 8 - p. 1 n. 30 - p. 1 n. 38 A - p. 1 n. 14 -
p. 4 n. 12 - p. 4 n. 53 - p. 2 n. 54 - p. 1 n. 69 - p.
1 n. 22 - p. 2 n. 23 - p. 2 n. 28 - p. 4 n. 33 A - p.
4 n. 28 - p. 2 n. 13 - p. 2 n. 59 - p. 2 n. 40 - p. 4
n. 26 - p. 1 n. 30 - p. 1 n. 31 - p. 1 n. 47 - p. 1 n.
48 - p. 4 n. 34 - p. 1 n. 19 - p. 2 n. 11 - p. 4 n. 9 -
p. 2 n. 9 C - p. 1 n. 10 - p. 150 n. 18 - p. 2 n. 31 -
p. 2 n. 63 - p. 4 n. 62 - p. 2 n. 65 - p. 2 n. 64 - p.
1 n. 65 D - p. 1 n. 65 A.

An EZY-BILT No.7 Set David Hobson kindly lent me this set, near complete, made by Colton, Palmer & Preston (7/144, 19/543, & 22/637 has more on the different manufacturers). It is likely to date from the 2nd half of the 1940s or the 1st half of the 1950s.

The outfit is packed in a tinplate box 9*17*3", with a hinged lid. The sides are painted black with 'EZY-BILT', 'THE MASTER TOY', & '7', in red & white. The lid is shown below.



The PARTS At a glance they look just like 1950s MECCANO except that the red is lighter, nearly as light as the 1960s Liverpool shade. Closer inspection shows a few differences in the parts, and these are noted below if not already covered in the description of the 1940s parts in 22/638.

- **Holes** are 4.1 or 4.2mm Ø.
- The ends of **Strips** are fully rounded or very nearly so.
- The cutouts in the **Trunnions** are as in MECCANO.
- The **Brackets** are nickel except the green 2*2h A/B.
- **Axles** have slightly rounded square ends and are nicked.
- The holes in the **Bush Wheel** are even larger at 4.8mm,

and the peening is a narrow ring (as it was for the OSN 22 part, not recessed as stated there).

- The recessed **peening** is used on the Road Wheel, and the 2 & 3" Pulleys.
- The **1" Fast Pulley** is very similar to the extra, suspect, OSN 22 part, except that it fits the Axles. No 1" Loose Pulleys were in the Set.
- The black **2" Tyre** has 'EZY-BILT REGD' & '6.00 - 16' moulded into both walls. The tread pattern is the same as that on the OLYMPIC one mentioned in 7/144. The **1" Tyre** is a black rubber ring of 6mm Ø section.
- The **½" Pinion** is just like M26 but the **50t Contrate** is as described in 18/523. It has the recessed type boss.
- The **Spring Cord** is 2.8mm o.d. and a dull light grey colour.
- The **Spanner** is generally like M34 but has wider openings to suit the E-B Nut, the waists are wider (6mm), the bends are at 90°, and the metal is thinner (1.15mm).
- **Flexible Plates** have no slotted holes, and only the 3*11h has a centre hole.
- The **3*5h Flanged Plate** is similar to M51 except that it is about 3mm longer & 2mm wider (65*38½mm). The flanges are just a little wider. The top is fully perforated, not as shown in the Illustrated Parts.
- The **Cylinder** is painted red.
- The **Wheel Disc** is 1¼" Ø, like M217a, and is nicked.

Parts missing from the No.7 are: the ½ & 1" Loose Pulleys; the Stepped Bent Strip, Rod Connector, and Rod & Strip Connector; the 3" Screwed Rod, Threaded Pin, & Pivot Bolt; the Cord, Cord Anchoring Spring, Driving Bands, Hooks, Spring Clip, Washer & Screwdriver.

There was also no **manual** with the Set but the '6, 7 & 8' described in 19/544 would be the appropriate one.

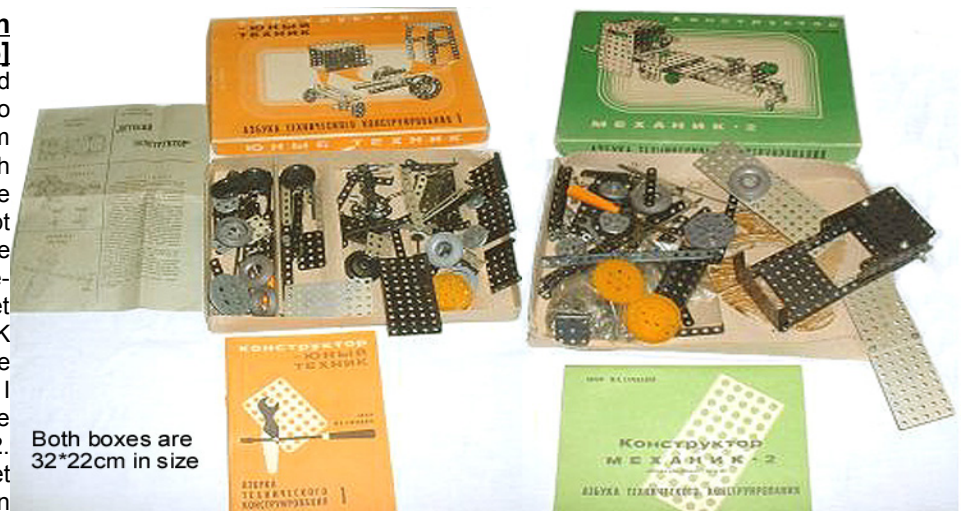
EZY-BILT: S1

OSN 28/837

SNIPPET: A 'New' Russian System - KONSTRUKTOR [16]

The two sets shown right were sold together on Ebay, and were said to be from the 1950s. Apart from KONSTRUKTOR in Cyrillic on each lid & manual cover, little can be said about them for certain, except that after KONSTRUKTOR on the green set is MEKHANIK 2. That reminded me that the only known set from KONSTRUKTOR-MEKHANIК [2] (KON-MEK2 henceforth) is the No.3 (see 18/499 & 20/566) & I wondered if these sets might be the No.1 & No.2 sets from KON-MEK2. However although the 'orange' set does have what might be a '1' on the lid & manual cover, there is no sign of MEKHANIK, and indeed the second word on the lid's edge, and after KONSTRUKTOR on the cover, looks like TEKHNIK. Another difference, no logo of any sort can be seen.

The parts can't be seen very clearly but the Plates & Strips do look generally like KON-MEK2 except that many of the Plates are not in known sizes. The other main difference is the mix of black & 'grey' parts, whereas those in the No.3



were all black, apart from the greyish Pulley. A similar Pulley can be seen in these sets, and perhaps a (fatter) Tyre, but nothing that looks like the Flanged Disc with 3 long slots.

So, all in all, it's not very likely that these sets are the 'missing' KONSTRUKTOR-MEKHANIК [2] outfits, and it seems best to consider them as a separate system.

KONSTRUKTOR [16]: S1

OSN 28/837

'New' System: CUB BUILDERS Kendrick Bisset has kindly sent details of yet another small, aluminium, American system from, it seems likely, the early post-WW2 years. This one is similar in many ways to SKY-SCRAPER (see 21/595) and its main parts are $\frac{3}{8}$ " wide Strips with holes to take 6-32 N&B, 2 Flanged Plates, 2 Channel Plates, & a 6h Pulley Disc.

Leading Particulars

Name CUB BUILDERS

Country U.S.A.

Maker Playcraft Mfg. Co., Saint Paul 1, Minnesota.

History Very likely to be soon after WW2.

Hole dia. 3.4 – 3.6mm.

Hole pitch 12.7mm.

Sets Only one.

Material/Finish Plain aluminium.

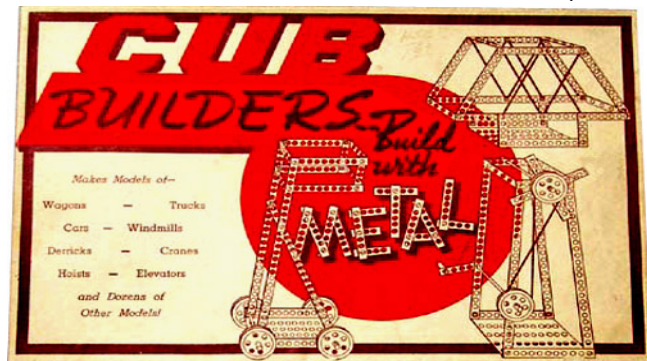
Boss None.

Fixing 6-32 N&B.

Axles 3.17mm Ø (.125").

Remarks 12 different parts, + N&B. No Gears or Motor.

The SET is in a box $9\frac{1}{2} \times 14\frac{1}{4} \times 1\frac{1}{4}$ ", and the lid and open box

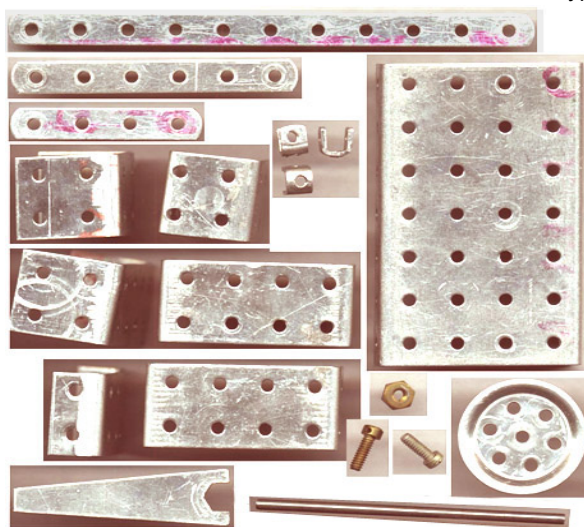


are shown above & below. The Set Contents are given in the



Model Sheet as: 'This set consists of – 4 Wheels, 6 Corner Angles, 2 Wrenches, 10 long Strips, 6 medium Strips, 4 short Strips, 1 Base Plate, 2 Axles, 1 Pulley Rod, 8 bushings, nuts and screws.' The Bushing is also referred to as a Clamp and is the formed ERECTOR-style Collar. The 6 Corner Angles are 2 each of a small Flanged Plate & 2 Channels. The Pulley Rod is probably a shorter Axle found

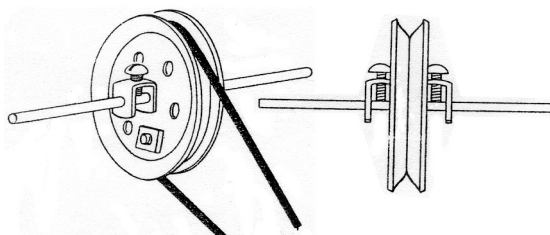
in the Set – it can be seen in the WHEEL BARROW shown later. 21 Nuts were in the Set, & 20 Bolts of 2 different types.



The PARTS These can be seen in a scan above, at 50% full-size. All holes are round. All corners not visible are square. Where not specified below the material thickness is between .050 & .055".

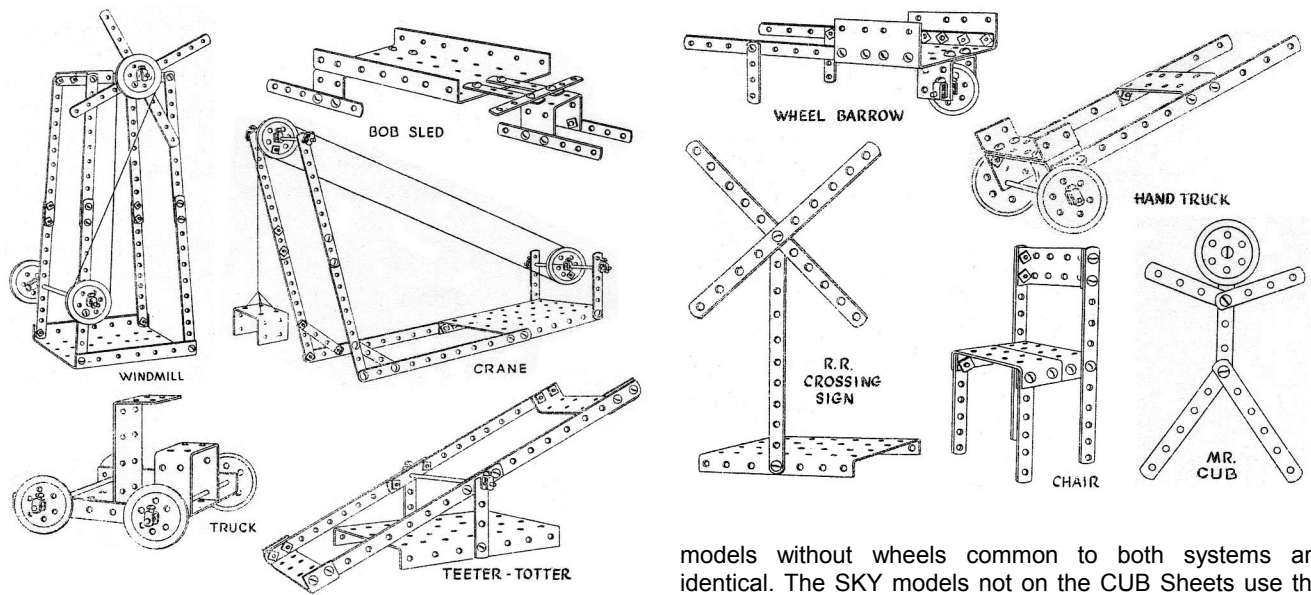
- The **Strips** are almost exactly $\frac{3}{8}$ " wide (9.53mm) and from .040 to .050" thick.
- The 4*7h, & 4*2h **Flanged Plates** have 1h deep flanges.
- The **Channels** are $\underline{2}$ *2h, & $\underline{2}$ *4h, both with 2 hole deep flanges on their 2-hole sides - they are above the 4*2h Flanged Plate in the illustration above).
- The **Pulley Disc** is 1.125" diameter.
- The **Collar** (there were 2 extra in the Set) is .28" wide.
- The **Axles** are steel. The one shown above is $3\frac{1}{4}$ " long, and the shorter one, not illustrated, is 2".
- **N&B.** The **Nut** is brass, hex, 7.8mm A/F. There are 2 types of **Bolt**, both with 5.5mm Ø fillister heads. One is brass, $\frac{7}{16}$ " u/h, the other is dull plated steel, with a Phillips slot, $\frac{3}{8}$ " u/h. If both types of Bolt are genuine it suggests the use of whatever was available. The brass Bolt has a small hole through its head for locking wire.

The MODEL SHEET This is a single sheet, $8\frac{1}{2} \times 13$ ", folded into two. On the front are Instructions, including the Set Contents, and how to make a Pulley (below). They start 'HI FELLOWS!' and are signed by 'Your friend, Mr. Cub'.



Inside and on the back are line drawings of 30 simple models, from BEACH CHAIR to BRIDGE. The company's name & address is also on the back. A selection of models is shown at the top of the next page, the same size as the originals. The Windmill needs more Pulley Discs than are in the Set.

Similarities to SKY-SCRAPER SKY-SCRAPER was described in 21/595, and Kendrick has pointed out the many



similarities between it & CUB, and the differences. First of all both had many (unusual) parts in common, many models in common, and both were made in St. Pauls. The models on the SKY box have 6h CUB-like Pulley Discs, Axles, & Collars, but none of these parts are used on the Model Sheet models, and none of them were found in the two known SKY sets. The wheeled models on the SKY Sheet are fitted with the Rubber Wheels found in the Sets seen, running on Bolts. Said Wheels are represented by black discs, and in the models common to both systems they have been achieved by blacking in the CUB Pulley Discs (without attempting to show the thickness of the Rubber Wheel) and erasing the CUB Axles & Collars. The drawings of the

models without wheels common to both systems are identical. The SKY models not on the CUB Sheets use the 2*6h Plate not in the CUB set. The Intro on both Sheets starts 'Hi Fellows'.

Those then are the facts. My guess is that CUB came first, and SKY followed, perhaps after Playcraft had gone out of business, or sold on the copyright of their Model Sheet to Ames Mfg. (the SKY firm), or even had transformed itself into Ames. From the models on the SKY box it seems that it was initially intended to use the 6-hole Discs as wheels, but at some point it was decided to change to the Rubber Wheels, presumably too late to change the box. The new SKY models like the Steam Shovel & Snow Plow (see MCS) were no doubt worthwhile additions, but by deleting the Pulley Discs interesting models such as the Crane & Windmill (above) had to be dropped.

CUB BUILDER: S2

OSN 28/838

SNIPPET: 'New' System: GLORIA A photo of a small set from this German system is shown to the right. The '1' on the lid & manual cover perhaps indicates that there were other sets. The maker was a company called Hermidag; it isn't listed in *Baukästen*.

No dimensions are available but the parts look as if the holes might be 4mm at 10mm pitch, or possibly slightly larger holes, or a slightly shorter pitch. The parts that can be seen in the photo are:

- Strips with 4,5,6,7,9,11,13,15,21,25 holes.
- 1*4*1, 1*5*1, 1*6*1, & 1*7*1 DAS.
- A part, perhaps an A/G, with square corners & 7 crosswise slotted holes.
- What are probably Bossed Pulleys of about 3 & 4 1/4 Ø.
- What looks like a 4h Bush Wheel.
- Axles & a Crank Handle.
- Collars, some of which, at least, have short spigots at one end, and so may be unpeened bosses.
- CH Bolts & large hex Nuts. A 1h Ø Washer, & larger ones of 1 3/4 Ø.
- A short wire Screwdriver with triangular handle.



- What may be a 1?2h Bracket to the right of the top of the Screwdriver's handle. No other small parts are evident, perhaps they are in the paper bag above. No Plates of any sort can be seen.

GLORIA: S1

OSN 28/839

PYFYLY The standard parts of this unique French system are made of bamboo & brass, and illustrations of them are given in MCS, together with several models. Also some small No.1 Set models were shown in 14/365. Now to hand are:

- A near complete No.18 theme set to make Bedroom Furniture (multi-lingual). With it were manuals for Set 0 (multi-lingual) & for Set 1 (French), and some parts that could have come from either Set. Also an ad leaflet in French overprinted with 1921 prices.
- A No.1 set with manual (English).
- Some details of an English No.2 Set, and a photocopy of its manual (thanks to Kendrick Bisset).
- Photos of another No.2, and of an unused No.3, both English (courtesy Malcolm Hanson).

HISTORY PYFYLY was patented in France (No.489330, application date April 30), and the corresponding UK patent was 100396. It was applied for on April 20, 1916, and accepted on Feb. 2, 1921. It was in the name of Fernand Roger Marcel Philippart, Workman, of Garches (Seine et Ouse). David Hobson kindly sent these details, and pointed out a rather nice sentence in the UK patent, probably a rather literal translation from the French, which casts doubt on the value of metal systems - 'The models which can be constructed from the metallic elements supplied are inelegant and so inæsthetic as to be prejudicial for the education of the eye of the child.' With such sentiments in it, small wonder it took the British authorities 5 years to accept the patent!

Given the 1921 overprint, the Leaflet probably dates from 1920. No other firm dates are known except that PYFYLY was said to be a new toy in the UK in June 1921 (see 18/522). The other documents show some changes in the sets advertised and will be listed in a possible date order. However this assumed order means that the No.4 Set was added to the range and then dropped as other outfits were introduced.

The '**1920' Leaflet** lists Sets 1, 2, & 3, and says that 25, 65, & 100 models are described for them.

Also the following are said to be preparation for 1921:

- 'Boîte No.4, pour Fillettes et Garçons.'
- 'Boîte Inventeur pour Garçons avec moteur et mouvements Pyfyly.'
- 'Et son magnifique Album de Décors qui vous émerveillera.' (... which will amaze you.)

Both No.1 & the No.2 manuals mention Sets 1-3, and also Set 4 as an established fact. The number of parts in the No.1 is given as 226, and in the No.2, 360, and there are 25 & 65 models for them, as in the 1920 Leaflet. A forthcoming Inventor's Box is mentioned in the No.2, including: 'With regard to movements Pyfyly has a practical and elegant solution in reserve. You will be able to construct the most perfect working models with the aid of a motor now being constructed and which, like the rest of the Pyfyly hobby, will fear neither criticism nor comparison.' No other sets are specifically mentioned but photos are shown of rooms containing suites of Dining & Drawing Room Furniture made from PYFYLY.

The **No.18 Model Sheet** mentions:

- A No.0 outfit with 55 models from 145 parts.
- Sets No.1, 2, & 3, with 226, 360, & 670 parts, but 80, 120, 150 models in their manuals (compared with 25 & 65 models for Sets 1 & 2 before - no manuals with these numbers of models are known).
- A series of Furniture Sets No.10-13. No.10 is for 2 Dining Chairs; 11 for a Table & 2 Chairs; 12 for a Sideboard & Flower Stand; & 13 for the Dining Room

complete, with 7 pieces.

•Another series with Sets 14-17. No.14 is for 2 Drawing Room Chairs; 15 for 2 Drawing Room Armchairs; 16 for a Centre (low) Table & a Couch; & 16 for the Drawing Room complete, with 6 pieces.

•And finally No.18, the Bedroom complete, with 5 pieces (Bed, Dressing Table, Chaise Longue, Chair, & Work Table); and 19 for a Chest of Drawers & a Screen (which are shown in the No.18 Model Sheet as extras for the Bedroom).

The **No.0 Manual** claims 154 (not 145 as before) parts for the Set, and shows 33 models, plus the 26 letters of the Alphabet.

The other sets listed are:

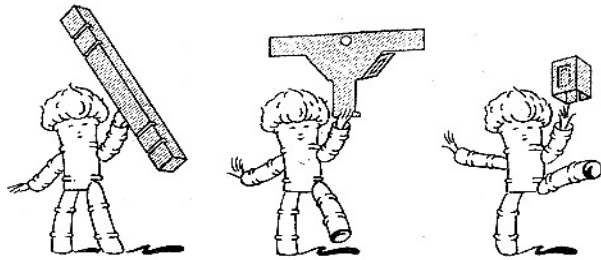
- Nos.1-3; and, not mentioned anywhere before, 0A, 1A, & 2A linking sets.
- The Bed, Dining, & Drawing Room sets without any Set Nos.
- A 'series of 'Knick-Knacks: Baskets, Flower-stands, etc.'
- 'Outfits for boys : Aéros, Engines.' (in French: Aéros, Machines).
- 'Decoration Albums Nos.1, 2, 3, Home Decoration.'

Names & Addresses The No.1's & the No.2 manual were printed by Keller, 88 Rue Rochecouart, Paris, and published by 'la S. A. J.' ('the S. A. J. Co' or 'the S. A. J. & Co' in the English versions), 136bis Rue Beccaria, Paris. The No.0 manual has PYFYLY, 136bis Rue Beccaria, Paris on the back cover, and was printed by E. Benaud, 25 r. Pastourelle, Paris. No company or printer is given on the other material.

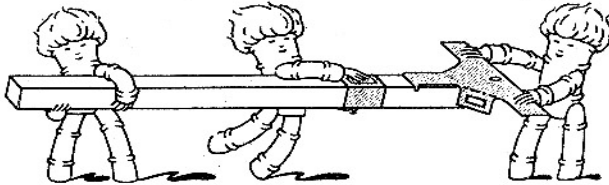
A French **patent** is claimed (Breveté S.D.G.D.) on all the French language literature, but where there is English text only 'Patent applied for' - thus the latter should indicate a date before Feb. 1921 if the status of the UK Patent was kept up-to-date in the literature.

The PARTS and their use. The 76 parts in the system, about half of them metal, are shown in MCS, but some details, and the way they are used, may not be entirely clear. **Structures** are made from the 13 lengths of 3mm square bamboo Strips (33-339mm long), and the same material formed into various 'U' and other shapes. (The Strips are numbered 3-30, and the number represents the nominal length of the Strip in the Units shown on a full size scale, up to #24, in the manuals. At a glance one might assume that each Unit is 1cm but in fact it is about 11.3mm, so a #24 Strip is 271½mm long. Marks showing the unit divisions are on the bottom side of the Strips but the end units are only 10mm, so the actual strips are about 3mm shorter than shown on the scale in the manuals.) Each Strip has 2 notches near each end, and joints are made using small brass Fittings, 20 in all, 8 of which incorporating a hinge. In the diagram on the next page the lip on the end of the Fitting is engaged in a notch, and then the two parts are locked together by sliding a dimpled Sleeve, 5mm long, over the lipped end. It works surprisingly well and gives quite a rigid joint. Even stronger beams can be made using Fittings with pairs instead of single lugs, so allowing 2 parallel Strips, 3mm apart, with a Fitting at both ends. The rectangular hole in the diagonal lug on the side of the Fitting is to receive diagonal Bracing members, about 1 mm square in section - they improve the appearance of models but do not carry loads. The Bracing Strips have to be cut to fit from 12cm long lengths, and are flexible enough to be bowed and inserted after the rest of a structure is complete.

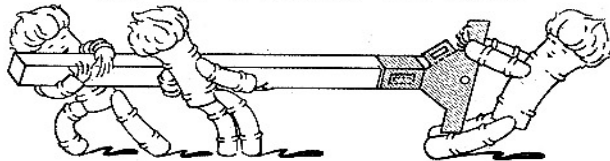
5 types of 'wheel' are shown in the Illustrated Parts, 4 wooden **Pulleys**, #1-4, and the **Roller**. The latter is made



PYFYLY presents its 3 essential elements

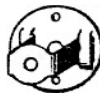


PYFYLY is adjusted very easily.



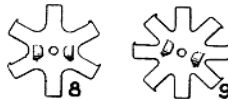
PYFYLY is as firm as a rock

from a blued steel Boss, called a Collar which is sprung into 2 pressed through tunnels in an 11½mm brass disc. This disc has a centre hole and 2 small holes near the edge. The complete Roller is shown right.



The other 4 wheels are wooden **Pulleys**. #1 & 2 are turned, of 12½ & 24mm Ø; the 24mm has a Roller nailed to one side (through the 2 small holes) to give it a hub.

#3 & 4 are built up with 4 & 6 spokes, and scale at 72 & 100mm Ø. In each the spokes are attached to a centre Fitting (#7, & #8 right) which has the 2 slots to take a Boss.



If a fast Wheel is needed a rubber **Axle Stop** can be fitted inside the Boss. The small Pulley can only be held fast by pushing an Axle Stop against either side of it.

This last method may have been found unsatisfactory and may have led to the introduction of **another Pulley**, made of brass, found in some sets but not shown in the manuals. It is made from 2 identical 17½mm discs, with 2 slots & 2 holes in each. They are riveted together through the holes, and a Boss can be fitted to the slots in either side.

Axles are steel, sometimes brassed, and 1.74mm Ø. Four are shown in the Illustrated Parts but 5 have been seen in different sets, and their lengths are not entirely consistent. In the No.1 & No.2, both incomplete, they are respectively 45 & 112mm, and 79, 101, 124 & 215mm. In a complete No.3 they are, by scaling, 44, 85, 111, 133 & 218mm. Only one of the two sizes of Crank Handles shown are in the Sets and they are 117, 113 & 118mm in length o/a.

Other parts not named or referred to in the manuals, nor shown in the Illustrated Parts, are what have been called **Cushions** – oblong pieces of card with rounded corners, in at least 5 sizes, covered with a heavily patterned floral fabric on one side & brown paper, glued on, on the back.

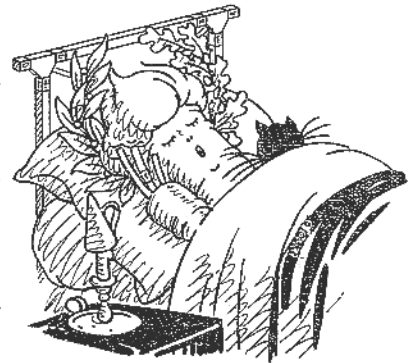
The **instructions** in the manuals are not easy follow at first but once mastered models are easy to build, provided

the right number of Sleeves are put on each Strip for the intermediate Fittings before the end ones are locked in place. Much dismantling though can be needed to add an extra Fitting to a completed structure.

Bob Pyfyly, the lumpy looking lad doing the work in the drawings left, would no doubt say that it teaches the young to plan ahead. There's Michette (right) as well as Bob, but all she is shown doing is snoozing with her cat (below, right), demonstrating the comforts of a PYFYLY Bed, no doubt.

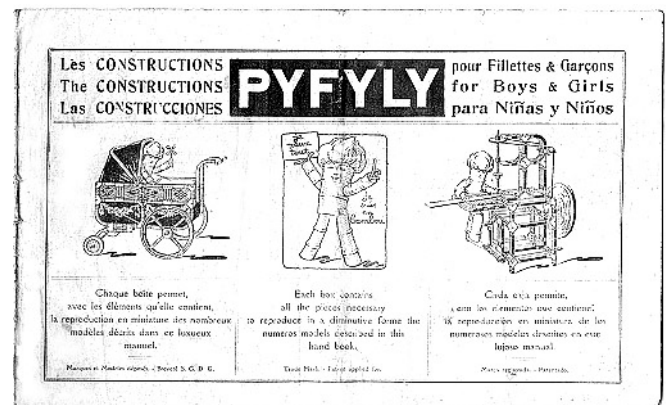


Many of the models include solid side areas, floors, etc, but no indication is given of whether the **Cushions** are to be used for these. Often they are not the right size to fit into frameworks. Perhaps they are in the sets to give builders the idea of making more suitable ones for the individual models.



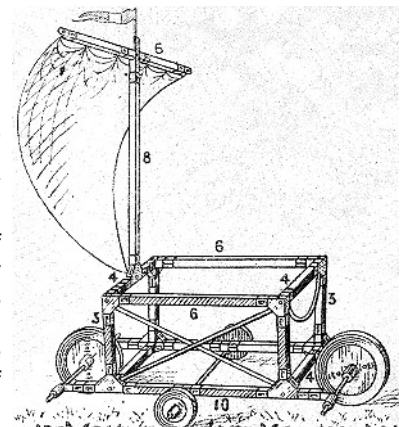
The No.0 MANUAL

This manual is in French, English & Spanish, and has 16 unnumbered pages, including covers, 244*152mm. Like all the Manuals it is printed in green with shaded line drawing of the models. Unlike the other Manuals the cover (below) has



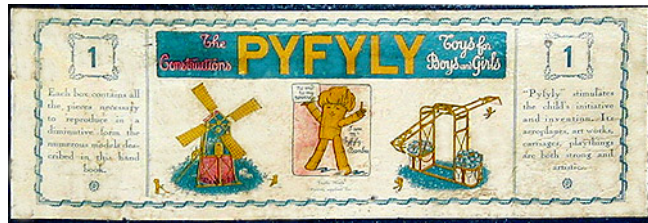
no Set No., only 'Each box contains all the pieces necessary to reproduce in a diminutive forme the numeros models described in this hand book.' Inside there is just 'BOX No.0 CONTAINING 154 PIECES' before the model section. pp2-3 explain PYFYLY's many merits and have small drawings of Sets 0-3; p4 has the usual Illustrated Parts; and pp4-5 detailed instructions. The 33 models are on pp6-14, from The TABLE to BALANCE, and in addition the PYFYLY ALPHABET is on p13. pp15-16 have the list of the other sets already mentioned, and various larger models.

The models are mostly small items of furniture, with the usual



elaborate decorations to be supplied by the builder, but there are also a few others including a Windmill & Steam Hammer with cord drives, and the 'Sail-Sledge' shown in the last column. From the models the Set must contain 2 each of Pulleys #1 & #2.

The No.1 SET This is in a blue box, 35½*13½*3cm, with a

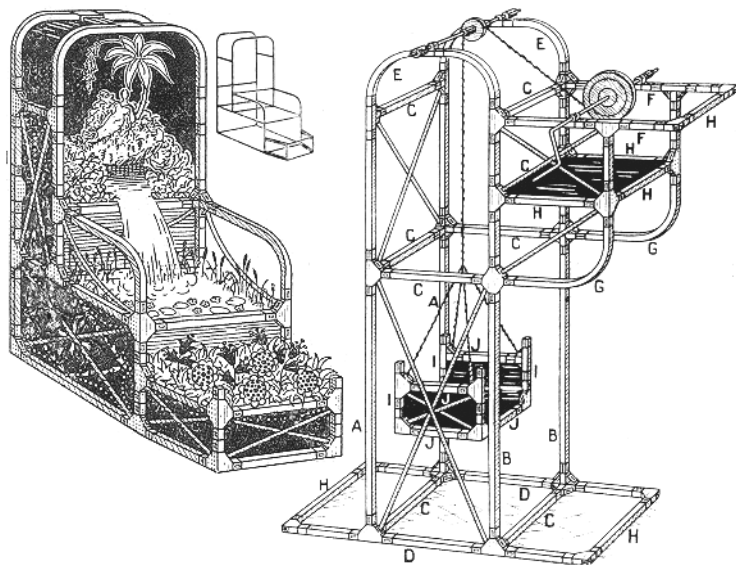


hinged lid, and the label below, 31½*11¼cm. The models on it are not in the Manual. The parts are strung onto cards, one stuck to the inside of the lid, and others within card partitions in the base. The cards are printed with the name, & sometimes the number of the set, and marks to indicate the positioning of some of the pieces.

No **inventory** is available for this set but it probably includes 1 each of Pulleys 1 & 2, and 4 Rollers. Also 2 Cushions, 6*6cm.

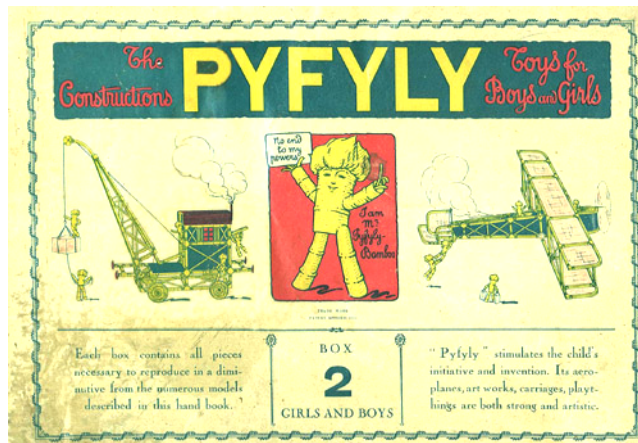
The **Manual** has 24 unnumbered pages, including covers, 319*119mm, and the cover is exactly the same as the lid label above, except that it is printed in green with no other colours. The Illustrated Parts are on pp2-3, the Intro & Instructions on pp4-9, and the 25 models on pp10-22. They start with a Rustic Chair and the last is a Lift. p23 has photos dining and drawing rooms filled with Furniture, and the back cover has a photo of a Twin-Engine Biplane outside a Hangar, and ads for Sets 1-4, & 'detached pieces'.

A selection of the models was shown in OSN 14 – overall there are still many domestic items but the mechanical models include a Bobbin Winder, a Carding Machine, & the Lift below right. Also below a Spring, that is a little waterfall half way up the exotic looking scenery. Full marks for originality, but I wonder what mama, or maman, thought about the water feature.



The French version of this Manual is identical apart from the language.

The No.2 SET The box is similar in style to the No.1, but brown and larger, 26½*34¼*3cm. Again the parts are on cards in the bottom & in the lid. The label, atop the next column, again nearly covers the lid, and again the models on

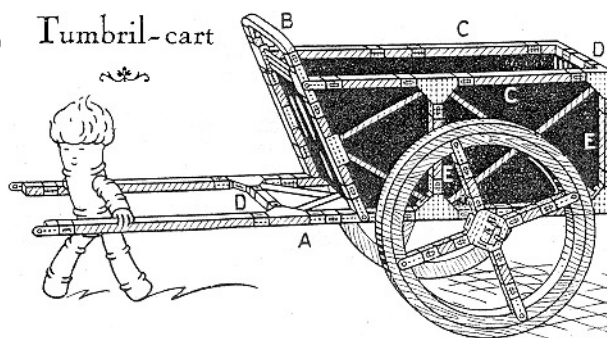


it are not in the Manual, though a slightly simplified version of the Crane is included.

An **inventory** for a No.2, with 21 of its 360 parts missing, is available on request. The main parts include 70 Strips & 10 Formed Strips; 76 Fittings with 135 Sleeves for them, 2x 4-spoke, 4x 24mm, & 1x 12½mm Pulleys; 6 Axles & a Crank Handle; and 2 Small Propeller Blades. Also 1 very large Cushion, about 10*13cm & 4 with sides of 6-8cm.

The **Manual** has 32 unnumbered pages, including covers, 319*238mm (twice as deep as the No.1), and the cover is again an all green copy of the lid label. The Intro is on p2, the Illustrated Parts are on p3, & the Instructions are on pp4-6. pp7-13 have the 25 No.1 models, exactly as in the No.1 manual. p14 starts with the announcement about the Inventor's set & Motor, and after that the first No.2 model, a Dining-Room Chair. The rest of the 40 No.2 models follow and the last one is a Lathe on p30. The two sides of the back cover are similar to those in the No.1 manual.

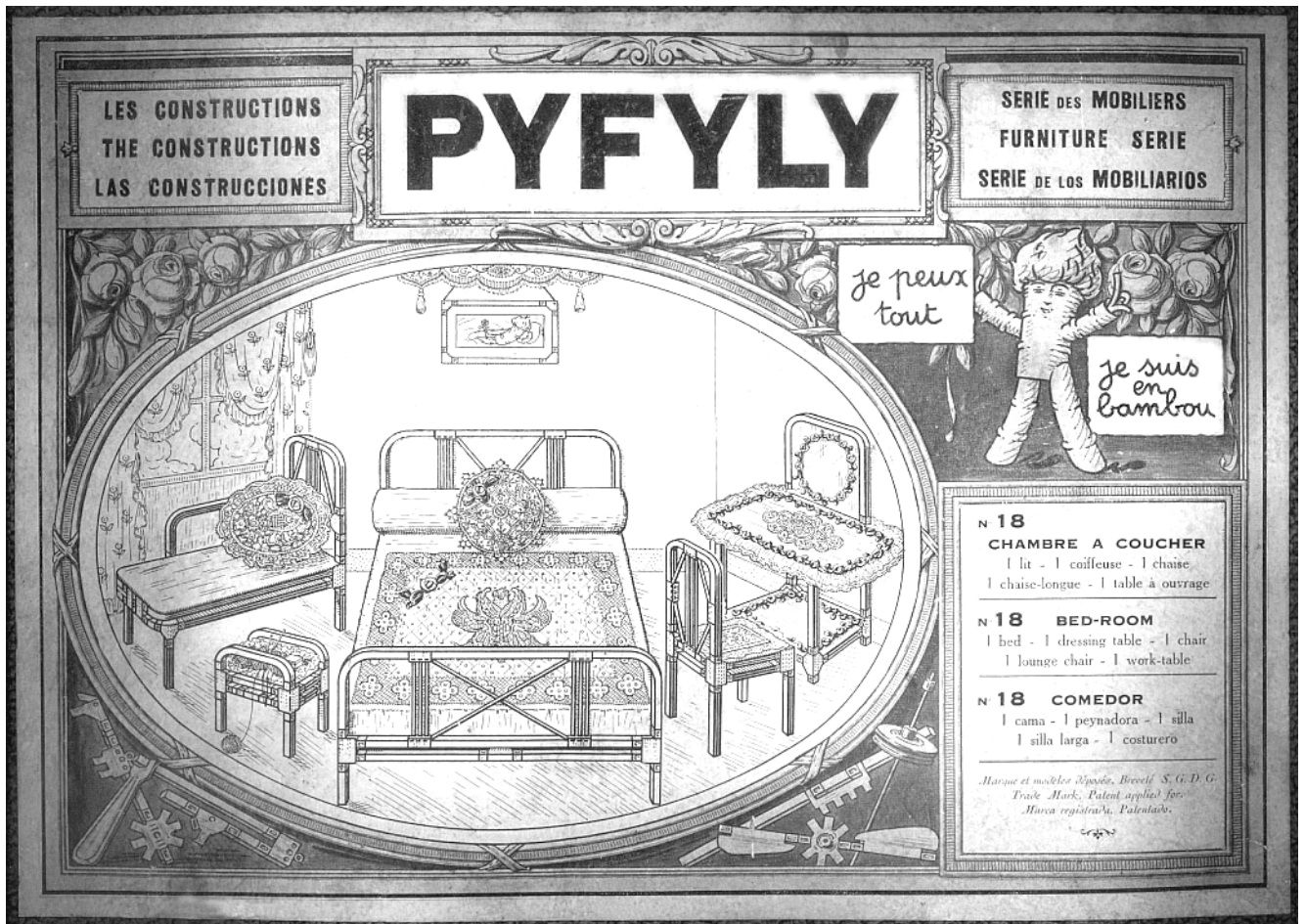
The No.2 models still include much Furniture & the like, but there are also some more ambitious models. Some are shown in MCS/FB, among them a Mobile Crane, a Letter Balance, & a Lathe, and others include a Gondola, a Roundabout, the Tumbril-cart below, and the Aeroplane shown on p844 – it has moving tail surfaces and a rubber band to drive the propeller.



The No.3 SET The box is dark blue, and again similar in style, but larger, it scales at 39*32cm, and there is a separate tray for the Wheels and most of the Fittings. The Strips are all in the bottom of the box, and the Cushions, Axles, & Propeller Blades are in the lid. The label is the same as the No.2 except for the set number.

No **inventory** is available for the No.3 but most of the main parts can be seen from a photo of an unused set. They include 2x 6-spoke, 4x 4-spoke, 8x 24mm, & 2x 12½mm Pulleys; 8 Rollers; about 150 Fittings, 4x 'L' & 9x 'U' Formed Strips; 8 Large & 10 Small Propeller Blades; 14 Axles & 2 Crank Handles; and 1 Large & 8 Small Cushions.

[Cont. >]



The No.18 SET This is the Bedroom Set. The box is a dark grey mottle, 34*25*5¼cm, with the B&W label above, 28½*21cm, on the separate lid. Below the completed model, with all except the floor in the Set. The Backdrop is 25cm

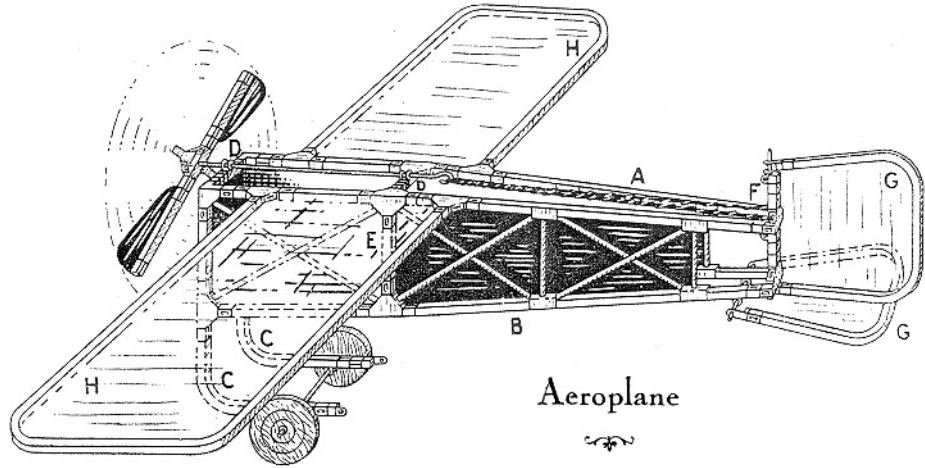
deep, 33cm across the centre, with 18cm wings. There are 2 layers of parts in the box with 3 of the usual style cards in the bottom and one in a deep tray above. The latter has a small card box for the Sleeves, 8*3½*1cm, stuck on one



corner. The wording on the cards is in French & English but the label & manual are in Spanish as well. The Backdrop folds up and is tied down inside the lid by narrow pink braid.

The Parts – the frameworks for the different items are made from standard parts. Most of the special parts - the Seats for the Chair & Chaise Longue; the Top of the Work Table; and the Top, Back, & Shelf of the Dressing Table - are made like the Cushions. They are all covered with light blue material and backed with white card. The exception is the standard Cushion used for the Work Top which, although it fits, may not be the original part. The other two special parts - the Mattress & Bolster – are card shapes covered with the same material. The Mattress measures 18*13½*2½cm. Most of the light blue parts are trimmed with white lace glued on, and a mirror is glued to the Dressing Table Back. Embroidered pink flowers/green leaves are used as decoration in some corners of the lace and around the mirror & Dressing Table Top.

The **Model Sheet** is 652*248mm deep, folded into four, and is printed in the usual dark green. The front has ads for

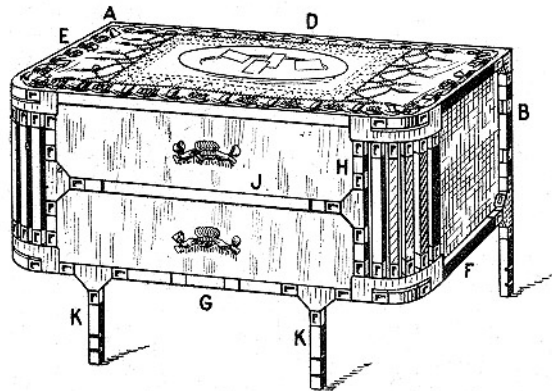


Aeroplane

Sets 0-3, and all the Furniture sets are listed on the back. All the rest is taken up with a general view of the room, as on the lid, diagrams of the models' frameworks, with most members lettered, and detailed drawings of those parts.

Also included are full instructions for the Set 19 Chest of Drawers & Screen, and these models are shown below. Below them are general views of the Dining & Drawing Room Furniture, taken from the No.18 Model Sheet.

COMMODE - CHEST of DRAWERS - COMODA



PARAVENT - SCREEN - BIOMBO

