than standard; the 224 is no doubt a concentric drive to the hour hand and appears to have 13/40 teeth. The 10 and 40 could make a useful 4:1 but how the rest of the train would have been arranged I leave as an interesting exercise for the reader.

<u>VEHICLE PARTS</u>. The 1934 List contains a complete list of all the Chassis parts, and those for the 5 bodies that could be fitted to it -the Standard Tanker and the Mercedes Racing Car came later. This list, in German, isn't perhaps hot news but if anyone needs it please ask. In passing there are 48 Chassis parts (C1-C50) and the bodies typically have rather less than 20 each.

FOOTNOTES. • In the '29 List is #44a which I don't remember seeing before, its the 2 hole high Double Bracket, #44, similar to MECCANO #11a, with a boss on the bottom. • The contents of the Zusatzkasten will need to go into MCS together with other material that has appeared in previous OSNs.

INVICTA. At Henley last year José Bernal Moreno kindly brought over an INVICTA Set to show me, such outfits were on sale in Barcelona in the early 1940s. This system is called INVICTA O in MCS but the 'O' is thought to be an error, the box lid has INVICTA on it but no 'O'. Under the name is a ring with Modelo in it and a blank space underneath for the Set No; it is similar to the one on p2 of GOLIATH (a related system) in MCS/FB. There is a number in the INVICTA ring, it might be a O but it's too faint to be sure.

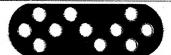
There was no Manual with the Set and it was not complete, but there was at least one of nearly all the parts that can be seen in the models in MCS. The most noticeable thing was the Strips: compared to those seen in MCS the 5 and 9 hole ones had an extra hole in each end (the shorter of them is shown below), and the 13 hole had the same extra holes but in addition the remaining holes were arranged differently (below). The holes in the DAS and the Angle Bracket were as in MCS. So were all the parts originally from this Set? All that can be said is that the finish is similar throughout and that their dimensions are consistent. Now a few comments on the parts:

- The average pitch of the holes in the Strips is 8.1mm, for comparison TRIX is 7.8. There are slight variations of up to .03mm between the 2 shorter Strips and along the length of the longer ones. Strips are .553" wide and .030" thick. The holes in the 26.5mm dia Disc have a pitch of 8.9 or 9.0mm. The dia of all holes is .154" except for the .142" dia centre hole in the 10 and 16mm dia Washers.
- The thread is 3.5x.8mm and so the Washers are a good fit on it but the Discs, with their .154" centre hole, are sloppy. Nuts are hexagonal, .252" A/F; the Bolts are 5mm u/h and have .200" dia tapered cheese heads. Only one size of Screwed Rod was present, 55mm in length.
- All the parts are steel with the screwed parts brass plated. The other parts were generally quite bright in appearance but it was hard to decide whether they had been plated or not, possibly they had a very thin coating of nickel. One side of one Disc looked rather brassy.

José provided some sketches of the parts as well as photocopies of the Strips and these are included in an Extra MCS Sheet. On the reverse side I've put the rather attractive box lid, it shows a small child with golden, curly hair, holding the Monoplane shown in MCS.

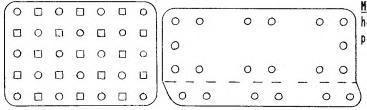
AMENDMENTS TO MCS (as necessary, depending on version): HOLE DIAMETER: 3.9mm. HOLE SPACING: 8.1mm. COLOUR: Unpainted steel or possibly nickel plated. PERIOD: add 'Also known from early 1940s.' COMMENTS: replace by: Parts similar to TRIX but with some holes omitted and slightly different hole spacing. See also GOLIATH. MATERIAL SUPPLIED BY: add: and José Bernal Moreno.

AMENDMENTS TO INDEX IN OSN 6: THREAD: 3.5x.8 SPCE: 8.1 dST: 3.9 DAXL: 3.58

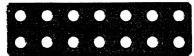




<u>MYSTERY PART No.19</u>. A heavy, nickel plated Flat Plate with alternate holes and squares, traced by Richard Symonds and shown here x.5. The actual pitch of the holes is probably exactly 7/16". <u>MYSTERY PART No.20</u>. Another from Richard, a Flanged Plate $4x1\frac{1}{2}$ " with one $\frac{1}{2}$ " flange, again shown $\frac{1}{2}$ scale. Of the 3 found, 2 were painted dark maroon and the third was unpainted. Don Redmond also sent some photos of an identical looking part, this one nickel plated. Since Richard lives on one side of Canada and Don on the other, this part may hail from Canada, or at least North America.



MYSTERY PART No.21. From Peter Kessler, a 2x7 hole steel Plate with 3.0mm holes at 7.0mm pitch, plated dull grey. Photocopied full size.



OSN 10 259

that: • The Bush Wheel and the 1" Pulleys are painted red; and the Hook is green. • The Screwdriver is the bent wire type, as in MCS; the #14 one has a brown plastic handle. • The N&B are slightly smaller at 6.1 A/F and 4.8 dia. • More important, the Axles are 3.58mm dia, though the Crank Handle is the 3.20 of the Axles in the #14.

It is believed that PLANO was introduced in 1961 (OSN 3/41), and it continued until 1990 (4/72); the manufacturer was Rai Toys Industries, Sitaram Bazar, Delhi. In the next Issue I plan to include

details of MAXHINA, another, comparable, Indian system.

AMENDMENTS TO INDEX IN OSN 6: SPCE: 13.0* dST: 3.8 DAXL: 3.58* SUMMARY OF MANUAL. #Name: PLANO #Details of maker: RAI TOYS INDUSTRIES, SITARAM BAZAR, DELHI-6 (on front cover). #Dates &/or Ref Nos: none. #Page size: 245x201mm deep. #No of pages: 48 inc covers, unnumbered. #Language: English, Hindi. #Printing: Cover is b&w on light blue ground. Each model has line drawing on black ground, plus black on white exploded views. #Page Nos of Parts List & highest PN: 46-48,98. #Page Nos of Set Contents & highest PN: 2,98. #Sets covered: #14. #Name, Page No of first & last model: #No of models: 20. ENGINE, 5. CRANE, 43. (no Model Nos.) #Other notes: Models are

MECCANO 1962/69 Set 6 & 7. Basic Constructions BC1-14 are shown on p3. PLANO INSTRUCTIONS FOR No. 7 SET SUMMARY OF MANUAL. #Name: PLANO #Details of maker: RAI TOYS INDUSTRIES, SITARAM BAZAR, DELHI (on back cover). #Dates &/or Ref Nos: none. #Page size: 205x128mm deep. #No of pages: 24 inc covers, unnumbered. #Language: English, Hindi. #Printing: Cover and models are white on black. #Page Nos of Parts List/Set Contents & highest PN: 2-3,71. #Sets covered: #7. #No of models: 28. #Name, Page No of first & last model: SWING,4. TRICYCLE ROUNDABOUT,23. (no Model Nos.)

To Start you Building AN ENGINEERING OUTFIT

PLANO INSTRUCTIONS Set no. 14

AN ENGINEERING OUTFIT

To Start you Building

(RAITOYS)

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#Other notes: most models are MECCANO. 2 #8 models are shown on the back cover.

MYSTERY PARTS Kendrick Bisset sent some comments and also wrote, "Might it be helpful to identify the area where mystery parts were found? I realise that parts may travel far from their origins, but it seems that the U.S. is more parochial than even Canada; I find much more variety north of the border than here." This might certainly help in some cases and if contributors give me this information, where they think it could be relevant, I'll include it. His comments are below; he found the Parts #19 and 20 in the Chicago area.

MYSTERY PART No.1 (The ERECTOR 5x4h Plate, see 3/47 and 8/197) Kendrick sent a copy of the Instruction Sheet which was in his ERECTOR #O Set. One side of it is generally similar to that shown at the top of p46 in OSN 3, with a the reference no., M 466, and the same 1920 copyright date at the bottom, and No.0 Erector at the top. On the reverse side are 9 models which include both the 5x4h Plate, old style

wide ERECTOR Girders and 4 Pulley Wheels, as well as the 5 and 9 hole Strips seen in the OSN 3 models. No PNs are given for any of the parts. There is a mention in Greenberg of Sets #0, 00 and 000 although there are no illustrations of them and apparently they were never shown in ERECTOR catalogues, so it is possible that the leaflet shown in OSN 3 came from the 00 or 000.

MYSTERY PART No.19 (The Plate with alternate round and square holes, 9/222) He has a 3h Strip and 2 11h Angles which seem to be from the same system. The hole pitch is $\frac{7}{16}$ " (11.1mm) counting both square and round holes, and all holes are 4.5mm dia or wide. All the end holes are round. The Strip is 11.3mm wide and 1.2mm thick; the flanges of the A/G are about 15.2mm wide and .8mm thick. MYSTERY PART No.20 (The $4x1\frac{1}{2}$ " Plate with one $\frac{1}{2}$ " flange, 9/222) No less than 9 of these pieces, all

unpainted have been found among collections of ERECTOR, THE CONSTRUCTIONEER and AMB parts, but do they belong to any of these systems? The holes are at $\frac{1}{2}$ " pitch and are 4.4mm dia except the end ones in the large face, which are 4.8. AMB lists and models show no such part, and the hole pitch is wrong for THE CONSTRUCTIONEER, so ERECTOR seems the most likely - several poorly documented ERECTOR parts

are already known.

MYSTERY PART No.22 The 6 holes worth shown is from the original 25-h part, and both ends are similar with the same extension beyond the outer holes. There are 25 pairs of cutouts and so they have a varying stagger in relation to the holes. The holes are 4.4mm dia and their longitudinal spacing is 12.5mm, but crosswise it's something less than 32mm. 3 of them were in a STABIL Set that Geoff Wright showed me recently, one painted red, one green, and one blue. The STABIL hole pitch is of course 12.5mm so that ties up, but none of the other parts were painted and there was no mention of this part in the 1956 manual which was in the Set.

N&B are packed in small brown packets in the ELGIN but in the ACO they're in small Elastoplast First Aid Dressings packets with the date 1945 on them. No doubt surplus from WW2.

 There were no tools in either Set and no obvious place for them.

I've been able to photocopy the ELGIN parts for an Extra MCS Sheet, also the box lid for ACO. MCS gives no date for ELGIN but suggests 1954 as the start of ACO. Unless there's evidence for it I would have thought mid to late 40s

might be more likely: the Elastoplast date doesn't prove anything but I think such packaging, while quite acceptable just after the war, would have looked out of place by 1950, in what was, if the price was originally 18/6, a not inexpensive toy. Also Alclad was widely used in the aircraft industry during the war and there was a lot about just afterwards when orders for aircraft were cut overnight. What better use for it than to make toys, for a market which hadn't seen new ones for years, and would pay a high price for anything that looked something like the part.

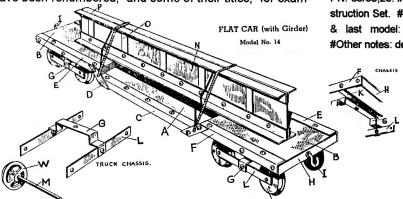
JUNEERO MADE IN CANADA Richard Symonds sent a copy of a JUNEERO 40 page Instruction Book which has along the bottom of its cover 'Manufactured by THE STEEL-MASTER COMPANY LIMITED, Vancouver, Canada'; and on the back cover the address is given: 950 S. W. Marine Drive, Vancouver, B. C. Inside there is a reference to the JUNEERO 'Master Model Construction Set', that is said to be useful to adults in the home etc, as well as to boys for model making. The Tool looks identical to the UK one although the purchaser had to mount it on its Base with the Screws provided. A Patent No.411968 is shown under a picture of it.

No Set Contents are given but there is a List of Parts, 20 in all, and each is illustrated. No surprises, Strip, Angle, Sheet, Rod, N&B, Pulleys, Tires, Springs (assorted), Snips, Tap, Scroll Tool. etc. They have different PNs but all look like standard JUNEERO except perhaps the Spanner, below, which I don't recall as a UK pattern. No gears are included.

1 L—Spanner



There are 22 models shown, each with a line drawing of the completed model and sometimes details of it, plus, for all but the simplest, dimensioned blue prints of the individual parts. They range from a Menu Card Holder to a Travelling Gantry Crane, and all are UK designs although again they have been renumbered, and some of their titles, for exam-



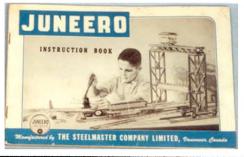
ple that of the model shown below, have been changed too. None of the models are road vehicles and Tires are not used in any of them.

No dates are given but the Tool is the modified pattern that was introduced in 1940, and there is no mention of the XAKTO Gauge that was included in UK outfits from 1948. (For details see 8/176, 9/216) Early postwar seems the most likely period, perhaps before the range of gears was introduced in the UK.

The JUNEERO ENGINEER'S CLUB OF CANADA is mentioned twice in the manual and for 25c you received a badge and news of contests and new designs. It is said that 'Juneero Clubs exist in Great Britain and other parts of the world and are an ever-ending [sic] source of pleasure and enjoyment to the members bringing together young and old alike in a bond of inventive creative effort.

This Canadian JUNEERO seems to me to deserve more than a footnote in MCS, so I've called it JUNEERO (2) and Extra MCS Sheets give all known details.

SUMMARY OF MANUAL. #Name: JUNEERO. #Details of maker: The Steelmaster Company Limited, 950 S. W. Marine Drive, Vancouver, B.C., Canada. #Dates &/or Ref Nos: None. #Page size: 227x148mm deep. #No of pages: 40 inc covers. No page numbers. #Language: English. #Printing: Line drawings of models and blue-prints of their parts. #Page Nos of Parts List/Illustrations & highest PN: 39/38,20. #No Set Contents. #Sets covered: Master Model Construction Set. #No of models: 22. #Name, Model No, Page No of first & last model: TICKET HOLDERS,1,8; FERRIS WHEEL,22,36. #Other notes: details above taken from a photocopy.



MYSTERY PART No.19 Richard Symonds wrote that the Strips with the alternate round and square holes (10/259) were reported in various lengths by the British Columbia M.C. in 1982, and a 5-hole one was illustrated. Since then he sent a photo of all the different parts of this type that he has - there are 3, 5, 7, 9, 11 and 27-hole Strips; 5 and 11h A/G: 2x5x2 and 2x1x2 DAS: and

A/G; 2x5x2 and 2x1x2 DAS; and Perf Plates, 5x7 and 5x11h. The illustration is of a 3h Strip he kindly enclosed.



MYSTERY PART No.20 The 4x1½" Plate with one ½" flange (10/259). Don Redmond solved this one with a copy of a page from an AMB manual which showed the part: it replaced their Flanged Sector Plate in about 1915. More

details are given on p279.

MYSTERY PART No.23 A red painted aluminium Flanged Plate 1.0"x2.0", with square cornered flanges, .6" deep, on the short sides. There are no holes in the top surface but 2 of 4.5mm dia, at 12.7mm pitch, in each flange. A longer 8-hole version is also known, ie 2x4". With the Plates were three 8-hole unpainted aluminium Strips which look as if they might belong. However their holes are 4.7mm and they are of thinner metal, .035" against .040". They vary between 2 and 15 thou over ½" in width and have near fully rounded ends. Don Redmond sent these parts; Richard Symonds also has one of 2h length and wrote that both the 2 and 8h were described in a 1983 List from British Columbia Meccano Club.

MODELIT PHASE 2 The MODELIT in MCS has a few unusual parts but mostly they are rather like MECCANO: a No.3 Outfit was described in 8/186. But now Kendrick Bisset has sent details and photos of a No.B Set owned by George Wetzel, together with copies of the important pages from its manual. Thank you to both. The parts are very different with the pitch of the holes reduced to 7/16" and every other hole square instead of round. If that sounds familiar it's because it's the description of Richard Symonds' Mystery Parts No.19 in 11/283. I now have a photo of them and they look exactly like those in the Phase 2 manual and in the Set B.

Calling this different MODELIT Phase 2 perhaps implies that it came after Phase 1 (the one in MCS), and it very probably did, although there's no hard evidence to prove it. The main thing is that there are more and larger Sets in Phase 2, and many more models in the Manual. Also the Part Nos. begin at 101, no doubt to avoid any confusion with the previous ones. Incidently the maker's name and address is the same for both Phases and the general presentation of the Sets and Manuals shows many marked similarities.

PARTS There were 59 parts in Phase 2 against 63 before. Most carried over without change apart from the different hole format. Those deleted were the 3, 8, and 9h A/Gs (now called Angles), the 2 and 4h Strips, one of the two types of Cord, and the 1" Axle, ¾" Pinion, Washer, Eye Piece, 2x3x2h DAS, 3x11h Plate and Sector Plate. The 25h A/G and Strip were replaced by 27h ones, so slightly shorter at about 11¾". New parts, shown below, were a 2h Coupling (#134), a (small) Bucket (140), a Pulley Block (136), and 3 small Plates (141-143) called Triangular, 45°, and Intermediate Plates. Also below are 5 parts that were different in Phase 2, the Small and Large Spider Wheels (115, 116 replacing the Bush Wheel), the Screwdriver (146), Propeller Blade (135), and Pawl (137 - although not shown both

The Phase 1 Bush Wheel was 1½" dia and had 8 holes;

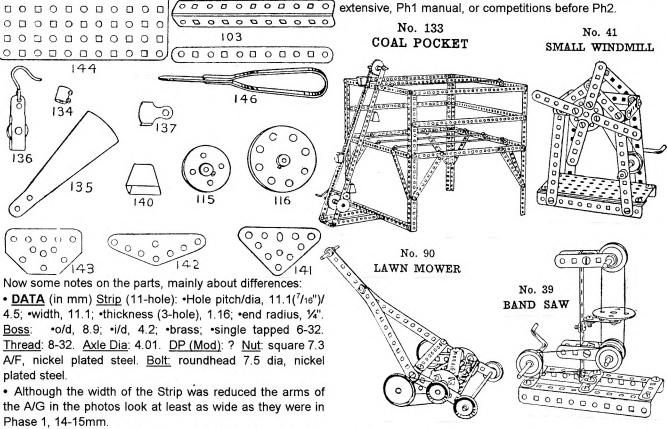
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in the photos the Small Spider Wheel (#115) looks the same diameter and its 4 holes look to be at ⁷/16" radius. In the manual models it is sometimes shown with 8 holes. Scaling the Large Spider Wheel from the Manual gives an o/d of 2"+ and the 8 holes at ³/4"+ rad., so that might be ⁷/8".

- No Sprocket Wheels have been seen but in the Manuals the 2 sizes are shown with 10 and 16 teeth in Ph1, and 14 and 21 in Ph2. No Ph2 gears have been seen either.
- The three new triangular Plates are as far as can be seen the only structural parts without any square holes in them. All Plates have well rounded corners.
- From the photo the Screwdriver is made from flat steel at least ¼" wide.

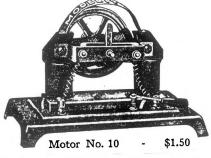
OUTFITS There were 7 main Outfits, A to G, and 6 linking Sets, A-S to F-S. Allowing for the new range of parts, A to E overall had much the same contents as Nos.1 to 5 of Ph1, and they were identically priced. The new smaller sets had a few more parts in them, and the E about 20 less at 288, (excluding the 150 N&B). In a few cases the introduction of some of the more exotic parts like Sprockets and Flanged Wheels was delayed by one set compared with Ph1. The G Outfit was packed in a hardwood box and had 478 parts plus 250 N&B: also included were 30 A/Gs, 8 Flanged Wheels, and 14 Gears. Compared with 1921 MECCANO, the G lay between a No.5 and a No.6. A motor (#159) was included in all the new MODELIT sets from D upwards.

MANUAL MODELS Clear line drawings of models replaced the Ph1 photos and there were many more, 117 for Sets A-E against 40 for 1-5, and another 22 for the two largest sets. Some of the Ph1 models reappeared, including the Sand Shovel shown in 8/187, but its name had been changed to Steam Shovel. It was a straight transformation to the new parts and although they could have been used to advantage, none of the new triangular Plates were incorporated. In fact although they were included in Outfit C on, little or no use is made of them in any but the largest models. Perhaps many of the models dated back to an earlier, more extensive, Ph1 manual, or competitions before Ph2.



The models are generally fairly simple: the small selection shown includes a G model, the Coal Pocket. It could I'm sure have been much improved if more of the parts in the set had been used (even if I'm not exactly sure what a Coal Pocket is meant to be). Notice the Buckets attached to the Sprocket Chain, was this a first for MODELIT? Without a date for Ph2 one can't be sure - the MECCANO Dredger Bucket was introduced in 1921. The Loom on the back cover of this Issue is more complex than most of the models and is motor driven. Several railroad wagons are shown in the manual pages I have, but no cars or trucks: a coincidence perhaps but possibly a reflection of the absence of a decent size road wheel in the system, even after all the revisions for Phase 2.

MOTORS It isn't stated which motor was included in the Sets and the one shown in some of the models (see the Loom) is not the same as the No.10 (opposite) advertised in the back of the Manual. The latter had a reversing switch



and would run on one or two dry cells. At \$1.50 it cost \$1 less than the fully enclosed No.100 in the Ph1 Manual.

QUESTION Why did Watrous Mfg. decide to change horses? Perhaps because there was concern over infringing Hornby's patent, and many of the MECCANO-style parts, the Sector Plate, albeit without flanges, the Eye Piece, and the original Pawl, did all disappear. So perhaps that was why, but it may have been that the ½" hole spacing and the MECCANO look didn't allow the product to stand out clearly from

New System: JUNIOR MECHANIC

On the box lid is "Junior Mechanic" | CONSTRUCTION SET | Number 201, and I'm assuming that JUNIOR MECHANIC is the name of the system, although it could be the name of the #201 Outfit. Kendrick Bisset kindly sent details of this little American set, with photos of it and a photocopy of the lid. The latter measures 16½x11½" and is half red and half blue, divided by a wide white diagonal band. The parts are mounted on a yellow card, specially cut to receive them. The Set is near complete and in very good condition (except that one Strip has been chopped up into shorter lengths), but there was no manual with it. However 6 models are shown on the lid, and 2 of them are reproduced here, together with a general view of the Outfit.

There are 13 different types of part, all made of aluminium except for the steel N&B. Notes on the parts follow:

- •DATA (in mm) <u>Strip</u> (8-hole): •Hole pitch/dia, 12.7/3.5: •width, 12; •thickness, .81; •corners of ends cropped at 45° (shown square on lid). <u>Thread</u>: Believed 5-40 (.123" dia). <u>Crank Handle Dia</u>: 3.16(nominal ¹/₈"). <u>Nut</u>: Hex. 7.9 A/F. Bare steel. <u>Bolt</u>: Roundhead, 5.8 dia. Bare steel.
- There are 4 each of the 16 and 8-hole Strips, and 12 of the 4-hole. The 16 and 4-hole are 1.27mm thick. The two 1x4x1h DAS are .81mm, and the 10 Angle Brackets, 1.04mm thick; both have cropped corners.
- The Flanged Plates are 2" wide and 2h, 4h, and 8h long. with holes only in the flanges. The corners are square and the outsides of the Plates are painted red.
- The Bolts are in two lengths, 3/8" and 3/4". The Crank Handle end remote from the handle is threaded; there are no axles.
- The 8 Wheels are .71mm thick, 36.5mm dia pressed discs, angled near the edge. They are painted blue on their concave side only. Two together form a pulley and are used thus, locknutted on the end of the Crank Handle. Otherwise the Wheels run on locknutted Bolts.
- The parts are quite well made. Strips are smooth and without burrs though some of the holes are a bit off centre. The red paint seems to be easily scratched.
- · All holes in all parts are round.

The name of the manufactuer on the box lid is Mechanicraft

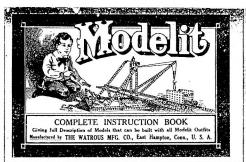
its (many) competitors. The thinking may have been that the square holes would give it a distinctive appearance (it's hard to think of any other reason for them), and the nonstandard spacing would deter new MODELIT owners from buying extra parts from other systems, or from buying secondhand parts, the worst nightmare for an MCS manufacturer.

SUMMARY OF
MANUAL.

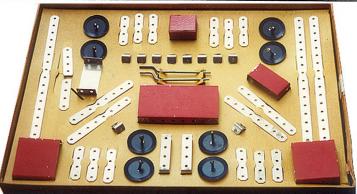
#Name: MODELIT.

#Details of maker:
Watrous Mfg. Co.,
East Hampton,
Conn., U.S.A. #Ref
Nos. &/or Dates:
none. #Page size:
255x165mm deep.

#No. of pages: 52 +



covers. #Language: English. #Printing: Line drawings except photo of motor. Black on white: cover blue on grey. #Page No. of Parts List & highest PN: 51 (illustrations p50),162. #Page No. of Set Contents & highest PN: IBC,162. #Sets covered: A-G. #No of models for each set: A,41;B,28;C,18;D,14;E,15; F,14;G,8. #Name, Model No., Page No. of first & last model of each set: A: RAILROAD WARNING POST,1,2; SMALL WINDMILL,41,11. B; PISTOL, 42,12; POWER HACK SAW,69,18. C: PILE DRIVER,71,19; OVERHEAD ROTARY CRANE,88,23. D: STEAM ENGINE, 89,24; PANAMA CANAL CRANE,102,28. E: ARMORED RAILROAD CAR, 103,29; GEAR TRAIN, 117,35. F: AERO ICE BOAT,118,36; LIFT BRIDGE,131, 42. G: STEAM ROLLER,132,43; WEAVING LOOM,139,48. #Other notes: Part Nos. start at 101. Motor No.10 and Transformer shown on p10; price list of outfits A to G, A-S to F-S, on the back cover.





Inc., Jackson Heights, N.Y., and as Kendrick pointed out, the ALUMINUM CONSTRUCTION SET (ACS) in MCS, is also made in Jackson Heights (by Robert Enterprises) and the two systems are the same in some respects. Both are made of aluminium, the Strips have the same number of holes and are shown with square corners, and the

form of lettering used for the name and address is similar. The Wheels are different though and there are no Flanged Plates in ACS. There's no indication of date for either but most likely they are both from soon after WW2.

When the details of this Set arrived I was reminded of the Flanged Plates described in Mystery Parts No.23 (11/283). However the JUNIOR MECHANIC ones aren't quite the same - they are much thinner (.017"), have smaller holes, and their flanges are only ½" deep. Also as already noted, they are painted on one side only.

OSN 12 327

METAL BUILDER Thanks are due to Bill Charleson for sending details of this new set which appeared in Early Learning Centre shops here just before last Xmas. It is almost certainly a repackaging of the CONSTRUCTION 02 outfit mentioned in 11/293, although it does contain 8 more parts than the 220 given in the German list. The box measures 8½x11½" and the name panel from it is shown opposite.

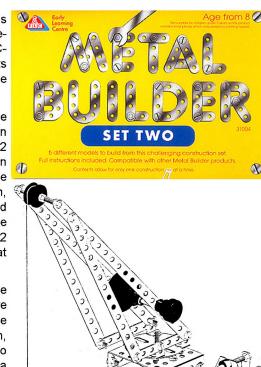
The original C02 contained 275 parts and as this new set has about the same number of N&B, it means that the number of parts proper has been reduced by a third from 154 to 108. Judging from the models in the C02 manual, the axe has fallen on the parts that were not used, or not often used, in them. The 5 models shown for METAL BUILDER are virtually the same as their C02 equivalents, with a little redesign in one or two of them, the Crane opposite for example. So far so good, but when it comes to a lad making up his own models, some of the omissions are to be regretted, the 4 A/Gs for example. But worst of all, there are now only 3 Pulleys and 2 Tyres instead of 4 of each. To my mind that isn't good in a Set selling at £14.99. As in the C02 no flexible plates are included.

The A4 size manual has a new, smart look with large illustrations of the models that look as if they are computer generated. Generally they are clearer than the (good) photos that were used before, but in one or two the hidden detail which was previously shown in an auxiliary view, isn't given, although there would have been plenty of room on the page for it. Also there is no longer a list of parts for each model, or even a title. There are a few mistakes too, notice that on the Crane the two far Strips of the jib appear not to be bolted to the base.

At my local Early Learning Centre there was a display model of the Windmill that's featured on the box lid. All the parts in it were as would be expected except the plastic Windmill Sails - they were blue instead of the yellow of earlier parts, and of the ones shown on the box lid. Also 'eitech',

the name of the company who make CONSTRUCTION parts nowadays, was moulded into their ends. There's was no indication of the manufacturer on the box itself.

Bill and I share a liking for CONSTRUCTION parts and I hope they survive - it will be interesting to see if the relatively simple METAL BUILDER models, made essentially from Strips and Perforated Plates, prove as attractive to youngsters as the more realistic ones now being featured by MECCANO, at comparable prices.



SMALL ADS

- WANTED: odd O.S. parts, any condition. Please list and price in first letter. Thanks. R.T.Symonds, 15170 Dove Place, Surrey, V3R 4T5, Canada.
- URGENTLY REQUIRED TO COMPLETE MODEL 4 MARKLIN part 10380 80mm Flanged Discs. Also any other Marklin parts in good condition. Bill Charleson, 144 Sunnybank Road, Mirfield, W. Yorks, WF14 0JQ. 0924 493413.
- For sale. The #6 and #9 Indian MAXHINA sets described in OSN 11, p286. The #6 has manual but no box; parts undamaged and strung, slight rust on one plate. Weighs .4kg. The box of the #9 is battered with one edge of the lid missing. The two layers of parts are strung and look complete but a few have broken loose. Complete with manual. (1.1kg). Also another #9 with no box and photocopied manual. Parts are strung but small portions of the backing cards have been cut off and a few parts have some damage. 4 x 1" Pulleys with Tyres, 1 DAS, and 1 Flat Trunnion appear to be missing. (.9kg). Offers to the Editor please by the end of May
- OSN 1 to 9 in pristine condition. £15 plus postage, from Mrs Gwen Higginson, 7 Buckthorn Avenue, Stevenage, Herts. SG1 1TT.
- For sale. The following sets which belonged to Mr Guillaumet of Switzerland: 1) HELLER'S STAHLBAU Set including manual; the box is poor and some parts are missing, particularly the special MECHANIKUS tool. 2) EFEL No. 0 Set inc manual. Aluminium parts from about 1946. Complete and in good condition. 3) EFEL No. 0A, details as above. 4) EFEL Set without manual. Steel parts from about 1960. Complete in good box with strung parts. Further details from CONSTRUCTORAMA, 23 rue Thénard, 10800 Saint-Julien les Villas, France

MYSTERY PART No.19 The parts with the alternate round and square holes are MODELIT, but from a different, probably later, phase to that described in 8/186. Please see p326 for more details.

MYSTERY PART No.23 The red painted aluminium Flanged Plates with no holes in the top face (from 11/283). Richard Symonds has sent more details of his parts. He has 2h and 8h long ones which are similar to Don Redmond's, but also an 8h one which is 21/8" wide, has slightly deeper flanges, 5mm holes, and paint on the outside only. And for good measure he also mentioned another, 15/8x2½", with 5/8" flanges on the shorter sides, each with 3 holes (smaller as drawn) at ½" pitch. It's painted black on both sides and is made of steel.

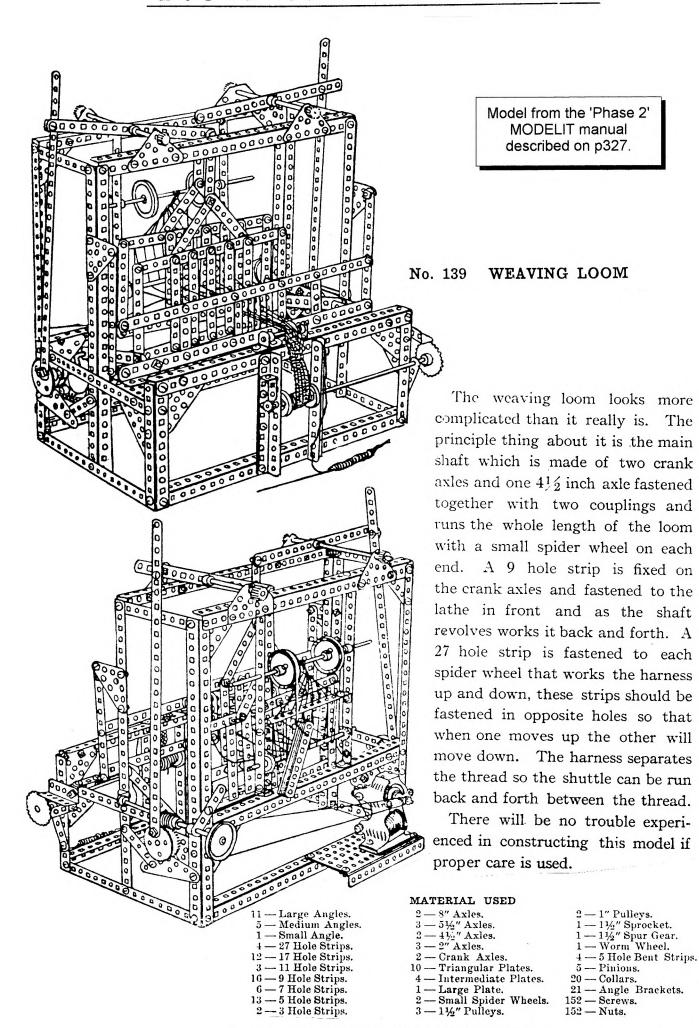
MYSTERY PARTS No.24 A Coupling and a Collar from Don Redmond. Both are made from nickel plated steel, perhaps 1mm thick, formed into a (rather distorted) tube, in which a 4mm rod is a very sloppy fit. The join is opposite the tapped holes - one in the Collar and two in the Coupling; the thread seems to be 6-32. The Collar is ½" long and the Coupling ¹³/₁₆". There's no apparent reason for the semicircular cutout between the holes in the latter.

MYSTERY PART No.25

This Triangular Plate is rigid and has holes at ½" pitch. It's painted yellow with a hard, glossy finish.



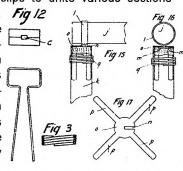
OSN 12 329



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

David has also tracked down the French patent for AJUSTO (12/315): it turned out to be No.750927 and not the number on the Manual, which had nothing to do with toys. The date of application was 17 February 1933 and it was in the name of Robert Tassel, resident of Eure (to the east of Paris). Of the various clips shown in OSN 12, only types A and B are shown, but an alternative form of A is included (Fig. 3), and also clips to unite various sections

other than semi-circular, Fig 12 rectangular for example (Fig.12). A method of joining solid rods is also given (Figs.15-17) - one rod is held in the clip I, which engages in the slot in the thin metal cap o, whose arms are bent down over the other rod and are held by the spring clip q.



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

- 4. Josep Bernal sent a copy of the cover of a 1921 STABIL Manual for Sets 49-52 in Spanish. It is basically the then normal STABIL standard with the righthand panel like the DEN LILLE INGENIØR one in 7/157 and on the left, "Stabil" and the text details in Spanish.
- 5. John Hanby wrote that he had recently acquired a JUNEERO Engineer's Set (see 8/178, 9/216) and that it is almost certain that it was originally bought at Xmas 1940. The metal Discs in it were 2.50" and 1.75" dia, different to the postwar ones described in OSN 8, and those in my Engineers' Set were different again at 2.13" and 1.68". All were the same thickness.
- 6. Don Redmond has discovered that at least from 1936 to sometime in the 1960s, the major occupant of the address given for THE ENGINEER (12/328) was Armstrong Bros., machinists (Armstrong Bros. Engineering from about 1945 on). He also notes that the Screwdriver shown may have been a commercial, bought in item, and is similar to the AMERICAN MODEL BUILDER one, and to those supplied with White sewing machines ca. 1919.

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

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

sets are listed, 00 to 3 against 0 to 6 plus 1M and 2M - the prices of corresponding sets are higher, \$6 for a #3 against \$4. The Little Hustler motor and the distinctive Braced Girders are no longer in the Parts List although the manual cover shows some of the latter but with MECCANO cutouts. The righthand boy on the cover is wearing a jumper with a 'diced band' around the bottom, instead of that rather fancy jacket (see MCS). The Windmill Sail shown is also MECCANO-like with



an arm, 6 bumps and rectangular holes, instead of the round holes in the Canadian Toys manual. Mainly because of the jumper I'm inclined to think that Structomode Ltd. came after Canadian Toys.]

- 7. Roger Baker bought a German set called MECANIC recently with parts that seem the same as those for the German MEKANIK in MCS. [In MCS Part 5 there's a Swedish MECANIC which is virtually the same as their MEKANIK does anyone know anything of the change from 'Cs' to 'Ks' or vice-versa?]
- 8. Kendrick Bisset wrote that he has been told that the MODELIT Motor No.10 (12/327) was a Weeden product with the nameplate changed; also that he remembers seeing an ad for a motor similar to the one in the Loom (12/332), and it may have been a 'Little Hustler'.

On differences between similar parts from different systems he has found that the small hole for cord in old MECCANO Crank Handles is 11/2" from the end, while AMB holes are 11/2" from the bend.

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

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

- 10. On JUNIOR MECHANIC (12/327), Al Sternagle wrote that he has a smaller #101 set in a 111/2*81/4" box, and thinks that it dates from the 1950s. As with the 201 there were no tools or manual with it, but 6 models are shown on the lid. The thread is 5-40 with the same length Bolts as in the 201, and the Nuts are 5/16" A/F and 1/16" thick. The thread on the end of the Crank Handle is 11/16" long.
- 11. Tony Matthewman, in reply to a question, said that TRIX Angle Girders were not introduced until after WW2, and that Continental ones were, and are, steel, and not aluminium as in the UK. He also mentioned that a German mail order house called Quelle has for several years sold 3 of the current TRIX sets under the name QUELLE GOOD PLAY, but 'TRIX' is also on the box lids in small letters.

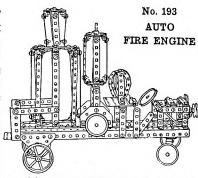
CORRECTION On Gilbert MECCANO, several readers wrote to point out that the disc and vee of the 1" Pulley shown towards the bottom of 12/319 are formed, perhaps spun, from one piece and not two as shown. Also Kendrick Bisset added that the Pulley was at one time a standard ERECTOR part.

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

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

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

- All the **Gears and Sprockets** are brass, and none have any holes in their discs. The **Pinion** is .492" o.d., with 16 teeth of .23" face; the **Gear Wheel** scales at 1.4" Ø and probably has 50 teeth. The calculated DP based on the Pinion is 36.6. The **Contrates** are .75 & 1.43" o.d. and have 25 & 50 teeth; the **Sprockets** have 14 & 23 pointed teeth and are 1.00 & 1.47" o.d. The **Worm** has nearly 7½ turns of thread and is .873" long o/a: it is .558" Ø, turned down to .378" Ø for the boss.
- The 2 **Spider Wheels** are $1\frac{4}{4}$ & $1\frac{4}{16}$ Ø and the 8 & 4 holes in them are at $\frac{5}{8}$ & $\frac{7}{16}$ radius. Their discs are of thicker than usual steel, .051 & .067" respectively, nickel plated, like all the parts other than the Gears and the Spoked Pulley.
- Said Spoked Pulley is 115/16" o.d. with 8 flat spokes, about 1/8" wide; it's made of 2 steel discs held together by a 5/16" Ø boss, and is painted a dark, metallic red. This part isn't in the manual's Illustrated Parts or Set Contents but there's a 2" Pulley at the end of the Parts



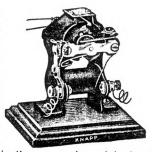
List. Similar Pulleys are used in some of the (new) manual models, but are shown with 6 spokes, as in the F Set Auto Fire Engine shown above. The 6 in the Richard's Set are fitted with narrow black Rubber Rings, but there's no sign of these anywhere in the Manual.

- Bosses are all brass and some are 5/16" Ø and some 3/8". There seems no pattern as might be expected the Pinion has the smaller size and the Worm the larger, but the small Contrate has the 3/8" and the large the 5/16". Perhaps some were old stock and the smaller ones were new production, those in the earlier Set B all look to be 3/8". Peening is a narrow ring just proud of the face, but flush on both Sprockets. Bores are mostly about 4.2mm but a few are nearer 4.1mm. There are 2 types of Set Screw, one with a round head, typically .22" Ø, and another with a tiny flatter head of about .16" Ø. Both are nickel plated steel.
- The other new part, a Combination Wrench and Screw Driver, is, like the 2" Pulley, in the Parts List but isn't illustrated, or in the Set Contents. It's nearly 4" long and a tracing of it is shown left.
- The Propeller Blade scales at about 4" long.
- The small Bucket has 2 hole in one of the long sides.

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

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

The Set Contents are identical, & as already mentioned, neither the 2" Pulley nor the Span'driver are included. The same Transformer is shown, though it's \$5 against \$3.50 before, but the Motor (right)



now looks like the one shown in the manual models (see 12/332), and cost only \$1. It is said to be 31/2" high, to be finished in black enamel with nickel trim, and to have a starting switch. The name KNAPP can be seen on the wooden base. As before a Motor was included in Set D and upwards but there wasn't one with Richard's Outfit. Apart from the Transfo, all the prices of the parts are as before. SUMMARY OF MANUAL [Details not given are as in 12/327.] •No. of pages: 56+covers. •Page Nos. of Parts List & highest PN: 53 [illustrations p52],164. •Page Nos. of Set Contents & highest PN: IBC,162. •No. of models for each set: A,57+those missing;B,40;C,31;D,20;E,14; F,20;G,11. •Name, Model No., Page No. of first & last model of each set: A: CHAIR,40,3 [earlier page(s) missing]; SMALL WINDMILL,96,11. B: ARCH BRIDGE,97,12; GUM TAPE SEALING MACHINE,136,18. C: WINDMILL,137,19; TANK WAGON,167,24. D: ELEVATED DERRICK,168,25; PORTABLE WOOD SAWING OUTFIT, 187,29. E: CORN CUTTER AND SILO,188,30; BATTLESHIP,201,35. F: REVERSE GEAR,202,36; LIFT BRIDGE,221,43. G: COAL POCKET,223,44; WEAVING LOOM,233,50. Other notes: • The above from a photocopy. • Pages 1,2,55,56 are missing but probably contained an introduction, Models 1-39, & a Price List of sets, etc. • There's no Model 222 & on p19 #142 is misnumbered 141. • The Transfo & a different Motor are shown on p54 (in 12/327 the page should read 52, not 10).

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

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

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

My Plates are both the same hand, & are made of .020" thick steel with a dull black chemical finish. Their overall size is as surmised in OSN 17, the flanges are $\frac{3}{10}$ " deep, & the holes $\frac{3}{10}$ " Ditch, except in the longest flange. That has a centre slotted hole 7mm long, with on either side, a round hole at about 1" pitch, and a similar slotted hole at $\frac{11}{2}$ " pitch. The slots allow Axles to pass through when 2 Plates form a rectangle, see the top Axle of $\frac{17}{488}$ Fig.2.

OTHER SYSTEMS NEWSLETTER

OSN 29 OCTOBER 2003

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EDITORIAL A record 25% or so of subscribers sent comments on the 'new' OSN, and reactions were mixed. Nearly all liked the colour & the better quality B&W photos, but over half strongly regretted the passing of the folded, double-sided, stapled sheets. To them I can only say 'me too', but I'm afraid that single-sided A4 is the only practical way I can see of continuing to produce the N/L. No one men-tioned the increased price, the new rates are given overleaf.

One point of detail. For my convenience all the pages of the last N/L were collated face up so the wide margins were to the left & right on successive sheets. The idea was that the recipient would turn over every other sheet so two printed sides could be seen at a time with the wide margins innermost (and then two blank sides, etc). This seemed a good idea but not everyone thought so, and I have found myself that more often than not I open to blank pages and then have to turn over a page to see a page number (Sod is alive & well). It would be easy to have the wide margin on the left on all pages and if you feel strongly about this, one way or the other, please let me know.

On another matter, several readers have reminded me that my OS Database is now very out of date. Perhaps I'll be able to produce a new version in 2004 and I'd be glad to hear if anyone has thoughts about improvements to it. Bear in mind though that new material will increase its present 44 pages considerably.

FROM READERS

1. From Don Redmond. On **THE CONSTRUCTIONEER** (9/206, 26/779), the hole spacing between the 2 centre lengthwise rows of holes in the Plates is $\frac{1}{2}$ " instead of the standard $\frac{7}{16}$ ".

THE CONSTRUCTIONEER: S1 [29/845]

2. From Don Redmond, some additional notes on **Phase 2 MODELIT** (see 15/186) from a recently found Set E. The Gear does have 50 teeth and meshes with the 16t Pinion at 2h centres, giving a DP of 38, as in Phase 1. There are no Sprockets in Set E, but a 45" length of Chain was found in it which appears to fit over every other tooth of the Gear. Its pitch is .18". Strips are 10.5mm wide. Both arms of the A/G are 14.5mm and in each the holes are toward the edge. Some Crank Handles have a hole 1½" from the bend (like the Phase 1 parts, see 8/186) but others, if they are genuine, don't.

MODELIT (b): S1 [29/845]

3. David Hobson showed me a French **CONSTRUCTOR** lot of parts, and they seemed to fall into two groups. The first correspond to those for the 'Early to Mid 1920s' shown in 24/701, and the Strip parts are 8.0-8.1mm wide, very near the 8.2mm of Period B.

In the second the Strip parts are 10.1mm wide and so are nearest to the 9.8mm of Group D. They generally correspond to those described for 'About 1930' in OSN 24 except for the Flanged Plate. It has the usual feet at the corners but is 9h long instead of the later (presumably) 11h

type, and its ends, and end holes, are extended by about 6mm. Below a plan view – the length overall is 112mm



(120mm for the 11h type) and the slots are 10.6mm long. The flanges are similar to the 11h type but the end slots match those on top and the depth along the sides is a little less, typically 9½ against 10mm. Of the Lozenge parts only some

½-Lozenges were present and these, and the Flanged Plate are dark red (like late 1920s MECCANO). The Strip parts, the 12h Wheel Disc, the A/B, and the flat Hook (as in MCS, 17.6mm long with a 2.7mm hole) are nickel. The brass parts are the Pinion (#25 in MCS, with 19t, Mod. 0.6), the Flanged & Grooved Wheel (#27, 32mm o.d., turned with a slightly tapered integral boss), and the Loose Pulley (#31, again turned, 22mm o.d., and 3mm thick).

3 Nuts found with the parts are brass, square, 5.6mm A/F, and 1.8mm thick.

CONSTRUCTOR [1]: S1

[29/845]

4. Another lot courtesy David Hobson, this time the model leaflet and parts from a MASTER BUILDER No.25 set. complete except for 2 A/Bs, & a few Nuts. The Strips have the large radius ends noted in 16/450 & 19/554, and the thread of the N&B is 8-32; otherwise the parts are as described in OSN 16, but the following details may be of interest: • The holes are 4.3mm except in the A/B. • The end radius of the Strips is about $\frac{7}{16}$ " and there is only 3mm of metal outside the end holes. • The 4h Wheel Discs are 24.0mm Ø and the holes are on a 5/8" pcd (if the o.d. had been a little larger to accommodate a .7" pcd, the part could also have served as a corner bracket). • The A/B, typically 12.4*12.6mm, is 12.4mm wide. It has a 4.5mm hole in one arm and a slotted hole 4.9mm wide & 7.2mm long in the other, both with only about 2mm of metal outside them. • The N&B are nickeled, the Nut is square, 8.8mm A/F & 3mm thick, the Bolt has a roundhead, 7.6mm Ø, & is 6.6mm u/h.

The Model Leaflet is one sheet 203*490mm folded into 4, & is nearly identical to the Wetzel one described in 16/451. The Intro, which couldn't be seen clearly before, speaks of 16 successive sets which build 95 models using 58 separate parts, & the address under it is 468 B'way, N.Y.City. It is identical to the one in the No.10 Leaflet in 16/451. The signi-ficant differences are that the front has no Acorn logos (on either side of 'THE' at the top), and has been rubber stamped 'REMOVED TO BUSH TERMINAL, BUILDING No.6, BROOKLYN. N.Y. Notes on the addresses & logo were given in 18/495.

MASTER BUILDER: S1 [29/845]

5. Notes from Don Redmond on **BUILD-X & DELTA-X** (see 11/288), and David Hobson lent me some of his parts. In OSN 11 I missed the fact that the bosses of some at least of the plastic circular parts have '**D**' **section bores**. Those seen are the 21mm Wheel, P-006, & the Compound Gears, P-003-5. The 19mm Pulley, P-008, has a normal circular bore though. The round Axles with my parts are most likely